

THE UNIFORM SOYBEAN TESTS

NORTHERN REGION

2022



Guohong Cai and Adam Brock

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE WEST LAFAYETTE, INDIANA

COOPERATING WITH
STATE AGRICULTURAL EXPERIMENT STATIONS NORTHERN STATES





This report is dedicated to the memory of Dr. Pengyin Chen, University of Missouri. Dr. Chen was a highly accomplished soybean geneticist and breeder, and a respected and well-liked member of our community.

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2022 UNIFORM SOYBEAN TESTS NORTHERN REGION

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Introduction

The purpose of The Uniform Soybean Tests is to critically evaluate the best of the experimental soybean lines developed by federal and state research personnel in the U.S. and Canada, for their potential release as new varieties.

A test is established for each of ten maturity groups. Uniform Test 00 includes maturity Group 00 strains adapted to production in the northern fringe of the present area of soybean production. Uniform Tests 0 through IV include later maturing strains adapted to locations progressively further south in the North Central States and areas of similar latitude. Each year new selections are added and others that have been sufficiently tested are dropped from the tests. The summary of performance of strains in Uniform Tests 00 through IV in the northern region is included in this report. The USDA-ARS Soybean Production Research Unit, P.O. BOX 345, STONEVILLE, MS 38776, issues the report on Uniform Tests IVS through VIII in the southern states.

Data from the Uniform Soybean Tests are the basis for decisions on the regional release of soybean varieties. Preliminary Tests are grown at a limited number of locations throughout the region to evaluate the experimental strains for one year before they are dropped or advanced in the Uniform Tests. Uniform Tests are grown at more locations with more replications than Preliminary Tests.

The Uniform Soybean Test Report is a progress report containing statements, which may or may not be verified by subsequent experiments. Statements or data in the report, therefore, should not be published unless those concerned have obtained permission previously.

The USDA-Agricultural Research Service does not vouch for the authenticity of either the parentage or ancestry of entries in the Uniform Soybean Tests. This agency is not responsible for the accuracy of data submitted to and included in The Uniform Test Report.

Germplasm exchange among breeding programs is the foundation of breeding progress. The purpose of the Uniform Soybean Test is to facilitate the free exchange of germplasm to maximize genetic diversity and provide well-adapted, stable breeding lines and varieties in the pursuit of breeding progress. Participants are encouraged to exchange germplasm within the legal guidelines pertaining to transgenic strains.

Introduction

NORTHERN REGION UT – POLICY ON EVALUATION AND RELEASE OF STRAINS

Qualifications for inclusion in the Uniform Tests:

- 1) Participants must be willing and able to conduct separate tests for conventional strains and strains containing proprietary and/or transgenic traits. However, all participants are not required to evaluate both; and, placement of proprietary entries depends on whether transgenic or non-transgenic.
- 2) Participants are individually responsible to ensure that any proprietary and/or transgenic strains that they submit are approved for human consumption and are cleared for sale as commodity seed.
- 3) Participants must disclose pedigrees to the Uniform Test Coordinator for publication with performance data in Uniform Soybean Test Report unless contract arrangements prohibit disclosure of information.
- 4) It is recommended that breeders obtain written permission for the use of privately developed varieties or strains that are used as parents in the development of lines included in the Uniform Tests.

Use of Uniform Test entries in soybean breeding and research:

- 1) Seed of Uniform Test entries is for evaluation in the Uniform Tests only and may not be distributed to non-participants in these tests without prior approval by the originator of the entry.
- 2) Uniform Test participants must obtain written approval before using any entry, other than their own, as a recurrent parent in backcrossing, in any breeding or genetic studies, or for any other research.
- 3) Experimental strains entered in the Uniform Tests should be labeled “Experimental Strain” and should not be identified by strain designation when grown in demonstration plots or when the Uniform Tests are shown on field days or farm tours.
- 4) Seed of any transgenic entry must not be used for further evaluation without written permission from the originator of the entry and must be discarded at the end of the season, except for crossing purposes, subject to the restrictions outlined in the preceding sections two and three.

Release of Uniform Test entries:

Entries in the Uniform Tests are released according to the policy of the originating institution (USDA-Agricultural Research Service and State Agricultural Experiment Station or Canadian government).

Strain Designations

Experimental (i.e., unreleased) strains are identified by a number with a state or province code letter prefix. The code letters have been agreed upon in meetings of experiment station agronomists with the U.S. Department of Agriculture. Additional code letters may be used to designate the individual within a state or province that developed the strain.

A	Iowa A.E.S. (A=W. Fehr/A.K. Singh, AR=S. Cianzio)
Ar	Arizona A.E.S.
Au	Alabama A.E.S.
B	California
C	Purdue (Indiana) A.R.P. (C=J.R. Wilcox, CL=A. LeRoy, CR=K. Rainey)
CM	Canada Dept. of Agriculture, Morden, Manitoba
D	Mississippi A.E.S.
DSN	Indiana (K. Rainey - Diers/Speccht-developed NAM strains)
E	Michigan A.E.S.
F	Florida A.E.S.
FC	Forage and Range Research Branch, USDA
Ga	Georgia A.E.S.
H	Ohio A.R.D.C. (HC=R.L. Cooper, HF=R. Fioritto, HS=S.K. St. Martin/L. McHale) (HM=L. McHale)
K	Kansas A.E.S.
Ky	Kentucky A.E.S.
L	Illinois A.E.S. (LD=B. Diers, LG=R.L. Nelson/Adam Mahan, LN=C.D. Nickell, LW=D. Walker)
La	Louisiana A.E.S.
LS	Southern Illinois University (LS=M. Schmidt)
M	Minnesota A.E.S.
Md	Maryland A.E.S.
Me	Maine A.E.S.
N	North Carolina A.E.S.
ND	North Dakota A.E.S.
OAC	University of Guelph, Guelph, Ontario
OK	Oklahoma Agricultural Experiment Station
ORC	Ridgetown, Ontario
OT	Central Experimental Farm, Ottawa, Ontario
OX	Research Station, Harrow, Ontario
PI	Plant Inventory
R	Arkansas A.E.S.
RJ	Arkansas State University, Jonesboro
S	Missouri A.E.S. (SS=D. Sleper, SA=A.Scaboo)
SC	South Carolina A.E.S.
SD	South Dakota A.E.S.
T	Soybean Genetic Type Collection, USDA, Urbana, IL
Ts	Texas A.E.S.
U	Soybean Genetic Type Collection, USDA, Urbana, IL
U, NEX	Nebraska A.E.S.
UD	Delaware A.E.S.
UM	University of Manitoba, Winnipeg, Manitoba
UT	Tennessee A.E.S.
V	Virginia A.E.S.
W	Wisconsin A.E.S.
X(Y)	Two or more states cooperatively, e.g. ND(M) North Dakota and Minnesota distribution has not been made previously.

Methods

Uniform tests are planted in multiple-row plots with two or three replications, and the center rows are harvested for yield and seed quality determinations. Preliminary Tests are multiple-row plots with two replications. Usually 15 to 20 feet of row are planted and 12 to 16 feet harvested, to eliminate end-of-row effects. Coefficients of variability are included with all replicated test data.

Discretion is used in including data with high CVs in the regional means. If the CV is greater than 15, participants should include the reason, such as disease or environmental conditions. Lines may be heterogeneous for morphological traits the first year in the Uniform Tests but must be pure lines the second year of testing. It is the responsibility of the breeder to purify heterogeneous lines.

Generation Compositing is the generation after the final single-plant selection, when seeds from plants or rows are composited.

Previous Testing is the number of previous years in the same Uniform Test or, in the case of new entries, a reference to the previous year's test, abbreviated to PT IIA for Preliminary Test IIA, for example.

Yield is measured after the seeds have been dried to uniform moisture content and is recorded in bushels (60 pounds) per acre. To convert to kilograms/hectare multiply by 67.25.

Maturity is the date when 95% of the pods have ripened, as indicated by their mature pod color. Delayed leaf drop and green stems are not considered in assigning maturity. Maturity is expressed as days earlier (-) or later (+) than the average date of the reference variety. To aid in maturity group classification, one earlier (E) and one later (L) check variety are given in the maturity column for each test, or a maturity check from an earlier or later maturity group is included. Current reference and check varieties and the maturity group limits relative to the reference varieties are:

Group	Reference:	Range	Early check	Late check
00	MN0083			MN0095
0	ND Dickey		MN0095	MN1511CN (SCN)
I	MN1511CN (SCN)		ND Dickey	U11-917032 (SCN)
II	IA2102		U11-917032 (SCN)	U14-910097 (SCN)
III	LD11-2170		U14-910097 (SCN)	LD07-3395bf (SCN)
IV	LD15-3818		LD07-3395bf (SCN)	LD00-2817
00TM	MN0083			AG03XF2
0TM	ND Dickey		AG03XF2	MN1511CN (SCN)
ITM	MN1511CN (SCN)		AG11XF2	U11-917032 (SCN)
IITM	IA2102		AG17XF2	U14-910097 (SCN)
IIITM	LD11-2170		AG25XF1	AG38XF1
IVTM	LD15-3818		LD07-3395bf (SCN)	AG42XF2

These maturity group ranges are based on long-term means over many locations. When using data from other environments, the interval between reference varieties may vary, and the division between maturity groups should be estimated in proportion to the above figures. Additional check varieties may be included in specific tests such as U11-917032 (SCN) for resistance to the soybean cyst nematode in UT I.

Lodging is rated at maturity according to the following scores:

1 = Almost all plants erect

2 = All plants leaning slightly or a few plants down.

3 = All plants leaning moderately (45 degrees), or 25% to 50% of the plants down.

4 = All plants leaning considerably, or 50% to 80% of the plants down.

5 = Almost all plants down.

Methods

Height is the average length in inches of mature plants from the ground to the tip of the main stem. To convert to centimeters, multiply by 2.54.

Seed Size (i.e. weight per seed) is recorded in grams per 100 seeds based on a 100 - or 200 - seed sample. To convert to seeds per pound, divide this into 45,359.

Seed Quality is rated according to the following scores considering the amount and degree of wrinkling, defective seed coat (growth cracks), greenishness, and moldy or other pigment. Ratings for seed quality are:

1	-- Very good	2	-- Good	3	-- Fair	4	-- Poor	5	-- Very poor
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Descriptive Code: 1 2 3 4 5 6 7 abbreviated as underlined below.

1 = Flower color: Purple, White

2 = Pubescence color: Tawny, Gray, Light tawny

3 = Pod color: Brown, Tan

4 = Seed coat luster: Dull, Shiny, Intermediate

5 = Seed coat color = Yellow, Gray, Light gray, Green

6 = Hilum color: Black, Imperfect black, Brown, Buff, Gray, Yellow, Prefixes indicate:

Light or Dark shades, e.g. Lbf = light buff, Dib = dark imperfect black. H indicates heterogeneous for hilum color.

7 = Stem termination: Determinate, Indeterminate, Semi-Determinate.

Green Stem is a rating of delayed green stem at time of plant maturity (R8 = 95% of the pods have reached their mature pod color). The condition is rated according to the following scores.

1 = almost all plant stems yellowing or have ripened, as indicated by their mature stem color.

2 = 1 - 10% plants with green stems

3 = 11 - 25% plants with green stems

4 = 26 - 50% plants with green stems

5 = > - 50% plants with green stems

Shattering is scored at a specified time after maturity and is based on estimates of the percent of open pods as follows:

1 = No shattering

2 = 1 - 10% shattered

3 = 10 - 25% shattered

4 = 25 - 50% shattered

5 = > - 50% shattered

Iron Chlorosis is rated from 1, no chlorosis to 5, severe chlorosis at the University of Minnesota. Scores are the combined values from all disease nurseries, with 2 replications for each entry and 2 observation dates at a location.

Emergence score is related to hypocotyl elongation and is measured at Ames, Iowa by germination at 25 C (a critical temperature for differentiating strains). Four replications of 25 seeds/entry are planted in a 5-inch plastic pot at a 4.5-inch depth in sand. Seedlings that have emerged by 12 days after planting are counted and emergence score in relation to percent of seeds that germinate and emerge are as follows:

1 > 95%

2 = 91 - 95%

3 = 85 - 90%

4 = 76 - 84%

5 < 76%

Methods

Oil and Protein. Oil and protein percentages were determined from representative locations of the uniform and preliminary tests. A 50-gram composite sample from all replications of a strain in trial was sent to the USDA-ARS, National Center for Agricultural Utilization Research, Bio-Oils Research Unit at Peoria, Illinois for analysis. One 20-gram sample of whole seed was analyzed for protein and oil composition by near infrared transmittance analysis (NIT) using an IM 9500 Grain Analyzer (Perten Instruments AB, Sweden). Analysis of the seed was conducted on an 'as is' basis and then mathematically converted to a 13% moisture basis (13%) beginning in 2015. Prior to 2015 protein and oil percentages were reported on a dry weight basis (DWB). The conversion factor is 1.1494252 to convert from 13% to DW. The conversion factor is 0.87 to convert DW to 13%.

Amino Acids. Seed amino acid percentages were determined for strains expected to have modified amino acid percentages and normal checks from representative locations of the uniform and preliminary tests. A composite sample from all replications of a strain in a trial was sent to the University of Missouri Experiment Station Chemical Laboratories (ESCL) for analysis of crude protein and amino acids using the "Cysteine, Methionine, Lysine +9" analysis.

Fatty Acids. Fatty acid analysis of strains expected to have oleic acid levels over 75% and normal checks were determined from representative locations of the uniform and preliminary tests. Percent palmitic, stearic, oleic, linoleic and linolenic acid content in the oil were determined. A 30-gram composite seed sample of all replications of a strain in a trial was sent to Dr. Pengyin Chen, University of Missouri, Delta Center, Portageville, MO for analysis.

Destiny Ayers at University of Missouri – Delta Center conducted the fatty acid analysis using a five-seed sample placed in an envelope and manually crushed with a hammer. Crushed seeds were extracted in 5mL chloroform: hexane: methanol (8:5:2, v/v/v) overnight. Derivatization was done by transferring 100 μ L of extract to vial and adding 75 μ L of methylating reagent (0.25 M methanolic sodium methoxide: petroleum ether: ethyl ether, 1:5:2 v/v/v). Hexane was added to dilute samples to approximately 1 mL. An Agilent (Palo Alto, CA) series 7890 capillary gas chromatograph fitted with a flame ionization detector (275°C) was used with an AT-Silar capillary column (Alltech Associates, Deerfield, IL). Standard fatty acid mixtures (Animal and Vegetable Oil Reference Mixture 6, AOACS) were used as calibration reference standards.

Oligosaccharides (Sugars). Seed sugar percentages were determined for strains known to have a modified sugar profile and normal checks from representative locations of the uniform and preliminary tests. Composite seed samples of all replications of a strain in a trial were sent to Dr. Bo Zhang, Virginia Polytechnic Institute and State University for analysis. A 10-gram sample was used for High Performance Liquid Chromatography (HPLC).

Sugar is extracted from ground samples using a micro-sugar sample extraction protocol optimized for our HPLC instrument. In brief, 0.1 g of ground sample and 1 mL of HPLC-grade water were vortexed in a 2-mL centrifuge tubes and samples were put on a rocker shaker for 15 min. at 400 strokes per min. Following extraction, samples were centrifuged for 15 min. at 13.2 rpm, and 0.5 mL of resulting supernatant was transferred to a separate 2.0 mL centrifuge tube containing 0.7 mL HPLC-grade acetonitrile (ACN) bringing samples to 1.2 mL total volume and 58% ACN. The tubes were inverted several times and left to sit at room temperature for 1 hr. Samples were then centrifuged at 12.3 rpm for 15 min., and 100 μ L of resulting supernatant was then mixed with 900 μ L of 65% ACN and filtered into 2 mL HPLC vials for analysis using 0.2 μ m membranes. The moisture content of ground samples was determined by oven dry method using a representative sample of the calibration set.

The HPLC instrumentation for the analysis includes an Agilent 1260 Infinity series (Agilent Technologies, Santa Clara, CA) equipped with an apHera™ NH₂ Polymer, 5 μ m analytical column and a 1260 Infinity ELSD detector (Agilent Technologies, Santa Clara, CA). The elution solvent was acetonitrile:water (65:35, v/v) with a flow rate of 1.0 mL/min. Final concentrations for sucrose, raffinose, and stachyose were reported in percent g per 100g seed on a dry weight basis.

Disease Methods

Disease reactions are listed according to “Soybean Disease Survey Standards”, March 1960, unless otherwise specified. Disease reaction is scored from 1 (no disease) to 5 (very severe), or in some cases as percent infected or simply as + (present) or 0 (absent). Purple seed stain and seed mottling follow the disease severity class rating:

Disease severity class rating:	1	2	3	4	5
Percent of diseased seed in sample:	0%	1-3%	4-8%	9-19%	20-100%

An additional classification to describe the extent of seed coat mottling as M (mild), E (extensive), or S (severe), is included. Pod and stem blight is rated as percent of infected seed on a four-week delayed (“d”) harvest sample. The location where the test was made is identified in the column heading, and the letter “a” or “n” signifies artificial or natural infection. Clear-cut and consistent reactions are given by letter instead of number: R = resistant, S = susceptible, I = intermediate, and H = heterogeneous. Natural infection ratings are from agronomic tests in some instances and from special disease plantings in others. Absence of symptoms under natural infection does not necessarily mean high resistance.

Abbreviation	Disease	Pathogen
BB	Bacterial blight	<u><i>Pseudomonas syringa</i> pv. <i>glycinea</i></u>
BBV	Bud blight	Tobacco ringspot virus
BP	Bacterial pustule	<u><i>Xanthomonas campestris</i> pv. <i>phaseoli</i></u>
BS	Brown spot	<u><i>Septoria glycines</i></u>
BSR	Brown stem rot	<u><i>Phialophora gregata</i></u>
BTS	Bacterial tan spot	<u><i>Corynebacterium flaccumfaciens</i></u>
CN	Cyst nematode	<u><i>Heterodera glycines</i></u>
CR	Charcoal rot	<u><i>Macrophomina phaseolina</i></u>
DM	Downy mildew	<u><i>Peronospora manshurica</i></u>
FE	Frogeye leafspot	<u><i>Cercospora sojina</i></u>
NSC	Northern Stem canker	<u><i>Diaporthe phaseolorum</i> var. <i>caulivora</i></u>
PM	Powdery mildew	<u><i>Microsphaera diffusa</i></u>
PR	Phytophthora rot	<u><i>Phytophthora sojae</i></u>
PS	Purple stain	<u><i>Cercospora kikuchii</i></u>
P&SB	Pod & stem blight	<u><i>Phomopsis</i> spp.</u>
Pyd	Pythium root rot	<u><i>Pythium debaryanum</i></u>
Pyu	Pythium root rot	<u><i>Pythium ultimum</i></u>
RK	Root knot nematode	<u><i>Meloidogyne</i> spp.</u>
RP	Rhizoctonia root rot	<u><i>Rhizoctonia solani</i></u>
SB	Sclerotial blight	<u><i>Sclerotium rolfsii</i></u>
SCL	Sclerotinia stem rot	<u><i>Sclerotinia sclerotiorum</i></u>
SDS	Sudden death syndrome	<u><i>Fusarium virguliforme</i></u> , (<u><i>F. solani</i> f.sp.</u>)
SMV	Soybean mosaic virus	Soybean mosaic virus
TS	Target spot	<u><i>Corynespora cassiicola</i></u>
YMV	Yellow mosaic virus	Yellow mosaic virus

Disease Methods

Rating for BB, BP, DM, FE, and PM are based on leaf symptoms; those for BSR on percent of plants with stem browning, or percent of stem length browned.

Phytophthora Screening. A hypocotyl inoculation technique was used to screen each soybean entry against a Race 1 *Phytophthora sojae* isolate. Additionally, those entries with expected or suspected *Rps* gene resistance were screened against Race 3, 4, 7, 17, and 25 *P. sojae* isolates. Fourteen soybean differential lines carrying one of 14 *Rps* genes (1a, 1b, 1c, 1d, 1k, 2, 3a, 3b, 3c, 4, 5, 6, 7, 8) and the susceptible line Williams were included in each experiment as controls. All screening was performed at the USDA-ARS West Lafayette, IN location.

Inoculum was prepared by transferring plugs of active-growing *P. sojae* isolate mycelium from a lima bean agar (LBA) plate (150 g steamed lima beans, 20 g agar per liter) to half strength lima bean agar (1/2 LBA) plates (50 g steamed lima beans, 12 g agar per liter) and incubated for 10-21 days in a dark 25°C incubator. Ten to twelve seeds of each soybean line were planted in vermiculite in the greenhouse until germination, and then moved to an indoor light rack and maintained at 24-27°C.

Inoculum was macerated into a slurry by forcing the mycelium-covered agar through a 30 ml syringe without a needle into a second 10 ml syringe fitted with an 18 or 21 gauge needle. Using the needle, a slit was made in the stem of each seedling about 1 cm below the cotyledons and 0.2-0.4 ml of inoculum slurry was ejected into the slit. Trays were covered with humidity domes for 24 hours out of the light, to prevent drying of the inoculum, then uncovered and moved back under the lights.

After 7 days, dead and dying plants were counted and the percentage dead was calculated. Dead and dying were defined as a plant that had a spreading dark lesion originating from the inoculation site, as well as wilting.

Soybean Cyst Nematode (SCN) Screening. Soybean cyst nematode resistance bioassays were conducted in a greenhouse at the University of Missouri. Seeds for each test line along with susceptible controls and indicator lines were germinated in a 27°C incubator. Seedlings were transplanted into pots (100 cm³) of steam pasteurized sandy loam soil and inoculated with 1,000 eggs. Each soybean line had five replicates and were organized in a randomized complete block design. Experiments were conducted in temperature-controlled water tanks to maintain 27°C soil temperature.

Twenty-eight days after inoculation each root was soaked in water and the females were collected by rinsing the root with high pressure water. The females from each sample were counted using a stereo microscope and the mean number from each line was obtained. Female index (FI) values were determined by dividing the mean number of females from the test line by the mean number of females from the susceptible control and multiplying by 100. Coefficient of variation (CV) was calculated for lines with FI 25 or greater.

Lines were rated according to the Illinois resistance scale as: highly resistant (FI < 10), resistant (FI = 10-24), moderately resistant (FI = 25-39), low resistance (FI = 40-59), or no effective resistance (FI ≥ 60). Ratings were not determined if CV values were greater than 35, if there were fewer than 3 data points from a test line, or if resistant and susceptible individuals were present within a line yet fell below the FI or CV thresholds.

Procedure for Testing and Release of Strains

Public soybean breeders have agreed upon this policy on testing and release of soybean strains evaluated in the Uniform Soybean Tests Northern Region. The policy was developed to assist breeders in preparing schedules for seed increases and to assist individuals and committees responsible for approving releases. The policy will aid private breeders in the U.S. and foreign countries to understand how releases will be made that may affect their programs.

Many public institutions carry out development and release of soybean strains. The programs at these institutions operate independently until strains are available for advanced testing in the Uniform Soybean Tests. The USDA-Agricultural Research Service coordinates the Uniform Soybean Tests. The tests are divided into those in the Northern Region, for strains in maturity groups 00 to IV, and those in the Southern States, for strains in maturity groups IVS to VIII. Group IV maturity strains are divided into an IVN test for the northern region and an IVS test for the southern region. Public soybean breeders are encouraged to enter superior strains they develop into the Uniform Soybean Tests.

Strains are evaluated for one year in the Preliminary Tests (PT), which are conducted at eight or more locations in several states. When the tests are completed, each public breeder is given the opportunity to review the results and to decide which strains merit further testing. In instances where there is little consensus among the breeders on the merits of a strain, the originator of the strain generally makes the final decision.

Strains that merit further testing are evaluated in the Uniform Tests (UT) conducted at more locations than Preliminary Tests and with two or three replications. Lines developed by four or more backcrosses to a released cultivar may be entered directly into the UT without prior evaluation in PT. Strains evaluated in Regional Cyst Nematode (SCN) tests may also be entered directly into the UT.

Strains may be considered for release after they have been evaluated for two years in the UT. Exceptions to this are special purpose strains or strains derived from four or more backcrosses to a released cultivar; these may be considered for release after one year in the UT. Any institution or breeder participating in the Uniform Soybean Tests may request consideration for release of any strains in the UT, however the institution that developed the strain usually initiates it.

A strain should be released only if it is distinctly superior to existing varieties in one or more characteristics important for the crop, or it is superior in overall performance in areas where adapted. A single major production hazard, which a new cultivar can overcome, e.g., a highly destructive disease, may be the overriding consideration in releasing a variety. Strains with a very limited range in adaptation should not be released unless performance in that limited range is outstandingly superior, or the strain possesses important use values not otherwise available, including diversification of the germplasm base for the species.

When a decision has been made to multiply a strain for release, the originating institution will inform other UT participants of the decision by February 15. This will give each UT participant the opportunity to participate in the multiplication and release of the strains.

By March 15 all institutions intending to participate in the multiplication of the strain must notify the originating institution of their intent. A final decision to participate in the release of the strain may be delayed until an additional year's data are available for review. By April 1 the originating institution should notify all UT participants what states will be participating in the multiplication and are considering participating in the release of the strain. Breeder's seed is distributed to foundation seed organizations in participating states for production during the summer. Now, if a final decision to release has been made, a sample of seed may be distributed to non-participants in the UT, including private soybean breeders, in accordance with a State's Experiment Station policy. This distribution is made only by the originating institution.

Procedure for Testing and Release of Strains

The originating institutions prepare a release notice to soybean seed producers listing all institutions participating in the release of the cultivar. This notice is circulated for signature by all participating institutions. Assistance in the preparation and circulation of this release notice may be obtained by Dr. Kay Simmons, Deputy Administrator for Crop Production and Protection, Office of National Programs, USDA, ARS, 5601 Sunnyside Avenue, Beltsville, MD 20705, phone 301-504-6252. The office for clearance of proposed names of new soybean cultivars is: Dr. Richard Payne, Chief, Seed Regulatory & Testing Branch, Crossing Place, Suite C, Gastonia, North Carolina 28054-2193, phone 704-810-8870, Fax: 704-852-4189 (Lab). The date for simultaneous publicity release on new soybean cultivars by participating states is determined by the originating state and is usually in August but may be delayed until the following April if additional UT data are being reviewed and a final decision to release has not been made.

If an additional year of UT data is being reviewed prior to a final decision on release, states producing foundation seed must notify the originating state by February 15 of their intent to participate in the release of the cultivar. The release notice to soybean seed producers should be distributed for signature by the participating institutions by April 1.

Foundation seed under the name of the new cultivar is distributed to qualified-certified seed producers in states releasing the new cultivar by April 1. At this time, a sample of seed may be distributed to non-participants in the UT, including private plant breeders, for testing and crossing if this distribution has not been made previously.

Disease, Shattering, and Descriptive Data, 2022

State/ Province	Location	Tests Conducted By:	Tests	UT	PT	UTTM	PTTM
IN	West Lafayette	G. Cai / T. Fleury	PR Evaluations	00-IV	II-IV	00-IV	II, III
IN	West Lafayette	G. Cai / A. Brock	Descriptive Data	00-IV	II-IV	00-IV	II, III
MN	Danvers	A. Lorenz	Fe Chlorosis (IDC)	00-I		00-I	
MO	Columbia	A. Scaboo / C. Meinhardt	SCN	0-IV		I-IV	
ONT	Elora/Woodstock	I. Rajcan	Leaf Shape	00-I			
QUE	Saint Hyacinthe	J. Auclair / M. Coulombe	Green Stem	I	I	I	I
QUE	St. Mathieu de Beloeil	O'Donoghue	Green Stem	00-0			

Uniform Test Strains Released or Licensed, 2022

Variety	Experimental Designation	Uniform Test Evaluations
Illini 1845NY	LD18-4490	21 PT I, 22 UT I
Illini 1958N	LD17-2903	20 SP II, 21 UT IIA, 22 UT II
Illini 2703N	LD17-2558	21 SP II, 22 UT II
Illini 3602N	LD17-10157	20 PT III, 21 UT III, 22 UT III
Illini BHP3441NY	LD18-6596	21 SP III, 22 UT III
E17069	E17069	19 PT II, 20 UT II
E18331	E18331	21 PT II TM, 22 UT II TM
M07-297007HOLL-4	M07-297007HOLL-4	2022 UTI, 2021 UTI, 2020 UTI, 2019 UTITM
S16-14801C	S16-14801C	
S16-14869C	S16-14869C	
S16-15170C	S16-15170C	
S16-17812C	S16-17812C	
S16-7840C	S16-7840C	
S16-7922C	S16-7922C	
S16-8290C	S16-8290C	
S17-17168C	S17-17168C	
S17-2193C	S17-2193C	
S19-18135L	S19-18135L	
S19-19741C	S19-19741C	
U16-914101	U16-914101	18 PT II B, 19 UT III
U19-608187	U19-608187	2021-2022
U19-911031Y	U19-911031Y	2021-2022
U19-913011	U19-913011	2021-2022
U19-923124	U19-923124	2021-2022

Cont.

Variety	Release/License		Foundation Seed prod.	Licensed Trait(s)	Licensing Entity
	State(s)	Date			
Illini 1845NY	IL	2022		Yellow hilum, SCN	Baird Seed Company
Illini 1958N	IL	2022		SCN, PRR	Baird Seed Company
Illini 2703N	IL	2022		SCN, PRR	Baird Seed Company
Illini 3602N	IL	2022		SCN, PRR	Baird Seed Company
Illini BHP3441NY	IL	2022		Yellow hilum, SCN, Rps 1k	Baird Seed Company
E17069	MI	2022		High Protein, High Sucrose	Pure Grain
E18331	MI	2022	2023	High Oleic, low linolenic, low saturated FA	
M07-297007HOLL-4	MN	2022	2022	HOLL	
S16-14801C	MO	2022			
S16-14869C	MO	2022			
S16-15170C	MO	2022			
S16-17812C	MO	2022		high oleic	
S16-7840C	MO	2022			
S16-7922C	MO	2022			
S16-8290C	MO	2022		high protein	
S17-17168C	MO	2022		high protein	
S17-2193C	MO	2022			
S19-18135L	MO	2022		Liberty Link	
S19-19741C	MO	2022		high oleic	
U16-914101	NE	2022	2019*		
U19-608187	NE	2022	2022*		
U19-911031Y	NE	2022	2022*		
U19-913011	NE	2022	2022*		
U19-923124	NE	2022	2022*		

* Breeder Seed

Additional Invention Disclosure:
 Experimental Designation: M14-152074
 Traits: Aphid R, SCN R
 Uniform Test Evaluations: 2022 UTI, 2021 UTI, 2020 PTI

2022 Uniform Trial SCN Screening (HG Type 7, All SCN Entries)

Female Index (FI) = (mean number of females on test cultivar) ÷ (mean number of females on control) x 100

Rating scale

FI < 10 = Highly Resistant; HR
 FI 10 to 24 = Resistant; R
 FI 25 to 39 = Moderately Resistant; MR
 FI 40 to 59 = Low Resistance; LR
 FI > 60 = No Resistance; NR
 FI > 25, CV > 35 = Not Determined; **

(*)=small root, (.)=missing sample, (**)=rep data too variable to rate

inoc rate = 1000 eggs	HG Type 7						mean	FI
	rep1	rep2	rep3	rep4	rep5			
Williams 82							165	
Lee 74	202	139	192	180	158		174	
PI548402	1	3	5	2	3		3	2
PI88788	15	20	5	7	2		10	6
PI90763	3	2	1	2	0		2	1
PI437654	0	0	0	0	0		0	0
PI209332	11	9	7	6	14		9	5
PI89772	7	0	2	3	5		3	2
PI548316	22	15	20	31	34		24	14
Pickett	18	7	8	7	1		8	5

Test	Entry	Strain	SCN Source	HG Type 7							FI	rating
				rep1	rep2	rep3	rep4	rep5	mean	cv		
UT 0	3	MN0404CN (SCN)	PI 88788	13	19	21	17	6	15		9	HR
UT 0	4	MN1511CN (SCN)		9	9	12	7	15	10		6	HR
UT 0	11	ND17-20565	PI 88788	10	17	12	43	9	18		11	R
UT 0	12	ND17-20754	PI 88788	88	76	79	118	99	92	19	56	LR
UT 0	13	ND17-22117	PI 88788	10	11	8	17	13	12		7	HR
UT 0	14	ND17-22120	PI 88788	18	14	21	18	24	19		12	R
UT I	3	U11-917032 (SCN)	PI 88788	23	165	8	16	15	45	148	28	**
UT I	4	E15338	PI 88788	11	20	26	6	9	14		9	HR
UT I	7	LD18-4490	PI 88788	5	5	7	135	2	31		19	**
UT I	26	ORC 5220N	PI 88788	17	24	15	37	29	24		15	R
UT I	28	ORC 6218N	PI 88788	36	140	19	42	24	52	96	32	**
UT II	2	LD02-4485 (SCN)	PI 88788	10	10	11	8	9	10		6	HR
UT II	4	U14-910097 (SCN)	PI 88788 + PI 437654	3	2	7	3	4	4		2	HR
UT II	7	A14011-67		11	14	9	13	19	13		8	HR
UT II	11	A15113-63		14	10	7	8	7	9		6	HR
UT II	12	A15115-60		14	1	4	3	8	6		4	HR
UT II	13	A15131-10		14	27	6	19	9	15		9	HR
UT II	14	A15404-70		172	21	12	30	13	50	139	30	**
UT II	16	CR184561		29	18	19	28	14	22		13	R
UT II	19	E15345	PI 88788	46	11	16	17	36	25		15	R
UT II	20	E17040	PI 88788	12	8	12	22	17	14		9	HR
UT II	21	E19288T	PI 88788	52	32	35	38	50	41		25	MR
UT II	22	E19314T	PI 88788	81	144	84	62	65	87	38	53	**
UT II	23	E19413	PI 88788	20	17	20	12	7	15		9	HR
UT II	25	LD17-1902	PI 88788	23	30	19	14	33	24		14	R
UT II	26	LD17-2558	PI 88788	6	7	4	5	7	6		4	HR
UT II	27	LD17-2903	PI 88788	2	11	9	5	6	7		4	HR
UT II	28	LD17-3855	PI 88788	9	18	22	12	21	16		10	R
UT II	29	LD18-0986	PI 88788	60	72	70	69	68	68	7	41	LR
UT II	30	LD18-4231	PI 88788	17	26	16	7	10	15		9	HR
UT II	31	LD18-4236	PI 88788	12	71	9	18	9	24		14	R
UT II	32	LD18-5062	PI 88788	19	12	5	5	11	10		6	HR
UT II	34	ORC 8518N	PI 88788	18	18	13	13	15	15		9	HR
UT II	40	U19-923091	PI 88788 + PI 437654	151	141	141	159	127	144	8	87	NR

2022 Uniform Trial SCN Screening (HG Type 7, All SCN Entries)

Test	Entry	Strain	SCN Source	HG Type 7							FI	rating
				rep1	rep2	rep3	rep4	rep5	mean	cv		
UT III	1	LD11-2170 (III)	PI 88788	17	21	19	16	18	18		11	R
UT III	2	U15-606207 (SCN)	PI 88788 + PI 437654	2	7	7	4	8	6		3	HR
UT III	3	LD07-3395bf (SCN)	PI 88788 + PI 437654	9	11	12	9	5	9		6	HR
UT III	5	A15104-17		15	9	12	10	8	11		7	HR
UT III	6	A15118-197	PI 88788	24	9	27	11	12	17		10	R
UT III	7	A15122-128		13	6	19	13	10	12		7	HR
UT III	11	CR181937	PI 88788	42	31	39	18	26	31		19	R
UT III	12	CR182047	PI 88788	15	17	21	11	15	16		10	HR
UT III	13	CR183142	PI 88788	70	53	39	56	47	53	22	32	MR
UT III	14	CR183198	PI 88788	55	36	36	82	67	55	36	33	**
UT III	19	LD17-10157	PI 88788	38	23	16	105	15	39		24	**
UT III	20	LD18-1767	PI 88788	7	13	16	15	13	13		8	HR
UT III	21	LD18-4251	PI 88788	20	9	15	15	13	14		9	HR
UT III	22	LD18-6596	PI 88788	8	37	31	12	23	22		13	R
UT III	23	LD18-7491	PI 88788	41	28	25	29	38	32		20	R
UT III	25	LD18-7606	PI 88788	63	103	89	82	62	80	22	48	LR
UT III	26	LD18-7628	PI 88788	57	59	27	63	57	53	28	32	MR
UT III	27	U17-337087	PI 88788	5	15	6	6	12	9		5	HR
UT III	34	U19-615127	PI 88788	113	140	131	108	155	129	15	79	NR
UT IV	1	LD15-3818 (IV)	PI 88788	18	15	10	26	13	16		10	R
UT IV	2	LD00-2817	PI 88788 + PI 437654	8	7	12	6	4	7		4	HR
UT IV	4	CR17-2874	?	29	17	19	13	48	25		15	R
UT IV	6	CR183106	PI 88788	18	23	11	11	28	18		11	R
UT IV	7	CR183173	PI 88788	39	56	47	51	39	46	16	28	MR
UT IV	8	CR183264	PI 88788	25	32	43	46	27	35		21	R
UT IV	9	CR184183		43	85	94	29	28	56	56	34	**
UT IV	10	CR184232		90	13	127	111	133	95	51	58	**
UT IV	11	K17-6185	PI 88788	11	13	6	9	8	9		6	HR
UT IV	12	K17-6326	PI 88788	5	11	11	15	7	10		6	HR
UT IV	13	K18-1994	PI 88788 + PI 437653	35	40	33	47	24	36		22	R
UT IV	14	LD18-4159	PI 88788	14	12	9	18	16	14		8	HR
UT IV	15	LD18-7512	PI 88788	18	44	25	20	33	28		17	R
UT IV	16	LD18-8418	PI 88788	24	52	41	40	19	35		21	R
UT IV	18	S19-10701C	Peking	74	152	130	84	117	111	29	68	NR
UT I TM	8	M05-363022HO-6		24	23	132	15	31	45	109	27	**
UT I TM	12	M15-221092	PI 88788	13	15	26	7	16	15		9	HR
UT II TM	20	E18331-34	PI 88788	19	12	16	14	24	17		10	R
UT II TM	21	E18610T	PI 88788	16	19	20	11	9	15		9	HR
UT II TM	22	E19056	PI 88788	22	13	23	29	18	21		13	R
UT II TM	23	E19269	PI 88788	37	22	34	34	43	34		21	R
UT II TM	24	E19312T	PI 88788	68	71	30	51	32	50	38	31	**
UT II TM	25	E19323T	PI 88788	40	28	23	21	34	29		18	R
UT II TM	26	E19327T	PI 88788	34	19	24	27	19	25		15	R
UT II TM	27	E19495GT	PI 88788	57	15	55	38	47	42	40	26	**
UT II TM	28	E19497GT	PI 88788	14	18	7	12	20	14		9	HR
UT II TM	29	E19517GT	PI 88788	14	13	30	31	14	20		12	R

2022 Uniform Trial SCN Screening (HG Type 7, All SCN Entries)

Test	Entry	Strain	SCN Source	HG Type 7							FI	rating
				rep1	rep2	rep3	rep4	rep5	mean	cv		
UT III TM	14	LD19-12834	PI 88788	24	26	15	17	23	21		13	R
UT III TM	16	LD19-22225	PI 88788	12	17	9	14	11	13		8	HR
UT III TM	17	SA19-311H		6	4	9	7	15	8		5	HR
UT IV TM	5	CR191706		20	35	23	21	18	23		14	R
UT IV TM	7	LD18-12747	PI 88788	4	11	6	12	7	8		5	HR
UT IV TM	8	LD18-14554	PI 88788	16	12	13	16	20	15		9	HR
UT IV TM	26	SA19-24408		18	23	15	19	13	18		11	R

2022 Uniform Trial SCN Screening (Additional HG Types, Entries with Source other than PI88788)

Female Index (FI) = (mean number of females on test cultivar) ÷ (mean number of females on control) x 100

Rating scale

- FI < 10 = Highly Resistant; HR
- FI 10 to 24 = Resistant; R
- FI 25 to 39 = Moderately Resistant; MR
- FI 40 to 59 = Low Resistance; LR
- FI > 60 = No Resistance; NR
- FI > 25, CV > 35 = Not Determined; **

(*)=small root, (.)=missing sample, (**)=rep data too variable to rate

inoc rate = 1000 eggs	HG Type 2.5.7						FI
	rep1	rep2	rep3	rep4	rep5	mean	
Williams 82						151	
Lee 74	181	187	130	134	185	163	
PI548402	1	1	5	1	4	2	1
PI88788	168	90	107	66	197	126	77
PI90763	0	0	0	0	0	0	0
PI437654	0	0	0	0	0	0	0
PI209332	160	124	147	145	171	149	91
PI89772	1	0	1	0	0	0	0
PI548316	177	115	141	98	144	135	83
Pickett	5	21	13	6	8	11	6

Test	Entry	Strain	SCN Source	HG Type 2.5.7							FI	rating
				rep1	rep2	rep3	rep4	rep5	mean	cv		
UT II	4	U14-910097 (SCN)	PI 88788 + PI 437654	5	4	0	4	1	3		2	HR
UT II	40	U19-923091	PI 88788 + PI 437654	27	19	37	48	45	35		23	R
UT III	2	U15-606207 (SCN)	PI 88788 + PI 437654	3	1	1	1	1	1		1	HR
UT III	3	LD07-3395bf (SCN)	PI 88788 + PI 437654	1	3	25	1	40	14		9	HR
UT III	34	U19-615127	PI 88788	60	2	27	37	43	34		22	R
UT IV	2	LD00-2817	PI 88788 + PI 437654	2	1	0	0	3	1		1	HR
UT IV	18	S19-10701C	Peking	137	117	109	112	121	119	9	79	NR

inoc rate = 1000 eggs	HG Type 1.2.5.7						FI
	rep1	rep2	rep3	rep4	rep5	mean	
Williams 82						179	
Lee 74	198	222	218	210	187	207	
PI548402	44	42	47	46	35	43	21
PI88788	172	150	176	170	153	164	79
PI90763	0	0	1	0	0	0	0
PI437654	1	0	0	0	0	0	0
PI209332	199	153	179	186	158	175	85
PI89772	0	1	1	0	0	0	0
PI548316	164	165	164	163	171	165	80
Pickett	203	134	121	150	172	156	75

Test	Entry	Strain	SCN Source	HG Type 1.2.5.7							FI	rating
				rep1	rep2	rep3	rep4	rep5	mean	cv		
UT II	4	U14-910097 (SCN)	PI 88788 + PI 437654	46	37	31	39	48	40		23	R
UT II	40	U19-923091	PI 88788 + PI 437654	48	42	38	42	38	42		23	R
UT III	2	U15-606207 (SCN)	PI 88788 + PI 437654	45	28	47	47	45	42		24	R
UT III	3	LD07-3395bf (SCN)	PI 88788 + PI 437654	106	45	139	113	157	112	38	63	**
UT III	34	U19-615127	PI 88788	33	36	37	40	26	34		19	R
UT IV	2	LD00-2817	PI 88788 + PI 437654	31	53	57	37	40	44		24	R
UT IV	18	S19-10701C	Peking	115	112	116	206	147	139	29	78	NR

2022 Phytophthora Screening Results - ISA 124 C-1 Race 1 (7)

Test	Entry	Strain	% Dead	# D/T	Test Group
UT 00	1	MN0083 (00)	0%	0/11	1
UT 00	2	MN0095 (0)	0%	0/11	1
UT 00	3	ND Rolette	0%	0/12	1
UT 00	4	M15-105140	18%	2/11	1
UT 00	5	M16-110086	0%	0/9	1
UT 00	6	ND18-17116	0%	0/12	1
UT 00	7	ND18-17202	0%	0/12	1
UT 00	8	ND18-17659	9%	1/11	1
UT 00	9	ND18-17666	0%	0/12	1
UT 00	10	ND18-19053	0%	0/12	1
UT 00	11	ND18-19137	0%	0/8	1
UT 00	12	ND19-13873	0%	0/10	1
UT 00	13	ND19-13905	0%	0/13	1
UT 00	14	ND19-14226	0%	0/10	1
UT 00	15	OAC 19-20C-ChCd	9%	1/11	1
UT 0	1	ND Dickey (0)	0%	0/11	1
UT 0	2	MN0095 (E)	0%	0/11	1
UT 0	3	MN0404CN (SCN)	0%	0/12	1
UT 0	4	MN1511CN (SCN) (L)	0%	0/10	1
UT 0	5	M16-135049	0%	0/9	1
UT 0	6	ND16-6745	0%	0/11	1
UT 0	7	ND16-7108	0%	0/11	1
UT 0	8	ND16-7155	0%	0/9	1
UT 0	9	ND16-7175	0%	0/12	1
UT 0	10	ND16-8821	0%	0/11	1
UT 0	11	ND17-20565	0%	0/12	1
UT 0	12	ND17-20754	0%	0/11	1
UT 0	13	ND17-22117	75%	9/12	1
UT 0	14	ND17-22120	55%	6/11	1
UT 0	15	ND18-16823	18%	2/11	1
UT 0	16	ND18-17021	18%	2/11	1
UT 0	17	ND18-17905	78%	7/9	1
UT 0	18	ND18-18416	8%	1/12	1
UT 0	19	OAC 19-02C	0%	0/11	1
UT I	1	MN1511CN (SCN) (I)	0%	0/10	1
UT I	2	ND Dickey (0)	0%	0/11	1
UT I	3	U11-917032 (SCN) (L)	78%	7/9	1
UT I	4	E15338	0%	0/12	1
UT I	5	A16806-76	46%	6/13	1
UT I	6	E20078	8%	1/12	1
UT I	7	LD18-4490	55%	6/11	1

2022 Phytophthora Screening Results - ISA 124 C-1 Race 1 (7)

Test	Entry	Strain	% Dead	# D/T	Test Group
UT I	8	LD19-5163	0%	0/12	1
UT I	9	M07-297007HOLL-4	22%	2/9	1
UT I	10	M13-262053	0%	0/11	1
UT I	11	M14-151094	0%	0/10	1
UT I	12	M14-152074	0%	0/11	1
UT I	13	M16-107018	0%	0/12	1
UT I	14	M16-175100	0%	0/12	1
UT I	15	M16-211035	9%	1/11	1
UT I	16	M16-211100	50%	5/10	1
UT I	17	M16-272011	25%	3/12	1
UT I	18	M16-272016	25%	3/12	1
UT I	19	M16-272047	25%	3/12	1
UT I	20	M16-456044	8%	1/12	1
UT I	21	M16-456119	42%	5/12	1
UT I	22	OAC 19-57C	11%	1/9	1
UT I	23	OAC 19-91C	11%	1/9	1
UT I	24	ORC 2219	17%	1/6	1
UT I	25	ORC 5120	80%	8/10	1
UT I	26	ORC 5220N	0%	0/8	1
UT I	27	ORC 5020	0%	0/3	1
UT I	28	ORC 6218N	0%	0/10	1
UT II	1	IA2102 (II)	67%	6/9	2
UT II	2	LD02-4485 (SCN)	9%	1/11	2
UT II	3	U11-917032 (SCN) (E)	100%	11/11	2
UT II	4	U14-910097 (SCN) (L)	83%	10/12	2
UT II	5	A14004-58	0%	0/9	2
UT II	6	A14004-126	83%	10/12	2
UT II	7	A14011-67	82%	9/11	2
UT II	8	A14011-77	82%	9/11	2
UT II	9	A14011-116	100%	12/12	2
UT II	10	A15103-135	55%	6/11	2
UT II	11	A15113-63	82%	9/11	2
UT II	12	A15115-60	67%	8/12	2
UT II	13	A15131-10	0%	0/12	2
UT II	14	A15404-70	9%	1/11	2
UT II	15	CR17-3780	0%	0/11	2
UT II	16	CR184561	75%	3/4	2
UT II	17	CR184590	0%	0/12	2
UT II	18	CR184594	0%	0/12	2
UT II	19	E15345	91%	10/11	2
UT II	20	E17040	20%	2/10	2
UT II	21	E19288T	0%	0/11	2

2022 Phytophthora Screening Results - ISA 124 C-1 Race 1 (7)

Test	Entry	Strain	% Dead	# D/T	Test Group
UT II	22	E19314T	0%	0/12	2
UT II	23	E19413	0%	0/10	2
UT II	24	HM17-12161	25%	1/4	2
UT II	25	LD17-1902	8%	1/12	2
UT II	26	LD17-2558	92%	11/12	2
UT II	27	LD17-2903	0%	0/12	2
UT II	28	LD17-3855	89%	8/9	2
UT II	29	LD18-0986	91%	10/11	2
UT II	30	LD18-4231	92%	11/12	2
UT II	31	LD18-4236	83%	10/12	2
UT II	32	LD18-5062	0%	0/12	2
UT II	33	LD18-7488	75%	9/12	2
UT II	34	ORC 8518N	75%	9/12	2
UT II	35	U17-322103	22%	2/9	2
UT II	36	U17-333174	58%	7/12	2
UT II	37	U18-216019	0%	0/11	2
UT II	38	U18-217010	0%	0/11	2
UT II	39	U18-227104	10%	1/10	2
UT II	40	U19-923091	58%	7/12	2
PT II A	1	IA2102 (II)	67%	6/9	2
PT II A	2	LD02-4485 (SCN)	9%	1/11	2
PT II A	3	U11-917032 (SCN) (E)	100%	11/11	2
PT II A	4	U14-910097 (SCN) (L)	83%	10/12	2
PT II A	5	A16317-166	78%	7/9	2
PT II A	6	A16319-60	13%	1/8	2
PT II A	7	A16319-94	0%	0/8	2
PT II A	8	A16321-129	27%	3/11	2
PT II A	9	A16355-89	0%	0/10	2
PT II A	10	A16355-145	18%	2/11	2
PT II A	11	A16359-22	89%	8/9	2
PT II A	12	A16360-8	0%	0/11	2
PT II A	13	A16371-79	67%	8/12	2
PT II A	14	A16371-92	44%	4/9	2
PT II A	15	A16372-154	92%	11/12	2
PT II A	16	A16373-190	0%	0/10	2
PT II A	17	E20012	25%	3/12	2
PT II A	18	E20327	55%	6/11	2
PT II A	19	E20329	0%	0/10	2
PT II A	20	E20333	75%	9/12	2
PT II A	21	E20335	0%	0/11	2
PT II A	22	E20351	92%	11/12	2
PT II A	23	E20352	55%	6/11	2

2022 Phytophthora Screening Results - ISA 124 C-1 Race 1 (7)

Test	Entry	Strain	% Dead	# D/T	Test Group
PT II A	24	E20355	58%	7/12	2
PT II A	25	ORC 2719	14%	1/7	2
PT II A	26	ORC 5420	13%	1/8	2
PT II B	1	IA2102 (II)	67%	6/9	2
PT II B	2	LD02-4485 (SCN)	9%	1/11	2
PT II B	3	U11-917032 (SCN) (E)	100%	11/11	2
PT II B	4	U14-910097 (SCN) (L)	83%	10/12	2
PT II B	5	CR190377	56%	5/9	2
PT II B	6	CR191241	67%	6/9	2
PT II B	7	CR192686	89%	8/9	2
PT II B	8	CR193835	13%	1/8	2
PT II B	9	CR195072	17%	2/12	2
PT II B	10	HM19-33018	10%	1/10	2
PT II B	11	HM19-36079	60%	6/10	2
PT II B	12	LD19-5916	0%	0/10	2
PT II B	13	LD19-7145	0%	0/10	2
PT II B	14	LD19-7165	100%	11/11	2
PT II B	15	U19-209086	0%	0/8	2
PT II B	16	U19-212101	0%	0/6	2
PT II B	17	U19-251062	22%	2/9	2
PT II B	18	U19-253059	89%	8/9	2
PT II B	19	U19-273032	0%	0/9	2
PT II B	20	U19-274026	0%	0/11	2
PT II B	21	U20-908101	33%	4/12	2
PT II B	22	U20-909049	8%	1/12	2
PT II B	23	U20-910082	0%	0/12	2
PT II B	24	U20-911031	25%	2/8	2
PT II B	25	U20-915034	0%	0/12	2
PT II B	26	U20-921017	30%	3/10	2
PT II B	27	U20-921089	27%	3/11	2
PT II B	28	U20-922007	10%	1/10	2
PT II B	29	U20-925026	38%	3/8	2
UT III	1	LD11-2170 (III)	0%	0/10	3
UT III	2	U15-606207 (SCN)	11%	1/9	3
UT III	3	LD07-3395bf (SCN) (L)	90%	9/10	3
UT III	4	U14-910097 (SCN) (E)	33%	3/9	3
UT III	5	A15104-17	0%	0/10	3
UT III	6	A15118-197	0%	0/10	3
UT III	7	A15122-128	90%	9/10	3
UT III	8	A15409-201	73%	8/11	3
UT III	9	CR17-3701	9%	1/11	3
UT III	10	CR17-4112	70%	7/10	3

2022 Phytophthora Screening Results - ISA 124 C-1 Race 1 (7)

Test	Entry	Strain	% Dead	# D/T	Test Group
UT III	11	CR181937	91%	10/11	3
UT III	12	CR182047	50%	6/12	3
UT III	13	CR183142	88%	7/8	3
UT III	14	CR183198	100%	11/11	3
UT III	15	CR183805	0%	0/10	3
UT III	16	CR184506	67%	8/12	3
UT III	17	HM18-15067	0%	0/8	3
UT III	18	HM18-27227	13%	1/8	3
UT III	19	LD17-10157	0%	0/12	3
UT III	20	LD18-1767	75%	9/12	3
UT III	21	LD18-4251	92%	11/12	3
UT III	22	LD18-6596	0%	0/12	3
UT III	23	LD18-7491	0%	0/12	3
UT III	24	LD18-7584	0%	0/10	3
UT III	25	LD18-7606	0%	0/6	3
UT III	26	LD18-7628	92%	11/12	3
UT III	27	U17-337087	83%	10/12	3
UT III	28	U18-208163	0%	0/10	3
UT III	29	U18-217059	0%	0/11	3
UT III	30	U18-247185	9%	1/11	3
UT III	31	U18-310211	55%	6/11	3
UT III	32	U19-611226	0%	0/12	3
UT III	33	U19-612131	27%	3/11	3
UT III	34	U19-615127	91%	10/11	3
PT III A	1	LD11-2170 (III)	0%	0/10	3
PT III A	2	U15-606207 (SCN)	11%	1/9	3
PT III A	3	LD07-3395bf (SCN) (L)	90%	9/10	3
PT III A	4	U14-910097 (SCN) (E)	33%	3/9	3
PT III A	5	A16318-75	92%	11/12	3
PT III A	6	A16352-66	0%	0/8	3
PT III A	7	A16355-23	0%	0/11	3
PT III A	8	A16355-142	0%	0/10	3
PT III A	9	A16355-181	0%	0/12	3
PT III A	10	A16355-225	55%	6/11	3
PT III A	11	A16355-245	0%	0/11	3
PT III A	12	A16371-98	90%	9/10	3
PT III A	13	A16372-29	89%	8/9	3
PT III A	14	A16372-222	100%	10/10	3
PT III A	15	A16373-82	0%	0/12	3
PT III A	16	A16373-101	0%	0/12	3
PT III A	17	A16373-112	0%	0/10	3
PT III A	18	A16373-120	0%	0/11	3
PT III A	19	CR190369	100%	8/8	3

2022 Phytophthora Screening Results - ISA 124 C-1 Race 1 (7)

Test	Entry	Strain	% Dead	# D/T	Test Group
PT III A	20	CR192899	80%	8/10	3
PT III A	21	CR192989	29%	2/7	3
PT III A	22	CR193207	100%	11/11	3
PT III A	23	CR193337	64%	7/11	3
PT III A	24	CR194509	100%	10/10	3
PT III A	25	CR194692	92%	11/12	3
PT III A	26	CR195012	100%	10/10	3
PT III A	27	CR195309	11%	1/9	3
PT III A	28	CR195317	10%	1/10	3
PT III A	29	CR195549	11%	1/9	3
PT III A	30	SA19-10016	0%	0/11	3
PT III A	31	SA19-10777	0%	0/11	3
PT III A	32	SA19-12541	57%	4/7	3
PT III A	33	SA19-28597	90%	9/10	3
PT III A	34	SA19-28698	0%	0/7	3
PT III A	35	SA19-8221	100%	9/9	3
PT III A	36	SA19-9788	40%	2/5	3
PT III A	37	SA19-9915	11%	1/9	3
PT III A	38	SA20-10149	91%	10/11	3
PT III A	39	SA20-2289	83%	10/12	3
PT III A	40	SA20-9946	90%	9/10	3
PT III B	1	LD11-2170 (III)	0%	0/10	3
PT III B	2	U15-606207 (SCN)	11%	1/9	3
PT III B	3	LD07-3395bf (SCN) (L)	90%	9/10	3
PT III B	4	U14-910097 (SCN) (E)	33%	3/9	3
PT III B	5	HM19-39359	82%	9/11	3
PT III B	6	HM19-40194	8%	1/12	3
PT III B	7	K19-1708	0%	0/11	3
PT III B	8	LD19-1113	0%	0/12	3
PT III B	9	LD19-2604	0%	0/9	3
PT III B	10	LD19-2693	0%	0/11	3
PT III B	11	LD19-6531	58%	7/12	3
PT III B	12	LD19-7157	75%	9/12	3
PT III B	13	LD19-7179	36%	4/11	3
PT III B	14	LD19-7828	0%	0/11	3
PT III B	15	LD19-8412	58%	7/12	3
PT III B	16	LD19-8625	0%	0/11	3
PT III B	17	LD20-11526	25%	3/12	3
PT III B	18	LD20-11552	8%	1/12	3
PT III B	19	LD20-1607	0%	0/10	3
PT III B	20	LD20-1783	0%	0/11	3
PT III B	21	LD20-1920	0%	0/12	3
PT III B	22	LD20-2280	8%	1/12	3

2022 Phytophthora Screening Results - ISA 124 C-1 Race 1 (7)

Test	Entry	Strain	% Dead	# D/T	Test Group
PT III B	23	LG18-976	33%	4/12	3
PT III B	24	LG19-4084	58%	7/12	3
PT III B	25	LG19-4181	83%	10/12	3
PT III B	26	U19-057068	25%	3/12	3
PT III B	27	U19-057097	17%	2/12	3
PT III B	28	U19-230059	22%	2/9	3
PT III B	29	U19-268171	9%	1/11	3
PT III B	30	U19-272085	0%	0/11	3
PT III B	31	U19-272098	17%	2/12	3
PT III B	32	U20-907144	50%	6/12	3
PT III B	33	U20-909207	0%	0/12	3
PT III B	34	U20-911204	0%	0/11	3
PT III B	35	U20-914028	8%	1/12	3
PT III B	36	U20-917095	8%	1/12	3
PT III B	37	U20-921035	20%	2/10	3
PT III B	38	U20-922082	50%	5/10	3
PT III B	39	U20-927103	0%	0/11	3
PT III B	40	U20-928084	8%	1/12	3
UT IV	1	LD15-3818 (IV)	20%	2/10	4
UT IV	2	LD00-2817 (L)	83%	10/12	4
UT IV	3	LD07-3395bf (SCN) (E)	45%	5/11	4
UT IV	4	CR17-2874	58%	7/12	4
UT IV	5	CR17-4386	27%	3/11	4
UT IV	6	CR183106	82%	9/11	4
UT IV	7	CR183173	92%	11/12	4
UT IV	8	CR183264	83%	10/12	4
UT IV	9	CR184183	0%	0/11	4
UT IV	10	CR184232	45%	5/11	4
UT IV	11	K17-6185	70%	7/10	4
UT IV	12	K17-6326	67%	8/12	4
UT IV	13	K18-1994	89%	8/9	4
UT IV	14	LD18-4159	75%	6/8	4
UT IV	15	LD18-7512	0%	0/8	4
UT IV	16	LD18-8418	90%	9/10	4
UT IV	17	LG17-8856	91%	10/11	4
UT IV	18	S19-10701C	80%	8/10	4
PT IV	1	LD15-3818 (IV)	20%	2/10	4
PT IV	2	LD00-2817 (L)	83%	10/12	4
PT IV	3	LD07-3395bf (SCN) (E)	45%	5/11	4
PT IV	4	CR190410	100%	6/6	4
PT IV	5	CR190474	63%	5/8	4
PT IV	6	CR190628	91%	10/11	4

2022 Phytophthora Screening Results - ISA 124 C-1 Race 1 (7)

Test	Entry	Strain	% Dead	# D/T	Test Group
PT IV	7	CR192236	64%	7/11	4
PT IV	8	CR192393	100%	11/11	4
PT IV	9	CR192568	100%	12/12	4
PT IV	10	CR194609	36%	4/11	4
PT IV	11	CR194672	83%	10/12	4
PT IV	12	CR194688	92%	11/12	4
PT IV	13	K19-1047	38%	3/8	4
PT IV	14	K19-1065	91%	10/11	4
PT IV	15	K19-1098	50%	6/12	4
PT IV	16	K19-1104	92%	11/12	4
PT IV	17	K19-1631	58%	7/12	4
PT IV	18	K19-2155	64%	7/11	4
PT IV	19	K19-6018	83%	10/12	4
PT IV	20	K19-6086	80%	8/10	4
PT IV	21	LD19-9566	10%	1/10	4
PT IV	22	LD20-11622	0%	0/8	4
PT IV	23	LG16-5086	73%	8/11	4
PT IV	24	LG18-2475	45%	5/11	4
PT IV	25	LG18-3008	8%	1/12	4
PT IV	26	LG18-3013	70%	7/10	4
PT IV	27	SA18-10815	83%	10/12	4
PT IV	28	SA18-11346	75%	9/12	4
PT IV	29	SA18-12086	83%	10/12	4
PT IV	30	SA18-14143	78%	7/9	4
PT IV	31	SA19-10248	0%	0/10	4
PT IV	32	SA19-10772	11%	1/9	4
PT IV	33	SA19-12580	100%	11/11	4
PT IV	34	SA19-16381	0%	0/10	4
PT IV	35	SA19-7246	71%	5/7	4
PT IV	36	SA20-11805	67%	6/9	4
UT 00 TM	1	MN0083 (00)	0%	0/11	1
UT 00 TM	2	ND17009GT	69%	9/13	1
UT 00 TM	3	AG03XF2 (L)	0%	0/9	1
UT 00 TM	4	ND14-6120GT	8%	1/12	1
UT 00 TM	5	ND17-26003(GT)	0%	0/10	1
UT 00 TM	6	ND18-20092(GT SCN)	0%	0/12	1
UT 00 TM	7	ND18-20161(GT SCN)	0%	0/12	1
UT 00 TM	8	ND18-22883(GT SCN)	0%	0/12	1
UT 00 TM	9	ND19-19257(GT)	10%	1/10	1
UT 00 TM	10	ND19-19372(GT)	0%	0/10	1
UT 0 TM	1	ND Dickey (0)	0%	0/11	1
UT 0 TM	2	MN1511CN (SCN) (L)	0%	0/10	1

2022 Phytophthora Screening Results - ISA 124 C-1 Race 1 (7)

Test	Entry	Strain	% Dead	# D/T	Test Group
UT 0 TM	3	AG03XF2 (E)	0%	0/9	1
UT 0 TM	4	ND15-22873	67%	8/12	1
UT 0 TM	5	M05-353163HO-12	83%	10/12	1
UT 0 TM	6	M05-363022HO-25	91%	10/11	1
UT 0 TM	7	M07-296048HOLL-18	0%	0/9	1
UT 0 TM	8	M07-296048HOLL-41	0%	0/10	1
UT 0 TM	9	M09-160019HO-10	25%	2/8	1
UT 0 TM	10	M14HO-1330-14001	0%	0/10	1
UT 0 TM	11	M17R-908-1072	17%	2/12	1
UT 0 TM	12	ND17-19726(GT)	0%	0/11	1
UT 0 TM	13	ND18-22422GT	0%	0/12	1
UT 0 TM	14	ND18-25165GT	67%	8/12	1
UT 0 TM	15	ND19-18020(GT)	0%	0/6	1
UT 0 TM	16	ND19-18189(GT)	0%	0/12	1
UT 0 TM	17	ND19-18200(GT)	0%	0/12	1
UT I TM	1	MN1511CN (SCN) (I)	0%	0/10	1
UT I TM	2	U11-917032 (SCN) (L)	60%	6/10	1
UT I TM	3	AG11XF2 (E)	0%	0/11	1
UT I TM	4	AG17XF2	0%	0/12	1
UT I TM	5	E18169	89%	8/9	1
UT I TM	6	E19805N-05	0%	0/11	1
UT I TM	7	M05-363022HO-31	82%	9/11	1
UT I TM	8	M05-363022HO-6	89%	8/9	1
UT I TM	9	M07-296048HO-4	0%	0/12	1
UT I TM	10	M07-296048HOLL-26	0%	0/11	1
UT I TM	11	M14-250018	8%	1/12	1
UT I TM	12	M15-221092	36%	4/11	1
UT I TM	13	M16-209042	55%	6/11	1
UT I TM	14	M17R-908-1002	0%	0/11	1
UT I TM	15	M17R-908-1003	33%	4/12	1
UT I TM	16	M17R-908-1041	17%	2/12	1
UT I TM	17	M17R-908-1042	0%	0/11	1
UT I TM	18	MCH14R-501007	0%	0/10	1
UT II TM	1	IA2102 (II)	100%	11/11	5
UT II TM	2	U14-910097 (SCN) (L)	46%	6/13	5
UT II TM	3	AG17XF2 (E)	0%	0/10	5
UT II TM	4	AG25XF1	0%	0/8	5
UT II TM	5	A14017-111	100%	11/11	5
UT II TM	6	A14017-166	73%	8/11	5
UT II TM	7	A14019-28	78%	7/9	5
UT II TM	8	A14019-35	100%	12/12	5
UT II TM	9	A14019-141	83%	10/12	5

2022 Phytophthora Screening Results - ISA 124 C-1 Race 1 (7)

Test	Entry	Strain	% Dead	# D/T	Test Group
UT II TM	10	A14056-75	80%	8/10	5
UT II TM	11	A14058-20	83%	10/12	5
UT II TM	12	A14058-33	82%	9/11	5
UT II TM	13	A14058-96	91%	10/11	5
UT II TM	14	A14061-177	90%	9/10	5
UT II TM	15	A14062-101	82%	9/11	5
UT II TM	16	A14062-182	90%	9/10	5
UT II TM	17	A14068-20	20%	2/10	5
UT II TM	18	A14068-146	0%	0/10	5
UT II TM	19	E17808-1	0%	0/13	5
UT II TM	20	E18331-34	25%	2/8	5
UT II TM	21	E18610T	80%	8/10	5
UT II TM	22	E19056	83%	10/12	5
UT II TM	23	E19269	0%	0/12	5
UT II TM	24	E19312T	0%	0/10	5
UT II TM	25	E19323T	70%	7/10	5
UT II TM	26	E19327T	50%	5/10	5
UT II TM	27	E19495GT	36%	4/11	5
UT II TM	28	E19497GT	0%	0/12	5
UT II TM	29	E19517GT	73%	8/11	5
UT II TM	30	HM17-06108	0%	0/11	5
UT II TM	31	HM18-28068	0%	0/12	5
PT II TM	1	IA2102 (II)	100%	11/11	5
PT II TM	2	U14-910097 (SCN) (L)	46%	6/13	5
PT II TM	3	AG17XF2 (E)	0%	0/10	5
PT II TM	4	AG25XF1	0%	0/8	5
PT II TM	5	A16303-50	100%	8/8	5
PT II TM	6	A16305-141	67%	8/12	5
PT II TM	7	A16307-117	0%	0/11	5
PT II TM	8	A16331-57	92%	11/12	5
PT II TM	9	A16333-172	0%	0/12	5
PT II TM	10	A16333-218	0%	0/13	5
PT II TM	11	A16802-57	60%	6/10	5
PT II TM	12	E20154	100%	12/12	5
PT II TM	13	E20195	30%	3/10	5
PT II TM	14	E20217GT	15%	2/13	5
PT II TM	15	E20220GT	0%	0/9	5
PT II TM	16	E21287	100%	2/2	5
PT II TM	17	E21312	100%	1/1	5
PT II TM	18	E20234GT	9%	1/11	5
PT II TM	19	E21417	0%	0/1	5
PT II TM	20	E20303T	80%	8/10	5
PT II TM	21	E20316T	91%	10/11	5

2022 Phytophthora Screening Results - ISA 124 C-1 Race 1 (7)

Test	Entry	Strain	% Dead	# D/T	Test Group
PT II TM	22	E20394	0%	0/9	5
PT II TM	23	E20404	0%	0/11	5
PT II TM	24	HM19-33314	8%	1/12	5
PT II TM	25	HM19-39232	0%	0/12	5
PT II TM	26	HM19-40088	0%	0/10	5
PT II TM	27	HM19-42050	1%	0.0075	5
PT II TM	28	LD19-12524	83%	10/12	5
PT II TM	29	LD19-12560	55%	6/11	5
PT II TM	30	LD19-12679	100%	12/12	5
PT II TM	31	LD19-21029G	0%	0/12	5
PT II TM	32	LD19-21161	0%	0/11	5
PT II TM	33	LD19-22072	100%	12/12	5
PT II TM	34	LD19-7475	0%	0/12	5
PT II TM	35	LD20-5065051	92%	11/12	5
PT II TM	36	LD20-5069041	83%	10/12	5
PT II TM	37	M17R-908-1009	50%	6/12	5
PT II TM	38	M17R-908-1045	10%	1/10	5
UT III TM	1	LD11-2170 (III)	0%	0/11	5
UT III TM	2	U15-606207 (SCN)	10%	1/10	5
UT III TM	3	AG25XF1 (E)	0%	0/8	5
UT III TM	4	AG38XF1 (L)	0%	0/11	5
UT III TM	5	A14068-102	20%	2/10	5
UT III TM	6	CR17-0594	50%	5/10	5
UT III TM	7	CR192033	100%	11/11	5
UT III TM	8	CR192111	100%	7/7	5
UT III TM	9	CR194807	75%	6/8	5
UT III TM	10	CR195446	80%	8/10	5
UT III TM	11	HM17-03278	0%	0/12	5
UT III TM	12	HM18-26063	0%	0/11	5
UT III TM	13	LD19-12315	0%	0/12	5
UT III TM	14	LD19-12834	0%	0/10	5
UT III TM	15	LD19-12840	38%	3/8	5
UT III TM	16	LD19-22225	70%	7/10	5
UT III TM	17	SA19-311H	100%	11/11	5
UT III TM	18	SA19-316H	100%	10/10	5
PT III TM	1	LD11-2170 (III)	0%	0/11	5
PT III TM	2	U15-606207 (SCN)	10%	1/10	5
PT III TM	3	AG25XF1 (E)	0%	0/8	5
PT III TM	4	AG38XF1 (L)	0%	0/11	5
PT III TM	5	A16333-162	57%	4/7	5
PT III TM	6	A16335-93	25%	3/12	5
PT III TM	7	A16335-119	73%	8/11	5

2022 Phytophthora Screening Results - ISA 124 C-1 Race 1 (7)

Test	Entry	Strain	% Dead	# D/T	Test Group
PT III TM	8	A16336-119	0%	0/12	5
PT III TM	9	A16356-32	100%	9/9	5
PT III TM	10	HM19-31191	17%	2/12	5
PT III TM	11	HM19-32060	0%	0/10	5
PT III TM	12	HM19-33292	33%	3/9	5
PT III TM	13	HM19-33322	10%	1/10	5
PT III TM	14	HM19-37023	0%	0/11	5
PT III TM	15	HM19-37315	0%	0/8	5
PT III TM	16	HM19-40091	0%	0/9	5
PT III TM	17	HM19-41261	0%	0/12	5
PT III TM	18	HM19-42057	18%	2/11	5
PT III TM	19	HM19-42215	0%	0/8	5
PT III TM	20	HM19-42291	0%	0/10	5
PT III TM	21	HM19-42339	10%	1/10	5
PT III TM	22	LD20-12210	60%	6/10	5
PT III TM	23	LD20-12214	67%	8/12	5
PT III TM	24	LD20-12217	73%	8/11	5
PT III TM	25	LD20-12239	71%	5/7	5
PT III TM	26	LD20-5031191	0%	0/11	5
PT III TM	27	LD20-5031291	0%	0/12	5
PT III TM	28	LD20-8854	60%	6/10	5
PT III TM	29	LD20-8968	0%	0/13	5
PT III TM	30	LD20-9131	0%	0/13	5
PT III TM	31	LD20-9134	0%	0/12	5
PT III TM	32	SA19-195H	88%	7/8	5
PT III TM	33	SA19-23234	73%	8/11	5
PT III TM	34	SA19-23636	78%	7/9	5
PT III TM	35	SA19-237H	75%	9/12	5
PT III TM	36	SA19-24395	75%	6/8	5
PT III TM	37	SA20-13276	80%	8/10	5
PT III TM	38	SA20-14242	0%	0/14	5
PT III TM	39	SA20-14505	60%	6/10	5
PT III TM	40	SA20-14624	73%	8/11	5
UT IV TM	1	LD15-3818 (IV)	20%	2/10	4
UT IV TM	2	LD07-3395bf (SCN) (E)	45%	5/11	4
UT IV TM	3	AG38XF1	0%	0/7	4
UT IV TM	4	AG42XF2 (L)	83%	10/12	4
UT IV TM	5	CR191706	91%	10/11	4
UT IV TM	6	CR195515	55%	6/11	4
UT IV TM	7	LD18-12747	90%	9/10	4
UT IV TM	8	LD18-14554	45%	5/11	4
UT IV TM	9	LD19-12097	0%	0/11	4
UT IV TM	10	LD19-12893	27%	3/11	4

2022 Phytophthora Screening Results - ISA 124 C-1 Race 1 (7)

Test	Entry	Strain	% Dead	# D/T	Test Group
UT IV TM	11	LD19-12943	30%	3/10	4
UT IV TM	12	S17-20605C	91%	10/11	4
UT IV TM	13	S19-1176	0%	0/10	4
UT IV TM	14	S19-1987R	90%	9/10	4
UT IV TM	15	S19-2082	55%	6/11	4
UT IV TM	16	S19-2100R	90%	9/10	4
UT IV TM	17	S19-2591R	55%	6/11	4
UT IV TM	18	S19-2594	57%	4/7	4
UT IV TM	19	S19-3530RY	75%	9/12	4
UT IV TM	20	S19-5296	36%	4/11	4
UT IV TM	21	S19-5563	67%	8/12	4
UT IV TM	22	S19-7867	82%	9/11	4
UT IV TM	23	SA19-215H	75%	9/12	4
UT IV TM	24	SA19-23068	73%	8/11	4
UT IV TM	25	SA19-242H	100%	12/12	4
UT IV TM	26	SA19-24408	100%	11/11	4
UT IV TM	27	SA20-1026	100%	11/11	4
UT IV TM	28	SA20-13268	100%	12/12	4
UT IV TM	29	SA20-13813	83%	10/12	4
UT IV TM	30	SA20-13888	67%	8/12	4
UT IV TM	31	SA20-14398	100%	11/11	4
UT IV TM	32	SA20-14689	83%	10/12	4

2022 Phytophthora Screening Results -Differential Scores (Race 1)

Differential Name	Isolate: Date rated: Rps gene	ISA 124 C-1 Race 1 (7)					
		Group 1 - 6/17/2022		Group 2 - 6/24/2022		Group 3 - 6/24/2022	
		% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	rps	78%	7/9	100%	8/8	75%	9/12
Union	1a	0%	0/10	25%	2/8	0%	0/12
Haro 13xx	1b	0%	0/11	27%	3/11	10%	1/10
L75-3735	1c	8%	1/12	9%	1/11	0%	0/12
PI 103091	1d	0%	0/10	0%	0/9	60%	6/10
Williams 82	1k	0%	0/12	0%	0/12	0%	0/12
L76-1449	2	0%	0/9	27%	3/11	0%	0/11
PI 171442	3a	0%	0/12	11%	1/9	0%	0/8
L91-8347	3b	9%	1/11	0%	0/12	0%	0/10
PRX 145-48	3c	0%	0/11	10%	1/10	45%	5/11
L85-2352	4	0%	0/12	0%	0/7	0%	0/12
L85-3059	5	0%	0/11	17%	2/12	8%	1/12
L89-1581	6	0%	0/12	18%	2/11	0%	0/12
L93-3258	7	89%	8/9	89%	8/9	90%	9/10
PI 399073	8	0%	0/8	0%	0/8	20%	2/10

Differential Name	Isolate: Date rated: Rps gene	ISA 124 C-1 Race 1 (7)					
		Group 4 - 7/1/2022		Group 5 - 7/27/2022		Group 6 - 6/24/2022	
		% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	rps	73%	8/11	100%	10/10	100%	8/8
Union	1a	9%	1/11	0%	0/10	25%	2/8
Haro 13xx	1b	18%	2/11	50%	5/10	27%	3/11
L75-3735	1c	8%	1/12	0%	0/10	9%	1/11
PI 103091	1d	50%	5/10	0%	0/12	0%	0/9
Williams 82	1k	8%	1/12	0%	0/12	0%	0/12
L76-1449	2	8%	1/12	0%	0/11	27%	3/11
PI 171442	3a	0%	0/10	0%	0/9	11%	1/9
L91-8347	3b	17%	2/12	0%	0/12	0%	0/12
PRX 145-48	3c	33%	3/9	0%	0/12	10%	1/10
L85-2352	4	0%	0/12	0%	0/12	0%	0/7
L85-3059	5	0%	0/12	0%	0/13	17%	2/12
L89-1581	6	17%	2/12	0%	0/12	18%	2/11
L93-3258	7	8%	1/12	83%	10/12	89%	8/9
PI 399073	8	0%	0/7	0%	0/11	0%	0/8

2022 Phytophthora Screening Results - All Other Races

Test	Entry	Isolate: Strain	ISA 124 C-1 Race 1 (7)		Dorrance Race 3 (1a, 7)		P1754 Race 4 (1a, 1c, 7)	
			% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
UT 0	1	ND Dickey (0)	0%	0/11	0%	0/11	70%	7/10
UT 0	2	MN0095	0%	0/11	67%	6/9	100%	11/11
UT 0	3	MN0404CN (SCN)	0%	0/12	0%	0/12	0%	0/11
UT 0	4	MN1511CN (SCN)	0%	0/10	0%	0/11	69%	9/13
UT 0	6	ND16-6745	0%	0/11	0%	0/10	0%	0/11
UT 0	7	ND16-7108	0%	0/11	0%	0/7	0%	0/10
UT I	1	MN1511CN (SCN) (I)	0%	0/10	0%	0/11	69%	9/13
UT I	2	ND Dickey (0)	0%	0/11	0%	0/11	70%	7/10
UT I	3	U11-917032 (SCN)	78%	7/9	73%	8/11	90%	9/10
UT I	4	E15338	0%	0/12	30%	3/10	9%	1/11
UT I	9	M07-297007HOLL-4	22%	2/9	14%	1/7	73%	8/11
UT I	10	M13-262053	0%	0/11	18%	2/11	0%	0/12
UT II	1	IA2102 (II)	67%	6/9	78%	7/9	82%	9/11
UT II	2	LD02-4485 (SCN)	9%	1/11	11%	1/9	77%	10/13
UT II	3	U11-917032 (SCN)	100%	11/11	73%	8/11	90%	9/10
UT II	4	U14-910097 (SCN)	83%	10/12	55%	6/11	20%	2/10
UT II	20	E17040	20%	2/10	9%	1/11	8%	1/12
UT II	21	E19288T	0%	0/11	0%	0/8	9%	1/11
UT II	22	E19314T	0%	0/12	0%	0/11	17%	2/12
UT II	23	E19413	0%	0/10	13%	1/8	25%	3/12
UT II	24	HM17-12161	25%	1/4	0%	0/9	100%	9/9
UT II	40	U19-923091	58%	7/12	91%	10/11	91%	10/11
UT III	1	LD11-2170 (III)	0%	0/10	0%	0/11	15%	2/13
UT III	2	U15-606207 (SCN)	11%	1/9	0%	0/11	0%	0/12
UT III	3	LD07-3395bf (SCN)	90%	9/10	100%	11/11	77%	10/13
UT III	4	U14-910097 (SCN)	33%	3/9	55%	6/11	20%	2/10
UT III	11	CR181937	91%	10/11	78%	7/9	90%	9/10
UT III	12	CR182047	50%	6/12	0%	0/9	0%	0/12
UT III	13	CR183142	88%	7/8	70%	7/10	100%	10/10
UT III	14	CR183198	100%	11/11	91%	10/11	91%	10/11
UT III	15	CR183805	0%	0/10	0%	0/10	0%	0/9
UT III	17	HM18-15067	0%	0/8	0%	0/11	100%	11/11
UT III	18	HM18-27227	13%	1/8	9%	1/11	73%	8/11
UT III	27	U17-337087	83%	10/12	75%	9/12	83%	10/12
UT III	33	U19-612131	27%	3/11	0%	0/10	15%	2/13
UT III	34	U19-615127	91%	10/11	100%	11/11	100%	12/12
UT IV	1	LD15-3818 (IV)	20%	2/10	100%	12/12	100%	11/11
UT IV	2	LD00-2817 (L)	83%	10/12	90%	9/10	70%	7/10

2022 Phytophthora Screening Results - All Other Races

Test	Entry	Isolate: Strain	Dorrance Race 7 (1a, 3a, 6, 7)		Dorrance Race 17 (1b, 1d, 3a, 6, 7)		Dorrance Race 25 (1a, 1b, 1c, 1k, 7)	
			% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
			-----		-----		-----	
UT 0	1	ND Dickey (0)	0%	0/12	0%	0/11	75%	9/12
UT 0	2	MN0095	89%	8/9	0%	0/12	91%	10/11
UT 0	3	MN0404CN (SCN)	9%	1/11	0%	0/12	0%	0/11
UT 0	4	MN1511CN (SCN)	0%	0/10	0%	0/12	100%	10/10
UT 0	6	ND16-6745	100%	11/11	100%	12/12	0%	0/12
UT 0	7	ND16-7108	100%	12/12	100%	12/12	0%	0/10
UT I	1	MN1511CN (SCN) (I)	0%	0/10	0%	0/12	100%	10/10
UT I	2	ND Dickey (0)	0%	0/12	0%	0/11	75%	9/12
UT I	3	U11-917032 (SCN)	100%	10/10	91%	10/11	100%	9/9
UT I	4	E15338	0%	0/12	0%	0/12	92%	11/12
UT I	9	M07-297007HOLL-4	100%	9/9	64%	7/11	88%	7/8
UT I	10	M13-262053	100%	11/11	8%	9/110	92%	11/12
UT II	1	IA2102 (II)	100%	12/12	80%	8/10	90%	9/10
UT II	2	LD02-4485 (SCN)	33%	4/12	33%	4/12	91%	10/11
UT II	3	U11-917032 (SCN)	100%	10/10	91%	10/11	100%	9/9
UT II	4	U14-910097 (SCN)	100%	11/11	11%	1/9	91%	10/11
UT II	20	E17040	0%	0/12	0%	0/10	75%	9/12
UT II	21	E19288T	0%	0/12	0%	0/12	22%	2/9
UT II	22	E19314T	18%	2/11	0%	0/8	73%	8/11
UT II	23	E19413	13%	1/8	0%	0/10	64%	7/11
UT II	24	HM17-12161	0%	0/8	0%	0/9	40%	4/10
UT II	40	U19-923091	100%	11/11	67%	8/12	75%	9/12
UT III	1	LD11-2170 (III)	9%	1/11	8%	1/12	91%	10/11
UT III	2	U15-606207 (SCN)	100%	12/12	45%	5/11	0%	0/11
UT III	3	LD07-3395bf (SCN)	100%	11/11	42%	5/12	100%	10/10
UT III	4	U14-910097 (SCN)	100%	11/11	11%	1/9	91%	10/11
UT III	11	CR181937	100%	12/12	70%	7/10	89%	8/9
UT III	12	CR182047	92%	11/12	100%	12/12	0%	0/10
UT III	13	CR183142	92%	11/12	100%	11/11	100%	9/9
UT III	14	CR183198	91%	10/11	100%	11/11	100%	8/8
UT III	15	CR183805	0%	0/10	8%	1/12	0%	0/10
UT III	17	HM18-15067	0%	0/11	0%	0/12	40%	4/10
UT III	18	HM18-27227	40%	4/10	11%	1/9	50%	4/8
UT III	27	U17-337087	90%	9/10	70%	7/10	82%	9/11
UT III	33	U19-612131	100%	11/11	20%	2/10	0%	0/12
UT III	34	U19-615127	100%	11/11	82%	9/11	100%	10/10
UT IV	1	LD15-3818 (IV)	100%	12/12	0%	0/12	100%	10/10
UT IV	2	LD00-2817 (L)	80%	8/10	25%	3/12	100%	10/10

2022 Phytophthora Screening Results - All Other Races

Test	Entry	Isolate: Strain	ISA 124 C-1 Race 1 (7)		Dorrance Race 3 (1a, 7)		P1754 Race 4 (1a, 1c, 7)	
			% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
UT IV	3	LD07-3395bf (SCN)	45%	5/11	100%	11/11	77%	10/13
UT IV	4	CR17-2874	58%	7/12	92%	11/12	83%	10/12
UT IV	6	CR183106	82%	9/11	100%	10/10	92%	11/12
UT IV	7	CR183173	92%	11/12	78%	7/9	67%	6/9
UT IV	8	CR183264	83%	10/12	75%	6/8	92%	12/13
UT IV	9	CR184183	0%	0/11	0%	0/11	73%	8/11
UT IV	10	CR184232	45%	5/11	0%	0/11	100%	10/10
UT 0 TM	1	ND Dickey (0)	0%	0/11	0%	0/11	70%	7/10
UT 0 TM	2	MN1511CN (SCN)	0%	0/10	0%	0/11	69%	9/13
UT 0 TM	3	AG03XF2 (E)	0%	0/9	0%	0/9	91%	10/11
UT 0 TM	4	ND15-22873	67%	8/12	91%	10/11	100%	12/12
UT 0 TM	10	M14HO-1330-14001	0%	0/10	0%	0/10	0%	0/10
UT I TM	1	MN1511CN (SCN) (I)	0%	0/10	0%	0/11	69%	9/13
UT I TM	2	U11-917032 (SCN)	60%	6/10	73%	8/11	90%	9/10
UT I TM	3	AG11XF2 (E)	0%	0/11	0%	0/12	0%	0/11
UT I TM	4	AG17XF2	0%	0/12	0%	0/12	0%	0/13
UT I TM	5	E18169	89%	8/9	92%	11/12	82%	9/11
UT I TM	11	M14-250018	8%	1/12	42%	5/12	64%	7/11
UT I TM	18	MCH14R-501007	0%	0/10	0%	0/11	0%	0/12
UT II TM	1	IA2102 (II)	100%	11/11	78%	7/9	82%	9/11
UT II TM	2	U14-910097 (SCN)	46%	6/13	55%	6/11	20%	2/10
UT II TM	3	AG17XF2 (E)	0%	0/10	0%	0/12	0%	0/13
UT II TM	4	AG25XF1	0%	0/8	0%	0/11	67%	6/9
UT II TM	20	E18331-34	25%	2/8	67%	8/12	100%	10/10
UT II TM	21	E18610T	80%	8/10	92%	11/12	91%	10/11
UT II TM	22	E19056	83%	10/12	70%	7/10	100%	11/11
UT II TM	23	E19269	0%	0/12	0%	0/12	64%	7/11
UT II TM	24	E19312T	0%	0/10	9%	1/11	0%	0/7
UT II TM	25	E19323T	70%	7/10	67%	8/12	73%	8/11
UT II TM	26	E19327T	50%	5/10	45%	5/11	15%	2/13
UT II TM	27	E19495GT	36%	4/11	25%	3/12	45%	5/11
UT II TM	28	E19497GT	0%	0/12	0%	0/12	0%	0/12
UT II TM	29	E19517GT	73%	8/11	100%	11/11	91%	10/11
UT II TM	30	HM17-06108	0%	0/11	0%	0/11	0%	0/12
UT II TM	31	HM18-28068	0%	0/12	0%	0/12	0%	0/10
UT III TM	1	LD11-2170 (III)	0%	0/11	0%	0/11	15%	2/13
UT III TM	2	U15-606207 (SCN)	10%	1/10	0%	0/11	0%	0/12
UT III TM	3	AG25XF1 (E)	0%	0/8	0%	0/11	67%	6/9

2022 Phytophthora Screening Results - All Other Races

Test	Entry	Isolate: Strain	Dorrance Race 7 (1a, 3a, 6,7)		Dorrance Race 17 (1b,1d, 3a, 6, 7)		Dorrance Race 25 (1a, 1b, 1c, 1k, 7)	
			% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
UT IV	3	LD07-3395bf (SCN)	100%	11/11	42%	5/12	100%	10/10
UT IV	4	CR17-2874	100%	10/10	80%	8/10	100%	10/10
UT IV	6	CR183106	100%	11/11	82%	9/11	91%	10/11
UT IV	7	CR183173	91%	10/11	82%	9/11	73%	8/11
UT IV	8	CR183264	89%	8/9	100%	10/10	100%	11/11
UT IV	9	CR184183	0%	0/12	0%	0/10	82%	9/11
UT IV	10	CR184232	10%	1/10	11%	1/9	92%	11/12
UT 0 TM	1	ND Dickey (0)	0%	0/12	0%	0/11	75%	9/12
UT 0 TM	2	MN1511CN (SCN)	0%	0/10	0%	0/12	100%	10/10
UT 0 TM	3	AG03XF2 (E)	0%	0/8	0%	0/10	100%	11/11
UT 0 TM	4	ND15-22873	92%	11/12	75%	9/12	100%	12/12
UT 0 TM	10	M14HO-1330-14001	0%	0/10	0%	0/11	67%	8/12
UT I TM	1	MN1511CN (SCN) (I)	0%	0/10	0%	0/12	100%	10/10
UT I TM	2	U11-917032 (SCN)	100%	10/10	91%	10/11	100%	9/9
UT I TM	3	AG11XF2 (E)	100%	10/10	80%	8/10	0%	0/12
UT I TM	4	AG17XF2	100%	10/10	75%	9/12	0%	0/11
UT I TM	5	E18169	100%	11/11	91%	10/11	100%	12/12
UT I TM	11	M14-250018	33%	3/9	44%	4/9	85%	11/13
UT I TM	18	MCH14R-501007	17%	2/12	0%	0/11	70%	7/10
UT II TM	1	IA2102 (II)	100%	12/12	80%	8/10	90%	9/10
UT II TM	2	U14-910097 (SCN)	100%	11/11	11%	1/9	91%	10/11
UT II TM	3	AG17XF2 (E)	100%	10/10	75%	9/12	0%	0/11
UT II TM	4	AG25XF1	0%	0/11	0%	0/9	91%	10/11
UT II TM	20	E18331-34	100%	10/10	100%	10/10	78%	7/9
UT II TM	21	E18610T	0%	0/9	92%	11/12	92%	11/12
UT II TM	22	E19056	100%	10/10	100%	11/11	83%	10/12
UT II TM	23	E19269	11%	1/9	0%	0/10	64%	7/11
UT II TM	24	E19312T	10%	1/10	0%	0/10	90%	9/10
UT II TM	25	E19323T	83%	10/12	100%	9/9	75%	6/8
UT II TM	26	E19327T	89%	8/9	18%	2/11	43%	3/7
UT II TM	27	E19495GT	67%	6/9	40%	4/10	91%	10/11
UT II TM	28	E19497GT	8%	1/12	0%	0/12	100%	11/11
UT II TM	29	E19517GT	100%	11/11	90%	9/10	92%	11/12
UT II TM	30	HM17-06108	0%	0/12	17%	2/12	0%	0/12
UT II TM	31	HM18-28068	0%	0/12	0%	0/11	18%	2/11
UT III TM	1	LD11-2170 (III)	9%	1/11	8%	1/12	91%	10/11
UT III TM	2	U15-606207 (SCN)	100%	12/12	45%	5/11	0%	0/11
UT III TM	3	AG25XF1 (E)	0%	0/11	0%	0/9	91%	10/11

2022 Phytophthora Screening Results - All Other Races

Test	Entry	Isolate: Strain	ISA 124 C-1 Race 1 (7)		Dorrance Race 3 (1a, 7)		P1754 Race 4 (1a, 1c, 7)	
			% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
UT III TM	4	AG38XF1 (L)	0%	0/11	0%	0/11	80%	8/10
UT III TM	7	CR192033	100%	11/11	91%	10/11	100%	10/10
UT III TM	8	CR192111	100%	7/7	78%	7/9	100%	11/11
UT III TM	9	CR194807	75%	6/8	70%	7/10	100%	11/11
UT III TM	10	CR195446	80%	8/10	44%	4/9	86%	6/7
UT III TM	11	HM17-03278	0%	0/12	0%	0/12	8%	1/12
UT III TM	12	HM18-26063	0%	0/11	0%	0/9	10%	1/10
UT III TM	13	LD19-12315	0%	0/12	0%	0/12	10%	1/10
UT III TM	15	LD19-12840	38%	3/8	100%	6/6	91%	10/11
UT IV TM	1	LD15-3818 (IV)	20%	2/10	100%	12/12	100%	11/11
UT IV TM	2	LD07-3395bf (SCN)	45%	5/11	100%	11/11	77%	10/13
UT IV TM	3	AG38XF1	0%	0/7	0%	0/11	80%	8/10
UT IV TM	4	AG42XF2 (L)	83%	10/12	100%	10/10	100%	10/10
UT IV TM	6	CR195515	55%	6/11	56%	5/9	100%	12/12

2022 Phytophthora Screening Results - All Other Races

Test	Entry	Isolate: Strain	Dorrance Race 7 (1a, 3a, 6,7)		Dorrance Race 17 (1b,1d, 3a, 6, 7)		Dorrance Race 25 (1a, 1b, 1c, 1k, 7)	
			% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
UT III TM	4	AG38XF1 (L)	0%	0/10	0%	0/10	100%	9/9
UT III TM	7	CR192033	100%	11/11	90%	9/10	100%	10/10
UT III TM	8	CR192111	100%	9/9	78%	7/9	88%	7/8
UT III TM	9	CR194807	100%	8/8	70%	7/10	86%	6/7
UT III TM	10	CR195446	86%	6/7	70%	7/10	90%	9/10
UT III TM	11	HM17-03278	0%	0/11	8%	1/12	0%	0/12
UT III TM	12	HM18-26063	0%	0/11	0%	0/12	0%	0/11
UT III TM	13	LD19-12315	0%	0/10	0%	0/11	100%	9/9
UT III TM	15	LD19-12840	100%	11/11	88%	7/8	90%	9/10
UT IV TM	1	LD15-3818 (IV)	100%	12/12	0%	0/12	100%	10/10
UT IV TM	2	LD07-3395bf (SCN)	100%	11/11	42%	5/12	100%	10/10
UT IV TM	3	AG38XF1	0%	0/10	0%	0/10	100%	9/9
UT IV TM	4	AG42XF2 (L)	100%	11/11	100%	12/12	91%	10/11
UT IV TM	6	CR195515	100%	9/9	100%	8/8	71%	5/7

2022 Phytophthora Screening Results - Differential Scores (All Other Races)

Differential Name	Isolate: Date rated: Rps gene	Dorrance Race 3 (1a, 7) 6/3/2022		P1754 Race 4 (1a, 1c, 7) 5/31/2022		Dorrance Race 7 (1a, 3a, 6,7) 6/3/2022	
		% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
		Williams	rps	86%	6/7	75%	6/8
Union	1a	63%	5/8	67%	6/9	91%	10/11
Haro 13xx	1b	0%	0/11	0%	0/11	0%	0/9
L75-3735	1c	0%	0/9	73%	8/11	0%	0/10
PI 103091	1d	0%	0/7	0%	0/10	27%	3/11
Williams 82	1k	0%	0/11	0%	0/10	0%	0/11
L76-1449	2	0%	0/10	0%	0/10	100%	11/11
PI 171442	3a	0%	0/9	0%	0/8	100%	10/10
L91-8347	3b	0%	0/11	0%	0/10	0%	0/10
PRX 145-48	3c	0%	0/4	0%	0/8	91%	10/11
L85-2352	4	0%	0/11	0%	0/11	100%	11/11
L85-3059	5	0%	0/11	0%	0/12	100%	10/10
L89-1581	6	0%	0/8	0%	0/11	100%	11/11
L93-3258	7	86%	6/7	73%	8/11	100%	10/10
PI 399073	8	50%	1/2	0%	0/8	38%	3/8

Differential Name	Isolate: Date rated: Rps gene	Dorrance Race 17 (1b,1d, 3a, 6, 7) 7/8/2022		Dorrance Race 25 (1a, 1b, 1c, 1k, 7) 5/31/2022	
		% Dead	# D/T	% Dead	# D/T
		Williams	rps	78%	7/9
Union	1a	0%	0/7	75%	6/8
Haro 13xx	1b	64%	7/11	100%	11/11
L75-3735	1c	0%	0/10	92%	11/12
PI 103091	1d	50%	6/12	0%	0/10
Williams 82	1k	0%	0/11	100%	10/10
L76-1449	2	30%	3/10	0%	0/7
PI 171442	3a	90%	9/10	0%	0/9
L91-8347	3b	73%	8/11	11%	1/9
PRX 145-48	3c	70%	7/10	0%	0/11
L85-2352	4	50%	6/12	0%	0/10
L85-3059	5	64%	7/11	27%	3/11
L89-1581	6	55%	6/11	0%	0/11
L93-3258	7	75%	9/12	85%	11/13
PI 399073	8	0%	0/9	0%	0/8

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Uniform and Preliminary Test Locations, 2022

Non-Traited Tests

Location	Tests Conducted By:	UT						PT			
		00	0	I	II	III	IV	II	III	IV	
IA	Ames	A. Singh/B. Scott			<u>X</u>	<u>X</u>	X		<u>X</u>	<u>X</u>	
	Crawfordsville	A. Singh/B. Scott				<u>X</u>	<u>X</u>		<u>X</u>	<u>X</u>	
	Sutherland	A. Singh/B. Scott				<u>X</u>			<u>X</u>		
IL	Savoy	A. Mahan/E. Moody						<u>X</u>			<u>X</u>
	Urbana	B. Diers/ T. Cary				<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
IN	Butler	G. Cai/A. Brock					<u>X</u>	<u>X</u>			<u>X</u>
	Romney	K. Rainey/V. Seal					X	X			X
	Wanatah	G. Cai/A. Brock			<u>X</u>	<u>X</u>	<u>X</u>				
	West Lafayette	G. Cai/A. Brock			<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
KS	Manhattan	W. Schapaugh Jr.					<u>X</u>	<u>X</u>		<u>X</u>	<u>X</u>
	Ottawa	W. Schapaugh Jr.						<u>X</u>			<u>X</u>
	Salina	W. Schapaugh Jr.						<u>X</u>			<u>X</u>
MI	Britton	D. Wang/R. Laurenz				X					
	East Lansing	D. Wang/R. Laurenz			<u>X</u>	<u>X</u>			<u>X</u>		
	Saginaw	D. Wang/R. Laurenz			X						
MN	Becker	A. Lorenz/S. Bhusal			<u>X</u>						
	Crookston	A. Lorenz/S. Bhusal	<u>X</u>	<u>X</u>							
	Danvers	A. Lorenz/S. Bhusal			<u>X</u>						
	Moorhead	A. Lorenz/S. Bhusal		<u>X</u>							
	Morris	A. Lorenz/S. Bhusal			<u>X</u>						
	Roseau	A. Lorenz/S. Bhusal	<u>X</u>								
MO	Albany	A. Scaboo/E. De Meyer					X	X		X	X
	Columbia	A. Scaboo/E. De Meyer					<u>X</u>	<u>X</u>		<u>X</u>	<u>X</u>
	Novelty	A. Scaboo/E. De Meyer					X	X		X	X
	Portageville (Clay)	P. Chen/M. Clubb						X			
	Portageville (Loam)	P. Chen/M. Clubb						<u>X</u>			
ND	Casselton	C. Miranda/A. Cooper	X	X							
	Grandin	C. Miranda/A. Cooper	<u>X</u>	<u>X</u>							
NE	Cook	G. Graef/A. Tuckwood					<u>X</u>			<u>X</u>	
	Cotesfield	G. Graef/A. Tuckwood			X	X			X		
	Lincoln	G. Graef/A. Tuckwood					X			X	
	Mead	G. Graef/A. Tuckwood			<u>X</u>	<u>X</u>			<u>X</u>		
	Phillips	G. Graef/A. Tuckwood			<u>X</u>	<u>X</u>	<u>X</u>		<u>X</u>	<u>X</u>	
MAN	Elm Creek	J. Auclair/M. Coulombe	X								
ONT	Chatham	M. Eskandari/R. Brandt				<u>X</u>			<u>X</u>		
	Elora	I. Rajcan/C. Templeton	<u>X</u>	<u>X</u>							
	Ottawa	E. Cober/S. Lackey	<u>X</u>	<u>X</u>							
	Palmyra	M. Eskandari/R. Brandt			<u>X</u>						
	Saint Pauls	I. Rajcan/C. Templeman			<u>X</u>						
	Woodstock	I. Rajcan/C. Templeman			<u>X</u>						
QUE	St. Hyacinthe	J. Auclair/M. Coulombe			<u>X</u>						
	St. Mathieu de Beloeil	L. O'Donoghue	<u>X</u>	<u>X</u>							

X Locations With Agronomic Data:	8	7	15	12	14	13	10	11	11
<u>X</u> Locations With Protein and Oil Data:	6	6	13	10	9	9	9	8	8

Uniform and Preliminary Test Locations, 2022

Traited Tests

Location		Tests Conducted By:	UT-TM						PT-TM	
			00	0	I	II	III	IV	II	III
IA	Ames	A. Singh/B. Scott			<u>X¹</u>	<u>X¹</u>	<u>X¹</u>		<u>X¹</u>	<u>X¹</u>
IL	Urbana	B. Diers/ T. Cary				<u>X¹</u>	<u>X¹</u>	<u>X¹</u>	<u>X¹</u>	<u>X¹</u>
IN	Butler	G. Cai/A. Brock					<u>X¹</u>	<u>X¹</u>		
	Romney	K. Rainey/V. Seal					X	X		X
	Wanatah	G. Cai/A. Brock			<u>X¹</u>	<u>X¹</u>	<u>X¹</u>			
	West Lafayette	G. Cai/A. Brock			<u>X¹</u>	<u>X¹</u>	<u>X¹</u>	<u>X¹</u>	<u>X¹</u>	<u>X¹</u>
MI	Britton	D. Wang/R. Laurenz				X				
	East Lansing	D. Wang/R. Laurenz			<u>X¹</u>	<u>X¹</u>			<u>X¹</u>	
	Saginaw	D. Wang/R. Laurenz			X					
MN	Crookston	A. Lorenz/S. Bhusal	<u>X</u>	<u>X¹</u>						
	Lamberton	A. Lorenz/S. Bhusal			<u>X¹</u>					
	Moorhead	A. Lorenz/S. Bhusal		<u>X¹</u>						
	Roseau	A. Lorenz/S. Bhusal	<u>X</u>							
	Waseca	A. Lorenz/S. Bhusal			<u>X¹</u>					
	Westbrook	A. Lorenz/S. Bhusal			<u>X¹</u>					
MO	Albany	A. Scaboo/E. De Meyer					X	X		X
	Columbia	A. Scaboo/E. De Meyer					<u>X¹</u>	<u>X¹</u>		<u>X¹</u>
	Novelty	A. Scaboo/E. De Meyer					X	X		X
	Portageville (Clay)	P. Chen/M. Clubb						<u>X¹</u>		
	Portageville (Loam)	P. Chen/M. Clubb						<u>X¹</u>		
ND	Casselton	C. Miranda/A. Cooper	X	X						
	Grandin	C. Miranda/A. Cooper	<u>X</u>	<u>X</u>						
OH	Wooster	L. McHale/McIntyre				<u>X¹</u>	<u>X¹</u>			
MAN	Elm Creek	J. Auclair/M. Coulombe	<u>X</u>							

X	Locations With Agronomic Data:	5	4	8	7	10	9	4	7
<u>X</u>	Locations With Protein and Oil Data:	4	3	7	6	7	5	4	4
X ¹	Locations With Fatty Acid Data:	--	2	7	6	7	6	4	4
X	Locations With Sugar Data:	--	--	--	6	7	6	4	4

Uniform and Preliminary Test Locations Monthly Rainfall Data, 2022

Location		Monthly Rainfall (inches)					
		May	June	July	August	September	October
IA	Ames	3.0	3.1	2.3	4.0	3.3	1.0
	Crawfordsville	2.4	2.5	2.5	2.4	2.8	0.9
	Sutherland	1.0	4.3	4.3	2.0	0.8	0.3
IL	Savoy	3.9	1.1	2.4	4.7	2.4	2.4
	Urbana	3.6	0.9	1.6	4.4	4.3	2.0
IN	Butlerville	5.9	2.7	5.8	2.8	2.4	1.4
	Romney	6.0	0.7	1.3	6.2	1.0	2.7
	Wanatah	4.4	2.4	4.2	3.8	1.7	4.0
	West Lafayette	6.0	2.0	1.6	5.0	1.5	1.8
KS	Manhattan	9.0	7.0	5.4	1.4	1.8	1.2
	Ottawa	7.9	3.7	5.6	1.7	1.6	1.2
	Salina	8.4	4.9	4.3	1.0	3.4	0.6
MI	Britton	4.4	3.2	2.6	4.2	1.9	1.0
	East Lansing	3.5	2.6	2.7	3.7	2.7	2.6
	Saginaw	3.9	2.5	2.7	4.8	2.2	2.0
MN	Becker	6.6	4.8	1.5	5.1	3.9	1.1
	Crookston	5.6	5.7	2.8	4.0	2.7	1.1
	Danvers	6.4	1.6	2.1	2.1	1.0	0.3
	Lamberton	3.9	1.1	1.6	3.0	0.7	0.3
	Moorhead	4.7	2.6	4.2	4.2	0.5	0.2
	Morris	6.1	2.1	1.6	2.2	1.0	1.2
	Roseau	5.6	2.4	3.4	3.1	0.3	1.5
	Waseca	4.8	4.4	4.6	5.5	0.8	0.4
	Westbrook	4.0	1.1	1.6	3.0	0.7	0.3
MO	Albany	7.0	3.6	4.9	4.5	1.0	1.4
	Columbia	5.7	1.8	3.0	1.8	1.8	3.4
	Novelty	3.0	4.0	4.6	1.1	3.0	1.9
	Portageville (Clay)	4.9	1.1	2.3	3.0	0.4	1.3
	Portageville (Loam)	4.9	1.1	2.3	3.0	0.4	1.3
ND	Casselton	5.0	3.8	2.0	1.7	0.6	0.3
	Grandin	4.9	1.9	2.0	2.6	1.4	0.2
NE	Cook	7.5	2.8	1.2	0.1	1.0	0.7
	Cotesfield	3.0	0.6	4.6	0.7	1.1	0.7
	Lincoln	5.9	4.0	3.0	0.8	1.0	0.8
	Mead	4.3	3.0	1.0	2.9	1.0	0.7
	Phillips	2.4	2.4	5.2	0.4	1.3	0.6
OH	Wooster	4.8	6.5	5.3	3.6	4.6	1.4
MAN	Elm Creek	11.2	5.5	6.4	8.8	2.7	3.7
ONT	Chatham	2.8	2.9	2.5	4.0	1.2	1.2
	Elora	3.0	1.8	1.2	2.7	1.0	1.5
	Ottawa	3.5	4.0	3.5	7.4	2.5	1.2
	Palmyra	1.1	3.6	0.6	5.5	0.4	1.3
	Saint Pauls	3.2	2.8	3.8	6.6	4.0	1.9
	Woodstock	2.6	2.6	4.2	1.5	0.7	1.7
QUE	St. Hyacinthe	4.1	6.1	0.7	1.8	3.9	3.4
	St. Mathieu de Beloeil	4.5	7.7	0.5	0.8	4.2	2.9

<http://theweathercollector.com/>

https://climate.weather.gc.ca/prods_servs/cdn_climate_summary_e.html

Location GPS Coordinates by Test for Reported Data in 2022

Test	State/Province	Location	Latitude (deg)	Longitude (deg)
UT00	MN	Crookston	47.8197300	-96.6114400
UT00	MN	Roseau	48.5048540	-95.4723520
UT00	ND	Casselton	46.8866370	-97.2386320
UT00	ND	Grandin	47.2687960	-97.0926940
UT00	MAN	Elm Creek		
UT00	ONT	Elora	43.6445220	-80.4007150
UT00	ONT	Ottawa	45.3698480	-75.7216610
UT00	QUE	Saint-Mathieu-de-Beloeil	45.5832700	-73.2423900
UT0	MN	Crookston	47.8197300	-96.6114400
UT0	MN	Moorhead	47.0061820	-96.8020120
UT0	ND	Casselton	46.8866370	-97.2386320
UT0	ND	Grandin	47.2687960	-97.0926940
UT0	ONT	Elora	43.6445220	-80.4007150
UT 0	ONT	Ottawa	45.3726100	-75.7298360
UT 0	QUE	Saint-Mathieu-de-Beloeil	45.5835400	-73.2420100
UT I	IA	Ames	42.0465560	-93.7298980
UT I	IN	Wanatah	41.4443561	-86.9437436
UT I	IN	West Lafayette	40.4806413	-87.0051709
UT I	MI	East Lansing	42.6296000	-84.4375000
UT I	MI	Saginaw	43.4003000	-83.8684000
UT I	MN	Becker	45.3451907	-93.8464768
UT I	MN	Danvers	45.1518980	-95.4131980
UT I	MN	Morris	45.3552150	-95.5435580
UT I	NE	Cotesfield	41.3333790	-98.6135370
UT I	NE	Mead	41.1576780	-96.4226910
UT I	NE	Phillips	40.8472760	-98.1770130
UT I	ONT	Palmyra	42.4581480	-81.7290700
UT I	ONT	St. Pauls	43.3328707	-81.1766727
UT I	ONT	Woodstock	43.1427020	-80.7956678
UT I	QUE	Saint Hyacinthe		
UT II	IA	Ames	42.0465560	-93.7298980
UT II	IA	Crawfordsville	41.1944380	-91.4800480
UT II	IA	Sutherland	42.9261770	-95.5281080
UT II	IL	Urbana	40.0536500	-88.2358430
UT II	IN	Wanatah	41.4443561	-86.9437436
UT II	IN	West Lafayette	40.4806472	-87.0045956
UT II	MI	Britton	41.9256000	-83.8225000
UT II	MI	East Lansing	42.6296000	-84.4375000
UT II	NE	Cotesfield	41.3333790	-98.6135370
UT II	NE	Mead	41.1576780	-96.4226910
UT II	NE	Phillips	40.8472760	-98.1770130
UT II	ONT	Chatham	42.3799840	-82.2523580

Location GPS Coordinates by Test for Reported Data in 2022

Test	State/Province	Location	Latitude (deg)	Longitude (deg)
PT II A	IA	Ames	42.0465560	-93.7298980
PT II A	IA	Crawfordsville	41.1944380	-91.4800480
PT II A	IA	Sutherland	42.9261770	-95.5281080
PT II A	IL	Urbana	40.0536500	-88.2358430
PT II A	IN	West Lafayette	40.4806472	-87.0045956
PT II A	MI	East Lansing	42.6296000	-84.4375000
PT II A	NE	Cotesfield	41.3333790	-98.6135370
PT II A	NE	Mead	41.1576780	-96.4226910
PT II A	NE	Phillips	40.8472760	-98.1770130
PT II A	ONT	Chatham	42.3799840	-82.2523580
PT II B	IA	Ames	42.0465560	-93.7298980
PT II B	IA	Crawfordsville	41.1944380	-91.4800480
PT II B	IA	Sutherland	42.9261770	-95.5281080
PT II B	IL	Urbana	40.0536500	-88.2358430
PT II B	IN	West Lafayette	40.4806472	-87.0045956
PT II B	MI	East Lansing	42.6296000	-84.4375000
PT II B	NE	Cotesfield	41.3333790	-98.6135370
PT II B	NE	Mead	41.1576780	-96.4226910
PT II B	NE	Phillips	40.8472760	-98.1770130
PT II B	ONT	Chatham	42.3799840	-82.2523580
UT III	IA	Ames	42.0465560	-93.7298980
UT III	IA	Crawfordsville	41.1944380	-91.4800480
UT III	IL	Urbana	40.0536500	-88.2358430
UT III	IN	Butlerville	39.0362213	-85.5263837
UT III	IN	Romney	40.2363800	-86.8888600
UT III	IN	Wanatah	41.4443561	-86.9437436
UT III	IN	West Lafayette	40.4806368	-87.0037108
UT III	KS	Manhattan	38.1325760	-96.6200450
UT III	MO	Albany	40.2384230	-94.3432860
UT III	MO	Columbia	38.8894444	-92.2080556
UT III	MO	Novelty	39.9427548	-92.0533528
UT III	NE	Cook	40.5089900	-96.1504700
UT III	NE	Lincoln	40.8612220	-96.6001200
UT III	NE	Phillips	40.8472760	-98.1770130

Location GPS Coordinates by Test for Reported Data in 2022

Test	State/Province	Location	Latitude (deg)	Longitude (deg)
PT III A	IA	Ames	42.0465560	-93.7298980
PT III A	IA	Crawfordsville	41.1944380	-91.4800480
PT III A	IL	Urbana	40.0536500	-88.2358430
PT III A	IN	West Lafayette	40.4806368	-87.0037108
PT III A	KS	Manhattan	38.1325760	-96.6200450
PT III A	MO	Albany	40.2384230	-94.3432860
PT III A	MO	Columbia	38.8894444	-92.2080556
PT III A	MO	Novelty	39.9427548	-92.0533528
PT III A	NE	Cook	40.5089900	-96.1504700
PT III A	NE	Lincoln	40.8612220	-96.6001200
PT III A	NE	Phillips	40.8472760	-98.1770130
PT III B	IA	Ames	42.0465560	-93.7298980
PT III B	IA	Crawfordsville	41.1944380	-91.4800480
PT III B	IL	Urbana	40.0536500	-88.2358430
PT III B	IN	West Lafayette	40.4806368	-87.0037108
PT III B	KS	Manhattan	38.1325760	-96.6200450
PT III B	MO	Albany	40.2384230	-94.3432860
PT III B	MO	Columbia	38.8894444	-92.2080556
PT III B	MO	Novelty	39.9427548	-92.0533528
PT III B	NE	Cook	40.5089900	-96.1504700
PT III B	NE	Lincoln	40.8612220	-96.6001200
PT III B	NE	Phillips	40.8472760	-98.1770130
UT IV	IL	Savoy	40.0568600	-88.2341400
UT IV	IL	Urbana	40.0536500	-88.2358430
UT IV	IN	Butlerville	39.0362213	-85.5263837
UT IV	IN	Romney	40.2363800	-86.8888600
UT IV	IN	West Lafayette	40.4806396	-87.0030170
UT IV	KS	Manhattan	38.1325760	-96.6200450
UT IV	KS	Ottawa	38.5404400	-95.2477200
UT IV	KS	Salina	38.6755030	-97.6044440
UT IV	MO	Albany	40.2384230	-94.3432860
UT IV	MO	Columbia	38.8894444	-92.2080556
UT IV	MO	Novelty	39.9427548	-92.0533528
UT IV	MO	Portageville (Clay)	36.4009000	-89.6044030
UT IV	MO	Portageville (Loam)	36.3954270	-89.6102070

Location GPS Coordinates by Test for Reported Data in 2022

Test	State/Province	Location	Latitude (deg)	Longitude (deg)
PT IV	IL	Savoy	40.0568600	-88.2341400
PT IV	IL	Urbana	40.0536500	-88.2358430
PT IV	IN	Butlerville	39.0362213	-85.5263837
PT IV	IN	Romney	40.2363800	-86.8888600
PT IV	IN	West Lafayette	40.4806396	-87.0030170
PT IV	KS	Manhattan	38.1325760	-96.6200450
PT IV	KS	Ottawa	38.5404400	-95.2477200
PT IV	KS	Salina	38.6755030	-97.6044440
PT IV	MO	Albany	40.2384230	-94.3432860
PT IV	MO	Columbia	38.8894444	-92.2080556
PT IV	MO	Novelty	39.9427548	-92.0533528
UT 00 TM	MN	Crookston	47.8197300	-96.6114400
UT 00 TM	MN	Roseau	48.5048540	-95.4723520
UT 00 TM	ND	Casselton	46.8866370	-97.2386320
UT 00 TM	ND	Grandin	47.2687960	-97.0926940
UT 00 TM	MAN	Elm Creek		
UT 0 TM	MN	Crookston	47.8197300	-96.6114400
UT 0 TM	MN	Moorhead	47.0061820	-96.8020120
UT 0 TM	ND	Casselton	46.8866370	-97.2386320
UT 0 TM	ND	Grandin	47.2687960	-97.0926940
UT I TM	IA	Ames	42.0465560	-93.7298980
UT I TM	IN	Wanatah	41.4443561	-86.9437436
UT I TM	IN	West Lafayette	40.4806413	-87.0051709
UT I TM	MI	East Lansing	42.6296000	-84.4375000
UT I TM	MI	Saginaw	43.4003000	-83.8684000
UT I TM	MN	Lamberton	44.2428570	-95.3159170
UT I TM	MN	Waseca	44.0699170	-93.5277810
UT I TM	MN	Westbrook	44.0258500	-95.3443750
UT II TM	IA	Ames	42.0465560	-93.7298980
UT II TM	IL	Urbana	40.0528610	-88.2339440
UT II TM	IN	Wanatah	41.4443561	-86.9437436
UT II TM	IN	West Lafayette	40.4806472	-87.0045956
UT II TM	MI	Britton	41.9256000	-83.8225000
UT II TM	MI	East Lansing	42.6296000	-84.4375000
UT II TM	OH	Wooster	40.7565010	-81.9003680
PT II TM	IA	Ames	42.0465560	-93.7298980
PT II TM	IL	Urbana	40.0528610	-88.2339440
PT II TM	IN	West Lafayette	40.4806472	-87.0045956
PT II TM	MI	East Lansing	42.6296000	-84.4375000

Location GPS Coordinates by Test for Reported Data in 2022

Test	State/Province	Location	Latitude (deg)	Longitude (deg)
UT III TM	IA	Ames	42.0465560	-93.7298980
UT III TM	IL	Urbana	40.0528610	-88.2339440
UT III TM	IN	Butlerville	39.0362213	-85.5263837
UT III TM	IN	Romney	40.2363800	-86.8888600
UT III TM	IN	Wanatah	41.4443561	-86.9437436
UT III TM	IN	West Lafayette	40.4806368	-87.0037108
UT III TM	MO	Albany	40.2384230	-94.3432860
UT III TM	MO	Columbia	38.8894444	-92.2080556
UT III TM	MO	Novelty	39.9427548	-92.0533528
UT III TM	OH	Wooster	40.7565010	-81.9003680
PT III TM	IA	Ames	42.0465560	-93.7298980
PT III TM	IL	Urbana	40.0528610	-88.2339440
PT III TM	IN	Romney	40.2363800	-86.8888600
PT III TM	IN	West Lafayette	40.4806368	-87.0037108
PT III TM	MO	Albany	40.2384230	-94.3432860
PT III TM	MO	Columbia	38.8894444	-92.2080556
PT III TM	MO	Novelty	39.9427548	-92.0533528
UT IV TM	IL	Urbana	40.0528610	-88.2339440
UT IV TM	IN	Butlerville	39.0362213	-85.5263837
UT IV TM	IN	Romney	40.2363800	-86.8888600
UT IV TM	IN	West Lafayette	40.4806396	-87.0030170
UT IV TM	MO	Albany	40.2384230	-94.3432860
UT IV TM	MO	Columbia	38.8894444	-92.2080556
UT IV TM	MO	Novelty	39.9427548	-92.0533528
UT IV TM	MO	Portageville (Clay)	36.4009110	-86.6034790
UT IV TM	MO	Portageville (Loam)	36.3950050	-89.6102110

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**Northern Regional Uniform Test
Uniform Test 00, 2022**

Ent.	Strain	Parentage		Seed Source	Previous Testing	Gen. Comp.	Unique Traits
		Female	Male				
1	MN0083 (00)	M97-121138	MN0091	Lorenz	4	F5	Rps6
2	MN0095 (0)	M92-270029	M93-313185	Lorenz	13	F5	Rps1
3	ND Rolette	M00-3075	ND05-17649	Miranda	7	F4	
4	M15-105140	LD12-12701a	M04-239105	Lorenz	Initial	F8	Aphid R., SCN
5	M16-110086	ND10-3067	M08-434024	Lorenz	Initial	F7	Yield, Rps1k+Rps6
6	ND18-17116	ND10-3067	M08-434024	Miranda	Initial	F8	Race 4 Rps
7	ND18-17202	ND10-3067	ND HENSON-1	Miranda	Initial	F8	Race 4 Rps
8	ND18-17659	ND10-4423	ND11-19725	Miranda	Initial	F8	Race 4 Rps
9	ND18-17666	ND10-4423	ND11-19725	Miranda	Initial	F7	Rps?
10	ND18-19053	ND11-19539	ND12-15670	Miranda	Initial	F8	Race 4 Rps
11	ND18-19137	ND11-19725	ND HENSON-1	Miranda	Initial	F8	Race 4 Rps
12	ND19-13873	ND10-3067	ND13-7810	Miranda	Initial	F7	Rps?
13	ND19-13905	ND10-3067	ND12-15670	Miranda	Initial	F7	Rps?
14	ND19-14226	ND11-19725	ND12-15623	Miranda	Initial	F7	Rps?
15	OAC 19-20C-ChCd	S05-T6	Heinong 50	Rajcan	Initial	F5	

UNIFORM TEST 00, 2022

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code	IDC	Green Stem	Leaf Shape
		Score ----- Danvers MN	Score ----- St Mathieu de Beloeil	Elora ONT
MN0083 (00)	WTTSYYI	2.3	1.0	Ovate
MN0095 (0)	PGBDYIbI	2.0	1.0	Ovate
ND Rolette	PGBSYBfI	1.8	1.0	Ovate
M15-105140	PTBDYBrI	1.8	1.0	Ovate
M16-110086	PTBSYGI	3.0	1.0	Ovate
ND18-17116	PT+LtBDYHI	4.0	1.0	Ovate
ND18-17202	PTBDYHI	1.5	1.0	Ovate
ND18-17659	PGBDYBfI	2.8	1.0	Ovate
ND18-17666	PLtTDYBrI	2.5	1.0	Ovate
ND18-19053	PLtTSYYI	2.0	1.0	Ovate
ND18-19137	PLtTDYBrI	2.3	1.0	Ovate
ND19-13873	PGBDYII	3.0	1.0	Ovate
ND19-13905	PGBSYYI	2.8	1.0	Ovate
ND19-14226	PGTSYHI	2.5	1.0	Ovate
OAC 19-20C-ChCd	PLtBDYII	2.3	1.0	Ovate

UNIFORM TEST 00, 2022

REGIONAL SUMMARY

No. of Tests Strain	Yield	Rank	Maturity	Lodging	Plant Height	Seed Size	Seed Quality	<u>Composition</u>	
	7 bu/a	7 No.	7 Date	7 Score	5 In	6 g/100	5 Score	6 Protein %	6 Oil %
MN0083 (00)	43.4	14	9/16	1.1	26	14.1	1.2	36.0	17.9
MN0095 (0)	51.4	5	2.6	1.1	25	13.5	1.2	35.3	18.1
ND Rolette	47.6	12	2.3	1.0	24	14.1	1.4	35.3	18.3
M15-105140	57.0	2	10.3	1.1	29	16.9	1.3	34.5	17.8
M16-110086	50.5	7	4.2	1.1	22	15.9	1.9	34.6	18.0
ND18-17116	60.1	1	13.7	1.1	27	17.7	1.4	33.1	18.9
ND18-17202	55.3	3	10.6	1.2	25	17.0	1.8	32.9	19.7
ND18-17659	48.8	9	4.2	1.3	26	15.5	1.3	34.9	18.5
ND18-17666	43.4	14	0.7	1.1	23	13.8	1.2	34.8	18.6
ND18-19053	51.5	4	7.1	1.0	26	15.1	1.3	35.4	17.9
ND18-19137	47.7	11	3.3	1.1	27	14.8	1.2	34.8	18.6
ND19-13873	50.1	8	3.9	1.1	26	14.1	1.3	33.6	18.2
ND19-13905	51.1	6	4.9	1.6	28	14.7	1.1	34.6	18.0
ND19-14226	46.0	13	1.7	1.1	26	14.3	1.2	34.4	18.2
OAC 19-20C-ChCd	48.4	10	8.7	1.0	27	20.5	1.2	35.5	18.4
Mean	50.2			1.2	25.8	15.5	1.3	34.7	18.3
C.V. (%)	8.9								
L.S.D. (5%)	2.7								

111.7 Days After Planting

UNIFORM TEST 00, 2022

YIELD (bu/a)

Strain	Mean 7 Tests	Crook- ston MN	Roseau MN	Cassel- ton ND	Grandin ND	Elm Creek MAN*	Elora ONT	Ottawa ONT	St Mathieu de Beloeil QUE
MN0083 (00)	43.4	36.2	53.4	50.4	41.1	38.1	43.1	38.1	41.8
MN0095 (0)	51.4	43.6	60.6	61.7	48.5	50.9	44.3	44.0	57.1
ND Rolette	47.6	41.9	56.9	61.1	49.7	61.5	39.3	35.8	48.6
M15-105140	57.0	39.3	56.5	59.2	55.3	73.4	40.9	48.8	98.9
M16-110086	50.5	40.6	64.4	64.0	49.7	49.8	42.1	43.6	49.4
ND18-17116	60.1	43.0	64.8	71.2	54.1	68.9	55.3	49.5	82.8
ND18-17202	55.3	41.2	56.3	67.1	52.2	66.4	51.9	44.2	74.1
ND18-17659	48.8	43.0	58.1	59.5	47.0	66.7	45.1	43.1	46.0
ND18-17666	43.4	42.1	46.4	57.7	43.3	64.0	40.0	38.1	36.7
ND18-19053	51.5	36.3	61.6	68.3	48.3	47.1	47.6	41.7	56.7
ND18-19137	47.7	40.2	58.2	57.9	46.1	53.3	43.2	38.6	49.5
ND19-13873	50.1	42.7	62.2	62.4	52.9	57.1	40.1	41.4	49.1
ND19-13905	51.1	41.4	54.6	62.6	53.3	69.9	49.1	40.4	56.4
ND19-14226	46.0	41.1	55.3	57.8	41.4	59.3	41.6	37.8	46.9
OAC 19-20C-ChCd	48.4	29.5	47.4	50.7	33.5	40.3	48.1	47.6	81.7
Location Mean		40.1	57.1	60.8	47.8	57.8	44.8	42.2	58.4
C.V. (%)		10.1	10.2	5.2	8.0	25.8	8.6	6.5	10.6
L.S.D. (5%)		6.8	9.7	5.5	6.4	25.0	6.4	5.6	10.4
Row Sp. (In.)		30	30	30	30	15	13	18	7
Rows/Plot		4	4	4	4	4	4	4	5
Reps		3	3	3	3	3	3	3	3

* Data not included in mean.

UNIFORM TEST 00, 2022

YIELD RANK

Strain	Yield Rank	Crook- ston MN	Roseau MN	Cassel- ton ND	Grandin ND	Elm Creek MAN	Elora ONT	Ottawa ONT	St Mathieu de Beloeil QUE
MN0083 (00)	14	14	13	15	14	15	9	12	14
MN0095 (0)	5	1	5	7	8	11	7	5	5
ND Rolette	12	6	8	8	6	7	15	15	11
M15-105140	2	12	9	10	1	1	12	2	1
M16-110086	7	10	2	4	7	12	10	6	9
ND18-17116	1	3	1	1	2	3	1	1	2
ND18-17202	3	8	10	3	5	5	2	4	4
ND18-17659	9	2	7	9	10	4	6	7	13
ND18-17666	14	5	15	13	12	6	14	12	15
ND18-19053	4	13	4	2	9	13	5	8	6
ND18-19137	11	11	6	11	11	10	8	11	8
ND19-13873	8	4	3	6	4	9	13	9	10
ND19-13905	6	7	12	5	3	2	3	10	7
ND19-14226	13	9	11	12	13	8	11	14	12
OAC 19-20C-ChCd	10	15	14	14	15	14	4	3	3

UNIFORM TEST 00, 2022

MATURITY (date)

Strain	Mean 7 Tests	Crook- ston MN	Roseau MN	Cassel- ton ND	Grandin ND	Elm Creek MAN	Elora ONT	Ottawa ONT	St Mathieu de Beloeil QUE
MN0083 (00)	9/16	9/7	9/24	9/8	9/14		9/20	9/18	9/27
MN0095 (0)	3	1	3	5	0		0	4	5
ND Rolette	2	1	2	3	0		4	3	3
M15-105140	10	17	7	14	9		10	10	6
M16-110086	4	5	5	6	3		-1	7	5
ND18-17116	14	19	12	16	12		9	14	13
ND18-17202	11	14	9	14	9		7	12	8
ND18-17659	4	6	5	3	1		2	7	5
ND18-17666	1	0	0	4	-1		0	1	1
ND18-19053	7	7	5	12	6		5	8	6
ND18-19137	3	7	4	4	2		3	3	1
ND19-13873	4	5	4	6	1		-1	7	6
ND19-13905	5	5	6	7	1		3	6	6
ND19-14226	2	3	4	1	-1		1	3	1
OAC 19-20C-ChCd	9	22	5	12	5		0	8	8
Date Planted	5/28	5/27	5/27	5/19	5/19		5/25	6/6	6/12
Days to Mature	111.7	103	120	112	118		118	104	107

UNIFORM TEST 00, 2022

LODGING (score)

Strain	Mean 7 Tests	Crook- ston MN	Roseau MN	Cassel- ton ND	Grandin ND	Elm Creek MAN	Elora ONT	Ottawa ONT	St Mathieu de Beloeil QUE
MN0083 (00)	1.1	2.0	1.0	1.0	1.0		1.0	1.0	1.0
MN0095 (0)	1.1	1.7	1.0	1.0	1.0		1.0	1.0	1.0
ND Rolette	1.0	1.3	1.0	1.0	1.0		1.0	1.0	1.0
M15-105140	1.1	2.0	1.0	1.0	1.0		1.0	1.0	1.0
M16-110086	1.1	1.7	1.0	1.0	1.0		1.0	1.0	1.0
ND18-17116	1.1	1.7	1.0	1.0	1.0		1.0	1.0	1.0
ND18-17202	1.2	1.7	1.7	1.0	1.0		1.0	1.3	1.0
ND18-17659	1.3	2.3	2.0	1.0	1.0		1.0	1.0	1.0
ND18-17666	1.1	1.7	1.0	1.0	1.0		1.0	1.0	1.0
ND18-19053	1.0	1.3	1.0	1.0	1.0		1.0	1.0	1.0
ND18-19137	1.1	1.7	1.0	1.0	1.0		1.0	1.0	1.0
ND19-13873	1.1	2.0	1.0	1.0	1.0		1.0	1.0	1.0
ND19-13905	1.6	2.7	3.0	1.0	1.0		1.0	1.3	1.0
ND19-14226	1.1	2.0	1.0	1.0	1.0		1.0	1.0	1.0
OAC 19-20C-ChCd	1.0	1.0	1.3	1.0	1.0		1.0	1.0	1.0

UNIFORM TEST 00, 2022**PLANT HEIGHT (inches)**

Strain	Mean 5 Tests	Crook- ston MN	Roseau MN	Cassel- ton ND	Grandin ND	Elm Creek MAN	Elora ONT	Ottawa ONT	St Mathieu de Beloeil QUE
MN0083 (00)	26	28			27		32	22	19
MN0095 (0)	25	28			27		29	21	18
ND Rolette	24	30			27		30	19	16
M15-105140	29	31			31		31	28	26
M16-110086	22	24			26		25	20	14
ND18-17116	27	28			28		31	28	21
ND18-17202	25	26			28		30	21	18
ND18-17659	26	28			30		31	24	16
ND18-17666	23	25			28		26	21	13
ND18-19053	26	26			31		32	23	19
ND18-19137	27	30			31		31	25	19
ND19-13873	26	28			29		29	25	20
ND19-13905	28	29			32		34	25	21
ND19-14226	26	28			27		30	25	17
OAC 19-20C-ChCd	27	20			29		36	26	26

UNIFORM TEST 00, 2022**SEED SIZE (g/100)**

Strain	Mean 6 Tests	Crook- ston MN	Roseau MN	Cassel- ton ND	Grandin ND	Elm Creek MAN	Elora ONT	Ottawa ONT	St Mathieu de Beloeil QUE
MN0083 (00)	14.1	11.3	17.0		13.7		13.4	16.2	13.2
MN0095 (0)	13.5	11.6	15.8		14.0		12.4	14.8	12.3
ND Rolette	14.1	11.5	15.9		14.0		12.9	15.5	14.6
M15-105140	16.9	13.5	20.2		16.3		16.0	20.3	15.0
M16-110086	15.9	13.0	18.9		15.7		15.2	17.9	14.4
ND18-17116	17.7	14.4	20.2		16.7		18.1	20.9	16.1
ND18-17202	17.0	14.8	19.2		17.0		16.1	19.4	15.7
ND18-17659	15.5	13.3	18.0		15.3		14.0	18.0	14.3
ND18-17666	13.8	11.8	16.0		14.0		12.0	15.9	13.1
ND18-19053	15.1	13.3	17.3		15.7		13.2	17.2	14.1
ND18-19137	14.8	13.0	18.1		14.7		12.6	17.2	13.3
ND19-13873	14.1	11.6	15.8		14.0		13.6	16.3	13.1
ND19-13905	14.7	12.8	17.3		15.0		12.8	16.6	13.9
ND19-14226	14.3	12.5	16.9		14.7		12.5	16.2	13.1
OAC 19-20C-ChCd	20.5	15.1	23.1		19.0		19.5	25.1	20.9

UNIFORM TEST 00, 2022

SEED QUALITY (score)

Strain	Mean 5 Tests	Crook- ston MN	Roseau MN	Cassel- ton ND	Grandin ND	Elm Creek MAN	Elora ONT	Ottawa ONT	St Mathieu de Beloeil QUE
MN0083 (00)	1.2	1.0	1.0				2.0	1.0	1.0
MN0095 (0)	1.2	1.0	1.0				2.0	1.0	1.0
ND Rolette	1.4	1.0	1.3				2.5	1.0	1.0
M15-105140	1.3	1.0	1.0				2.5	1.0	1.0
M16-110086	1.9	1.0	4.0				2.5	1.0	1.0
ND18-17116	1.4	1.0	1.0				3.0	1.0	1.0
ND18-17202	1.8	1.0	3.3				2.5	1.3	1.0
ND18-17659	1.3	1.0	1.0				2.5	1.0	1.0
ND18-17666	1.2	1.0	1.0				2.0	1.0	1.0
ND18-19053	1.3	1.0	1.0				2.5	1.0	1.0
ND18-19137	1.2	1.0	1.0				2.0	1.0	1.0
ND19-13873	1.3	1.0	1.0				2.5	1.0	1.0
ND19-13905	1.1	1.0	1.0				1.5	1.0	1.0
ND19-14226	1.2	1.0	1.0				2.0	1.0	1.0
OAC 19-20C-ChCd	1.2	1.0	1.0				2.0	1.0	1.0

UNIFORM TEST 00, 2022

PROTEIN (%)

Strain	Mean 6 Tests	Crook- ston MN	Roseau MN	Cassel- ton ND	Grandin ND	Elm Creek MAN	Elora ONT	Ottawa ONT	St Mathieu de Beloeil QUE*
MN0083 (00)	36.0	36.3	37.3		34.7		35.7	36.9	35.3
MN0095 (0)	35.3	36.9	35.6		33.1		36.5	35.4	34.4
ND Rolette	35.3	35.3	35.5		34.3		36.7	35.6	34.2
M15-105140	34.5	34.8	35.2		33.4		34.4	34.6	34.8
M16-110086	34.6	34.5	36.2		33.5		34.4	34.5	34.4
ND18-17116	33.1	32.8	32.8		32.2		34.2	33.5	32.9
ND18-17202	32.9	32.1	33.4		32.2		33.3	32.9	33.4
ND18-17659	34.9	34.7	36.6		34.9		33.8	36.0	33.7
ND18-17666	34.8	35.0	35.9		33.7		34.9	35.3	34.1
ND18-19053	35.4	34.6	36.1		34.6		36.4	34.9	35.7
ND18-19137	34.8	35.7	37.4		34.4		34.2	34.0	33.2
ND19-13873	33.6	33.3	33.5		33.0		34.8	34.1	33.0
ND19-13905	34.6	35.4	35.2		33.3		35.1	35.0	33.8
ND19-14226	34.4	34.4	36.9		32.9		34.8	34.3	33.4
OAC 19-20C-ChCd	35.5	36.8	36.1		33.8		35.4	35.5	35.3

* Data adjusted to 13% moisture.

UNIFORM TEST 00, 2022

OIL (%)

Strain	Mean 6 Tests	Crook- ston MN	Roseau MN	Cassel- ton ND	Grandin ND	Elm Creek MAN	Elora ONT	Ottawa ONT	St Mathieu de Beloeil QUE*
MN0083 (00)	17.9	18.2	16.7		18.6		17.9	17.7	18.5
MN0095 (0)	18.1	17.4	17.8		19.7		17.3	18.6	17.7
ND Rolette	18.3	18.6	18.5		19.1		17.6	18.5	17.7
M15-105140	17.8	17.8	16.5		18.6		18.2	18.1	17.4
M16-110086	18.0	18.0	17.1		18.9		18.4	18.3	17.4
ND18-17116	18.9	19.3	18.8		19.8		19.0	19.1	17.2
ND18-17202	19.7	20.6	18.9		20.3		20.2	20.3	17.9
ND18-17659	18.5	18.8	17.0		19.0		18.9	18.4	18.6
ND18-17666	18.6	18.8	18.4		19.4		19.2	19.1	17.0
ND18-19053	17.9	17.1	17.3		18.9		17.7	18.4	17.9
ND18-19137	18.6	18.4	16.8		19.1		18.9	19.5	18.7
ND19-13873	18.2	18.7	17.5		18.8		18.0	18.1	18.4
ND19-13905	18.0	17.7	17.0		18.9		17.9	18.0	18.3
ND19-14226	18.2	18.2	16.9		19.1		17.9	18.6	18.4
OAC 19-20C-ChCd	18.4	17.4	17.7		19.7		19.1	18.6	17.9

* Data adjusted to 13% moisture.

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**Northern Regional Uniform Test
Uniform Test 0, 2022**

Ent.	Strain	Parentage		Seed Source	Previous Testing	Gen. Comp.	Unique Traits
		Female	Male				
1	ND Dickey (0)	P. 91M10	Sheyenne	Miranda	4	F4	Race 3 Resist.
2	MN0095 (E)	M92-270029	M93-313185	Lorenz	12	F5	Rps1
3	MN0404CN (SCN)	MN0902CN	MN0304	Lorenz	4		SCN, Rpsk1, PLT
4	MN1511CN (SCN) (L)	M06-288181	M06-358188	Lorenz	Initial		SCN
5	M16-135049	ND11-19225	M09-285149	Lorenz	Initial	F7	SCN, Phyto 1c
6	ND16-6745	ND10-3460	MN1401	Miranda	2	F4	Resist. Race 4 pmg
7	ND16-7108	AR-191018	Ashtabula	Miranda	2	F4	Resist. Race 4 pmg
8	ND16-7155	AR191018	Ashtabula	Miranda	3	F4	
9	ND16-7175	AR191018	Ashtabula	Miranda	3	F4	
10	ND16-8821	Sheyenne	ND10-3600	Miranda	3	F4	PI 88788 SCN Resist.
11	ND17-20565	ND10-3601	Pioneer 91M10	Miranda	2	F4	PI 88788 SCN Resist.
12	ND17-20754	ND10-3610	Pioneer 91M10	Miranda	2	F4	PI 88788 SCN Resist.
13	ND17-22117	ND10-3610	Pioneer 91M10	Miranda	2	F4	PI 88788 SCN Resist.
14	ND17-22120	ND10-3610	Pioneer 91M10	Miranda	2	F4	PI 88788 SCN Resist.
15	ND18-16823	ND10-3067	M06-381085	Miranda	Initial	F8	Race 4 Rps
16	ND18-17021	ND10-3067	M08-218089	Miranda	Initial	F8	Race 4 Rps
17	ND18-17905	ND11-16241	M06-381085	Miranda	Initial	F8	Race 4 Rps
18	ND18-18416	ND11-16241	ND11-16587	Miranda	1		
19	OAC 19-02C	PSX 12C81S	PR11177B109	Rajcan	Initial	F5	

UNIFORM TEST 0, 2022

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code	IDC	Green Stem	Leaf Shape
		Score Danvers MN	Score St Mathieu de Beloeil	Elora ONT
ND Dickey (0)	PGTDYYI	2.5	1.0	Ovate
MN0095 (E)	PGBDYBfI	1.8	1.0	Ovate
MN0404CN (SCN)	PTTSYBfI	2.5	1.0	Ovate
MN1511CN (SCN) (L)	PGBDYBfI	2.5	1.0	Ovate
M16-135049	PGBDYBfI	2.5	1.0	Ovate
ND16-6745	PLtBDYBfI	1.8	1.0	Ovate
ND16-7108	PLtBDYBfI	3.5	1.0	Ovate
ND16-7155	PLtBDYBfI	2.5	1.0	Ovate
ND16-7175	PLtBDYBfI	1.3	1.0	Ovate
ND16-8821	PGTDYBfI	2.5	1.0	Ovate
ND17-20565	WGTDYYI	1.5	1.0	Ovate
ND17-20754	P+WGTDYYI	2.3	1.0	Ovate
ND17-22117	WGTDYBfI	1.5	1.0	Ovate
ND17-22120	PGTDYYI	1.8	1.0	Ovate
ND18-16823	PTBDYBfI	1.8	1.0	Ovate
ND18-17021	PGB+TDYHI	2.0	1.0	Ovate
ND18-17905	PT+GBDYHI	2.3	1.0	Ovate
ND18-18416	PGBDYBfI	1.3	1.0	Ovate
OAC 19-02C	PTBDYGI	3.8	1.0	Ovate

UNIFORM TEST 0, 2022

REGIONAL SUMMARY

No. of Tests Strain	Yield	Rank	Maturity	Lodging	Plant Height	Seed Size	Seed Quality	<u>Composition</u>	
	7 bu/a	7 No.	6 Date	6 Score	5 In.	6 g/100	5 Score	6 Protein %	6 Oil %
ND Dickey (0)	61.7	1	9/25	1.1	28	17.7	1.4	34.9	17.8
MN0095 (E)	49.3	18	-8.7	1.2	25	13.3	1.2	34.7	18.6
MN0404CN (SCN)	47.8	19	-5.5	1.2	28	14.1	1.1	34.2	18.3
MN1511CN (SCN) (L)	60.9	3	4.7	1.1	31	14.4	1.1	34.1	18.2
M16-135049	53.6	16	4.9	1.1	30	15.5	1.3	34.9	18.0
ND16-6745	61.1	2	-1.6	1.1	27	15.7	1.1	35.4	17.8
ND16-7108	59.9	5	-1.1	1.1	28	15.5	1.1	34.8	17.8
ND16-7155	59.9	4	-1.1	1.1	27	15.3	1.3	35.1	17.8
ND16-7175	58.4	6	-1.1	1.1	27	15.3	1.3	35.2	17.7
ND16-8821	53.3	17	-2.9	1.1	25	13.6	1.2	34.9	17.8
ND17-20565	58.1	7	1.4	1.1	28	17.7	1.3	35.6	18.5
ND17-20754	55.2	14	-1.4	1.0	25	14.9	1.0	35.1	18.4
ND17-22117	54.8	15	0.9	1.1	26	13.6	1.1	34.9	19.0
ND17-22120	56.9	10	0.5	1.2	27	15.0	1.0	34.3	19.1
ND18-16823	56.3	12	-0.0	1.1	26	16.5	1.4	33.0	19.3
ND18-17021	57.7	9	3.8	1.2	31	15.3	1.2	34.3	18.3
ND18-17905	57.9	8	6.2	1.1	30	15.7	1.3	34.9	18.2
ND18-18416	56.3	11	-2.2	1.1	28	16.2	1.4	33.5	18.8
OAC 19-02C	55.4	13	-0.9	1.2	28	17.1	1.5	36.3	17.6
Mean	56.6			1.1	27.6	15.4	1.2	34.7	18.3
C.V. (%)	11.1								
L.S.D. (5%)	3.8								

121.7 Days After Planting

UNIFORM TEST 0, 2022

2021-2022 2-YEAR MEAN

No. of Tests Strain	Yield	Rank	Maturity	Lodging	Plant	Seed	Seed	<u>Composition</u>	
	12 bu/a	12 No.	11 Date	9 Score	Height 7 In.	Size 10 g/100	Quality 9 Score	Protein 12 %	Oil 12 %
ND Dickey (0)	52.0	1	9/21	1.4	29	16.5	1.9	34.9	18.3
MN0095 (E)	42.4	12	-8.9	1.6	29	13.1	1.5	34.7	19.4
MN0404CN (SCN)	40.2	13	-4.1	1.6	29	13.8	1.5	34.3	18.9
ND16-6745	49.3	2	-0.9	1.4	28	15.5	1.1	35.3	18.5
ND16-7108	47.9	4	-1.7	1.5	30	15.5	1.4	34.8	18.5
ND16-7155	48.1	3	-1.6	1.5	28	14.9	1.3	34.7	18.6
ND16-7175	47.1	6	-1.6	1.5	27	15.2	1.5	35.0	18.6
ND16-8821	46.1	10	-2.1	1.5	28	13.6	1.4	34.7	18.6
ND17-20565	46.3	9	1.5	1.5	30	17.3	1.4	35.5	19.3
ND17-20754	46.4	8	-1.1	1.5	25	14.8	1.2	35.0	19.1
ND17-22117	44.2	11	-0.1	1.4	29	13.2	1.2	34.7	19.5
ND17-22120	47.1	5	-0.0	1.6	31	15.0	1.2	34.2	19.8
ND18-18416	46.7	7	-2.0	1.6	30	16.0	1.5	33.1	19.6

121.4 Days After Planting

2020-2022 3-YEAR MEAN

No. of Tests Strain	15	15	16	12	11	15	14	17	17
ND Dickey (0)	51.0	1.0	9/20	1.4	29	16.6	1.7	34.8	18.0
MN0095 (E)	43.4	11.0	-7.3	1.5	27	13.4	1.6	34.8	19.1
MN0404CN (SCN)	41.4	12.0	-4.3	1.6	29	14.2	1.5	34.3	18.8
ND16-6745	49.8	2.0	-1.0	1.4	28	15.4	1.2	35.0	18.3
ND16-7108	49.3	3.0	-1.1	1.5	29	15.4	1.4	34.7	18.2
ND16-7155	49.1	5.0	-1.1	1.4	29	14.9	1.4	34.7	18.3
ND16-7175	49.2	4.0	-1.3	1.4	28	15.1	1.4	35.0	18.3
ND16-8821	48.7	6.0	-1.4	1.4	28	13.9	1.4	34.9	18.2
ND17-20565	47.2	9.0	1.6	1.5	30	17.0	1.3	35.2	18.9
ND17-20754	47.3	8.0	-0.7	1.3	26	14.8	1.2	34.9	18.8
ND17-22117	46.6	10.0	0.1	1.4	28	13.5	1.3	34.9	19.1
ND17-22120	47.9	7.0	0.1	1.5	31	15.0	1.2	34.2	19.4

121.0 Days After Planting

UNIFORM TEST 0, 2022

YIELD (bu/a)

Strain	Mean 7 Tests	Crook- ston MN	Moor- head MN	Cassel- ton ND	Grandin ND	Elora ONT	Ottawa ONT	St Mathieu de Beloeil QUE
ND Dickey (0)	61.7	42.5	78.8	70.9	58.3	50.5	69.1	61.7
MN0095 (E)	49.3	42.1	47.3	62.8	49.1	44.6	57.2	42.3
MN0404CN (SCN)	47.8	34.0	46.9	60.8	45.7	42.6	55.8	48.8
MN1511CN (SCN) (L)	60.9	39.2	74.4	69.8	51.5	53.0	69.1	69.5
M16-135049	53.6	37.7	62.7	57.4	50.7	43.1	55.9	67.5
ND16-6745	61.1	37.0	70.0	67.1	58.2	49.4	63.6	82.1
ND16-7108	59.9	37.7	70.9	64.3	53.5	46.1	64.5	82.4
ND16-7155	59.9	33.6	70.8	70.5	56.2	44.5	62.8	81.1
ND16-7175	58.4	32.4	70.2	68.6	55.2	45.9	62.1	74.4
ND16-8821	53.3	42.3	68.5	68.7	46.6	51.9	59.0	36.3
ND17-20565	58.1	37.2	70.8	66.3	60.2	47.8	60.1	64.0
ND17-20754	55.2	37.5	65.0	71.4	47.6	46.9	62.8	55.1
ND17-22117	54.8	44.1	61.9	66.5	53.5	48.3	63.1	46.1
ND17-22120	56.9	38.3	69.0	72.4	52.1	51.2	60.2	55.1
ND18-16823	56.3	38.8	77.7	69.8	51.8	47.9	55.9	52.4
ND18-17021	57.7	36.0	76.9	71.0	55.0	50.7	59.6	54.6
ND18-17905	57.9	40.9	66.0	68.3	57.1	47.4	62.5	63.3
ND18-18416	56.3	43.5	61.0	76.0	54.9	49.8	59.0	50.1
OAC 19-02C	55.4	32.4	63.4	70.2	50.1	53.5	61.2	57.1
Location Mean		38.3	67.0	68.0	53.0	48.2	61.2	60.2
C.V. (%)		11.0	9.7	6.0	12.2	7.8	5.4	7.9
L.S.D. (5%)		7.0	10.6	6.8	10.8	6.2	6.5	10.0
Row Sp. (In.)		30	30	30	30	13	18	7
Rows/Plot		4	4	4	4	4	4	5
Reps		3	3	3	3	3	3	2

UNIFORM TEST 0, 2022

YIELD RANK

Strain	Yield Rank	Crookston MN	Moorhead MN	Casselton ND	Grandin ND	Elora ONT	Ottawa ONT	St Mathieu de Beloeil QUE
ND Dickey (0)	1	3	1	5	2	6	1	9
MN0095 (E)	18	5	18	17	16	16	16	18
MN0404CN (SCN)	19	16	19	18	19	19	19	16
MN1511CN (SCN) (L)	3	7	4	8	13	2	1	5
M16-135049	16	11	15	19	14	18	17	6
ND16-6745	2	14	9	13	3	8	4	2
ND16-7108	5	10	5	16	9	14	3	1
ND16-7155	4	17	7	6	5	17	6	3
ND16-7175	6	19	8	11	6	15	9	4
ND16-8821	17	4	11	10	18	3	14	19
ND17-20565	7	13	6	15	1	11	12	7
ND17-20754	14	12	13	3	17	13	6	11
ND17-22117	15	1	16	14	10	9	5	17
ND17-22120	10	9	10	2	11	4	11	11
ND18-16823	12	8	2	9	12	10	17	14
ND18-17021	9	15	3	4	7	5	13	13
ND18-17905	8	6	12	12	4	12	8	8
ND18-18416	11	2	17	1	8	7	14	15
OAC 19-02C	13	18	14	7	15	1	10	10

UNIFORM TEST 0, 2022

MATURITY (date)

Strain	Mean 6 Tests	Crook- ston MN	Moor- head MN	Cassel- ton ND	Grandin ND	Elora ONT	Ottawa ONT	St Mathieu de Beloeil QUE
ND Dickey (0)	9/25	9/20		9/25	9/23	9/25	9/28	10/4
MN0095 (E)	-9	-13		-11	-9	-4	-12	-3
MN0404CN (SCN)	-5	-7		-10	2	-3	-11	-4
MN1511CN (SCN) (L)	5	6		4	4	6	2	6
M16-135049	5	8		1	5	8	-1	8
ND16-6745	-2	3		-4	-2	-2	-5	0
ND16-7108	-1	1		-3	0	-2	-3	1
ND16-7155	-1	3		-4	-2	-1	-3	0
ND16-7175	-1	5		-5	-1	-2	-4	0
ND16-8821	-3	-4		-6	-1	-1	-4	-1
ND17-20565	1	7		0	1	1	0	-1
ND17-20754	-1	1		-5	-1	-1	-2	0
ND17-22117	1	4		-1	4	-1	-1	0
ND17-22120	1	3		-2	0	5	-2	-1
ND18-16823	-0	0		0	2	-4	-2	4
ND18-17021	4	8		3	4	5	2	1
ND18-17905	6	9		4	4	4	4	12
ND18-18416	-2	-2		-4	0	-1	-5	-1
OAC 19-02C	-1	4		-3	-1	2	-6	-1
Date Planted	5/27	5/27		5/19	5/19	5/25	5/30	6/12
Days to Mature	122	116		129	127	123	121	114

UNIFORM TEST 0, 2022

LODGING (score)

Strain	Mean 6 Tests	Crook- ston MN	Moor- head MN	Cassel- ton ND	Grandin ND	Elora ONT	Ottawa ONT	St Mathieu de Beloeil QUE
ND Dickey (0)	1.1	1.7		1.0	1.0	1.0	1.0	1.0
MN0095 (E)	1.2	2.0		1.0	1.0	1.0	1.0	1.0
MN0404CN (SCN)	1.2	2.0		1.0	1.0	1.2	1.0	1.0
MN1511CN (SCN) (L)	1.1	1.7		1.0	1.0	1.0	1.0	1.0
M16-135049	1.1	1.3		1.0	1.0	1.0	1.0	1.0
ND16-6745	1.1	1.7		1.0	1.0	1.0	1.0	1.0
ND16-7108	1.1	1.3		1.0	1.0	1.0	1.0	1.0
ND16-7155	1.1	1.3		1.0	1.0	1.0	1.0	1.0
ND16-7175	1.1	1.3		1.0	1.0	1.0	1.0	1.0
ND16-8821	1.1	1.7		1.0	1.0	1.0	1.0	1.0
ND17-20565	1.1	1.7		1.0	1.0	1.0	1.0	1.0
ND17-20754	1.0	1.0		1.0	1.0	1.0	1.0	1.0
ND17-22117	1.1	1.7		1.0	1.0	1.0	1.0	1.0
ND17-22120	1.2	2.0		1.0	1.0	1.0	1.0	1.0
ND18-16823	1.1	1.3		1.0	1.0	1.0	1.0	1.0
ND18-17021	1.2	2.0		1.0	1.0	1.0	1.0	1.0
ND18-17905	1.1	1.3		1.0	1.0	1.0	1.0	1.0
ND18-18416	1.1	1.7		1.0	1.0	1.0	1.0	1.0
OAC 19-02C	1.2	2.0		1.0	1.0	1.0	1.0	1.0

UNIFORM TEST 0, 2022

PLANT HEIGHT (inches)

Strain	Mean 5 Tests	Crook- ston MN	Moor- head MN	Cassel- ton ND	Grandin ND	Elora ONT	Ottawa ONT	St Mathieu de Beloeil QUE
ND Dickey (0)	28	26			31	33	27	23
MN0095 (E)	25	27			27	29	22	20
MN0404CN (SCN)	28	26			32	30	27	24
MN1511CN (SCN) (L)	31	28			36	36	31	24
M16-135049	30	27			34	34	27	30
ND16-6745	27	26			27	30	24	28
ND16-7108	28	26			32	29	25	26
ND16-7155	27	23			29	29	27	27
ND16-7175	27	24			30	29	28	24
ND16-8821	25	25			28	29	22	19
ND17-20565	28	25			32	31	28	26
ND17-20754	25	23			28	27	24	24
ND17-22117	26	27			29	30	22	22
ND17-22120	27	25			30	32	25	23
ND18-16823	26	27			27	30	22	22
ND18-17021	31	30			36	37	31	23
ND18-17905	30	28			32	35	30	25
ND18-18416	28	28			30	31	27	22
OAC 19-02C	28	25			29	34	27	25

UNIFORM TEST 0, 2022

SEED SIZE (g/100)

Strain	Mean 6 Tests	Crook- ston MN	Moor- head MN	Cassel- ton ND	Grandin ND	Elora ONT	Ottawa ONT	St Mathieu de Beloeil QUE
ND Dickey (0)	17.7	14.8	19.6		17.3	17.4	21.1	15.7
MN0095 (E)	13.3	11.3	14.5		13.3	12.6	15.6	12.5
MN0404CN (SCN)	14.1	10.7	14.1		14.0	14.5	18.0	13.1
MN1511CN (SCN) (L)	14.4	11.6	15.8		13.5	14.0	17.7	13.7
M16-135049	15.5	13.5	17.3		15.0	14.0	18.4	14.7
ND16-6745	15.7	13.5	17.0		15.0	14.4	18.6	15.6
ND16-7108	15.5	13.2	16.6		15.0	14.3	18.2	15.6
ND16-7155	15.3	12.7	16.3		15.3	13.8	18.4	15.2
ND16-7175	15.3	13.8	16.8		15.0	13.4	17.7	14.8
ND16-8821	13.6	11.0	15.2		14.0	12.5	16.5	12.1
ND17-20565	17.7	14.3	20.2		17.0	15.8	22.3	16.5
ND17-20754	14.9	13.2	16.1		14.3	13.2	19.4	13.3
ND17-22117	13.6	10.3	16.4		14.0	11.2	17.8	12.1
ND17-22120	15.0	12.2	16.9		15.3	13.9	18.5	13.4
ND18-16823	16.5	13.6	18.4		17.0	15.8	18.8	15.4
ND18-17021	15.3	12.6	16.5		15.7	14.0	18.9	14.3
ND18-17905	15.7	13.5	17.2		15.0	14.3	18.3	15.6
ND18-18416	16.2	13.1	18.9		16.3	14.4	19.0	15.3
OAC 19-02C	17.1	14.5	18.8		16.3	15.4	20.5	17.0

UNIFORM TEST 0, 2022

SEED QUALITY (score)

Strain	Mean 5 Tests	Crook- ston MN	Moor- head MN	Cassel- ton ND	Grandin ND	Elora ONT	Ottawa ONT	St Mathieu de Beloeil QUE
ND Dickey (0)	1.4	2.0	1.0			2.0	1.0	1.0
MN0095 (E)	1.2	1.0	1.0			2.0	1.0	1.0
MN0404CN (SCN)	1.1	1.0	1.0			1.5	1.0	1.0
MN1511CN (SCN) (L)	1.1	1.0	1.0			1.5	1.0	1.0
M16-135049	1.3	2.0	1.0			1.5	1.0	1.0
ND16-6745	1.1	1.0	1.0			1.5	1.0	1.0
ND16-7108	1.1	1.0	1.0			1.5	1.0	1.0
ND16-7155	1.3	2.0	1.0			1.5	1.0	1.0
ND16-7175	1.3	2.0	1.0			1.5	1.0	1.0
ND16-8821	1.2	1.0	1.0			1.5	1.3	1.0
ND17-20565	1.3	1.0	1.0			1.0	2.7	1.0
ND17-20754	1.0	1.0	1.0			1.0	1.0	1.0
ND17-22117	1.1	1.0	1.0			1.5	1.0	1.0
ND17-22120	1.0	1.0	1.0			1.0	1.0	1.0
ND18-16823	1.4	1.0	1.0			3.0	1.0	1.0
ND18-17021	1.2	1.0	1.0			2.0	1.0	1.0
ND18-17905	1.3	1.0	1.0			2.5	1.0	1.0
ND18-18416	1.4	1.0	1.0			3.0	1.0	1.0
OAC 19-02C	1.5	2.0	1.0			2.5	1.0	1.0

UNIFORM TEST 0, 2022

PROTEIN (%)

Strain	Mean 6 Tests	Crook- ston MN	Moor- head MN	Cassel- ton ND	Grandin ND	Elora ONT	Ottawa ONT	St Mathieu de Beloeil QUE*
ND Dickey (0)	34.9	35.5	34.8		34.3	35.3	35.5	34.3
MN0095 (E)	34.7	35.6	34.2		33.6	35.5	35.1	34.3
MN0404CN (SCN)	34.2	35.6	33.6		33.0	34.4	35.1	33.6
MN1511CN (SCN) (L)	34.1	34.6	33.4		32.7	35.5	35.3	32.9
M16-135049	34.9	35.4	34.8		33.7	35.8	35.9	34.0
ND16-6745	35.4	35.5	35.7		34.5	36.2	35.5	35.0
ND16-7108	34.8	35.9	33.7		34.7	36.7	33.5	34.1
ND16-7155	35.1	36.1	35.0		33.4	36.1	35.5	34.6
ND16-7175	35.2	35.0	34.9		34.0	37.1	35.6	34.9
ND16-8821	34.9	35.9	33.5		33.6	35.2	36.4	35.0
ND17-20565	35.6	36.0	35.2		34.9	36.1	36.8	34.9
ND17-20754	35.1	35.5	34.6		34.8	36.9	35.2	33.8
ND17-22117	34.9	34.6	35.2		34.0	35.3	36.1	34.5
ND17-22120	34.3	34.7	34.5		33.7	34.7	34.9	33.5
ND18-16823	33.0	33.0	32.6		32.4	34.5	33.0	32.5
ND18-17021	34.3	35.4	33.7		33.3	34.5	35.6	33.5
ND18-17905	34.9	34.3	34.2		34.2	35.8	36.4	34.3
ND18-18416	33.5	33.2	33.6		32.2	34.7	33.6	33.6
OAC 19-02C	36.3	37.8	35.7		35.2	36.0	36.7	36.2

* Data adjusted to 13% moisture.

UNIFORM TEST 0, 2022

OIL (%)

Strain	Mean 6 Tests	Crook- ston MN	Moor- head MN	Cassel- ton ND	Grandin ND	Elora ONT	Ottawa ONT	St Mathieu de Beloeil QUE*
ND Dickey (0)	17.8	17.5	17.8		18.3	17.6	17.9	17.5
MN0095 (E)	18.6	18.2	19.4		19.4	17.7	18.6	18.4
MN0404CN (SCN)	18.3	17.7	19.1		19.2	18.6	16.1	18.8
MN1511CN (SCN) (L)	18.2	18.3	18.7		18.7	17.5	18.1	17.9
M16-135049	18.0	18.1	18.6		18.8	17.6	18.1	17.1
ND16-6745	17.8	17.8	18.3		18.6	17.1	17.6	17.5
ND16-7108	17.8	17.7	18.8		18.0	16.9	18.6	17.0
ND16-7155	17.8	17.6	18.2		18.6	17.3	17.9	17.1
ND16-7175	17.7	17.6	18.0		18.6	16.9	17.8	17.1
ND16-8821	17.8	17.5	17.8		18.7	17.7	17.3	17.8
ND17-20565	18.5	18.1	19.0		18.9	18.5	18.4	18.3
ND17-20754	18.4	18.6	18.7		18.5	17.5	18.6	18.7
ND17-22117	19.0	19.0	19.9		19.2	18.7	18.5	18.8
ND17-22120	19.1	19.1	18.9		19.4	18.7	19.3	19.2
ND18-16823	19.3	19.6	19.3		19.6	19.2	19.3	19.1
ND18-17021	18.3	17.8	18.7		18.7	18.3	18.3	18.3
ND18-17905	18.2	18.8	18.6		18.4	18.0	18.0	17.5
ND18-18416	18.8	18.7	18.9		19.3	18.3	18.9	18.5
OAC 19-02C	17.6	16.8	18.3		18.0	17.4	17.9	17.5

* Data adjusted to 13% moisture.

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**Northern Regional Uniform Test
Uniform Test I, 2022**

Ent.	Strain	Parentage		Seed Source	Previous Testing	Gen. Comp.	Unique Traits
		Female	Male				
1	MN1511CN (SCN) (I)	M06-288181	M06-358188	Lorenz	Initial		SCN
2	ND Dickey (0)	P. 91M10	Sheyenne	Miranda	5	F4	Race 3 Resist.
3	U11-917032 (SCN) (L)	LD02-4485	U03-100612	Graef	8	F6	SCN, HR, MR, IDC
4	E15338	E09088	E12901	Wang	4	F5	SCN
5	A16806-76	LG11-5195	LD10-10219	Singh	Initial	F5	
6	E20078	E14077	AR09-191018	Wang	Initial	F5	SCN, Rps
7	LD18-4490	U11-616086	M08-362051	Diers	21 PT I - 16	F5	SCN
8	LD19-5163	U13-912010	LD10-10198	Diers	Initial	F5	SCN
9	M07-297007HOLL-4	M07-297007(4) x M05-319034LL	M07-297007(4) x M10-237089HO	Lorenz	2	BC3F3	Rps
10	M13-262053	M03-172059	LD08-12435a	Lorenz	21 SCN UT I	F10	Aphid, Rps6
11	M14-151094	LD08-12435a	M04-241226	Lorenz	1	F5	Aphid
12	M14-152074	LD08-12441a	M04-239054	Lorenz	1	F5	Aphid
13	M16-107018	M07-278122	OAC12-21C	Lorenz	Initial	F7	Yield, Phyto 1c+3a
14	M16-175100	M07-301059	91M10	Lorenz	Initial	F7	Large
15	M16-211035	M10-242042	M09-343023	Lorenz	Initial	F7	Diversity, Phyto 1a
16	M16-211100	M10-242042	M09-343023	Lorenz	Initial	F7	Diversity
17	M16-272011	MSC09-774074	OAC12-21C	Lorenz	Initial	F7	Diversity, SCN
18	M16-272016	MSC09-774074	OAC12-21C	Lorenz	Initial	F7	Diversity, SCN
19	M16-272047	MSC09-774074	OAC12-21C	Lorenz	Initial	F7	Diversity, SCN
20	M16-456044	MSC09-774074	M16-454BC	Lorenz	Initial	F7	Diversity, SCN
21	M16-456119	MSC09-774074	M16-454BC	Lorenz	Initial	F7	Diversity, SCN
22	OAC 19-57C	OAC 11-43C	OAC 12-21C	Rajcan	Initial	F5	
23	OAC 19-91C	OAC 11-43C	S18-R6	Rajcan	Initial	F5	
24	ORC 2219	SC 7512N	OAC Brooke	Eskandari	Initial	F4	
25	ORC 5120	SC 5414N	U11-610107	Eskandari	Initial	F4	SCN
26	ORC 5220N	SC 7912N	U11-610107	Eskandari	21 PT I - 26	F5	SCN
27	ORC 5020	SC 7612N	RCAT Angora	Eskandari	Initial	F5	
28	ORC 6218N	OAC Prosper	SC 6218N	Eskandari	21 PT I - 27	F5	SCN

UNIFORM TEST I, 2022

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code	IDC	
		Score ----- Danvers MN	Leaf Shape ----- Woodstock ONT
MN1511CN (SCN) (I)	PGBDYBfI	1.5	Ovate
ND Dickey (0)	PGTDYYI	1.0	Ovate
U11-917032 (SCN) (L)	PTBDYBI	2.5	Ovate
E15338	PGBDYIbI	1.8	Ovate
A16806-76	PTBSYBI	3.5	Ovate
E20078	PLtBDYBI	1.8	Ovate
LD18-4490	PGBDYYI	1.8	Ovate
LD19-5163	PGBDYGI	1.5	Ovate
M07-297007HOLL-4	P+WTTDYBI	1.8	Ovate
M13-262053	PGBDYHI	1.5	Ovate
M14-151094	PTTDYBrI	1.8	Ovate
M14-152074	PTTDYBrI	1.3	Ovate
M16-107018	WGTDYYI	1.8	Ovate
M16-175100	PGTDYYI	1.3	Ovate
M16-211035	PGTDYHI	2.0	Ovate
M16-211100	P+WTBDYBrI	2.3	Ovate
M16-272011	PTBDYBrI	1.3	Ovate
M16-272016	PTBDYBrI	1.3	Ovate
M16-272047	PTBDYBrI	1.0	Ovate
M16-456044	WTBDYBrI	1.5	Ovate
M16-456119	WTBDYBrI	1.3	Ovate
OAC 19-57C	PTBSYYI	2.8	Ovate
OAC 19-91C	PGBDYYI	2.3	Ovate
ORC 2219	PGBDYDD	4.3	Ovate
ORC 5120	PLtBDYGI	1.3	Ovate
ORC 5220N	PGTDYIbI	3.0	Ovate
ORC 5020	P+WLt+GTSYYI	2.3	Ovate
ORC 6218N	PGBDYDD	3.0	Ovate

UNIFORM TEST I, 2022

REGIONAL SUMMARY

No. of Tests Strain	Yield	Rank	Maturity	Lodging	Plant Height	Seed Size	Seed Quality	<u>Composition</u>	
	14 bu/a	14 No.	11 Date	9 Score	10 In.	12 g/100	12 Score	Protein 13 %	Oil 13 %
MN1511CN (SCN) (I)	58.4	16	9/15	1.1	30	15.3	1.6	34.2	18.8
ND Dickey (0)	47.3	25	-3.0	1.0	26	17.4	1.5	34.8	18.4
U11-917032 (SCN) (L)	59.1	15	7.7	1.3	28	16.0	1.5	33.2	19.7
E15338	63.0	7	4.6	1.3	31	16.9	1.3	33.8	18.8
A16806-76	63.5	6	10.2	1.1	30	15.1	1.2	37.1	17.7
E20078	65.8	2	7.8	1.3	35	16.8	1.3	33.8	19.1
LD18-4490	65.9	1	5.5	1.1	28	15.0	1.4	32.9	19.5
LD19-5163	61.1	12	5.7	1.0	30	14.9	1.3	34.9	18.6
M07-297007HOLL-4	55.7	17	5.7	1.3	32	15.5	1.2	38.2	18.0
M13-262053	61.3	11	8.0	1.2	32	15.6	1.4	33.3	19.1
M14-151094	59.7	14	7.1	1.1	28	17.1	1.5	35.5	18.9
M14-152074	62.2	9	8.3	1.1	28	15.5	1.5	33.8	19.3
M16-107018	52.1	21	1.1	1.1	28	17.1	1.5	35.2	17.3
M16-175100	54.9	19	5.5	1.1	30	18.0	1.3	35.7	18.5
M16-211035	45.0	26	-0.3	1.1	28	16.3	1.5	36.2	18.6
M16-211100	49.0	24	0.7	1.1	26	16.5	1.7	35.7	18.9
M16-272011	63.7	5	5.3	1.0	26	15.2	1.3	32.0	20.1
M16-272016	62.7	8	5.1	1.0	27	15.8	1.4	32.5	19.9
M16-272047	61.1	13	4.6	1.1	27	15.6	1.5	32.0	20.0
M16-456044	64.9	3	5.7	1.0	27	15.6	1.5	32.6	19.9
M16-456119	64.8	4	6.8	1.0	27	15.8	1.3	32.4	19.7
OAC 19-57C	50.7	22	4.3	1.2	28	18.7	1.4	35.0	19.1
OAC 19-91C	55.0	18	2.7	1.1	31	19.6	1.3	34.6	18.9
ORC 2219	30.9	27	0.2	1.3	22	18.2	1.7	36.7	17.5
ORC 5120	53.6	20	5.4	1.3	33	17.9	1.4	34.9	18.5
ORC 5220N	61.4	10	6.5	1.1	33	15.9	1.1	34.2	18.8
ORC 5020	25.5	28	5.9	1.4	26	19.8	1.8	36.0	18.4
ORC 6218N	49.2	23	2.9	1.0	26	19.6	1.6	35.6	17.8
Mean	56.0			1.1	28.7	16.7	1.4	34.5	18.9
C.V. (%)	14.6								
L.S.D. (5%)	3.4								

115.0 Days After Planting

UNIFORM TEST I, 2022**2021-2022 2-YEAR MEAN**

No. of Tests Strain	Yield 29 bu/a	Rank 29 No.	Maturity 23 Date	Lodging 21 Score	Plant Height 22 In.	Seed Size 26 g/100	Seed Quality 24 Score	<u>Composition</u>	
								Protein 26 %	Oil 26 %
ND Dickey (0)	50.4	6	9/9	1.3	28	17.4	1.4	34.9	18.6
U11-917032 (SCN) (L)	63.3	2	9.8	1.6	30	16.2	1.4	33.2	19.9
E15338	64.5	1	8.0	1.6	33	16.9	1.4	33.6	19.1
M07-297007HOLL-4	55.8	5	8.3	1.6	34	15.6	1.3	38.1	18.2
M14-151094	61.9	4	9.7	1.3	30	17.2	1.5	35.5	19.0
M14-152074	63.0	3	10.8	1.4	28	15.5	1.5	34.1	19.3

112.0 Days After Planting

2020-2022 3-YEAR MEAN

No. of Tests Strain	39	39	33	31	32	36	34	36	36
ND Dickey (0)	50.1	4	9/10	1.2	29	17.2	1.4	34.9	18.6
U11-917032 (SCN) (L)	61.0	2	9.1	1.7	31	15.9	1.4	33.2	19.8
E15338	61.8	1	7.7	1.7	33	16.4	1.3	33.7	18.9
M07-297007HOLL-4	55.1	3	7.6	1.5	35	15.1	1.3	37.8	18.3

111.3 Days After Planting

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UNIFORM TEST I, 2022

YIELD (bu/a)

Strain	Mean 14 Tests	Ames IA	Wanatah IN	West Lafayette IN	East Lansing MI	Saginaw MI	Becker MN	Danvers MN
MN1511CN (SCN) (I)	58.4	57.5	66.0	41.7	35.2	58.8	77.4	60.6
ND Dickey (0)	47.3	56.5	58.2	41.6	22.4	36.6	50.9	44.8
U11-917032 (SCN) (L)	59.1	71.6	68.4	56.2	39.3	43.4	67.0	56.3
E15338	63.0	72.9	70.3	54.0	40.3	60.8	75.4	62.5
A16806-76	63.5	77.3	69.5	59.4	42.4	57.1	76.1	57.1
E20078	65.8	70.0	70.1	62.5	44.9	56.4	96.2	68.7
LD18-4490	65.9	79.0	69.4	57.3	39.6	60.4	82.2	63.7
LD19-5163	61.1	72.8	70.3	51.1	46.6	51.9	58.0	58.6
M07-297007HOLL-4	55.7	62.2	62.5	44.6	36.5	54.0	69.7	53.1
M13-262053	61.3	80.5	68.2	57.6	49.9	52.1	71.7	53.5
M14-151094	59.7	75.0	65.5	49.2	37.0	50.3	68.3	60.4
M14-152074	62.2	68.7	65.4	51.8	39.8	52.7	77.4	55.6
M16-107018	52.1	59.6	66.2	35.6	32.6	49.0	44.9	49.9
M16-175100	54.9	74.4	59.9	45.5	33.2	49.3	56.6	44.4
M16-211035	45.0	48.5	56.7	34.4	24.8	42.6	61.3	55.4
M16-211100	49.0	52.9	60.1	32.9	27.7	38.7	54.3	53.5
M16-272011	63.7	73.3	72.8	56.2	32.5	57.0	82.5	63.0
M16-272016	62.7	72.1	73.3	52.8	38.7	60.0	75.7	65.1
M16-272047	61.1	74.7	74.3	47.5	36.2	57.6	72.6	59.5
M16-456044	64.9	79.8	71.3	60.7	42.4	52.2	81.5	61.7
M16-456119	64.8	76.6	74.4	59.1	33.5	59.1	78.1	61.9
OAC 19-57C	50.7	60.3	57.4	39.0	28.7	41.7	41.2	59.4
OAC 19-91C	55.0	54.5	63.3	47.1	31.1	54.8	57.4	58.2
ORC 2219	30.9	31.0	41.9	24.5	16.8	29.4	39.0	44.2
ORC 5120	53.6	65.7	63.3	47.9	34.4	54.0	56.8	53.0
ORC 5220N	61.4	77.1	72.0	59.5	44.2	55.0	70.3	68.6
ORC 5020	25.5	22.5	35.0	29.4	20.0	28.0	44.6	
ORC 6218N	49.2	51.3	66.6	27.0	34.6	52.3	56.3	54.4
Location Mean		64.9	64.7	47.4	35.2	50.5	65.8	57.3
C.V. (%)		8.9	6.0	9.4	11.8	5.8	13.3	9.7
L.S.D. (5%)		9.5	8.0	9.2	7.1	6.0	14.6	9.1
Row Sp. (In.)		30	30	30	15	15	30	30
Rows/Plot		4	4	4	6	6	4	4
Reps		3	2	2	2	2	3	3

UNIFORM TEST I, 2022

YIELD (bu/a)

Strain	Morris MN*	Cotes- field NE	Mead NE	Phillips NE	Palmyra ONT	St. Pauls ONT	Wood- stock ONT	Saint Hyacinthe QUE
MN1511CN (SCN) (I)	48.3	73.5	69.5	51.5	70.3	47.6	37.7	70.3
ND Dickey (0)	29.3	67.9	47.9	49.6	68.9	35.3	21.1	60.3
U11-917032 (SCN) (L)	39.0	88.5	74.1	57.9	64.7	43.1	30.8	65.7
E15338	43.5	83.7	68.6	56.6	81.2	47.4	43.4	64.4
A16806-76	40.9	79.5	82.8	60.3	76.9	46.9	37.7	65.9
E20078	43.1	69.7	73.2	63.2	75.2	58.4	42.2	71.0
LD18-4490	46.6	85.3	72.7	65.3	86.2	48.6	38.4	73.9
LD19-5163	35.8	92.1	60.7	61.7	81.0	58.5	21.2	70.7
M07-297007HOLL-4	48.8	75.7	60.2	56.5	70.6	40.3	30.8	62.7
M13-262053	30.5	76.6	72.6	49.9	77.5	47.9	34	66.8
M14-151094	33.2	78.7	61.1	60.3	82.0	44.9	38.3	64.3
M14-152074	41.8	81.2	73.5	56.9	86.8	50.7	40.3	69.7
M16-107018	32.3	70.9	70.0	41.2	71.6	40.6	31.5	66.0
M16-175100	24.4	89.2	66.3	52.5	66.3	43.9	25.7	61.5
M16-211035	28.5	51.4	50.4	36.0	57.6	30.9	27.7	52.9
M16-211100	35.7	68.4	56.9	51.6	58.7	36.3	36.1	58.3
M16-272011	38.8	84.6	71.5	55.3	89.1	47.9	40.4	66.2
M16-272016	38.0	82.7	70.9	59.6	77.8	46.5	34.9	67.6
M16-272047	45.0	82.2	59.4	54.5	79.3	54.7	34.0	68.5
M16-456044	44.7	91.0	71.6	51.8	88.6	45.2	39.9	70.4
M16-456119	53.1	88.2	75.4	57.4	89.1	47.2	36.0	71.6
OAC 19-57C	23.1	66.6	64.6	39.5	78.0	40.1	26.2	67.3
OAC 19-91C	33.6	73.0	54.0	48.8	78.1	43.0	34.9	72.3
ORC 2219	18.7	28.2	34.3	18.7	39.0	25.9	24.0	35.0
ORC 5120	39.6	66.5	54.4	37.2	77.2	47.0	36.7	55.9
ORC 5220N	42.8	72.7	75.0	46.8	73.9	43.9	43.5	57.5
ORC 5020		27.3	33.5	18.4	24.4	17.4	13.4	17.9
ORC 6218N	43.9	47.9	57.8	27.3	75.6	39.5	36.2	62.6
Location Mean	37.9	73.0	63.7	49.5	73.1	43.6	33.5	62.8
C.V. (%)	17.0	7.9	11.7	9.0	8.0	12.0	10.8	7.6
L.S.D. (5%)	10.7	14.5	18.8	11.8	12.0	10.7	5.9	7.8
Row Sp. (In.)	30	30	30	30	17	13	13	14
Rows/Plot	4	4	4	4	5	4	4	4
Reps	3	2	2	2	2	2	3	3

* Data not included in mean.

UNIFORM TEST I, 2022

YIELD RANK

Strain	Yield Rank	Ames IA	Wanatah IN	West Lafayette IN	East Lansing MI	Saginaw MI	Becker MN	Danvers MN
MN1511CN (SCN) (I)	16	21	16	20	15	5	7	9
ND Dickey (0)	25	22	24	21	26	26	24	25
U11-917032 (SCN) (L)	15	14	12	8	10	22	16	16
E15338	7	11	7	10	7	1	10	6
A16806-76	6	4	10	4	5	7	8	15
E20078	2	15	9	1	3	9	1	1
LD18-4490	1	3	11	7	9	2	3	4
LD19-5163	12	12	7	13	2	18	18	13
M07-297007HOLL-4	17	18	21	19	13	13	14	22
M13-262053	11	1	13	6	1	17	12	20
M14-151094	14	7	17	14	12	19	15	10
M14-152074	9	16	18	12	8	14	6	17
M16-107018	21	20	15	23	20	21	25	24
M16-175100	19	9	23	18	19	20	21	26
M16-211035	26	26	26	24	25	23	17	18
M16-211100	24	24	22	25	24	25	23	21
M16-272011	5	10	4	8	21	8	2	5
M16-272016	8	13	3	11	11	3	9	3
M16-272047	13	8	2	16	14	6	11	11
M16-456044	3	2	6	2	6	16	4	8
M16-456119	4	6	1	5	18	4	5	7
OAC 19-57C	22	19	25	22	23	24	27	12
OAC 19-91C	18	23	19	17	22	11	19	14
ORC 2219	27	27	27	28	28	27	28	27
ORC 5120	20	17	19	15	17	12	20	23
ORC 5220N	10	5	5	3	4	10	13	2
ORC 5020	28	28	28	26	27	28	26	28
ORC 6218N	23	25	14	27	16	15	22	19

UNIFORM TEST I, 2022

YIELD RANK

Strain	Morris MN	Cotes- field NE	Mead NE	Phillips NE	Palmyra ONT	St. Pauls ONT	Wood- stock ONT	Saint Hyacinthe QUE
MN1511CN (SCN) (I)	3	16	13	17	21	8	9	7
ND Dickey (0)	23	22	26	19	22	25	27	22
U11-917032 (SCN) (L)	14	4	4	7	24	18	20	16
E15338	8	8	14	10	7	9	2	17
A16806-76	12	12	1	5	15	12	9	15
E20078	9	20	6	2	17	2	3	4
LD18-4490	4	6	7	1	5	5	7	1
LD19-5163	17	1	18	3	8	1	26	5
M07-297007HOLL-4	2	15	19	11	20	21	20	19
M13-262053	22	14	8	18	13	6	17	12
M14-151094	20	13	17	4	6	15	8	18
M14-152074	11	11	5	9	4	4	5	8
M16-107018	21	19	12	22	19	20	19	14
M16-175100	25	3	15	14	23	16	24	21
M16-211035	24	25	25	25	26	26	22	26
M16-211100	18	21	22	16	25	24	13	23
M16-272011	15	7	10	12	1	6	4	13
M16-272016	16	9	11	6	12	13	15	10
M16-272047	5	10	20	13	9	3	17	9
M16-456044	6	2	9	15	3	14	6	6
M16-456119	1	5	2	8	1	10	14	3
OAC 19-57C	26	23	16	23	11	22	23	11
OAC 19-91C	19	17	24	20	10	19	15	2
ORC 2219	27	27	27	27	27	27	25	27
ORC 5120	13	24	23	24	14	11	11	25
ORC 5220N	10	18	3	21	18	16	1	24
ORC 5020	28	28	28	28	28	28	28	28
ORC 6218N	7	26	21	26	16	23	12	20

UNIFORM TEST I, 2022

MATURITY (date)

Strain	Mean 11 Tests	Ames IA	Wanatah IN	West Lafayette IN	East Lansing MI	Saginaw MI	Becker MN	Danvers MN
MN1511CN (SCN) (I)	9/15	9/16	9/4	9/5	9/8	9/11		9/27
ND Dickey (0)	-3	0	-4	-3	-5	-3		-1
U11-917032 (SCN) (L)	8	13	7	8	6	2		6
E15338	5	10	4	4	4	0		7
A16806-76	10	13	13	11	12	12		9
E20078	8	12	7	6	7	5		8
LD18-4490	5	10	5	4	5	3		3
LD19-5163	6	7	6	3	5	4		8
M07-297007HOLL-4	6	9	6	5	6	5		7
M13-262053	8	12	9	7	11	6		8
M14-151094	7	10	8	8	9	6		7
M14-152074	8	13	9	7	8	5		9
M16-107018	1	3	-1	1	-1	2		8
M16-175100	6	6	5	5	8	4		6
M16-211035	-0	2	1	-2	-1	3		-2
M16-211100	1	0	0	-1	-1	2		0
M16-272011	5	9	6	3	6	3		7
M16-272016	5	9	6	4	5	3		3
M16-272047	5	8	6	3	5	3		0
M16-456044	6	9	6	7	4	2		6
M16-456119	7	11	8	5	7	3		7
OAC 19-57C	4	6	4	7	3	3		5
OAC 19-91C	3	1	1	2	6	1		6
ORC 2219	0	0	2	-3	0	-4		7
ORC 5120	5	9	4	3	2	2		8
ORC 5220N	7	10	9	5	6	5		3
ORC 5020	6	0	12	6	8	7		
ORC 6218N	3	1	2	7	2	2		8
Date Planted	5/23	5/23	5/17	5/12	5/14	5/10		6/3
Days to Mature	115	116	110	116	117	124		116

UNIFORM TEST I, 2022

MATURITY (date)

Strain	Morris MN	Cotes- field NE	Mead NE	Phillips NE	Palmyra ONT	St. Pauls ONT	Wood- stock ONT	Saint Hyacinthe QUE
MN1511CN (SCN) (I)			9/16	9/22	9/13	9/21	9/22	
ND Dickey (0)			-7	-3	-3	-3	-3	
U11-917032 (SCN) (L)			2	7	13	12	10	
E15338			1	4	4	5	8	
A16806-76			7	7	4	15	10	
E20078			3	6	10	12	10	
LD18-4490			1	5	6	11	9	
LD19-5163			-1	3	8	9	10	
M07-297007HOLL-4			-1	1	8	9	8	
M13-262053			3	3	8	12	10	
M14-151094			-1	5	10	8	9	
M14-152074			2	4	14	11	10	
M16-107018			-1	1	1	-2	0	
M16-175100			1	5	6	6	9	
M16-211035			-4	-2	0	1	0	
M16-211100			1	2	3	0	1	
M16-272011			2	0	8	8	8	
M16-272016			1	1	7	10	8	
M16-272047			-1	3	7	11	7	
M16-456044			3	1	7	10	8	
M16-456119			3	2	10	11	9	
OAC 19-57C			2	1	7	4	7	
OAC 19-91C			-1	1	0	7	7	
ORC 2219			-1	-2	1	3	-1	
ORC 5120			2	3	7	12	8	
ORC 5220N			1	4	12	8	9	
ORC 5020			5	1	12	2	7	
ORC 6218N			1	2	3	2	3	
Date Planted			6/3	5/31	5/25	5/20	6/2	
Days to Mature			105	114	111	124	112	

UNIFORM TEST I, 2022

LODGING (score)

Strain	Mean 9 Tests	Ames IA	Wanatah IN	West Lafayette IN	East Lansing MI	Saginaw MI	Becker MN	Danvers MN
MN1511CN (SCN) (I)	1.1	1.0	2.0	1.0	1.0	1.0		
ND Dickey (0)	1.0	1.0	1.0	1.0	1.0	1.0		
U11-917032 (SCN) (L)	1.3	1.0	2.0	1.5	1.5	1.5		
E15338	1.3	2.3	2.0	1.0	1.0	1.0		
A16806-76	1.1	1.0	1.5	1.0	1.0	1.5		
E20078	1.3	1.3	2.0	1.5	1.5	1.5		
LD18-4490	1.1	1.0	1.5	1.0	1.0	1.0		
LD19-5163	1.0	1.0	1.0	1.0	1.0	1.0		
M07-297007HOLL-4	1.3	1.0	2.0	1.5	2.0	1.0		
M13-262053	1.2	1.3	2.0	1.0	1.5	1.0		
M14-151094	1.1	1.0	1.5	1.0	1.0	1.0		
M14-152074	1.1	1.0	1.5	1.0	1.0	1.0		
M16-107018	1.1	1.0	1.5	1.0	1.0	1.0		
M16-175100	1.1	1.0	1.5	1.0	1.0	1.0		
M16-211035	1.1	1.0	2.0	1.0	1.0	1.0		
M16-211100	1.1	1.0	1.5	1.0	1.0	1.0		
M16-272011	1.0	1.0	1.0	1.0	1.0	1.0		
M16-272016	1.0	1.0	1.0	1.0	1.0	1.0		
M16-272047	1.1	1.0	1.0	1.0	1.0	1.0		
M16-456044	1.0	1.0	1.0	1.0	1.0	1.0		
M16-456119	1.0	1.0	1.0	1.0	1.0	1.0		
OAC 19-57C	1.2	1.3	2.0	1.0	1.0	1.0		
OAC 19-91C	1.1	1.0	1.5	1.0	1.0	1.0		
ORC 2219	1.3	1.0	2.0	1.0	2.0	2.0		
ORC 5120	1.3	1.0	2.0	1.5	1.0	1.0		
ORC 5220N	1.1	1.3	1.5	1.0	1.0	1.0		
ORC 5020	1.4	1.0	1.5	2.0	2.0	2.5		
ORC 6218N	1.0	1.0	1.0	1.0	1.0	1.0		

UNIFORM TEST I, 2022

LODGING (score)

Strain	Morris MN	Cotes- field NE	Mead NE	Phillips NE	Palmyra ONT	St. Pauls ONT	Wood- stock ONT	Saint Hyacinthe QUE
MN1511CN (SCN) (I)			1.0		1.0	1.0	1.0	
ND Dickey (0)			1.0		1.0	1.0	1.0	
U11-917032 (SCN) (L)			1.0		1.0	1.0	1.0	
E15338			1.0		1.0	1.0	1.0	
A16806-76			1.0		1.0	1.0	1.0	
E20078			1.0		1.0	1.0	1.0	
LD18-4490			1.0		1.0	1.0	1.0	
LD19-5163			1.0		1.0	1.0	1.0	
M07-297007HOLL-4			1.0		1.0	1.0	1.0	
M13-262053			1.0		1.0	1.0	1.0	
M14-151094			1.0		1.0	1.0	1.0	
M14-152074			1.5		1.0	1.0	1.0	
M16-107018			1.0		1.0	1.0	1.0	
M16-175100			1.0		1.0	1.0	1.0	
M16-211035			1.0		1.0	1.0	1.0	
M16-211100			1.0		1.0	1.0	1.0	
M16-272011			1.0		1.0	1.0	1.0	
M16-272016			1.0		1.0	1.0	1.0	
M16-272047			1.5		1.0	1.0	1.0	
M16-456044			1.0		1.0	1.0	1.0	
M16-456119			1.0		1.0	1.0	1.0	
OAC 19-57C			1.5		1.0	1.0	1.0	
OAC 19-91C			1.0		1.0	1.0	1.0	
ORC 2219			1.0		1.0	1.0	1.0	
ORC 5120			2.0		1.0	1.0	1.0	
ORC 5220N			1.0		1.0	1.0	1.0	
ORC 5020			1.0		1.0	1.0	1.0	
ORC 6218N			1.0		1.0	1.0	1.0	

UNIFORM TEST I, 2022

PLANT HEIGHT (inches)

Strain	Mean 10 Tests	Ames IA	Wanatah IN	West Lafayette IN	East Lansing MI	Saginaw MI	Becker MN	Danvers MN
MN1511CN (SCN) (I)	30	28	37	29	17	29		
ND Dickey (0)	26	26	36	27	18	23		
U11-917032 (SCN) (L)	28	28	35	28	22	26		
E15338	31	32	35	29	27	29		
A16806-76	30	30	39	30	24	31		
E20078	35	33	45	34	26	37		
LD18-4490	28	28	35	26	23	23		
LD19-5163	30	29	39	30	26	31		
M07-297007HOLL-4	32	31	40	30	27	32		
M13-262053	32	34	39	30	30	30		
M14-151094	28	25	32	28	29	25		
M14-152074	28	26	32	28	24	27		
M16-107018	28	28	39	27	21	25		
M16-175100	30	32	39	29	22	27		
M16-211035	28	28	40	27	19	24		
M16-211100	26	23	32	24	22	24		
M16-272011	26	25	31	27	20	25		
M16-272016	27	26	33	25	23	28		
M16-272047	27	25	32	26	22	24		
M16-456044	27	27	31	26	22	26		
M16-456119	27	26	32	27	20	27		
OAC 19-57C	28	26	36	27	19	22		
OAC 19-91C	31	30	38	30	20	31		
ORC 2219	22	18	28	12	16	18		
ORC 5120	33	32	40	30	29	34		
ORC 5220N	33	36	42	31	25	31		
ORC 5020	26	18	28	25	22	31		
ORC 6218N	26	20	31	19	19	27		

UNIFORM TEST I, 2022

PLANT HEIGHT (inches)

Strain	Morris MN	Cotes- field NE	Mead NE	Phillips NE	Palmyra ONT	St. Pauls ONT	Wood- stock ONT	Saint Hyacinthe QUE
MN1511CN (SCN) (I)			39		29	23	31	38
ND Dickey (0)			28		23	20	24	34
U11-917032 (SCN) (L)			32		26	24	27	36
E15338			35		31	25	30	39
A16806-76			30		31	23	26	39
E20078			38		33	26	35	46
LD18-4490			31		30	21	26	35
LD19-5163			32		29	28	23	38
M07-297007HOLL-4			36		30	25	30	44
M13-262053			34		30	23	27	40
M14-151094			30		31	22	27	37
M14-152074			29		29	24	25	34
M16-107018			30		27	21	28	36
M16-175100			35		30	24	25	37
M16-211035			34		26	21	26	36
M16-211100			31		24	20	26	37
M16-272011			26		29	21	26	33
M16-272016			31		26	24	26	33
M16-272047			25		28	25	25	34
M16-456044			28		29	22	25	33
M16-456119			30		28	24	27	34
OAC 19-57C			35		28	24	28	33
OAC 19-91C			32		31	30	31	41
ORC 2219			26		23	25	26	28
ORC 5120			30		31	31	31	39
ORC 5220N			42		30	26	31	37
ORC 5020			32		23	25	25	32
ORC 6218N			32		30	24	27	35

UNIFORM TEST I, 2022

SEED SIZE (g/100)

Strain	Mean 12 Tests	Ames IA	Wanatah IN	West Lafayette IN	East Lansing MI	Saginaw MI	Becker MN	Danvers MN
MN1511CN (SCN) (I)	15.3	14.7	16.5	15.3	13.5		16.8	15.1
ND Dickey (0)	17.4	16.7	18.5	18.1	15.5		20.1	16.2
U11-917032 (SCN) (L)	16.0	15.3	16.8	17.1	14.3		18.3	16.9
E15338	16.9	17.3	17.4	16.7	14.4		19.2	17.7
A16806-76	15.1	15.7	15.6	15.7	13.6		16.4	15.0
E20078	16.8	17.7	16.9	16.1	14.3		19.3	17.0
LD18-4490	15.0	15.3	15.2	16.4	13.0		16.5	14.8
LD19-5163	14.9	16.0	15.3	15.0	12.8		16.8	15.8
M07-297007HOLL-4	15.5	15.5	15.8	16.0	14.4		17.3	16.2
M13-262053	15.6	17.0	16.0	16.2	14.5		16.8	15.2
M14-151094	17.1	18.0	17.4	17.4	15.3		19.7	17.6
M14-152074	15.5	17.0	15.4	15.6	13.0		17.6	15.8
M16-107018	17.1	16.3	18.0	20.2	16.1		19.9	17.3
M16-175100	18.0	19.3	19.5	18.8	16.8		19.9	18.8
M16-211035	16.3	16.0	16.8	17.7	14.2		17.7	17.1
M16-211100	16.5	16.7	17.4	17.6	14.5		18.0	16.8
M16-272011	15.2	15.5	15.0	16.0	12.6		17.4	16.8
M16-272016	15.8	15.7	15.9	16.6	13.2		18.4	17.3
M16-272047	15.6	15.3	16.0	16.2	13.0		18.0	16.7
M16-456044	15.6	15.7	15.3	16.5	12.7		17.9	16.0
M16-456119	15.8	15.7	15.5	16.1	13.5		17.9	17.1
OAC 19-57C	18.7	19.8	18.7	17.9	17.3		19.4	20.1
OAC 19-91C	19.6	19.8	19.2	20.7	17.9		20.8	20.3
ORC 2219	18.2	17.7	20.0	19.6	15.4		20.6	16.5
ORC 5120	17.9	17.7	17.7	18.9	16.5		19.8	18.2
ORC 5220N	15.9	17.0	16.0	16.4	14.5		17.6	15.9
ORC 5020	19.8	19.5	22.7	21.1	19.3			19.0
ORC 6218N	19.6	19.0	19.8	23.2	16.2		19.9	20.2

UNIFORM TEST I, 2022

SEED SIZE (g/100)

Strain	Morris MN	Cotes- field NE	Mead NE	Phillips NE	Palmyra ONT	St. Pauls ONT	Wood- stock ONT	Saint Hyacinthe QUE
MN1511CN (SCN) (I)	12.5		15.6	16.7	15.4	18.4	13.1	
ND Dickey (0)	15.5		17.7	15.7	17.2	24.0	14.1	
U11-917032 (SCN) (L)	12.7		16.2	16.4	15.6	18.2	14.2	
E15338	14.4		17.3	16.7	16.4	19.9	15.0	
A16806-76	13.0		14.5	14.8	15.2	18.1	14.1	
E20078	14.6		16.0	16.3	16.0	21.5	15.7	
LD18-4490	13.2		14.5	15.0	15.8	17.5	13.1	
LD19-5163	12.8		14.8	15.4	15.1	17.5	11.4	
M07-297007HOLL-4	14.1		14.5	16.0	14.7	18.2	13.7	
M13-262053	12.6		15.7	15.6	14.7	19.0	13.9	
M14-151094	14.0		16.1	16.8	18.4	18.7	15.9	
M14-152074	13.1		14.2	16.3	16.5	18.1	13.2	
M16-107018	14.2		16.9	15.2	16.2	21.1	13.7	
M16-175100	13.1		17.5	17.5	18.3	21.1	16.0	
M16-211035	14.9		15.6	14.9	16.7	19.7	14.2	
M16-211100	14.5		16.5	15.7	16.8	19.8	14.0	
M16-272011	12.5		14.7	15.0	15.2	18.7	13.2	
M16-272016	12.6		15.0	15.4	16.1	19.2	14.7	
M16-272047	12.8		15.6	16.0	15.9	18.8	13.0	
M16-456044	12.9		15.3	15.4	15.6	20.1	13.7	
M16-456119	12.8		14.9	16.9	15.7	20.2	13.4	
OAC 19-57C	14.8		18.7	16.6	20.4	24.5	16.8	
OAC 19-91C	18.0		20.2	18.4	20.0	22.9	17.3	
ORC 2219	13.9		22.0	19.2	18.2	20.9	14.2	
ORC 5120	15.1		18.5	17.0	17.7	21.5	16.6	
ORC 5220N	13.1		15.8	15.4	14.8	18.9	15.3	
ORC 5020	16.3		22.9	15.8	19.6	23.9	17.4	
ORC 6218N	15.7		20.1	21.0	19.3	23.5	17.0	

UNIFORM TEST I, 2022

SEED QUALITY (score)

Strain	Mean 12 Tests	Ames IA	Wanatah IN	West Lafayette IN	East Lansing MI	Saginaw MI	Becker MN	Danvers MN
MN1511CN (SCN) (I)	1.6	2.0	1.0	2.0	3.0		2.0	1.0
ND Dickey (0)	1.5	2.7	1.0	1.0	3.5		1.0	1.0
U11-917032 (SCN) (L)	1.5	2.0	1.0	1.5	2.5		1.0	1.0
E15338	1.3	2.3	1.0	1.0	2.5		1.0	1.0
A16806-76	1.2	2.3	1.0	1.0	1.0		1.0	1.0
E20078	1.3	2.0	1.0	1.0	2.0		1.0	1.0
LD18-4490	1.4	2.0	1.0	1.0	3.0		1.0	1.0
LD19-5163	1.3	2.0	1.0	1.0	1.5		1.0	1.0
M07-297007HOLL-4	1.2	1.5	1.0	1.5	2.0		1.0	1.0
M13-262053	1.4	3.0	1.0	1.0	1.0		1.0	1.0
M14-151094	1.5	2.0	2.0	2.0	2.0		1.0	1.0
M14-152074	1.5	2.5	1.0	2.0	2.0		1.0	1.0
M16-107018	1.5	1.7	1.0	2.0	3.5		1.0	1.0
M16-175100	1.3	2.0	1.0	1.0	2.0		1.0	1.0
M16-211035	1.5	2.0	1.0	1.0	3.5		2.0	1.0
M16-211100	1.7	3.0	1.0	1.0	4.0		1.0	1.0
M16-272011	1.3	2.0	1.0	1.0	2.0		1.0	1.0
M16-272016	1.4	2.3	1.0	1.0	2.0		1.0	1.0
M16-272047	1.5	2.0	1.0	1.5	2.5		2.0	1.0
M16-456044	1.5	2.0	1.0	1.0	3.0		2.0	1.0
M16-456119	1.3	1.3	1.0	1.0	2.5		1.0	1.0
OAC 19-57C	1.4	2.0	1.0	1.0	3.0		1.0	1.0
OAC 19-91C	1.3	2.0	1.0	2.0	2.0		1.0	1.0
ORC 2219	1.7	1.7	1.0	2.0	4.0		1.0	2.0
ORC 5120	1.4	1.7	1.0	1.0	3.5		1.0	1.0
ORC 5220N	1.1	1.7	1.0	1.0	1.0		1.0	1.0
ORC 5020	1.8	2.0	2.0	1.5	3.0			2.0
ORC 6218N	1.6	2.0	1.0	3.0	4.5		1.0	1.0

UNIFORM TEST I, 2022

SEED QUALITY (score)

Strain	Morris MN	Cotes- field NE	Mead NE	Phillips NE	Palmyra ONT	St. Pauls ONT	Wood- stock ONT	Saint Hyacinthe QUE
MN1511CN (SCN) (I)	2.0		1.0	1.0	1.0	2.0	1.5	
ND Dickey (0)	1.0		1.0	1.0	1.0	2.0	1.5	
U11-917032 (SCN) (L)	1.0		1.0	1.0	1.0	2.5	2.0	
E15338	1.0		1.0	1.0	1.0	2.0	1.0	
A16806-76	1.0		1.0	1.0	1.0	1.5	1.0	
E20078	1.0		1.0	1.0	1.0	1.5	1.5	
LD18-4490	1.0		1.0	1.0	1.0	2.0	1.5	
LD19-5163	2.0		1.0	1.0	1.0	2.0	1.5	
M07-297007HOLL-4	1.0		1.0	1.0	1.0	1.0	1.0	
M13-262053	2.0		1.0	1.0	1.0	2.0	1.5	
M14-151094	2.0		1.0	1.0	1.0	1.5	1.0	
M14-152074	2.0		1.0	1.0	1.0	2.0	1.5	
M16-107018	1.0		1.0	1.0	1.0	2.5	1.5	
M16-175100	1.0		1.0	1.0	1.0	1.5	1.5	
M16-211035	1.0		1.0	1.0	1.0	2.0	1.5	
M16-211100	1.0		1.0	1.0	1.0	2.5	2.5	
M16-272011	1.0		1.0	1.0	1.0	2.5	1.5	
M16-272016	1.0		1.0	1.0	1.0	2.5	1.5	
M16-272047	1.0		1.0	1.0	1.0	2.0	1.5	
M16-456044	1.0		1.0	1.0	1.0	2.5	1.5	
M16-456119	1.0		1.0	1.0	1.0	2.5	1.5	
OAC 19-57C	1.0		1.0	1.0	1.0	2.5	1.5	
OAC 19-91C	1.0		1.0	1.0	1.0	2.0	1.0	
ORC 2219	2.0		1.0	1.0	1.0	2.0	1.5	
ORC 5120	1.0		1.0	1.0	1.0	2.5	1.5	
ORC 5220N	1.0		1.0	1.0	1.0	1.5	1.0	
ORC 5020	2.0		1.0	1.0	1.0	2.5	1.5	
ORC 6218N	1.0		1.0	1.0	1.0	2.0	1.0	

UNIFORM TEST I, 2022

PROTEIN (%)

Strain	Mean 13 Tests	Ames IA	Wanatah IN	West Lafayette IN	East Lansing MI	Saginaw MI	Becker MN	Danvers MN
MN1511CN (SCN) (I)	34.2	32.7	34.4	35.0	32.9		35.2	33.9
ND Dickey (0)	34.8	33.4	34.5	34.6	35.1		35.3	32.4
U11-917032 (SCN) (L)	33.2	33.2	34.5	32.6	31.4		35.1	32.4
E15338	33.8	34.1	33.5	32.7	31.8		35.2	33.1
A16806-76	37.1	38.6	37.0	37.0	35.7		37.6	36.3
E20078	33.8	33.7	34.0	32.8	31.2		35.4	32.7
LD18-4490	32.9	32.5	33.4	32.4	31.6		33.4	31.6
LD19-5163	34.9	34.6	35.2	32.8	33.0		36.9	33.8
M07-297007HOLL-4	38.2	37.6	37.6	38.7	36.8		40.9	37.7
M13-262053	33.3	33.0	33.7	32.4	31.8		35.5	33.1
M14-151094	35.5	35.2	36.5	35.2	34.0		37.3	35.0
M14-152074	33.8	33.7	34.2	32.5	31.6		35.7	33.0
M16-107018	35.2	33.4	34.8	36.2	33.4		41.8	34.0
M16-175100	35.7	35.7	36.2	34.9	34.7		36.1	34.5
M16-211035	36.2	35.3	36.7	37.0	34.7		36.3	35.6
M16-211100	35.7	35.2	36.0	36.2	34.3		37.5	33.5
M16-272011	32.0	31.2	32.4	31.0	30.2		33.1	32.6
M16-272016	32.5	31.6	32.9	32.3	30.5		33.5	32.9
M16-272047	32.0	30.4	32.0	32.1	31.4		33.5	32.9
M16-456044	32.6	31.2	32.4	31.1	30.3		33.6	38.8
M16-456119	32.4	31.8	32.4	30.7	31.1		35.0	33.0
OAC 19-57C	35.0	35.3	35.5	36.5	33.1		36.1	34.4
OAC 19-91C	34.6	33.2	34.8	33.6	32.2		35.5	34.9
ORC 2219	36.7	34.8	36.5	38.9	35.5		38.1	34.0
ORC 5120	34.9	34.5	35.8	33.5	33.7		35.2	33.9
ORC 5220N	34.2	34.9	34.6	35.0	31.2		34.6	33.5
ORC 5020	36.0	34.5	36.0	35.8	35.1			34.2
ORC 6218N	35.6	34.2	36.2	38.9	33.8		36.8	34.9

UNIFORM TEST I, 2022

PROTEIN (%)

Strain	Morris MN	Cotes- field NE	Mead NE	Phillips NE	Palmyra ONT*	St. Pauls ONT	Wood- stock ONT	Saint Hyacinthe QUE*
MN1511CN (SCN) (I)	32.9		33.2	34.6	34.4	35.7	34.6	34.8
ND Dickey (0)	35.5		33.7	34.6	35.2	36.7	36.7	34.9
U11-917032 (SCN) (L)	33.1		31.0	33.4	34.2	32.9	32.2	35.2
E15338	33.4		33.8	33.4	34.6	35.9	32.9	34.5
A16806-76	36.8		37.5	36.0	37.8	39.5	36.2	36.8
E20078	34.2		32.2	34.3	34.9	36.2	33.2	34.9
LD18-4490	32.8		32.6	31.8	33.9	33.5	34.0	34.0
LD19-5163	36.0		33.9	34.8	35.1	35.9	36.5	35.8
M07-297007HOLL-4	37.5		37.7	39.4	38.0	40.4	37.0	37.7
M13-262053	34.2		32.9	33.7	33.4	32.6	32.9	34.3
M14-151094	34.3		34.6	35.6	36.1	36.9	34.9	36.4
M14-152074	33.7		33.1	34.1	34.4	35.5	32.9	35.1
M16-107018	34.9		34.0	34.7	35.1	36.3	34.8	34.7
M16-175100	35.7		34.2	36.4	36.4	36.1	36.5	36.8
M16-211035	36.2		36.2	35.5	37.0	37.8	35.8	36.5
M16-211100	35.1		35.5	35.0	36.7	38.2	35.5	35.2
M16-272011	32.7		30.6	31.6	31.9	33.6	32.0	33.1
M16-272016	32.9		31.7	32.0	32.2	34.1	32.5	33.2
M16-272047	32.5		30.8	31.3	32.0	32.6	31.7	32.6
M16-456044	32.9		31.6	31.0	32.0	34.0	32.2	32.7
M16-456119	32.6		31.8	32.0	32.1	34.2	31.7	33.2
OAC 19-57C	35.1		33.3	33.7	36.0	36.7	35.1	34.9
OAC 19-91C	34.5		33.7	34.0	36.0	37.1	34.9	35.6
ORC 2219	35.1		38.3	38.2	36.8	37.9	36.5	36.7
ORC 5120	35.0		34.5	35.6	36.1	35.4	34.3	36.3
ORC 5220N	33.6		33.3	34.3	34.3	35.6	34.2	35.0
ORC 5020	34.2		36.7	36.2	37.9	38.5	35.7	36.8
ORC 6218N	33.9		35.3	35.7	36.3	37.0	34.5	35.2

* Data adjusted to 13% moisture.

UNIFORM TEST I, 2022

OIL (%)

Strain	Mean 13 Tests	Ames IA	Wanatah IN	West Lafayette IN	East Lansing MI	Saginaw MI	Becker MN	Danvers MN
MN1511CN (SCN) (I)	18.8	20.1	19.5	18.8	19.8		18.1	18.9
ND Dickey (0)	18.4	19.4	19.2	19.4	18.3		18.0	17.4
U11-917032 (SCN) (L)	19.7	19.9	19.6	20.8	20.7		18.6	19.8
E15338	18.8	18.7	19.9	20.0	20.2		17.8	19.1
A16806-76	17.7	17.6	18.6	17.9	18.7		17.3	17.9
E20078	19.1	19.3	19.9	20.6	19.7		18.5	19.7
LD18-4490	19.5	19.9	19.9	20.6	20.7		19.1	20.3
LD19-5163	18.6	18.9	19.1	20.3	19.8		17.7	19.0
M07-297007HOLL-4	18.0	18.6	18.8	18.2	19.0		16.7	17.9
M13-262053	19.1	19.1	20.0	19.9	20.1		18.3	19.2
M14-151094	18.9	19.2	19.5	19.8	20.3		17.9	18.9
M14-152074	19.3	18.7	20.0	20.7	20.7		18.3	19.5
M16-107018	17.3	18.8	19.0	18.0	19.6		7.9	18.3
M16-175100	18.5	18.5	18.9	19.5	19.4		17.8	19.0
M16-211035	18.6	19.3	19.1	18.7	19.6		18.2	18.6
M16-211100	18.9	19.2	19.3	19.1	20.0		17.8	20.1
M16-272011	20.1	20.5	21.0	21.1	21.5		19.8	19.9
M16-272016	19.9	20.2	20.8	21.1	21.3		19.5	19.5
M16-272047	20.0	20.5	21.0	21.1	21.2		19.2	19.4
M16-456044	19.9	20.4	21.0	21.2	21.3		19.1	17.8
M16-456119	19.7	20.1	20.7	21.2	21.1		18.7	19.2
OAC 19-57C	19.1	19.8	19.7	19.1	20.3		17.9	19.4
OAC 19-91C	18.9	20.3	20.0	20.4	18.6		18.2	18.8
ORC 2219	17.5	18.6	18.4	17.7	18.0		16.7	18.7
ORC 5120	18.5	18.8	19.1	19.8	19.5		18.1	19.1
ORC 5220N	18.8	18.5	19.5	19.3	20.8		18.4	18.7
ORC 5020	18.4	19.4	19.3	19.0	18.8			18.8
ORC 6218N	17.8	18.9	18.5	17.1	19.2		17.0	18.2

UNIFORM TEST I, 2022

OIL (%)

Strain	Morris MN	Cotes- field NE	Mead NE	Phillips NE	Palmyra ONT*	St. Pauls ONT	Wood- stock ONT	Saint Hyacinthe QUE*
MN1511CN (SCN) (I)	18.9		19.7	18.8	18.7	17.7	18.7	17.0
ND Dickey (0)	18.3		19.8	18.7	18.1	17.4	17.9	16.8
U11-917032 (SCN) (L)	19.7		21.4	20.3	19.5	19.6	19.9	16.5
E15338	18.8		19.8	19.2	18.2	17.7	19.1	16.2
A16806-76	17.5		18.1	18.4	17.3	16.5	18.3	15.8
E20078	18.9		20.5	19.2	18.1	18.1	19.5	16.2
LD18-4490	19.2		20.1	20.0	18.8	19.1	19.3	16.9
LD19-5163	18.3		20.1	18.9	18.0	18.1	17.5	16.2
M07-297007HOLL-4	18.8		19.4	17.9	17.7	16.6	18.7	15.7
M13-262053	19.0		19.8	18.9	18.9	18.6	19.3	16.7
M14-151094	19.0		19.9	19.1	18.7	17.8	18.7	16.6
M14-152074	19.6		20.3	19.6	18.9	18.5	19.2	16.5
M16-107018	18.0		19.0	18.2	17.8	17.1	17.6	16.0
M16-175100	18.4		19.9	18.5	18.5	18.0	18.0	15.7
M16-211035	18.7		19.4	19.0	18.4	17.6	18.7	16.8
M16-211100	19.1		19.5	19.3	18.8	17.6	18.9	17.6
M16-272011	19.9		21.2	20.6	19.8	19.2	19.8	17.1
M16-272016	19.6		20.8	20.3	19.7	18.9	19.8	17.1
M16-272047	19.8		21.2	20.2	20.2	19.2	20.2	17.2
M16-456044	20.4		21.1	20.7	20.2	19.1	19.8	17.1
M16-456119	19.6		20.9	20.1	19.4	18.7	20.0	16.9
OAC 19-57C	18.4		20.6	19.8	18.3	18.0	19.2	17.3
OAC 19-91C	19.0		20.2	19.3	18.2	17.2	19.0	16.4
ORC 2219	18.0		17.7	17.2	17.1	16.8	17.3	15.7
ORC 5120	18.7		19.5	18.1	17.8	17.9	18.5	15.9
ORC 5220N	19.0		20.2	19.2	18.3	17.9	18.5	16.1
ORC 5020	19.0		18.4	18.9	17.9	17.1	18.1	16.1
ORC 6218N	18.2		18.4	17.7	17.1	17.0	18.5	16.0

* Data adjusted to 13% moisture.

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**Northern Regional Uniform Test
Uniform Test II, 2022**

Ent.	Strain	Parentage		Seed Source	Previous Testing	Gen. Comp.	Unique Traits
		Female	Male				
1	IA2102 (II)	A04-545045	AgriPro 98180-A01-0613	Cai	10	F4	
2	LD02-4485	M90-184111	IA3010	Diers	11	F5	SCN
3	U11-917032 (E)	LD02-4485	U03-100612	Graef	4	F6	SCN,HR,MR,IDC
4	U14-910097 (L)	U09-105007	LD07-3419	Graef	5	F5	Rps,SCN,(HR,HR)
5	A14004-58	IA1026	LD10-5213a	Singh	1		
6	A14004-126	IA1026	LD10-5213a	Singh	1		
7	A14011-67	IA1026	IA2102	Singh	21PTI-05	F5	
8	A14011-77	IA1026	IA2102	Singh	1		
9	A14011-116	IA1026	IA2102	Singh	1		
10	A15103-135	LD10-10226/IA2102RA12	U11-920017	Singh	21PTIIA-05	F5	
11	A15113-63	U11-610107/LD10-5213a	LD10-10226	Singh	21PTIIA-08	F5	
12	A15115-60	U11-610109/LD10-5213a	LD10-10226	Singh	21PTI-07	F5	
13	A15131-10	U11-932025/LD10-5213a	U11-920017	Singh	21PTIIA-15	F5	
14	A15404-70	LD10-5213a/LG11-4330	U11-614119	Singh	21PTIIB-17	F5	
15	CR17-3780	F3:5 U09-215057	LG09-7161	Rainey	1	F5	
16	CR184561	U09-133021	AR11-214001	Rainey	21PTIIB-05	F6	
17	CR184590	U09-133021	AR11-214001	Rainey	21PTIIB-06	F6	
18	CR184594	U09-133021	AR11-214001	Rainey	21PTIIB-07	F6	
19	E15345	IA2102	LD02-4485	Wang	4	F5	SCN
20	E17040	E07051	IA2102	Wang	2	F5	SCN, Rps1
21	E19288T	E16901	E11128T	Wang	21PTIIA-22	F5	SCN, rps
22	E19314T	E16902	E11128T	Wang	21PTI-14	F5	SCN, rps
23	E19413	E13390	E13100	Wang	21PTIIA-24	F5	SCN, rps
24	HM17-12161	M11-W117	M09-W153	McHale	1	F4	Rps
25	LD17-1902	U11-614119	LD10-10198	Diers	1	F5	SCN
26	LD17-2558	U11-614119	LD09-30224	Diers	1	F5	SCN
27	LD17-2903	U11-614119	LD09-30224	Diers	1	F5	SCN
28	LD17-3855	LD10-10198	LG11-6210	Diers	1	F5	SCN
29	LD18-0986	LD12-3866	U11-911079	Diers	21PTIIB-10	F5	SCN
30	LD18-4231	U11-932025	LD10-10198	Diers	21SCNPTIIA	F5	SCN
31	LD18-4236	U11-932025	LD10-10198	Diers	21SCNPTIIA	F5	SCN
32	LD18-5062	LD10-5213a	U11-911079	Diers	21SCNPTIIA	F5	SCN
33	LD18-7488	U11-614119	LD12-3866	Diers	21PTIIB-12	F5	
34	ORC 8518N	OAC Prosper	OX-111	Eskandari	21PTIIA-31	F5	SCN
35	U17-322103	U14-919098	U13-131132	Graef	1	F5	
36	U17-333174	U14-927142	U13-228304	Graef	1	F5	
37	U18-216019	U13-226415	U13-213431	Graef	21PTIIB-18	F5	
38	U18-217010	U13-226415	U13-213431	Graef	21PTIIB-20	F5	
39	U18-227104	U13-227417	U13-213431	Graef	21PTIIB-23	F5	
40	U19-923091	U14-910097	LD11-2170	Graef	21SCNPTIIB	F5	Rps, SCN

UNIFORM TEST II, 2022
DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code
IA2102 (II)	WGTDYYI
LD02-4485 (SCN)	PGBDYBfi
U11-917032 (SCN) (E)	PTBDYBI
U14-910097 (SCN) (L)	PGTDYBfi
A14004-58	PGBDYYI
A14004-126	PGBDYYI
A14011-67	PGTSYYI
A14011-77	PGTSYYI
A14011-116	PGTSYYI
A15103-135	PGB+TDYGI
A15113-63	PGBDYHI
A15115-60	PGTDYYI
A15131-10	P+WLtBDYBI
A15404-70	PLtBDYHI
CR17-3780	PGBSYIbi
CR184561	WGTDYYI
CR184590	PTBDYBI
CR184594	PLtBDYHI
E15345	WGBDYYI
E17040	WGBDYYI
E19288T	PGTDYYI
E19314T	PGTDYYI
E19413	PGTDYHI
HM17-12161	WLtBSYGI
LD17-1902	PLtBDYGI
LD17-2558	PGBSYIbi
LD17-2903	P+WLtBSYBI
LD17-3855	PLtBDYYI
LD18-0986	PGBDYIbi
LD18-4231	P+WLtBDYGI
LD18-4236	P+WLtBDYHI
LD18-5062	PLtBDYBI
LD18-7488	PLtBDYBfi
ORC 8518N	PGB+TDYYD
U17-322103	PGBDYIbi
U17-333174	PTTDYBI
U18-216019	WLtBSYBI
U18-217010	P+WLtBDYBI
U18-227104	P+WGBDYYI
U19-923091	PGB+TDYBfi

UNIFORM TEST II, 2022

REGIONAL SUMMARY

No. of Tests Strain	Yield 12 bu/a	Rank 12 No.	Maturity 9 Date	Lodging 8 Score	Plant Height 8 In.	Seed Size 10 g/100	Seed Quality 10 Score	<u>Composition</u>	
								Protein 10 %	Oil 10 %
IA2102 (II)	70.0	21	9/21	1.8	35	16.8	1.6	33.8	19.1
LD02-4485 (SCN)	70.6	18	0.6	1.7	35	16.1	1.4	31.9	19.7
U11-917032 (SCN) (E)	64.0	36	-4.3	1.7	31	16.5	1.5	32.2	20.7
U14-910097 (SCN) (L)	75.7	2	6.1	1.9	34	16.1	1.7	32.5	20.4
A14004-58	73.2	7	4.6	1.3	33	15.8	1.6	33.0	19.7
A14004-126	71.7	14	2.6	1.1	32	15.8	1.6	33.6	19.6
A14011-67	71.8	12	-2.8	1.4	33	16.2	1.6	34.2	19.3
A14011-77	70.6	19	-2.3	1.2	32	17.1	1.6	35.0	18.7
A14011-116	71.8	13	-1.3	1.2	33	18.9	1.8	35.3	18.5
A15103-135	66.2	32	6.6	1.6	37	18.3	2.1	32.6	19.3
A15113-63	72.1	10	1.3	1.3	35	17.4	1.7	33.6	19.1
A15115-60	65.9	34	-4.1	1.3	33	18.4	1.6	32.8	20.2
A15131-10	74.2	4	2.2	1.5	36	17.6	1.8	33.5	19.3
A15404-70	72.8	8	3.5	1.0	34	17.0	1.9	33.1	19.2
CR17-3780	64.2	35	1.7	1.1	34	15.8	1.4	32.8	19.8
CR184561	67.9	27	1.0	1.9	35	17.0	1.7	33.9	19.1
CR184590	66.1	33	4.4	1.4	39	15.6	1.5	33.9	19.5
CR184594	68.6	26	4.9	1.3	35	17.2	1.7	32.6	20.0
E15345	72.1	11	5.9	2.0	35	16.2	1.7	32.7	19.5
E17040	71.4	17	2.8	1.9	37	16.6	1.7	33.9	18.7
E19288T	60.5	38	-1.3	1.3	34	18.2	1.7	35.9	18.0
E19314T	59.9	40	-3.8	1.3	30	19.5	1.5	35.3	18.8
E19413	67.6	29	2.2	2.0	37	18.7	1.6	32.2	20.2
HM17-12161	61.3	37	5.1	1.5	36	17.0	1.7	32.7	19.1
LD17-1902	73.4	6	3.1	1.4	35	16.4	1.9	33.4	19.6
LD17-2558	74.4	3	2.1	1.5	35	17.2	1.8	32.7	19.7
LD17-2903	69.5	23	-3.2	1.1	33	17.0	1.4	32.9	20.4
LD17-3855	70.5	20	1.6	1.3	35	14.9	1.6	33.6	18.8
LD18-0986	71.4	15	3.3	1.3	35	16.3	1.5	34.3	19.2
LD18-4231	72.6	9	0.6	1.6	34	15.4	1.6	33.8	18.8
LD18-4236	71.4	16	-0.6	1.6	34	15.9	1.8	33.5	19.5
LD18-5062	73.5	5	1.0	1.3	35	14.9	1.4	33.1	18.8
LD18-7488	67.0	31	-0.9	1.3	35	16.2	1.7	34.0	19.9
ORC 8518N	60.1	39	-3.2	1.4	30	19.6	1.6	37.0	17.9
U17-322103	67.9	28	5.0	1.1	35	15.7	1.5	32.3	20.0
U17-333174	69.2	25	4.4	1.1	35	14.0	1.6	32.4	20.2
U18-216019	69.7	22	4.8	1.1	33	15.6	1.7	30.7	21.2
U18-217010	67.1	30	3.2	1.2	36	16.9	1.6	31.7	20.6
U18-227104	69.3	24	5.3	1.1	35	15.3	1.6	32.1	20.5
U19-923091	75.9	1	5.2	1.2	34	15.3	1.6	33.1	20.3
Mean	69.3			1.4	34.3	16.7	1.6	33.3	19.5
C.V. (%)	9.3								
L.S.D. (5%)	2.9								

124.1 Days After Planting

UNIFORM TEST II, 2022

2021-2022 2-YEAR MEAN (With 2021 UTIIA Data)

No. of Tests Strain	Yield 25 bu/a	Rank 25 No.	Maturity 19 Date	Lodging 16 Score	Plant Height 16 In.	Seed Size 21 g/100	Seed Quality 20 Score	Composition	
								Protein 20 %	Oil 20 %
IA2102 (II)	68.6	8	9/17	1.8	33	16.6	1.8	34.2	19.3
LD02-4485 (SCN)	69.9	5	1.4	1.7	33	15.4	1.6	32.3	19.9
U11-917032 (SCN) (E)	62.4	11	-4.5	1.9	30	16.0	1.7	32.9	20.7
U14-910097 (SCN) (L)	76.9	1	6.4	1.8	32	15.6	1.6	32.9	20.5
A14004-126	70.5	4	2.4	1.2	30	15.4	1.6	33.6	19.9
A14011-77	69.4	7	-1.3	1.3	31	16.8	1.8	35.4	18.9
A14011-116	69.5	6	-0.6	1.2	31	18.4	1.9	35.6	18.7
CR17-3780	65.1	10	2.0	1.2	32	15.5	1.5	33.4	19.8
E17040	71.5	3	3.2	1.9	35	16.4	1.9	34.4	18.8
LD17-2903	67.5	9	-3.0	1.3	31	16.5	1.3	33.2	20.6
LD17-3855	71.6	2	2.5	1.3	35	14.8	1.6	34.0	18.9

122.2 Days After Planting

2020-2022 3-YEAR MEAN (With 2021 UTIIA Data)

No. of Tests Strain	34	34	28	24	24	30	29	29	29
IA2102 (II)	64.5	4	9/18	1.9	34	15.9	1.6	34.2	19.2
LD02-4485 (SCN)	66.2	3	1.1	1.7	34	14.8	1.6	32.3	19.8
U11-917032 (SCN) (E)	59.7	5	-4.5	1.7	30	15.3	1.6	32.8	20.6
U14-910097 (SCN) (L)	72.8	1	6.8	1.8	33	15.0	1.4	32.7	20.4
E17040	66.9	2	3.0	1.8	35	15.8	1.7	34.2	18.8

119.1 Days After Planting

UNIFORM TEST II, 2022

2021-2022 2-YEAR MEAN (With 2021 UTIIB Data)

No. of Tests Strain	Yield 25 bu/a	Rank 25 No.	Maturity 19 Date	Lodging 16 Score	Plant Height 16 In.	Seed Size 21 g/100	Seed Quality 20 Score	Composition	
								Protein 20 %	Oil 20 %
IA2102 (II)	68.3	9	9/18	1.9	33	16.4	1.7	34.3	19.2
LD02-4485 (SCN)	69.6	8	0.8	1.7	34	15.4	1.5	32.4	19.8
U11-917032 (SCN) (E)	62.7	11	-4.2	2.0	30	16.0	1.6	33.0	20.6
U14-910097 (SCN) (L)	76.0	1	6.5	1.8	32	15.8	1.6	32.8	20.5
A14004-58	71.3	6	4.0	1.2	31	15.5	1.6	33.4	19.8
E15345	70.8	7	5.8	2.0	34	15.9	1.8	33.1	19.7
HM17-12161	65.2	10	4.5	1.5	35	16.5	1.6	33.4	19.3
LD17-1902	72.3	3	3.3	1.4	33	16.0	1.8	33.7	19.8
LD17-2558	72.6	2	2.8	1.5	33	16.7	1.7	33.1	19.8
U17-322103	71.6	4	4.9	1.2	34	15.5	1.4	32.7	20.0
U17-333174	71.6	5	3.9	1.2	33	14.2	1.5	32.9	20.3

122.6 Days After Planting

2020-2022 3-YEAR MEAN (With 2021 UTIIB Data)

No. of Tests Strain	34	34	28	24	24	30	29	29	29
IA2102 (II)	64.4	4	9/18	2.0	34	15.8	1.6	34.2	19.1
LD02-4485 (SCN)	66.0	3	0.7	1.7	34	14.8	1.5	32.3	19.7
U11-917032 (SCN) (E)	60.0	5	-4.4	1.8	30	15.3	1.6	32.8	20.5
U14-910097 (SCN) (L)	72.2	1	6.9	1.8	33	15.1	1.5	32.6	20.4
E15345	66.7	2	5.0	2.0	35	15.4	1.7	33.0	19.6

119.4 Days After Planting

UNIFORM TEST II, 2022

YIELD (bu/a)

Strain	Mean 12 Tests	Ames IA	Crawfords- ville IA	Suther- land IA	Urbana IL	Wanatah IN	West Lafayette IN
IA2102 (II)	70.0	66.0	66.9	59.6	61.3	71.2	55.7
LD02-4485 (SCN)	70.6	74.5	65.8	63.0	60.9	72.2	56.3
U11-917032 (SCN) (E)	64.0	68.8	63.3	57.6	53.0	69.7	52.0
U14-910097 (SCN) (L)	75.7	72.1	70.2	58.9	70.9	73.9	66.2
A14004-58	73.2	71.8	78.7	61.5	54.7	74.4	63.6
A14004-126	71.7	73.9	75.1	61.7	55.2	74.5	55.3
A14011-67	71.8	73.7	70.3	57.4	54.1	72.0	54.0
A14011-77	70.6	73.0	68.1	64.8	52.0	75.2	49.5
A14011-116	71.8	73.7	68.8	64.4	58.1	76.6	54.0
A15103-135	66.2	63.4	71.2	60.4	53.7	66.4	57.4
A15113-63	72.1	72.1	67.5	63.1	51.9	76.1	63.5
A15115-60	65.9	67.9	62.0	59.6	50.2	76.4	53.7
A15131-10	74.2	71.6	72.4	61.6	59.5	76.0	60.5
A15404-70	72.8	75.5	75.0	63.8	54.6	72.3	63.9
CR17-3780	64.2	59.2	74.1	62.8	50.3	64.3	56.0
CR184561	67.9	68.8	61.6	54.1	51.8	73.0	57.1
CR184590	66.1	64.4	69.5	59.4	59.8	69.9	60.9
CR184594	68.6	68.5	67.7	57.9	57.4	73.6	57.2
E15345	72.1	71.1	73.5	61.3	66.6	67.3	60.8
E17040	71.4	72.7	69.9	56.7	57.4	72.0	60.0
E19288T	60.5	65.0	56.7	51.8	53.3	67.8	44.7
E19314T	59.9	67.3	50.5	52.6	57.0	67.6	45.4
E19413	67.6	65.6	63.9	55.4	60.1	70.0	55.8
HM17-12161	61.3	58.9	61.1	56.9	52.3	64.6	49.3
LD17-1902	73.4	73.5	69.8	56.9	63.6	73.6	59.7
LD17-2558	74.4	76.7	75.2	60.9	65.5	76.4	68.4
LD17-2903	69.5	76.6	67.7	59.0	57.5	72.0	59.3
LD17-3855	70.5	77.0	70.8	57.6	59.7	70.9	57.9
LD18-0986	71.4	74.6	70.2	59.2	58.1	76.1	61.4
LD18-4231	72.6	75.1	62.9	64.5	56.7	76.7	62.3
LD18-4236	71.4	74.7	55.1	56.9	54.4	70.1	71.4
LD18-5062	73.5	72.0	71.3	65.9	58.6	75.0	62.7
LD18-7488	67.0	61.7	67.8	63.5	51.4	68.8	55.7
ORC 8518N	60.1	64.2	57.4	48.9	51.0	68.0	47.3
U17-322103	67.9	62.1	73.0	65.7	41.4	67.8	53.7
U17-333174	69.2	61.3	74.5	64.3	54.1	65.9	51.5
U18-216019	69.7	55.9	79.7	62.7	59.4	68.6	54.9
U18-217010	67.1	57.4	71.7	62.6	55.4	69.4	58.5
U18-227104	69.3	51.4	76.5	62.7	56.2	74.1	62.9
U19-923091	75.9	78.1	78.4	62.0	61.6	75.2	61.3
Location Mean		68.8	68.6	60.0	56.5	71.6	57.5
C.V. (%)		7.6	8.0	7.3	10.4	4.6	6.9
L.S.D. (5%)		8.5	8.9	7.2	9.9	6.7	8.0
Row Sp. (In.)		30	30	30	30	30	30
Rows/Plot		4	4	4	4	4	4
Reps		3	3	3	2	2	2

UNIFORM TEST II, 2022

YIELD (bu/a)

Strain	Britton MI	East Lansing MI	Cotes- field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)	74.8	61.0	90.2	81.0	81.4	70.9
LD02-4485 (SCN)	74.6	65.7	84.9	88.4	73.4	67.6
U11-917032 (SCN) (E)	71.8	49.3	73.2	74.7	75.0	59.4
U14-910097 (SCN) (L)	83.9	74.0	80.4	95.3	85.3	77.2
A14004-58	78.2	71.9	84.8	95.6	81.7	61.8
A14004-126	75.1	60.4	91.1	88.2	81.7	67.7
A14011-67	77.1	70.4	94.6	84.9	84.5	68.7
A14011-77	78.2	61.4	90.7	87.2	81.2	65.9
A14011-116	74.8	60.8	91.6	93.8	79.4	65.6
A15103-135	67.8	59.1	83.5	84.0	75.6	51.4
A15113-63	77.1	63.9	91.3	91.5	79.4	67.6
A15115-60	76.5	63.0	84.3	76.3	69.1	52.2
A15131-10	78.3	69.0	96.7	94.9	82.8	67.4
A15404-70	72.1	71.5	93.4	91.0	78.7	62.2
CR17-3780	64.9	59.4	75.4	84.2	75.3	44.6
CR184561	70.7	64.1	90.7	90.1	70.4	62.8
CR184590	58.9	55.8	80.6	87.7	75.7	50.5
CR184594	75.0	63.6	89.0	88.2	72.0	52.9
E15345	79.0	64.2	80.4	89.3	80.7	70.7
E17040	79.1	65.8	89.2	79.0	85.8	68.7
E19288T	65.6	56.3	67.2	77.6	63.3	57.2
E19314T	66.3	52.9	66.0	68.8	69.0	55.5
E19413	69.5	71.7	78.7	82.7	74.2	64.2
HM17-12161	55.9	55.9	77.9	83.8	66.1	52.6
LD17-1902	77.6	75.7	89.3	90.7	84.4	66.6
LD17-2558	71.4	70.6	81.5	97.0	77.1	71.7
LD17-2903	71.5	54.4	82.9	86.4	79.1	67.3
LD17-3855	77.3	58.7	72.9	90.6	82.5	70.5
LD18-0986	71.2	68.6	84.7	83.1	81.4	68.5
LD18-4231	77.7	63.7	82.6	86.9	89.7	72.7
LD18-4236	76.9	68.5	81.7	90.8	86.2	69.7
LD18-5062	72.6	70.0	91.7	84.5	88.8	68.8
LD18-7488	63.7	65.7	82.5	86.9	80.6	55.5
ORC 8518N	67.0	56.5	64.3	75.1	64.5	56.5
U17-322103	64.0	79.6	82.5	95.0	82.4	47.6
U17-333174	75.2	63.4	95.6	93.1	75.4	56.4
U18-216019	72.3	65.1	92.7	94.7	84.6	45.9
U18-217010	57.7	67.8	89.9	89.3	76.4	48.8
U18-227104	65.5	68.5	89.5	94.6	79.2	50.5
U19-923091	79.7	71.3	93.1	93.0	82.1	74.9
Location Mean	72.2	64.5	84.6	87.2	78.4	61.9
C.V. (%)	6.5	6.9	6.7	7.3	6.8	6.5
L.S.D. (5%)	7.9	7.5	14.0	15.8	13.2	8.2
Row Sp. (In.)	15	15	30	30	30	17
Rows/Plot	6	6	4	4	4	5
Reps	2	2	2	2	2	2

UNIFORM TEST II, 2022

YIELD RANK

Strain	Yield Rank	Ames IA	Crawfordsville IA	Sutherland IA	Urbana IL	Wanatah IN	West Lafayette IN
IA2102 (II)	21	27	29	22	6	23	26
LD02-4485 (SCN)	18	9	30	10	7	19	23
U11-917032 (SCN) (E)	36	22	32	29	31	28	34
U14-910097 (SCN) (L)	2	16	18	27	1	14	3
A14004-58	7	19	2	18	24	12	5
A14004-126	14	10	6	16	23	11	28
A14011-67	12	11	17	31	28	20	30
A14011-77	19	14	24	3	33	8	36
A14011-116	13	11	23	5	14	2	30
A15103-135	32	32	15	21	29	37	20
A15113-63	10	16	28	9	34	5	6
A15115-60	34	25	34	22	39	3	32
A15131-10	4	20	12	17	11	7	14
A15404-70	8	5	7	7	25	18	4
CR17-3780	35	36	9	11	38	40	24
CR184561	27	22	35	37	35	17	22
CR184590	33	30	22	24	9	27	12
CR184594	26	24	26	28	17	15	21
E15345	11	21	10	19	2	36	13
E17040	17	15	20	35	17	20	15
E19288T	38	29	38	39	30	33	40
E19314T	40	26	40	38	19	35	39
E19413	29	28	31	36	8	26	25
HM17-12161	37	37	36	32	32	39	37
LD17-1902	6	13	21	32	4	15	16
LD17-2558	3	3	5	20	3	3	2
LD17-2903	23	4	26	26	16	20	17
LD17-3855	20	2	16	29	10	24	19
LD18-0986	15	8	18	25	15	5	10
LD18-4231	9	6	33	4	20	1	9
LD18-4236	16	7	39	32	26	25	1
LD18-5062	5	18	14	1	13	10	8
LD18-7488	31	34	25	8	36	30	26
ORC 8518N	39	31	37	40	37	32	38
U17-322103	28	33	11	2	40	33	32
U17-333174	25	35	8	6	27	38	35
U18-216019	22	39	1	12	12	31	29
U18-217010	30	38	13	14	22	29	18
U18-227104	24	40	4	12	21	13	7
U19-923091	1	1	3	15	5	8	11

UNIFORM TEST II, 2022

YIELD RANK

Strain	Britton MI	East Lansing MI	Cotes- field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)	18	28	13	34	16	5
LD02-4485 (SCN)	20	17	19	19	33	14
U11-917032 (SCN) (E)	24	40	36	39	31	25
U14-910097 (SCN) (L)	1	3	31	3	5	1
A14004-58	6	4	20	2	13	24
A14004-126	16	30	10	20	13	13
A14011-67	12	9	3	27	7	10
A14011-77	7	27	11	23	17	19
A14011-116	19	29	8	8	20	20
A15103-135	30	32	23	30	28	34
A15113-63	11	22	9	11	21	14
A15115-60	14	26	22	37	36	33
A15131-10	5	11	1	5	9	16
A15404-70	23	6	4	12	24	23
CR17-3780	35	31	35	29	30	40
CR184561	28	21	12	16	35	22
CR184590	38	37	30	22	27	35
CR184594	17	24	18	21	34	31
E15345	4	20	32	18	18	6
E17040	3	16	17	35	4	10
E19288T	33	35	38	36	40	26
E19314T	32	39	39	40	37	29
E19413	29	5	33	33	32	21
HM17-12161	40	36	34	31	38	32
LD17-1902	9	2	16	14	8	18
LD17-2558	26	8	29	1	25	4
LD17-2903	25	38	24	26	23	17
LD17-3855	10	33	37	15	10	7
LD18-0986	27	12	21	32	15	12
LD18-4231	8	23	25	25	1	3
LD18-4236	13	13	28	13	3	8
LD18-5062	21	10	7	28	2	9
LD18-7488	37	18	27	24	19	29
ORC 8518N	31	34	40	38	39	27
U17-322103	36	1	26	4	11	38
U17-333174	15	25	2	9	29	28
U18-216019	22	19	6	6	6	39
U18-217010	39	15	14	17	26	37
U18-227104	34	14	15	7	22	35
U19-923091	2	7	5	10	12	2

UNIFORM TEST II, 2022

MATURITY (date)

Strain	Mean 9 Tests	Ames IA*	Crawfords- ville IA	Suther- land IA*	Urbana IL	Wanatah IN	West Lafayette IN
IA2102 (II)	9/21	9/27	9/15	9/25	9/16	9/18	9/14
LD02-4485 (SCN)	1	3	3	-1	1	-1	-1
U11-917032 (SCN) (E)	-4	-1	-5	-1	-3	-6	-5
U14-910097 (SCN) (L)	6		11	1	6	3	8
A14004-58	5	5	7	0	3	1	7
A14004-126	3	3	5	0	2	-1	3
A14011-67	-3	-2	-1	-2	-2	-4	-4
A14011-77	-2	0	-3	-2	-1	-4	-3
A14011-116	-1	0	-3	-1	0	-1	-2
A15103-135	7	5	7	2	5	7	5
A15113-63	1	1	3	-1	1	-1	3
A15115-60	-4	-3	-4	-2	-6	-5	-4
A15131-10	2	4	4	0	4	1	2
A15404-70	4	4	6	1	2	2	4
CR17-3780	2	2	4	0	2	-1	4
CR184561	1	1	1	-1	0	1	2
CR184590	4	4	8	0	4	2	7
CR184594	5	3	7	1	4	3	4
E15345	6	5	8	1	4	4	6
E17040	3	3	6	1	2	1	2
E19288T	-1	1	-4	-3	2	-5	-2
E19314T	-4	1	-4	-2	-1	-7	-5
E19413	2	3	4	-1	2	-1	2
HM17-12161	5	5	9	2	4	2	6
LD17-1902	3	3	5	0	2	1	3
LD17-2558	2	3	6	0	2	0	4
LD17-2903	-3	-1	-3	-1	-1	-6	-2
LD17-3855	2	5	5	0	1	1	2
LD18-0986	3	3	5	-1	4	2	5
LD18-4231	1	2	3	-2	2	-2	3
LD18-4236	-1	2	-2	-2	1	-2	3
LD18-5062	1	3	2	0	2	-1	3
LD18-7488	-1	-1	3	0	1	-1	1
ORC 8518N	-3	-2	0	-1	-2	-4	-3
U17-322103	5	4	8	3	4	2	8
U17-333174	4	4	7	1	4	2	6
U18-216019	5	5	10	2	4	2	6
U18-217010	3	4	8	1	4	1	6
U18-227104	5	4	10	2	4	1	9
U19-923091	5		9	1	6	2	6
Date Planted	5/20	5/23	5/11	5/17	5/17	5/17	5/12
Days to Mature	124	127	127	131	122	124	125

* Killing frost at maturity, data not included in mean.

UNIFORM TEST II, 2022

MATURITY (date)

Strain	Britton MI	East Lansing MI	Cotes- field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)	9/20	9/24		9/26	10/2	9/25
LD02-4485 (SCN)	1	1		3	-2	0
U11-917032 (SCN) (E)	-2	-4		-6	-4	-5
U14-910097 (SCN) (L)	3	9		5	2	9
A14004-58	4	10		3	1	6
A14004-126	4	6		1	-1	5
A14011-67	-1	-4		-4	-5	-1
A14011-77	0	-2		-4	-3	-1
A14011-116	-2	1		-3	-2	-1
A15103-135	9	10		5	3	10
A15113-63	2	6		1	-2	0
A15115-60	-3	-4		-2	-5	-5
A15131-10	4	-2		2	-2	6
A15404-70	4	4		3	3	4
CR17-3780	1	9		1	-2	-2
CR184561	-3	6		1	1	0
CR184590	3	4		3	1	8
CR184594	5	11		4	0	7
E15345	5	9		6	1	10
E17040	7	6		-1	0	4
E19288T	-1	6		-4	-2	-2
E19314T	-2	-7		-5	-1	-4
E19413	2	9		4	0	-1
HM17-12161	4	10		4	2	6
LD17-1902	3	10		4	-1	3
LD17-2558	-1	3		3	0	2
LD17-2903	-2	-6		-4	-5	-1
LD17-3855	4	2		2	-4	2
LD18-0986	1	9		3	-2	4
LD18-4231	1	6		-6	-2	1
LD18-4236	1	-2		-2	-2	-1
LD18-5062	2	10		-5	-3	0
LD18-7488	-2	-1		-5	-3	-2
ORC 8518N	-3	-6		-4	-4	-4
U17-322103	4	11		7	-1	3
U17-333174	3	5		4	2	7
U18-216019	4	7		5	2	5
U18-217010	1	3		6	1	0
U18-227104	2	9		7	1	6
U19-923091	4	5		5	3	8
Date Planted	5/13	5/14		6/3	5/31	5/31
Days to Mature	130	133		115	124	117

UNIFORM TEST II, 2022

LODGING (score)

Strain	Mean 8 Tests	Ames IA	Crawfords- ville IA	Suther- land IA	Urbana IL	Wanatah IN	West Lafayette IN
IA2102 (II)	1.8	2.0			2.0	2.0	2.0
LD02-4485 (SCN)	1.7	1.7			1.8	2.0	1.0
U11-917032 (SCN) (E)	1.7	1.0			1.0	2.0	1.5
U14-910097 (SCN) (L)	1.9	3.0			2.0	2.0	1.5
A14004-58	1.3	1.0			1.0	1.0	1.0
A14004-126	1.1	1.0			1.0	1.0	1.0
A14011-67	1.4	1.0			1.0	1.5	1.5
A14011-77	1.2	1.0			1.0	1.0	1.0
A14011-116	1.2	1.0			1.3	1.0	1.0
A15103-135	1.6	1.0			1.3	2.0	1.5
A15113-63	1.3	1.0			1.5	1.5	1.0
A15115-60	1.3	1.0			1.3	1.5	1.0
A15131-10	1.5	1.7			1.5	2.0	1.0
A15404-70	1.0	1.0			1.0	1.0	1.0
CR17-3780	1.1	1.0			1.0	1.5	1.0
CR184561	1.9	1.7			1.5	2.5	1.5
CR184590	1.4	1.3			1.5	2.0	1.0
CR184594	1.3	1.0			1.5	2.0	1.0
E15345	2.0	2.3			2.3	2.5	2.0
E17040	1.9	1.7			1.8	2.0	2.0
E19288T	1.3	1.0			1.3	1.5	1.0
E19314T	1.3	1.0			1.5	1.5	1.0
E19413	2.0	2.3			2.0	2.0	2.0
HM17-12161	1.5	1.0			1.8	1.5	1.5
LD17-1902	1.4	1.0			1.5	1.0	1.0
LD17-2558	1.5	1.7			1.5	2.0	2.0
LD17-2903	1.1	1.0			1.3	1.0	1.0
LD17-3855	1.3	1.0			1.3	1.0	1.0
LD18-0986	1.3	1.0			1.0	1.0	1.0
LD18-4231	1.6	2.0			1.5	2.5	1.0
LD18-4236	1.6	2.3			1.3	2.0	1.5
LD18-5062	1.3	1.7			1.5	1.5	1.0
LD18-7488	1.3	1.3			1.3	1.5	1.0
ORC 8518N	1.4	1.0			1.0	2.5	1.0
U17-322103	1.1	1.0			1.0	1.0	1.0
U17-333174	1.1	1.0			1.3	1.0	1.0
U18-216019	1.1	1.0			1.3	1.0	1.0
U18-217010	1.2	1.0			1.3	1.5	1.0
U18-227104	1.1	1.0			1.0	1.0	1.0
U19-923091	1.2	1.0			1.3	1.0	1.0

UNIFORM TEST II, 2022

LODGING (score)

Strain	Britton MI	East Lansing MI	Cotes- field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)	2.0	2.0		1.0		1.0
LD02-4485 (SCN)	2.5	3.0		1.0		1.0
U11-917032 (SCN) (E)	3.5	2.5		1.0		1.0
U14-910097 (SCN) (L)	1.5	3.0		1.0		1.0
A14004-58	2.0	2.0		1.0		1.0
A14004-126	2.0	1.0		1.0		1.0
A14011-67	2.5	1.5		1.0		1.0
A14011-77	2.0	1.5		1.0		1.0
A14011-116	1.5	2.0		1.0		1.0
A15103-135	2.5	2.5		1.0		1.0
A15113-63	2.0	1.0		1.0		1.0
A15115-60	2.0	1.5		1.0		1.0
A15131-10	2.0	1.5		1.0		1.0
A15404-70	1.0	1.0		1.0		1.0
CR17-3780	1.0	1.5		1.0		1.0
CR184561	3.0	3.0		1.0		1.0
CR184590	1.5	1.5		1.0		1.0
CR184594	1.5	1.5		1.0		1.0
E15345	2.0	2.5		1.0		1.5
E17040	2.5	2.5		1.5		1.0
E19288T	2.0	2.0		1.0		1.0
E19314T	1.5	1.5		1.0		1.0
E19413	2.5	3.0		1.5		1.0
HM17-12161	2.0	2.5		1.0		1.0
LD17-1902	2.5	2.0		1.0		1.0
LD17-2558	1.5	1.5		1.0		1.0
LD17-2903	1.0	1.5		1.0		1.0
LD17-3855	2.0	2.0		1.0		1.0
LD18-0986	2.0	2.0		1.0		1.0
LD18-4231	2.5	1.5		1.0		1.0
LD18-4236	2.5	1.0		1.0		1.0
LD18-5062	1.5	1.5		1.0		1.0
LD18-7488	1.5	1.5		1.0		1.0
ORC 8518N	2.5	1.0		1.0		1.0
U17-322103	1.0	2.0		1.0		1.0
U17-333174	1.5	1.0		1.0		1.0
U18-216019	1.0	1.5		1.0		1.0
U18-217010	1.0	2.0		1.0		1.0
U18-227104	1.5	1.5		1.0		1.0
U19-923091	1.5	1.5		1.0		1.0

UNIFORM TEST II, 2022

PLANT HEIGHT (inches)

Strain	Mean 8 Tests	Ames IA	Crawfords- ville IA	Suther- land IA	Urbana IL	Wanatah IN	West Lafayette IN
IA2102 (II)	35	31			34	40	31
LD02-4485 (SCN)	35	33			33	41	31
U11-917032 (SCN) (E)	31	29			27	35	26
U14-910097 (SCN) (L)	34	34			31	37	28
A14004-58	33	31			32	38	29
A14004-126	32	30			29	36	27
A14011-67	33	31			28	38	28
A14011-77	32	29			31	37	27
A14011-116	33	31			30	38	28
A15103-135	37	34			36	44	30
A15113-63	35	32			31	42	29
A15115-60	33	29			33	40	28
A15131-10	36	35			34	44	31
A15404-70	34	30			29	41	32
CR17-3780	34	30			31	40	29
CR184561	35	34			31	44	31
CR184590	39	37			37	46	36
CR184594	35	32			33	43	29
E15345	35	34			33	41	30
E17040	37	34			31	41	32
E19288T	34	33			29	41	29
E19314T	30	27			26	36	26
E19413	37	34			32	42	32
HM17-12161	36	32			36	44	33
LD17-1902	35	30			33	42	31
LD17-2558	35	33			34	41	32
LD17-2903	33	29			33	37	28
LD17-3855	35	34			32	43	31
LD18-0986	35	34			33	41	28
LD18-4231	34	33			30	40	30
LD18-4236	34	34			30	38	30
LD18-5062	35	32			35	42	32
LD18-7488	35	32			32	41	30
ORC 8518N	30	26			24	39	22
U17-322103	35	32			33	40	33
U17-333174	35	31			33	40	30
U18-216019	33	28			31	37	29
U18-217010	36	33			35	44	30
U18-227104	35	29			33	41	33
U19-923091	34	33			33	38	29

UNIFORM TEST II, 2022

PLANT HEIGHT (inches)

Strain	Britton MI	East Lansing MI	Cotes- field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)	38	31		41		37
LD02-4485 (SCN)	39	32		39		35
U11-917032 (SCN) (E)	33	28		37		31
U14-910097 (SCN) (L)	37	32		38		34
A14004-58	32	30		37		34
A14004-126	35	29		38		32
A14011-67	35	31		38		34
A14011-77	36	30		35		33
A14011-116	34	32		37		33
A15103-135	37	37		41		35
A15113-63	39	30		42		37
A15115-60	35	32		37		32
A15131-10	40	27		39		37
A15404-70	37	30		38		37
CR17-3780	36	31		39		36
CR184561	36	33		40		35
CR184590	39	32		42		41
CR184594	39	29		38		37
E15345	36	33		41		35
E17040	38	38		40		41
E19288T	37	33		37		34
E19314T	33	29		35		32
E19413	41	37		42		36
HM17-12161	37	29		41		38
LD17-1902	38	34		40		36
LD17-2558	38	30		37		36
LD17-2903	35	32		37		35
LD17-3855	37	32		42		35
LD18-0986	38	32		40		35
LD18-4231	38	28		38		37
LD18-4236	36	27		38		37
LD18-5062	36	33		40		35
LD18-7488	39	33		39		35
ORC 8518N	34	25		36		37
U17-322103	36	31		42		37
U17-333174	37	31		42		36
U18-216019	38	29		38		33
U18-217010	37	32		43		35
U18-227104	35	33		40		34
U19-923091	35	35		39		35

UNIFORM TEST II, 2022

SEED SIZE (g/100)

Strain	Mean 10 Tests	Ames IA	Crawfords- ville IA	Suther- land IA	Urbana IL	Wanatah IN	West Lafayette IN
IA2102 (II)	16.8	16.8	15.9	15.5	17.6	17.3	17.1
LD02-4485 (SCN)	16.1	16.0	15.0	14.7	16.6	16.3	16.7
U11-917032 (SCN) (E)	16.5	17.4	15.3	14.8	16.3	17.1	16.8
U14-910097 (SCN) (L)	16.1	16.0	15.8	14.7	18.5	16.1	16.5
A14004-58	15.8	16.1	15.0	14.1	15.5	16.5	17.0
A14004-126	15.8	16.3	15.3	14.1	15.4	16.3	16.5
A14011-67	16.2	17.2	15.5	15.6	15.5	16.4	16.8
A14011-77	17.1	18.3	16.9	16.2	17.0	17.3	17.3
A14011-116	18.9	19.3	19.0	17.7	18.4	19.5	19.4
A15103-135	18.3	19.3	17.7	17.6	17.3	19.8	18.1
A15113-63	17.4	16.7	17.2	15.7	17.1	18.6	18.5
A15115-60	18.4	19.5	18.3	17.4	17.9	20.0	19.7
A15131-10	17.6	18.5	17.0	16.1	17.9	19.0	18.1
A15404-70	17.0	17.7	16.6	15.0	16.8	17.4	17.1
CR17-3780	15.8	16.7	16.0	14.7	15.5	16.0	17.0
CR184561	17.0	17.4	16.0	16.0	17.4	17.8	17.5
CR184590	15.6	15.7	16.1	14.3	13.5	16.1	16.4
CR184594	17.2	17.2	17.6	15.5	17.4	18.1	18.3
E15345	16.2	16.9	16.0	15.0	17.4	16.2	17.3
E17040	16.6	17.7	16.7	14.9	17.6	17.2	17.1
E19288T	18.2	18.8	18.0	16.6	18.8	18.5	18.1
E19314T	19.5	20.0	18.7	18.6	19.0	20.2	19.4
E19413	18.7	18.9	17.8	16.8	19.7	18.8	18.1
HM17-12161	17.0	17.2	16.7	16.0	17.2	17.1	16.4
LD17-1902	16.4	17.0	16.2	14.2	17.1	16.8	16.2
LD17-2558	17.2	17.0	17.0	14.8	17.8	17.9	17.5
LD17-2903	17.0	17.0	16.2	15.2	16.8	17.1	17.8
LD17-3855	14.9	15.7	14.0	13.1	15.4	15.2	15.1
LD18-0986	16.3	17.0	16.3	14.0	17.0	16.6	17.2
LD18-4231	15.4	16.2	15.2	13.7	15.2	15.5	16.3
LD18-4236	15.9	17.0	15.0	14.3	15.6	15.9	17.2
LD18-5062	14.9	15.8	14.7	13.4	15.2	15.1	15.4
LD18-7488	16.2	16.0	17.1	14.8	16.1	17.0	16.9
ORC 8518N	19.6	19.7	20.1	17.8	20.2	20.1	21.9
U17-322103	15.7	16.0	16.6	15.0	15.0	15.8	15.6
U17-333174	14.0	13.7	14.0	13.3	14.2	14.1	13.7
U18-216019	15.6	16.3	15.7	14.3	15.1	15.9	16.3
U18-217010	16.9	17.5	17.4	15.8	17.9	17.9	17.5
U18-227104	15.3	15.0	15.3	13.8	15.6	16.1	16.4
U19-923091	15.3	15.7	15.8	13.9	15.6	15.5	15.0

UNIFORM TEST II, 2022

SEED SIZE (g/100)

Strain	Britton MI	East Lansing MI	Cotes- field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)		15.8		17.3	17.1	17.4
LD02-4485 (SCN)		15.7		16.9	15.9	17.2
U11-917032 (SCN) (E)		16.5		15.8	17.0	18.1
U14-910097 (SCN) (L)		15.3		15.7	15.9	16.4
A14004-58		15.8		16.4	15.9	15.9
A14004-126		15.1		16.5	16.2	16.5
A14011-67		14.6		15.7	17.1	17.7
A14011-77		15.8		17.0	17.8	17.3
A14011-116		18.9		18.7	19.2	19.0
A15103-135		18.5		18.9	19.0	17.1
A15113-63		16.8		18.5	16.7	18.3
A15115-60		16.8		18.6	18.2	18.2
A15131-10		15.4		17.8	18.7	18.0
A15404-70		16.0		17.1	18.4	17.9
CR17-3780		15.7		16.5	16.2	13.4
CR184561		16.6		16.8	17.6	17.0
CR184590		15.3		16.5	16.0	16.0
CR184594		17.4		17.7	17.6	15.4
E15345		14.5		17.2	15.2	16.5
E17040		16.6		15.6	16.4	16.7
E19288T		18.2		17.4	19.1	18.9
E19314T		18.5		20.0	20.7	19.9
E19413		18.5		20.3	19.7	18.4
HM17-12161		17.7		17.4	17.3	16.8
LD17-1902		15.5		17.4	16.9	17.0
LD17-2558		16.0		18.3	17.6	17.9
LD17-2903		15.5		18.2	17.1	18.8
LD17-3855		14.0		15.3	14.7	16.1
LD18-0986		15.6		16.5	16.2	16.5
LD18-4231		14.0		15.4	16.2	16.5
LD18-4236		13.5		16.3	17.3	17.2
LD18-5062		14.7		13.7	14.9	16.3
LD18-7488		15.6		15.1	16.7	16.5
ORC 8518N		17.7		19.1	19.3	19.8
U17-322103		15.8		17.0	16.3	14.3
U17-333174		13.1		15.3	15.3	13.8
U18-216019		14.9		16.4	17.1	14.4
U18-217010		15.8		16.9	17.0	15.7
U18-227104		14.8		16.9	15.7	13.3
U19-923091		14.3		16.3	15.3	16.2

UNIFORM TEST II, 2022

SEED QUALITY (score)

Strain	Mean 10 Tests	Ames IA	Crawfords- ville IA	Suther- land IA	Urbana IL	Wanatah IN	West Lafayette IN
IA2102 (II)	1.6	2.3	2.0	2.7	3.0	1.0	1.0
LD02-4485 (SCN)	1.4	2.3	1.5	1.0	3.0	1.0	1.0
U11-917032 (SCN) (E)	1.5	2.7	2.0	1.0	2.0	1.0	1.0
U14-910097 (SCN) (L)	1.7	2.3	1.7	2.0	2.0	1.0	2.0
A14004-58	1.6	2.3	2.0	1.0	3.0	1.0	1.0
A14004-126	1.6	2.0	2.0	2.3	3.0	1.0	1.0
A14011-67	1.6	2.3	2.0	1.7	2.0	1.0	1.0
A14011-77	1.6	2.0	1.7	1.0	3.0	1.0	1.0
A14011-116	1.8	2.7	2.0	2.0	3.0	1.0	1.0
A15103-135	2.1	2.3	1.7	2.7	3.0	2.0	2.0
A15113-63	1.7	2.3	2.0	1.7	3.0	1.0	1.5
A15115-60	1.6	2.7	1.7	1.0	4.0	1.0	1.0
A15131-10	1.8	3.3	1.7	2.0	3.0	1.5	1.0
A15404-70	1.9	2.0	2.7	3.0	3.0	1.5	1.0
CR17-3780	1.4	2.0	2.0	1.0	2.0	1.0	1.0
CR184561	1.7	2.5	2.0	2.3	3.0	1.0	1.0
CR184590	1.5	2.3	2.3	2.0	2.0	1.0	1.0
CR184594	1.7	2.0	2.7	2.3	2.0	1.0	1.0
E15345	1.7	2.0	2.0	2.0	4.0	1.0	1.0
E17040	1.7	2.3	2.0	2.0	3.0	1.0	1.0
E19288T	1.7	2.0	2.0	2.7	3.0	1.0	1.0
E19314T	1.5	2.0	2.0	1.7	2.0	1.0	1.0
E19413	1.6	2.3	2.0	1.0	3.0	1.0	1.0
HM17-12161	1.7	2.3	2.0	1.0	2.0	1.5	1.0
LD17-1902	1.9	2.7	1.7	3.0	2.0	1.5	1.0
LD17-2558	1.8	2.7	2.0	2.0	2.0	1.0	1.0
LD17-2903	1.4	2.0	1.7	1.0	2.0	1.0	1.0
LD17-3855	1.6	1.3	2.0	2.3	3.0	1.0	1.0
LD18-0986	1.5	2.0	2.0	1.0	2.0	1.0	1.0
LD18-4231	1.6	2.3	2.0	2.0	2.0	1.0	1.5
LD18-4236	1.8	2.3	2.7	3.0	3.0	1.0	1.0
LD18-5062	1.4	2.0	2.0	1.0	2.0	1.0	1.0
LD18-7488	1.7	2.0	1.7	3.0	2.0	1.0	1.5
ORC 8518N	1.6	2.0	1.3	2.0	3.0	1.0	1.5
U17-322103	1.5	2.0	1.7	1.7	2.0	1.0	1.0
U17-333174	1.6	2.7	1.7	2.0	2.0	1.5	1.0
U18-216019	1.7	2.7	2.0	2.7	2.0	1.0	1.0
U18-217010	1.6	1.7	1.3	2.0	2.0	1.5	1.5
U18-227104	1.6	2.0	2.0	2.7	2.0	1.0	1.0
U19-923091	1.6	1.7	2.0	2.0	2.0	1.5	1.0

UNIFORM TEST II, 2022

SEED QUALITY (score)

Strain	Britton MI	East Lansing MI	Cotes- field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)		1.0		1.0	1.0	1.0
LD02-4485 (SCN)		1.0		1.0	1.0	1.0
U11-917032 (SCN) (E)		2.0		1.0	1.0	1.0
U14-910097 (SCN) (L)		2.5		1.0	1.0	1.0
A14004-58		3.0		1.0	1.0	1.0
A14004-126		2.0		1.0	1.0	1.0
A14011-67		3.0		1.0	1.0	1.0
A14011-77		3.0		1.0	1.0	1.0
A14011-116		3.0		1.0	1.0	1.0
A15103-135		4.5		1.0	1.0	1.0
A15113-63		2.5		1.0	1.0	1.0
A15115-60		2.0		1.0	1.0	1.0
A15131-10		2.5		1.0	1.0	1.0
A15404-70		3.0		1.0	1.0	1.0
CR17-3780		2.0		1.0	1.0	1.0
CR184561		2.5		1.0	1.0	1.0
CR184590		1.0		1.0	1.0	1.0
CR184594		2.5		1.0	1.0	1.0
E15345		2.0		1.0	1.0	1.0
E17040		2.5		1.0	1.0	1.0
E19288T		2.0		1.0	1.0	1.0
E19314T		2.0		1.0	1.0	1.0
E19413		3.0		1.0	1.0	1.0
HM17-12161		4.0		1.0	1.0	1.0
LD17-1902		4.0		1.0	1.0	1.0
LD17-2558		4.0		1.0	1.0	1.0
LD17-2903		2.0		1.0	1.0	1.0
LD17-3855		2.5		1.0	1.0	1.0
LD18-0986		2.5		1.0	1.0	1.0
LD18-4231		2.5		1.0	1.0	1.0
LD18-4236		2.0		1.0	1.0	1.0
LD18-5062		2.0		1.0	1.0	1.0
LD18-7488		3.0		1.0	1.0	1.0
ORC 8518N		2.0		1.0	1.0	1.0
U17-322103		2.5		1.0	1.0	1.0
U17-333174		2.5		1.0	1.0	1.0
U18-216019		3.0		1.0	1.0	1.0
U18-217010		3.0		1.0	1.0	1.0
U18-227104		2.5		1.0	1.0	1.0
U19-923091		3.0		1.0	1.0	1.0

UNIFORM TEST II, 2022

PROTEIN (%)

Strain	Mean 10 Tests	Ames IA	Crawfords- ville IA	Suther- land IA	Urbana IL	Wanatah IN	West Lafayette IN
IA2102 (II)	33.8	34.1	32.8	32.9	35.4	34.7	32.6
LD02-4485 (SCN)	31.9	32.0	30.6	31.1	32.9	32.9	31.4
U11-917032 (SCN) (E)	32.2	32.2	30.9	30.8	33.0	33.5	32.0
U14-910097 (SCN) (L)	32.5	32.1	32.4	31.8	34.1	32.5	31.6
A14004-58	33.0	33.4	32.6	32.1	33.6	33.0	33.8
A14004-126	33.6	33.2	32.8	32.9	34.1	34.1	32.6
A14011-67	34.2	34.5	31.5	33.7	35.3	35.3	33.6
A14011-77	35.0	35.8	34.7	33.7	36.0	35.7	35.5
A14011-116	35.3	35.2	35.1	34.7	36.9	35.2	35.0
A15103-135	32.6	33.1	32.0	31.5	33.3	33.9	30.7
A15113-63	33.6	33.5	31.9	32.2	35.5	33.9	33.5
A15115-60	32.8	32.9	31.5	32.1	34.5	33.6	32.9
A15131-10	33.5	33.6	32.3	31.4	35.4	34.9	32.6
A15404-70	33.1	33.4	31.8	31.9	33.8	34.0	33.7
CR17-3780	32.8	33.2	32.7	31.7	33.2	32.8	33.0
CR184561	33.9	34.2	32.7	33.5	35.7	34.9	33.2
CR184590	33.9	34.0	34.1	32.9	35.0	33.6	34.1
CR184594	32.6	31.3	32.2	31.0	33.5	33.8	32.5
E15345	32.7	33.1	32.0	31.2	33.3	34.3	32.5
E17040	33.9	33.9	32.4	32.2	35.9	35.4	33.2
E19288T	35.9	36.8	35.1	35.0	37.9	36.2	36.2
E19314T	35.3	35.6	34.5	34.5	34.8	36.4	34.0
E19413	32.2	33.6	31.8	30.5	34.0	33.3	31.6
HM17-12161	32.7	32.6	32.5	30.6	32.8	34.2	33.9
LD17-1902	33.4	33.3	32.3	32.5	34.6	34.1	33.1
LD17-2558	32.7	32.2	31.2	32.2	33.7	33.8	32.0
LD17-2903	32.9	32.8	31.8	32.6	33.3	34.0	32.0
LD17-3855	33.6	34.2	32.9	32.3	35.3	35.1	32.2
LD18-0986	34.3	35.3	32.5	33.7	36.1	34.8	33.8
LD18-4231	33.8	35.1	32.3	33.1	35.6	34.0	33.0
LD18-4236	33.5	34.2	31.2	31.9	35.0	34.1	32.5
LD18-5062	33.1	33.1	32.3	31.6	35.2	32.3	33.2
LD18-7488	34.0	33.3	32.9	32.0	36.2	34.7	34.7
ORC 8518N	37.0	37.0	38.2	34.8	38.4	36.2	38.6
U17-322103	32.3	31.0	31.1	32.4	34.9	33.1	31.7
U17-333174	32.4	31.5	31.4	32.1	33.9	33.1	32.5
U18-216019	30.7	30.4	30.0	30.8	33.0	31.8	31.6
U18-217010	31.7	30.8	30.7	31.9	33.1	32.9	31.3
U18-227104	32.1	31.1	31.6	31.7	33.7	33.1	31.7
U19-923091	33.1	33.1	32.6	32.1	33.8	33.1	33.5

UNIFORM TEST II, 2022

PROTEIN (%)

Strain	Britton MI	East Lansing MI	Cotes- field NE	Mead NE	Phillips NE	Chatham ONT*
IA2102 (II)		33.6		34.1	34.0	33.6
LD02-4485 (SCN)		31.4		33.0	31.7	32.4
U11-917032 (SCN) (E)		32.1		31.9	32.3	33.2
U14-910097 (SCN) (L)		32.0		33.2	33.0	32.7
A14004-58		32.9		32.5	33.2	33.0
A14004-126		34.3		34.3	34.7	33.5
A14011-67		34.1		34.6	34.9	34.8
A14011-77		34.3		35.3	34.6	34.2
A14011-116		34.7		35.0	36.4	35.0
A15103-135		32.3		33.0	34.2	32.2
A15113-63		32.2		37.1	33.7	32.8
A15115-60		32.7		32.5	33.3	32.3
A15131-10		32.7		33.1	35.1	33.9
A15404-70		32.4		32.6	33.9	33.8
CR17-3780		32.7		32.6	33.4	32.9
CR184561		33.9		34.0	33.4	33.5
CR184590		32.9		33.6	35.0	33.6
CR184594		32.6		33.6	33.2	31.9
E15345		31.5		32.8	33.3	33.5
E17040		34.2		33.6	34.9	33.3
E19288T		36.2		34.2	36.4	35.5
E19314T		36.6		34.8	36.3	35.4
E19413		33.4		33.8	27.4	32.6
HM17-12161		32.4		32.5	33.4	32.0
LD17-1902		32.5		34.1	34.6	33.2
LD17-2558		31.8		34.1	34.2	32.1
LD17-2903		32.9		31.3	34.3	33.8
LD17-3855		32.4		34.5	34.1	33.5
LD18-0986		34.5		33.5	35.5	33.8
LD18-4231		32.0		33.1	35.9	33.7
LD18-4236		32.0		33.5	37.5	32.7
LD18-5062		33.3		32.2	34.4	33.0
LD18-7488		32.9		33.9	34.8	34.4
ORC 8518N		35.8		36.9	37.1	36.7
U17-322103		31.9		31.4	33.7	31.6
U17-333174		31.7		32.3	33.6	31.7
U18-216019		30.4		31.1	27.0	30.6
U18-217010		30.8		31.2	33.4	31.5
U18-227104		31.4		33.0	33.0	31.0
U19-923091		32.5		32.7	33.9	33.9

* Data adjusted to 13% moisture.

UNIFORM TEST II, 2022

OIL (%)

Strain	Mean 10 Tests	Ames IA	Crawfords- ville IA	Suther- land IA	Urbana IL	Wanatah IN	West Lafayette IN
IA2102 (II)	19.1	18.8	19.7	19.2	18.8	19.3	20.0
LD02-4485 (SCN)	19.7	18.9	20.5	19.9	19.9	19.9	20.3
U11-917032 (SCN) (E)	20.7	20.4	21.3	21.4	20.7	20.9	21.2
U14-910097 (SCN) (L)	20.4	19.9	20.7	20.9	19.8	21.1	21.2
A14004-58	19.7	19.2	20.0	20.3	19.3	20.6	19.7
A14004-126	19.6	19.3	20.3	19.9	19.7	20.2	20.3
A14011-67	19.3	18.9	20.8	19.7	19.4	19.1	20.0
A14011-77	18.7	18.0	19.2	19.5	18.7	18.9	19.6
A14011-116	18.5	18.3	19.2	19.0	18.3	18.7	19.0
A15103-135	19.3	19.1	19.8	19.7	19.7	18.9	20.6
A15113-63	19.1	18.6	20.3	19.8	19.1	19.6	19.5
A15115-60	20.2	19.8	21.0	20.1	20.2	20.2	20.6
A15131-10	19.3	19.3	19.9	19.9	18.7	19.2	20.3
A15404-70	19.2	18.9	20.1	19.7	19.9	19.2	18.7
CR17-3780	19.8	19.6	20.2	19.9	19.8	20.2	19.7
CR184561	19.1	18.8	20.0	19.4	18.7	19.5	19.9
CR184590	19.5	19.5	19.6	19.6	19.3	19.9	19.8
CR184594	20.0	20.2	20.2	20.4	20.4	20.1	20.4
E15345	19.5	19.1	20.0	19.9	19.6	19.2	20.1
E17040	18.7	18.3	19.3	19.8	18.5	18.5	19.5
E19288T	18.0	18.0	19.2	18.8	17.7	18.2	16.1
E19314T	18.8	18.7	19.6	19.0	19.2	18.2	19.9
E19413	20.2	19.2	20.3	20.7	19.4	19.9	20.5
HM17-12161	19.1	18.8	19.6	19.6	19.5	19.1	19.0
LD17-1902	19.6	19.3	20.5	19.8	19.7	19.7	20.4
LD17-2558	19.7	19.8	20.5	19.7	19.7	19.7	20.6
LD17-2903	20.4	20.1	21.4	20.5	20.8	20.3	21.2
LD17-3855	18.8	18.1	18.9	19.5	18.4	18.9	19.6
LD18-0986	19.2	18.2	20.1	19.5	18.5	19.5	20.0
LD18-4231	18.8	18.1	19.6	19.0	18.5	19.0	19.5
LD18-4236	19.5	19.0	20.3	19.9	19.7	19.6	20.1
LD18-5062	18.8	18.4	19.2	19.5	18.5	19.3	19.1
LD18-7488	19.9	20.0	20.5	20.3	19.4	20.4	20.0
ORC 8518N	17.9	17.9	17.7	18.8	17.0	18.6	17.8
U17-322103	20.0	20.4	20.9	20.1	19.9	20.5	20.7
U17-333174	20.2	20.3	20.6	20.5	20.1	20.2	20.6
U18-216019	21.2	20.7	21.4	20.6	20.6	20.9	21.6
U18-217010	20.6	20.9	21.2	20.2	20.4	20.6	21.2
U18-227104	20.5	20.9	21.1	20.5	20.3	20.6	21.1
U19-923091	20.3	19.9	20.9	20.7	20.4	20.8	20.8

UNIFORM TEST II, 2022

OIL (%)

Strain	Britton MI	East Lansing MI	Cotes- field NE	Mead NE	Phillips NE	Chatham ONT*
IA2102 (II)		18.9		18.9	18.3	19.1
LD02-4485 (SCN)		19.6		18.9	19.5	19.7
U11-917032 (SCN) (E)		19.9		20.6	19.9	20.4
U14-910097 (SCN) (L)		20.2		20.1	19.7	20.2
A14004-58		19.1		20.0	19.1	19.5
A14004-126		18.6		19.0	18.5	19.8
A14011-67		18.3		18.9	18.4	19.2
A14011-77		18.2		18.3	17.9	19.1
A14011-116		17.7		18.1	17.9	18.6
A15103-135		19.0		18.9	18.0	19.5
A15113-63		19.5		16.9	18.8	19.1
A15115-60		19.8		20.4	19.6	20.3
A15131-10		19.6		19.2	18.1	19.4
A15404-70		19.5		19.1	17.9	19.4
CR17-3780		19.7		19.8	19.4	19.4
CR184561		18.5		18.8	18.5	19.3
CR184590		19.7		19.3	18.6	19.8
CR184594		19.6		19.4	19.0	20.0
E15345		19.4		19.5	18.8	19.2
E17040		18.4		18.6	17.8	18.7
E19288T		17.5		18.8	17.6	18.2
E19314T		18.0		18.8	17.6	18.8
E19413		18.9		19.0	24.7	19.8
HM17-12161		18.6		19.4	18.6	19.1
LD17-1902		19.4		19.5	18.3	19.4
LD17-2558		19.8		19.3	17.7	19.8
LD17-2903		20.2		19.5	19.5	20.1
LD17-3855		19.3		18.5	18.3	18.2
LD18-0986		18.4		19.6	18.9	19.3
LD18-4231		19.1		19.2	17.6	18.8
LD18-4236		19.6		18.8	18.5	19.6
LD18-5062		18.1		19.2	17.8	18.6
LD18-7488		19.8		20.0	19.0	19.7
ORC 8518N		17.7		18.0	17.9	17.5
U17-322103		19.6		19.2	18.8	19.9
U17-333174		20.1		20.3	19.2	20.3
U18-216019		20.7		21.0	23.9	21.1
U18-217010		20.7		21.2	19.2	20.6
U18-227104		19.7		20.0	19.8	20.7
U19-923091		20.3		20.6	19.5	19.8

* Data adjusted to 13% moisture.

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**Northern Regional Uniform Test
Preliminary Test IIA, 2022**

Ent.	Strain	Parentage		Seed Source	Gen. Comp.	Unique Traits
		Female	Male			
1	IA2102 (II)	A04-545045	AgriPro 98180-A01-0613	Cai	F4	
2	LD02-4485	M90-184111	IA3010	Diers	F5	SCN
3	U11-917032 (E)	LD02-4485	U03-100612	Graef	F6	SCN, HR, MR, IDC
4	U14-910097 (L)	U09-105007	LD07-3419	Graef	F5	Rps, SCN (HR, HR)
5	A16317-166	IA2106HO/LD07-3395bf (SCN)	U11-917032	Singh	F5	SCN
6	A16319-60	IA2107HO/LD07-3395bf (SCN)	U11-396034	Singh	F5	SCN
7	A16319-94	IA2107HO/LD07-3395bf (SCN)	U11-396034	Singh	F5	
8	A16321-129	IA2108HO/LD07-3395bf (SCN)	U11-911079	Singh	F5	SCN
9	A16355-89	LD11-2170/LD07-3395bf (SCN)	IA2103	Singh	F5	SCN
10	A16355-145	LD11-2170/LD07-3395bf (SCN)	IA2103	Singh	F5	SCN
11	A16359-22	U11-911079/LD07-3395bf (SCN)	IA2103	Singh	F5	SCN
12	A16360-8	U11-911079/LD07-3395bf (SCN)	IA3051	Singh	F5	
13	A16371-79	LD10-10198/LD07-3395bf (SCN)	IA3027LFRA12	Singh	F5	SCN
14	A16371-92	LD10-10198/LD07-3395bf (SCN)	IA3027LFRA12	Singh	F5	SCN
15	A16372-154	LD10-10219/LD07-3395bf (SCN)	IA3027LFRA12	Singh	F5	
16	A16373-190	LD11-2170/LD07-3395bf (SCN)	IA3027LFRA12	Singh	F5	SCN
17	E20012	E09014	E13100	Wang	F5	SCN, Rps
18	E20327	LD02-4485	E14077	Wang	F5	SCN, Rps
19	E20329	LD02-4485	E14077	Wang	F5	SCN, Rps
20	E20333	LD02-4485	E14077	Wang	F5	SCN, Rps
21	E20335	LD02-4485	E14077	Wang	F5	SCN, Rps
22	E20351	LD10-10198	E14077	Wang	F5	SCN, Rps
23	E20352	LD10-10198	E14077	Wang	F5	SCN, Rps
24	E20355	LD10-10198	E14077	Wang	F5	SCN, Rps
25	ORC 2719	SC 7512N	OAC Brooke	Eskandari	F4	
26	ORC 5420	SC 5414N	AAC Malden	Eskandari	F4	SCN

PRELIMINARY TEST IIA, 2022

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code
IA2102 (II)	WGTDYYI
LD02-4485 (SCN)	PGBDYBfi
U11-917032 (SCN) (E)	PTBDYBI
U14-910097 (SCN) (L)	PGTDYBfi
A16317-166	PGTDYBfi
A16319-60	WLtBDYBrI
A16319-94	PLtBSYBI
A16321-129	PLtTDYBI
A16355-89	PLtBDYBrI
A16355-145	PLtBDYBrI
A16359-22	WLtTDYBI
A16360-8	WLtB+TDYBI
A16371-79	WGTDYYI
A16371-92	P+WGTSYYI
A16372-154	P+WGBDYYI
A16373-190	PLtBDYBrI
E20012	PGBDYGI
E20327	PGBDYIbi
E20329	PLt+GBDYHI
E20333	PTBSYBI
E20335	PGBDYHI
E20351	PGBSYHI
E20352	PLt+GBDYHI
E20355	PLtBSYGI
ORC 2719	PGBDYYD
ORC 5420	WGTDYYI

PRELIMINARY TEST IIA, 2022

REGIONAL SUMMARY

No. of Tests Strain	Yield	Rank	Maturity	Lodging	Plant	Seed	Seed	<u>Composition</u>	
	10 bu/a	10 No.	7 Date	6 Score	Height 6 In.	Size 9 g/100	Quality 9 Score	Protein 9 %	Oil 9 %
IA2102 (II)	67.2	20	9/20	1.5	33	16.4	1.6	33.8	19.2
LD02-4485 (SCN)	70.7	8	0.9	1.6	33	15.7	1.7	32.3	19.6
U11-917032 (SCN) (E)	62.3	24	-4.0	1.3	29	15.9	1.9	31.9	20.5
U14-910097 (SCN) (L)	75.7	1	7.4	1.7	33	15.7	1.6	32.5	20.3
A16317-166	65.1	22	5.5	1.0	29	16.1	1.7	32.9	19.6
A16319-60	69.8	10	4.9	1.1	30	17.3	1.9	31.9	19.8
A16319-94	62.6	23	7.4	1.1	32	15.2	1.7	33.0	19.4
A16321-129	68.2	14	2.5	1.0	28	16.4	1.5	33.7	19.3
A16355-89	71.4	4	6.6	1.0	32	16.4	1.7	33.8	20.0
A16355-145	72.4	2	5.5	1.2	32	16.4	1.8	33.4	20.1
A16359-22	70.8	7	0.6	1.3	31	15.7	1.8	32.9	19.5
A16360-8	68.1	15	3.1	1.0	28	16.3	2.1	31.9	19.8
A16371-79	72.1	3	0.8	1.1	33	14.8	1.7	32.4	19.4
A16371-92	69.8	11	7.5	1.0	33	16.0	1.7	32.7	20.1
A16372-154	67.8	18	7.4	1.2	32	18.1	1.7	34.4	18.8
A16373-190	69.6	12	7.4	1.0	34	16.4	1.6	33.8	19.9
E20012	65.6	21	1.7	1.1	32	18.2	1.3	32.7	19.6
E20327	70.2	9	-1.1	1.0	32	16.6	1.9	32.8	19.9
E20329	71.0	5	0.1	1.1	31	15.6	1.8	32.4	19.9
E20333	69.5	13	1.3	1.3	34	16.3	1.9	31.8	19.9
E20335	68.0	16	2.1	1.4	35	16.9	1.4	33.2	19.4
E20351	67.6	19	4.4	1.2	35	15.1	1.6	33.0	19.5
E20352	67.8	17	3.9	1.6	39	14.3	1.8	32.5	19.5
E20355	70.9	6	6.6	1.3	36	16.0	1.7	33.2	19.2
ORC 2719	45.7	26	-4.5	1.1	30	18.4	1.7	34.8	18.5
ORC 5420	51.6	25	-3.3	1.0	31	17.2	1.7	34.8	19.1
Mean	67.4			1.2	32.1	16.3	1.7	33.0	19.6
C.V. (%)	7.6								
L.S.D. (5%)	3.2								

121.6 Days After Planting

PRELIMINARY TEST IIA, 2022

YIELD (bu/a)

Strain	Mean 10 Tests	Ames IA	Crawfords- ville IA	Suther- land IA	Urbana IL	West Lafayette IN
IA2102 (II)	67.2	71.3	59.7	65.6	56.8	53.5
LD02-4485 (SCN)	70.7	74.1	66.6	61.7	63.9	60.6
U11-917032 (SCN) (E)	62.3	56.9	58.1	61.3	49.7	52.2
U14-910097 (SCN) (L)	75.7	83.6	72.1	59.3	77.1	63.1
A16317-166	65.1	65.3	68.2	55.6	55.9	51.5
A16319-60	69.8	77.5	69.1	58.1	61.3	65.2
A16319-94	62.6	77.5	60.3	58.4	49.0	51.8
A16321-129	68.2	77.1	72.9	65.7	58.8	53.3
A16355-89	71.4	78.7	74.9	60.4	65.9	64.1
A16355-145	72.4	81.8	75.1	60.2	61.4	63.8
A16359-22	70.8	85.1	69.4	66.7	58.2	55.4
A16360-8	68.1	78.8	71.8	62.5	56.6	48.5
A16371-79	72.1	79.2	69.5	61.2	67.9	61.9
A16371-92	69.8	79.4	76.0	55.3	65.3	55.9
A16372-154	67.8	72.9	67.0	60.9	67.7	47.3
A16373-190	69.6	75.3	75.5	59.4	64.1	67.1
E20012	65.6	75.1	57.2	62.0	63.9	52.8
E20327	70.2	79.0	65.0	61.2	62.4	52.4
E20329	71.0	87.4	64.0	66.8	59.1	57.8
E20333	69.5	77.6	67.0	58.6	69.7	66.9
E20335	68.0	85.6	62.0	58.7	60.9	53.8
E20351	67.6	69.1	62.1	60.4	65.0	51.7
E20352	67.8	78.6	62.6	56.1	68.5	62.5
E20355	70.9	80.3	67.2	62.5	68.0	62.7
ORC 2719	45.7	61.4	37.1	30.2	32.2	39.7
ORC 5420	51.6	59.9	46.7	49.1	48.7	46.0
Location Mean		75.7	65.3	59.2	60.7	56.2
C.V. (%)		8.1	6.6	6.6	7.7	9.2
L.S.D. (5%)		12.7	8.9	8.1	8.0	10.7
Row Sp. (In.)		30	30	30	30	30
Rows/Plot		4	4	4	4	4
Reps		2	2	2	2	2

PRELIMINARY TEST IIA, 2022

YIELD (bu/a)

Strain	East Lansing MI	Cotes- field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)	51.6	87.8	78.7	82.7	63.9
LD02-4485 (SCN)	47.0	90.9	86.3	81.7	74.3
U11-917032 (SCN) (E)	37.9	77.3	82.1	83.4	64.0
U14-910097 (SCN) (L)	55.2	84.8	90.7	88.0	82.9
A16317-166	48.0	88.4	81.0	74.6	62.3
A16319-60	46.3	89.4	88.3	76.8	66.2
A16319-94	45.8	81.4	81.1	77.0	44.1
A16321-129	40.7	85.9	86.1	79.1	62.1
A16355-89	38.5	87.9	94.0	76.8	73.0
A16355-145	41.4	86.7	92.5	85.1	76.5
A16359-22	40.3	83.5	92.2	82.9	74.1
A16360-8	43.3	88.9	88.5	77.1	65.3
A16371-79	50.2	89.0	91.0	85.3	65.6
A16371-92	45.5	86.1	87.0	80.9	66.7
A16372-154	57.3	90.6	84.9	72.0	57.1
A16373-190	41.6	88.6	86.4	79.8	58.7
E20012	41.6	73.5	86.8	70.7	72.3
E20327	48.2	91.1	92.9	84.2	65.5
E20329	43.1	90.4	93.4	77.7	70.5
E20333	45.5	89.7	78.4	73.9	67.5
E20335	41.4	86.3	83.0	79.1	69.4
E20351	52.9	86.3	89.0	78.3	61.0
E20352	44.6	77.4	87.3	73.6	67.4
E20355	41.5	90.8	84.6	89.4	62.3
ORC 2719	36.0	53.7	72.5	57.5	36.8
ORC 5420	41.1	57.9	67.1	49.4	49.7
Location Mean	44.9	84.0	85.6	77.6	64.6
C.V. (%)	8.5	6.2	6.3	7.6	9.0
L.S.D. (5%)	6.5	12.7	13.5	15.1	12.0
Row Sp. (In.)	15	30	30	30	17
Rows/Plot	6	4	4	4	5
Reps	2	2	2	2	2

PRELIMINARY TEST IIA, 2022

YIELD RANK

Strain	Yield Rank	Ames IA	Crawfordsville IA	Sutherland IA	Urbana IL	West Lafayette IN
IA2102 (II)	20	21	22	4	20	15
LD02-4485 (SCN)	8	19	15	8	11	10
U11-917032 (SCN) (E)	24	26	23	9	23	19
U14-910097 (SCN) (L)	1	4	6	17	1	6
A16317-166	22	23	11	23	22	22
A16319-60	10	14	10	21	15	3
A16319-94	23	14	21	20	24	20
A16321-129	14	16	5	3	18	16
A16355-89	4	11	4	13	7	4
A16355-145	2	5	3	15	14	5
A16359-22	7	3	9	2	19	13
A16360-8	15	10	7	5	21	23
A16371-79	3	8	8	10	5	9
A16371-92	11	7	1	24	8	12
A16372-154	18	20	13	12	6	24
A16373-190	12	17	2	16	10	1
E20012	21	18	24	7	12	17
E20327	9	9	16	10	13	18
E20329	5	1	17	1	17	11
E20333	13	13	13	19	2	2
E20335	16	2	20	18	16	14
E20351	19	22	19	13	9	21
E20352	17	12	18	22	3	8
E20355	6	6	12	5	4	7
ORC 2719	26	24	26	26	26	26
ORC 5420	25	25	25	25	25	25

PRELIMINARY TEST IIA, 2022

YIELD RANK

Strain	East Lansing MI	Cotes- field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)	4	13	23	8	17
LD02-4485 (SCN)	8	2	15	9	3
U11-917032 (SCN) (E)	25	23	20	6	16
U14-910097 (SCN) (L)	2	19	7	2	1
A16317-166	7	11	22	20	18
A16319-60	9	7	10	19	12
A16319-94	10	21	21	17	25
A16321-129	22	18	16	12	20
A16355-89	24	12	1	18	5
A16355-145	19	14	4	4	2
A16359-22	23	20	5	7	4
A16360-8	14	9	9	16	15
A16371-79	5	8	6	3	13
A16371-92	12	17	12	10	11
A16372-154	1	4	17	23	23
A16373-190	16	10	14	11	22
E20012	17	24	13	24	6
E20327	6	1	3	5	14
E20329	15	5	2	15	7
E20333	11	6	24	21	9
E20335	20	16	19	13	8
E20351	3	15	8	14	21
E20352	13	22	11	22	10
E20355	18	3	18	1	18
ORC 2719	26	26	25	25	26
ORC 5420	21	25	26	26	24

PRELIMINARY TEST IIA, 2022

MATURITY (date)

Strain	Mean 7 Tests	Ames IA*	Crawfords- ville IA	Suther- land IA*	Urbana IL	West Lafayette IN
IA2102 (II)	9/20	9/28	9/13	9/25	9/16	9/13
LD02-4485 (SCN)	1	5	5	0	2	3
U11-917032 (SCN) (E)	-4	1	-4	-2	-3	-3
U14-910097 (SCN) (L)	7		14	3	6	9
A16317-166	6	6	12	2	3	7
A16319-60	5		13	3	3	7
A16319-94	7		13	3	4	9
A16321-129	3	5	6	1	2	5
A16355-89	7		12	3	7	8
A16355-145	6		12	2	4	8
A16359-22	1	5	1	-1	2	3
A16360-8	3		9	0	3	3
A16371-79	1	3	1	0	1	2
A16371-92	8	6	12	2	6	9
A16372-154	7		12	5	7	9
A16373-190	7		14	2	9	9
E20012	2	6	6	0	2	3
E20327	-1	3	0	0	1	-1
E20329	0	5	4	-1	0	3
E20333	1		1	1	3	4
E20335	2		5	2	4	5
E20351	4	1	9	1	3	5
E20352	4	5	10	2	5	5
E20355	7	5	11	3	7	9
ORC 2719	-5	-3	-3	0	-6	-5
ORC 5420	-3	-2	-2	0	-4	-2
Date Planted	5/21	5/23	5/11	5/17	5/17	5/12
Days to Mature	122	128	125	131	122	124

* Killing frost at maturity, data not included in mean.

PRELIMINARY TEST IIA, 2022

MATURITY (date)

Strain	East Lansing MI	Cotes- field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)	9/15		9/26	10/2	9/25
LD02-4485 (SCN)	0		-2	-3	2
U11-917032 (SCN) (E)	-2		-7	-4	-5
U14-910097 (SCN) (L)	8		4	2	10
A16317-166	6		5	2	4
A16319-60	4		4	1	3
A16319-94	16		6	0	5
A16321-129	3		3	-4	3
A16355-89	3		6	3	8
A16355-145	1		4	2	8
A16359-22	-1		1	-2	1
A16360-8	2		3	-2	5
A16371-79	2		-6	1	5
A16371-92	10		3	3	10
A16372-154	9		4	4	7
A16373-190	5		5	3	7
E20012	0		2	-4	3
E20327	-3		1	-4	-2
E20329	1		-2	-3	-1
E20333	2		1	-4	2
E20335	-1		2	-3	3
E20351	5		3	1	5
E20352	4		2	-4	6
E20355	6		4	1	9
ORC 2719	-5		-3	-2	-8
ORC 5420	-1		-8	-4	-2
Date Planted	5/14		6/3	5/31	5/31
Days to Mature	124		115	124	117

PRELIMINARY TEST IIA, 2022

LODGING (score)

Strain	Mean 6 Tests	Ames IA	Crawfords- ville IA	Suther- land IA	Urbana IL	West Lafayette IN
IA2102 (II)	1.5	1.5			2.3	2.0
LD02-4485 (SCN)	1.6	3.5			1.8	1.5
U11-917032 (SCN) (E)	1.3	1.0			1.3	2.0
U14-910097 (SCN) (L)	1.7	2.0			2.3	2.0
A16317-166	1.0	1.0			1.3	1.0
A16319-60	1.1	1.0			1.5	1.0
A16319-94	1.1	1.0			1.3	1.5
A16321-129	1.0	1.0			1.0	1.0
A16355-89	1.0	1.0			1.3	1.0
A16355-145	1.2	2.0			1.0	1.0
A16359-22	1.3	2.5			1.0	1.0
A16360-8	1.0	1.0			1.0	1.0
A16371-79	1.1	1.0			1.8	1.0
A16371-92	1.0	1.0			1.3	1.0
A16372-154	1.2	1.5			1.5	1.0
A16373-190	1.0	1.0			1.0	1.0
E20012	1.1	1.0			1.5	1.0
E20327	1.0	1.0			1.0	1.0
E20329	1.1	1.5			1.0	1.0
E20333	1.3	1.0			1.5	1.5
E20335	1.4	1.5			1.5	1.5
E20351	1.2	1.0			1.5	1.0
E20352	1.6	2.0			2.3	2.0
E20355	1.3	2.0			1.5	1.0
ORC 2719	1.1	1.0			1.8	1.0
ORC 5420	1.0	1.0			1.0	1.0

PRELIMINARY TEST IIA, 2022

LODGING (score)

Strain	East Lansing MI	Cotes- field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)	1.5		1.0		1.0
LD02-4485 (SCN)	1.0		1.0		1.0
U11-917032 (SCN) (E)	1.5		1.0		1.0
U14-910097 (SCN) (L)	1.0		2.0		1.0
A16317-166	1.0		1.0		1.0
A16319-60	1.0		1.0		1.0
A16319-94	1.0		1.0		1.0
A16321-129	1.0		1.0		1.0
A16355-89	1.0		1.0		1.0
A16355-145	1.0		1.0		1.0
A16359-22	1.0		1.0		1.0
A16360-8	1.0		1.0		1.0
A16371-79	1.0		1.0		1.0
A16371-92	1.0		1.0		1.0
A16372-154	1.0		1.0		1.0
A16373-190	1.0		1.0		1.0
E20012	1.0		1.0		1.0
E20327	1.0		1.0		1.0
E20329	1.0		1.0		1.0
E20333	1.5		1.0		1.0
E20335	1.0		2.0		1.0
E20351	1.5		1.0		1.0
E20352	1.0		1.5		1.0
E20355	1.0		1.5		1.0
ORC 2719	1.0		1.0		1.0
ORC 5420	1.0		1.0		1.0

PRELIMINARY TEST IIA, 2022

PLANT HEIGHT (inches)

Strain	Mean 6 Tests	Ames IA	Crawfords- ville IA	Suther- land IA	Urbana IL	West Lafayette IN
IA2102 (II)	33	30			33	30
LD02-4485 (SCN)	33	32			30	32
U11-917032 (SCN) (E)	29	26			31	28
U14-910097 (SCN) (L)	33	31			31	30
A16317-166	29	29			27	27
A16319-60	30	26			29	30
A16319-94	32	30			29	31
A16321-129	28	26			25	28
A16355-89	32	32			29	33
A16355-145	32	34			31	31
A16359-22	31	32			31	25
A16360-8	28	28			28	25
A16371-79	33	32			32	31
A16371-92	33	35			33	30
A16372-154	32	32			34	29
A16373-190	34	32			32	33
E20012	32	33			29	30
E20327	32	29			33	30
E20329	31	32			32	30
E20333	34	33			33	35
E20335	35	35			32	33
E20351	35	35			38	33
E20352	39	37			40	38
E20355	36	37			32	35
ORC 2719	30	26			30	29
ORC 5420	31	28			32	29

PRELIMINARY TEST IIA, 2022

PLANT HEIGHT (inches)

Strain	East Lansing MI	Cotes- field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)	31		38		35
LD02-4485 (SCN)	29		41		34
U11-917032 (SCN) (E)	24		33		31
U14-910097 (SCN) (L)	33		39		35
A16317-166	25		35		31
A16319-60	25		39		33
A16319-94	31		40		33
A16321-129	26		34		31
A16355-89	27		39		35
A16355-145	26		37		35
A16359-22	30		37		34
A16360-8	25		36		28
A16371-79	28		39		35
A16371-92	26		39		33
A16372-154	31		37		33
A16373-190	29		39		37
E20012	27		37		36
E20327	25		41		32
E20329	28		36		31
E20333	29		38		36
E20335	32		43		38
E20351	29		43		35
E20352	34		44		40
E20355	29		45		36
ORC 2719	25		38		31
ORC 5420	26		35		34

PRELIMINARY TEST IIA, 2022

SEED SIZE (g/100)

Strain	Mean 9 Tests	Ames IA	Crawfords- ville IA	Suther- land IA	Urbana IL	West Lafayette IN
IA2102 (II)	16.4	17.0	17.0	16.0	16.5	16.1
LD02-4485 (SCN)	15.7	15.8	15.6	14.1	16.8	16.5
U11-917032 (SCN) (E)	15.9	16.6	15.3	14.9	15.4	16.6
U14-910097 (SCN) (L)	15.7	16.6	15.4	14.4	16.5	16.5
A16317-166	16.1	18.0	16.3	14.4	16.5	16.2
A16319-60	17.3	18.4	17.5	14.9	18.2	18.2
A16319-94	15.2	17.5	15.4	14.2	14.1	14.3
A16321-129	16.4	17.8	17.4	14.7	16.5	16.5
A16355-89	16.4	17.0	17.0	14.9	16.9	16.4
A16355-145	16.4	17.7	17.2	14.8	16.4	16.1
A16359-22	15.7	16.8	15.0	14.5	15.7	16.2
A16360-8	16.3	17.3	16.7	14.7	16.7	16.0
A16371-79	14.8	15.9	14.0	13.4	15.3	15.5
A16371-92	16.0	17.4	16.1	14.0	16.5	16.6
A16372-154	18.1	18.9	18.8	16.5	18.7	19.2
A16373-190	16.4	17.8	17.1	14.7	16.4	16.8
E20012	18.2	18.4	18.2	17.4	18.5	18.6
E20327	16.6	16.9	16.0	15.2	17.6	16.7
E20329	15.6	16.0	15.3	14.2	16.1	16.6
E20333	16.3	17.0	15.9	15.0	17.4	17.1
E20335	16.9	17.0	17.6	15.7	17.6	17.2
E20351	15.1	15.7	14.5	13.5	15.9	15.5
E20352	14.3	15.6	14.2	12.6	15.6	14.5
E20355	16.0	16.6	16.4	14.6	17.5	15.7
ORC 2719	18.4	18.7	17.4	18.7	18.3	18.2
ORC 5420	17.2	17.4	16.3	16.2	17.5	18.0

PRELIMINARY TEST IIA, 2022

SEED SIZE (g/100)

Strain	East Lansing MI	Cotes- field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)	14.4		16.6	17.2	16.7
LD02-4485 (SCN)	13.5		15.4	15.8	17.7
U11-917032 (SCN) (E)	13.9		15.7	17.1	17.8
U14-910097 (SCN) (L)	13.7		14.9	15.6	17.9
A16317-166	14.3		16.7	16.0	16.5
A16319-60	15.2		16.7	17.6	18.7
A16319-94	14.4		16.2	16.5	14.2
A16321-129	14.0		16.8	17.2	16.9
A16355-89	13.9		17.1	17.2	17.5
A16355-145	14.3		16.4	17.4	17.4
A16359-22	13.7		15.8	16.5	17.2
A16360-8	13.5		17.5	17.5	16.8
A16371-79	13.1		14.9	15.3	15.7
A16371-92	14.5		16.6	16.2	16.3
A16372-154	16.9		18.1	18.1	18.0
A16373-190	13.7		16.5	17.1	17.6
E20012	16.0		19.1	17.4	20.1
E20327	14.8		17.4	17.0	18.0
E20329	13.9		16.8	15.3	16.6
E20333	14.7		16.4	15.6	17.5
E20335	15.0		17.2	16.7	18.2
E20351	13.5		16.1	15.9	15.3
E20352	12.7		14.1	14.7	14.8
E20355	13.8		16.3	16.7	16.2
ORC 2719	15.8		20.1	20.6	17.8
ORC 5420	15.8		17.7	17.7	18.4

PRELIMINARY TEST IIA, 2022

SEED QUALITY (score)

Strain	Mean 9 Tests	Ames IA	Crawfords- ville IA	Suther- land IA	Urbana IL	West Lafayette IN
IA2102 (II)	1.6	2.0	2.0	2.0	2.0	1.0
LD02-4485 (SCN)	1.7	2.0	1.5	2.0	3.0	1.0
U11-917032 (SCN) (E)	1.9	3.0	2.0		2.0	1.5
U14-910097 (SCN) (L)	1.6	2.0	2.0	2.0	2.0	1.5
A16317-166	1.7	2.0	2.0	2.0	3.0	1.5
A16319-60	1.9	2.0	3.0	2.0	3.0	1.5
A16319-94	1.7	1.5	2.0	1.0	3.0	1.0
A16321-129	1.5	2.0	1.5	1.0	2.0	1.0
A16355-89	1.7	2.0	2.0	2.5	2.0	1.0
A16355-145	1.8	2.0	2.0	1.5	2.0	1.0
A16359-22	1.8	2.0	2.0	2.0	2.0	2.5
A16360-8	2.1	2.5	3.0	2.5	3.0	1.0
A16371-79	1.7	2.0	1.5	1.5	3.0	1.5
A16371-92	1.7	2.5	2.0	2.0	2.0	1.5
A16372-154	1.7	2.0	2.0	1.0	3.0	1.0
A16373-190	1.6	2.0	2.0	2.0	2.0	1.0
E20012	1.3	2.0	1.0	1.0	2.0	1.5
E20327	1.9	3.0	1.5	2.0	3.0	1.5
E20329	1.8	1.5	2.0	2.5	3.0	1.5
E20333	1.9	2.5	2.5	1.5	2.0	1.5
E20335	1.4	2.0	1.0	1.5	2.0	1.0
E20351	1.6	2.0	2.0	1.0	2.0	1.5
E20352	1.8	2.0	3.0	3.0	2.0	1.0
E20355	1.7	2.0	2.0	1.0	3.0	1.0
ORC 2719	1.7	2.0	2.0	2.0	3.0	1.0
ORC 5420	1.7	2.0	1.0	1.5	3.0	1.0

PRELIMINARY TEST IIA, 2022

SEED QUALITY (score)

Strain	East Lansing MI	Cotes- field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)	2.5		1.0	1.0	1.0
LD02-4485 (SCN)	3.0		1.0	1.0	1.0
U11-917032 (SCN) (E)	3.5		1.0	1.0	1.0
U14-910097 (SCN) (L)	2.0		1.0	1.0	1.0
A16317-166	2.0		1.0	1.0	1.0
A16319-60	3.0		1.0	1.0	1.0
A16319-94	4.0		1.0	1.0	1.0
A16321-129	3.0		1.0	1.0	1.0
A16355-89	2.5		1.0	1.0	1.0
A16355-145	4.5		1.0	1.0	1.0
A16359-22	2.5		1.0	1.0	1.0
A16360-8	3.5		1.0	1.0	1.0
A16371-79	3.0		1.0	1.0	1.0
A16371-92	2.5		1.0	1.0	1.0
A16372-154	3.5		1.0	1.0	1.0
A16373-190	2.5		1.0	1.0	1.0
E20012	1.5		1.0	1.0	1.0
E20327	3.5		1.0	1.0	1.0
E20329	2.5		1.0	1.0	1.0
E20333	4.0		1.0	1.0	1.0
E20335	2.5		1.0	1.0	1.0
E20351	3.0		1.0	1.0	1.0
E20352	2.5		1.0	1.0	1.0
E20355	3.0		1.0	1.0	1.0
ORC 2719	2.0		1.0	1.0	1.0
ORC 5420	4.0		1.0	1.0	1.0

PRELIMINARY TEST IIA, 2022

PROTEIN (%)

Strain	Mean 9 Tests	Ames IA	Crawfords- ville IA	Suther- land IA	Urbana IL	West Lafayette IN
IA2102 (II)	33.8	32.6	32.4	33.7	35.1	32.9
LD02-4485 (SCN)	32.3	33.1	30.9	32.0	33.8	31.6
U11-917032 (SCN) (E)	31.9	32.1	31.0	30.6	32.5	31.2
U14-910097 (SCN) (L)	32.5	32.9	32.8	31.6	33.9	31.1
A16317-166	32.9	32.0	32.9	30.7	35.4	33.8
A16319-60	31.9	32.6	31.3	30.5	35.0	30.3
A16319-94	33.0	32.4	31.9	31.4	35.0	33.8
A16321-129	33.7	34.1	32.8	32.9	35.8	33.0
A16355-89	33.8	33.3	33.1	34.1	35.8	33.6
A16355-145	33.4	34.1	33.0	31.7	35.0	33.0
A16359-22	32.9	33.2	32.4	31.1	34.2	33.7
A16360-8	31.9	31.9	31.7	31.6	33.5	31.4
A16371-79	32.4	33.4	31.2	30.9	33.6	32.3
A16371-92	32.7	34.1	32.9	30.6	34.5	32.6
A16372-154	34.4	35.7	33.2	33.7	36.5	35.2
A16373-190	33.8	35.0	33.6	32.4	35.8	33.2
E20012	32.7	33.0	31.6	32.1	33.1	32.8
E20327	32.8	32.2	31.6	31.4	33.8	32.4
E20329	32.4	33.7	30.9	31.9	33.7	31.7
E20333	31.8	32.8	30.9	30.7	33.3	30.6
E20335	33.2	34.5	32.5	32.5	35.4	31.6
E20351	33.0	32.6	32.9	32.8	34.4	33.0
E20352	32.5	32.2	31.7	32.6	33.3	32.2
E20355	33.2	35.4	33.0	32.3	34.6	32.3
ORC 2719	34.8	34.1	34.4	34.9	35.7	34.5
ORC 5420	34.8	35.5	34.8	33.0	36.3	36.0

PRELIMINARY TEST IIA, 2022

PROTEIN (%)

Strain	East Lansing MI	Cotes- field NE	Mead NE	Phillips NE	Chatham ONT*
IA2102 (II)	33.5		34.3	35.7	34.1
LD02-4485 (SCN)	31.3		32.0	32.5	33.3
U11-917032 (SCN) (E)	32.6		32.4	32.6	32.6
U14-910097 (SCN) (L)	31.1		32.2	33.6	33.1
A16317-166	31.3		34.3	33.1	32.9
A16319-60	31.1		31.8	31.6	32.6
A16319-94	31.3		33.4	34.5	33.4
A16321-129	32.3		34.3	33.0	34.9
A16355-89	32.6		33.3	34.3	34.4
A16355-145	31.5		33.5	34.3	34.8
A16359-22	31.8		32.8	33.0	33.6
A16360-8	29.5		33.1	32.0	32.4
A16371-79	31.3		32.4	33.6	32.6
A16371-92	31.9		32.4	31.9	32.9
A16372-154	32.6		33.5	35.3	34.3
A16373-190	32.4		32.5	34.6	34.5
E20012	31.0		34.3	32.8	33.2
E20327	32.6		33.8	33.7	33.2
E20329	31.0		32.8	32.8	32.8
E20333	30.7		31.2	33.0	32.7
E20335	31.7		33.3	34.4	33.3
E20351	31.7		33.3	33.8	32.7
E20352	31.2		32.7	34.5	32.1
E20355	30.8		34.3	34.1	32.1
ORC 2719	34.4		35.7	35.4	34.4
ORC 5420	34.2		34.0	34.3	34.8

* Data adjusted to 13% moisture.

PRELIMINARY TEST IIA, 2022

OIL (%)

Strain	Mean 9 Tests	Ames IA	Crawfords- ville IA	Suther- land IA	Urbana IL	West Lafayette IN
IA2102 (II)	19.2	19.4	20.3	19.0	19.1	20.3
LD02-4485 (SCN)	19.6	19.0	20.7	19.4	19.5	20.5
U11-917032 (SCN) (E)	20.5	20.2	21.1	20.7	21.0	21.1
U14-910097 (SCN) (L)	20.3	19.7	20.3	20.5	20.0	20.6
A16317-166	19.6	19.6	20.2	20.6	18.8	19.4
A16319-60	19.8	19.1	20.1	20.7	18.9	20.8
A16319-94	19.4	19.3	20.6	20.0	18.9	19.1
A16321-129	19.3	19.1	19.7	19.5	19.0	20.2
A16355-89	20.0	19.6	20.5	20.0	19.9	20.6
A16355-145	20.1	19.4	20.1	20.7	20.1	20.7
A16359-22	19.5	18.9	19.8	20.0	18.8	19.8
A16360-8	19.8	19.5	20.3	20.0	19.6	20.8
A16371-79	19.4	19.0	20.3	19.6	19.4	20.2
A16371-92	20.1	19.4	20.2	20.9	19.7	20.3
A16372-154	18.8	17.9	19.9	19.1	17.9	19.2
A16373-190	19.9	19.0	20.3	20.7	19.5	20.3
E20012	19.6	19.1	20.5	19.4	19.7	19.8
E20327	19.9	19.7	20.6	20.1	19.6	20.7
E20329	19.9	18.7	20.5	19.9	19.7	20.8
E20333	19.9	18.8	20.1	20.4	19.7	20.9
E20335	19.4	18.2	20.0	19.6	19.2	20.5
E20351	19.5	19.1	20.1	19.4	19.6	19.9
E20352	19.5	19.2	20.2	19.3	19.7	20.3
E20355	19.2	17.9	19.7	19.8	19.0	19.8
ORC 2719	18.5	18.6	19.1	18.7	18.4	18.9
ORC 5420	19.1	18.6	19.5	19.6	18.4	19.0

PRELIMINARY TEST IIA, 2022

OIL (%)

Strain	East Lansing MI	Cotes- field NE	Mead NE	Phillips NE	Chatham ONT*
IA2102 (II)	19.3		18.7	18.1	19.0
LD02-4485 (SCN)	20.2		19.6	18.9	19.2
U11-917032 (SCN) (E)	20.4		20.7	19.6	20.2
U14-910097 (SCN) (L)	21.0		20.4	19.2	20.6
A16317-166	20.6		19.3	19.0	19.2
A16319-60	20.4		19.9	19.3	19.2
A16319-94	20.0		19.1	18.3	19.0
A16321-129	19.8		18.9	19.3	18.7
A16355-89	20.7		20.3	19.4	19.5
A16355-145	21.0		20.1	19.2	19.3
A16359-22	20.2		19.4	19.9	19.1
A16360-8	20.6		19.4	19.4	19.1
A16371-79	20.1		19.0	18.7	18.7
A16371-92	20.4		20.0	20.4	19.2
A16372-154	19.7		19.2	17.9	18.8
A16373-190	20.5		20.1	19.3	19.1
E20012	20.5		19.0	19.2	19.2
E20327	20.4		19.1	19.3	19.9
E20329	20.7		19.5	19.3	19.7
E20333	20.4		19.9	19.2	19.6
E20335	20.3		19.2	18.2	19.2
E20351	20.0		19.3	18.8	19.4
E20352	20.1		19.8	18.5	19.0
E20355	20.3		18.8	18.7	18.9
ORC 2719	18.7		18.1	17.8	18.5
ORC 5420	19.2		19.8	19.0	18.7

* Data adjusted to 13% moisture.

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**Northern Regional Uniform Test
Preliminary Test IIB, 2022**

Ent.	Strain	Parentage		Seed Source	Gen. Comp.	Unique Traits
		Female	Male			
1	IA2102 (II)	A04-545045	AgriPro 98180-A01-0613	Cai	F4	
2	LD02-4485	M90-184111	IA3010	Diers	F5	SCN
3	U11-917032 (E)	LD02-4485	U03-100612	Graef	F6	SCN, HR, MR, IDC
4	U14-910097 (L)	U09-105007	LD07-3419	Graef	F5	Rps, SCN (HR, HR)
5	CR190377	DS11-15020	PI417015	Rainey	F5	Rps, SCN
6	CR191241	PI22S06-1364043	DS11-15053	Rainey	F5	Rps, SCN
7	CR192686	DS11-15020	DS11-40192	Rainey	F5	Rps, SCN
8	CR193835	DS11-15083	DS11-42127	Rainey	F5	Rps, SCN
9	CR195072	6J150-1-26	Plant 75	Rainey	F5	Rps
10	HM19-33018	HM13-R010	HM13-W045	McHale	F4	Rps
11	HM19-36079	Kottman	Wyandot14	McHale	F4	Rps
12	LD19-5916	LD12-12701a	U13-603120	Diers	F5	SCN
13	LD19-7145	LD12-459	LD11-2170	Diers	F5	SCN, Rps
14	LD19-7165	LD12-459	LD11-2170	Diers	F5	SCN, Rps
15	U19-209086	U14-222063	U16-610243	Graef	F5	Rps
16	U19-212101	U13-227425	U11-920017	Graef	F5	IDC, SCN, Rps
17	U19-251062	U14-925152	U16-610243	Graef	F5	IDC, SCN, Rps
18	U19-253059	U14-222063	U14-925152	Graef	F5	IDC, SCN, Rps
19	U19-273032	U16-610243	U16-905090	Graef	F5	Rps
20	U19-274026	U16-610243	U16-905090	Graef	F5	Rps
21	U20-908101	U14-910097	U16-928123	Graef	F5	IDC, SCN, Rps
22	U20-909049	ORC_3713N	U16-932015	Graef	F5	IDC, SCN, Rps
23	U20-910082	U14-910097	U16-932015	Graef	F5	IDC, SCN, Rps
24	U20-911031	U14-206326	U16-216354	Graef	F5	IDC, Rps
25	U20-915034	U14-206326	U16-932015	Graef	F5	IDC, Rps
26	U20-921017	U17-609217	U17-618174	Graef	F5	Rps
27	U20-921089	U16-216354	U17-618174	Graef	F5	Rps
28	U20-922007	U16-928123	U16-932015	Graef	F5	IDC, Rps
29	U20-925026	U14-910097	U16-929037	Graef	F5	IDC, SCN, Rps

PRELIMINARY TEST IIB, 2022

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code
IA2102 (II)	WGTDYYI
LD02-4485 (SCN)	PGBDYBfI
U11-917032 (SCN) (E)	PTBDYBI
U14-910097 (SCN) (L)	PGTDYBfI
CR190377	P+WLt+GB+TDYHI
CR191241	PLtTDYBI
CR192686	WTBSYHI
CR193835	PGBDYBfI
CR195072	WLt+GBSYHI
HM19-33018	PTBSYBI
HM19-36079	WGTDYYI
LD19-5916	PLtBDYBI
LD19-7145	PLtBDYBrI
LD19-7165	PLtBDYBI
U19-209086	PGBDYIbI
U19-212101	PLtBDYBrI
U19-251062	PGBDYIbI
U19-253059	P+WLt+GBSYHI
U19-273032	PLtBDYBI
U19-274026	PLt+GBDYHI
U20-908101	PLt+GB+TDYHI
U20-909049	PGB+TDYHI
U20-910082	WLtTDYBrI
U20-911031	WLtBSYBI
U20-915034	WLtBDYBI
U20-921017	PGBDYYI
U20-921089	WGBDYBfI
U20-922007	P+WLtBDYHI
U20-925026	PGBDYIbI

PRELIMINARY TEST IIB, 2022

REGIONAL SUMMARY

No. of Tests Strain	Yield	Rank	Maturity	Lodging	Plant	Seed	Seed	<u>Composition</u>	
	10 bu/a	10 No.	7 Date	6 Score	6 In.	9 g/100	9 Score	9 Protein %	9 Oil %
IA2102 (II)	68.6	16	9/21	1.5	34	16.6	1.6	33.7	19.1
LD02-4485 (SCN)	73.1	6	-0.1	1.5	33	15.6	1.8	31.9	19.8
U11-917032 (SCN) (E)	63.6	27	-4.9	1.4	31	16.1	1.9	31.9	20.7
U14-910097 (SCN) (L)	75.1	5	6.0	2.0	32	15.8	1.6	32.1	20.5
CR190377	64.0	25	3.7	1.6	34	14.4	1.7	31.1	20.2
CR191241	63.8	26	8.2	1.5	36	16.8	1.8	33.0	19.4
CR192686	67.9	22	8.1	1.5	36	17.4	1.7	32.7	19.9
CR193835	67.7	23	1.9	1.3	30	15.4	1.6	31.9	20.3
CR195072	68.6	17	9.3	1.3	36	16.3	1.6	33.9	18.8
HM19-33018	63.2	29	8.0	2.4	41	15.4	1.6	33.2	19.4
HM19-36079	63.3	28	6.1	1.2	34	21.1	1.8	33.9	19.6
LD19-5916	71.5	8	1.5	1.0	33	16.2	1.8	32.1	20.0
LD19-7145	77.5	3	2.0	1.0	28	16.5	1.6	32.9	19.1
LD19-7165	78.2	2	3.1	1.0	31	16.3	1.8	33.0	19.2
U19-209086	68.3	18	0.3	1.1	30	15.0	1.4	32.4	20.0
U19-212101	67.4	24	2.1	1.2	31	15.5	1.7	30.8	20.4
U19-251062	68.1	21	2.4	1.1	32	16.6	1.8	33.6	20.0
U19-253059	71.0	12	4.4	1.7	32	16.2	1.8	33.0	19.6
U19-273032	68.2	20	4.0	1.2	36	15.7	1.6	33.1	20.1
U19-274026	71.5	10	2.6	1.2	34	14.0	1.5	31.3	20.8
U20-908101	78.3	1	3.3	1.3	33	16.0	1.7	32.6	20.6
U20-909049	69.2	15	-4.8	1.1	33	16.4	1.7	32.0	20.8
U20-910082	75.6	4	2.1	1.3	33	16.4	1.7	32.0	20.6
U20-911031	71.4	11	4.0	1.1	34	13.4	1.8	32.3	19.8
U20-915034	70.4	13	2.1	1.0	34	16.8	1.8	31.7	20.1
U20-921017	70.1	14	1.4	1.2	34	12.4	1.4	31.4	20.1
U20-921089	71.5	9	5.6	1.5	34	13.3	1.4	31.1	20.4
U20-922007	71.8	7	-3.6	1.3	33	17.4	1.8	31.8	20.2
U20-925026	68.2	19	1.3	1.4	34	16.0	1.7	32.5	20.3
Mean	69.9			1.3	33.2	15.9	1.7	32.4	20.0
C.V. (%)	9.5								
L.S.D. (5%)	4.1								

123.0 Days After Planting

PRELIMINARY TEST IIB, 2022

YIELD (bu/a)

Strain	Mean 10 Tests	Ames IA	Crawfords- ville IA	Suther- land IA	Urbana IL	West Lafayette IN
IA2102 (II)	68.6	69.7	68.0	63.8	62.5	59.3
LD02-4485 (SCN)	73.1	80.7	68.2	63.5	73.8	72.7
U11-917032 (SCN) (E)	63.6	76.8	64.5	60.2	59.7	50.9
U14-910097 (SCN) (L)	75.1	69.8	73.0	63.5	80.0	67.0
CR190377	64.0	74.5	58.6	54.8	63.9	57.8
CR191241	63.8	69.2	69.0	55.4	66.5	56.8
CR192686	67.9	73.1	68.0	57.6	65.8	62.8
CR193835	67.7	72.7	72.4	57.4	62.0	62.8
CR195072	68.6	71.0	65.1	57.7	64.3	66.5
HM19-33018	63.2	68.1	62.3	58.6	67.5	64.5
HM19-36079	63.3	69.2	62.5	62.5	54.0	58.7
LD19-5916	71.5	77.3	68.9	70.1	70.0	69.0
LD19-7145	77.5	86.6	79.4	67.3	78.1	70.0
LD19-7165	78.2	80.7	84.0	76.5	71.9	70.6
U19-209086	68.3	76.3	68.6	63.5	67.3	57.5
U19-212101	67.4	73.5	68.8	59.6	62.2	57.4
U19-251062	68.1	73.6	67.7	65.8	65.3	63.4
U19-253059	71.0	73.6	75.6	63.1	66.3	62.9
U19-273032	68.2	73.3	62.3	67.4	71.4	64.8
U19-274026	71.5	75.0	68.6	62.9	68.3	70.7
U20-908101	78.3	86.3	75.2	65.7	77.0	69.3
U20-909049	69.2	93.2	54.1	56.6	62.2	64.1
U20-910082	75.6	82.4	70.7	63.4	74.3	64.7
U20-911031	71.4	69.6	67.7	67.4	63.6	65.1
U20-915034	70.4	81.8	74.8	63.0	69.8	66.2
U20-921017	70.1	68.6	63.1	65.3	71.4	70.1
U20-921089	71.5	66.2	71.6	63.3	73.1	72.2
U20-922007	71.8	71.1	66.1	66.6	70.0	71.9
U20-925026	68.2	76.3	57.3	62.3	74.6	58.8
Location Mean		75.2	68.1	62.9	68.2	64.4
C.V. (%)		9.7	6.6	5.8	6.2	8.8
L.S.D. (5%)		15.0	9.2	7.5	7.2	11.7
Row Sp. (In.)		30	30	30	30	30
Rows/Plot		4	4	4	4	4
Reps		2	2	2	2	2

PRELIMINARY TEST IIB, 2022

YIELD (bu/a)

Strain	East Lansing MI	Cotes- field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)	48.5	83.6	82.8	75.3	72.8
LD02-4485 (SCN)	59.6	86.6	80.0	75.4	70.7
U11-917032 (SCN) (E)	49.3	80.3	70.5	67.2	56.8
U14-910097 (SCN) (L)	59.7	81.5	96.2	80.2	79.7
CR190377	63.9	77.7	71.8	71.1	45.4
CR191241	53.2	70.0	80.7	70.7	46.8
CR192686	69.3	72.6	88.4	68.7	52.7
CR193835	53.9	90.6	85.5	58.8	60.8
CR195072	56.1	77.4	89.8	68.5	69.1
HM19-33018	52.3	61.1	68.4	71.8	57.7
HM19-36079	60.7	79.6	73.7	61.6	50.5
LD19-5916	48.7	88.0	83.1	72.8	67.1
LD19-7145	48.5	91.4	90.8	86.0	77.4
LD19-7165	47.4	94.4	91.1	87.2	78.1
U19-209086	66.6	86.7	84.9	70.0	41.4
U19-212101	59.3	91.1	86.1	72.1	43.4
U19-251062	50.6	78.8	82.0	70.6	63.5
U19-253059	60.5	90.9	84.1	83.8	49.3
U19-273032	58.8	81.2	82.9	69.2	50.9
U19-274026	62.1	87.4	86.6	81.8	51.2
U20-908101	75.2	94.3	97.6	86.3	56.6
U20-909049	43.4	89.2	86.7	75.3	67.3
U20-910082	63.0	89.8	85.9	80.7	81.4
U20-911031	71.2	83.8	94.5	80.3	51.2
U20-915034	47.4	81.3	93.2	73.5	52.9
U20-921017	50.2	98.4	87.9	74.3	51.5
U20-921089	54.7	90.3	91.3	77.1	55.0
U20-922007	63.7	93.7	85.5	80.2	49.2
U20-925026	56.2	73.9	90.8	78.0	53.9
Location Mean	57.0	84.3	85.3	74.8	58.8
C.V. (%)	8.3	7.2	7.0	10.0	10.9
L.S.D. (5%)	8.0	14.9	14.7	19.1	13.1
Row Sp. (In.)	15	30	30	30	17
Rows/Plot	6	4	4	4	5
Reps	2	2	2	2	2

PRELIMINARY TEST IIB, 2022

YIELD RANK

Strain	Yield Rank	Ames IA	Crawfordsville IA	Sutherland IA	Urbana IL	West Lafayette IN
IA2102 (II)	16	23	16	10	24	22
LD02-4485 (SCN)	6	6	15	11	6	1
U11-917032 (SCN) (E)	27	9	22	21	28	29
U14-910097 (SCN) (L)	5	22	6	11	1	10
CR190377	25	13	27	29	22	25
CR191241	26	25	10	28	17	28
CR192686	22	18	16	25	19	20
CR193835	23	19	7	26	27	20
CR195072	17	21	21	24	21	11
HM19-33018	29	28	25	23	15	16
HM19-36079	28	25	24	19	29	24
LD19-5916	8	8	11	2	11	9
LD19-7145	3	2	2	5	2	7
LD19-7165	2	6	1	1	8	5
U19-209086	18	10	13	11	16	26
U19-212101	24	16	12	22	25	27
U19-251062	21	14	18	7	20	18
U19-253059	12	14	3	16	18	19
U19-273032	20	17	25	3	10	14
U19-274026	10	12	13	18	14	4
U20-908101	1	3	4	8	3	8
U20-909049	15	1	29	27	26	17
U20-910082	4	4	9	14	5	15
U20-911031	11	24	18	3	23	13
U20-915034	13	5	5	17	13	12
U20-921017	14	27	23	9	9	6
U20-921089	9	29	8	15	7	2
U20-922007	7	20	20	6	12	3
U20-925026	19	10	28	20	4	23

PRELIMINARY TEST IIB, 2022

YIELD RANK

Strain	East Lansing MI	Cotes- field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)	25	17	22	14	5
LD02-4485 (SCN)	12	15	25	12	6
U11-917032 (SCN) (E)	23	21	28	27	13
U14-910097 (SCN) (L)	11	18	2	8	2
CR190377	5	24	27	20	27
CR191241	19	28	24	21	26
CR192686	3	27	10	25	18
CR193835	18	8	16	29	11
CR195072	16	25	9	26	7
HM19-33018	20	29	29	19	12
HM19-36079	9	22	26	28	23
LD19-5916	24	12	20	17	9
LD19-7145	26	5	7	3	4
LD19-7165	27	2	6	1	3
U19-209086	4	14	18	23	29
U19-212101	13	6	14	18	28
U19-251062	21	23	23	22	10
U19-253059	10	7	19	4	24
U19-273032	14	20	21	24	22
U19-274026	8	13	13	5	20
U20-908101	1	3	1	2	14
U20-909049	29	11	12	13	8
U20-910082	7	10	15	6	1
U20-911031	2	16	3	7	20
U20-915034	28	19	4	16	17
U20-921017	22	1	11	15	19
U20-921089	17	9	5	11	15
U20-922007	6	4	17	8	25
U20-925026	15	26	8	10	16

PRELIMINARY TEST IIB, 2022

MATURITY (date)

Strain	Mean 7 Tests	Ames IA*	Crawfords- ville IA	Suther- land IA*	Urbana IL	West Lafayette IN
IA2102 (II)	9/21	9/27	9/18	9/25	9/17	9/15
LD02-4485 (SCN)	-0	3	0	-1	0	1
U11-917032 (SCN) (E)	-5	0	-9	-2	-3	-4
U14-910097 (SCN) (L)	6		9	3	6	7
CR190377	4	4	2	2	3	6
CR191241	8		9	3	7	8
CR192686	8		8	2	6	8
CR193835	2		1	0	2	3
CR195072	9	5	8	3	9	9
HM19-33018	8		9	3	8	9
HM19-36079	6	4	9	3	5	8
LD19-5916	2	1	-1	1	1	2
LD19-7145	2		2	1	2	4
LD19-7165	3	3	2	1	2	5
U19-209086	0		0	1	0	2
U19-212101	2	4	3	1	1	2
U19-251062	2	0	6	2	2	4
U19-253059	4	2	7	3	2	3
U19-273032	4	2	4	3	3	3
U19-274026	3	5	3	2	2	4
U20-908101	3		7	2	4	5
U20-909049	-5	-1	-8	-1	-3	-2
U20-910082	2		3	1	2	3
U20-911031	4	3	5	2	2	3
U20-915034	2	1	4	1	1	4
U20-921017	1	-2	1	0	1	5
U20-921089	6	0	6	2	4	7
U20-922007	-4	-2	-6	-2	-1	-2
U20-925026	1	2	1	0	2	2
Date Planted	5/21	5/23	5/11	5/17	5/17	5/12
Days to Mature	123	127	130	131	123	126

* Killing frost at maturity, data not included in mean.

PRELIMINARY TEST IIB, 2022

MATURITY (date)

Strain	East Lansing MI	Cotes- field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)	9/18		9/23	10/1	9/28
LD02-4485 (SCN)	2		1	-2	-2
U11-917032 (SCN) (E)	-5		-4	-3	-7
U14-910097 (SCN) (L)	7		7	2	5
CR190377	7		6	1	2
CR191241	15		9	4	6
CR192686	17		8	2	8
CR193835	4		4	-3	2
CR195072	17		9	4	10
HM19-33018	11		10	3	6
HM19-36079	11		8	0	3
LD19-5916	7		4	-3	1
LD19-7145	0		4	2	0
LD19-7165	7		5	1	1
U19-209086	3		5	-3	-4
U19-212101	8		3	-1	-1
U19-251062	-1		3	-1	4
U19-253059	17		6	-1	-3
U19-273032	16		5	0	-3
U19-274026	5		7	-1	-1
U20-908101	2		7	-3	2
U20-909049	-7		-5	-3	-6
U20-910082	5		5	-3	0
U20-911031	7		7	3	1
U20-915034	0		5	-3	4
U20-921017	3		3	-2	-1
U20-921089	15		4	3	1
U20-922007	-5		-2	-3	-7
U20-925026	5		1	-1	-1
Date Planted	5/14		6/3	5/31	5/31
Days to Mature	127		112	123	120

PRELIMINARY TEST IIB, 2022

LODGING (score)

Strain	Mean 6 Tests	Ames IA	Crawfords- ville IA	Suther- land IA	Urbana IL	West Lafayette IN
IA2102 (II)	1.5	2.0			2.3	2.0
LD02-4485 (SCN)	1.5	1.5			2.0	2.0
U11-917032 (SCN) (E)	1.4	1.0			1.5	1.5
U14-910097 (SCN) (L)	2.0	4.0			2.0	2.0
CR190377	1.6	1.0			2.3	2.0
CR191241	1.5	1.0			1.8	2.0
CR192686	1.5	1.0			2.3	2.0
CR193835	1.3	1.0			1.5	2.0
CR195072	1.3	1.5			2.0	1.5
HM19-33018	2.4	3.5			2.8	2.5
HM19-36079	1.2	1.0			1.0	1.5
LD19-5916	1.0	1.0			1.3	1.0
LD19-7145	1.0	1.0			1.3	1.0
LD19-7165	1.0	1.0			1.3	1.0
U19-209086	1.1	1.0			1.0	1.0
U19-212101	1.2	1.0			1.5	1.0
U19-251062	1.1	1.0			1.5	1.0
U19-253059	1.7	2.5			1.5	2.0
U19-273032	1.2	1.0			1.5	1.0
U19-274026	1.2	1.0			1.0	1.0
U20-908101	1.3	1.0			1.5	1.5
U20-909049	1.1	1.5			1.3	1.0
U20-910082	1.3	1.0			1.5	1.5
U20-911031	1.1	1.5			1.0	1.0
U20-915034	1.0	1.0			1.3	1.0
U20-921017	1.2	1.0			1.5	1.5
U20-921089	1.5	3.0			1.5	1.0
U20-922007	1.3	2.0			1.5	1.0
U20-925026	1.4	2.0			1.5	1.0

PRELIMINARY TEST IIB, 2022

LODGING (score)

Strain	East Lansing MI	Cotes- field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)	1.0		1.0		1.0
LD02-4485 (SCN)	1.5		1.0		1.0
U11-917032 (SCN) (E)	2.0		1.0		1.5
U14-910097 (SCN) (L)	1.5		1.5		1.0
CR190377	2.5		1.0		1.0
CR191241	2.5		1.0		1.0
CR192686	2.0		1.0		1.0
CR193835	1.5		1.0		1.0
CR195072	1.0		1.0		1.0
HM19-33018	2.0		2.5		1.0
HM19-36079	1.5		1.0		1.0
LD19-5916	1.0		1.0		1.0
LD19-7145	1.0		1.0		1.0
LD19-7165	1.0		1.0		1.0
U19-209086	1.5		1.0		1.0
U19-212101	1.5		1.0		1.0
U19-251062	1.0		1.0		1.0
U19-253059	2.0		1.0		1.0
U19-273032	1.5		1.0		1.0
U19-274026	1.0		2.0		1.0
U20-908101	1.5		1.0		1.0
U20-909049	1.0		1.0		1.0
U20-910082	1.5		1.0		1.0
U20-911031	1.0		1.0		1.0
U20-915034	1.0		1.0		1.0
U20-921017	1.0		1.0		1.0
U20-921089	1.5		1.0		1.0
U20-922007	1.0		1.0		1.0
U20-925026	2.0		1.0		1.0

PRELIMINARY TEST IIB, 2022

PLANT HEIGHT (inches)

Strain	Mean 6 Tests	Ames IA	Crawfords- ville IA	Suther- land IA	Urbana IL	West Lafayette IN
IA2102 (II)	34	33			33	33
LD02-4485 (SCN)	33	34			31	33
U11-917032 (SCN) (E)	31	30			36	28
U14-910097 (SCN) (L)	32	34			31	31
CR190377	34	33			32	34
CR191241	36	34			35	35
CR192686	36	34			34	37
CR193835	30	26			35	30
CR195072	36	36			30	37
HM19-33018	41	40			35	41
HM19-36079	34	34			34	33
LD19-5916	33	32			35	32
LD19-7145	28	27			30	26
LD19-7165	31	31			31	29
U19-209086	30	28			37	28
U19-212101	31	30			31	30
U19-251062	32	30			32	29
U19-253059	32	34			29	32
U19-273032	36	36			32	35
U19-274026	34	31			30	36
U20-908101	33	30			34	34
U20-909049	33	32			31	34
U20-910082	33	32			34	30
U20-911031	34	35			35	35
U20-915034	34	35			33	33
U20-921017	34	33			35	34
U20-921089	34	38			31	34
U20-922007	33	34			34	33
U20-925026	34	34			33	33

PRELIMINARY TEST IIB, 2022

PLANT HEIGHT (inches)

Strain	East Lansing MI	Cotes- field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)	30		40		35
LD02-4485 (SCN)	26		39		35
U11-917032 (SCN) (E)	29		32		31
U14-910097 (SCN) (L)	28		35		31
CR190377	34		38		33
CR191241	38		42		35
CR192686	34		41		37
CR193835	23		34		30
CR195072	34		42		38
HM19-33018	40		46		42
HM19-36079	28		40		35
LD19-5916	30		38		35
LD19-7145	27		30		31
LD19-7165	27		34		32
U19-209086	27		33		28
U19-212101	32		36		31
U19-251062	29		40		33
U19-253059	32		34		31
U19-273032	37		39		37
U19-274026	31		42		33
U20-908101	32		39		31
U20-909049	32		38		33
U20-910082	33		38		33
U20-911031	31		38		31
U20-915034	30		42		31
U20-921017	28		41		33
U20-921089	31		40		32
U20-922007	28		38		31
U20-925026	33		40		34

PRELIMINARY TEST IIB, 2022

SEED SIZE (g/100)

Strain	Mean 9 Tests	Ames IA	Crawfords- ville IA	Suther- land IA	Urbana IL	West Lafayette IN
IA2102 (II)	16.6	16.5	16.2	15.7	17.8	16.4
LD02-4485 (SCN)	15.6	15.9	14.7	14.4	15.9	16.7
U11-917032 (SCN) (E)	16.1	16.3	15.7	14.8	16.4	15.8
U14-910097 (SCN) (L)	15.8	16.4	15.8	14.8	16.5	16.2
CR190377	14.4	15.4	14.3	13.8	15.5	15.1
CR191241	16.8	16.7	16.6	16.5	17.3	16.3
CR192686	17.4	16.6	17.4	16.1	17.9	17.9
CR193835	15.4	16.2	13.2	14.6	16.2	15.5
CR195072	16.3	15.8	15.7	15.0	17.3	16.1
HM19-33018	15.4	15.8	15.3	13.9	15.9	15.2
HM19-36079	21.1	21.1	20.7	19.8	21.6	21.5
LD19-5916	16.2	16.7	15.9	14.9	16.4	16.6
LD19-7145	16.5	16.3	16.7	15.2	17.9	17.2
LD19-7165	16.3	16.8	16.1	16.2	16.7	16.2
U19-209086	15.0	16.0	15.1	14.5	15.5	14.7
U19-212101	15.5	15.4	16.1	14.6	16.5	14.6
U19-251062	16.6	17.2	17.0	15.4	16.5	17.4
U19-253059	16.2	16.5	16.1	14.5	15.9	15.2
U19-273032	15.7	16.4	15.4	14.9	16.3	15.1
U19-274026	14.0	13.9	13.9	13.1	14.8	14.2
U20-908101	16.0	16.7	16.5	15.5	16.6	16.3
U20-909049	16.4	16.6	16.3	15.5	17.4	16.9
U20-910082	16.4	17.1	16.6	15.2	17.3	16.6
U20-911031	13.4	13.5	13.2	12.8	13.1	13.1
U20-915034	16.8	18.1	16.2	16.5	17.2	17.4
U20-921017	12.4	13.1	12.1	11.8	13.1	13.3
U20-921089	13.3	13.5	13.5	12.1	14.1	13.5
U20-922007	17.4	17.5	17.2	16.8	17.9	17.8
U20-925026	16.0	17.0	16.4	14.8	17.2	16.1

PRELIMINARY TEST IIB, 2022

SEED SIZE (g/100)

Strain	East Lansing MI	Cotes- field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)	15.2		17.5	16.9	17.2
LD02-4485 (SCN)	13.9		15.6	15.5	17.5
U11-917032 (SCN) (E)	15.0		16.3	17.0	17.3
U14-910097 (SCN) (L)	14.1		15.2	16.1	17.3
CR190377	13.1		13.8	14.2	14.6
CR191241	17.4		17.3	16.6	16.5
CR192686	17.3		18.4	17.6	17.2
CR193835	13.7		15.7	16.9	16.3
CR195072	15.8		16.6	16.9	17.6
HM19-33018	15.2		15.6	15.3	16.3
HM19-36079	21.7		22.0	19.8	21.4
LD19-5916	15.3		16.4	16.3	17.0
LD19-7145	15.0		15.7	16.3	17.9
LD19-7165	14.5		16.5	16.9	16.7
U19-209086	14.1		15.2	15.7	13.8
U19-212101	14.0		16.2	16.9	15.7
U19-251062	14.2		17.0	17.2	17.6
U19-253059	15.3		16.7	20.6	14.9
U19-273032	16.0		16.1	16.5	14.4
U19-274026	12.2		15.2	15.5	13.4
U20-908101	14.4		16.3	16.1	15.7
U20-909049	12.9		17.1	17.5	17.3
U20-910082	15.2		15.8	15.8	18.0
U20-911031	12.0		15.4	15.7	12.1
U20-915034	14.6		17.4	17.1	16.7
U20-921017	9.7		12.5	13.3	12.4
U20-921089	12.6		12.8	14.1	13.1
U20-922007	16.1		17.6	18.9	17.3
U20-925026	14.1		15.8	16.5	15.8

PRELIMINARY TEST IIB, 2022

SEED QUALITY (score)

Strain	Mean 9 Tests	Ames IA	Crawfords- ville IA	Suther- land IA	Urbana IL	West Lafayette IN
IA2102 (II)	1.6	2.5	2.0	1.0	3.0	1.0
LD02-4485 (SCN)	1.8	2.0	2.0	2.5	3.0	1.0
U11-917032 (SCN) (E)	1.9	2.5	3.0	2.0	2.0	1.0
U14-910097 (SCN) (L)	1.6	2.5	2.0	1.5	2.0	1.0
CR190377	1.7	2.0	3.0	2.0	2.0	1.0
CR191241	1.8	2.0	2.0	2.5	2.0	1.0
CR192686	1.7	2.0	2.0	2.0	2.0	1.0
CR193835	1.6	2.0	2.0	2.0	1.0	1.0
CR195072	1.6	2.0	2.0	2.0	2.0	1.0
HM19-33018	1.6	2.0	2.5	2.0	2.0	1.0
HM19-36079	1.8	2.5	1.0	1.0	3.0	1.0
LD19-5916	1.8	2.5	2.0	2.0	2.0	1.0
LD19-7145	1.6	2.0	2.0	1.5	2.0	1.0
LD19-7165	1.8	2.0	2.5	2.0	2.0	1.0
U19-209086	1.4	2.0	2.0	1.0	2.0	1.0
U19-212101	1.7	2.0	2.5	1.0	2.0	1.0
U19-251062	1.8	2.0	3.0	2.5	2.0	1.0
U19-253059	1.8	2.0	2.0	2.0	3.0	1.0
U19-273032	1.6	2.0	2.0	2.0	2.0	1.0
U19-274026	1.5	2.0	1.0	2.5	1.0	1.0
U20-908101	1.7	2.0	2.0	2.0	2.0	1.5
U20-909049	1.7	2.0	2.0	2.0	2.0	1.5
U20-910082	1.7	2.5	2.0	2.0	2.0	1.0
U20-911031	1.8	2.5	2.0	3.0	2.0	1.0
U20-915034	1.8	2.0	2.5	2.5	2.0	1.5
U20-921017	1.4	2.0	2.0	1.0	2.0	1.0
U20-921089	1.4	1.5	2.0	1.0	2.0	1.0
U20-922007	1.8	2.0	2.0	3.0	2.0	1.0
U20-925026	1.7	2.0	3.0	1.0	2.0	1.0

PRELIMINARY TEST IIB, 2022

SEED QUALITY (score)

Strain	East Lansing MI	Cotes- field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)	1.5		1.0	1.0	1.0
LD02-4485 (SCN)	2.5		1.0	1.0	1.0
U11-917032 (SCN) (E)	3.5		1.0	1.0	1.0
U14-910097 (SCN) (L)	2.5		1.0	1.0	1.0
CR190377	2.5		1.0	1.0	1.0
CR191241	3.5		1.0	1.0	1.0
CR192686	3.5		1.0	1.0	1.0
CR193835	3.0		1.0	1.0	1.0
CR195072	2.5		1.0	1.0	1.0
HM19-33018	2.0		1.0	1.0	1.0
HM19-36079	4.5		1.0	1.0	1.0
LD19-5916	3.5		1.0	1.0	1.0
LD19-7145	2.5		1.0	1.0	1.0
LD19-7165	3.5		1.0	1.0	1.0
U19-209086	2.0		1.0	1.0	1.0
U19-212101	4.0		1.0	1.0	1.0
U19-251062	2.5		1.0	1.0	1.0
U19-253059	3.0		1.0	1.0	1.0
U19-273032	2.0		1.0	1.0	1.0
U19-274026	3.0		1.0	1.0	1.0
U20-908101	2.5		1.0	1.0	1.0
U20-909049	2.5		1.0	1.0	1.0
U20-910082	2.5		1.0	1.0	1.0
U20-911031	2.5		1.0	1.0	1.0
U20-915034	2.5		1.0	1.0	1.0
U20-921017	2.0		1.0	1.0	1.0
U20-921089	2.5		1.0	1.0	1.0
U20-922007	3.0		1.0	1.0	1.0
U20-925026	3.0		1.0	1.0	1.0

PRELIMINARY TEST IIB, 2022

PROTEIN (%)

Strain	Mean 9 Tests	Ames IA	Crawfords- ville IA	Suther- land IA	Urbana IL	West Lafayette IN
IA2102 (II)	33.7	33.9	33.0	33.0	34.7	32.4
LD02-4485 (SCN)	31.9	33.1	31.5	30.1	32.6	32.2
U11-917032 (SCN) (E)	31.9	31.9	30.7	30.5	33.0	30.9
U14-910097 (SCN) (L)	32.1	31.9	32.4	30.3	33.1	31.3
CR190377	31.1	31.4	29.5	29.5	32.2	31.5
CR191241	33.0	33.1	32.9	31.8	33.6	32.2
CR192686	32.7	32.7	32.7	30.8	32.4	32.9
CR193835	31.9	32.0	30.1	30.2	32.1	31.7
CR195072	33.9	33.8	33.0	32.1	34.7	35.0
HM19-33018	33.2	32.8	32.8	31.9	34.5	32.9
HM19-36079	33.9	34.9	32.3	32.9	35.7	34.2
LD19-5916	32.1	32.4	31.4	30.7	32.5	31.1
LD19-7145	32.9	33.1	32.0	31.1	34.1	33.2
LD19-7165	33.0	34.6	31.5	31.8	33.4	32.5
U19-209086	32.4	32.7	31.9	30.8	32.8	32.8
U19-212101	30.8	31.6	30.5	29.7	31.2	29.2
U19-251062	33.6	33.8	33.9	31.0	35.0	33.2
U19-253059	33.0	35.3	33.1	31.2	33.0	32.4
U19-273032	33.1	33.1	33.2	32.0	34.3	32.9
U19-274026	31.3	32.0	30.8	31.2	31.9	30.2
U20-908101	32.6	33.5	32.7	29.8	33.2	32.8
U20-909049	32.0	32.4	30.9	30.2	32.5	32.2
U20-910082	32.0	33.3	31.9	30.2	32.6	31.3
U20-911031	32.3	33.8	32.1	29.9	32.5	32.7
U20-915034	31.7	31.6	30.4	31.4	32.4	30.7
U20-921017	31.4	31.8	29.8	30.8	32.4	30.9
U20-921089	31.1	32.6	30.1	30.2	31.7	31.6
U20-922007	31.8	31.5	30.7	31.0	31.4	32.1
U20-925026	32.5	33.5	31.4	30.7	32.5	32.6

PRELIMINARY TEST IIB, 2022

PROTEIN (%)

Strain	East Lansing MI	Cotes- field NE	Mead NE	Phillips NE	Chatham ONT*
IA2102 (II)	32.6		35.0	34.9	34.1
LD02-4485 (SCN)	30.0		31.9	32.8	32.7
U11-917032 (SCN) (E)	31.8		32.1	33.4	33.3
U14-910097 (SCN) (L)	31.6		31.5	33.1	33.3
CR190377	30.6		30.3	33.4	31.3
CR191241	32.3		34.0	33.9	33.6
CR192686	31.1		33.2	34.1	34.0
CR193835	29.9		35.6	32.6	32.4
CR195072	32.0		33.8	34.9	35.6
HM19-33018	31.2		33.8	35.2	33.6
HM19-36079	33.4		32.5	34.0	34.8
LD19-5916	31.0		32.4	33.3	34.3
LD19-7145	31.9		33.2	34.1	33.5
LD19-7165	31.1		33.6	35.0	33.4
U19-209086	31.5		32.8	33.6	32.2
U19-212101	30.7		31.2	31.9	31.4
U19-251062	32.1		33.8	35.1	34.2
U19-253059	32.9		33.2	33.9	31.9
U19-273032	32.2		32.3	35.0	32.6
U19-274026	30.4		31.4	32.6	30.7
U20-908101	31.4		33.6	32.9	33.5
U20-909049	32.7		31.9	33.0	32.8
U20-910082	31.0		32.5	32.8	32.8
U20-911031	31.8		33.1	33.0	32.3
U20-915034	31.3		32.5	32.6	32.2
U20-921017	31.0		31.1	33.2	31.2
U20-921089	30.1		30.7	31.9	31.3
U20-922007	31.5		32.1	34.3	31.6
U20-925026	31.3		32.6	34.6	33.2

* Data adjusted to 13% moisture.

PRELIMINARY TEST IIB, 2022

OIL (%)

Strain	Mean 9 Tests	Ames IA	Crawfords- ville IA	Suther- land IA	Urbana IL	West Lafayette IN
IA2102 (II)	19.1	18.8	19.4	19.1	19.3	21.2
LD02-4485 (SCN)	19.8	19.0	20.0	20.4	19.5	20.1
U11-917032 (SCN) (E)	20.7	20.1	21.4	21.0	20.9	21.6
U14-910097 (SCN) (L)	20.5	20.2	20.5	21.1	20.5	21.3
CR190377	20.2	19.8	21.1	20.9	20.0	20.4
CR191241	19.4	19.1	19.6	19.9	19.6	20.5
CR192686	19.9	19.7	19.9	20.8	20.4	20.0
CR193835	20.3	20.3	21.6	21.3	21.1	21.5
CR195072	18.8	18.4	19.5	19.9	18.4	18.7
HM19-33018	19.4	19.3	19.7	19.8	19.5	19.6
HM19-36079	19.6	18.7	20.5	19.6	19.3	20.1
LD19-5916	20.0	19.7	21.0	20.6	20.1	20.0
LD19-7145	19.1	18.8	19.7	20.1	18.8	19.6
LD19-7165	19.2	16.0	20.1	20.1	19.7	20.2
U19-209086	20.0	19.3	20.4	20.6	19.7	20.4
U19-212101	20.4	19.8	20.7	20.7	20.8	21.5
U19-251062	20.0	19.3	20.2	21.2	19.9	20.4
U19-253059	19.6	16.5	20.3	20.5	20.1	20.6
U19-273032	20.1	19.8	20.3	20.6	20.1	20.6
U19-274026	20.8	20.1	21.3	21.0	21.0	21.4
U20-908101	20.6	19.6	23.4	21.4	20.3	20.7
U20-909049	20.8	20.8	21.8	20.7	21.2	21.1
U20-910082	20.6	19.9	20.9	21.5	20.7	21.3
U20-911031	19.8	18.9	20.1	20.6	20.2	20.0
U20-915034	20.1	19.8	20.7	20.4	20.1	20.9
U20-921017	20.1	19.6	20.8	20.2	20.1	20.7
U20-921089	20.4	19.7	21.2	20.7	20.6	20.8
U20-922007	20.2	19.2	21.0	20.2	20.8	20.5
U20-925026	20.3	19.9	20.9	20.8	20.5	20.7

PRELIMINARY TEST IIB, 2022

OIL (%)

Strain	East Lansing MI	Cotes- field NE	Mead NE	Phillips NE	Chatham ONT*
IA2102 (II)	19.5		18.5	18.0	18.6
LD02-4485 (SCN)	20.7		19.9	19.3	19.2
U11-917032 (SCN) (E)	20.4		20.8	19.5	20.7
U14-910097 (SCN) (L)	20.7		20.7	19.8	20.1
CR190377	20.4		20.6	18.7	20.3
CR191241	19.3		19.1	18.8	18.9
CR192686	20.3		19.5	18.9	19.5
CR193835	21.6		15.6	20.0	20.2
CR195072	19.7		18.9	18.0	17.6
HM19-33018	20.2		19.2	18.2	18.7
HM19-36079	19.6		20.1	18.7	19.4
LD19-5916	20.5		20.0	19.5	19.0
LD19-7145	19.6		18.7	18.2	18.3
LD19-7165	20.6		19.4	17.5	18.8
U19-209086	20.4		19.6	19.2	20.1
U19-212101	20.1		20.0	19.7	20.1
U19-251062	20.8		19.9	19.1	19.3
U19-253059	19.4		20.1	18.8	19.9
U19-273032	20.0		20.6	19.1	19.7
U19-274026	21.2		20.8	19.7	20.6
U20-908101	20.5		19.9	19.8	20.1
U20-909049	20.5		20.8	20.1	20.3
U20-910082	20.7		20.1	19.8	20.0
U20-911031	20.2		19.1	19.0	19.8
U20-915034	20.7		19.6	18.8	19.9
U20-921017	20.4		20.3	19.0	19.8
U20-921089	20.6		20.6	19.5	20.3
U20-922007	20.5		19.9	18.4	21.5
U20-925026	20.4		20.4	19.1	20.2

* Data adjusted to 13% moisture.

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**Northern Regional Uniform Test
Uniform Test III, 2022**

Ent.	Strain	Parentage		Seed Source	Previous Testing	Gen. Comp.	Unique Traits
		Female	Male				
1	LD11-2170 (III)	Syngenta 03JR313108	LD05-3171	Diers	7	F5	SCN
2	U15-606207	LD07-3419	U09-105007	Graef	4	F5	SCN (HR, HR), Rps
3	LD07-3395bf (L)	LD07-3395 Reselection		Diers	7	F5	SCN
4	U14-910097 (E)	U09-105007	LD07-3419	Graef	4	F6	Ex Rps Resist
5	A15104-17	LD10-10226/U11-610107	U11-614119	Singh	21 PT III B - 05	F5	
6	A15118-197	(U11-614119 x AR11SDS-SCN)	U11-622148	Singh	21 SCN PT III A	F5	SCN
7	A15122-128	U11-919011/LD10-5213a	LD10-10226	Singh	21 PT III B - 11	F5	
8	A15409-201	LD10-5213a/LG13-3993	U11-920017	Singh	21 PT III B - 19	F5	
9	CR17-3701	F3:5 LG09-8165	WN0800527	Rainey	1	F5	
10	CR17-4112	F3:5 LG09-7431	LG10-3250	Rainey	1	F5	
11	CR181937	4J105-2-13	LD00-3309	Rainey	21 PT III B - 20	F6	SCN, Rps
12	CR182047	4J105-2-13	LD00-3309	Rainey	21 PT IV - 04	F6	SCN, Rps
13	CR183142	4J105-3-9	LD00-3309	Rainey	21 PT III B - 21	F6	SCN, Rps
14	CR183198	4J105-3-9	LD00-3309	Rainey	21 PT III B - 23	F6	SCN, Rps
15	CR183805	4J114-2-6	S20-F8	Rainey	21 PT IV - 09	F6	Rps
16	CR184506	U09-133021	AR11-214001	Rainey	21 PT III B - 27	F6	
17	HM18-15067	HM11-W193	HM09-W153	McHale	21 PT III B - 28	F4	rps
18	HM18-27227	Wyandot-14	HM11-G011	McHale	21 PT II A - 29	F4	rps
19	LD17-10157	LD11-7311	LG09-7163	Diers	1	F5	SCN
20	LD18-1767	LD10-10226	LD10-9168	Diers	21 SCN PT III A	F5	SCN
21	LD18-4251	U11-932025	LD10-10198	Diers	21 SCN PT III A	F5	SCN
22	LD18-6596	U11-616086	LD11-2170	Diers	21 SCN PT III A	F5	SCN
23	LD18-7491	U11-614119	LD12-3866	Diers	21 PT III A - 07	F5	SCN
24	LD18-7584	U11-614119	LD12-3866	Diers	21 PT III A - 08	F5	SCN
25	LD18-7606	LG11-6208	LD11-2170	Diers	21 PT III A - 09	F5	SCN
26	LD18-7628	LG11-6208	LD11-2170	Diers	21 PT III A - 10	F5	SCN
27	U17-337087	U13-228304	U14-909100	Graef	1	F5	Expected Rps, SCN
28	U18-208163	U13-203400	U14-606112	Graef	21 PT III A - 23	F5	
29	U18-217059	U13-226415	U13-213431	Graef	21 PT III A - 26	F5	
30	U18-247185	U13-226415	U13-213431	Graef	21 PT II B - 25	F5	
31	U18-310211	U13-234286	U14-606112	Graef	21 PT III A - 30	F5	
32	U19-611226	U14-903100	LD12-3903	Graef	21 SCN PT II B	F5	SCN
33	U19-612131	U14-910097	U14-903100	Graef	21 SCN PT III B	F5	SCN, Rps
34	U19-615127	U14-910097	LD12-3903	Graef	21 SCN PT II B	F5	SCN, Rps

UNIFORM TEST III, 2022

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code
LD11-2170 (III)	PLtBDYBrI
U15-606207 (SCN)	PGTDYBfI
LD07-3395bf (SCN) (L)	WGTDYBfI
U14-910097 (SCN) (E)	PGTDYBfI
A15104-17	WLtBDYBI
A15118-197	PLtBDYHI
A15122-128	WLtBDYGI
A15409-201	PLtTDYBrI
CR17-3701	PLtTDYBI
CR17-4112	PGTDYIbI
CR181937	PTTDYBI
CR182047	PLtB+TSYBI
CR183142	WLtTSYBI
CR183198	PTTSYBI
CR183805	WGBSYYI
CR184506	PLtBDYBI
HM18-15067	PGBSYYI
HM18-27227	PGTDYHI
LD17-10157	PGBDYIbI
LD18-1767	PLtBSYBI
LD18-4251	PLt+GBDYHI
LD18-6596	WLtBDYYI
LD18-7491	PGBDYIbI
LD18-7584	P+WGBDYBfI
LD18-7606	PLtBDYBI
LD18-7628	WLtTDYBrI
U17-337087	PGBDYHI
U18-208163	PLtBDYBI
U18-217059	PLtBDYBI
U18-247185	PLtBDYBI
U18-310211	WLtBSYBI
U19-611226	PLtBDYBrI
U19-612131	PGTDYBfI
U19-615127	PGB+TDYIbI

UNIFORM TEST III, 2022

REGIONAL SUMMARY

No. of Tests Strain	Yield	Rank	Maturity	Lodging	Plant	Seed	Seed	<u>Composition</u>	
	13 bu/a	13 No.	11 Date	10 Score	Height 10 In.	Size 10 g/100	Quality 10 Score	Protein 9 %	Oil 9 %
LD11-2170 (III)	68.4	6	9/28	1.2	32	16.0	1.5	33.7	20.3
U15-606207 (SCN)	67.0	9	3.5	1.2	33	16.3	1.4	32.1	20.5
LD07-3395bf (SCN) (L)	71.3	1	5.4	1.3	32	16.3	1.5	31.6	20.7
U14-910097 (SCN) (E)	71.1	2	0.2	1.8	31	15.6	1.6	32.2	20.7
A15104-17	67.5	8	-0.1	1.7	34	14.8	1.4	33.3	19.5
A15118-197	66.7	10	3.3	1.7	36	16.7	1.6	33.6	19.6
A15122-128	65.1	18	0.9	1.2	35	16.6	1.7	34.0	19.9
A15409-201	64.1	20	1.3	2.0	37	17.8	1.6	32.9	19.8
CR17-3701	63.8	21	2.8	1.7	38	16.5	1.5	33.6	19.1
CR17-4112	63.6	23	1.7	1.5	33	16.9	1.5	33.3	19.4
CR181937	62.2	26	2.6	1.3	35	16.1	1.4	33.7	19.3
CR182047	65.1	19	4.0	1.5	35	14.1	1.3	34.4	19.6
CR183142	63.6	22	3.8	1.3	34	15.0	1.4	34.3	18.9
CR183198	59.2	31	1.4	1.1	32	14.9	1.3	34.3	19.4
CR183805	58.1	32	4.2	1.6	37	17.0	1.6	34.7	19.4
CR184506	61.8	28	1.4	1.4	32	15.5	1.4	33.4	20.0
HM18-15067	59.8	30	3.1	1.5	37	14.8	1.5	34.2	18.8
HM18-27227	57.7	34	0.2	1.6	32	17.9	1.9	34.0	19.4
LD17-10157	65.8	15	2.6	1.2	32	16.2	1.4	33.9	19.9
LD18-1767	70.2	4	1.0	1.4	33	16.0	1.2	32.7	19.9
LD18-4251	67.6	7	1.0	1.3	32	15.8	1.5	34.3	18.9
LD18-6596	71.1	3	4.1	1.4	32	15.4	1.6	32.6	19.9
LD18-7491	65.9	13	2.9	1.6	36	14.9	1.3	33.6	19.6
LD18-7584	66.5	11	5.9	1.7	36	15.8	1.6	33.3	19.6
LD18-7606	65.2	17	5.7	1.9	35	14.1	1.5	33.3	19.7
LD18-7628	65.8	14	3.8	1.8	38	14.4	1.5	32.8	20.0
U17-337087	65.3	16	2.9	1.4	36	15.8	1.4	33.4	20.2
U18-208163	60.1	29	0.3	1.3	33	13.7	1.5	31.7	20.9
U18-217059	57.9	33	-0.2	1.3	33	15.0	1.4	31.9	20.6
U18-247185	62.1	27	0.9	1.3	31	16.1	1.6	32.4	20.2
U18-310211	62.4	25	1.3	1.3	34	14.3	1.3	32.7	20.4
U19-611226	66.0	12	0.3	1.6	33	18.0	1.3	32.6	19.9
U19-612131	63.3	24	1.7	1.2	32	16.0	1.6	32.0	20.2
U19-615127	68.8	5	1.4	1.5	32	16.7	1.3	33.6	20.1
Mean	64.7			1.5	33.8	15.8	1.5	33.2	19.8
C.V. (%)	9.9								
L.S.D. (5%)	2.8								

119.1 Days After Planting

UNIFORM TEST III, 2022

2021-2022 2-YEAR MEAN

No. of Tests Strain	Yield	Rank	Maturity	Lodging	Plant	Seed	Seed	<u>Composition</u>	
	25 bu/a	25 No.	23 Date	21 Score	Height In.	Size g/100	Quality Score	Protein %	Oil %
LD11-2170 (III)	72.0	4	9/25	1.3	32	15.8	1.4	33.8	20.5
U15-606207 (SCN)	72.3	3	2.9	1.3	33	16.0	1.4	32.1	20.5
LD07-3395bf (SCN) (L)	73.0	2	4.9	1.4	32	16.0	1.6	31.7	20.8
U14-910097 (SCN) (E)	75.3	1	-0.4	2.0	31	15.3	1.5	32.4	20.7
CR17-3701	69.7	8	2.5	2.0	38	16.2	1.5	33.6	19.4
CR17-4112	70.1	7	0.7	1.6	33	16.6	1.5	33.5	19.5
LD17-10157	71.5	5	2.3	1.3	32	16.2	1.4	34.5	19.8
U17-337087	70.5	6	2.5	1.7	35	15.1	1.4	33.6	20.2

120.2 Days After Planting

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UNIFORM TEST III, 2022

YIELD (bu/a)

Strain	Mean 13 Tests	Ames IA	Crawfords- ville IA	Urbana IL	Butler- ville IN	Romney IN	Wanatah IN	West Lafayette IN
LD11-2170 (III)	68.4	67.3	70.5	65.1	76.1	76.3	67.6	67.8
U15-606207 (SCN)	67.0	61.3	68.2	67.4	78.3	71.6	75.8	61.0
LD07-3395bf (SCN) (L)	71.3	69.3	74.6	71.7	85.3	81.9	78.8	58.1
U14-910097 (SCN) (E)	71.1	70.4	67.3	74.9	88.2	73.7	75.4	74.7
A15104-17	67.5	67.5	70.3	68.0	71.8	69.5	73.8	60.3
A15118-197	66.7	62.7	64.4	66.0	82.5	71.0	67.8	60.7
A15122-128	65.1	67.9	62.3	61.1	71.7	71.2	71.0	62.1
A15409-201	64.1	65.9	73.0	60.3	83.4	65.2	70.2	63.2
CR17-3701	63.8	64.3	65.4	65.6	76.4	52.3	68.4	52.8
CR17-4112	63.6	60.8	66.7	66.0	70.1	63.9	74.1	59.2
CR181937	62.2	67.9	71.6	57.2	76.8	61.2	69.7	55.4
CR182047	65.1	63.0	71.7	62.8	73.6	65.5	66.3	64.0
CR183142	63.6	67.8	70.7	55.2	84.9	71.5	64.0	55.0
CR183198	59.2	62.7	68.1	51.5	67.6	63.3	66.3	51.4
CR183805	58.1	59.0	63.3	50.5	75.7	56.2	61.3	45.5
CR184506	61.8	63.6	64.3	53.2	69.8	67.3	68.8	59.4
HM18-15067	59.8	66.7	63.8	50.8	79.3	63.5	57.2	59.6
HM18-27227	57.7	65.7	59.6	47.7	74.5	58.4	61.7	41.0
LD17-10157	65.8	68.8	76.2	59.6	78.1	74.9	67.3	70.1
LD18-1767	70.2	74.8	68.1	75.3	91.0	65.9	72.7	59.6
LD18-4251	67.6	71.9	71.6	67.2	74.3	68.4	74.4	68.9
LD18-6596	71.1	75.5	74.3	69.8	82.1	62.9	77.5	68.3
LD18-7491	65.9	64.8	68.3	71.8	73.7	69.0	71.5	63.0
LD18-7584	66.5	64.3	71.9	68.7	85.8	71.3	62.9	65.1
LD18-7606	65.2	60.8	68.9	59.0	75.4	64.4	72.7	61.0
LD18-7628	65.8	70.3	69.2	65.8	74.1	69.1	67.4	62.3
U17-337087	65.3	63.3	69.3	60.4	75.2	59.0	68.1	59.7
U18-208163	60.1	68.6	63.8	51.2	73.6	62.8	62.5	62.0
U18-217059	57.9	64.6	67.3	54.3	73.5	55.9	63.6	42.0
U18-247185	62.1	59.5	70.0	57.2	69.5	63.0	69.8	53.4
U18-310211	62.4	64.3	69.1	60.4	74.8	60.4	66.6	58.2
U19-611226	66.0	66.4	68.9	66.4	84.0	69.3	71.0	58.0
U19-612131	63.3	58.5	71.5	59.4	86.2	67.3	67.5	48.8
U19-615127	68.8	73.5	71.8	72.8	94.1	63.8	75.2	62.6
Location Mean		66.0	68.7	62.2	78.0	66.2	69.1	59.2
C.V. (%)		10.0	6.7	9.7	5.6	10.9	4.0	12.8
L.S.D. (5%)		10.8	7.5	10.2	8.9	14.7	5.6	15.4
Row Sp. (In.)		30	30	30	30	30	30	30
Rows/Plot		4	4	4	4	2	4	4
Reps		3	3	2	2	2	2	2

UNIFORM TEST III, 2022

YIELD (bu/a)

Strain	Manhattan KS	Albany MO	Colum- bia MO	Novelty MO	Cooik NE	Lincoln NE*	Phillips NE
LD11-2170 (III)	65.6	62.5	61.6	51.9	87.0	42.9	69.5
U15-606207 (SCN)	63.5	65.6	63.4	40.8	85.7	40.7	68.2
LD07-3395bf (SCN) (L)	65.6	64.6	66.0	52.6	83.2	39.9	75.4
U14-910097 (SCN) (E)	61.4	66.5	67.2	45.2	80.2	36.7	79.1
A15104-17	69.0	64.1	56.7	48.7	87.9	38.0	70.6
A15118-197	66.4	64.0	56.5	50.1	78.7	49.5	76.8
A15122-128	58.1	64.5	67.2	45.4	72.9	51.8	71.4
A15409-201	59.5	64.1	44.2	43.7	76.5	45.4	63.7
CR17-3701	62.8	65.1	67.3	46.3	71.7	46.8	71.4
CR17-4112	66.0	56.7	68.1	36.5	73.6	48.8	65.0
CR181937	59.8	56.9	48.3	50.3	66.8	54.6	66.5
CR182047	66.5	62.1	50.9	48.1	78.5	44.5	73.7
CR183142	63.4	59.1	56.4	51.3	63.5	41.8	64.4
CR183198	58.7	55.8	54.5	43.5	68.4	35.2	57.9
CR183805	53.5	57.2	54.7	45.1	75.7	43.5	57.7
CR184506	61.9	59.5	52.1	43.7	78.2	40.5	61.6
HM18-15067	55.4	62.7	55.4	37.3	76.0	51.1	49.9
HM18-27227	57.0	61.9	55.8	44.0	67.8	30.3	55.1
LD17-10157	57.7	61.4	54.1	45.6	73.0	32.2	69.0
LD18-1767	70.0	63.6	57.7	47.4	87.8	52.2	78.5
LD18-4251	65.6	64.6	49.5	49.1	74.1	49.6	78.7
LD18-6596	64.5	70.2	52.5	54.1	92.0	48.6	80.4
LD18-7491	67.4	63.9	55.2	42.2	71.9	36.9	74.5
LD18-7584	60.3	68.2	57.2	42.2	80.3	43.7	66.4
LD18-7606	69.2	64.2	64.2	50.0	67.4	43.6	71.0
LD18-7628	69.5	59.7	51.6	45.0	81.7	56.6	70.4
U17-337087	59.3	62.1	64.7	51.0	83.2	44.5	73.5
U18-208163	53.7	54.2	55.4	42.9	73.1	41.6	57.0
U18-217059	61.6	62.4	30.9	37.3	84.3	52.1	55.2
U18-247185	59.0	58.9	53.8	44.2	83.6	50.7	65.4
U18-310211	60.8	59.9	40.7	45.7	85.5	43.8	65.5
U19-611226	63.5	66.9	56.0	46.0	70.3	40.6	70.9
U19-612131	63.2	66.2	46.7	42.9	83.0	37.9	62.1
U19-615127	57.4	62.9	67.3	45.7	75.6	48.8	71.4
Location Mean	62.3	62.4	56.0	45.8	77.6	44.3	67.9
C.V. (%)	8.2	8.5	14.4	12.0	8.6	21.0	5.0
L.S.D. (5%)	8.4	8.6	13.1	7.5	17.4	24.9	8.4
Row Sp. (In.)	30	30	30	30	30	30	30
Rows/Plot	4	4	4	4	4	4	4
Reps	3	3	3	3	2	2	2

* Data not included in mean.

UNIFORM TEST III, 2022

YIELD RANK

Strain	Yield Rank	Ames IA	Crawfords-ville IA	Urbana IL	Butler-ville IN	Romney IN	Wanatah IN	West Lafayette IN
LD11-2170 (III)	6	14	12	16	17	2	21	5
U15-606207 (SCN)	9	29	21	9	13	5	3	14
LD07-3395bf (SCN) (L)	1	7	2	5	6	1	1	24
U14-910097 (SCN) (E)	2	5	24	2	3	4	4	1
A15104-17	8	13	13	8	29	10	8	17
A15118-197	10	27	28	13	10	9	20	16
A15122-128	18	10	33	18	30	8	12	12
A15409-201	20	17	4	21	9	19	14	8
CR17-3701	21	21	27	15	16	34	18	29
CR17-4112	23	30	26	12	31	21	7	22
CR181937	26	10	8	26	15	28	16	26
CR182047	19	26	7	17	26	18	26	7
CR183142	22	12	11	27	7	6	28	27
CR183198	31	27	22	30	34	24	26	30
CR183805	32	33	32	33	18	32	33	32
CR184506	28	24	29	29	32	16	17	21
HM18-15067	30	15	30	32	12	23	34	19
HM18-27227	34	18	34	34	22	31	32	34
LD17-10157	15	8	1	22	14	3	24	2
LD18-1767	4	2	22	1	2	17	9	19
LD18-4251	7	4	8	10	23	14	6	3
LD18-6596	3	1	3	6	11	26	2	4
LD18-7491	13	19	20	4	25	13	11	9
LD18-7584	11	21	5	7	5	7	30	6
LD18-7606	17	30	18	24	19	20	9	14
LD18-7628	14	6	16	14	24	12	23	11
U17-337087	16	25	15	20	20	30	19	18
U18-208163	29	9	30	31	26	27	31	13
U18-217059	33	20	24	28	28	33	29	33
U18-247185	27	32	14	25	33	25	15	28
U18-310211	25	21	17	19	21	29	25	23
U19-611226	12	16	18	11	8	11	12	25
U19-612131	24	34	10	23	4	15	22	31
U19-615127	5	3	6	3	1	22	5	10

UNIFORM TEST III, 2022

YIELD RANK

Strain	Man- hattan KS	Albany MO	Colum- bia MO	Novelty MO	Cooik NE	Lincoln NE	Phillips NE
LD11-2170 (III)	9	19	10	3	4	21	17
U15-606207 (SCN)	13	6	9	31	5	24	19
LD07-3395bf (SCN) (L)	9	9	6	2	9	27	6
U14-910097 (SCN) (E)	20	4	4	19	14	31	2
A15104-17	4	13	13	10	2	28	15
A15118-197	7	14	14	7	15	9	5
A15122-128	28	10	5	18	26	5	11
A15409-201	24	12	32	24	18	14	26
CR17-3701	17	7	3	13	28	13	11
CR17-4112	8	32	1	34	23	10	24
CR181937	23	31	30	6	33	2	20
CR182047	6	22	28	11	16	15	8
CR183142	15	28	15	4	34	22	25
CR183198	27	33	22	26	30	32	29
CR183805	34	30	21	20	20	20	30
CR184506	18	27	26	25	17	26	28
HM18-15067	32	18	19	32	19	6	34
HM18-27227	31	23	17	23	31	34	33
LD17-10157	29	24	23	17	25	33	18
LD18-1767	1	16	11	12	3	3	4
LD18-4251	9	8	29	9	22	8	3
LD18-6596	12	1	25	1	1	12	1
LD18-7491	5	15	20	29	27	30	7
LD18-7584	22	2	12	30	13	18	21
LD18-7606	3	11	8	8	32	19	13
LD18-7628	2	26	27	21	12	1	16
U17-337087	25	21	7	5	10	15	9
U18-208163	33	34	18	28	24	23	31
U18-217059	19	20	34	33	7	4	32
U18-247185	26	29	24	22	8	7	23
U18-310211	21	25	33	15	6	17	22
U19-611226	13	3	16	14	29	25	14
U19-612131	16	5	31	27	11	29	27
U19-615127	30	17	2	16	21	11	10

UNIFORM TEST III, 2022

MATURITY (date)

Strain	Mean 11 Tests	Ames IA*	Crawfords- ville IA*	Urbana IL	Butler- ville IN	Romney IN	Wanatah IN	West Lafayette IN
LD11-2170 (III)	9/28		9/22	9/24	9/16	10/5	9/19	9/23
U15-606207 (SCN)	3		4	3	1	5	3	3
LD07-3395bf (SCN) (L)	5		5	6	4	6	6	6
U14-910097 (SCN) (E)	0		1	-2	-1	-1	0	-1
A15104-17	-0		0	-2	-2	0	4	-2
A15118-197	3		4	6	2	3	6	1
A15122-128	1		1	2	-3	0	1	1
A15409-201	1		0	3	-2	6	6	-2
CR17-3701	3		4	3	-2	1	7	1
CR17-4112	2		3	2	-1	1	4	-2
CR181937	3		3	4	1	3	4	3
CR182047	4		4	7	1	1	6	4
CR183142	4		4	4	4	3	5	4
CR183198	1		2	3	-2	1	2	2
CR183805	4		5	5	1	4	6	2
CR184506	1		2	0	-1	2	3	-2
HM18-15067	3		4	1	1	3	6	2
HM18-27227	0		-2	-1	-2	-1	4	-2
LD17-10157	3		2	4	2	4	4	6
LD18-1767	1		0	2	4	-1	0	-2
LD18-4251	1		0	0	-2	4	2	0
LD18-6596	4		4	5	4	6	6	1
LD18-7491	3		2	4	-1	3	6	2
LD18-7584	6			8	5	6	8	6
LD18-7606	6		5	7	5	3	9	6
LD18-7628	4		4	5	3	1	7	4
U17-337087	3		4	2	-1	3	6	1
U18-208163	0		3	1	-2	3	0	0
U18-217059	-0		4	-1	-1	-1	1	-3
U18-247185	1		2	1	-2	0	0	0
U18-310211	1		3	4	-1	0	3	1
U19-611226	0		-1	0	-2	0	1	-2
U19-612131	2		3	1	-2	3	5	0
U19-615127	1		0	1	2	2	1	-3
Date Planted	6/1		5/11	5/17	5/11	6/13	5/17	5/12
Days to Mature	119		134	130	128	114	125	134

* Killing frost at maturity, data not included in mean.

UNIFORM TEST III, 2022

MATURITY (date)

Strain	Manhattan KS	Albany MO	Columbia MO	Novelty MO	Cook NE	Lincoln NE	Phillips NE
LD11-2170 (III)	10/7	10/5	9/27	10/3	10/2		10/4
U15-606207 (SCN)	3	4	7	5	6		0
LD07-3395bf (SCN) (L)	3	4	8	8	6		3
U14-910097 (SCN) (E)	1	3	5	-1	-1		-1
A15104-17	1	1	-1	2	-2		1
A15118-197	2	4	5	5	1		3
A15122-128	0	3	3	3	0		1
A15409-201	-2	4	4	-1	-1		-1
CR17-3701	2	3	6	3	4		3
CR17-4112	-1	3	6	4	4		-1
CR181937	3	3	3	2	3		1
CR182047	5	4	6	5	2		4
CR183142	3	4	6	7	1		3
CR183198	0	4	2	1	2		2
CR183805	3	4	6	8	4		4
CR184506	1	3	2	2	4		1
HM18-15067	2	5	3	5	4		2
HM18-27227	-4	4	1	1	2		0
LD17-10157	3	2	3	0	1		1
LD18-1767	-1	3	2	3	2		-1
LD18-4251	1	3	-1	1	3		1
LD18-6596	4	4	3	8	4		2
LD18-7491	3	4	3	5	1		2
LD18-7584	7	4	3	7	7		5
LD18-7606	5	3	6	8	5		6
LD18-7628	5	3	3	7	2		2
U17-337087	3	5	4	5	2		3
U18-208163	-2	2	1	0	2		-1
U18-217059	0	2	0	-1	2		-2
U18-247185	1	4	2	1	4		-1
U18-310211	2	3	-0	0	2		0
U19-611226	1	3	2	4	-1		-2
U19-612131	2	3	2	0	5		-1
U19-615127	1	4	5	0	3		0
Date Planted	6/17	6/21	6/15	6/16	6/2		5/31
Days to Mature	112	106	104	109	122		126

UNIFORM TEST III, 2022

LODGING (score)

Strain	Mean 10 Tests	Ames IA	Crawfords- ville IA	Urbana IL	Butler- ville IN	Romney IN	Wanatah IN	West Lafayette IN
LD11-2170 (III)	1.2	1.0		1.0	1.0		1.0	1.0
U15-606207 (SCN)	1.2	1.0		1.3	2.0		1.0	1.0
LD07-3395bf (SCN) (L)	1.3	1.0		1.5	1.0		2.0	1.0
U14-910097 (SCN) (E)	1.8	1.3		1.5	2.5		2.0	2.0
A15104-17	1.7	1.3		1.8	2.0		2.0	1.0
A15118-197	1.7	1.3		2.0	2.0		2.0	1.0
A15122-128	1.2	1.0		1.3	1.0		1.0	1.0
A15409-201	2.0	2.3		2.0	2.5		2.0	1.5
CR17-3701	1.7	1.0		1.3	2.0		2.5	2.0
CR17-4112	1.5	1.0		1.5	2.0		2.0	1.5
CR181937	1.3	1.0		1.3	2.0		1.5	1.0
CR182047	1.5	1.0		1.8	2.0		1.5	1.0
CR183142	1.3	1.0		1.0	2.5		1.0	1.0
CR183198	1.1	1.0		1.0	1.0		1.0	1.0
CR183805	1.6	1.0		1.5	2.0		2.0	1.5
CR184506	1.4	1.0		1.3	1.5		2.0	1.0
HM18-15067	1.5	1.0		1.3	1.5		2.0	1.5
HM18-27227	1.6	1.0		1.3	3.0		2.0	1.0
LD17-10157	1.2	1.0		1.3	1.0		1.0	1.0
LD18-1767	1.4	1.0		1.5	2.5		1.5	1.0
LD18-4251	1.3	1.0		1.3	1.0		1.5	1.0
LD18-6596	1.4	1.3		1.3	2.0		1.5	1.0
LD18-7491	1.6	2.0		1.8	2.0		1.5	1.0
LD18-7584	1.7	1.3		1.8	2.0		2.0	1.5
LD18-7606	1.9	1.3		1.8	2.0		2.0	1.5
LD18-7628	1.8	1.0		1.8	3.0		3.0	1.5
U17-337087	1.4	1.0		1.3	1.5		2.0	1.0
U18-208163	1.3	1.0		1.3	1.5		1.0	1.0
U18-217059	1.3	1.0		1.0	1.5		1.5	1.0
U18-247185	1.3	1.0		1.3	1.5		1.5	1.0
U18-310211	1.3	1.0		1.0	2.0		1.5	1.0
U19-611226	1.6	1.7		1.5	1.5		1.5	1.5
U19-612131	1.2	1.0		1.0	1.5		1.0	1.0
U19-615127	1.5	1.7		1.5	2.5		1.0	1.0

UNIFORM TEST III, 2022

LODGING (score)

Strain	Manhattan KS	Albany MO	Colum- bia MO	Novelty MO	Cooik NE	Lincoln NE	Phillips NE
LD11-2170 (III)	1.0	1.8	1.5	1.5	1.0		
U15-606207 (SCN)	1.0	1.5	1.2	1.5	1.0		
LD07-3395bf (SCN) (L)	1.7	1.3	1.3	1.5	1.0		
U14-910097 (SCN) (E)	1.7	2.2	1.5	2.0	1.0		
A15104-17	2.0	2.0	2.0	1.5	1.0		
A15118-197	2.0	1.8	2.2	2.0	1.0		
A15122-128	1.0	1.7	1.3	1.5	1.0		
A15409-201	1.7	2.7	3.0	1.5	1.0		
CR17-3701	1.7	1.7	2.2	2.0	1.0		
CR17-4112	1.0	1.8	1.5	1.5	1.0		
CR181937	1.0	1.5	1.7	1.5	1.0		
CR182047	1.7	1.5	1.3	2.0	1.0		
CR183142	1.0	1.5	1.2	1.5	1.0		
CR183198	1.0	1.2	1.2	1.5	1.0		
CR183805	1.3	1.8	1.8	2.0	1.0		
CR184506	1.3	1.5	1.7	1.5	1.0		
HM18-15067	1.7	1.8	1.8	1.5	1.0		
HM18-27227	1.7	2.2	1.5	1.5	1.0		
LD17-10157	1.3	1.7	1.3	1.5	1.0		
LD18-1767	1.3	1.8	1.2	1.5	1.0		
LD18-4251	1.0	2.0	1.7	1.5	1.0		
LD18-6596	1.7	1.5	1.3	1.5	1.0		
LD18-7491	1.7	1.8	1.7	1.5	1.0		
LD18-7584	2.0	1.5	1.7	1.5	1.5		
LD18-7606	2.0	1.8	2.2	2.0	2.5		
LD18-7628	2.0	1.7	1.5	1.5	1.5		
U17-337087	1.3	1.7	1.7	2.0	1.0		
U18-208163	1.3	2.0	1.5	1.5	1.0		
U18-217059	1.0	1.8	1.5	1.5	1.0		
U18-247185	1.0	1.8	1.5	1.5	1.0		
U18-310211	1.0	1.8	1.3	1.5	1.0		
U19-611226	1.0	2.3	1.7	2.0	1.0		
U19-612131	1.0	1.3	1.5	1.5	1.0		
U19-615127	1.0	1.8	1.7	1.5	1.0		

UNIFORM TEST III, 2022

PLANT HEIGHT (inches)

Strain	Mean 10 Tests	Ames IA	Crawfords- ville IA	Urbana IL	Butler- ville IN	Romney IN	Wanatah IN	West Lafayette IN
LD11-2170 (III)	32	31		33	33		39	32
U15-606207 (SCN)	33	31		32	39		40	32
LD07-3395bf (SCN) (L)	32	32		34	36		40	30
U14-910097 (SCN) (E)	31	32		32	35		38	32
A15104-17	34	35		36	37		43	36
A15118-197	36	34		38	40		44	37
A15122-128	35	34		36	37		43	36
A15409-201	37	35		41	41		45	37
CR17-3701	38	34		39	41		50	34
CR17-4112	33	30		36	37		45	30
CR181937	35	35		35	41		44	33
CR182047	35	34		39	39		44	37
CR183142	34	34		33	41		40	32
CR183198	32	32		31	34		41	31
CR183805	37	37		37	41		46	34
CR184506	32	31		34	32		39	33
HM18-15067	37	34		36	40		46	38
HM18-27227	32	31		32	37		42	34
LD17-10157	32	32		32	35		39	34
LD18-1767	33	34		36	38		39	31
LD18-4251	32	31		32	32		40	31
LD18-6596	32	32		35	35		38	32
LD18-7491	36	35		36	39		45	35
LD18-7584	36	36		37	40		45	36
LD18-7606	35	35		36	39		44	38
LD18-7628	38	36		38	39		47	39
U17-337087	36	36		36	34		43	36
U18-208163	33	32		32	36		42	33
U18-217059	33	33		32	35		40	31
U18-247185	31	32		32	34		38	33
U18-310211	34	35		35	37		43	34
U19-611226	33	32		35	37		38	31
U19-612131	32	30		32	37		38	31
U19-615127	32	33		34	35		38	31

UNIFORM TEST III, 2022

PLANT HEIGHT (inches)

Strain	Man- hattan KS	Albany MO	Colum- bia MO	Novelty MO	Cooik NE	Lincoln NE	Phillips NE
LD11-2170 (III)	31	29	29	27	34		
U15-606207 (SCN)	32	31	31	24	34		
LD07-3395bf (SCN) (L)	30	30	30	24	34		
U14-910097 (SCN) (E)	30	30	30	26	30		
A15104-17	34	33	33	22	36		
A15118-197	37	35	35	28	38		
A15122-128	32	34	34	28	34		
A15409-201	37	36	36	27	37		
CR17-3701	37	38	38	31	36		
CR17-4112	33	30	30	25	33		
CR181937	35	32	32	28	35		
CR182047	34	32	32	28	38		
CR183142	33	31	31	28	34		
CR183198	30	29	29	27	33		
CR183805	36	37	37	29	38		
CR184506	30	29	29	26	34		
HM18-15067	37	37	37	29	38		
HM18-27227	31	30	30	25	28		
LD17-10157	31	30	30	22	33		
LD18-1767	34	31	31	23	36		
LD18-4251	32	29	29	28	33		
LD18-6596	33	30	30	22	35		
LD18-7491	35	34	34	28	40		
LD18-7584	35	36	36	26	36		
LD18-7606	36	32	32	25	34		
LD18-7628	38	36	36	30	38		
U17-337087	36	37	37	29	37		
U18-208163	34	31	31	26	35		
U18-217059	33	31	31	28	33		
U18-247185	30	29	29	25	34		
U18-310211	34	31	31	28	34		
U19-611226	31	32	32	28	31		
U19-612131	33	31	31	25	33		
U19-615127	32	30	30	25	33		

UNIFORM TEST III, 2022

SEED SIZE (g/100)

Strain	Mean 10 Tests	Ames IA	Crawfords- ville IA	Urbana IL	Butler- ville IN	Romney IN	Wanatah IN	West Lafayette IN
LD11-2170 (III)	16.0	17.5	16.3	16.7	13.6		16.0	16.5
U15-606207 (SCN)	16.3	15.7	16.6	16.6	15.0		16.2	16.0
LD07-3395bf (SCN) (L)	16.3	16.4	16.6	16.7	14.6		17.0	15.3
U14-910097 (SCN) (E)	15.6	16.7	15.7	15.8	15.3		15.4	15.3
A15104-17	14.8	14.8	14.3	15.4	13.5		15.7	14.5
A15118-197	16.7	17.4	16.8	17.0	16.4		17.7	15.5
A15122-128	16.6	18.0	16.2	17.4	14.5		16.7	16.5
A15409-201	17.8	19.4	18.7	18.6	16.4		19.5	17.3
CR17-3701	16.5	18.0	16.3	17.4	14.7		16.4	17.8
CR17-4112	16.9	17.5	16.9	16.8	15.0		17.1	18.7
CR181937	16.1	17.8	15.4	16.4	15.2		16.8	15.5
CR182047	14.1	15.4	13.7	15.1	12.9		15.1	14.4
CR183142	15.0	15.8	14.7	15.1	14.7		15.3	14.2
CR183198	14.9	16.9	15.3	15.0	12.4		15.5	14.9
CR183805	17.0	18.4	17.8	16.9	16.2		17.5	17.1
CR184506	15.5	16.4	16.0	16.6	13.1		16.7	15.1
HM18-15067	14.8	15.8	14.6	14.2	13.9		16.7	14.1
HM18-27227	17.9	20.2	18.7	17.5	17.0		18.8	16.4
LD17-10157	16.2	16.7	16.3	15.4	14.1		16.8	16.2
LD18-1767	16.0	17.5	16.1	15.8	14.9		17.0	16.3
LD18-4251	15.8	17.5	16.3	16.4	13.6		16.2	15.6
LD18-6596	15.4	16.4	15.4	15.2	14.5		16.0	15.2
LD18-7491	14.9	16.5	14.7	15.4	13.2		15.5	14.3
LD18-7584	15.8	16.4	16.5	16.6	15.0		16.3	15.8
LD18-7606	14.1	15.0	14.0	14.0	12.8		15.0	13.0
LD18-7628	14.4	15.6	14.9	14.3	13.6		15.1	14.0
U17-337087	15.8	16.3	15.5	16.1	13.2		15.6	15.7
U18-208163	13.7	15.1	13.8	13.9	13.1		14.5	12.9
U18-217059	15.0	15.8	15.5	14.9	12.9		15.3	14.6
U18-247185	16.1	17.3	16.8	15.5	14.1		16.4	15.3
U18-310211	14.3	14.7	15.0	14.1	13.4		14.6	13.7
U19-611226	18.0	19.8	17.6	17.9	16.8		17.9	17.4
U19-612131	16.0	17.0	16.5	15.7	14.6		17.5	15.9
U19-615127	16.7	17.9	16.6	17.4	16.2		15.9	15.9

UNIFORM TEST III, 2022

SEED SIZE (g/100)

Strain	Manhattan KS	Albany MO	Columbia MO	Novelty MO	Cook NE	Lincoln NE	Phillips NE
LD11-2170 (III)	15.9		14.9		16.3		16.6
U15-606207 (SCN)	15.9		17.5		17.5		15.6
LD07-3395bf (SCN) (L)	16.3		17.1		16.7		16.1
U14-910097 (SCN) (E)	15.1		15.5		16.1		15.0
A15104-17	15.1		13.7		15.4		15.6
A15118-197	16.1		16.0		16.4		17.4
A15122-128	17.2		16.1		17.7		16.2
A15409-201	17.6		14.8		18.9		17.1
CR17-3701	15.7		16.6		16.4		15.3
CR17-4112	17.6		16.8		17.2		15.9
CR181937	16.7		15.2		17.1		15.3
CR182047	13.5		13.0		14.3		13.8
CR183142	15.0		15.4		14.6		15.0
CR183198	15.6		14.2		15.2		14.0
CR183805	16.6		18.2		16.5		15.3
CR184506	16.1		14.2		16.2		14.8
HM18-15067	15.7		13.8		15.4		13.7
HM18-27227	17.9		17.3		18.2		17.4
LD17-10157	17.6		16.1		17.1		15.8
LD18-1767	15.9		14.7		16.3		15.7
LD18-4251	15.7		13.9		17.2		16.0
LD18-6596	15.2		14.9		16.1		15.1
LD18-7491	15.0		15.2		15.0		14.3
LD18-7584	16.1		14.5		15.7		14.9
LD18-7606	14.3		14.2		14.0		14.7
LD18-7628	14.5		12.8		14.5		14.7
U17-337087	16.6		16.6		16.3		15.8
U18-208163	14.1		11.0		15.0		13.8
U18-217059	15.9		12.9		17.4		14.8
U18-247185	16.5		15.6		16.6		16.7
U18-310211	14.3		13.0		15.1		14.7
U19-611226	18.7		16.9		18.7		18.6
U19-612131	16.1		14.4		16.8		15.4
U19-615127	17.1		17.1		17.1		15.7

UNIFORM TEST III, 2022

SEED QUALITY (score)

Strain	Mean 10 Tests	Ames IA	Crawfords- ville IA	Urbana IL	Butler- ville IN	Romney IN	Wanatah IN	West Lafayette IN
LD11-2170 (III)	1.5	1.7	2.0	3.0	1.0		1.0	1.5
U15-606207 (SCN)	1.4	1.7	1.7	3.0	1.0		1.0	1.0
LD07-3395bf (SCN) (L)	1.5	2.0	1.7	2.0	1.0		1.0	2.0
U14-910097 (SCN) (E)	1.6	2.0	2.0	2.0	1.0		1.0	1.5
A15104-17	1.4	2.0	2.0	2.0	1.0		1.0	1.0
A15118-197	1.6	2.0	1.7	2.0	1.0		1.5	2.0
A15122-128	1.7	1.7	2.0	2.0	1.0		1.5	1.5
A15409-201	1.6	1.7	1.7	3.0	1.0		1.0	1.5
CR17-3701	1.5	1.3	2.0	2.0	1.0		1.5	2.0
CR17-4112	1.5	2.7	2.0	2.0	1.0		1.0	1.5
CR181937	1.4	1.7	2.0	2.0	1.0		1.0	1.5
CR182047	1.3	1.3	2.0	2.0	1.0		1.0	1.0
CR183142	1.4	1.7	2.0	2.0	1.0		1.0	1.5
CR183198	1.3	2.0	2.0	2.0	1.0		1.0	1.0
CR183805	1.6	2.7	2.0	1.0	1.0		1.0	1.0
CR184506	1.4	1.3	2.0	2.0	1.0		1.0	1.0
HM18-15067	1.5	1.7	1.7	2.0	1.0		1.0	1.5
HM18-27227	1.9	2.0	2.0	3.0	1.0		2.0	2.0
LD17-10157	1.4	2.0	1.3	3.0	1.0		1.0	1.0
LD18-1767	1.2	1.0	1.3	2.0	1.0		1.0	1.0
LD18-4251	1.5	2.0	2.0	2.0	1.0		1.0	1.0
LD18-6596	1.6	2.0	1.3	3.0	1.0		1.5	1.0
LD18-7491	1.3	1.3	2.0	2.0	1.0		1.0	1.0
LD18-7584	1.6	2.3	2.0	2.0	1.0		1.0	2.0
LD18-7606	1.5	1.3	2.7	2.0	1.0		1.0	1.0
LD18-7628	1.5	2.0	2.0	2.0	1.0		1.0	1.0
U17-337087	1.4	1.7	1.7	2.0	1.0		1.0	1.5
U18-208163	1.5	1.3	1.7	2.0	1.0		1.5	1.5
U18-217059	1.4	2.0	2.0	2.0	1.0		1.0	1.0
U18-247185	1.6	2.3	1.7	2.0	1.0		1.0	1.5
U18-310211	1.3	1.7	1.7	2.0	1.0		1.0	1.0
U19-611226	1.3	1.3	2.0	2.0	1.0		1.0	1.0
U19-612131	1.6	2.0	1.7	2.0	1.0		1.0	1.0
U19-615127	1.3	1.7	1.5	2.0	1.0		1.0	1.0

UNIFORM TEST III, 2022

SEED QUALITY (score)

Strain	Man- hattan KS	Albany MO	Colum- bia MO	Novelty MO	Cooik NE	Lincoln NE	Phillips NE
LD11-2170 (III)	2.0		1.0		1.0		1.0
U15-606207 (SCN)	2.0		1.0		1.0		1.0
LD07-3395bf (SCN) (L)	2.0		1.0		1.0		1.0
U14-910097 (SCN) (E)	3.0		1.0		1.0		1.0
A15104-17	2.0		1.0		1.0		1.0
A15118-197	2.0		2.0		1.0		1.0
A15122-128	3.0		2.0		1.0		1.0
A15409-201	3.0		1.0		1.0		1.0
CR17-3701	2.0		1.0		1.0		1.0
CR17-4112	2.0		1.0		1.0		1.0
CR181937	2.0		1.0		1.0		1.0
CR182047	2.0		1.0		1.0		1.0
CR183142	2.0		1.0		1.0		1.0
CR183198	1.0		1.0		1.0		1.0
CR183805	3.0		2.0		1.0		1.0
CR184506	2.0		2.0		1.0		1.0
HM18-15067	2.0		2.0		1.0		1.0
HM18-27227	3.0		2.0		1.0		1.0
LD17-10157	2.0		1.0		1.0		1.0
LD18-1767	2.0		1.0		1.0		1.0
LD18-4251	3.0		1.0		1.0		1.0
LD18-6596	3.0		1.0		1.0		1.0
LD18-7491	2.0		1.0		1.0		1.0
LD18-7584	3.0		1.0		1.0		1.0
LD18-7606	2.0		2.0		1.0		1.0
LD18-7628	2.0		2.0		1.0		1.0
U17-337087	2.0		1.0		1.0		1.0
U18-208163	2.0		2.0		1.0		1.0
U18-217059	1.0		2.0		1.0		1.0
U18-247185	2.0		2.0		1.0		1.0
U18-310211	2.0		1.0		1.0		1.0
U19-611226	2.0		1.0		1.0		1.0
U19-612131	3.0		2.0		1.0		1.0
U19-615127	2.0		1.0		1.0		1.0

UNIFORM TEST III, 2022

PROTEIN (%)

Strain	Mean 9 Tests	Ames IA	Crawfords- ville IA	Urbana IL	Butler- ville IN	Romney IN	Wanatah IN	West Lafayette IN
LD11-2170 (III)	33.7		32.9	35.1	32.2		34.2	34.7
U15-606207 (SCN)	32.1		29.9	34.5	33.2		31.2	31.6
LD07-3395bf (SCN) (L)	31.6		30.1	33.5	32.0		31.4	31.1
U14-910097 (SCN) (E)	32.2		30.5	32.5	34.3		32.2	31.6
A15104-17	33.3		32.1	33.8	34.1		33.6	33.0
A15118-197	33.6		33.3	35.4	34.2		33.7	32.9
A15122-128	34.0		31.7	35.7	34.9		33.3	33.6
A15409-201	32.9		31.5	32.9	34.8		33.8	31.2
CR17-3701	33.6		31.9	34.3	34.1		34.8	35.0
CR17-4112	33.3		31.4	34.1	35.4		32.8	33.9
CR181937	33.7		31.3	34.7	35.8		33.8	33.9
CR182047	34.4		32.4	37.3	34.7		33.8	34.3
CR183142	34.3		32.4	35.2	36.1		34.5	35.0
CR183198	34.3		32.8	36.2	34.9		34.6	35.6
CR183805	34.7		32.6	37.0	36.3		35.1	33.9
CR184506	33.4		31.1	36.0	34.3		33.3	32.4
HM18-15067	34.2		33.2	36.5	35.4		35.8	35.2
HM18-27227	34.0		32.6	35.7	35.8		34.5	34.5
LD17-10157	33.9		32.3	36.1	34.5		34.4	34.3
LD18-1767	32.7		31.4	33.0	33.4		32.8	33.2
LD18-4251	34.3		32.8	36.4	34.9		34.2	33.6
LD18-6596	32.6		31.0	33.5	35.1		33.8	31.6
LD18-7491	33.6		30.9	34.8	34.4		34.2	33.3
LD18-7584	33.3		32.0	34.8	34.6		32.0	33.3
LD18-7606	33.3		32.0	35.3	33.3		34.8	33.6
LD18-7628	32.8		32.0	35.0	33.8		32.8	32.3
U17-337087	33.4		31.6	35.3	33.6		33.4	32.6
U18-208163	31.7		29.1	31.7	32.8		32.4	31.0
U18-217059	31.9		30.2	33.8	32.8		32.3	31.0
U18-247185	32.4		30.0	32.8	33.7		34.0	31.7
U18-310211	32.7		30.9	33.2	34.6		32.6	32.0
U19-611226	32.6		30.1	33.6	33.6		32.6	31.7
U19-612131	32.0		30.5	33.8	33.4		32.2	32.5
U19-615127	33.6		31.6	34.1	34.8		34.5	33.6

UNIFORM TEST III, 2022

PROTEIN (%)

Strain	Manhattan KS	Albany MO	Columbia MO	Novelty MO	Cooik NE	Lincoln NE	Phillips NE
LD11-2170 (III)	32.9		34.6		33.3		33.3
U15-606207 (SCN)	31.2		33.0		31.9		32.1
LD07-3395bf (SCN) (L)	31.2		32.6		31.1		31.4
U14-910097 (SCN) (E)	31.1		33.5		31.8		32.3
A15104-17	32.2		33.7		32.8		34.4
A15118-197	33.2		32.8		33.2		33.6
A15122-128	33.0		35.1		34.3		34.1
A15409-201	33.2		33.4		31.9		33.7
CR17-3701	33.9		33.6		32.4		32.8
CR17-4112	32.8		33.5		31.9		33.8
CR181937	33.6		33.8		32.5		33.9
CR182047	33.9		35.6		33.7		34.3
CR183142	33.4		34.8		33.5		34.0
CR183198	32.7		35.0		32.5		34.3
CR183805	33.5		35.5		33.4		35.0
CR184506	34.0		32.7		32.5		34.1
HM18-15067	33.8		36.2		33.5		28.3
HM18-27227	32.8		33.2		33.8		33.3
LD17-10157	32.8		33.3		33.5		34.1
LD18-1767	30.9		34.0		32.2		33.9
LD18-4251	33.5		35.8		33.4		34.6
LD18-6596	31.4		33.3		31.5		32.2
LD18-7491	32.4		34.9		33.6		34.3
LD18-7584	33.0		34.0		32.8		33.1
LD18-7606	31.7		34.3		32.2		33.0
LD18-7628	30.5		33.6		31.3		34.1
U17-337087	34.1		34.6		32.7		33.0
U18-208163	31.4		32.0		32.0		33.2
U18-217059	32.2		31.7		30.6		32.6
U18-247185	32.6		33.0		31.0		33.2
U18-310211	32.3		32.8		32.1		33.9
U19-611226	32.2		33.5		32.5		34.0
U19-612131	31.1		32.7		30.7		31.4
U19-615127	34.0		33.9		33.6		32.4

UNIFORM TEST III, 2022

OIL (%)

Strain	Mean 9 Tests	Ames IA	Crawfords- ville IA	Urbana IL	Butler- ville IN	Romney IN	Wanatah IN	West Lafayette IN
LD11-2170 (III)	20.3		20.7	19.4	20.9		20.4	19.8
U15-606207 (SCN)	20.5		21.1	19.4	20.0		21.2	20.5
LD07-3395bf (SCN) (L)	20.7		21.2	19.6	20.7		21.0	20.9
U14-910097 (SCN) (E)	20.7		21.6	20.1	20.0		20.8	21.0
A15104-17	19.5		20.0	19.2	19.2		19.4	19.7
A15118-197	19.6		19.9	18.9	20.1		19.5	19.7
A15122-128	19.9		20.9	19.1	19.9		20.2	20.1
A15409-201	19.8		20.4	19.2	18.8		19.4	21.4
CR17-3701	19.1		20.1	19.0	19.1		16.9	19.1
CR17-4112	19.4		20.4	19.0	18.6		19.5	19.3
CR181937	19.3		20.4	18.8	18.6		19.6	18.3
CR182047	19.6		20.5	18.9	19.1		20.0	20.0
CR183142	18.9		19.7	18.2	18.5		18.8	19.0
CR183198	19.4		19.9	18.5	19.1		19.6	19.0
CR183805	19.4		19.8	18.7	19.1		19.5	20.0
CR184506	20.0		21.0	19.0	19.9		19.9	20.4
HM18-15067	18.8		19.9	18.1	18.7		18.5	18.6
HM18-27227	19.4		20.0	18.4	18.9		19.2	19.3
LD17-10157	19.9		20.7	18.9	19.3		19.8	19.7
LD18-1767	19.9		20.5	19.2	19.3		20.0	19.8
LD18-4251	18.9		19.5	17.8	18.7		19.0	19.6
LD18-6596	19.9		20.4	19.3	18.7		19.6	20.4
LD18-7491	19.6		20.7	19.2	19.3		19.4	20.2
LD18-7584	19.6		20.2	18.8	19.1		19.9	19.9
LD18-7606	19.7		20.7	19.0	20.3		19.3	19.7
LD18-7628	20.0		20.1	19.0	20.4		19.9	20.0
U17-337087	20.2		21.0	19.4	20.1		20.1	20.6
U18-208163	20.9		21.8	20.8	20.7		20.7	21.2
U18-217059	20.6		21.4	20.0	20.2		20.8	21.3
U18-247185	20.2		21.3	20.0	19.6		19.8	20.6
U18-310211	20.4		21.2	20.5	19.5		20.7	20.7
U19-611226	19.9		20.9	19.2	19.5		19.9	20.3
U19-612131	20.2		21.0	19.2	19.7		20.1	20.3
U19-615127	20.1		21.1	19.4	19.4		19.8	20.3

UNIFORM TEST III, 2022

OIL (%)

Strain	Manhattan KS	Albany MO	Columbia MO	Novelty MO	Cook NE	Lincoln NE	Phillips NE
LD11-2170 (III)	20.6		20.9		20.1		19.9
U15-606207 (SCN)	21.1		21.0		20.5		19.9
LD07-3395bf (SCN) (L)	21.0		20.9		20.5		20.2
U14-910097 (SCN) (E)	21.0		20.9		20.9		19.8
A15104-17	20.1		20.1		19.7		18.3
A15118-197	19.8		20.8		19.1		18.6
A15122-128	20.2		20.2		19.8		19.2
A15409-201	19.9		20.7		20.0		18.7
CR17-3701	19.2		19.9		19.7		18.7
CR17-4112	19.6		19.9		20.0		18.7
CR181937	19.2		20.3		19.7		18.7
CR182047	19.3		19.5		19.7		19.0
CR183142	18.5		19.5		18.9		18.8
CR183198	19.8		19.9		19.8		18.7
CR183805	19.7		19.8		19.5		18.5
CR184506	20.1		21.0		19.9		19.2
HM18-15067	19.5		18.7		18.9		18.7
HM18-27227	20.0		20.3		18.9		19.1
LD17-10157	20.6		21.4		19.8		18.9
LD18-1767	20.9		20.2		20.1		19.0
LD18-4251	19.3		19.3		18.8		17.9
LD18-6596	20.3		20.7		20.3		19.2
LD18-7491	20.3		20.1		19.3		18.4
LD18-7584	19.6		20.0		19.7		19.0
LD18-7606	20.3		20.0		19.8		18.3
LD18-7628	20.6		20.6		20.5		18.9
U17-337087	20.0		20.7		19.9		19.7
U18-208163	21.4		21.5		20.7		19.1
U18-217059	20.5		21.5		20.7		19.5
U18-247185	20.3		21.1		20.5		18.9
U18-310211	20.8		20.8		20.5		19.3
U19-611226	19.6		20.4		19.9		19.4
U19-612131	20.5		20.4		20.5		19.8
U19-615127	19.5		20.8		20.2		20.1

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**Northern Regional Uniform Test
Preliminary Test IIIA, 2022**

Ent.	Strain	Parentage		Seed Source	Gen. Comp.	Unique Traits
		Female	Male			
1	LD11-2170 (III)	Syngenta 03JR313108	LD05-3171	Diers	F5	SCN
2	U15-606207	LD07-3419	U09-105007	Graef	F5	SCN (HR, HR), Rps
3	LD07-3395bf (L)	LD07-3395 Reselection		Diers	F5	SCN
4	U14-910097 (E)	U09-105007	LD07-3419	Graef	F6	SCN, Ex Rps Resist.
5	A16318-75	IA2107HO/LD07-3395bf (SCN)	LD10-10219	Singh	F5	SCN
6	A16352-66	LD10-10198/LD07-3395bf (SCN)	IA3051	Singh	F5	SCN
7	A16355-23	LD11-2170/LD07-3395bf (SCN)	IA2103	Singh	F5	SCN
8	A16355-142	LD11-2170/LD07-3395bf (SCN)	IA2103	Singh	F5	SCN
9	A16355-181	LD11-2170/LD07-3395bf (SCN)	IA2103	Singh	F5	SCN
10	A16355-225	LD11-2170/LD07-3395bf (SCN)	IA2103	Singh	F5	SCN
11	A16355-245	LD11-2170/LD07-3395bf (SCN)	IA2103	Singh	F5	SCN
12	A16371-98	LD10-10198/LD07-3395bf (SCN)	IA3027LFRA12	Singh	F5	SCN
13	A16372-29	LD10-10219/LD07-3395bf (SCN)	IA3027LFRA12	Singh	F5	
14	A16372-222	LD10-10219/LD07-3395bf (SCN)	IA3027LFRA12	Singh	F5	SCN
15	A16373-82	LD11-2170/LD07-3395bf (SCN)	IA3027LFRA12	Singh	F5	SCN
16	A16373-101	LD11-2170/LD07-3395bf (SCN)	IA3027LFRA12	Singh	F5	
17	A16373-112	LD11-2170/LD07-3395bf (SCN)	IA3027LFRA12	Singh	F5	SCN
18	A16373-120	LD11-2170/LD07-3395bf (SCN)	IA3027LFRA12	Singh	F5	SCN
19	CR190369	DS11-15034	PI603176A	Rainey	F5	Rps, SCN
20	CR192899	DS11-13018	LD06-7620	Rainey	F5	Rps
21	CR192989	DS11-15020	DS11-12057	Rainey	F5	Rps, SCN
22	CR193207	DS11-08110	DS11-42127	Rainey	F5	Rps
23	CR193337	DS11-15018	PI603176A	Rainey	F5	Rps, SCN
24	CR194509	6J114-2-2	5J097-1-17-1	Rainey	F5	Rps
25	CR194692	6J114-2-2	5J097-1-17-1	Rainey	F5	Rps
26	CR195012	6J114-2-2	5J097-1-17-1	Rainey	F5	Rps
27	CR195309	6J114-2-2	5J097-1-17-1	Rainey	F5	Rps
28	CR195317	3D1-43-1	S Machi	Rainey	F5	
29	CR195549	6J114-2-2	5J097-1-17-1	Rainey	F5	Rps
30	SA19-10016	SA13-1310	LD11-2170	Scaboo	F5	Rhg1b, Rps1k, SC
31	SA19-10777	SA13-2926	LD11-2170	Scaboo	F5	Rhg1b, Rps1k, SC
32	SA19-12541	U14-924158	LD11-2170	Scaboo	F5	Rhg1a, Rhg4, BSR, SC
33	SA19-28597	SA13-1385	U14-924158	Scaboo	F5	Rhg1a, Rhg4, SC
34	SA19-28698	SA13-1385	U14-211226	Scaboo	F5	Rhg1b, Rps1k, SC
35	SA19-8221	SA13-1385	LD12-10534	Scaboo	F5	BSR, SC
36	SA19-9788	SA13-2489	LD11-2170	Scaboo	F5	Rhg1a, Rhg2, Rps1k
37	SA19-9915	SA13-2489	LD11-2170	Scaboo	F5	Rhg1a, Rhg2, Rps1k, BSR
38	SA20-10149	SA16-6438	LD14-3702	Scaboo	F5	
39	SA20-2289	SA13-1385	F1 (LD14-3702 x U14-924158)	Scaboo	F5	
40	SA20-9946	SA16-13847	U14-211226	Scaboo	F5	

PRELIMINARY TEST IIIA, 2022
DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code
LD11-2170 (III)	PLtBDYBrI
U15-606207 (SCN)	PGTDYBfI
LD07-3395bf (SCN) (L)	WGTDYBfI
U14-910097 (SCN) (E)	PGTDYBfI
A16318-75	PLtTDYBI
A16352-66	PLt+GTDYHI
A16355-23	PLtBDYBrI
A16355-142	PLtBDYBrI
A16355-181	PLtBDYBrI
A16355-225	WLtBSYBI
A16355-245	PLtBDYBrI
A16371-98	WGTDYYI
A16372-29	WGBDYI
A16372-222	WGTDYBfI
A16373-82	PLtBDYBrI
A16373-101	PLtBDYBrI
A16373-112	PLtBDYBrI
A16373-120	PLtBDYBrI
CR190369	PGBDYIbI
CR192899	PGBDYIbI
CR192989	WT+GBDYHI
CR193207	WTBDYBrI
CR193337	WLtBDYBI
CR194509	PTBSYBI
CR194692	WLtBDYBI
CR195012	PTBDYBrI
CR195309	WTBDYBrI
CR195317	PGBDYBfI
CR195549	PT+LtBSYHI
SA19-10016	PLtTDYHI
SA19-10777	PGTDYIbI
SA19-12541	PLtTDYBrI
SA19-28597	PLtTDYBI
SA19-28698	PLtBDYBI
SA19-8221	WTTDYBI
SA19-9788	WLtBDYHI
SA19-9915	WLtBDYBrI
SA20-10149	PLtTSYGI
SA20-2289	WLtBDYBI
SA20-9946	PTBSYGI

PRELIMINARY TEST IIIA, 2022

REGIONAL SUMMARY

No. of Tests Strain	Yield 11 bu/a	Rank 11 No.	Maturity 8 Date	Lodging 8 Score	Plant Height 8 In.	Seed Size 8 g/100	Seed Quality 8 Score	<u>Composition</u>	
								Protein 8 %	Oil 8 %
LD11-2170 (III)	64.6	5	9/29	1.1	30	15.8	1.6	33.8	20.2
U15-606207 (SCN)	64.6	4	5.0	1.2	31	16.1	1.5	32.2	20.3
LD07-3395bf (SCN) (L)	65.2	3	6.4	1.3	31	16.5	1.5	31.9	20.6
U14-910097 (SCN) (E)	65.6	1	1.4	1.7	30	15.5	1.5	32.5	20.5
A16318-75	60.6	22	2.7	1.2	32	15.8	1.7	34.0	19.5
A16352-66	60.0	27	1.0	1.3	30	15.6	1.6	33.6	20.0
A16355-23	62.3	19	1.6	1.2	30	16.6	1.6	33.2	20.3
A16355-142	63.8	10	1.3	1.2	31	15.4	1.6	31.9	20.9
A16355-181	63.3	15	0.2	1.3	30	16.3	1.5	33.4	20.5
A16355-225	63.0	16	3.2	1.2	28	18.1	1.6	32.9	20.7
A16355-245	63.7	12	1.4	1.3	31	16.2	1.7	33.9	20.2
A16371-98	62.8	17	1.4	1.1	29	15.9	1.9	33.0	19.7
A16372-29	56.0	34	3.0	1.3	31	18.0	1.6	34.9	18.6
A16372-222	64.2	8	5.4	1.1	29	17.6	1.7	32.6	20.0
A16373-82	64.4	7	0.4	1.2	31	16.3	1.5	33.6	20.3
A16373-101	65.5	2	0.4	1.2	30	16.1	1.6	33.6	20.3
A16373-112	63.8	9	0.9	1.1	30	16.1	1.5	33.5	20.3
A16373-120	63.5	14	0.6	1.2	29	16.1	1.5	33.5	20.3
CR190369	55.4	35	-0.5	1.3	32	16.1	1.6	32.8	19.5
CR192899	54.8	37	1.8	1.3	31	14.8	1.6	32.9	19.7
CR192989	48.9	40	-0.2	1.5	29	16.8	1.6	32.3	20.5
CR193207	54.1	38	6.9	2.7	45	14.0	1.8	31.5	20.1
CR193337	56.3	33	4.5	2.1	37	14.9	1.7	32.4	19.5
CR194509	52.0	39	1.2	1.6	34	16.3	1.6	33.3	19.8
CR194692	62.7	18	3.3	1.3	31	17.2	1.4	32.8	19.8
CR195012	58.0	31	0.3	1.1	31	16.4	1.4	32.0	20.7
CR195309	55.0	36	1.4	1.2	31	18.0	1.8	34.1	19.0
CR195317	56.4	32	-0.3	1.5	31	14.9	1.6	32.9	19.6
CR195549	59.4	29	0.1	1.3	31	18.4	1.8	32.9	20.0
SA19-10016	64.4	6	4.9	1.3	32	14.0	1.4	33.2	20.0
SA19-10777	61.2	21	3.1	1.3	27	16.5	1.4	31.9	20.4
SA19-12541	60.0	26	4.4	1.2	30	13.5	1.6	31.1	20.8
SA19-28597	62.1	20	5.0	1.5	33	14.3	1.5	31.9	19.9
SA19-28698	59.8	28	6.5	1.3	29	16.5	1.4	32.6	19.3
SA19-8221	63.7	11	8.8	1.3	30	15.8	1.6	32.0	19.6
SA19-9788	60.2	25	2.6	1.3	30	15.0	1.5	33.0	20.4
SA19-9915	60.3	24	6.3	1.1	29	14.9	1.8	33.2	19.6
SA20-10149	60.4	23	4.8	1.5	34	15.6	1.7	34.2	19.1
SA20-2289	58.0	30	6.9	1.2	32	15.4	1.9	33.4	19.7
SA20-9946	63.7	13	5.8	2.2	34	17.1	1.6	33.8	19.6
Mean	60.6			1.3	31.1	16.0	1.6	33.0	20.0
C.V. (%)	9.5								
L.S.D. (5%)	3.4								

116.5 Days After Planting

PRELIMINARY TEST IIIA, 2022

YIELD (bu/a)

Strain	Mean 11 Tests	Ames IA	Crawfords- ville IA	Urbana IL	West Lafayette IN	Man- hattan KS
LD11-2170 (III)	64.6	70.4	72.9	74.3	76.0	53.9
U15-606207 (SCN)	64.6	66.9	75.5	70.4	62.4	75.4
LD07-3395bf (SCN) (L)	65.2	72.3	72.9	74.9	64.0	68.6
U14-910097 (SCN) (E)	65.6	74.6	66.5	71.9	76.2	58.6
A16318-75	60.6	65.9	71.7	71.3	53.8	56.7
A16352-66	60.0	65.5	67.6	64.2	64.5	51.6
A16355-23	62.3	71.3	75.2	71.7	79.0	52.6
A16355-142	63.8	64.0	74.1	75.3	76.3	63.4
A16355-181	63.3	67.5	73.6	73.9	67.2	59.7
A16355-225	63.0	69.7	73.2	68.9	62.6	58.8
A16355-245	63.7	71.5	74.7	69.2	79.5	59.1
A16371-98	62.8	79.6	74.0	71.5	64.2	68.0
A16372-29	56.0	57.7	70.8	68.0	57.1	54.4
A16372-222	64.2	76.2	71.8	79.9	66.7	56.1
A16373-82	64.4	80.7	76.5	75.7	62.9	58.4
A16373-101	65.5	85.4	74.8	70.8	76.7	64.2
A16373-112	63.8	73.4	76.1	69.1	71.1	59.0
A16373-120	63.5	76.0	76.7	67.1	70.6	68.6
CR190369	55.4	66.7	65.8	64.5	62.1	57.5
CR192899	54.8	56.1	66.1	64.0	51.2	44.2
CR192989	48.9	47.4	54.0	54.1	55.8	55.0
CR193207	54.1	48.9	57.9	64.5	58.2	51.8
CR193337	56.3	57.6	52.6	65.1	61.7	52.4
CR194509	52.0	48.5	63.5	66.9	72.8	56.6
CR194692	62.7	76.4	67.1	61.0	71.2	56.5
CR195012	58.0	60.3	68.8	61.6	55.4	40.0
CR195309	55.0	60.8	57.3	60.7	58.8	57.8
CR195317	56.4	68.5	58.8	62.9	62.9	59.1
CR195549	59.4	69.4	65.5	61.2	70.0	55.8
SA19-10016	64.4	64.2	77.0	74.3	63.1	56.9
SA19-10777	61.2	68.3	66.3	63.2	64.4	53.5
SA19-12541	60.0	57.4	73.4	61.0	63.9	57.5
SA19-28597	62.1	65.8	70.3	72.7	72.7	53.2
SA19-28698	59.8	58.8	72.0	67.7	55.2	58.0
SA19-8221	63.7	55.0	73.4	72.2	68.2	60.6
SA19-9788	60.2	73.9	73.5	61.3	53.1	60.0
SA19-9915	60.3	75.5	74.0	64.7	66.0	56.5
SA20-10149	60.4	57.8	69.1	60.5	73.2	63.7
SA20-2289	58.0	53.5	70.4	64.6	61.9	48.9
SA20-9946	63.7	59.6	71.0	69.8	69.9	67.8
Location Mean		66.0	69.7	67.7	65.6	57.8
C.V. (%)		11.6	5.6	6.8	10.3	6.3
L.S.D. (5%)		15.4	8.0	7.8	13.7	7.4
Row Sp. (In.)		30	30	30	30	30
Rows/Plot		4	4	4	4	4
Reps		2	2	2	2	2

PRELIMINARY TEST IIIA, 2022

YIELD (bu/a)

Strain	Albany MO	Colum- bia MO	Novelty MO	Cook NE	Lincoln NE	Phillips NE
LD11-2170 (III)	55.9	48.1	49.5	73.4	57.2	78.8
U15-606207 (SCN)	58.5	57.4	42.9	84.0	45.8	71.6
LD07-3395bf (SCN) (L)	64.4	56.1	36.7	81.7	49.6	76.3
U14-910097 (SCN) (E)	59.3	55.4	42.1	82.4	53.6	81.0
A16318-75	59.0	48.0	45.5	71.7	46.6	77.0
A16352-66	53.2	46.1	46.5	77.3	47.3	76.0
A16355-23	55.7	46.7	37.3	79.1	52.5	64.2
A16355-142	54.2	64.9	38.8	69.4	46.9	74.1
A16355-181	58.4	49.7	41.0	71.5	61.9	72.1
A16355-225	59.2	44.5	46.7	83.2	54.6	72.1
A16355-245	55.4	54.2	39.9	78.2	50.0	69.0
A16371-98	51.3	42.8	49.0	71.6	45.5	73.2
A16372-29	58.6	34.4	38.2	69.7	47.3	59.9
A16372-222	55.4	54.1	44.3	74.6	47.8	78.8
A16373-82	57.0	54.1	49.7	70.8	49.3	73.1
A16373-101	58.4	54.3	39.5	70.8	51.2	74.3
A16373-112	58.3	48.2	41.1	78.3	49.6	77.6
A16373-120	57.0	50.4	41.2	75.1	41.7	74.1
CR190369	55.2	40.2	32.4	63.5	44.0	57.0
CR192899	49.5	37.9	40.3	69.6	48.6	75.5
CR192989	46.3	33.6	35.9	73.2	42.3	40.9
CR193207	51.7	33.3	44.0	72.4	47.0	65.4
CR193337	63.7	42.7	35.5	75.1	50.3	62.9
CR194509	57.4	38.2	40.9	23.4	35.2	68.3
CR194692	61.3	56.6	49.2	68.4	55.7	66.7
CR195012	54.1	48.9	41.3	84.1	54.2	69.7
CR195309	55.4	41.6	39.7	70.6	38.8	63.6
CR195317	57.8	46.6	30.7	61.6	42.0	69.0
CR195549	53.6	43.6	43.0	75.3	47.6	68.3
SA19-10016	59.1	48.6	51.9	79.2	55.8	78.6
SA19-10777	58.7	55.9	41.1	75.0	53.3	73.6
SA19-12541	55.6	41.0	43.1	69.5	56.8	80.7
SA19-28597	57.4	57.5	43.6	76.6	42.9	70.9
SA19-28698	53.6	54.7	48.9	70.8	43.7	74.9
SA19-8221	59.5	49.2	49.4	78.5	55.7	79.6
SA19-9788	52.2	62.3	42.0	69.7	43.0	70.8
SA19-9915	57.6	52.3	37.5	70.8	48.5	60.2
SA20-10149	60.0	50.0	50.6	59.2	51.6	69.0
SA20-2289	63.6	40.6	39.1	70.4	55.5	70.0
SA20-9946	58.1	55.5	48.5	66.3	53.6	80.2
Location Mean	56.8	48.5	42.5	72.2	49.1	71.0
C.V. (%)	8.2	12.7	13.0	10.0	9.2	7.7
L.S.D. (5%)	9.5	12.5	9.3	18.9	12.0	13.5
Row Sp. (In.)	30	30	30	30	30	30
Rows/Plot	4	4	4	4	4	4
Reps	2	2	2	2	2	2

PRELIMINARY TEST IIIA, 2022

YIELD RANK

Strain	Yield Rank	Ames IA	Crawfordsville IA	Urbana IL	West Lafayette IN	Manhattan KS
LD11-2170 (III)	5	14	17	6	6	31
U15-606207 (SCN)	4	20	5	15	28	1
LD07-3395bf (SCN) (L)	3	11	17	4	22	2
U14-910097 (SCN) (E)	1	8	30	10	5	16
A16318-75	22	22	21	13	38	23
A16352-66	27	24	28	29	19	37
A16355-23	19	13	6	11	2	34
A16355-142	10	26	9	3	4	8
A16355-181	15	19	12	7	16	11
A16355-225	16	15	16	19	27	15
A16355-245	12	12	8	17	1	12
A16371-98	17	3	10	12	21	4
A16372-29	34	32	23	20	34	30
A16372-222	8	5	20	1	17	27
A16373-82	7	2	3	2	25	17
A16373-101	2	1	7	14	3	6
A16373-112	9	10	4	18	11	14
A16373-120	14	6	2	22	12	2
CR190369	35	21	33	27	29	20
CR192899	37	35	32	30	40	39
CR192989	40	40	39	40	35	29
CR193207	38	38	37	28	33	36
CR193337	33	33	40	24	31	35
CR194509	39	39	35	23	8	24
CR194692	18	4	29	37	10	25
CR195012	31	28	27	33	36	40
CR195309	36	27	38	38	32	19
CR195317	32	17	36	32	25	12
CR195549	29	16	34	35	13	28
SA19-10016	6	25	1	5	24	22
SA19-10777	21	18	31	31	20	32
SA19-12541	26	34	14	36	23	20
SA19-28597	20	23	25	8	9	33
SA19-28698	28	30	19	21	37	18
SA19-8221	11	36	14	9	15	9
SA19-9788	25	9	13	34	39	10
SA19-9915	24	7	10	25	18	25
SA20-10149	23	31	26	39	7	7
SA20-2289	30	37	24	26	30	38
SA20-9946	13	29	22	16	14	5

PRELIMINARY TEST IIIA, 2022

YIELD RANK

Strain	Albany MO	Colum- bia MO	Novelty MO	Cook NE	Lincoln NE	Phillips NE
LD11-2170 (III)	24	23	4	18	2	5
U15-606207 (SCN)	13	4	18	2	30	22
LD07-3395bf (SCN) (L)	1	6	36	5	19	10
U14-910097 (SCN) (E)	7	9	19	4	10	1
A16318-75	10	24	12	21	29	9
A16352-66	35	27	11	11	25	11
A16355-23	25	25	35	7	13	34
A16355-142	31	1	32	34	28	16
A16355-181	15	18	25	23	1	20
A16355-225	8	28	10	3	8	21
A16355-245	27	12	28	10	17	28
A16371-98	38	30	7	22	31	18
A16372-29	12	38	33	30	26	38
A16372-222	28	14	13	17	23	6
A16373-82	22	13	3	25	20	19
A16373-101	14	11	30	27	15	14
A16373-112	16	22	24	9	18	8
A16373-120	23	16	22	15	38	15
CR190369	30	35	39	37	32	39
CR192899	39	37	27	32	21	12
CR192989	40	39	37	19	36	40
CR193207	37	40	14	20	27	33
CR193337	2	31	38	14	16	36
CR194509	20	36	26	40	40	31
CR194692	4	5	6	35	6	32
CR195012	32	20	21	1	9	26
CR195309	29	32	29	28	39	35
CR195317	18	26	40	38	37	27
CR195549	34	29	17	13	24	30
SA19-10016	9	21	1	6	4	7
SA19-10777	11	7	23	16	12	17
SA19-12541	26	33	16	33	3	2
SA19-28597	20	3	15	12	35	23
SA19-28698	33	10	8	24	33	13
SA19-8221	6	19	5	8	5	4
SA19-9788	36	2	20	31	34	24
SA19-9915	19	15	34	26	22	37
SA20-10149	5	17	2	39	14	29
SA20-2289	3	34	31	29	7	25
SA20-9946	17	8	9	36	10	3

PRELIMINARY TEST IIIA, 2022

MATURITY (date)

Strain	Mean 8 Tests	Ames IA*	Crawfords- ville IA*	Urbana IL	West Lafayette IN	Man- hattan KS
LD11-2170 (III)	9/29	10/1	9/25	9/23	9/22	10/2
U15-606207 (SCN)	5	-1	2	5	2	4
LD07-3395bf (SCN) (L)	6		2	7	6	6
U14-910097 (SCN) (E)	1		-1	-1	0	1
A16318-75	3		0	4	2	1
A16352-66	1		-1	-1	0	1
A16355-23	2		-1	2	1	2
A16355-142	1		-2	2	1	-1
A16355-181	0	1	0	0	-3	0
A16355-225	3		0	1	1	0
A16355-245	1		0	1	1	1
A16371-98	1	-3	-2	-1	-1	2
A16372-29	3		0	4	3	3
A16372-222	5			8	5	-1
A16373-82	0		-2	2	-2	1
A16373-101	0		0	-1	0	-1
A16373-112	1	0	-1	1	-1	1
A16373-120	1	1	-1	2	0	1
CR190369	-1	-1	-6	-1	-3	1
CR192899	2	-1	-1	3	1	0
CR192989	-0	0	-2	-1	-5	1
CR193207	7			11	5	6
CR193337	5		-1	10	5	3
CR194509	1		0	3	2	-1
CR194692	3		0	4	3	1
CR195012	0		-3	2	-2	-1
CR195309	1	1	2	5	0	0
CR195317	-0	0	-3	-2	-4	1
CR195549	0	0	-5	0	-2	0
SA19-10016	5		1	8	4	3
SA19-10777	3		1	4	1	1
SA19-12541	4		2	7	4	3
SA19-28597	5			9	5	3
SA19-28698	7		2	10	6	4
SA19-8221	9			14	8	6
SA19-9788	3		-1	1	2	2
SA19-9915	6		2	10	5	6
SA20-10149	5		1	7	5	5
SA20-2289	7			11	7	4
SA20-9946	6		2	8	5	6
Date Planted	6/4	5/23	5/11	5/17	5/12	6/17
Days to Mature	117	131	137	129	133	107

* Killing frost at maturity, data not included in mean.

PRELIMINARY TEST IIIA, 2022

MATURITY (date)

Strain	Albany MO	Colum- bia MO	Novelty MO	Cook NE	Lincoln NE	Phillips NE
LD11-2170 (III)	10/7	9/25	10/3	9/28		10/4
U15-606207 (SCN)	3	8	7	10		2
LD07-3395bf (SCN) (L)	3	8	7	12		3
U14-910097 (SCN) (E)	1	5	1	6		-1
A16318-75	3	5	3	5		0
A16352-66	3	4	1	2		-1
A16355-23	0	2	2	4		1
A16355-142	1	4	2	1		1
A16355-181	0	0	1	2		1
A16355-225	3	5	5	8		3
A16355-245	1	3	1	3		1
A16371-98	2	3	3	3		1
A16372-29	3	4	3	4		1
A16372-222	4	8	6	12		1
A16373-82	-2	3	1	2		-1
A16373-101	0	1	1	2		1
A16373-112	1	1	1	4		0
A16373-120	-1	0	-1	3		0
CR190369	0	0	-1	2		-2
CR192899	2	4	2	4		-1
CR192989	-3	0	1	3		3
CR193207	3	6	5	13		7
CR193337	3	3	3	7		3
CR194509	0	3	0	4		-1
CR194692	3	6	4	5		1
CR195012	-1	2	1	1		-1
CR195309	2	1	1	3		0
CR195317	0	-1	-1	3		1
CR195549	-1	2	1	3		-2
SA19-10016	3	5	3	11		3
SA19-10777	3	6	3	6		2
SA19-12541	4	5	4	6		3
SA19-28597	4	8	5	7		1
SA19-28698	4	7	5	11		6
SA19-8221	5	11	7	15		6
SA19-9788	2	5	1	7		2
SA19-9915	4	8	4	11		3
SA20-10149	4	8	5	5		1
SA20-2289	4	6	5	13		7
SA20-9946	3	8	8	7		3
Date Planted	6/21	6/15	6/16	6/2		5/31
Days to Mature	108	102	109	118		126

PRELIMINARY TEST IIIA, 2022

LODGING (score)

Strain	Mean 8 Tests	Ames IA	Crawfords- ville IA	Urbana IL	West Lafayette IN	Man- hattan KS
LD11-2170 (III)	1.1	1.0		1.0	1.0	1.0
U15-606207 (SCN)	1.2	1.0		1.5	1.0	1.0
LD07-3395bf (SCN) (L)	1.3	1.0		1.8	1.0	1.5
U14-910097 (SCN) (E)	1.7	1.5		1.8	2.0	1.0
A16318-75	1.2	1.0		1.3	1.0	1.0
A16352-66	1.3	1.0		1.5	1.0	1.0
A16355-23	1.2	1.0		1.3	1.0	1.0
A16355-142	1.2	1.0		1.5	1.0	1.0
A16355-181	1.3	1.0		1.3	1.0	1.0
A16355-225	1.2	1.0		1.0	1.0	1.0
A16355-245	1.3	1.0		1.3	1.0	1.0
A16371-98	1.1	1.0		1.0	1.0	1.0
A16372-29	1.3	1.0		1.5	1.0	1.0
A16372-222	1.1	1.0		1.3	1.0	1.0
A16373-82	1.2	1.0		1.3	1.0	1.0
A16373-101	1.2	1.0		1.0	1.0	1.0
A16373-112	1.1	1.0		1.0	1.0	1.0
A16373-120	1.2	1.0		1.5	1.0	1.0
CR190369	1.3	1.0		1.5	1.5	1.0
CR192899	1.3	1.0		1.5	1.0	1.0
CR192989	1.5	1.0		1.3	1.5	2.0
CR193207	2.7	1.5		3.3	3.0	2.5
CR193337	2.1	1.0		2.5	2.0	2.0
CR194509	1.6	1.0		1.8	1.5	1.5
CR194692	1.3	1.0		1.5	1.0	1.5
CR195012	1.1	1.0		1.0	1.0	1.0
CR195309	1.2	1.0		1.3	1.0	1.0
CR195317	1.5	1.0		1.8	2.0	1.0
CR195549	1.3	1.0		1.5	1.5	1.0
SA19-10016	1.3	1.0		1.5	1.0	1.5
SA19-10777	1.3	1.0		1.0	1.0	1.5
SA19-12541	1.2	1.0		1.0	1.0	1.0
SA19-28597	1.5	1.0		1.5	1.5	2.0
SA19-28698	1.3	1.0		1.8	1.0	1.0
SA19-8221	1.3	1.0		1.5	1.5	1.0
SA19-9788	1.3	1.0		1.3	1.0	1.5
SA19-9915	1.1	1.0		1.5	1.0	1.0
SA20-10149	1.5	1.0		1.5	1.5	2.0
SA20-2289	1.2	1.0		1.5	1.0	1.0
SA20-9946	2.2	1.0		2.5	2.0	2.0

PRELIMINARY TEST IIIA, 2022

LODGING (score)

Strain	Albany MO	Colum- bia MO	Novelty MO	Cooik NE	Lincoln NE	Phillips NE
LD11-2170 (III)	1.5	1.0	1.5	1.0		
U15-606207 (SCN)	1.3	1.3	1.5	1.0		
LD07-3395bf (SCN) (L)	1.5	1.5	1.5	1.0		
U14-910097 (SCN) (E)	1.8	3.0	1.5	1.0		
A16318-75	1.5	1.5	1.5	1.0		
A16352-66	1.5	1.8	1.5	1.0		
A16355-23	1.3	1.5	1.5	1.0		
A16355-142	1.3	1.5	1.5	1.0		
A16355-181	1.3	1.3	1.5	2.0		
A16355-225	1.5	1.3	1.5	1.0		
A16355-245	1.5	1.8	1.5	1.0		
A16371-98	1.3	1.0	1.5	1.0		
A16372-29	1.5	1.0	1.5	1.5		
A16372-222	1.3	1.0	1.5	1.0		
A16373-82	1.5	1.3	1.5	1.0		
A16373-101	1.5	1.3	1.5	1.0		
A16373-112	1.3	1.3	1.5	1.0		
A16373-120	1.3	1.5	1.5	1.0		
CR190369	1.3	1.3	1.5	1.0		
CR192899	1.5	1.8	2.0	1.0		
CR192989	1.3	1.8	1.5	1.5		
CR193207	1.8	3.0	2.8	4.0		
CR193337	2.3	3.3	2.0	2.0		
CR194509	2.0	1.5	1.8	2.0		
CR194692	1.5	1.3	1.5	1.0		
CR195012	1.3	1.0	1.5	1.0		
CR195309	1.5	1.5	1.5	1.0		
CR195317	1.8	2.0	1.5	1.0		
CR195549	1.3	1.3	1.5	1.0		
SA19-10016	1.5	1.5	1.5	1.0		
SA19-10777	1.5	1.5	1.5	1.0		
SA19-12541	1.5	1.3	1.5	1.0		
SA19-28597	1.5	1.8	1.5	1.0		
SA19-28698	1.5	1.5	1.5	1.0		
SA19-8221	1.5	1.0	1.5	1.0		
SA19-9788	1.5	1.5	1.5	1.0		
SA19-9915	1.0	1.0	1.5	1.0		
SA20-10149	1.5	1.5	1.5	1.5		
SA20-2289	1.3	1.0	1.5	1.0		
SA20-9946	2.0	3.5	2.0	2.5		

PRELIMINARY TEST IIIA, 2022

PLANT HEIGHT (inches)

Strain	Mean 8 Tests	Ames IA	Crawfords- ville IA	Urbana IL	West Lafayette IN	Man- hattan KS
LD11-2170 (III)	30	33		35	34	32
U15-606207 (SCN)	31	29		36	37	33
LD07-3395bf (SCN) (L)	31	32		40	31	32
U14-910097 (SCN) (E)	30	33		35	31	31
A16318-75	32	33		38	33	35
A16352-66	30	28		37	34	32
A16355-23	30	30		35	35	30
A16355-142	31	31		38	37	34
A16355-181	30	32		36	32	33
A16355-225	28	29		33	30	30
A16355-245	31	33		35	35	35
A16371-98	29	31		32	30	31
A16372-29	31	31		36	33	34
A16372-222	29	30		36	30	30
A16373-82	31	32		36	32	33
A16373-101	30	32		35	35	32
A16373-112	30	33		35	32	33
A16373-120	29	33		34	33	33
CR190369	32	32		38	34	33
CR192899	31	32		38	31	30
CR192989	29	26		34	32	33
CR193207	45	47		49	42	50
CR193337	37	38		42	43	40
CR194509	34	33		42	40	34
CR194692	31	32		35	36	32
CR195012	31	32		37	34	34
CR195309	31	31		38	35	34
CR195317	31	29		35	34	32
CR195549	31	32		36	36	33
SA19-10016	32	34		39	36	35
SA19-10777	27	27		30	30	28
SA19-12541	30	32		35	32	34
SA19-28597	33	34		38	36	36
SA19-28698	29	28		34	30	32
SA19-8221	30	31		36	32	32
SA19-9788	30	33		33	29	32
SA19-9915	29	32		33	31	32
SA20-10149	34	37		39	38	35
SA20-2289	32	32		38	35	33
SA20-9946	34	33		41	37	37

PRELIMINARY TEST IIIA, 2022

PLANT HEIGHT (inches)

Strain	Albany MO	Colum- bia MO	Novelty MO	Cook NE	Lincoln NE	Phillips NE
LD11-2170 (III)	28	24	23	34		
U15-606207 (SCN)	31	29	26	32		
LD07-3395bf (SCN) (L)	33	26	24	30		
U14-910097 (SCN) (E)	30	26	23	30		
A16318-75	32	26	25	31		
A16352-66	29	25	24	34		
A16355-23	29	26	24	33		
A16355-142	28	26	24	32		
A16355-181	29	27	24	32		
A16355-225	27	23	24	30		
A16355-245	30	26	22	33		
A16371-98	29	24	23	30		
A16372-29	31	26	25	33		
A16372-222	28	24	25	30		
A16373-82	29	27	24	33		
A16373-101	28	26	21	31		
A16373-112	29	24	22	30		
A16373-120	28	24	22	29		
CR190369	32	27	28	31		
CR192899	31	28	28	33		
CR192989	30	25	24	30		
CR193207	43	39	43	44		
CR193337	41	25	30	36		
CR194509	37	29	27	31		
CR194692	31	29	26	33		
CR195012	28	26	26	32		
CR195309	30	26	25	31		
CR195317	31	27	26	32		
CR195549	30	28	26	32		
SA19-10016	33	27	24	33		
SA19-10777	27	24	21	29		
SA19-12541	30	24	24	33		
SA19-28597	31	29	25	32		
SA19-28698	26	26	25	29		
SA19-8221	29	25	24	33		
SA19-9788	29	27	24	30		
SA19-9915	28	23	25	33		
SA20-10149	34	31	26	35		
SA20-2289	32	28	24	34		
SA20-9946	33	31	30	35		

PRELIMINARY TEST IIIA, 2022

SEED SIZE (g/100)

Strain	Mean 8 Tests	Ames IA	Crawfords- ville IA	Urbana IL	West Lafayette IN	Man- hattan KS
LD11-2170 (III)	15.8	16.5	16.9	16.1	15.9	13.8
U15-606207 (SCN)	16.1	14.9	15.4	16.3	15.7	16.8
LD07-3395bf (SCN) (L)	16.5	17.0	16.0	16.0	16.0	15.9
U14-910097 (SCN) (E)	15.5	17.0	15.4	15.1	15.8	13.6
A16318-75	15.8	16.0	15.9	16.1	16.4	14.9
A16352-66	15.6	14.8	15.7	15.4	15.9	15.3
A16355-23	16.6	17.9	17.2	16.4	16.6	16.9
A16355-142	15.4	15.5	15.0	15.5	15.3	15.1
A16355-181	16.3	17.3	17.1	16.4	15.9	15.1
A16355-225	18.1	19.5	18.7	17.9	18.1	16.2
A16355-245	16.2	17.4	16.8	15.4	16.2	14.6
A16371-98	15.9	17.1	16.8	16.2	16.1	14.8
A16372-29	18.0	19.0	18.8	18.5	19.0	16.2
A16372-222	17.6	17.8	17.8	17.5	16.8	17.6
A16373-82	16.3	18.0	16.5	16.0	15.7	15.8
A16373-101	16.1	17.3	16.6	15.7	16.2	15.0
A16373-112	16.1	17.3	17.0	15.5	16.3	15.7
A16373-120	16.1	17.5	16.1	15.5	16.3	15.9
CR190369	16.1	17.2	16.1	16.1	16.5	15.4
CR192899	14.8	14.6	14.0	13.8	14.6	18.4
CR192989	16.8	17.5	17.7	16.3	17.0	13.4
CR193207	14.0	13.0	14.8	13.5	14.1	13.0
CR193337	14.9	15.1	15.0	14.9	15.1	13.2
CR194509	16.3	16.2	16.4	15.8	16.5	15.4
CR194692	17.2	17.0	17.4	17.1	18.7	15.9
CR195012	16.4	17.0	16.8	16.0	16.4	14.8
CR195309	18.0	19.0	18.4	17.5	18.1	17.0
CR195317	14.9	15.3	14.9	14.9	15.8	14.1
CR195549	18.4	18.4	18.7	18.4	18.5	17.8
SA19-10016	14.0	15.5	14.6	13.9	13.8	12.8
SA19-10777	16.5	17.4	16.6	16.0	16.0	16.2
SA19-12541	13.5	13.0	13.7	13.5	13.8	12.8
SA19-28597	14.3	14.7	14.5	14.7	14.3	12.3
SA19-28698	16.5	16.0	17.5	16.6	17.4	16.0
SA19-8221	15.8	14.9	16.1	16.5	16.1	14.5
SA19-9788	15.0	15.8	15.1	14.3	15.5	13.4
SA19-9915	14.9	17.5	14.8	14.8	15.2	13.7
SA20-10149	15.6	15.8	16.5	15.4	15.5	15.5
SA20-2289	15.4	15.0	15.9	15.4	15.9	13.3
SA20-9946	17.1	16.4	17.0	17.3	18.8	16.7

PRELIMINARY TEST IIIA, 2022

SEED SIZE (g/100)

Strain	Albany MO	Colum- bia MO	Novelty MO	Cook NE	Lincoln NE	Phillips NE
LD11-2170 (III)		14.4		16.5		16.1
U15-606207 (SCN)		17.0		16.9		15.8
LD07-3395bf (SCN) (L)		17.3		17.1		16.4
U14-910097 (SCN) (E)		15.5		16.1		15.4
A16318-75		14.3		16.4		16.1
A16352-66		16.0		16.1		15.2
A16355-23		14.6		16.5		16.9
A16355-142		15.6		14.6		16.5
A16355-181		15.6		16.4		16.6
A16355-225		16.2		18.5		19.5
A16355-245		15.5		16.7		16.8
A16371-98		13.2		16.8		16.5
A16372-29		17.7		18.6		15.9
A16372-222		16.9		18.6		18.1
A16373-82		15.5		16.2		17.1
A16373-101		14.8		16.2		17.4
A16373-112		14.3		16.1		16.5
A16373-120		13.9		16.5		17.2
CR190369		14.2		17.6		15.7
CR192899		14.1		14.9		14.0
CR192989		15.6		18.5		18.2
CR193207		14.3		14.6		14.4
CR193337		13.8		16.6		15.8
CR194509		17.0		16.0		16.8
CR194692		16.5		17.4		17.5
CR195012		16.0		17.6		16.5
CR195309		17.3		18.1		18.4
CR195317		14.2		15.3		14.6
CR195549		17.7		19.7		18.3
SA19-10016		12.3		14.6		14.3
SA19-10777		15.0		17.1		17.8
SA19-12541		13.5		14.4		13.5
SA19-28597		14.2		14.8		14.8
SA19-28698		15.1		16.9		16.7
SA19-8221		16.3		16.0		16.1
SA19-9788		14.4		15.6		16.0
SA19-9915		13.5		14.6		15.0
SA20-10149		15.2		15.0		16.1
SA20-2289		15.3		16.7		15.5
SA20-9946		17.0		16.9		16.4

PRELIMINARY TEST IIIA, 2022

SEED QUALITY (score)

Strain	Mean 8 Tests	Ames IA	Crawfords- ville IA	Urbana IL	West Lafayette IN	Man- hattan KS
LD11-2170 (III)	1.6	2.0	2.0	3.0	1.0	2.0
U15-606207 (SCN)	1.5	2.0	2.0	2.0	1.0	2.0
LD07-3395bf (SCN) (L)	1.5	1.5	2.0	2.0	1.5	2.0
U14-910097 (SCN) (E)	1.5	2.0	2.0	2.0	1.0	2.0
A16318-75	1.7	1.5	3.0	2.0	1.0	3.0
A16352-66	1.6	2.0	2.0	3.0	1.0	2.0
A16355-23	1.6	2.0	2.0	2.0	1.0	3.0
A16355-142	1.6	1.5	3.0	2.0	1.0	2.0
A16355-181	1.5	2.0	2.0	2.0	1.0	2.0
A16355-225	1.6	2.0	1.5	2.0	1.5	3.0
A16355-245	1.7	2.0	2.5	2.0	1.0	3.0
A16371-98	1.9	2.0	2.0	3.0	1.0	3.0
A16372-29	1.6	2.5	2.0	2.0	1.5	2.0
A16372-222	1.7	1.5	2.0	3.0	2.0	2.0
A16373-82	1.5	2.0	2.0	2.0	1.0	2.0
A16373-101	1.6	2.0	2.0	2.0	1.0	3.0
A16373-112	1.5	2.0	1.0	2.0	1.0	2.0
A16373-120	1.5	2.0	2.0	2.0	1.0	2.0
CR190369	1.6	2.0	2.0	2.0	1.0	2.0
CR192899	1.6	2.0	2.5	2.0	1.0	2.0
CR192989	1.6	2.5	2.0	2.0	1.0	2.0
CR193207	1.8	3.0	2.0	2.0	1.0	2.0
CR193337	1.7	2.0	2.0	2.0	1.5	2.0
CR194509	1.6	2.5	2.5	2.0	1.0	2.0
CR194692	1.4	2.5	1.0	2.0	1.0	2.0
CR195012	1.4	2.5	1.5	2.0	1.0	1.0
CR195309	1.8	2.5	2.0	3.0	1.5	2.0
CR195317	1.6	2.5	2.0	2.0	1.0	2.0
CR195549	1.8	1.5	2.0	3.0	1.5	3.0
SA19-10016	1.4	1.5	2.0	2.0	1.0	2.0
SA19-10777	1.4	2.0	1.0	2.0	1.0	2.0
SA19-12541	1.6	2.0	2.5	2.0	1.0	2.0
SA19-28597	1.5	2.0	2.0	2.0	1.0	2.0
SA19-28698	1.4	2.0	2.0	2.0	1.0	1.0
SA19-8221	1.6	2.5	1.0	2.0	1.5	3.0
SA19-9788	1.5	1.5	2.0	2.0	1.5	2.0
SA19-9915	1.8	3.0	2.0	3.0	1.5	2.0
SA20-10149	1.7	2.5	1.5	2.0	1.5	2.0
SA20-2289	1.9	3.5	2.0	2.0	1.5	2.0
SA20-9946	1.6	2.5	2.0	2.0	1.0	1.0

PRELIMINARY TEST IIIA, 2022

SEED QUALITY (score)

Strain	Albany MO	Colum- bia MO	Novelty MO	Cook NE	Lincoln NE	Phillips NE
LD11-2170 (III)		1.0		1.0		1.0
U15-606207 (SCN)		1.0		1.0		1.0
LD07-3395bf (SCN) (L)		1.0		1.0		1.0
U14-910097 (SCN) (E)		1.0		1.0		1.0
A16318-75		1.0		1.0		1.0
A16352-66		1.0		1.0		1.0
A16355-23		1.0		1.0		1.0
A16355-142		1.0		1.0		1.0
A16355-181		1.0		1.0		1.0
A16355-225		1.0		1.0		1.0
A16355-245		1.0		1.0		1.0
A16371-98		2.0		1.0		1.0
A16372-29		1.0		1.0		1.0
A16372-222		1.0		1.0		1.0
A16373-82		1.0		1.0		1.0
A16373-101		1.0		1.0		1.0
A16373-112		2.0		1.0		1.0
A16373-120		1.0		1.0		1.0
CR190369		2.0		1.0		1.0
CR192899		1.0		1.0		1.0
CR192989		1.0		1.0		1.0
CR193207		2.0		1.0		1.0
CR193337		2.0		1.0		1.0
CR194509		1.0		1.0		1.0
CR194692		1.0		1.0		1.0
CR195012		1.0		1.0		1.0
CR195309		1.0		1.0		1.0
CR195317		1.0		1.0		1.0
CR195549		1.0		1.0		1.0
SA19-10016		1.0		1.0		1.0
SA19-10777		1.0		1.0		1.0
SA19-12541		1.0		1.0		1.0
SA19-28597		1.0		1.0		1.0
SA19-28698		1.0		1.0		1.0
SA19-8221		1.0		1.0		1.0
SA19-9788		1.0		1.0		1.0
SA19-9915		1.0		1.0		1.0
SA20-10149		2.0		1.0		1.0
SA20-2289		2.0		1.0		1.0
SA20-9946		2.0		1.0		1.0

PRELIMINARY TEST IIIA, 2022

PROTEIN (%)

Strain	Mean 8 Tests	Ames IA	Crawfords- ville IA	Urbana IL	West Lafayette IN	Man- hattan KS
LD11-2170 (III)	33.8	33.8	33.5	33.9	34.2	33.2
U15-606207 (SCN)	32.2	31.5	31.4	33.6	32.3	32.2
LD07-3395bf (SCN) (L)	31.9	31.6	31.9	33.8	32.0	30.2
U14-910097 (SCN) (E)	32.5	32.3	32.7	33.4	32.3	32.2
A16318-75	34.0	33.9	33.6	35.1	35.2	32.7
A16352-66	33.6	33.7	33.0	34.7	34.2	32.7
A16355-23	33.2	33.1	33.5	34.8	31.0	34.7
A16355-142	31.9	31.6	31.2	33.4	32.8	31.0
A16355-181	33.4	34.0	33.6	34.4	33.7	31.8
A16355-225	32.9	33.1	32.9	33.2	33.4	32.4
A16355-245	33.9	34.4	34.2	34.1	34.1	33.7
A16371-98	33.0	33.8	32.1	34.4	32.3	32.6
A16372-29	34.9	34.5	33.1	35.5	35.5	34.1
A16372-222	32.6	31.5	32.1	33.5	36.3	31.2
A16373-82	33.6	33.7	33.5	35.0	33.3	32.6
A16373-101	33.6	33.2	32.7	34.2	33.6	34.9
A16373-112	33.5	33.6	32.9	35.1	33.9	32.8
A16373-120	33.5	33.8	33.8	34.9	34.3	32.4
CR190369	32.8	32.7	31.9	34.1	33.1	31.8
CR192899	32.9	32.9	32.0	33.7	33.5	33.4
CR192989	32.3	32.0	31.6	32.6	31.5	31.6
CR193207	31.5	31.6	30.5	32.6	30.9	30.4
CR193337	32.4	32.1	31.7	33.7	32.7	32.9
CR194509	33.3	32.9	31.8	34.9	33.3	32.5
CR194692	32.8	33.8	32.5	33.1	33.2	32.4
CR195012	32.0	32.4	31.0	32.9	31.4	31.3
CR195309	34.1	34.4	33.7	35.5	34.0	33.7
CR195317	32.9	34.2	30.7	33.9	32.5	33.0
CR195549	32.9	33.2	31.8	34.9	32.2	32.0
SA19-10016	33.2	33.5	33.2	35.1	33.7	31.5
SA19-10777	31.9	31.8	31.4	33.0	32.4	30.9
SA19-12541	31.1	29.5	30.7	32.5	30.2	30.9
SA19-28597	31.9	30.7	31.0	33.0	31.1	32.6
SA19-28698	32.6	33.0	32.0	34.5	31.9	32.3
SA19-8221	32.0	31.4	30.3	34.1	32.3	30.8
SA19-9788	33.0	32.9	32.5	33.8	33.8	33.2
SA19-9915	33.2	34.1	31.9	34.9	35.4	31.8
SA20-10149	34.2	33.6	33.3	36.2	33.6	32.5
SA20-2289	33.4	32.8	33.0	34.0	33.1	33.5
SA20-9946	33.8	33.5	32.2	36.0	35.0	33.2

PRELIMINARY TEST IIIA, 2022

PROTEIN (%)

Strain	Albany MO	Colum- bia MO	Novelty MO	Cook NE	Lincoln NE	Phillips NE
LD11-2170 (III)		34.1		33.6		34.2
U15-606207 (SCN)		32.2		32.3		32.4
LD07-3395bf (SCN) (L)		32.3		30.9		32.1
U14-910097 (SCN) (E)		33.1		31.5		32.4
A16318-75		34.1		33.0		34.2
A16352-66		33.9		33.1		33.8
A16355-23		33.1		32.4		33.3
A16355-142		31.5		31.3		32.5
A16355-181		33.8		32.6		33.7
A16355-225		33.2		32.6		32.7
A16355-245		34.0		32.8		33.7
A16371-98		33.2		32.6		32.9
A16372-29		35.5		34.2		36.4
A16372-222		32.6		32.0		32.0
A16373-82		34.2		33.2		33.3
A16373-101		34.1		32.6		33.4
A16373-112		34.1		32.5		33.4
A16373-120		33.5		31.8		33.9
CR190369		33.3		32.7		32.9
CR192899		32.8		32.1		32.9
CR192989		32.1		32.8		34.1
CR193207		33.6		30.5		31.9
CR193337		33.0		30.7		32.7
CR194509		34.1		33.6		33.6
CR194692		32.8		31.2		33.1
CR195012		33.5		30.5		32.7
CR195309		34.2		32.9		34.6
CR195317		33.4		32.6		33.2
CR195549		33.5		32.2		33.1
SA19-10016		32.4		32.4		34.1
SA19-10777		31.1		31.8		32.8
SA19-12541		31.3		30.8		32.7
SA19-28597		32.6		30.8		33.7
SA19-28698		32.0		32.0		33.3
SA19-8221		32.8		31.7		32.9
SA19-9788		32.2		32.0		33.5
SA19-9915		33.5		32.0		31.8
SA20-10149		34.7		33.5		35.9
SA20-2289		32.9		33.4		34.8
SA20-9946		34.3		32.4		33.4

PRELIMINARY TEST IIIA, 2022

OIL (%)

Strain	Mean 8 Tests	Ames IA	Crawfords- ville IA	Urbana IL	West Lafayette IN	Man- hattan KS
LD11-2170 (III)	20.2	19.6	20.2	20.2	20.1	20.5
U15-606207 (SCN)	20.3	20.5	20.4	19.4	20.3	20.7
LD07-3395bf (SCN) (L)	20.6	19.9	21.0	19.7	20.5	21.5
U14-910097 (SCN) (E)	20.5	20.0	20.7	19.6	20.6	21.0
A16318-75	19.5	19.0	19.3	19.0	19.4	20.5
A16352-66	20.0	19.5	20.2	19.2	20.0	20.7
A16355-23	20.3	19.7	20.0	19.7	21.8	19.3
A16355-142	20.9	20.5	21.4	20.5	20.8	21.5
A16355-181	20.5	20.0	20.6	20.1	20.5	21.2
A16355-225	20.7	20.3	20.9	20.7	20.5	21.0
A16355-245	20.2	19.4	20.1	19.9	20.0	20.6
A16371-98	19.7	19.5	20.1	19.0	20.1	19.9
A16372-29	18.6	18.3	19.4	18.1	18.5	18.8
A16372-222	20.0	20.1	20.2	19.3	19.4	21.0
A16373-82	20.3	19.1	20.3	19.7	20.9	21.0
A16373-101	20.3	19.7	20.3	19.9	20.3	20.3
A16373-112	20.3	19.6	20.3	19.5	20.3	21.1
A16373-120	20.3	19.6	20.2	19.8	20.3	20.9
CR190369	19.5	18.9	19.8	18.6	19.3	20.6
CR192899	19.7	19.0	19.9	18.9	19.7	20.5
CR192989	20.5	20.0	21.0	20.4	20.9	20.8
CR193207	20.1	19.7	20.8	19.9	20.8	21.2
CR193337	19.5	19.3	20.0	19.0	19.3	19.9
CR194509	19.8	19.4	20.4	19.4	19.8	20.3
CR194692	19.8	18.6	20.0	19.4	19.8	20.4
CR195012	20.7	20.1	21.3	19.9	21.2	21.2
CR195309	19.0	18.3	19.5	18.0	19.2	19.4
CR195317	19.6	18.4	20.5	19.4	19.7	19.8
CR195549	20.0	18.7	20.4	19.1	20.3	20.4
SA19-10016	20.0	19.1	20.1	19.6	20.0	20.9
SA19-10777	20.4	19.7	20.9	20.0	20.5	21.0
SA19-12541	20.8	20.5	20.8	19.9	21.2	21.2
SA19-28597	19.9	19.6	20.1	19.4	20.3	20.0
SA19-28698	19.3	18.0	19.5	18.1	19.8	20.0
SA19-8221	19.6	18.8	20.1	18.8	19.8	20.9
SA19-9788	20.4	19.8	21.1	19.9	20.1	20.7
SA19-9915	19.6	18.5	20.4	18.7	18.6	20.5
SA20-10149	19.1	18.7	19.5	18.6	19.3	19.6
SA20-2289	19.7	19.1	19.7	19.4	20.1	20.1
SA20-9946	19.6	19.4	19.8	18.8	19.3	19.8

PRELIMINARY TEST IIIA, 2022

OIL (%)

Strain	Albany MO	Colum- bia MO	Novelty MO	Cook NE	Lincoln NE	Phillips NE
LD11-2170 (III)		21.4		19.9		19.7
U15-606207 (SCN)		21.6		20.3		19.7
LD07-3395bf (SCN) (L)		21.4		20.5		20.1
U14-910097 (SCN) (E)		21.3		21.1		20.0
A16318-75		20.5		19.7		18.9
A16352-66		20.6		20.4		19.4
A16355-23		21.5		20.7		19.8
A16355-142		21.9		21.3		19.7
A16355-181		21.7		20.9		19.4
A16355-225		21.5		20.5		20.1
A16355-245		21.7		20.4		19.8
A16371-98		20.7		19.3		19.2
A16372-29		19.5		18.5		17.4
A16372-222		21.1		20.1		19.1
A16373-82		21.2		20.7		19.7
A16373-101		21.3		20.8		19.9
A16373-112		21.3		20.4		19.9
A16373-120		21.3		20.8		19.6
CR190369		20.4		19.5		18.8
CR192899		20.4		19.8		19.2
CR192989		20.8		20.2		19.7
CR193207		20.3		18.8		19.4
CR193337		20.1		20.0		18.7
CR194509		20.3		19.9		19.1
CR194692		20.6		20.3		19.1
CR195012		20.8		21.0		19.7
CR195309		19.7		19.5		18.4
CR195317		20.4		19.5		19.1
CR195549		20.6		20.7		19.4
SA19-10016		21.3		20.3		19.1
SA19-10777		21.7		20.2		19.8
SA19-12541		21.9		21.0		19.6
SA19-28597		21.0		20.5		18.5
SA19-28698		20.7		19.5		18.5
SA19-8221		20.4		19.5		18.4
SA19-9788		21.4		20.4		19.8
SA19-9915		20.5		20.2		19.7
SA20-10149		19.7		19.4		18.0
SA20-2289		20.8		19.5		18.8
SA20-9946		20.3		20.2		19.0

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**Northern Regional Uniform Test
Preliminary Test IIIB, 2022**

Ent.	Strain	Parentage		Seed Source	Gen. Comp.	Unique Traits
		Female	Male			
1	LD11-2170 (III)	Syngenta 03JR313108	LD05-3171	Diers	F5	SCN
2	U15-606207 (SCN)	LD07-3419	U09-105007	Graef	F5	SCN (HR, HR), Rps
3	LD07-3395bf (SCN) (L)	LD07-3395 Reselection		Diers	F5	SCN
4	U14-910097 (SCN) (E)	U09-105007	LD07-3419	Graef	F6	SCN, Ex Rps Resist
5	HM19-39359	E06381	HM13-W042	McHale	F4	Rps
6	HM19-40194	HM14-W132	DS11-06152	McHale	F4	Rps
7	K19-1708	HM11-W192	K11-2363B	Schapaugh	F5	
8	LD19-1113	LD12-1843	M09-285149	Diers	F5	SCN
9	LD19-2604	LD13-3483	LD11-2170	Diers	F5	SCN,Rps
10	LD19-2693	LD13-3483	LD11-2170	Diers	F5	SCN,Rps
11	LD19-6531	U14-925152	LD11-2170	Diers	F5	SCN,Rps
12	LD19-7157	LD12-459	LD11-2170	Diers	F5	SCN,Rps
13	LD19-7179	LD12-459	LD11-2170	Diers	F5	SCN,Rps
14	LD19-7828	LD13-3483	LD11-2170	Diers	F5	SCN,Rps
15	LD19-8412	LG13-1006	LD11-2170	Diers	F5	SCN,Rps
16	LD19-8625	LD07-3395bf	LD11-2170	Diers	F5	SCN,Rps
17	LD20-11526	LD12-3903	LD11-2170	Diers	F4	SCN,Rps
18	LD20-11552	LD12-3903	LD11-2170	Diers	F4	SCN,Rps
19	LD20-1607	U14-211226	LD11-2170	Diers	F4	SCN,Rps
20	LD20-1783	LD11-2170	LD12-3903	Diers	F4	SCN,Rps
21	LD20-1920	E3796	LD11-2170	Diers	F4	SCN,Rps
22	LD20-2280	3A53861	LD11-2170	Diers	F4	SCN, Rps
23	LG18-976	LG11-6190	LD09-30015	Mahan	F6	Diversity; 26% PI
24	LG19-4084	LD10-10226	LG10-12237	Mahan	F6	Diversity
25	LG19-4181	LG11-2963	LG11-11120	Mahan	F6	Diversity
26	U19-057068	P93B82	UX3695-4	Graef	F5	SCN, Rps
27	U19-057097	P93B82	UX3695-4	Graef	F5	SCN, Rps
28	U19-230059	U14-925152	U16-905090	Graef	F5	IDC, SCN, Rps
29	U19-268171	U16-610243	U16-905090	Graef	F5	Rps
30	U19-272085	U14-910097	U16-903131	Graef	F5	SCN, Rps
31	U19-272098	U14-910097	U16-905090	Graef	F5	SCN, Rps
32	U20-907144	U14-910097	U17-609217	Graef	F5	SCN, Rps
33	U20-909207	U14-206326	U16-221360	Graef	F5	IDC, Rps
34	U20-911204	LD14-3702	U15-927115	Graef	F5	SCN, Rps, Diversity
35	U20-914028	U14-206326	U16-932015	Graef	F5	IDC, Rps
36	U20-917095	U14-206326	U17-618174	Graef	F5	IDC, Rps
37	U20-921035	U14-213255	U17-618174	Graef	F5	Rps
38	U20-922082	U16-216354	U17-618174	Graef	F5	Rps
39	U20-927103	U16-928123	U16-932015	Graef	F5	IDC, Rps
40	U20-928084	U16-928123	U16-932015	Graef	F5	IDC, Rps

PRELIMINARY TEST IIB, 2022
DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code
LD11-2170 (III)	PLtBDYBrI
U15-606207 (SCN)	PGTDYBfI
LD07-3395bf (SCN) (L)	WGTDYBfI
U14-910097 (SCN) (E)	PGTDYBfI
HM19-39359	PLtTDYGI
HM19-40194	WTTDYBI
K19-1708	PLtBDYBI
LD19-1113	WGB+TSYHI
LD19-2604	PLtBDYBrI
LD19-2693	WlTBDYBrI
LD19-6531	PLt+GBDYHI
LD19-7157	PGBDYIbI
LD19-7179	PGBDYIbI
LD19-7828	WlTBDYBrI
LD19-8412	P+WlTBDYBrI
LD19-8625	PLtTDYBI
LD20-11526	PLtBSYBI
LD20-11552	PLtBDYHI
LD20-1607	PGBDYIbI
LD20-1783	PLtBDYBrI
LD20-1920	WlTBDYBrI
LD20-2280	PLtBDYHI
LG18-976	WlTlTDYBI
LG19-4084	PGTDYBfI
LG19-4181	PGTDYIbI
U19-057068	WlTBDYBI
U19-057097	PLtBDYBrI
U19-230059	PLtBSYBI
U19-268171	PLtBSYBI
U19-272085	P+WlT+GTSYHI
U19-272098	PLt+GTDYHI
U20-907144	PGTDYIbI
U20-909207	P+WlTBDYBI
U20-911204	PGBDYGI
U20-914028	WlTBDYBrI
U20-917095	WGBDYBfI
U20-921035	WGBSYBfI
U20-922082	P+WlT+GBSYHI
U20-927103	WlTBDYHI
U20-928084	WlTBSYBI

PRELIMINARY TEST IIIB, 2022

REGIONAL SUMMARY

No. of Tests Strain	Yield 10 bu/a	Rank 10 No.	Maturity 8 Date	Lodging 8 Score	Plant Height 8 In.	Seed Size 8 g/100	Seed Quality 8 Score	<u>Composition</u>	
								Protein 8 %	Oil 8 %
LD11-2170 (III)	67.0	10	9/29	1.2	30	16.3	1.4	33.5	20.3
U15-606207 (SCN)	65.7	15	3.8	1.3	31	16.4	1.4	32.4	20.6
LD07-3395bf (SCN) (L)	66.1	14	4.9	1.5	31	16.6	1.5	31.5	20.7
U14-910097 (SCN) (E)	69.7	3	0.3	1.8	31	15.9	1.4	32.4	20.6
HM19-39359	54.6	40	1.3	1.6	38	15.2	1.9	32.5	19.6
HM19-40194	59.4	34	2.4	1.4	31	15.0	1.4	33.6	19.9
K19-1708	63.4	24	5.2	1.7	32	15.1	1.5	33.9	19.1
LD19-1113	62.7	26	-0.4	1.4	34	17.8	1.5	34.7	19.8
LD19-2604	65.7	16	1.8	1.1	32	17.1	1.6	33.8	19.1
LD19-2693	67.2	9	2.9	1.2	34	15.4	1.6	33.5	19.5
LD19-6531	68.6	4	2.3	1.3	31	17.0	1.4	32.7	20.6
LD19-7157	67.3	8	-1.5	1.1	30	15.9	1.3	32.8	20.4
LD19-7179	67.5	5	-1.3	1.2	31	15.5	1.6	33.3	20.0
LD19-7828	66.9	11	3.3	1.3	30	15.0	1.4	34.3	18.9
LD19-8412	64.9	19	0.7	1.3	32	16.1	1.5	34.6	19.3
LD19-8625	65.2	18	5.5	1.3	27	15.3	1.4	32.1	20.5
LD20-11526	71.1	1	4.7	1.4	34	15.5	1.6	33.0	20.3
LD20-11552	67.4	6	0.9	1.2	31	17.7	1.6	33.1	20.4
LD20-1607	64.8	20	0.6	1.3	32	15.0	1.2	32.7	20.0
LD20-1783	66.3	12	-1.6	1.3	30	17.1	1.5	34.2	19.9
LD20-1920	65.5	17	3.5	1.3	32	16.6	1.3	35.3	19.0
LD20-2280	64.4	22	3.4	1.3	36	16.7	1.6	34.5	19.1
LG18-976	66.2	13	3.3	1.5	34	15.0	1.3	34.0	19.0
LG19-4084	70.2	2	1.2	1.8	30	16.6	1.6	32.7	20.2
LG19-4181	64.6	21	0.7	1.5	33	14.8	1.4	33.6	18.8
U19-057068	64.2	23	1.1	1.3	33	15.1	1.8	32.7	19.8
U19-057097	62.8	25	1.8	1.1	33	16.0	1.4	33.3	20.1
U19-230059	55.8	39	-2.5	1.2	31	14.8	1.4	32.5	20.5
U19-268171	61.6	28	-1.3	1.2	33	14.0	1.6	31.8	21.2
U19-272085	67.4	7	6.2	1.4	31	16.7	1.6	32.8	20.5
U19-272098	60.5	29	1.6	1.3	32	14.4	1.4	31.9	20.5
U20-907144	59.7	31	-1.8	1.3	31	14.7	1.2	32.1	20.6
U20-909207	58.3	36	-1.9	1.1	30	15.1	1.4	31.9	20.4
U20-911204	61.8	27	1.4	1.3	33	12.8	1.3	32.9	19.8
U20-914028	59.6	32	1.3	1.3	34	16.5	1.6	32.4	20.2
U20-917095	58.2	37	-0.3	1.2	33	15.4	1.4	32.7	20.2
U20-921035	57.2	38	2.9	1.4	32	15.0	1.6	32.6	19.8
U20-922082	58.8	35	0.4	1.3	32	14.3	1.4	32.2	20.2
U20-927103	60.4	30	-1.6	1.2	28	16.4	1.6	33.2	20.3
U20-928084	59.5	33	-3.6	1.1	29	16.3	1.6	33.0	20.3
Mean	63.7			1.3	31.8	15.7	1.5	33.1	20.0
C.V. (%)	8.2								
L.S.D. (5%)	3.2								

118.1 Days After Planting

PRELIMINARY TEST IIIB, 2022

YIELD (bu/a)

Strain	Mean 10 Tests	Ames IA	Crawfords- ville IA	Urbana IL	West Lafayette IN	Man- hattan KS
LD11-2170 (III)	67.0	71.9	73.2	65.9	72.6	72.0
U15-606207 (SCN)	65.7	66.5	71.8	59.5	72.8	70.3
LD07-3395bf (SCN) (L)	66.1	67.6	70.5	65.1	71.1	67.0
U14-910097 (SCN) (E)	69.7	70.4	65.8	72.4	77.0	70.9
HM19-39359	54.6	48.0	59.3	59.8	53.3	55.2
HM19-40194	59.4	50.5	63.8	62.1	67.4	58.7
K19-1708	63.4	59.9	61.6	65.3	67.9	61.3
LD19-1113	62.7	67.9	63.4	62.7	80.5	62.2
LD19-2604	65.7	69.3	70.6	60.5	77.5	65.9
LD19-2693	67.2	69.8	71.9	70.4	73.3	63.1
LD19-6531	68.6	74.3	68.9	71.0	78.0	66.7
LD19-7157	67.3	72.3	73.9	66.1	72.1	58.4
LD19-7179	67.5	77.9	74.9	68.1	76.8	56.3
LD19-7828	66.9	72.0	71.5	66.9	73.8	64.8
LD19-8412	64.9	68.3	67.1	61.4	78.4	64.5
LD19-8625	65.2	59.0	80.0	65.2	73.8	63.1
LD20-11526	71.1	67.2	69.9	62.3	79.5	72.4
LD20-11552	67.4	75.6	78.4	60.3	78.5	61.1
LD20-1607	64.8	54.2	72.9	62.7	75.5	63.2
LD20-1783	66.3	68.0	72.4	64.1	81.6	65.4
LD20-1920	65.5	65.5	68.2	64.2	79.7	60.8
LD20-2280	64.4	65.4	58.8	68.5	78.0	61.6
LG18-976	66.2	67.2	69.1	60.7	77.7	63.0
LG19-4084	70.2	73.2	66.4	68.1	79.6	68.1
LG19-4181	64.6	71.6	68.4	63.3	78.7	58.3
U19-057068	64.2	65.9	71.0	62.5	67.1	67.9
U19-057097	62.8	55.4	73.6	55.0	71.2	62.3
U19-230059	55.8	53.0	64.0	54.7	59.1	64.6
U19-268171	61.6	54.1	68.4	53.9	56.5	64.0
U19-272085	67.4	62.7	69.8	63.3	80.1	65.7
U19-272098	60.5	46.9	69.8	58.5	68.9	63.0
U20-907144	59.7	45.2	67.9	59.3	66.1	55.4
U20-909207	58.3	52.8	69.0	60.4	54.1	68.8
U20-911204	61.8	60.5	69.3	50.2	66.6	68.8
U20-914028	59.6	61.1	63.1	58.1	75.0	63.6
U20-917095	58.2	54.7	65.9	63.0	65.5	58.1
U20-921035	57.2	43.1	64.9	55.1	69.0	60.4
U20-922082	58.8	45.0	69.7	57.3	66.0	60.9
U20-927103	60.4	45.4	71.6	52.1	72.9	58.2
U20-928084	59.5	59.8	65.7	63.4	66.2	55.6
Location Mean		62.0	68.9	62.1	72.0	63.3
C.V. (%)		8.2	5.2	9.1	7.8	5.7
L.S.D. (5%)		10.2	7.3	9.5	11.4	7.5
Row Sp. (In.)		30	30	30	30	30
Rows/Plot		4	4	4	4	4
Reps		2	2	2	2	2

PRELIMINARY TEST IIIB, 2022

YIELD (bu/a)

Strain	Albany MO	Colum- bia MO	Novelty MO	Cook NE	Lincoln NE*	Phillips NE
LD11-2170 (III)	62.8	52.5	46.7	77.1	35.8	75.6
U15-606207 (SCN)	56.0	66.8	42.5	82.8	25.4	68.4
LD07-3395bf (SCN) (L)	65.0	60.9	43.8	76.9	45.6	72.7
U14-910097 (SCN) (E)	61.9	62.4	49.4	81.9	44.2	85.5
HM19-39359	52.9	42.7	46.5	70.9	38.3	57.5
HM19-40194	57.9	59.9	33.6	81.6	42.6	58.9
K19-1708	61.8	61.6	48.9	76.6	36.8	69.4
LD19-1113	64.1	55.5	36.0	71.7	48.1	63.4
LD19-2604	58.4	50.6	54.2	80.4	37.7	69.9
LD19-2693	62.6	66.0	49.3	76.1	50.5	69.6
LD19-6531	63.4	62.7	49.3	72.1	52.1	80.0
LD19-7157	64.7	61.3	52.4	79.5	48.4	72.2
LD19-7179	62.0	59.9	48.9	68.9	38.3	80.9
LD19-7828	64.9	61.0	50.5	77.3	46.4	66.1
LD19-8412	55.4	60.5	47.2	71.1	36.9	74.9
LD19-8625	60.8	66.7	45.2	70.2	23.4	68.4
LD20-11526	65.6	69.2	55.0	86.2	38.1	83.3
LD20-11552	59.7	57.0	46.5	83.7	51.9	73.5
LD20-1607	59.7	66.8	48.3	66.7	51.4	77.8
LD20-1783	59.7	60.5	43.9	73.8	28.3	73.5
LD20-1920	64.8	67.5	46.1	69.4	32.3	68.8
LD20-2280	62.9	58.0	45.9	73.3	34.1	71.5
LG18-976	64.1	55.9	54.3	79.7	39.8	70.8
LG19-4084	65.5	61.1	55.9	82.3	41.8	81.6
LG19-4181	60.7	57.6	52.7	61.7	41.4	72.7
U19-057068	57.2	59.9	45.1	69.4	28.0	75.8
U19-057097	55.6	56.5	35.1	87.6	40.4	75.7
U19-230059	55.2	31.0	46.0	59.8	39.0	70.5
U19-268171	59.7	55.9	47.4	74.8	40.2	81.5
U19-272085	61.3	59.1	51.1	82.1	35.9	79.0
U19-272098	58.7	39.0	43.7	82.2	34.5	74.0
U20-907144	59.6	55.4	43.8	71.9	46.4	72.0
U20-909207	60.9	51.8	36.6	66.0	46.1	62.8
U20-911204	57.1	56.3	32.7	83.6	46.4	73.1
U20-914028	63.2	31.6	43.5	67.3	36.9	69.4
U20-917095	56.1	47.4	39.8	68.3	35.0	62.8
U20-921035	58.4	32.3	45.3	79.8	66.7	64.1
U20-922082	55.8	54.7	41.9	72.1	46.8	64.2
U20-927103	48.1	60.9	43.2	76.6	35.1	74.8
U20-928084	60.0	57.8	33.0	64.2	33.5	69.2
Location Mean	60.1	56.4	45.5	74.9	40.5	71.9
C.V. (%)	8.5	11.2	10.2	8.8	21.1	7.7
L.S.D. (5%)	10.3	12.8	7.8	16.8	23.4	14.2
Row Sp. (In.)	30	30	30	30	30	30
Rows/Plot	4	4	4	4	4	4
Reps	2	2	2	2	2	2

* Data not included in mean.

PRELIMINARY TEST IIIB, 2022

YIELD RANK

Strain	Yield Rank	Ames IA	Crawfordsville IA	Urbana IL	West Lafayette IN	Manhattan KS
LD11-2170 (III)	10	7	6	9	23	2
U15-606207 (SCN)	15	18	10	30	22	4
LD07-3395bf (SCN) (L)	14	15	15	12	26	9
U14-910097 (SCN) (E)	3	9	31	1	14	3
HM19-39359	40	35	39	29	40	40
HM19-40194	34	34	35	23	30	32
K19-1708	24	25	38	10	29	27
LD19-1113	26	14	36	20	2	25
LD19-2604	16	11	14	26	13	11
LD19-2693	9	10	9	3	20	20
LD19-6531	4	3	23	2	10	10
LD19-7157	8	5	4	8	24	33
LD19-7179	5	1	3	6	15	37
LD19-7828	11	6	12	7	18	14
LD19-8412	19	12	28	24	9	16
LD19-8625	18	27	1	11	18	20
LD20-11526	1	16	16	22	6	1
LD20-11552	6	2	2	28	8	28
LD20-1607	20	30	7	19	16	19
LD20-1783	12	13	8	14	1	13
LD20-1920	17	20	26	13	4	30
LD20-2280	22	21	40	4	10	26
LG18-976	13	16	21	25	12	22
LG19-4084	2	4	29	5	5	7
LG19-4181	21	8	24	16	7	34
U19-057068	23	19	13	21	31	8
U19-057097	25	28	5	36	25	24
U19-230059	39	32	34	37	37	15
U19-268171	28	31	24	38	38	17
U19-272085	7	22	17	17	3	12
U19-272098	29	36	17	32	28	22
U20-907144	31	38	27	31	34	39
U20-909207	36	33	22	27	39	5
U20-911204	27	24	20	40	32	5
U20-914028	32	23	37	33	17	18
U20-917095	37	29	30	18	36	36
U20-921035	38	40	33	35	27	31
U20-922082	35	39	19	34	35	29
U20-927103	30	37	11	39	21	35
U20-928084	33	26	32	15	33	38

PRELIMINARY TEST IIB, 2022

YIELD RANK

Strain	Albany MO	Colum- bia MO	Novelty MO	Cook NE	Lincoln NE	Phillips NE
LD11-2170 (III)	12	32	17	16	30	11
U15-606207 (SCN)	34	4	32	5	39	32
LD07-3395bf (SCN) (L)	3	14	27	17	13	19
U14-910097 (SCN) (E)	15	8	9	9	14	1
HM19-39359	39	36	19	29	22	40
HM19-40194	30	18	38	10	15	39
K19-1708	16	9	12	18	28	27
LD19-1113	7	29	36	27	7	36
LD19-2604	29	34	4	11	25	25
LD19-2693	13	6	10	20	5	26
LD19-6531	9	7	11	25	2	6
LD19-7157	6	10	6	14	6	20
LD19-7179	14	18	13	33	23	5
LD19-7828	4	12	8	15	9	33
LD19-8412	37	16	16	28	26	12
LD19-8625	19	5	24	30	40	31
LD20-11526	1	1	2	2	24	2
LD20-11552	24	24	18	3	3	15
LD20-1607	22	3	14	36	4	8
LD20-1783	25	15	26	22	37	16
LD20-1920	5	2	20	31	36	30
LD20-2280	11	21	22	23	34	22
LG18-976	7	27	3	13	20	23
LG19-4084	2	11	1	6	16	3
LG19-4181	20	23	5	39	17	18
U19-057068	31	17	25	32	38	9
U19-057097	36	25	37	1	18	10
U19-230059	38	40	21	40	21	24
U19-268171	22	28	15	21	19	4
U19-272085	17	20	7	8	29	7
U19-272098	27	37	29	7	33	14
U20-907144	26	30	28	26	11	21
U20-909207	18	33	35	37	12	38
U20-911204	32	26	40	4	10	17
U20-914028	10	39	30	35	27	28
U20-917095	33	35	34	34	32	37
U20-921035	28	38	23	12	1	35
U20-922082	35	31	33	24	8	34
U20-927103	40	13	31	19	31	13
U20-928084	21	22	39	38	35	29

PRELIMINARY TEST IIIB, 2022

MATURITY (date)

Strain	Mean 8 Tests	Ames IA*	Crawfords- ville IA*	Urbana IL	West Lafayette IN	Man- hattan KS
LD11-2170 (III)	9/29	10/1	9/24	9/22	9/21	10/6
U15-606207 (SCN)	4		2	4	3	1
LD07-3395bf (SCN) (L)	5		3	7	6	2
U14-910097 (SCN) (E)	0	0	-1	-1	2	-1
HM19-39359	1	0	2	1	1	-1
HM19-40194	2		1	5	3	-1
K19-1708	5		4	6	6	3
LD19-1113	-0		-2	0	1	-2
LD19-2604	2		1	2	3	0
LD19-2693	3		4	6	4	1
LD19-6531	2		2	4	3	2
LD19-7157	-2	-1	-2	-1	-1	-3
LD19-7179	-1		-2	0	-1	-4
LD19-7828	3		4	7	4	-1
LD19-8412	1		0	3	3	-2
LD19-8625	6		4	9	6	3
LD20-11526	5		4	6	5	3
LD20-11552	1		2	2	2	-1
LD20-1607	1		2	1	4	-3
LD20-1783	-2		-4	-2	-2	-4
LD20-1920	4		4	6	6	-1
LD20-2280	3		4	5	6	1
LG18-976	3		2	4	4	2
LG19-4084	1		0	0	1	-1
LG19-4181	1		0	5	4	-3
U19-057068	1		2	0	2	-1
U19-057097	2		3	3	6	-2
U19-230059	-3	-2	-3	-2	-4	-4
U19-268171	-1	0	2	-2	-3	-4
U19-272085	6			7	9	3
U19-272098	2		3	3	3	1
U20-907144	-2	-4	-2	-2	-2	-2
U20-909207	-2	-3	-3	-3	-4	-3
U20-911204	1		1	4	2	0
U20-914028	1		1	3	3	1
U20-917095	-0		0	-1	0	-3
U20-921035	3	-1	2	4	2	4
U20-922082	0	-1	1	0	0	1
U20-927103	-2		-5	-2	-3	-3
U20-928084	-4	-3	-5	-3	-6	-5
Date Planted	6/3	5/23	5/11	5/17	5/12	6/17
Days to Mature	118	131	136	128	132	111

* Killing frost at maturity, data not included in mean.

PRELIMINARY TEST IIIB, 2022

MATURITY (date)

Strain	Albany MO	Colum- bia MO	Novelty MO	Cook NE	Lincoln NE	Phillips NE
LD11-2170 (III)	10/7	9/25	10/3	10/1		10/4
U15-606207 (SCN)	3	6	6	6		2
LD07-3395bf (SCN) (L)	0	7	8	6		4
U14-910097 (SCN) (E)	-3	2	1	2		0
HM19-39359	3	1	3	2		2
HM19-40194	0	4	3	4		2
K19-1708	1	6	6	7		7
LD19-1113	-5	2	-1	-1		2
LD19-2604	3	2	4	-1		2
LD19-2693	1	3	3	3		2
LD19-6531	0	2	3	3		2
LD19-7157	-4	1	0	-2		-2
LD19-7179	1	-2	-1	-3		-1
LD19-7828	4	4	2	4		3
LD19-8412	-4	1	3	1		1
LD19-8625	5	7	5	6		4
LD20-11526	0	5	6	8		5
LD20-11552	-4	2	2	4		1
LD20-1607	1	2	1	-2		2
LD20-1783	-2	-1	-1	-2		-1
LD20-1920	5	5	3	3		2
LD20-2280	0	4	3	4		5
LG18-976	1	1	6	7		2
LG19-4084	-1	3	4	2		1
LG19-4181	0	1	0	0		-1
U19-057068	-2	1	2	3		3
U19-057097	2	2	2	4		-1
U19-230059	-4	-5	0	-1		-1
U19-268171	-1	-2	0	0		0
U19-272085	5	6	7	9		4
U19-272098	-1	2	3	3		-1
U20-907144	-6	-1	-1	-1		-1
U20-909207	2	-3	-1	-2		-1
U20-911204	4	1	-1	3		-1
U20-914028	1	-1	0	3		1
U20-917095	-1	1	-1	1		1
U20-921035	1	1	6	3		3
U20-922082	0	1	3	-1		0
U20-927103	-5	-2	2	-1		-1
U20-928084	-4	-5	-1	-4		-2
Date Planted	6/21	6/7	6/16	6/2		5/31
Days to Mature	108	110	109	121		126

PRELIMINARY TEST IIIB, 2022

LODGING (score)

Strain	Mean 8 Tests	Ames IA	Crawfords- ville IA	Urbana IL	West Lafayette IN	Man- hattan KS
LD11-2170 (III)	1.2	1.0		1.0	1.0	1.5
U15-606207 (SCN)	1.3	1.0		1.5	1.5	1.0
LD07-3395bf (SCN) (L)	1.5	1.0		1.5	1.5	1.5
U14-910097 (SCN) (E)	1.8	2.0		1.5	2.0	1.5
HM19-39359	1.6	1.0		1.5	1.5	1.5
HM19-40194	1.4	1.0		1.5	1.5	1.0
K19-1708	1.7	1.0		1.8	1.5	2.0
LD19-1113	1.4	1.5		1.5	1.0	1.0
LD19-2604	1.1	1.0		1.0	1.0	1.0
LD19-2693	1.2	1.0		1.3	1.0	1.5
LD19-6531	1.3	1.0		1.0	1.0	1.0
LD19-7157	1.1	1.0		1.3	1.0	1.0
LD19-7179	1.2	1.0		1.3	1.0	1.0
LD19-7828	1.3	1.0		1.5	1.5	1.0
LD19-8412	1.3	1.0		1.3	1.5	1.0
LD19-8625	1.3	1.0		1.5	1.0	1.0
LD20-11526	1.4	1.0		1.3	1.0	1.5
LD20-11552	1.2	1.0		1.3	1.0	1.5
LD20-1607	1.3	1.0		1.3	1.0	1.0
LD20-1783	1.3	1.0		1.0	1.0	1.0
LD20-1920	1.3	1.0		1.5	1.0	1.0
LD20-2280	1.3	1.0		1.5	1.5	1.0
LG18-976	1.5	1.0		1.3	2.0	1.5
LG19-4084	1.8	2.5		1.8	2.0	2.0
LG19-4181	1.5	2.0		1.5	1.0	1.0
U19-057068	1.3	1.0		1.5	1.0	1.0
U19-057097	1.1	1.0		1.0	1.0	1.0
U19-230059	1.2	1.0		1.0	1.0	1.0
U19-268171	1.2	1.0		1.0	1.0	1.0
U19-272085	1.4	1.0		1.3	2.0	1.0
U19-272098	1.3	1.0		1.3	1.5	1.0
U20-907144	1.3	1.0		1.0	1.5	1.0
U20-909207	1.1	1.0		1.0	1.0	1.0
U20-911204	1.3	1.0		1.3	1.0	1.0
U20-914028	1.3	1.0		1.0	2.0	1.0
U20-917095	1.2	1.0		1.0	1.0	1.5
U20-921035	1.4	1.0		1.3	1.5	2.0
U20-922082	1.3	1.0		1.0	1.0	1.5
U20-927103	1.2	1.0		1.0	1.0	1.0
U20-928084	1.1	1.0		1.0	1.0	1.0

PRELIMINARY TEST IIB, 2022

LODGING (score)

Strain	Albany MO	Colum- bia MO	Novelty MO	Cook NE	Lincoln NE	Phillips NE
LD11-2170 (III)	1.0	1.3	1.5	1.0		
U15-606207 (SCN)	1.5	1.5	1.5	1.0		
LD07-3395bf (SCN) (L)	1.5	2.3	1.5	1.0		
U14-910097 (SCN) (E)	1.5	2.5	1.5	2.0		
HM19-39359	1.5	2.8	2.0	1.0		
HM19-40194	1.5	2.3	1.5	1.0		
K19-1708	1.5	2.0	1.5	2.0		
LD19-1113	1.8	2.0	1.5	1.0		
LD19-2604	1.3	1.0	1.5	1.0		
LD19-2693	1.3	1.3	1.5	1.0		
LD19-6531	1.5	2.0	1.5	1.0		
LD19-7157	1.3	1.0	1.5	1.0		
LD19-7179	1.3	1.8	1.5	1.0		
LD19-7828	1.3	1.5	1.5	1.0		
LD19-8412	1.3	1.8	1.5	1.0		
LD19-8625	1.5	1.8	1.5	1.0		
LD20-11526	1.5	2.3	1.5	1.0		
LD20-11552	1.3	1.3	1.5	1.0		
LD20-1607	1.3	2.3	1.5	1.0		
LD20-1783	1.0	2.3	2.0	1.5		
LD20-1920	1.5	1.8	1.5	1.0		
LD20-2280	1.5	1.8	1.5	1.0		
LG18-976	1.5	1.8	1.5	1.5		
LG19-4084	1.8	1.8	2.0	1.0		
LG19-4181	1.5	2.5	1.5	1.0		
U19-057068	1.5	2.3	1.5	1.0		
U19-057097	1.0	1.3	1.5	1.0		
U19-230059	1.0	1.8	1.5	1.0		
U19-268171	1.0	2.0	1.5	1.0		
U19-272085	1.5	2.3	1.5	1.0		
U19-272098	1.5	1.8	1.5	1.0		
U20-907144	1.5	2.0	1.5	1.0		
U20-909207	1.0	1.5	1.5	1.0		
U20-911204	1.5	1.5	1.5	1.5		
U20-914028	1.5	1.3	1.5	1.0		
U20-917095	1.5	1.3	1.5	1.0		
U20-921035	1.8	1.3	1.5	1.0		
U20-922082	1.5	1.5	1.5	1.0		
U20-927103	1.3	1.8	1.5	1.0		
U20-928084	1.0	1.3	1.5	1.0		

PRELIMINARY TEST IIIB, 2022

PLANT HEIGHT (inches)

Strain	Mean 8 Tests	Ames IA	Crawfords- ville IA	Urbana IL	West Lafayette IN	Man- hattan KS
LD11-2170 (III)	30	33		34	32	35
U15-606207 (SCN)	31	32		34	34	34
LD07-3395bf (SCN) (L)	31	32		34	34	33
U14-910097 (SCN) (E)	31	31		32	33	35
HM19-39359	38	39		43	41	43
HM19-40194	31	30		36	35	33
K19-1708	32	34		35	36	35
LD19-1113	34	35		37	38	35
LD19-2604	32	34		37	36	34
LD19-2693	34	34		36	37	37
LD19-6531	31	34		35	34	33
LD19-7157	30	32		35	33	33
LD19-7179	31	30		33	32	32
LD19-7828	30	33		35	34	32
LD19-8412	32	34		36	37	34
LD19-8625	27	27		28	30	29
LD20-11526	34	36		37	39	36
LD20-11552	31	35		33	34	33
LD20-1607	32	32		36	38	36
LD20-1783	30	30		34	34	30
LD20-1920	32	36		35	37	35
LD20-2280	36	37		39	41	40
LG18-976	34	37		36	39	36
LG19-4084	30	34		32	34	33
LG19-4181	33	34		36	38	35
U19-057068	33	34		34	34	39
U19-057097	33	32		33	36	36
U19-230059	31	34		33	34	35
U19-268171	33	35		35	36	36
U19-272085	31	31		31	34	35
U19-272098	32	30		34	36	37
U20-907144	31	30		31	34	32
U20-909207	30	31		34	32	35
U20-911204	33	36		37	38	39
U20-914028	34	36		37	39	37
U20-917095	33	37		36	38	35
U20-921035	32	31		35	37	37
U20-922082	32	31		35	37	35
U20-927103	28	25		30	30	32
U20-928084	29	30		32	32	29

PRELIMINARY TEST IIB, 2022

PLANT HEIGHT (inches)

Strain	Albany MO	Colum- bia MO	Novelty MO	Cook NE	Lincoln NE	Phillips NE
LD11-2170 (III)	30	27	24	29		
U15-606207 (SCN)	30	31	25	31		
LD07-3395bf (SCN) (L)	29	29	25	30		
U14-910097 (SCN) (E)	30	28	26	30		
HM19-39359	37	34	30	38		
HM19-40194	31	31	24	31		
K19-1708	30	30	24	34		
LD19-1113	34	31	27	33		
LD19-2604	31	28	26	30		
LD19-2693	31	31	26	38		
LD19-6531	30	30	26	30		
LD19-7157	30	25	26	29		
LD19-7179	30	29	24	39		
LD19-7828	30	24	24	30		
LD19-8412	32	30	27	31		
LD19-8625	25	31	21	26		
LD20-11526	34	29	28	33		
LD20-11552	29	28	24	30		
LD20-1607	34	31	25	29		
LD20-1783	29	26	26	30		
LD20-1920	33	30	24	32		
LD20-2280	36	31	29	36		
LG18-976	34	31	29	34		
LG19-4084	30	26	27	28		
LG19-4181	34	30	24	32		
U19-057068	32	31	27	33		
U19-057097	33	30	28	38		
U19-230059	32	26	30	28		
U19-268171	33	32	25	33		
U19-272085	30	30	26	31		
U19-272098	32	29	26	33		
U20-907144	32	29	28	30		
U20-909207	30	25	22	30		
U20-911204	32	27	23	33		
U20-914028	34	27	28	32		
U20-917095	32	27	26	30		
U20-921035	35	28	24	32		
U20-922082	30	31	25	33		
U20-927103	26	26	26	26		
U20-928084	28	25	28	29		

PRELIMINARY TEST IIB, 2022

SEED SIZE (g/100)

Strain	Mean 8 Tests	Ames IA	Crawfords- ville IA	Urbana IL	West Lafayette IN	Man- hattan KS
LD11-2170 (III)	16.3	17.2	16.5	15.9	16.1	16.3
U15-606207 (SCN)	16.4	16.6	15.7	16.4	17.2	16.3
LD07-3395bf (SCN) (L)	16.6	16.0	16.1	16.4	16.7	16.2
U14-910097 (SCN) (E)	15.9	16.2	15.8	15.9	16.6	15.2
HM19-39359	15.2	15.6	16.3	14.9	15.8	15.0
HM19-40194	15.0	14.9	15.0	15.1	14.8	12.8
K19-1708	15.1	15.4	15.0	14.8	15.3	14.5
LD19-1113	17.8	18.4	17.9	17.4	18.9	17.0
LD19-2604	17.1	18.0	17.4	16.5	17.6	17.6
LD19-2693	15.4	15.3	14.9	15.7	16.1	14.1
LD19-6531	17.0	17.2	17.0	17.1	17.6	16.6
LD19-7157	15.9	16.8	15.3	15.6	16.3	15.9
LD19-7179	15.5	15.8	15.2	16.0	16.9	14.7
LD19-7828	15.0	15.5	15.5	14.6	14.7	14.7
LD19-8412	16.1	16.5	16.4	15.6	17.0	16.1
LD19-8625	15.3	16.0	15.5	14.4	15.4	15.2
LD20-11526	15.5	16.0	15.5	15.3	16.0	15.4
LD20-11552	17.7	18.0	18.1	17.3	19.1	17.4
LD20-1607	15.0	15.5	15.3	15.1	15.0	15.0
LD20-1783	17.1	17.5	17.0	17.3	17.7	17.2
LD20-1920	16.6	17.5	15.5	17.0	17.5	14.7
LD20-2280	16.7	17.0	16.9	16.2	17.3	16.4
LG18-976	15.0	15.4	14.6	15.6	15.1	15.1
LG19-4084	16.6	17.0	16.1	16.1	17.4	16.1
LG19-4181	14.8	15.4	14.6	15.0	15.6	14.3
U19-057068	15.1	14.6	15.1	15.4	15.7	14.6
U19-057097	16.0	15.4	16.6	16.5	17.0	14.3
U19-230059	14.8	14.5	14.9	14.4	14.4	15.6
U19-268171	14.0	15.0	15.2	13.0	14.1	13.3
U19-272085	16.7	15.9	15.9	16.6	17.8	16.6
U19-272098	14.4	14.5	15.7	14.2	14.5	14.1
U20-907144	14.7	13.5	14.7	14.8	15.4	14.4
U20-909207	15.1	14.5	15.6	14.9	15.0	14.5
U20-911204	12.8	13.3	12.5	11.6	12.9	13.5
U20-914028	16.5	17.0	17.2	16.1	17.6	16.0
U20-917095	15.4	15.2	15.6	15.0	15.8	14.7
U20-921035	15.0	14.5	15.7	14.8	15.4	15.5
U20-922082	14.3	14.0	14.1	14.0	14.9	14.1
U20-927103	16.4	16.2	16.4	15.8	16.9	16.4
U20-928084	16.3	16.5	16.1	15.1	16.5	15.9

PRELIMINARY TEST IIB, 2022

SEED SIZE (g/100)

Strain	Albany MO	Colum- bia MO	Novelty MO	Cooik NE	Lincoln NE	Phillips NE
LD11-2170 (III)	14.5			17.0		16.6
U15-606207 (SCN)	16.6			16.3		16.1
LD07-3395bf (SCN) (L)	16.9			17.1		17.1
U14-910097 (SCN) (E)	15.9			16.2		15.2
HM19-39359	12.7			16.0		15.3
HM19-40194	16.2			16.2		15.3
K19-1708	14.8			16.0		15.1
LD19-1113	16.5			19.3		17.4
LD19-2604	15.8			16.2		17.6
LD19-2693	15.5			15.4		15.9
LD19-6531	16.1			17.6		17.0
LD19-7157	15.8			16.2		15.4
LD19-7179	14.4			15.6		15.2
LD19-7828	15.1			14.7		15.6
LD19-8412	15.2			16.2		15.7
LD19-8625	14.5			15.1		16.0
LD20-11526	14.5			16.1		14.9
LD20-11552	16.2			18.2		17.0
LD20-1607	14.4			15.0		15.1
LD20-1783	16.6			16.8		17.0
LD20-1920	17.4			16.5		16.6
LD20-2280	16.4			17.2		16.7
LG18-976	14.4			15.2		14.7
LG19-4084	16.9			17.2		15.9
LG19-4181	14.8			14.9		14.0
U19-057068	14.3			16.5		14.8
U19-057097	15.1			17.2		15.6
U19-230059	12.8			16.6		15.4
U19-268171	13.0			14.4		14.4
U19-272085	16.1			17.4		17.7
U19-272098	13.2			14.9		14.4
U20-907144	14.0			16.1		14.6
U20-909207	14.9			16.1		15.4
U20-911204	11.6			13.6		13.4
U20-914028	13.9			17.4		16.7
U20-917095	15.8			16.3		14.8
U20-921035	13.3			15.7		15.4
U20-922082	13.6			15.0		14.5
U20-927103	16.7			16.8		16.4
U20-928084	15.9			17.0		17.4

PRELIMINARY TEST IIB, 2022

SEED QUALITY (score)

Strain	Mean 8 Tests	Ames IA	Crawfords- ville IA	Urbana IL	West Lafayette IN	Man- hattan KS
LD11-2170 (III)	1.4	1.0	2.0	2.0	1.0	2.0
U15-606207 (SCN)	1.4	1.5	2.0	2.0	1.0	2.0
LD07-3395bf (SCN) (L)	1.5	2.0	2.0	2.0	1.0	2.0
U14-910097 (SCN) (E)	1.4	2.0	2.0	2.0	1.0	1.0
HM19-39359	1.9	2.0	3.0	2.0	2.0	3.0
HM19-40194	1.4	2.0	1.0	2.0	1.0	2.0
K19-1708	1.5	2.0	2.0	2.0	1.0	2.0
LD19-1113	1.5	2.0	2.0	2.0	1.0	2.0
LD19-2604	1.6	2.0	2.0	2.0	1.0	2.0
LD19-2693	1.6	2.0	3.0	2.0	1.0	2.0
LD19-6531	1.4	2.5	1.0	2.0	1.0	2.0
LD19-7157	1.3	2.0	1.5	1.0	1.0	2.0
LD19-7179	1.6	1.5	2.0	2.0	1.0	2.0
LD19-7828	1.4	2.0	2.0	1.0	1.0	2.0
LD19-8412	1.5	2.0	2.0	2.0	1.0	2.0
LD19-8625	1.4	2.0	2.0	2.0	1.0	1.0
LD20-11526	1.6	2.0	2.5	2.0	1.0	1.0
LD20-11552	1.6	2.0	2.0	2.0	1.0	2.0
LD20-1607	1.2	1.5	1.0	1.0	1.0	2.0
LD20-1783	1.5	2.0	3.0	2.0	1.0	1.0
LD20-1920	1.3	2.0	1.0	1.0	1.0	2.0
LD20-2280	1.6	2.0	2.0	2.0	2.0	2.0
LG18-976	1.3	2.0	1.0	1.0	1.0	2.0
LG19-4084	1.6	2.0	2.0	2.0	1.5	2.0
LG19-4181	1.4	2.0	2.0	2.0	1.0	1.0
U19-057068	1.8	2.5	1.5	2.0	2.0	2.0
U19-057097	1.4	2.0	2.0	1.0	1.0	2.0
U19-230059	1.4	1.5	1.5	1.0	1.0	2.0
U19-268171	1.6	2.5	2.5	2.0	1.0	1.0
U19-272085	1.6	2.5	2.0	2.0	1.5	2.0
U19-272098	1.4	2.0	2.5	1.0	1.0	2.0
U20-907144	1.2	1.5	2.0	1.0	1.0	1.0
U20-909207	1.4	2.0	2.0	1.0	1.0	2.0
U20-911204	1.3	1.5	2.0	1.0	1.0	2.0
U20-914028	1.6	2.0	2.5	2.0	1.0	1.0
U20-917095	1.4	2.0	1.0	2.0	1.0	2.0
U20-921035	1.6	2.0	2.5	1.0	1.0	2.0
U20-922082	1.4	2.0	1.0	2.0	1.5	2.0
U20-927103	1.6	2.0	2.5	2.0	1.0	2.0
U20-928084	1.6	2.0	2.0	1.0	1.0	3.0

PRELIMINARY TEST IIIB, 2022

SEED QUALITY (score)

Strain	Albany MO	Colum- bia MO	Novelty MO	Cook NE	Lincoln NE	Phillips NE
LD11-2170 (III)	1.0			1.0		1.0
U15-606207 (SCN)	1.0			1.0		1.0
LD07-3395bf (SCN) (L)	1.0			1.0		1.0
U14-910097 (SCN) (E)	1.0			1.0		1.0
HM19-39359	1.0			1.0		1.0
HM19-40194	1.0			1.0		1.0
K19-1708	1.0			1.0		1.0
LD19-1113	1.0			1.0		1.0
LD19-2604	2.0			1.0		1.0
LD19-2693	1.0			1.0		1.0
LD19-6531	1.0			1.0		1.0
LD19-7157	1.0			1.0		1.0
LD19-7179	2.0			1.0		1.0
LD19-7828	1.0			1.0		1.0
LD19-8412	1.0			1.0		1.0
LD19-8625	1.0			1.0		1.0
LD20-11526	2.0			1.0		1.0
LD20-11552	2.0			1.0		1.0
LD20-1607	1.0			1.0		1.0
LD20-1783	1.0			1.0		1.0
LD20-1920	1.0			1.0		1.0
LD20-2280	1.0			1.0		1.0
LG18-976	1.0			1.0		1.0
LG19-4084	1.0			1.0		1.0
LG19-4181	1.0			1.0		1.0
U19-057068	2.0			1.0		1.0
U19-057097	1.0			1.0		1.0
U19-230059	2.0			1.0		1.0
U19-268171	2.0			1.0		1.0
U19-272085	1.0			1.0		1.0
U19-272098	1.0			1.0		1.0
U20-907144	1.0			1.0		1.0
U20-909207	1.0			1.0		1.0
U20-911204	1.0			1.0		1.0
U20-914028	2.0			1.0		1.0
U20-917095	1.0			1.0		1.0
U20-921035	2.0			1.0		1.0
U20-922082	1.0			1.0		1.0
U20-927103	1.0			1.0		1.0
U20-928084	2.0			1.0		1.0

PRELIMINARY TEST IIB, 2022

PROTEIN (%)

Strain	Mean 8 Tests	Ames IA	Crawfords- ville IA	Urbana IL	West Lafayette IN	Man- hattan KS
LD11-2170 (III)	33.5	32.8	33.0	33.9	33.9	33.7
U15-606207 (SCN)	32.4	31.9	31.3	34.3	32.4	30.8
LD07-3395bf (SCN) (L)	31.5	30.1	31.6	33.4	30.7	31.1
U14-910097 (SCN) (E)	32.4	32.4	31.1	32.6	33.2	32.4
HM19-39359	32.5	33.6	31.3	32.9	33.9	32.8
HM19-40194	33.6	32.9	32.6	34.4	32.7	33.3
K19-1708	33.9	33.1	33.4	34.6	34.5	32.4
LD19-1113	34.7	35.2	32.8	35.3	35.4	34.7
LD19-2604	33.8	34.6	32.8	33.7	34.6	33.1
LD19-2693	33.5	34.0	32.6	33.9	34.1	32.8
LD19-6531	32.7	33.2	31.4	33.5	32.4	32.6
LD19-7157	32.8	32.6	31.0	33.4	34.1	32.1
LD19-7179	33.3	33.3	31.8	32.9	34.9	32.7
LD19-7828	34.3	34.7	33.6	35.2	34.2	33.5
LD19-8412	34.6	34.1	33.0	36.0	34.6	33.1
LD19-8625	32.1	31.3	30.9	32.9	32.1	32.4
LD20-11526	33.0	33.4	31.7	33.0	33.6	31.7
LD20-11552	33.1	32.8	32.3	34.4	33.3	32.2
LD20-1607	32.7	32.9	31.7	32.9	33.6	31.9
LD20-1783	34.2	32.4	31.9	34.7	35.3	34.7
LD20-1920	35.3	34.2	33.9	36.4	35.9	33.8
LD20-2280	34.5	35.4	33.7	34.3	35.4	33.1
LG18-976	34.0	33.7	33.9	34.5	34.5	33.0
LG19-4084	32.7	33.4	31.1	33.8	32.8	31.8
LG19-4181	33.6	33.3	32.8	34.1	33.1	33.4
U19-057068	32.7	33.1	31.5	31.6	33.4	31.9
U19-057097	33.3	33.2	31.5	34.2	34.6	32.3
U19-230059	32.5	32.4	31.1	32.7	31.5	33.6
U19-268171	31.8	31.7	30.1	31.1	32.3	32.4
U19-272085	32.8	32.6	31.4	32.5	34.6	32.9
U19-272098	31.9	31.9	31.7	27.4	33.9	31.9
U20-907144	32.1	30.7	30.2	32.4	33.2	30.9
U20-909207	31.9	30.7	30.3	32.0	32.2	32.2
U20-911204	32.9	33.0	31.5	32.8	33.1	32.6
U20-914028	32.4	32.7	30.8	33.4	33.3	30.9
U20-917095	32.7	32.7	30.9	33.1	33.2	31.8
U20-921035	32.6	32.0	31.2	32.6	33.2	31.9
U20-922082	32.2	31.4	30.7	32.6	32.4	32.1
U20-927103	33.2	33.1	32.1	33.5	34.2	32.7
U20-928084	33.0	33.0	30.5	32.7	34.9	34.4

PRELIMINARY TEST IIIB, 2022

PROTEIN (%)

Strain	Albany MO	Colum- bia MO	Novelty MO	Cook NE	Lincoln NE	Phillips NE
LD11-2170 (III)		33.5		32.7		34.6
U15-606207 (SCN)		34.2		32.5		31.7
LD07-3395bf (SCN) (L)		31.6		31.9		31.6
U14-910097 (SCN) (E)		33.0		31.5		32.8
HM19-39359		32.1		32.9		30.9
HM19-40194		34.5		33.1		35.3
K19-1708		34.6		33.8		35.0
LD19-1113		34.3		35.0		35.0
LD19-2604		33.6		33.5		34.8
LD19-2693		33.2		32.6		34.9
LD19-6531		32.5		32.5		33.2
LD19-7157		34.2		32.5		32.6
LD19-7179		34.5		32.4		33.8
LD19-7828		35.1		33.5		34.8
LD19-8412		34.1		33.4		38.6
LD19-8625		32.2		32.1		33.2
LD20-11526		33.6		32.6		34.7
LD20-11552		33.0		32.8		34.1
LD20-1607		34.1		32.7		31.8
LD20-1783		35.1		34.7		35.0
LD20-1920		36.7		35.3		36.0
LD20-2280		34.6		34.3		35.4
LG18-976		34.0		33.5		35.0
LG19-4084		34.1		32.2		32.7
LG19-4181		33.8		33.6		35.0
U19-057068		33.5		33.1		33.2
U19-057097		33.9		32.5		34.2
U19-230059		32.2		33.0		33.4
U19-268171		31.3		31.3		33.8
U19-272085		33.6		31.8		32.9
U19-272098		31.3		33.2		34.0
U20-907144		33.2		32.0		34.1
U20-909207		32.9		32.2		32.5
U20-911204		33.4		32.2		34.4
U20-914028		32.3		32.2		33.5
U20-917095		32.8		32.3		34.6
U20-921035		32.5		32.3		35.4
U20-922082		32.6		32.8		32.9
U20-927103		32.8		33.4		34.1
U20-928084		33.0		31.1		34.4

PRELIMINARY TEST IIB, 2022

OIL (%)

Strain	Mean 8 Tests	Ames IA	Crawfords- ville IA	Urbana IL	West Lafayette IN	Man- hattan KS
LD11-2170 (III)	20.3	19.9	20.7	20.1	19.8	20.3
U15-606207 (SCN)	20.6	19.9	20.9	19.7	20.3	21.3
LD07-3395bf (SCN) (L)	20.7	20.7	20.7	20.0	21.1	20.8
U14-910097 (SCN) (E)	20.6	19.9	21.2	20.5	20.3	20.8
HM19-39359	19.6	18.6	20.1	19.3	19.5	19.3
HM19-40194	19.9	19.6	21.0	19.4	20.5	20.1
K19-1708	19.1	18.8	19.3	18.9	19.2	19.9
LD19-1113	19.8	19.0	20.4	19.8	19.3	20.1
LD19-2604	19.1	17.6	20.2	15.8	19.4	20.3
LD19-2693	19.5	18.5	20.0	19.4	19.2	19.7
LD19-6531	20.6	19.8	21.5	20.2	20.6	20.9
LD19-7157	20.4	19.9	21.1	20.3	19.6	20.9
LD19-7179	20.0	19.7	20.6	20.0	19.1	20.8
LD19-7828	18.9	18.8	19.2	18.6	18.6	19.6
LD19-8412	19.3	18.7	19.9	18.9	19.0	19.9
LD19-8625	20.5	20.2	20.8	20.2	20.4	20.6
LD20-11526	20.3	19.4	21.2	20.4	20.1	21.2
LD20-11552	20.4	19.7	21.0	20.0	20.4	20.7
LD20-1607	20.0	19.7	20.7	20.4	19.6	21.0
LD20-1783	19.9	19.4	20.9	19.9	19.5	19.9
LD20-1920	19.0	19.0	19.2	18.7	18.5	19.8
LD20-2280	19.1	18.1	19.4	19.3	18.8	20.1
LG18-976	19.0	18.3	19.4	19.1	18.8	19.5
LG19-4084	20.2	19.7	20.9	18.8	20.5	21.0
LG19-4181	18.8	19.1	19.5	18.2	18.7	18.9
U19-057068	19.8	19.1	20.3	20.2	19.6	20.5
U19-057097	20.1	19.7	21.0	19.6	19.2	20.8
U19-230059	20.5	20.2	21.1	20.7	20.8	20.5
U19-268171	21.2	20.7	21.8	21.6	20.9	21.4
U19-272085	20.5	19.4	21.4	21.0	19.8	20.9
U19-272098	20.5	20.5	20.8	21.8	19.7	20.7
U20-907144	20.6	20.6	21.2	20.4	20.1	21.4
U20-909207	20.4	20.4	21.0	20.5	20.1	20.7
U20-911204	19.8	18.9	20.4	20.0	19.5	20.2
U20-914028	20.2	19.6	21.0	19.9	19.8	20.8
U20-917095	20.2	19.8	21.2	20.1	20.2	20.6
U20-921035	19.8	20.5	21.2	20.2	19.8	20.5
U20-922082	20.2	20.1	21.0	20.2	20.0	20.6
U20-927103	20.3	20.0	21.1	20.3	19.8	20.8
U20-928084	20.3	19.6	21.2	20.5	19.8	20.4

PRELIMINARY TEST IIB, 2022

OIL (%)

Strain	Albany MO	Colum- bia MO	Novelty MO	Cook NE	Lincoln NE	Phillips NE
LD11-2170 (III)		21.6		20.3		19.6
U15-606207 (SCN)		22.1		20.2		20.1
LD07-3395bf (SCN) (L)		21.8		20.6		19.9
U14-910097 (SCN) (E)		21.4		20.8		19.8
HM19-39359		20.4		19.3		20.1
HM19-40194		20.0		19.9		18.9
K19-1708		19.8		18.9		18.1
LD19-1113		20.9		19.4		19.1
LD19-2604		20.8		19.6		19.0
LD19-2693		20.6		19.6		18.8
LD19-6531		21.7		20.6		19.9
LD19-7157		21.0		20.4		19.9
LD19-7179		20.5		20.1		19.1
LD19-7828		20.0		18.8		18.1
LD19-8412		20.0		19.5		18.4
LD19-8625		21.6		20.4		19.5
LD20-11526		21.2		20.1		18.9
LD20-11552		21.5		20.2		19.5
LD20-1607		20.8		19.7		18.3
LD20-1783		20.5		19.5		19.2
LD20-1920		19.4		18.9		18.5
LD20-2280		20.0		18.9		18.1
LG18-976		20.0		19.1		18.0
LG19-4084		20.4		20.5		19.9
LG19-4181		19.5		19.1		17.8
U19-057068		20.2		19.5		19.1
U19-057097		20.8		20.3		19.2
U19-230059		21.0		20.4		19.5
U19-268171		22.2		21.3		19.8
U19-272085		21.2		20.7		19.6
U19-272098		20.9		19.9		19.6
U20-907144		21.2		20.5		19.2
U20-909207		20.9		20.3		19.6
U20-911204		20.5		19.9		18.7
U20-914028		21.0		20.0		19.3
U20-917095		20.8		20.0		18.7
U20-921035		21.0		20.3		15.1
U20-922082		20.9		19.8		19.2
U20-927103		21.5		19.8		19.4
U20-928084		21.2		20.0		19.5

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**Northern Regional Uniform Test
Uniform Test IV, 2022**

Ent.	Strain	Parentage		Seed Source	Previous Testing	Gen. Comp.	Unique Traits
		Female	Male				
1	LD15-3818 (IV)	LD09-3913	BN09002129	Diers	3	F5	SCN
2	LD00-2817 (L)	Ina	Dwight	Diers	15	F5	SCN
3	LD07-3395bf (E)	LD07-3395 Reselection		Diers	7	F5	SCN
4	CR17-2874	CL0J095-4-6	CR13275.1 (CL05-4637 x KB10-22)	Rainey	1	F5	SCN
5	CR17-4386	F3:5 LG10-2699	LG09-7163	Rainey	1	F5	
6	CR183106	4J105-3-9	LD00-3309	Rainey	21 PT IV - 05	F6	SCN, Rps
7	CR183173	4J105-3-9	LD00-3309	Rainey	21 PT IV - 06	F6	SCN, Rps
8	CR183264	4J105-3-9	LD00-3309	Rainey	21 PT IV - 08	F6	SCN, Rps
9	CR184183	4J105-3-4	LG04-6000	Rainey	21 PT IV - 10	F6	Rps
10	CR184232	4J105-3-4	LG04-6000	Rainey	21 PT IV - 11	F6	Rps
11	K17-6185	LG11-6210	K11-2363B	Schapat	1	F5	SCN
12	K17-6326	LG11-6210	K11-2363T	Schapat	1	F5	STS, SCN
13	K18-1994	LD07-3395bf	K11-2363T	Schapat	21 PT IV - 15	F4	SCN
14	LD18-4159	LD12-8677	LG11-6760	Diers	21 SCN UT IV	F5	SCN
15	LD18-7512	U11-614119	LD12-3866	Diers	21 PT IV - 21	F5	SCN
16	LD18-8418	U11-614119	LG11-6210	Diers	21 PT IV - 22	F5	SCN
17	LG17-8856	LG09-8165	WN0800527	Mahan	21 PT IV - 24	F6	Genetic diversity
18	S19-10701C	S15-17108	DA 10x30-09F	Chen	21 Multi-State Trial	F5	SCN, RKNT, Stem Canker

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code
LD15-3818 (IV)	PLtTDYBI
LD00-2817 (L)	PGTDYIbI
LD07-3395bf (E)	WGTDYBfI
CR17-2874	PLtTDYBI
CR17-4386	PLtBSYBI
CR183106	P+WTB+TSYBI
CR183173	P+WT+LtBSYBI
CR183264	P+WLT+TSYBI
CR184183	WLTBSYBI
CR184232	WLTBDYBI
K17-6185	WLTfTDYBI
K17-6326	PLtTDYBI
K18-1994	WGTDYBfI
LD18-4159	WLTBDYBI
LD18-7512	PGBDYIbI
LD18-8418	WLTfTDYBI
LG17-8856	PLtBSYBI
S19-10701C	WTTSYBI

UNIFORM TEST IV, 2022

REGIONAL SUMMARY

No. of Tests Strain	Yield 13 bu/a	Rank 13 No.	Maturity 13 Date	Lodging 12 Score	Plant Height 12 In.	Seed Size 10 g/100	Seed Quality 10 Score	<u>Composition</u>	
								Protein 9 %	Oil 9 %
LD15-3818 (IV)	61.2	11	10/3	1.3	31	15.5	1.7	34.4	19.7
LD00-2817 (L)	61.4	10	2.8	1.6	36	14.3	2.2	33.1	20.0
LD07-3395bf (SCN) (E)	62.1	7	-2.0	1.3	29	16.1	2.1	32.3	20.5
CR17-2874	55.6	17	-3.7	1.2	28	15.5	2.0	34.5	19.8
CR17-4386	56.6	16	0.6	1.4	35	16.8	2.0	33.6	19.7
CR183106	59.0	14	-1.0	1.1	33	14.1	1.8	35.2	19.1
CR183173	58.3	15	-1.1	1.3	31	16.0	1.9	34.6	19.3
CR183264	59.2	13	-1.6	1.1	33	13.7	1.7	34.4	19.3
CR184183	61.5	8	2.3	1.4	34	16.6	1.8	34.8	18.8
CR184232	60.6	12	-0.0	1.2	31	16.2	1.6	35.0	18.9
K17-6185	63.5	3	1.5	1.3	31	13.6	1.6	34.0	19.8
K17-6326	61.4	9	1.7	1.2	31	13.0	2.0	34.3	19.6
K18-1994	65.4	1	5.1	1.4	28	15.3	1.7	33.0	19.9
LD18-4159	62.6	5	0.1	1.2	32	17.3	1.9	33.6	20.0
LD18-7512	63.8	2	-0.7	1.5	32	15.1	1.9	33.4	19.9
LD18-8418	62.4	6	-0.4	1.2	35	15.4	2.0	34.0	19.2
LG17-8856	63.4	4	3.2	1.9	38	15.4	1.5	33.4	19.6
S19-10701C	51.6	18	10.1	2.4	39	12.1	2.2	35.4	17.9
Mean	60.5			1.4	32.6	15.1	1.8	34.1	19.5
C.V. (%)	9.6								
L.S.D. (5%)	2.6								

127.2 Days After Planting

UNIFORM TEST IV, 2022

2021-2022 2-YEAR MEAN

No. of Tests Strain	Yield	Rank	Maturity	Lodging	Plant Height	Seed Size	Seed Quality	<u>Composition</u>	
	23 bu/a	23 No.	24 Date	23 Score	22 In.	19 g/100	19 Score	17 %	17 %
LD15-3818 (IV)	64.3	2	9/30	1.3	31	15.3	1.9	34.4	19.9
LD00-2817 (L)	61.2	5	2.9	1.6	35	13.9	2.0	33.1	20.1
LD07-3395bf (SCN) (E)	63.7	4	-2.0	1.4	28	15.9	2.0	32.5	20.7
CR17-2874	56.9	7	-3.8	1.2	28	15.5	1.8	34.5	19.9
CR17-4386	59.4	6	0.0	1.7	34	16.5	1.9	33.8	19.9
K17-6185	65.2	1	0.9	1.4	31	13.5	1.5	33.9	19.9
K17-6326	63.7	3	1.2	1.3	31	12.8	1.8	34.3	19.7

127.3 Days After Planting

UNIFORM TEST IV, 2022

YIELD (bu/a)

Strain	Mean 13 Tests	Savoy IL	Urbana IL	Butler- ville IN	Romney IN	West Lafayette IN	Man- hattan KS
LD15-3818 (IV)	61.2	84.1	67.5	79.3	84.0	57.3	64.2
LD00-2817 (L)	61.4	82.2	58.0	76.9	71.9	73.1	54.8
LD07-3395bf (SCN) (E)	62.1	84.4	63.9	83.0	81.8	60.5	66.7
CR17-2874	55.6	76.1	55.5	79.4	78.1	54.0	64.4
CR17-4386	56.6	73.6	48.4	86.1	59.5	43.1	58.8
CR183106	59.0	78.7	61.9	78.2	68.8	78.0	61.5
CR183173	58.3	86.3	57.1	76.0	69.3	69.6	61.9
CR183264	59.2	91.4	59.3	80.5	59.3	71.5	59.2
CR184183	61.5	82.6	62.5	78.3	72.5	72.1	58.2
CR184232	60.6	81.0	55.3	77.4	67.3	64.6	58.7
K17-6185	63.5	84.9	51.3	79.8	74.0	61.1	58.4
K17-6326	61.4	83.2	58.3	80.6	66.7	63.2	61.3
K18-1994	65.4	86.0	57.6	78.6	72.9	60.5	65.0
LD18-4159	62.6	82.5	61.4	79.6	63.6	66.9	67.3
LD18-7512	63.8	90.3	63.3	71.8	65.0	71.3	70.3
LD18-8418	62.4	81.8	60.0	77.5	71.8	68.7	51.9
LG17-8856	63.4	81.8	62.1	80.8	56.6	75.0	66.9
S19-10701C	51.6	55.7	45.8	61.2	41.2	39.9	
Location Mean		81.5	58.3	78.1	68.0	63.9	61.7
C.V. (%)		5.6	10.6	4.6	9.2	12.5	8.6
L.S.D. (5%)		9.6	10.7	7.5	13.4	16.8	8.2
Row Sp. (In.)		30	30	30	30	30	30
Rows/Plot		4	4	4	2	4	4
Reps		2	2	2	2	2	3

UNIFORM TEST IV, 2022

YIELD (bu/a)

Strain	Ottawa KS	Salina KS	Albany MO	Colum- bia MO	Novelty MO	Portageville	
						Clay MO*	Loam MO*
LD15-3818 (IV)	49.3	60.2	53.0	50.8	64.1	37.6	44.8
LD00-2817 (L)	48.0	50.9	49.6	66.5	59.4	39.2	67.7
LD07-3395bf (SCN) (E)	47.5	53.5	55.9	62.3	65.3	37.8	45.1
CR17-2874	46.3	38.6	50.2	42.8	62.8	28.7	46.1
CR17-4386	51.2	57.7	56.6	40.2	61.4	45.2	53.7
CR183106	44.1	51.7	57.5	53.4	59.4	26.9	46.3
CR183173	45.4	48.3	55.1	44.3	54.5	31.2	59.5
CR183264	43.5	55.4	55.9	41.0	58.5	38.3	55.9
CR184183	46.9	51.2	52.2	50.7	64.3	46.5	61.3
CR184232	54.4	55.1	54.5	54.0	63.5	43.5	58.0
K17-6185	53.9	56.0	57.1	59.7	67.5	51.8	70.6
K17-6326	52.2	57.6	53.9	58.9	65.4	44.2	53.0
K18-1994	55.2	56.1	57.2	53.2	71.5	55.3	81.4
LD18-4159	48.3	56.3	52.9	55.4	66.5	43.1	69.6
LD18-7512	43.2	48.9	55.1	59.2	66.1	44.6	80.8
LD18-8418	51.5	54.0	67.0	55.5	63.9	47.3	59.7
LG17-8856	54.1	61.5	54.0	45.8	65.4	42.0	78.1
S19-10701C	48.3	52.6	38.4	57.0	59.4	60.4	58.9
Location Mean	49.1	53.6	54.2	52.8	63.3	42.4	60.6
C.V. (%)	8.5	6.5	9.8	13.9	6.3	11.2	8.7
L.S.D. (5%)	6.9	5.7	8.8	12.2	6.6	9.5	10.5
Row Sp. (In.)	30	30	30	30	30	30	30
Rows/Plot	4	4	4	4	4	4	4
Reps	3	3	3	3	3	3	3

* Dicamba damage.

UNIFORM TEST IV, 2022

YIELD RANK

Strain	Yield Rank	Savoy IL	Urbana IL	Butler-ville IN	Romney IN	West Lafayette IN	Manhattan KS
LD15-3818 (IV)	11	7	1	9	1	15	7
LD00-2817 (L)	10	11	11	15	7	3	16
LD07-3395bf (SCN) (E)	7	6	2	2	2	13	4
CR17-2874	17	16	14	8	3	16	6
CR17-4386	16	17	17	1	15	17	12
CR183106	14	15	6	12	10	1	9
CR183173	15	3	13	16	9	7	8
CR183264	13	1	9	5	16	5	11
CR184183	8	9	4	11	6	4	15
CR184232	12	14	15	14	11	10	13
K17-6185	3	5	16	6	4	12	14
K17-6326	9	8	10	4	12	11	10
K18-1994	1	4	12	10	5	13	5
LD18-4159	5	10	7	7	14	9	2
LD18-7512	2	2	3	17	13	6	1
LD18-8418	6	12	8	13	8	8	17
LG17-8856	4	12	5	3	17	2	3
S19-10701C	18	18	18	18	18	18	

UNIFORM TEST IV, 2022

MATURITY (date)

Strain	Mean 13 Tests	Savoy IL	Urbana IL	Butler-ville IN	Romney IN	West Lafayette IN	Manhattan KS
LD15-3818 (IV)	10/3	10/6	10/5	9/20	10/8	9/30	10/9
LD00-2817 (L)	3	3	2	5	3	5	-2
LD07-3395bf (SCN) (E)	-2	-5	-7	-2	-1	-3	-2
CR17-2874	-4	-7	-6	-1	-1	-5	-3
CR17-4386	1	-1	-3	1	2	-2	0
CR183106	-1	-4	-2	0	3	-2	-2
CR183173	-1	-3	-3	1	2	-3	-3
CR183264	-2	-4	-3	1	-2	-2	-4
CR184183	2	2	2	1	1	5	0
CR184232	-0	-6	-2	0	2	-2	-1
K17-6185	1	-2	0	1	2	-1	-0
K17-6326	2	-1	1	2	2	1	0
K18-1994	5	3	5	6	2	7	2
LD18-4159	0	-3	-1	-1	1	-1	-1
LD18-7512	-1	-3	-5	1	4	-2	-1
LD18-8418	-0	-3	-3	-2	2	-1	-1
LG17-8856	3	4	0	3	2	2	2
S19-10701C	10	10	12	11	2	10	10
Date Planted	5/28	5/17	5/17	5/11	6/13	5/12	6/17
Days to Mature	127	142	141	132	117	141	114

UNIFORM TEST IV, 2022

YIELD RANK

Strain	Ottawa KS	Salina KS	Albany MO	Colum- bia MO	Novelty MO	Portageville	
						Clay MO	Loam MO
LD15-3818 (IV)	8	2	13	12	9	15	18
LD00-2817 (L)	11	15	17	1	14	12	6
LD07-3395bf (SCN) (E)	12	11	7	2	7	14	17
CR17-2874	14	18	16	16	12	17	16
CR17-4386	7	3	5	18	13	6	13
CR183106	16	13	2	10	16	18	15
CR183173	15	17	8	15	18	16	9
CR183264	17	8	6	17	17	13	12
CR184183	13	14	15	13	8	5	7
CR184232	2	9	10	9	11	9	11
K17-6185	4	7	4	3	2	3	4
K17-6326	5	4	12	5	6	8	14
K18-1994	1	6	3	11	1	2	1
LD18-4159	9	5	14	8	3	10	5
LD18-7512	18	16	9	4	4	7	2
LD18-8418	6	10	1	7	10	4	8
LG17-8856	3	1	11	14	5	11	3
S19-10701C	9	12	18	6	15	1	10

UNIFORM TEST IV, 2022

MATURITY (date)

Strain	Ottawa KS	Salina KS	Albany MO	Colum- bia MO	Novelty MO	Portageville	
						Clay MO	Loam MO
LD15-3818 (IV)	10/3	10/7	10/12	10/9	9/21	10/6	9/23
LD00-2817 (L)	1	5	1	3	8	-1	6
LD07-3395bf (SCN) (E)	-1	3	-2	-1	-1	-3	-1
CR17-2874	-3	-3	1	-6	-2	-8	-3
CR17-4386	1	6	1	-2	4	-1	2
CR183106	-3	4	-1	-2	-2	-4	2
CR183173	-4	0	0	1	-2	-3	2
CR183264	-3	3	0	-2	-1	-4	1
CR184183	0	7	2	2	5	-1	4
CR184232	-1	7	-1	-1	2	-1	3
K17-6185	1	8	-1	1	7	-1	4
K17-6326	0	4	2	2	5	1	4
K18-1994	5	7	1	5	14	3	7
LD18-4159	0	6	-3	-1	2	-1	4
LD18-7512	-3	3	-0	-4	-1	-4	6
LD18-8418	-1	2	0	-2	0	-2	6
LG17-8856	2	6	3	0	9	0	10
S19-10701C	12	13	5	7	21	5	16
Date Planted	6/16	6/14	6/21	6/14	5/17	5/10	5/10
Days to Mature	109	115	113	117	127	149	136

UNIFORM TEST IV, 2022

LODGING (score)

Strain	Mean 12 Tests	Savoy IL	Urbana IL	Butler- ville IN	Romney IN	West Lafayette IN	Man- hattan KS
LD15-3818 (IV)	1.3	1.5	1.5	1.5		1.0	1.0
LD00-2817 (L)	1.6	2.5	1.3	3.0		1.5	1.0
LD07-3395bf (SCN) (E)	1.3	1.8	1.0	2.0		1.0	1.0
CR17-2874	1.2	1.0	1.0	2.5		1.0	1.0
CR17-4386	1.4	1.5	1.3	2.0		1.0	1.0
CR183106	1.1	1.0	1.3	1.5		1.0	1.0
CR183173	1.3	1.5	1.3	2.0		1.0	1.0
CR183264	1.1	1.0	1.3	1.5		1.0	1.0
CR184183	1.4	1.5	1.5	2.0		1.5	1.0
CR184232	1.2	1.0	1.0	1.0		1.0	1.0
K17-6185	1.3	1.0	1.0	1.5		1.0	1.0
K17-6326	1.2	1.0	1.0	2.0		1.0	1.0
K18-1994	1.4	1.8	1.5	2.0		1.0	1.0
LD18-4159	1.2	1.0	1.3	1.0		1.0	1.0
LD18-7512	1.5	1.3	1.5	3.0		1.0	1.0
LD18-8418	1.2	1.0	1.0	2.0		1.0	1.0
LG17-8856	1.9	2.8	1.8	3.0		1.5	1.0
S19-10701C	2.4	1.0	2.8	4.0		2.0	1.7

UNIFORM TEST IV, 2022

PLANT HEIGHT (inches)

Strain	Mean 12 Tests	Savoy IL	Urbana IL	Butler- ville IN	Romney IN	West Lafayette IN	Man- hattan KS
LD15-3818 (IV)	31	41	36	34		31	36
LD00-2817 (L)	36	47	42	44		42	39
LD07-3395bf (SCN) (E)	29	37	34	37		29	32
CR17-2874	28	38	31	38		29	32
CR17-4386	35	45	37	43		36	42
CR183106	33	41	37	43		40	35
CR183173	31	42	31	41		38	34
CR183264	33	44	36	41		39	39
CR184183	34	43	37	43		40	37
CR184232	31	39	34	39		36	34
K17-6185	31	40	32	41		35	38
K17-6326	31	41	34	39		35	35
K18-1994	28	37	31	35		32	32
LD18-4159	32	42	35	40		35	36
LD18-7512	32	43	35	38		36	39
LD18-8418	35	45	37	42		38	38
LG17-8856	38	48	42	45		43	43
S19-10701C	39	51	39	43		46	47

UNIFORM TEST IV, 2022

LODGING (score)

Strain	Ottawa KS	Salina KS	Albany MO	Colum- bia MO	Novelty MO	Portageville	
						Clay MO	Loam MO
LD15-3818 (IV)	1.0	1.0	1.3	1.5	1.8	1.0	1.0
LD00-2817 (L)	1.0	1.0	1.5	1.3	2.0	1.3	1.7
LD07-3395bf (SCN) (E)	1.0	1.0	1.5	2.2	1.5	1.0	1.0
CR17-2874	1.0	1.0	1.0	1.3	1.5	1.0	1.0
CR17-4386	1.0	1.3	1.7	1.8	2.8	1.0	1.0
CR183106	1.0	1.0	1.0	1.3	1.7	1.0	1.0
CR183173	1.0	1.0	1.2	1.7	1.5	1.0	1.0
CR183264	1.0	1.0	1.0	1.3	1.5	1.0	1.0
CR184183	1.0	1.0	1.3	2.0	1.8	1.0	1.3
CR184232	1.0	1.3	1.0	1.8	2.0	1.0	1.3
K17-6185	1.0	1.0	1.5	2.2	1.5	1.7	1.0
K17-6326	1.0	1.0	1.2	1.8	1.2	1.0	1.0
K18-1994	1.0	1.0	1.5	2.0	1.7	1.0	1.0
LD18-4159	1.0	1.0	1.2	2.2	1.5	1.0	1.0
LD18-7512	1.0	1.3	1.5	2.0	1.7	1.3	2.0
LD18-8418	1.0	1.0	1.5	1.2	1.7	1.0	1.3
LG17-8856	1.0	1.7	2.0	3.2	2.5	1.3	1.3
S19-10701C	1.3	2.3	3.3	2.3	4.5	1.3	2.0

UNIFORM TEST IV, 2022

PLANT HEIGHT (inches)

Strain	Ottawa KS	Salina KS	Albany MO	Colum- bia MO	Novelty MO	Portageville	
						Clay MO*	Loam MO*
LD15-3818 (IV)	30	32	33	28	34	17	20
LD00-2817 (L)	33	37	37	33	39	18	23
LD07-3395bf (SCN) (E)	26	27	29	29	33	16	17
CR17-2874	26	28	29	27	32	16	16
CR17-4386	33	38	38	33	40	18	18
CR183106	28	34	33	31	37	15	19
CR183173	28	29	31	26	34	15	20
CR183264	30	34	32	28	38	17	21
CR184183	31	31	34	30	38	18	21
CR184232	29	32	31	29	33	16	20
K17-6185	29	34	31	28	34	18	18
K17-6326	30	34	31	30	34	17	18
K18-1994	25	26	28	27	31	18	19
LD18-4159	30	33	33	32	34	16	21
LD18-7512	27	33	31	30	35	18	25
LD18-8418	32	36	39	32	37	19	19
LG17-8856	35	40	37	33	42	21	25
S19-10701C	37	43	43	34	42	21	24

* Dicamba damage.

UNIFORM TEST IV, 2022

SEED SIZE (g/100)

Strain	Mean 10 Tests	Savoy IL	Urbana IL	Butler- ville IN	Romney IN	West Lafayette IN	Man- hattan KS
LD15-3818 (IV)	15.5	17.2	16.5	13.7		16.3	14.3
LD00-2817 (L)	14.3	17.2	14.9	14.0		14.8	13.2
LD07-3395bf (SCN) (E)	16.1	19.4	16.9	14.8		16.6	15.0
CR17-2874	15.5	17.7	16.4	14.9		15.8	15.4
CR17-4386	16.8	18.7	15.9	16.1		14.5	16.3
CR183106	14.1	16.5	15.7	13.1		15.4	12.7
CR183173	16.0	19.3	17.0	15.3		16.0	15.2
CR183264	13.7	16.5	14.8	12.5		14.5	12.9
CR184183	16.6	19.9	17.9	16.7		17.3	15.4
CR184232	16.2	19.2	17.4	14.8		16.2	14.3
K17-6185	13.6	15.6	14.0	13.2		13.2	12.3
K17-6326	13.0	14.7	13.8	12.4		13.3	12.1
K18-1994	15.3	17.6	15.2	15.0		14.7	14.6
LD18-4159	17.3	19.6	18.2	16.2		18.3	17.0
LD18-7512	15.1	17.3	15.6	15.0		15.5	14.4
LD18-8418	15.4	17.6	16.8	15.3		15.9	14.7
LG17-8856	15.4	17.2	15.6	14.3		15.5	14.5
S19-10701C	12.1	13.0	12.3	11.9		10.3	

UNIFORM TEST IV, 2022

SEED QUALITY (score)

Strain	Mean 10 Tests	Savoy IL	Urbana IL	Butler- ville IN	Romney IN	West Lafayette IN	Man- hattan KS
LD15-3818 (IV)	1.7	1.0	3.0	1.0		1.5	2.0
LD00-2817 (L)	2.2	2.0	3.0	1.0		1.0	2.0
LD07-3395bf (SCN) (E)	2.1	1.5	3.0	1.0		2.0	3.0
CR17-2874	2.0	2.0	2.0	1.0		1.5	3.0
CR17-4386	2.0	1.5	2.0	1.0		1.0	3.0
CR183106	1.8	1.0	3.0	1.0		1.5	2.0
CR183173	1.9	1.5	2.0	1.0		1.5	3.0
CR183264	1.7	1.0	2.0	1.0		1.0	2.0
CR184183	1.8	1.0	3.0	1.0		1.0	3.0
CR184232	1.6	1.0	2.0	1.0		1.0	3.0
K17-6185	1.6	1.5	2.0	1.0		1.0	2.0
K17-6326	2.0	2.0	3.0	1.0		1.0	3.0
K18-1994	1.7	2.0	2.0	1.0		1.0	3.0
LD18-4159	1.9	2.0	2.0	1.0		1.5	2.0
LD18-7512	1.9	1.5	2.0	1.0		1.0	3.0
LD18-8418	2.0	1.0	2.0	1.0		1.0	3.0
LG17-8856	1.5	1.3	2.0	1.0		1.0	2.0
S19-10701C	2.2	2.5	2.0	1.0		1.0	

UNIFORM TEST IV, 2022

SEED SIZE (g/100)

Strain	Ottawa KS	Salina KS	Albany MO	Colum- bia MO	Novelty MO	Portageville	
						Clay MO	Loam MO
LD15-3818 (IV)	14.1	15.4		16.6		16.0	14.5
LD00-2817 (L)	13.4	13.2		15.8		13.3	12.9
LD07-3395bf (SCN) (E)	14.9	15.2		16.8		15.3	15.6
CR17-2874	13.9	14.7		16.9		14.9	14.9
CR17-4386	15.7	16.7		19.5		16.9	17.4
CR183106	12.9	12.3		14.8		13.9	13.3
CR183173	14.2	15.2		18.5		15.0	14.7
CR183264	12.5	12.9		13.3		13.8	13.5
CR184183	13.9	16.0		16.6		16.5	15.4
CR184232	14.8	16.8		17.0		16.3	15.1
K17-6185	11.9	13.6		14.4		13.8	13.8
K17-6326	11.9	12.9		13.9		12.6	12.0
K18-1994	13.9	15.3		15.9		15.5	15.3
LD18-4159	16.3	17.1		17.3		16.6	16.2
LD18-7512	13.9	14.3		15.8		15.1	14.5
LD18-8418	13.5	15.1		15.3		14.8	14.9
LG17-8856	14.9	15.0		14.8		16.0	16.2
S19-10701C	11.5	12.3		12.4		12.8	12.9

UNIFORM TEST IV, 2022

SEED QUALITY (score)

Strain	Ottawa KS	Salina KS	Albany MO	Colum- bia MO	Novelty MO	Portageville	
						Clay MO	Loam MO
LD15-3818 (IV)	2.0	2.0		1.0		1.3	2.0
LD00-2817 (L)	3.0	3.0		1.0		3.0	2.7
LD07-3395bf (SCN) (E)	2.0	3.0		1.0		1.0	3.0
CR17-2874	2.0	3.0		1.0		2.0	2.0
CR17-4386	2.0	3.0		2.0		2.0	2.0
CR183106	2.0	2.0		2.0		1.7	2.0
CR183173	2.0	3.0		1.0		1.7	2.0
CR183264	3.0	3.0		2.0		1.3	1.0
CR184183	2.0	3.0		1.0		1.0	1.7
CR184232	2.0	3.0		1.0		1.0	1.3
K17-6185	2.0	2.0		1.0		1.3	2.0
K17-6326	2.0	3.0		1.0		2.0	2.0
K18-1994	2.0	2.0		1.0		1.0	2.0
LD18-4159	3.0	3.0		1.0		1.0	2.0
LD18-7512	2.0	3.0		2.0		1.3	2.0
LD18-8418	3.0	3.0		2.0		1.7	2.0
LG17-8856	2.0	2.0		1.0		1.0	2.0
S19-10701C	4.0	4.0		2.0		1.0	2.0

UNIFORM TEST IV, 2022

PROTEIN (%)

Strain	Mean 9 Tests	Savoy IL	Urbana IL	Butler- ville IN	Romney IN	West Lafayette IN	Man- hattan KS
LD15-3818 (IV)	34.4	36.5	37.0	36.4		34.8	31.5
LD00-2817 (L)	33.1	33.4	35.2	34.6		32.5	30.9
LD07-3395bf (SCN) (E)	32.3	32.9	33.1	33.2		31.7	30.6
CR17-2874	34.5	36.0	35.1	36.6		33.6	33.5
CR17-4386	33.6	34.2	36.5	34.1		32.6	31.7
CR183106	35.2	36.2	37.1	35.7		34.7	33.9
CR183173	34.6	36.3	36.0	33.0		34.8	34.4
CR183264	34.4	34.8	36.7	36.1		33.8	33.0
CR184183	34.8	36.3	36.2	36.0		34.2	33.5
CR184232	35.0	35.4	34.7	36.1		34.8	33.4
K17-6185	34.0	35.4	35.4	35.4		33.8	32.4
K17-6326	34.3	35.7	35.8	34.5		36.0	33.1
K18-1994	33.0	35.0	35.2	34.0		32.6	31.9
LD18-4159	33.6	34.4	34.5	34.1		33.6	32.9
LD18-7512	33.4	33.9	33.5	35.4		33.9	31.9
LD18-8418	34.0	35.4	35.4	34.7		35.1	32.1
LG17-8856	33.4	34.8	35.0	35.2		33.5	31.3
S19-10701C	35.4	35.7	37.5	36.5		34.6	

UNIFORM TEST IV, 2022

OIL (%)

Strain	Mean 9 Tests	Savoy IL	Urbana IL	Butler- ville IN	Romney IN	West Lafayette IN	Man- hattan KS
LD15-3818 (IV)	19.7	18.1	18.5	18.7		19.5	20.9
LD00-2817 (L)	20.0	19.3	18.9	19.7		19.9	21.0
LD07-3395bf (SCN) (E)	20.5	19.9	20.0	20.5		20.4	21.4
CR17-2874	19.8	18.8	19.2	19.0		20.0	20.3
CR17-4386	19.7	19.5	18.3	19.6		19.7	20.1
CR183106	19.1	18.6	17.7	19.0		19.1	19.5
CR183173	19.3	18.4	18.4	19.8		18.9	19.6
CR183264	19.3	18.9	17.5	18.3		19.3	19.9
CR184183	18.8	17.8	18.2	18.2		18.5	19.4
CR184232	18.9	18.3	19.1	18.0		18.9	19.5
K17-6185	19.8	18.8	18.8	20.3		19.5	20.0
K17-6326	19.6	18.5	18.7	19.4		18.6	20.1
K18-1994	19.9	18.6	18.9	19.6		19.1	20.4
LD18-4159	20.0	19.6	19.1	19.7		19.8	20.3
LD18-7512	19.9	18.7	19.7	19.2		19.5	20.3
LD18-8418	19.2	18.1	18.5	19.1		18.4	20.1
LG17-8856	19.6	18.7	18.6	18.9		19.0	20.5
S19-10701C	17.9	16.9	16.5	17.6		17.1	

UNIFORM TEST IV, 2022

PROTEIN (%)

Strain	Ottawa KS	Salina KS	Albany MO	Colum- bia MO	Novelty MO	Portageville	
						Clay MO	Loam MO
LD15-3818 (IV)	31.9	33.0		34.2			34.3
LD00-2817 (L)	32.5	31.8		32.7			34.3
LD07-3395bf (SCN) (E)	30.4	31.7		31.9			35.3
CR17-2874	32.0	33.2		34.8			35.6
CR17-4386	31.5	32.4		33.8			35.6
CR183106	33.6	33.6		36.8			35.4
CR183173	33.4	33.9		35.1			34.5
CR183264	32.8	32.6		35.5			34.7
CR184183	33.4	33.6		34.4			35.5
CR184232	33.5	36.2		35.3			36.1
K17-6185	32.6	32.2		34.3			34.4
K17-6326	32.1	33.2		34.2			34.3
K18-1994	31.4	30.6		33.5			33.2
LD18-4159	32.8	32.9		33.7			33.8
LD18-7512	31.6	31.8		33.3			35.5
LD18-8418	31.6	33.0		33.8			34.9
LG17-8856	31.1	31.4		34.2			34.4
S19-10701C	32.5	33.9		36.2			36.3

UNIFORM TEST IV, 2022

OIL (%)

Strain	Ottawa KS	Salina KS	Albany MO	Colum- bia MO	Novelty MO	Portageville	
						Clay MO	Loam MO
LD15-3818 (IV)	21.0	20.8		19.8			20.1
LD00-2817 (L)	20.7	20.5		20.5			19.3
LD07-3395bf (SCN) (E)	21.6	20.7		21.4			19.0
CR17-2874	21.3	20.5		20.5			19.0
CR17-4386	21.2	19.9		20.3			19.0
CR183106	20.5	19.9		19.0			18.8
CR183173	20.6	19.8		19.6			18.6
CR183264	20.8	20.2		19.8			19.1
CR184183	19.7	19.4		19.6			18.4
CR184232	20.0	18.3		19.5			18.4
K17-6185	20.6	20.3		20.0			19.7
K17-6326	21.5	20.2		19.8			19.9
K18-1994	20.9	21.1		20.2			20.4
LD18-4159	21.0	20.5		20.5			19.9
LD18-7512	21.2	20.7		20.4			19.6
LD18-8418	20.7	19.8		19.8			18.7
LG17-8856	20.8	20.5		19.9			19.4
S19-10701C	19.4	19.3		17.4			18.7

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**Northern Regional Uniform Test
Preliminary Test IV, 2022**

Ent.	Strain	Parentage		Seed Source	Gen. Comp.	Unique Traits
		Female	Male			
1	LD15-3818 (IV)	LD09-3913	BN09002129	Diers	F5	SCN
2	LD00-2817 (L)	Ina	Dwight	Diers	F5	SCN
3	LD07-3395bf (E)	LD07-3395 Reselection		Diers	F5	SCN
4	CR190410	DS11-40012	DS11-12076	Rainey	F5	SCN
5	CR190474	DS11-08110	DS11-40158	Rainey	F5	Rps
6	CR190628	DS11-13018	DS11-12076	Rainey	F5	SCN
7	CR192236	DS11-15083	DS11-15044	Rainey	F5	SCN, Rps
8	CR192393	DS11-08110	DS11-42127	Rainey	F5	Rps
9	CR192568	DS11-08110	DS11-42127	Rainey	F5	Rps
10	CR194609	6J150-1-26	Plant 75	Rainey	F5	Rps
11	CR194672	6J150-1-26	Plant 75	Rainey	F5	Rps
12	CR194688	WL04J105-3-4-3	Plant 51	Rainey	F5	
13	K19-1047	K12-1575 X U11-614093	LD00-3309 X K11-2363T	Schapaugh	F5	
14	K19-1065	K12-1575 X U11-614093	LD00-3309 X K11-2363T	Schapaugh	F5	
15	K19-1098	K12-1575 X U11-614093	LD00-3309 X K11-2363T	Schapaugh	F5	
16	K19-1104	K12-1575 X U11-614093	LD00-3309 X K11-2363T	Schapaugh	F5	
17	K19-1631	HM11-W192	K11-2363B	Schapaugh	F5	
18	K19-2155	LG13-4001	K11-2363B	Schapaugh	F5	
19	K19-6018	LD06-7762	K11-2363B	Schapaugh	F5	
20	K19-6086	LD06-7762	K11-2363B	Schapaugh	F5	
21	LD19-9566	LG12-2177	LD11-2170	Diers	F5	SCN, Rps
22	LD20-11622	LD12-3903	LD11-2170	Diers	F4	SCN, Rps
23	LG16-5086	Dwight (4)	PI 441001	Mahan	F10	Diversity
24	LG18-2475	LD09-30015	LG11-6205	Mahan	F6	Diversity. 26% PI
25	LG18-3008	LG11-7880	LG09-8166	Mahan	F6	Diversity; 65% PI
26	LG18-3013	LG11-7880	LG09-8166	Mahan	F6	Diversity; 65% PI
27	SA18-10815	LG11-6210	SA13-2699	Scaboo	F5	Rhg1b,BSR,SC
28	SA18-11346	SA13-3135	LD11-2170	Scaboo	F5	Rhg1b,SC
29	SA18-12086	LD07-3395bf	SA13-1363	Scaboo	F5	Rhg1a,Rhg4,SC
30	SA18-14143	SA13-1363	LD11-2170	Scaboo	F5	Rhg1b,BSR,SC
31	SA19-10248	SA13-1310	LD11-2170	Scaboo	F5	Rhg1b,Rps1k,BSR,SC
32	SA19-10772	SA13-2926	LD11-2170	Scaboo	F5	Rps1k,BSR,SC
33	SA19-12580	U14-924158	LD11-2170	Scaboo	F5	Rhg1b,BSR,SC
34	SA19-16381	LD11-10069	SA13-1363	Scaboo	F5	
35	SA19-7246	SA13-1385	U14-924158	Scaboo	F5	Rhg1b,SC
36	SA20-11805	SA16-12348	U14-924158	Scaboo	F5	

PRELIMINARY TEST IV, 2022
DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code
LD15-3818 (IV)	PLtTDYBI
LD00-2817 (L)	PGTDYIbI
LD07-3395bf (SCN) (E)	WGTDYBfI
CR190410	WLtBDYBI
CR190474	PTTDYBrI
CR190628	P+WTTDYBI
CR192236	WT+Lt+GBDYHI
CR192393	WTBDYBrI
CR192568	WT+LtBDYBrI
CR194609	WGBSYYI
CR194672	WGBSYYI
CR194688	PGTDYIbI
K19-1047	PLtB+TDYBI
K19-1065	PLtBSYBI
K19-1098	PLtTDYBI
K19-1104	PTBDYBI
K19-1631	PLtBSYBI
K19-2155	WTBDYBI
K19-6018	PLtBDYBI
K19-6086	PLtBDYBI
LD19-9566	P+WLtBSYBrI
LD20-11622	PLtBDYBI
LG16-5086	PLtBDYBI
LG18-2475	PGBSYBfI
LG18-3008	WLtBDYBI
LG18-3013	WLtBDYBI
SA18-10815	WGTDYBfI
SA18-11346	PLt+GBDYHI
SA18-12086	WGTDYBfI
SA18-14143	PLtBDYBI
SA19-10248	PLtBDYBI
SA19-10772	PLtTDYBI
SA19-12580	PLtBDYBrI
SA19-16381	WLtBDYBI
SA19-7246	WLtTDYBI
SA20-11805	WGTDYGI

PRELIMINARY TEST IV, 2022

REGIONAL SUMMARY

No. of Tests Strain	Yield 11 bu/a	Rank 11 No.	Maturity 11 Date	Lodging 9 Score	Plant Height 10 In.	Seed Size 8 g/100	Seed Quality 8 Score	Composition	
								Protein 8 %	Oil 8 %
LD15-3818 (IV)	68.0	3	10/3	1.4	35	15.8	2.0	34.3	19.6
LD00-2817 (L)	59.6	24	2.6	1.7	40	14.0	2.0	32.6	20.2
LD07-3395bf (SCN) (E)	67.4	7	-2.1	1.6	33	16.0	1.9	32.3	20.5
CR190410	56.1	34	-3.1	1.9	38	16.7	1.7	33.1	19.8
CR190474	54.6	36	-2.9	2.1	40	15.9	1.9	34.0	19.4
CR190628	58.6	30	-2.0	2.3	41	14.0	1.7	33.4	20.0
CR192236	59.1	26	-2.6	1.6	34	18.3	1.9	33.3	19.6
CR192393	57.9	32	-3.1	2.3	47	14.4	2.2	32.9	20.0
CR192568	57.2	33	-2.1	2.7	50	15.1	1.7	31.9	20.6
CR194609	59.0	28	-6.3	1.5	36	16.7	2.3	33.7	20.1
CR194672	58.1	31	-4.5	1.6	39	15.7	2.1	34.5	20.2
CR194688	55.9	35	-4.0	1.6	35	17.6	1.8	36.4	19.0
K19-1047	65.1	13	2.5	1.6	35	16.9	1.9	34.6	19.2
K19-1065	65.7	11	0.9	1.3	35	16.4	1.9	34.7	19.0
K19-1098	65.1	14	-0.4	1.6	35	16.2	1.9	33.6	19.7
K19-1104	58.9	29	2.0	2.3	39	14.5	2.1	34.5	18.9
K19-1631	62.8	18	3.2	2.1	39	16.2	1.9	34.9	18.8
K19-2155	60.3	23	2.5	1.7	37	16.2	1.8	35.1	19.1
K19-6018	63.0	17	2.2	1.5	35	17.1	1.8	34.5	18.3
K19-6086	60.7	22	2.3	1.5	34	16.0	2.1	35.0	18.7
LD19-9566	66.0	10	2.0	1.5	33	16.1	1.9	34.0	20.6
LD20-11622	67.9	4	-1.1	1.5	33	17.9	1.9	34.5	18.9
LG16-5086	62.8	19	-0.5	1.4	33	15.1	2.2	34.5	19.0
LG18-2475	68.2	2	3.8	2.2	36	15.3	2.1	33.5	19.2
LG18-3008	59.4	25	1.3	1.9	40	16.6	1.9	35.1	18.4
LG18-3013	62.3	20	2.5	2.0	39	16.1	2.1	34.6	18.8
SA18-10815	64.6	16	0.9	1.8	37	15.6	1.8	34.6	19.0
SA18-11346	59.1	27	-1.9	1.6	35	17.8	2.1	34.0	19.9
SA18-12086	68.8	1	3.6	1.4	34	14.6	1.7	32.7	20.0
SA18-14143	67.5	6	-0.6	1.4	35	14.1	2.1	33.6	20.6
SA19-10248	65.1	12	-0.1	1.3	34	17.3	2.0	35.1	19.8
SA19-10772	67.8	5	0.7	1.4	35	15.2	2.0	32.8	20.0
SA19-12580	67.1	8	-1.5	1.6	36	17.2	2.1	33.2	19.8
SA19-16381	64.9	15	1.5	1.9	34	15.0	1.9	33.6	19.8
SA19-7246	62.1	21	0.0	1.4	35	14.9	1.8	33.2	19.9
SA20-11805	67.0	9	2.0	1.5	38	15.8	2.1	34.4	18.8
Mean	62.6			1.7	36.8	16.0	2.0	34.0	19.5
C.V. (%)	8.3								
L.S.D. (5%)	3.1								

126.7 Days After Planting

PRELIMINARY TEST IV, 2022

YIELD (bu/a)

Strain	Mean 11 Tests	Savoy IL	Urbana IL	Butler- ville IN	Romney IN	West Lafayette IN
LD15-3818 (IV)	68.0	81.7	64.3	87.8	68.6	82.7
LD00-2817 (L)	59.6	72.1	62.6	77.2	51.1	69.7
LD07-3395bf (SCN) (E)	67.4	93.9	68.0	86.1	79.0	76.2
CR190410	56.1	80.5	58.7	77.9	51.3	59.7
CR190474	54.6	80.6	52.9	56.4	55.7	67.0
CR190628	58.6	75.5	60.5	64.0	62.8	71.4
CR192236	59.1	74.4	64.5	78.3	65.5	70.2
CR192393	57.9	76.8	54.0	76.9	57.6	64.0
CR192568	57.2	73.7	53.3	69.1	54.5	61.2
CR194609	59.0	77.4	64.3	83.6	66.5	69.6
CR194672	58.1	79.9	61.1	73.2	62.0	62.4
CR194688	55.9	75.9	56.3	74.6	52.9	63.7
K19-1047	65.1	79.9	63.6	83.1	66.3	73.2
K19-1065	65.7	83.6	68.8	83.6	72.9	71.9
K19-1098	65.1	83.8	69.4	81.2	70.9	78.5
K19-1104	58.9	77.4	71.1	72.8	63.6	63.6
K19-1631	62.8	77.0	67.4	78.1	61.4	60.0
K19-2155	60.3	73.9	64.0	81.0	58.1	63.2
K19-6018	63.0	82.0	65.2	82.5	74.7	67.5
K19-6086	60.7	74.1	64.3	75.0	65.7	68.4
LD19-9566	66.0	89.4	69.7	92.0	65.9	73.0
LD20-11622	67.9	93.0	74.1	82.4	75.4	77.2
LG16-5086	62.8	85.3	67.1	79.8	66.1	74.7
LG18-2475	68.2	88.4	66.8	83.3	64.7	78.1
LG18-3008	59.4	76.1	60.7	73.0	50.7	71.0
LG18-3013	62.3	78.4	70.1	74.9	46.5	72.1
SA18-10815	64.6	81.4	70.1	84.1	65.6	70.1
SA18-11346	59.1	75.7	62.4	83.4	63.9	70.9
SA18-12086	68.8	90.2	77.3	86.0	77.6	76.2
SA18-14143	67.5	86.5	72.1	89.8	75.6	76.0
SA19-10248	65.1	84.5	70.1	82.6	70.9	74.2
SA19-10772	67.8	91.0	75.0	98.3	66.1	76.2
SA19-12580	67.1	89.6	75.2	81.8	62.1	84.7
SA19-16381	64.9	75.1	72.5	79.6	66.7	64.3
SA19-7246	62.1	81.8	70.7	75.1	64.5	68.4
SA20-11805	67.0	92.5	72.8	81.8	67.3	73.0
Location Mean		81.5	66.1	79.7	64.2	70.7
C.V. (%)		5.4	6.5	8.1	10.5	5.2
L.S.D. (5%)		8.9	7.2	13.1	13.7	7.5
Row Sp. (In.)		30	30	30	30	30
Rows/Plot		4	4	4	2	4
Reps		2	2	2	2	2

PRELIMINARY TEST IV, 2022

YIELD (bu/a)

Strain	Manhattan KS	Ottawa KS	Salina KS	Albany MO	Colum- bia MO	Novelty MO
LD15-3818 (IV)	72.7	51.4	52.4	48.5	69.0	69.4
LD00-2817 (L)	53.2	56.2	49.1	43.4	61.0	60.3
LD07-3395bf (SCN) (E)	64.7	49.5	55.4	51.2	59.4	58.5
CR190410	48.4	44.8	55.1	47.2	40.6	52.9
CR190474	53.9	41.1	43.9	43.6	49.1	56.8
CR190628	60.5	48.6	40.3	48.6	53.9	58.9
CR192236	63.0	50.7	47.6	48.4	33.1	54.9
CR192393	61.3	46.4	43.0	53.2	50.9	52.6
CR192568	56.7	47.5	60.2	45.9	54.7	52.0
CR194609	60.3	41.2	38.3	43.3	46.0	58.2
CR194672	49.9	43.8	50.3	55.2	46.3	55.4
CR194688	46.3	47.2	49.0	51.6	47.9	50.1
K19-1047	70.7	47.2	54.7	46.0	62.7	68.7
K19-1065	61.1	50.2	53.9	47.3	65.9	63.1
K19-1098	45.8	51.0	52.7	52.4	61.8	68.3
K19-1104	54.2	50.0	52.3	43.9	47.0	52.0
K19-1631	64.7	52.5	49.4	52.3	65.0	62.6
K19-2155	63.8	48.9	57.2	52.0	49.2	52.4
K19-6018	57.2	51.0	51.0	43.3	56.1	62.9
K19-6086	54.4	49.8	54.9	51.5	51.9	57.5
LD19-9566	55.0	48.4	50.8	50.4	66.1	65.9
LD20-11622	54.9	56.3	57.5	53.1	57.6	65.7
LG16-5086	67.6	52.9	50.2	47.1	48.5	50.9
LG18-2475	73.5	52.5	60.9	53.0	63.2	65.6
LG18-3008	61.4	47.5	38.8	55.3	55.7	63.7
LG18-3013	66.3	48.8	54.8	53.1	56.7	63.4
SA18-10815	63.9	54.4	55.0	41.7	66.8	57.5
SA18-11346	56.1	50.5	52.1	46.3	30.8	58.4
SA18-12086	62.2	54.4	52.1	48.1	67.9	64.7
SA18-14143	61.8	51.1	50.7	55.3	67.3	56.1
SA19-10248	69.9	47.2	52.5	54.2	53.5	56.9
SA19-10772	69.0	51.2	52.8	53.5	49.7	63.1
SA19-12580	59.8	55.1	51.0	52.8	65.7	60.3
SA19-16381	59.7	58.9	57.3	51.3	60.1	68.7
SA19-7246	62.8	51.7	49.5	49.4	54.5	54.8
SA20-11805	64.8	50.3	56.2	51.9	65.3	60.8
Location Mean	60.3	50.0	51.5	49.6	55.6	59.6
C.V. (%)	11.6	5.2	7.7	7.6	12.0	8.1
L.S.D. (5%)	14.2	5.3	8.0	7.7	13.6	9.8
Row Sp. (In.)	30	30	30	30	30	30
Rows/Plot	4	4	4	4	4	4
Reps	2	2	2	2	2	2

PRELIMINARY TEST IV, 2022

YIELD RANK

Strain	Yield Rank	Savoy IL	Urbana IL	Butler-ville IN	Romney IN	West Lafayette IN
LD15-3818 (IV)	3	16	24	4	9	2
LD00-2817 (L)	24	36	27	25	34	22
LD07-3395bf (SCN) (E)	7	1	16	5	1	6
CR190410	34	19	32	24	33	36
CR190474	36	18	36	36	30	27
CR190628	30	30	31	35	24	17
CR192236	26	32	21	22	19	20
CR192393	32	26	34	26	29	29
CR192568	33	35	35	34	31	34
CR194609	28	23	23	8	12	23
CR194672	31	20	29	31	26	33
CR194688	35	28	33	30	32	30
K19-1047	13	20	26	12	13	12
K19-1065	11	13	15	8	6	16
K19-1098	14	12	14	18	7	3
K19-1104	29	23	8	33	23	31
K19-1631	18	25	17	23	27	35
K19-2155	23	34	25	19	28	32
K19-6018	17	14	20	14	5	26
K19-6086	22	33	22	28	17	24
LD19-9566	10	7	13	2	16	13
LD20-11622	4	2	4	15	4	5
LG16-5086	19	10	18	20	14	10
LG18-2475	2	8	19	11	20	4
LG18-3008	25	27	30	32	35	18
LG18-3013	20	22	12	29	36	15
SA18-10815	16	17	10	7	18	21
SA18-11346	27	29	28	10	22	19
SA18-12086	1	5	1	6	2	6
SA18-14143	6	9	7	3	3	9
SA19-10248	12	11	11	13	7	11
SA19-10772	5	4	3	1	14	6
SA19-12580	8	6	2	16	25	1
SA19-16381	15	31	6	21	11	28
SA19-7246	21	15	9	27	21	24
SA20-11805	9	3	5	16	10	13

PRELIMINARY TEST IV, 2022

YIELD RANK

Strain	Manhattan KS	Ottawa KS	Salina KS	Albany MO	Colum- bia MO	Novelty MO
LD15-3818 (IV)	2	11	17	22	1	1
LD00-2817 (L)	32	3	29	33	13	17
LD07-3395bf (SCN) (E)	9	22	7	18	15	19
CR190410	34	33	8	26	34	30
CR190474	31	36	32	32	28	25
CR190628	20	25	34	21	22	18
CR192236	13	16	31	23	35	28
CR192393	18	32	33	6	25	31
CR192568	25	27	2	30	20	33
CR194609	21	35	36	34	33	21
CR194672	33	34	25	3	32	27
CR194688	35	29	30	15	30	36
K19-1047	3	29	12	29	11	2
K19-1065	19	19	13	25	6	12
K19-1098	36	14	15	11	12	4
K19-1104	30	20	18	31	31	34
K19-1631	9	8	28	12	9	14
K19-2155	12	23	5	13	27	32
K19-6018	24	14	21	35	18	13
K19-6086	29	21	10	16	24	22
LD19-9566	27	26	23	19	5	5
LD20-11622	28	2	3	8	16	6
LG16-5086	6	7	26	27	29	35
LG18-2475	1	8	1	9	10	7
LG18-3008	17	27	35	1	19	9
LG18-3013	7	24	11	7	17	10
SA18-10815	11	5	9	36	4	23
SA18-11346	26	17	19	28	36	20
SA18-12086	15	5	19	24	2	8
SA18-14143	16	13	24	2	3	26
SA19-10248	4	29	16	4	23	24
SA19-10772	5	12	14	5	26	11
SA19-12580	22	4	21	10	7	16
SA19-16381	23	1	4	17	14	3
SA19-7246	14	10	27	20	21	29
SA20-11805	8	18	6	14	8	15

PRELIMINARY TEST IV, 2022

MATURITY (date)

Strain	Mean 11 Tests	Savoy IL	Urbana IL	Butler- ville IN	Romney IN	West Lafayette IN
LD15-3818 (IV)	10/3	10/6	10/4	9/19	10/10	10/3
LD00-2817 (L)	3	3	4	7	1	2
LD07-3395bf (SCN) (E)	-2	-4	-5	1	-1	-5
CR190410	-3	-3	-5	2	-2	-7
CR190474	-3	-3	-2	1	-3	-5
CR190628	-2	1	-1	-1	-2	-4
CR192236	-3	-4	-5	0	-2	-7
CR192393	-3	-5	-3	0	-5	-7
CR192568	-2	-4	-4	0	-3	-6
CR194609	-6	-9	-9	-5	-5	-9
CR194672	-5	-6	-7	-4	1	-9
CR194688	-4	-9	-6	2	-2	-8
K19-1047	3	3	3	5	0	1
K19-1065	1	-1	0	2	0	-2
K19-1098	-0	-2	0	0	0	-2
K19-1104	2	4	4	6	0	-2
K19-1631	3	6	6	5	-3	1
K19-2155	3	-1	3	7	0	1
K19-6018	2	3	4	5	-2	1
K19-6086	2	3	4	7	-3	2
LD19-9566	2	2	4	5	-1	-3
LD20-11622	-1	-5	-2	3	0	-6
LG16-5086	-0	1	1	4	0	-4
LG18-2475	4	5	6	8	0	4
LG18-3008	1	3	1	3	-3	-2
LG18-3013	2	3	3	5	-1	-1
SA18-10815	1	-1	1	5	1	2
SA18-11346	-2	-2	-3	2	-4	-4
SA18-12086	4	2	4	6	2	4
SA18-14143	-1	-1	0	3	1	-3
SA19-10248	-0	-2	0	2	-2	-3
SA19-10772	1	-1	-1	5	0	-1
SA19-12580	-1	-6	-1	2	0	-4
SA19-16381	2	-1	4	5	-1	-4
SA19-7246	0	-1	3	1	-2	-4
SA20-11805	2	2	2	5	1	-2
Date Planted	5/29	5/17	5/17	5/11	6/13	5/12
Days to Mature	127	142	140	131	119	144

PRELIMINARY TEST IV, 2022

MATURITY (date)

Strain	Manhattan KS	Ottawa KS	Salina KS	Albany MO	Colum- bia MO	Novelty MO
LD15-3818 (IV)	10/8	10/3	10/8	10/12	10/2	9/23
LD00-2817 (L)	2	0	2	2	2	6
LD07-3395bf (SCN) (E)	1	-2	-1	-1	-4	-3
CR190410	-3	-5	-3	-1	-7	-2
CR190474	-2	-6	-5	-1	-4	-3
CR190628	-2	-3	-5	-1	-3	-2
CR192236	1	-3	2	-1	-7	-3
CR192393	-1	-6	0	-1	-5	-3
CR192568	1	-4	3	-1	-5	0
CR194609	-6	-5	-6	-1	-11	-4
CR194672	-4	-6	-3	-1	-8	-4
CR194688	-5	-5	-6	-1	-3	-3
K19-1047	2	1	6	0	2	7
K19-1065	1	1	3	1	2	5
K19-1098	1	-1	2	-1	-1	-1
K19-1104	2	2	3	1	-1	5
K19-1631	4	2	5	3	1	7
K19-2155	3	2	6	1	1	7
K19-6018	3	2	2	1	1	7
K19-6086	2	1	4	1	2	5
LD19-9566	2	2	6	-1	0	7
LD20-11622	0	-1	-2	-1	0	-1
LG16-5086	1	-4	-4	1	1	-2
LG18-2475	3	2	5	4	1	7
LG18-3008	2	2	3	3	1	3
LG18-3013	2	4	2	2	2	7
SA18-10815	1	2	2	-1	-1	0
SA18-11346	-2	-3	0	-1	-3	-2
SA18-12086	4	2	7	2	2	8
SA18-14143	2	-3	-2	-1	0	-2
SA19-10248	2	1	3	-1	-3	2
SA19-10772	2	1	3	0	-2	3
SA19-12580	1	-3	-3	-1	-2	-1
SA19-16381	2	2	6	3	1	1
SA19-7246	1	-1	3	-1	-2	2
SA20-11805	3	1	5	1	0	7
Date Planted	6/17	6/16	6/14	6/21	5/17	5/17
Days to Mature	113	109	116	113	138	129

PRELIMINARY TEST IV, 2022

LODGING (score)

Strain	Mean 9 Tests	Savoy IL	Urbana IL	Butler- ville IN	Romney IN	West Lafayette IN
LD15-3818 (IV)	1.4	1.3	1.3	2.0		1.0
LD00-2817 (L)	1.7	1.8	1.5	3.0		1.5
LD07-3395bf (SCN) (E)	1.6	2.0	1.3	2.5		1.5
CR190410	1.9	2.0	1.5	3.0		2.0
CR190474	2.1	2.5	1.8	4.0		2.0
CR190628	2.3	2.8	1.9	4.0		2.0
CR192236	1.6	1.0	1.5	2.5		2.0
CR192393	2.3	2.5	2.3	3.5		2.5
CR192568	2.7	2.8	3.0	3.5		3.0
CR194609	1.5	1.0	1.8	2.5		1.0
CR194672	1.6	1.3	1.8	3.0		1.0
CR194688	1.6	2.0	1.3	3.0		1.0
K19-1047	1.6	2.5	1.5	2.5		1.0
K19-1065	1.3	1.3	1.3	2.5		1.0
K19-1098	1.6	2.0	1.3	2.5		1.0
K19-1104	2.3	3.5	2.5	4.0		2.0
K19-1631	2.1	3.3	2.0	4.0		1.0
K19-2155	1.7	1.8	2.0	3.0		1.5
K19-6018	1.5	2.0	1.8	3.0		1.0
K19-6086	1.5	1.8	1.5	3.0		1.0
LD19-9566	1.5	1.3	1.5	2.0		1.0
LD20-11622	1.5	1.5	1.3	3.0		1.0
LG16-5086	1.4	1.5	1.3	3.5		1.0
LG18-2475	2.2	3.8	2.0	3.5		2.0
LG18-3008	1.9	3.0	1.5	3.0		1.5
LG18-3013	2.0	2.5	2.5	3.5		2.0
SA18-10815	1.8	1.8	1.5	3.5		1.5
SA18-11346	1.6	1.0	1.3	2.5		2.0
SA18-12086	1.4	1.0	1.3	2.5		1.5
SA18-14143	1.4	1.3	1.5	2.5		1.0
SA19-10248	1.3	1.0	1.3	2.5		1.0
SA19-10772	1.4	1.0	1.3	2.0		1.5
SA19-12580	1.6	1.3	1.8	3.0		1.0
SA19-16381	1.9	3.0	2.3	3.0		1.0
SA19-7246	1.4	1.5	1.5	2.5		1.5
SA20-11805	1.5	1.5	1.8	2.5		1.0

PRELIMINARY TEST IV, 2022

LODGING (score)

Strain	Man- hattan KS	Ottawa KS	Salina KS	Albany MO	Colum- bia MO	Novelty MO
LD15-3818 (IV)		1.0	1.0	1.5	1.8	1.5
LD00-2817 (L)		1.0	1.0	1.5	1.5	2.8
LD07-3395bf (SCN) (E)		1.0	1.0	1.5	1.8	1.5
CR190410		1.0	1.0	1.5	2.0	2.8
CR190474		1.0	1.0	1.5	2.0	2.8
CR190628		1.5	2.0	2.0	1.8	2.5
CR192236		1.0	1.0	1.5	1.5	2.0
CR192393		1.0	2.5	1.5	1.8	3.5
CR192568		1.5	3.0	1.5	2.0	4.0
CR194609		1.0	1.5	1.3	1.8	1.5
CR194672		1.0	1.5	1.5	2.0	1.5
CR194688		1.0	1.0	1.5	1.5	1.8
K19-1047		1.0	1.5	1.3	1.5	1.8
K19-1065		1.0	1.5	1.0	1.3	1.3
K19-1098		1.0	2.0	1.5	1.5	1.5
K19-1104		1.0	1.5	1.5	1.8	2.5
K19-1631		1.0	1.0	1.8	2.3	3.0
K19-2155		1.0	1.0	1.5	1.5	1.8
K19-6018		1.0	1.0	1.0	1.5	1.0
K19-6086		1.0	1.0	1.5	1.3	1.5
LD19-9566		1.0	2.0	1.3	1.5	2.0
LD20-11622		1.1	1.5	1.3	1.5	1.8
LG16-5086		1.0	1.0	1.0	1.3	1.5
LG18-2475		1.0	2.0	1.5	1.8	2.0
LG18-3008		1.0	1.5	1.8	1.5	2.0
LG18-3013		1.0	2.0	1.5	1.5	1.5
SA18-10815		1.0	1.5	1.5	1.5	2.0
SA18-11346		1.0	1.0	1.3	2.0	2.0
SA18-12086		1.0	1.0	1.0	1.8	1.5
SA18-14143		1.0	1.0	1.3	1.5	1.5
SA19-10248		1.0	1.0	1.3	1.5	1.5
SA19-10772		1.0	1.5	1.5	1.5	1.8
SA19-12580		1.0	1.5	1.5	1.5	1.5
SA19-16381		1.0	1.5	1.5	1.5	2.0
SA19-7246		1.0	1.0	1.3	1.0	1.8
SA20-11805		1.0	1.0	1.5	1.8	1.5

PRELIMINARY TEST IV, 2022

PLANT HEIGHT (inches)

Strain	Mean 10 Tests	Savoy IL	Urbana IL	Butler- ville IN	Romney IN	West Lafayette IN
LD15-3818 (IV)	35	42	35	39		39
LD00-2817 (L)	40	47	39	46		43
LD07-3395bf (SCN) (E)	33	40	34	39		34
CR190410	38	48	41	44		40
CR190474	40	49	40	48		45
CR190628	41	48	46	45		44
CR192236	34	41	36	46		37
CR192393	47	58	46	58		49
CR192568	50	64	54	55		49
CR194609	36	44	37	46		39
CR194672	39	47	39	46		39
CR194688	35	45	36	41		36
K19-1047	35	44	36	45		37
K19-1065	35	44	36	41		38
K19-1098	35	45	37	41		38
K19-1104	39	49	47	44		42
K19-1631	39	46	45	43		39
K19-2155	37	45	41	45		42
K19-6018	35	43	40	44		36
K19-6086	34	41	38	39		37
LD19-9566	33	40	34	37		35
LD20-11622	33	44	36	37		37
LG16-5086	33	42	35	40		35
LG18-2475	36	45	37	43		40
LG18-3008	40	47	40	43		41
LG18-3013	39	50	40	44		41
SA18-10815	37	46	39	44		41
SA18-11346	35	45	38	43		38
SA18-12086	34	41	38	38		36
SA18-14143	35	42	37	44		38
SA19-10248	34	42	39	40		37
SA19-10772	35	41	37	43		36
SA19-12580	36	43	38	39		39
SA19-16381	34	42	35	39		35
SA19-7246	35	44	37	39		36
SA20-11805	38	47	40	44		39

PRELIMINARY TEST IV, 2022

PLANT HEIGHT (inches)

Strain	Man- hattan KS	Ottawa KS	Salina KS	Albany MO	Colum- bia MO	Novelty MO
LD15-3818 (IV)	36	33	34	30	32	34
LD00-2817 (L)	39	37	41	33	34	39
LD07-3395bf (SCN) (E)	34	28	31	31	26	30
CR190410	36	35	36	34	31	37
CR190474	42	35	39	35	31	41
CR190628	41	37	38	37	36	40
CR192236	31	32	31	32	25	34
CR192393	50	41	45	44	37	46
CR192568	47	47	50	47	43	45
CR194609	33	30	34	29	26	38
CR194672	38	36	40	33	30	39
CR194688	34	30	31	35	28	32
K19-1047	35	29	35	30	30	37
K19-1065	35	32	34	28	28	34
K19-1098	30	30	34	29	31	34
K19-1104	39	34	39	33	33	35
K19-1631	38	36	38	33	32	38
K19-2155	37	31	35	33	28	34
K19-6018	34	31	33	28	30	33
K19-6086	36	31	33	28	29	32
LD19-9566	30	28	33	29	27	36
LD20-11622	32	28	28	31	28	32
LG16-5086	33	28	33	27	26	31
LG18-2475	41	31	34	31	31	31
LG18-3008	42	37	41	37	35	41
LG18-3013	41	34	38	34	29	37
SA18-10815	34	33	34	31	32	37
SA18-11346	35	32	32	31	27	33
SA18-12086	33	30	33	29	32	31
SA18-14143	35	31	34	31	28	31
SA19-10248	35	30	33	29	27	33
SA19-10772	35	32	34	29	28	33
SA19-12580	37	33	32	31	30	36
SA19-16381	34	33	31	28	27	33
SA19-7246	35	33	37	30	29	33
SA20-11805	39	36	35	34	33	36

PRELIMINARY TEST IV, 2022

SEED SIZE (g/100)

Strain	Mean 8 Tests	Savoy IL	Urbana IL	Butler- ville IN	Romney IN	West Lafayette IN
LD15-3818 (IV)	15.8	16.7	15.6	14.9		16.6
LD00-2817 (L)	14.0	15.9	14.8	14.1		14.7
LD07-3395bf (SCN) (E)	16.0	17.9	16.4	15.8		17.5
CR190410	16.7	19.1	16.3	16.3		17.2
CR190474	15.9	18.2	16.1	14.9		16.1
CR190628	14.0	15.8	14.3	12.5		14.9
CR192236	18.3	21.3	18.3	16.7		19.7
CR192393	14.4	15.6	14.5	12.9		14.3
CR192568	15.1	17.2	14.9	12.9		15.6
CR194609	16.7	17.9	16.9	15.8		17.0
CR194672	15.7	17.9	15.9	14.7		16.5
CR194688	17.6	19.3	16.6	16.9		17.1
K19-1047	16.9	18.6	17.0	16.3		17.6
K19-1065	16.4	17.8	16.9	15.7		16.9
K19-1098	16.2	18.1	16.5	15.7		16.6
K19-1104	14.5	16.5	15.0	14.6		14.4
K19-1631	16.2	18.2	16.7	15.2		16.0
K19-2155	16.2	17.3	16.2	16.0		16.3
K19-6018	17.1	18.6	17.5	16.1		17.1
K19-6086	16.0	17.9	16.7	15.1		15.9
LD19-9566	16.1	18.9	17.3	16.9		16.4
LD20-11622	17.9	20.3	18.8	17.8		18.3
LG16-5086	15.1	16.7	15.4	14.5		15.3
LG18-2475	15.3	17.0	15.6	15.6		15.6
LG18-3008	16.6	18.5	16.9	15.9		17.9
LG18-3013	16.1	17.4	17.4	15.6		17.0
SA18-10815	15.6	17.3	16.2	17.2		16.1
SA18-11346	17.8	19.6	19.0	18.3		19.1
SA18-12086	14.6	15.9	14.9	13.8		14.5
SA18-14143	14.1	16.0	14.9	14.3		15.2
SA19-10248	17.3	18.9	18.2	16.5		18.3
SA19-10772	15.2	16.4	15.7	15.3		15.0
SA19-12580	17.2	19.5	18.8	16.0		18.4
SA19-16381	15.0	15.7	15.6	15.0		14.3
SA19-7246	14.9	16.2	15.5	13.9		14.8
SA20-11805	15.8	17.5	16.5	15.6		16.9

PRELIMINARY TEST IV, 2022

SEED SIZE (g/100)

Strain	Manhattan KS	Ottawa KS	Salina KS	Albany MO	Columbia MO	Novelty MO
LD15-3818 (IV)	14.6	14.1	15.3		18.8	
LD00-2817 (L)	12.1	13.2	13.4		14.1	
LD07-3395bf (SCN) (E)	14.8	14.4	15.2		16.2	
CR190410	14.1	15.1	15.8		19.6	
CR190474	14.0	14.1	15.9		18.4	
CR190628	12.6	13.0	12.6		16.5	
CR192236	17.9	16.2	16.4		20.2	
CR192393	13.7	13.1	13.8		17.6	
CR192568	15.4	13.4	14.2		17.3	
CR194609	15.7	14.6	14.9		20.8	
CR194672	14.3	13.7	14.4		18.0	
CR194688	15.3	15.7	17.1		23.2	
K19-1047	16.0	14.1	15.4		20.4	
K19-1065	15.4	14.3	15.2		18.9	
K19-1098	14.8	14.3	14.3		19.0	
K19-1104	12.9	13.6	13.2		15.8	
K19-1631	15.4	14.3	15.1		18.7	
K19-2155	15.6	15.1	14.8		18.1	
K19-6018	16.3	15.2	16.9		19.1	
K19-6086	15.4	14.9	13.7		18.6	
LD19-9566	14.9	14.1	14.8		15.2	
LD20-11622	17.0	15.7	16.0		19.3	
LG16-5086	14.6	14.4	14.1		15.9	
LG18-2475	14.9	14.8	14.6		13.9	
LG18-3008	16.1	14.8	15.0		17.6	
LG18-3013	14.5	14.5	15.3		17.0	
SA18-10815	15.6	13.6	14.6		14.6	
SA18-11346	17.5	15.9	16.6		16.7	
SA18-12086	15.0	13.4	14.0		15.6	
SA18-14143	13.3	12.3	12.1		15.0	
SA19-10248	17.0	16.0	16.3		17.3	
SA19-10772	14.4	13.4	14.6		17.1	
SA19-12580	15.6	14.5	15.0		19.8	
SA19-16381	14.3	13.2	15.7		16.0	
SA19-7246	14.4	13.4	14.7		16.7	
SA20-11805	14.4	13.7	15.3		16.8	

PRELIMINARY TEST IV, 2022

SEED QUALITY (score)

Strain	Mean 8 Tests	Savoy IL	Urbana IL	Butler- ville IN	Romney IN	West Lafayette IN
LD15-3818 (IV)	2.0	2.0	3.0	1.0		1.0
LD00-2817 (L)	2.0	1.8	2.0	1.0		1.5
LD07-3395bf (SCN) (E)	1.9	2.3	2.0	1.0		1.0
CR190410	1.7	1.5	2.0	1.0		1.0
CR190474	1.9	2.0	2.0	1.0		1.0
CR190628	1.7	1.5	2.0	1.0		1.0
CR192236	1.9	2.0	2.0	1.0		1.5
CR192393	2.2	2.0	2.0	1.0		1.5
CR192568	1.7	1.8	2.0	1.0		1.0
CR194609	2.3	2.3	3.0	1.0		1.0
CR194672	2.1	2.0	3.0	1.0		1.0
CR194688	1.8	1.8	3.0	1.0		1.0
K19-1047	1.9	2.0	2.0	1.0		1.5
K19-1065	1.9	2.0	2.0	1.0		1.0
K19-1098	1.9	1.5	3.0	1.0		1.0
K19-1104	2.1	1.8	2.0	1.0		1.0
K19-1631	1.9	2.0	2.0	1.0		1.0
K19-2155	1.8	1.8	2.0	1.0		1.0
K19-6018	1.8	1.8	2.0	1.0		1.0
K19-6086	2.1	2.0	2.0	1.0		1.0
LD19-9566	1.9	2.0	2.0	1.0		1.0
LD20-11622	1.9	1.5	2.0	1.0		1.0
LG16-5086	2.2	2.5	2.0	1.0		1.0
LG18-2475	2.1	2.0	3.0	1.0		1.0
LG18-3008	1.9	1.5	2.0	1.0		1.0
LG18-3013	2.1	2.0	2.0	1.0		1.0
SA18-10815	1.8	1.8	2.0	1.0		1.0
SA18-11346	2.1	2.5	2.0	1.0		1.0
SA18-12086	1.7	1.5	2.0	1.0		1.0
SA18-14143	2.1	1.5	3.0	1.0		1.0
SA19-10248	2.0	1.8	2.0	1.0		1.0
SA19-10772	2.0	2.0	2.0	1.0		1.0
SA19-12580	2.1	2.0	2.0	1.0		1.0
SA19-16381	1.9	2.0	2.0	1.0		1.0
SA19-7246	1.8	2.0	2.0	1.0		1.0
SA20-11805	2.1	2.3	2.0	1.0		1.5

PRELIMINARY TEST IV, 2022

SEED QUALITY (score)

Strain	Manhattan KS	Ottawa KS	Salina KS	Albany MO	Columbia MO	Novelty MO
LD15-3818 (IV)	2.0	2.0	3.0		2.0	
LD00-2817 (L)	2.0	3.0	4.0		1.0	
LD07-3395bf (SCN) (E)	2.0	3.0	3.0		1.0	
CR190410	2.0	2.0	3.0		1.0	
CR190474	3.0	2.0	3.0		1.0	
CR190628	2.0	2.0	3.0		1.0	
CR192236	2.0	2.0	3.0		2.0	
CR192393	3.0	3.0	3.0		2.0	
CR192568	2.0	2.0	3.0		1.0	
CR194609	3.0	3.0	4.0		1.0	
CR194672	3.0	3.0	3.0		1.0	
CR194688	2.0	2.0	3.0		1.0	
K19-1047	2.0	2.0	4.0		1.0	
K19-1065	2.0	3.0	3.0		1.0	
K19-1098	3.0	2.0	3.0		1.0	
K19-1104	3.0	3.0	3.0		2.0	
K19-1631	3.0	2.0	3.0		1.0	
K19-2155	3.0	2.0	3.0		1.0	
K19-6018	3.0	2.0	3.0		1.0	
K19-6086	3.0	3.0	4.0		1.0	
LD19-9566	3.0	2.0	3.0		1.0	
LD20-11622	3.0	2.0	3.0		2.0	
LG16-5086	2.0	3.0	4.0		2.0	
LG18-2475	3.0	2.0	3.0		2.0	
LG18-3008	2.0	3.0	4.0		1.0	
LG18-3013	3.0	3.0	3.0		2.0	
SA18-10815	3.0	2.0	3.0		1.0	
SA18-11346	3.0	2.0	3.0		2.0	
SA18-12086	2.0	2.0	3.0		1.0	
SA18-14143	3.0	3.0	3.0		1.0	
SA19-10248	3.0	2.0	3.0		2.0	
SA19-10772	3.0	2.0	3.0		2.0	
SA19-12580	3.0	3.0	3.0		2.0	
SA19-16381	3.0	2.0	3.0		1.0	
SA19-7246	2.0	1.0	3.0		2.0	
SA20-11805	3.0	2.0	4.0		1.0	

PRELIMINARY TEST IV, 2022

PROTEIN (%)

Strain	Mean 8 Tests	Savoy IL	Urbana IL	Butler- ville IN	Romney IN	West Lafayette IN
LD15-3818 (IV)	34.3	35.4	36.5	36.1		35.2
LD00-2817 (L)	32.6	33.6	34.3	33.7		33.0
LD07-3395bf (SCN) (E)	32.3	34.3	33.4	33.3		31.9
CR190410	33.1	34.0	33.4	33.6		32.5
CR190474	34.0	34.8	35.6	35.6		31.9
CR190628	33.4	34.8	34.3	36.2		32.4
CR192236	33.3	34.6	33.8	33.8		32.9
CR192393	32.9	33.9	33.7	34.6		32.5
CR192568	31.9	32.4	32.3	33.5		31.1
CR194609	33.7	34.8	34.7	34.4		33.5
CR194672	34.5	36.3	34.8	36.4		32.4
CR194688	36.4	36.3	37.5	37.7		36.4
K19-1047	34.6	35.5	35.9	35.1		35.3
K19-1065	34.7	35.5	35.5	36.5		35.1
K19-1098	33.6	34.2	35.0	34.5		34.2
K19-1104	34.5	35.8	37.3	33.9		34.7
K19-1631	34.9	35.8	36.6	36.5		36.2
K19-2155	35.1	37.0	36.1	35.8		34.9
K19-6018	34.5	35.7	36.4	35.9		34.1
K19-6086	35.0	36.6	37.4	34.8		35.2
LD19-9566	34.0	35.4	35.8	34.8		34.4
LD20-11622	34.5	36.2	35.6	34.8		35.1
LG16-5086	34.5	36.6	34.9	35.7		34.5
LG18-2475	33.5	34.2	34.4	35.3		34.7
LG18-3008	35.1	35.9	37.3	36.9		34.0
LG18-3013	34.6	35.9	35.8	36.3		34.2
SA18-10815	34.6	37.5	35.8	36.8		35.8
SA18-11346	34.0	34.3	35.5	35.0		34.7
SA18-12086	32.7	32.8	34.1	33.6		34.0
SA18-14143	33.6	35.0	34.5	35.0		33.7
SA19-10248	35.1	36.8	35.4	34.4		36.5
SA19-10772	32.8	34.1	33.4	33.4		33.0
SA19-12580	33.2	33.8	34.6	34.0		32.9
SA19-16381	33.6	33.9	35.2	35.0		32.9
SA19-7246	33.2	33.1	34.9	33.8		32.4
SA20-11805	34.4	35.3	35.8	35.4		34.0

PRELIMINARY TEST IV, 2022

PROTEIN (%)

Strain	Manhattan KS	Ottawa KS	Salina KS	Albany MO	Columbia MO	Novelty MO
LD15-3818 (IV)	32.6	32.5	31.7		34.7	
LD00-2817 (L)	31.3	30.6	31.0		33.2	
LD07-3395bf (SCN) (E)	30.4	30.7	32.0		32.9	
CR190410	32.9	31.3	33.4		33.4	
CR190474	33.1	31.9	34.2		34.8	
CR190628	32.3	31.6	32.4		33.1	
CR192236	31.4	32.3	33.2		35.0	
CR192393	32.1	31.0	32.1		33.1	
CR192568	32.5	30.9	31.0		31.8	
CR194609	32.3	33.3	33.4		33.3	
CR194672	34.1	34.0	32.9		35.2	
CR194688	36.3	33.8	35.9		37.1	
K19-1047	33.4	33.4	33.4		34.7	
K19-1065	32.7	33.6	32.6		35.8	
K19-1098	33.2	30.7	32.6		34.2	
K19-1104	33.4	31.4	33.5		35.9	
K19-1631	34.1	31.7	32.9		35.4	
K19-2155	35.2	32.5	33.7		35.8	
K19-6018	33.9	33.0	32.6		34.6	
K19-6086	33.1	33.3	32.5		36.7	
LD19-9566	33.3	32.4	31.8		34.2	
LD20-11622	33.2	32.1	32.7		36.3	
LG16-5086	32.4	31.7	33.8		36.7	
LG18-2475	32.4	31.7	32.0		33.1	
LG18-3008	34.2	33.2	33.3		36.4	
LG18-3013	33.4	32.6	32.4		35.8	
SA18-10815	34.0	31.8	31.8		33.4	
SA18-11346	33.5	31.9	34.9		32.5	
SA18-12086	32.4	30.4	32.3		32.3	
SA18-14143	32.0	32.6	31.5		34.9	
SA19-10248	35.0	33.0	33.7		36.2	
SA19-10772	32.5	31.3	29.7		35.2	
SA19-12580	32.1	31.9	31.5		34.6	
SA19-16381	32.2	31.7	33.3		34.6	
SA19-7246	32.9	32.1	32.2		34.7	
SA20-11805	33.6	32.4	33.4		35.1	

PRELIMINARY TEST IV, 2022

OIL (%)

Strain	Mean 8 Tests	Savoy IL	Urbana IL	Butler- ville IN	Romney IN	West Lafayette IN
LD15-3818 (IV)	19.6	18.6	18.5	18.9		18.8
LD00-2817 (L)	20.2	19.6	19.3	19.7		20.0
LD07-3395bf (SCN) (E)	20.5	19.4	19.6	20.8		20.3
CR190410	19.8	18.5	19.5	19.7		19.8
CR190474	19.4	18.5	18.1	19.0		19.7
CR190628	20.0	19.0	19.2	18.8		19.9
CR192236	19.6	18.9	19.4	19.2		19.3
CR192393	20.0	19.0	19.7	19.0		20.1
CR192568	20.6	20.1	20.0	19.6		20.5
CR194609	20.1	19.5	19.2	19.7		20.3
CR194672	20.2	18.2	19.9	18.9		24.7
CR194688	19.0	17.8	18.4	18.8		19.0
K19-1047	19.2	18.0	18.3	19.1		19.1
K19-1065	19.0	18.3	18.2	18.7		18.8
K19-1098	19.7	18.7	18.6	19.4		19.1
K19-1104	18.9	17.7	17.5	19.4		18.6
K19-1631	18.8	17.8	17.3	18.8		17.8
K19-2155	19.1	17.9	17.9	19.2		19.1
K19-6018	18.3	17.8	17.5	14.7		18.5
K19-6086	18.7	17.5	17.5	18.5		18.3
LD19-9566	20.6	19.5	19.4	20.3		20.6
LD20-11622	18.9	18.3	18.5	20.0		19.4
LG16-5086	19.0	17.8	18.3	18.9		18.6
LG18-2475	19.2	18.3	18.6	18.7		18.3
LG18-3008	18.4	17.6	17.2	17.6		18.5
LG18-3013	18.8	17.5	17.9	18.2		18.8
SA18-10815	19.0	17.9	17.9	18.5		18.3
SA18-11346	19.9	19.2	19.0	19.3		19.6
SA18-12086	20.0	19.3	19.1	19.7		19.0
SA18-14143	20.6	19.1	19.4	20.2		20.1
SA19-10248	19.8	18.7	19.0	19.6		18.7
SA19-10772	20.0	19.0	19.2	19.8		19.7
SA19-12580	19.8	19.1	18.9	19.8		19.8
SA19-16381	19.8	19.2	18.5	19.3		19.8
SA19-7246	19.9	19.1	19.0	19.9		20.0
SA20-11805	18.8	18.3	18.0	18.2		19.1

PRELIMINARY TEST IV, 2022

OIL (%)

Strain	Manhattan KS	Ottawa KS	Salina KS	Albany MO	Columbia MO	Novelty MO
LD15-3818 (IV)	20.4	21.0	21.0		19.9	
LD00-2817 (L)	20.5	21.6	20.8		20.3	
LD07-3395bf (SCN) (E)	21.1	21.1	20.9		20.8	
CR190410	19.9	21.0	19.6		20.2	
CR190474	19.8	20.7	19.6		19.8	
CR190628	20.0	21.1	21.0		20.8	
CR192236	20.3	20.6	19.7		19.7	
CR192393	20.7	21.1	20.4		20.3	
CR192568	20.8	21.6	20.7		21.4	
CR194609	20.9	21.0	20.0		20.6	
CR194672	19.6	20.7	20.3		19.2	
CR194688	19.1	20.5	19.4		19.0	
K19-1047	18.9	20.0	20.2		19.7	
K19-1065	19.7	19.4	19.9		18.7	
K19-1098	19.9	21.5	20.9		19.8	
K19-1104	19.2	21.0	19.1		18.7	
K19-1631	19.1	20.5	19.8		19.3	
K19-2155	18.8	20.9	19.7		19.5	
K19-6018	18.1	20.4	20.2		19.3	
K19-6086	19.3	20.3	19.7		18.5	
LD19-9566	20.8	21.6	21.3		21.2	
LD20-11622	20.5	20.8	14.6		19.0	
LG16-5086	19.4	20.7	19.7		18.6	
LG18-2475	19.5	20.4	19.4		20.2	
LG18-3008	18.5	19.6	19.9		18.4	
LG18-3013	19.3	20.1	20.0		18.6	
SA18-10815	19.3	20.7	20.4		19.0	
SA18-11346	19.9	21.0	20.0		21.0	
SA18-12086	20.1	21.7	20.2		20.7	
SA18-14143	21.4	21.6	22.2		20.8	
SA19-10248	20.0	21.1	20.7		20.5	
SA19-10772	20.1	21.0	21.5		19.8	
SA19-12580	20.5	20.9	20.1		19.5	
SA19-16381	20.6	21.2	20.3		19.7	
SA19-7246	20.1	20.8	20.4		20.0	
SA20-11805	19.0	20.3	19.3		18.2	

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**Northern Regional Uniform Test
Uniform Test 00, Traited Material, 2022**

Ent.	Strain	Parentage		Seed Source	Previous Testing	Gen. Comp.	Unique Traits
		Female	Male				
1	MN0083 (00)	M97-121138	MN0091	Lorenz	4	F5	Rps6
2	ND17009GT	OAC07-26C	RG607RR	Miranda	7	F3	RR1
3	AG03XF2 (L)			Cai	Initial		RR2, Xtend Flex
4	ND14-6120GT			Miranda	1		GT
5	ND17-26003(GT)	ND12-20766(GT)	ND10-4423	Miranda	2	F4	GT
6	ND18-20092(GT SCN)	ND12-20515	ND10-3464	Miranda	Initial	F8	GT SCN, Race 4 Rps
7	ND18-20161(GT SCN)	ND12-20515	ND10-3464	Miranda	Initial	F8	GT SCN, Race 4 Rps
8	ND18-22883(GT SCN)	ND12-20515	ND10-3464	Miranda	Initial	F8	GT SCN, Race 4 Rps
9	ND19-19257(GT)	ND10-3464(SCN)	ND13-20529(RR)	Miranda	Initial	F7	GT, Rps?
10	ND19-19372(GT)	ND12-20515(RR)	ND10-3464(SCN)	Miranda	Initial	F7	GT, Rps?

UNIFORM TEST 00 TRAITED MATERIAL, 2022

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code	IDC Score
		Danvers MN
MN0083 (00)	WTTSYYI	2.0
ND17009GT	WTBSYBI	3.0
AG03XF2 (L)	PTBDYBI	2.0
ND14-6120GT	PTBDYGI	1.5
ND17-26003(GT)	PTBDYBrI	4.0
ND18-20092(GT SCN)	PGTSYBfi	2.3
ND18-20161(GT SCN)	PGBSYBfi	1.5
ND18-22883(GT SCN)	PGTDYBfi	2.3
ND19-19257(GT)	P+WTBSYBI	3.3
ND19-19372(GT)	PGBDYBfi	2.0

UNIFORM TEST 00 TRAITED MATERIAL, 2022

REGIONAL SUMMARY

No. of Tests Strain	Yield	Rank	Maturity	Lodging	Plant Height	Seed Size	Seed Quality	<u>Composition</u>	
	4 bu/a	4 No.	5 Date	4 Score	3 In	3 g/100	2 Score	4 Protein %	4 Oil %
MN0083 (00)	46.2	10	9/12	1.3	27	14.8	1.0	36.0	17.6
ND17009GT	50.0	4	7.1	1.1	31	18.2	1.0	35.4	18.7
AG03XF2 (L)	54.1	1	9.0	1.1	28	16.7	1.0	34.4	17.5
ND14-6120GT	47.2	8	1.7	1.3	28	16.3	1.5	34.7	17.6
ND17-26003(GT)	46.6	9	-0.3	1.0	21	14.8	1.0	34.2	18.8
ND18-20092(GT SCN)	47.4	6	4.7	1.2	28	14.1	1.0	35.8	18.0
ND18-20161(GT SCN)	51.8	2	6.9	1.6	31	15.1	1.0	36.1	17.5
ND18-22883(GT SCN)	49.3	5	4.6	1.0	26	15.0	1.0	34.3	18.2
ND19-19257(GT)	51.6	3	4.9	1.3	29	18.1	1.0	36.1	17.7
ND19-19372(GT)	47.2	7	4.1	1.1	26	14.0	1.0	34.9	18.3
Mean	49.1			1.2	27.4	15.7	1.1	35.2	18.0
C.V. (%)	7.4								
L.S.D. (5%)	2.9								

112.4 Days After Planting

2021-2022 2-YEAR MEAN

No. of Tests Strain	Yield	Rank	Maturity	Lodging	Plant Height	Seed Size	Seed Quality	<u>Composition</u>	
	7 bu/a	7 No.	10 Date	6 Score	5 In.	5 g/100	4 Score	8 Protein %	8 Oil %
MN0083 (00)	41.4	2	9/10	1.1	27	13.7	1.0	35.9	18.6
ND17009GT	43.6	1	5.5	1.1	30	16.1	1.0	36.0	19.1
ND14-6120GT	40.2	3	0.1	1.2	28	15.2	2.0	34.6	18.7
ND17-26003(GT)	39.5	4	-2.3	1.0	23	12.9	1.8	33.5	20.0

113.2 Days After Planting

2020-2022 3-YEAR MEAN

No. of Tests Strain	8	8	11	6	6	6	5	9	9
MN0083 (00)	42.0	2	9/11	1.1	27	14.1	1.0	35.9	18.3
ND17009GT	43.2	1	3.7	1.1	29	17.2	1.0	36.1	18.8
ND17-26003(GT)	36.2	3	-3.2	1.0	22	12.9	1.8	33.7	19.7

114.5 Days After Planting

UNIFORM TEST 00 TRAITED MATERIAL, 2022

YIELD (bu/a)

Strain	Mean 4 Tests	Crook- ston MN	Roseau MN	Cassel- ton ND	Grandin ND*	Elm Creek MAN
MN0083 (00)	46.2	40.2	49.9	55.1	43.0	39.5
ND17009GT	50.0	40.6	46.7	62.2	41.3	50.4
AG03XF2 (L)	54.1	46.1	53.9	63.3	40.3	53.1
ND14-6120GT	47.2	37.9	49.2	60.3	42.9	41.3
ND17-26003(GT)	46.6	44.0	47.6	62.1	29.2	32.8
ND18-20092(GT SCN)	47.4	39.7	44.8	58.4	49.9	46.8
ND18-20161(GT SCN)	51.8	41.8	48.9	61.7	50.6	54.9
ND18-22883(GT SCN)	49.3	39.0	51.5	62.3	44.2	44.4
ND19-19257(GT)	51.6	41.2	46.3	64.7	45.2	54.0
ND19-19372(GT)	47.2	40.6	51.8	56.2	42.8	40.3
Location Mean		41.1	49.1	60.6	42.9	45.8
C.V. (%)		7.8	9.1	3.6	16.9	8.5
L.S.D. (5%)		5.5	7.7	3.7	12.5	6.7
Row sp. (In.)		30	30	30	30	15
Rows/Plot		4	4	4	4	4
Reps		3	3	3	3	3

* Data not included in mean.

UNIFORM TEST 00 TRAITED MATERIAL, 2022

YIELD RANK

Strain	Yield Rank	Crook- ston MN	Roseau MN	Cassel- ton ND	Grandin ND	Elm Creek MAN
MN0083 (00)	10	7	4	10	5	9
ND17009GT	4	6	8	4	8	4
AG03XF2 (L)	1	1	1	2	9	3
ND14-6120GT	8	10	5	7	6	7
ND17-26003(GT)	9	2	7	5	10	10
ND18-20092(GT SCN)	6	8	10	8	2	5
ND18-20161(GT SCN)	2	3	6	6	1	1
ND18-22883(GT SCN)	5	9	3	3	4	6
ND19-19257(GT)	3	4	9	1	3	2
ND19-19372(GT)	7	5	2	9	7	8

UNIFORM TEST 00 TRAITED MATERIAL, 2022

MATURITY (date)

Strain	Mean 5 Tests	Crook- ston MN	Roseau MN	Cassel- ton ND	Grandin ND	Elm Creek MAN
MN0083 (00)	9/12	9/7	9/24	9/9	9/13	9/10
ND17009GT	7	13	4	8	6	6
AG03XF2 (L)	9	16	5	10	5	10
ND14-6120GT	2	1	3	4	1	0
ND17-26003(GT)	-0	1	-2	2	-1	-2
ND18-20092(GT SCN)	5	4	5	7	6	2
ND18-20161(GT SCN)	7	6	6	9	8	6
ND18-22883(GT SCN)	5	6	5	4	7	1
ND19-19257(GT)	5	9	3	6	2	5
ND19-19372(GT)	4	10	4	4	3	0
Date Planted	5/23	5/27	5/27	5/19	5/19	5/24
Days to Mature	112.4	103	120	113	117	109

UNIFORM TEST 00 TRAITED MATERIAL, 2022

LODGING (score)

Strain	Mean 4 Tests	Crook- ston MN	Roseau MN	Cassel- ton ND	Grandin ND	Elm Creek MAN
MN0083 (00)	1.3	2.0	1.0	1.0	1.0	
ND17009GT	1.1	1.3	1.0	1.0	1.0	
AG03XF2 (L)	1.1	1.3	1.0	1.0	1.0	
ND14-6120GT	1.3	2.0	1.0	1.0	1.0	
ND17-26003(GT)	1.0	1.0	1.0	1.0	1.0	
ND18-20092(GT SCN)	1.2	1.7	1.0	1.0	1.0	
ND18-20161(GT SCN)	1.6	2.0	2.3	1.0	1.0	
ND18-22883(GT SCN)	1.0	1.0	1.0	1.0	1.0	
ND19-19257(GT)	1.3	2.0	1.0	1.0	1.0	
ND19-19372(GT)	1.1	1.3	1.0	1.0	1.0	

UNIFORM TEST 00 TRAITED MATERIAL, 2022

PLANT HEIGHT (inches)

Strain	Mean 3 Tests	Crook- ston MN	Roseau MN	Cassel- ton ND	Grandin ND	Elm Creek MAN
MN0083 (00)	27	27			27	28
ND17009GT	31	29			31	31
AG03XF2 (L)	28	28			25	29
ND14-6120GT	28	28			26	29
ND17-26003(GT)	21	24			18	21
ND18-20092(GT SCN)	28	28			29	27
ND18-20161(GT SCN)	31	29			31	33
ND18-22883(GT SCN)	26	24			27	26
ND19-19257(GT)	29	28			28	31
ND19-19372(GT)	26	27			27	25

UNIFORM TEST 00 TRAITED MATERIAL, 2022

SEED SIZE (g/100)

Strain	Mean 3 Tests	Crook- ston MN	Roseau MN	Cassel- ton ND	Grandin ND	Elm Creek MAN
MN0083 (00)	14.8	13.2	16.6		14.7	
ND17009GT	18.2	16.4	21.5		16.7	
AG03XF2 (L)	16.7	14.6	19.9		15.7	
ND14-6120GT	16.3	13.9	19.6		15.3	
ND17-26003(GT)	14.8	13.3	17.0		14.0	
ND18-20092(GT SCN)	14.1	12.4	15.9		14.0	
ND18-20161(GT SCN)	15.1	13.2	17.8		14.3	
ND18-22883(GT SCN)	15.0	12.6	17.4		15.0	
ND19-19257(GT)	18.1	16.0	20.9		17.3	
ND19-19372(GT)	14.0	11.8	16.3		14.0	

UNIFORM TEST 00 TRAITED MATERIAL, 2022

SEED QUALITY (score)

Strain	Mean 2 Tests	Crook- ston MN	Roseau MN	Cassel- ton ND	Grandin ND	Elm Creek MAN
MN0083 (00)	1.0	1.0	1.0			
ND17009GT	1.0	1.0	1.0			
AG03XF2 (L)	1.0	1.0	1.0			
ND14-6120GT	1.5	2.0	1.0			
ND17-26003(GT)	1.0	1.0	1.0			
ND18-20092(GT SCN)	1.0	1.0	1.0			
ND18-20161(GT SCN)	1.0	1.0	1.0			
ND18-22883(GT SCN)	1.0	1.0	1.0			
ND19-19257(GT)	1.0	1.0	1.0			
ND19-19372(GT)	1.0	1.0	1.0			

UNIFORM TEST 00 TRAITED MATERIAL, 2022

PROTEIN (%)

Strain	Mean 4 Tests	Crook- ston MN	Roseau MN	Cassel- ton ND	Grandin ND	Elm Creek MAN*
MN0083 (00)	36.0	36.8	37.6		35.3	34.5
ND17009GT	35.4	35.6	34.9		35.5	35.8
AG03XF2 (L)	34.4	33.3	36.0		33.1	35.1
ND14-6120GT	34.7	34.5	36.0		34.9	33.4
ND17-26003(GT)	34.2	33.6	35.5		33.5	34.2
ND18-20092(GT SCN)	35.8	36.4	36.7		35.5	34.6
ND18-20161(GT SCN)	36.1	35.9	37.9		35.9	34.8
ND18-22883(GT SCN)	34.3	33.5	36.2		34.2	33.2
ND19-19257(GT)	36.1	36.2	36.8		36.0	35.2
ND19-19372(GT)	34.9	34.9	35.4		35.0	34.3

* Data adjusted to 13% Moisture.

UNIFORM TEST 00 TRAITED MATERIAL, 2022

OIL (%)

Strain	Mean 4 Tests	Crook- ston MN	Roseau MN	Cassel- ton ND	Grandin ND	Elm Creek MAN*
MN0083 (00)	17.6	18.0	16.6		18.3	17.3
ND17009GT	18.7	18.8	20.1		18.9	17.2
AG03XF2 (L)	17.5	18.6	16.3		18.8	16.4
ND14-6120GT	17.6	18.3	17.1		18.3	16.6
ND17-26003(GT)	18.8	19.5	18.4		19.5	17.8
ND18-20092(GT SCN)	18.0	18.5	17.5		18.7	17.3
ND18-20161(GT SCN)	17.5	18.5	16.2		18.6	16.8
ND18-22883(GT SCN)	18.2	19.3	17.3		19.0	17.4
ND19-19257(GT)	17.7	18.4	17.2		18.4	16.8
ND19-19372(GT)	18.3	18.8	18.1		19.1	17.2

* Data adjusted to 13% Moisture.

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**Northern Regional Uniform Test
Uniform Test 0, Traited Material, 2022**

Ent.	Strain	Parentage		Seed Source	Previous Testing	Gen. Comp.	Unique Traits
		Female	Male				
1	ND Dickey (0)	P. 91M10	Sheyenne	Miranda	2	F4	Race 3 Resist.
2	MN1511CN (SCN) (L)	M06-288181	M06-358188	Lorenz	Initial		SCN
3	AG03XF2 (E)			Cai	Initial		RR2, Xtend Flex
4	ND15-22873			Miranda	1		
5	M05-353163HO-12	M05-353163(4) x M05-319034LL	M05-353163(4) x KB13-39#871HO	Lorenz	Initial		HO, SCN
6	M05-363022HO-25	M05-363022(4)	KB13-39#871HO	Lorenz	Initial		HO, SCN
7	M07-296048HOLL-18	M07-296048(4) x M10-237089HO	M07-296048(4) x M05-319036	Lorenz	Initial		HOLL, SCN
8	M07-296048HOLL-41	M07-296048(4) x M05-319034LL	M07-296048(4) x M10-237089HO	Lorenz	Initial		HOLL, SCN
9	M09-160019HO-10	M09-160019	KB13-39#871	Lorenz	1	F5	HO from PR
10	M14HO-1330-14001	MN0107(4)	KB10-10#990-1	Lorenz	4	BC3F3	HO, Rps1k
11	M17R-908-1072	LD10-5213a X M10-218053	E13912	Lorenz	Initial	F6	Aphid R,SCN, RR
12	ND17-19726(GT)	ND10-3495	ND12-21469(GT)	Miranda	1	F4	GT
13	ND18-22422GT	ND12-20515(RR)	ND10-3464	Miranda	1		GT, SCN?
14	ND18-25165GT	ND10-3067	ND12-21598(RR)	Miranda	1		GT
15	ND19-18020(GT)	ND10-2763(SCN)	ND12-23230(RR)	Miranda	Initial	F7	GT
16	ND19-18189(GT)	ND13-20529(RR)	ND Bison	Miranda	Initial	F7	GT
17	ND19-18200(GT)	ND10-3067	ND13-20529(RR)	Miranda	Initial	F7	GT

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code	IDC Score
		Danvers MN
ND Dickey (0)	PGTDYYI	3.0
MN1511CN (SCN) (L)	PGBDYBfI	3.3
AG03XF2 (E)	PTBDYBI	2.0
ND15-22873	WGBDYII	3.5
M05-353163HO-12	PTTDYBrI	3.3
M05-363022HO-25	PGTDYYI	3.8
M07-296048HOLL-18	PTTSYYI	4.0
M07-296048HOLL-41	PTTSYYI	2.0
M09-160019HO-10	PTBDYHI	3.0
M14HO-1330-14001	PGTDYYI	2.0
M17R-908-1072	WGTDYBfI	3.5
ND17-19726(GT)	PGTDYBfI	2.3
ND18-22422GT	WGBSYBfI	4.0
ND18-25165GT	WGBSYII	4.0
ND19-18020(GT)	P+WGTDYYI	4.3
ND19-18189(GT)	PTBSYBrI	3.0
ND19-18200(GT)	WGBSYHI	3.8

UNIFORM TEST 0 TRAITED MATERIAL, 2022

REGIONAL SUMMARY

No. of Tests Strain	Yield	Rank	Maturity	Lodging	Plant	Seed	Seed	<u>Composition</u>	
	3 bu/a	3 No.	3 Date	3 Score	2 Height In.	3 Size g/100	2 Quality Score	3 Protein %	3 Oil %
ND Dickey (0)	58.6	2	9/23	1.1	31	17.0	1.0	34.7	17.9
MN1511CN (SCN) (L)	56.6	4	4.6	1.2	36	14.3	1.0	33.4	18.4
AG03XF2 (E)	51.8	10	-5.7	1.2	27	16.2	1.0	34.1	18.1
ND15-22873	55.2	5	3.1	1.0	27	14.8	1.0	34.1	18.3
M05-353163HO-12	52.6	9	-0.2	1.1	28	14.6	1.0	36.7	18.4
M05-363022HO-25	54.6	7	2.3	1.2	27	16.0	1.0	36.0	18.9
M07-296048HOLL-18	48.5	15	4.4	1.1	30	16.5	1.0	36.6	17.5
M07-296048HOLL-41	49.0	14	3.0	1.2	32	16.0	1.0	37.3	17.1
M09-160019HO-10	49.6	13	5.1	1.0	32	17.9	1.0	37.8	18.8
M14HO-1330-14001	47.3	16	-6.9	1.3	32	16.7	1.0	37.0	17.9
M17R-908-1072	47.2	17	6.5	1.3	30	15.0	1.0	35.0	17.0
ND17-19726(GT)	57.7	3	-6.0	1.3	29	14.4	1.0	35.4	18.7
ND18-22422GT	49.8	12	-3.5	1.1	29	16.1	1.0	35.0	19.2
ND18-25165GT	59.3	1	2.9	1.2	35	16.9	1.0	35.1	18.7
ND19-18020(GT)	53.3	8	-4.1	1.0	30	15.0	1.0	34.2	19.9
ND19-18189(GT)	54.9	6	-1.6	1.0	27	16.6	1.5	33.1	18.8
ND19-18200(GT)	51.0	11	2.8	1.2	33	15.7	1.0	33.6	19.2
Mean	52.8			1.2	30.3	15.9	1.0	35.2	18.4
C.V. (%)	10.4								
L.S.D. (5%)	5.3								

124.3 Days After Planting

UNIFORM TEST 0 TRAITED MATERIAL, 2022

2021-2022 2-YEAR MEAN

No. of Tests Strain	Yield	Rank	Maturity	Lodging	Plant	Seed	Seed	<u>Composition</u>	
	5 bu/a	5 No.	5 Date	4 Score	3 Height In.	6 Size g/100	5 Quality Score	8 Protein %	8 Oil %
ND Dickey (0)	48.4	1	9/20	1.1	30	16.7	1.3	33.8	18.9
ND15-22873	45.2	4	4.2	1.0	27	14.6	1.2	33.0	19.6
M09-160019HO-10	42.8	5	3.6	1.0	30	17.2	1.5	35.0	20.1
M14HO-1330-14001	39.7	6	-7.2	1.4	31	15.7	1.3	36.7	19.0
ND17-19726(GT)	46.9	3	-6.0	1.2	27	13.6	1.2	34.8	19.6
ND18-22422GT	37.9	7	-3.3	1.1	26	14.7	1.5	33.9	20.2
ND18-25165GT	47.5	2	2.2	1.1	32	15.9	1.5	34.5	19.5

123.4 Days After Planting

2020-2022 3-YEAR MEAN

No. of Tests Strain	9	9	9	6	4	9	8	11	11
ND Dickey (0)	50.7	1	9/20	1.2	30	16.0	1.2	33.9	18.4
M14HO-1330-14001	42.8	2	-6.4	1.8	31	15.5	1.2	36.1	18.6

123.6 Days After Planting

UNIFORM TEST 0 TRAITED MATERIAL, 2022

YIELD (bu/a)

Strain	Mean 3 Tests	Crooks- ton MN	Moor- head MN	Cassel- ton ND	Grandin ND*
ND Dickey (0)	58.6	47.4	67.4	72.0	47.6
MN1511CN (SCN) (L)	56.6	51.7	58.0	64.0	52.7
AG03XF2 (E)	51.8	45.2	49.5	67.1	45.6
ND15-22873	55.2	44.2	58.4	67.3	50.8
M05-353163HO-12	52.6	43.0	56.3	64.1	46.8
M05-363022HO-25	54.6	42.9	63.4	66.3	46.0
M07-296048HOLL-18	48.5	37.2	49.7	59.2	47.9
M07-296048HOLL-41	49.0	41.2	54.5	57.8	42.7
M09-160019HO-10	49.6	41.5	57.0	57.2	42.5
M14HO-1330-14001	47.3	41.1	51.7	58.4	38.0
M17R-908-1072	47.2	35.8	53.8	60.8	38.6
ND17-19726(GT)	57.7	46.9	63.2	68.6	51.9
ND18-22422GT	49.8	39.5	58.9	64.0	36.6
ND18-25165GT	59.3	45.8	69.5	69.5	52.4
ND19-18020(GT)	53.3	42.7	60.9	62.7	47.1
ND19-18189(GT)	54.9	39.0	64.9	68.0	47.6
ND19-18200(GT)	51.0	42.7	56.4	57.6	47.1
Location Mean		42.8	58.4	63.8	46.0
C.V. (%)		12.9	10.0	7.2	18.1
L.S.D. (5%)		9.3	9.9	7.6	13.9
Row sp. (In.)		30	30	30	30
Rows/Plot		4	4	4	4
Reps		3	3	3	3

* Data not included in mean.

UNIFORM TEST 0 TRAITED MATERIAL, 2022

YIELD RANK

Strain	Yield Rank	Crooks-ton MN	Moor-head MN	Cassel-ton ND	Grandin ND
ND Dickey (0)	2	2	2	1	7
MN1511CN (SCN) (L)	4	1	9	10	1
AG03XF2 (E)	10	5	17	6	12
ND15-22873	5	6	8	5	4
M05-353163HO-12	9	7	12	8	10
M05-363022HO-25	7	8	4	7	11
M07-296048HOLL-18	15	16	16	13	5
M07-296048HOLL-41	14	12	13	15	13
M09-160019HO-10	13	11	10	17	14
M14HO-1330-14001	16	13	15	14	16
M17R-908-1072	17	17	14	12	15
ND17-19726(GT)	3	3	5	3	3
ND18-22422GT	12	14	7	9	17
ND18-25165GT	1	4	1	2	2
ND19-18020(GT)	8	10	6	11	9
ND19-18189(GT)	6	15	3	4	6
ND19-18200(GT)	11	9	11	16	8

UNIFORM TEST 0 TRAITED MATERIAL, 2022

MATURITY (date)

Strain	Mean 3 Tests	Crooks-ton MN	Moor-head MN	Cassel-ton ND	Grandin ND
ND Dickey (0)	9/23	9/22		9/25	9/22
MN1511CN (SCN) (L)	5	8		-1	6
AG03XF2 (E)	-6	-4		-6	-7
ND15-22873	3	6		-2	5
M05-353163HO-12	-0	3		-5	1
M05-363022HO-25	2	3		0	4
M07-296048HOLL-18	4	6		1	6
M07-296048HOLL-41	3	0		5	4
M09-160019HO-10	5	6		3	6
M14HO-1330-14001	-7	-2		-12	-6
M17R-908-1072	6	8		4	7
ND17-19726(GT)	-6	-5		-8	-5
ND18-22422GT	-4	0		-9	-2
ND18-25165GT	3	7		-1	2
ND19-18020(GT)	-4	3		-10	-5
ND19-18189(GT)	-2	0		-5	0
ND19-18200(GT)	3	6		-2	4
Date Planted	5/21	5/27		5/19	5/19
Days to Mature	124	118		129	126

UNIFORM TEST 0 TRAITED MATERIAL, 2022

LODGING (score)

Strain	Mean 3 Tests	Crooks- ton MN	Moor- head MN	Cassel- ton ND	Grandin ND
ND Dickey (0)	1.1	1.3		1.0	1.0
MN1511CN (SCN) (L)	1.2	1.7		1.0	1.0
AG03XF2 (E)	1.2	1.7		1.0	1.0
ND15-22873	1.0	1.0		1.0	1.0
M05-353163HO-12	1.1	1.3		1.0	1.0
M05-363022HO-25	1.2	1.7		1.0	1.0
M07-296048HOLL-18	1.1	1.3		1.0	1.0
M07-296048HOLL-41	1.2	1.7		1.0	1.0
M09-160019HO-10	1.0	1.0		1.0	1.0
M14HO-1330-14001	1.3	2.0		1.0	1.0
M17R-908-1072	1.3	2.0		1.0	1.0
ND17-19726(GT)	1.3	2.0		1.0	1.0
ND18-22422GT	1.1	1.3		1.0	1.0
ND18-25165GT	1.2	1.7		1.0	1.0
ND19-18020(GT)	1.0	1.0		1.0	1.0
ND19-18189(GT)	1.0	1.0		1.0	1.0
ND19-18200(GT)	1.2	1.7		1.0	1.0

UNIFORM TEST 0 TRAITED MATERIAL, 2022

PLANT HEIGHT (inches)

Strain	Mean 2 Tests	Crooks- ton MN	Moor- head MN	Cassel- ton ND	Grandin ND
ND Dickey (0)	31	28			33
MN1511CN (SCN) (L)	36	34			38
AG03XF2 (E)	27	28			27
ND15-22873	27	25			28
M05-353163HO-12	28	26			31
M05-363022HO-25	27	26			27
M07-296048HOLL-18	30	27			33
M07-296048HOLL-41	32	31			34
M09-160019HO-10	32	31			33
M14HO-1330-14001	32	31			34
M17R-908-1072	30	30			31
ND17-19726(GT)	29	28			30
ND18-22422GT	29	28			29
ND18-25165GT	35	33			36
ND19-18020(GT)	30	28			33
ND19-18189(GT)	27	24			29
ND19-18200(GT)	33	31			35

UNIFORM TEST 0 TRAITED MATERIAL, 2022

SEED SIZE (g/100)

Strain	Mean 3 Tests	Crooks- ton MN	Moor- head MN	Cassel- ton ND	Grandin ND
ND Dickey (0)	17.0	14.7	19.1		17.3
MN1511CN (SCN) (L)	14.3	13.3	15.8		13.7
AG03XF2 (E)	16.2	14.6	18.1		16.0
ND15-22873	14.8	13.5	16.6		14.3
M05-353163HO-12	14.6	13.8	16.0		14.0
M05-363022HO-25	16.0	15.4	17.2		15.3
M07-296048HOLL-18	16.5	15.8	17.6		16.0
M07-296048HOLL-41	16.0	15.4	17.6		15.0
M09-160019HO-10	17.9	16.5	19.6		17.7
M14HO-1330-14001	16.7	15.2	18.2		16.7
M17R-908-1072	15.0	14.3	15.8		15.0
ND17-19726(GT)	14.4	13.4	15.6		14.3
ND18-22422GT	16.1	14.3	18.0		16.0
ND18-25165GT	16.9	16.7	18.3		15.7
ND19-18020(GT)	15.0	14.2	16.5		14.3
ND19-18189(GT)	16.6	14.8	18.8		16.3
ND19-18200(GT)	15.7	14.7	16.6		15.7

UNIFORM TEST 0 TRAITED MATERIAL, 2022

SEED QUALITY (score)

Strain	Mean 2 Tests	Crooks- ton MN	Moor- head MN	Cassel- ton ND	Grandin ND
ND Dickey (0)	1.0	1.0	1.0		
MN1511CN (SCN) (L)	1.0	1.0	1.0		
AG03XF2 (E)	1.0	1.0	1.0		
ND15-22873	1.0	1.0	1.0		
M05-353163HO-12	1.0	1.0	1.0		
M05-363022HO-25	1.0	1.0	1.0		
M07-296048HOLL-18	1.0	1.0	1.0		
M07-296048HOLL-41	1.0	1.0	1.0		
M09-160019HO-10	1.0	1.0	1.0		
M14HO-1330-14001	1.0	1.0	1.0		
M17R-908-1072	1.0	1.0	1.0		
ND17-19726(GT)	1.0	1.0	1.0		
ND18-22422GT	1.0	1.0	1.0		
ND18-25165GT	1.0	1.0	1.0		
ND19-18020(GT)	1.0	1.0	1.0		
ND19-18189(GT)	1.5	1.0	2.0		
ND19-18200(GT)	1.0	1.0	1.0		

UNIFORM TEST 0 TRAITED MATERIAL, 2022

PROTEIN (%)

Strain	Mean 3 Tests	Crooks- ton MN	Moor- head MN	Cassel- ton ND	Grandin ND
ND Dickey (0)	34.7	34.9	35.6		33.7
MN1511CN (SCN) (L)	33.4	33.8	33.3		33.2
AG03XF2 (E)	34.1	33.8	35.0		33.5
ND15-22873	34.1	34.4	34.4		33.5
M05-353163HO-12	36.7	36.4	36.9		36.7
M05-363022HO-25	36.0	37.1	35.5		35.3
M07-296048HOLL-18	36.6	38.3	36.0		35.6
M07-296048HOLL-41	37.3	36.9	38.2		37.0
M09-160019HO-10	37.8	41.3	36.1		35.9
M14HO-1330-14001	37.0	37.7	36.5		36.9
M17R-908-1072	35.0	35.3	34.4		35.5
ND17-19726(GT)	35.4	34.6	36.3		35.3
ND18-22422GT	35.0	34.8	35.6		34.5
ND18-25165GT	35.1	35.1	35.7		34.4
ND19-18020(GT)	34.2	33.8	35.0		33.9
ND19-18189(GT)	33.1	33.4	33.6		32.3
ND19-18200(GT)	33.6	33.4	34.6		32.9

UNIFORM TEST 0 TRAITED MATERIAL, 2022

OIL (%)

Strain	Mean 3 Tests	Crooks- ton MN	Moor- head MN	Cassel- ton ND	Grandin ND
ND Dickey (0)	17.9	18.0	17.5		18.3
MN1511CN (SCN) (L)	18.4	18.2	18.4		18.6
AG03XF2 (E)	18.1	18.1	17.3		18.8
ND15-22873	18.3	18.3	18.1		18.6
M05-353163HO-12	18.4	18.4	18.3		18.3
M05-363022HO-25	18.9	18.6	18.9		19.1
M07-296048HOLL-18	17.5	17.0	17.8		17.7
M07-296048HOLL-41	17.1	17.5	16.6		17.4
M09-160019HO-10	18.8	18.7	18.8		18.7
M14HO-1330-14001	17.9	17.5	18.3		18.0
M17R-908-1072	17.0	18.4	14.7		17.9
ND17-19726(GT)	18.7	19.0	18.3		18.7
ND18-22422GT	19.2	18.8	19.0		19.7
ND18-25165GT	18.7	18.8	18.5		18.9
ND19-18020(GT)	19.9	19.8	19.7		20.0
ND19-18189(GT)	18.8	18.6	18.8		18.9
ND19-18200(GT)	19.2	19.2	18.7		19.6

UNIFORM TEST 0 TRAITED MATERIAL, 2022

REGIONAL SUMMARY - SEED COMPOSITION (FATTY ACID)

No. of Tests Strain	Palmitic 2 %	Stearic 2 %	Oleic 2 %	Linoleic 2 %	Linolenic 2 %
ND Dickey (0)	10.5	4.7	22.9	53.7	8.2
MN1511CN (SCN) (L)	11.5	4.5	20.7	53.8	9.4
M05-353163HO-12	8.2	4.2	78.0	5.2	4.5
M05-363022HO-25	7.8	4.0	80.0	3.3	4.8
M07-296048HOLL-18	8.3	4.6	76.1	8.1	2.9
M07-296048HOLL-41	7.5	5.0	76.3	6.1	5.1
M09-160019HO-10	7.1	4.0	82.3	3.1	3.5
M14HO-1330-14001	7.0	3.2	81.7	2.8	5.3
Mean	8.5	4.3	64.8	17.0	5.5

UNIFORM TEST 0 TRAITED MATERIAL, 2022

FATTY ACID, PALMITIC (%)

Strain	Mean 2 Tests	Crooks- ton MN	Moor- head MN
ND Dickey (0)	10.5	10.5	10.5
MN1511CN (SCN) (L)	11.5	11.6	11.5
M05-353163HO-12	8.2	8.1	8.2
M05-363022HO-25	7.8	7.6	8.0
M07-296048HOLL-18	8.3	8.3	8.3
M07-296048HOLL-41	7.5	7.6	7.5
M09-160019HO-10	7.1	7.2	7.0
M14HO-1330-14001	7.0	7.0	6.9

UNIFORM TEST 0 TRAITED MATERIAL, 2022

FATTY ACID, STEARIC (%)

Strain	Mean 2 Tests	Crooks- ton MN	Moor- head MN
ND Dickey (0)	4.7	5.2	4.1
MN1511CN (SCN) (L)	4.5	4.7	4.4
M05-353163HO-12	4.2	4.6	3.8
M05-363022HO-25	4.0	4.2	3.8
M07-296048HOLL-18	4.6	4.7	4.5
M07-296048HOLL-41	5.0	5.0	5.1
M09-160019HO-10	4.0	4.4	3.5
M14HO-1330-14001	3.2	3.6	2.8

UNIFORM TEST 0 TRAITED MATERIAL, 2022**FATTY ACID, OLEIC (%)**

Strain	Mean 2 Tests	Crooks- ton MN	Moor- head MN
ND Dickey (0)	22.9	23.6	22.1
MN1511CN (SCN) (L)	20.7	20.9	20.6
M05-353163HO-12	78.0	77.6	78.4
M05-363022HO-25	80.0	79.6	80.5
M07-296048HOLL-18	76.1	76.0	76.1
M07-296048HOLL-41	76.3	76.4	76.2
M09-160019HO-10	82.3	82.4	82.3
M14HO-1330-14001	81.7	81.4	82.1

UNIFORM TEST 0 TRAITED MATERIAL, 2022**FATTY ACID, LINOLEIC (%)**

Strain	Mean 2 Tests	Crooks- ton MN	Moor- head MN
ND Dickey (0)	53.7	52.6	54.8
MN1511CN (SCN) (L)	53.8	53.5	54.0
M05-353163HO-12	5.2	4.9	5.5
M05-363022HO-25	3.3	3.6	3.0
M07-296048HOLL-18	8.1	8.0	8.2
M07-296048HOLL-41	6.1	5.8	6.3
M09-160019HO-10	3.1	2.3	4.0
M14HO-1330-14001	2.8	2.6	3.0

UNIFORM TEST 0 TRAITED MATERIAL, 2022**FATTY ACID, LINOLENIC (%)**

Strain	Mean 2 Tests	Crooks- ton MN	Moor- head MN
ND Dickey (0)	8.2	8.0	8.4
MN1511CN (SCN) (L)	9.4	9.4	9.5
M05-353163HO-12	4.5	4.8	4.2
M05-363022HO-25	4.8	5.0	4.6
M07-296048HOLL-18	2.9	2.9	2.9
M07-296048HOLL-41	5.1	5.2	5.0
M09-160019HO-10	3.5	3.7	3.3
M14HO-1330-14001	5.3	5.4	5.2

**Northern Regional Uniform Test
Uniform Test I, Traited Material, 2022**

Ent.	Strain	Parentage		Seed Source	Previous Testing	Gen. Comp.	Unique Traits
		Female	Male				
1	MN1511CN (SCN) (I)	M06-288181	M06-358188	Lorenz	Initial		SCN
2	U11-917032 (SCN) (L)	LD02-4485	U03-100612	Graef	8	F6	SCN, HR, MR, IDC
3	AG11XF2 (E)			Cai	Initial		RR2, Xtend Flex
4	AG17XF2			Cai	Initial		RR2, Xtend Flex
5	E18169	E16804-1	LD02-4485	Wang	21PTITM-05	F5	HOLLS, SCN, rps
6	E19805N-05	E17801-08	U12-909109R	Wang	Initial	F5	High Oleic
7	M05-363022HO-31	M05-363022(4)	KB13-39#871HO	Lorenz	Initial		HO, SCN
8	M05-363022HO-6	M05-363022	KB13-39#871	Lorenz	21PTITM-10		HO from PR
9	M07-296048HO-4	M07-296048(4) x M05-319034LL	M07-296048(4) x M10-237089HO	Lorenz	Initial		HO, SCN, Rps1a
10	M07-296048HOLL-26	M07-296048(4) x M10-237089HO	M07-296048(4) x M05-319036	Lorenz	Initial		HOLL, Phyto 1c+3a
11	M14-250018	M06-318018	M08-328030	Lorenz	2	F5	Pro, Rps
12	M15-221092	ND10-3464	M07-296048	Lorenz	21PTITM-19	F5	Pro, SCN
13	M16-209042	M08-332003	M09-343023	Lorenz	Initial	F7	Protein
14	M17R-908-1002	[LD10-5213a X M10-218053]	E13912	Lorenz	Initial	F6	Aphid R, SCN, RR
15	M17R-908-1003	[LD10-5213a X M10-218053]	E13912	Lorenz	Initial	F6	Aphid R, SCN, RR
16	M17R-908-1041	[LD10-5213a X M10-218053]	E13912	Lorenz	Initial	F6	Aphid R, SCN, RR
17	M17R-908-1042	[LD10-5213a X M10-218053]	E13912	Lorenz	Initial	F6	Aphid R, SCN, RR
18	MCH14R-501007	M06R-614008	U12-904114R	Lorenz	21PTITM-24	F4	R1, Rps

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code	IDC Score
		Danvers, MN
MN1511CN (SCN) (I)	PGBDYBfI	2.5
U11-917032 (SCN) (L)	PTBDYBI	4.0
AG11XF2 (E)	PLtTDYBrI	3.3
AG17XF2	PLtBDYBI	3.3
E18169	PGBDYIbI	3.8
E19805N-05	WTBDYBD	4.0
M05-363022HO-31	P+WGTDYIYI	2.8
M05-363022HO-6	PGTDYBfI	3.0
M07-296048HO-4	PTTSYIYI	1.8
M07-296048HOLL-26	PT+GBDYHI	3.0
M14-250018	PGBDYIYI	2.5
M15-221092	P+WTTDYIYI	1.8
M16-209042	PTBDYBrI	2.3
M17R-908-1002	WGB+TDYBfI	4.0
M17R-908-1003	P+WGTDYHI	2.5
M17R-908-1041	PGBDYIbI	3.8
M17R-908-1042	PGB+TDYIbI	3.3
MCH14R-501007	P+WTTDYBI	3.3

UNIFORM TEST I TRAITED MATERIAL, 2022

REGIONAL SUMMARY

No. of Tests Strain	Yield	Rank	Maturity	Lodging	Plant	Seed	Seed	<u>Composition</u>	
	8 bu/a	8 No.	6 Date	8 Score	8 In.	7 g/100	7 Score	7 Protein %	7 Oil %
MN1511CN (SCN) (I)	57.8	7	9/11	1.4	33	15.6	1.8	33.7	19.2
U11-917032 (SCN) (L)	61.0	2	5.3	1.9	29	16.5	1.6	33.1	20.1
AG11XF2 (E)	59.6	4	-1.7	1.2	28	16.0	1.5	34.5	18.9
AG17XF2	63.7	1	2.4	1.2	31	16.7	1.4	34.1	19.6
E18169	52.0	13	4.6	1.6	29	16.8	1.7	35.0	19.5
E19805N-05	51.8	15	8.0	1.9	28	16.2	1.4	35.7	19.0
M05-363022HO-31	55.2	12	3.8	1.3	29	17.5	1.6	35.8	19.6
M05-363022HO-6	60.0	3	5.2	1.5	32	16.9	1.4	34.1	20.2
M07-296048HO-4	47.3	17	-1.5	2.0	31	15.9	1.4	36.4	18.6
M07-296048HOLL-26	56.7	9	5.0	1.5	32	19.3	1.9	34.1	19.5
M14-250018	51.8	14	0.9	1.8	28	20.5	1.9	37.5	18.3
M15-221092	50.0	16	-1.2	1.2	26	15.5	1.7	35.7	19.0
M16-209042	46.3	18	-0.7	1.4	32	16.0	1.6	40.6	16.7
M17R-908-1002	56.6	10	1.3	1.6	31	16.3	1.6	34.0	19.1
M17R-908-1003	57.1	8	4.4	1.6	31	18.3	1.5	35.2	18.4
M17R-908-1041	57.9	6	5.1	1.6	31	17.8	1.8	34.0	19.1
M17R-908-1042	57.9	5	3.8	1.6	32	17.3	1.6	33.8	19.3
MCH14R-501007	55.8	11	1.0	1.2	25	16.7	1.5	34.9	19.0
Mean	55.5			1.5	30.0	17.0	1.6	35.1	19.1
C.V. (%)	14.5								
L.S.D. (5%)	4.5								

118.8 Days After Planting

UNIFORM TEST I TRAITED MATERIAL, 2022**2021-2022 2-YEAR MEAN**

No. of Tests Strain	Yield bu/a	Rank No.	Maturity Date	Lodging Score	Plant Height In.	Seed Size g/100	Seed Quality Score	<u>Composition</u>	
								Protein %	Oil %
U11-917032 (SCN) (L)	61.1	1	9/15	2.1	31	16.0	1.5	32.9	20.0
M14-250018	50.6	2	-4.7	1.9	29	20.0	1.9	37.0	18.4

123.2 Days After Planting

2020-2022 3-YEAR MEAN

No. of Tests Strain	23	23	21	22	22	21	19	21	21
U11-917032 (SCN) (L)	60.4	1	9/16	2.1	32	15.4	1.4	33.3	19.7
M14-250018	50.9	2	-4.8	2.0	31	19.7	1.9	37.0	18.3

122.1 Days After Planting

UNIFORM TEST I TRAITED MATERIAL, 2022

YIELD (bu/a)

Strain	Mean 8 Tests	Ames IA	Wanatah IN	West Lafayette IN	East Lansing MI	Saginaw MI	Lamber- ton MN	Waseca MN	West- brook MN
MN1511CN (SCN) (I)	57.8	61.9	63.5	31.9	32.4	54.3	64.3	76.0	78.2
U11-917032 (SCN) (L)	61.0	70.1	66.2	48.3	39.1	46.0	67.1	89.7	61.4
AG11XF2 (E)	59.6	66.6	71.2	40.3	30.7	42.3	70.2	76.4	78.9
AG17XF2	63.7	75.0	69.3	46.8	32.6	49.2	67.7	87.9	81.4
E18169	52.0	59.2	62.9	39.0	36.1	36.5	57.5	68.0	57.0
E19805N-05	51.8	52.6	60.4	40.6	32.9	38.0	64.6	68.3	57.3
M05-363022HO-31	55.2	58.6	66.0	34.1	30.1	45.9	66.2	71.2	69.4
M05-363022HO-6	60.0	66.1	68.2	37.9	35.5	53.1	71.6	79.0	68.3
M07-296048HO-4	47.3	45.9	55.0	27.0	25.8	46.4	57.7	60.8	59.7
M07-296048HOLL-26	56.7	73.5	66.4	37.7	29.9	34.7	68.1	80.0	63.1
M14-250018	51.8	60.5	61.9	31.4	24.4	36.5	67.6	68.5	63.9
M15-221092	50.0	52.9	59.3	33.3	27.9	33.5	64.7	73.3	54.9
M16-209042	46.3	52.0	53.7	27.4	30.7	31.9	60.2	63.1	51.6
M17R-908-1002	56.6	63.2	62.6	34.9	34.5	36.5	67.5	76.5	77.4
M17R-908-1003	57.1	73.0	62.5	36.0	34.3	43.2	70.4	69.7	68.0
M17R-908-1041	57.9	64.3	62.7	45.7	31.2	50.7	59.4	73.6	75.4
M17R-908-1042	57.9	64.5	63.5	43.6	28.4	48.6	65.6	77.5	71.2
MCH14R-501007	55.8	64.8	69.1	33.7	29.1	35.6	70.8	81.7	61.7
Location Mean		62.5	63.6	37.2	31.4	42.4	65.6	74.5	66.6
C.V. (%)		6.1	5.1	7.9	7.2	12.3	9.1	11.2	14.1
L.S.D. (5%)		6.3	6.8	6.2	3.9	11.0	9.9	13.8	15.2
Row sp. (In.)		30	30	30	15	15	30	30	30
Rows/Plot		4	4	4	6	6	4	4	4
Reps		3	2	2	2	2	3	3	3

UNIFORM TEST I TRAITED MATERIAL, 2022

YIELD RANK

Strain	Yield Rank	Ames IA	Wanatah IN	West Lafayette IN	East Lansing MI	Saginaw MI	Lamberton MN	Waseca MN	Westbrook MN
MN1511CN (SCN) (I)	7	11	8	15	8	1	14	9	3
U11-917032 (SCN) (L)	2	4	6	1	1	7	9	1	13
AG11XF2 (E)	4	5	1	6	11	10	4	8	2
AG17XF2	1	1	2	2	7	4	6	2	1
E18169	13	13	10	7	2	14	18	16	16
E19805N-05	15	16	15	5	6	11	13	15	15
M05-363022HO-31	12	14	7	12	12	8	10	12	7
M05-363022HO-6	3	6	4	8	3	2	1	5	8
M07-296048HO-4	17	18	17	18	17	6	17	18	14
M07-296048HOLL-26	9	2	5	9	13	16	5	4	11
M14-250018	14	12	14	16	18	13	7	14	10
M15-221092	16	15	16	14	16	17	12	11	17
M16-209042	18	17	18	17	10	18	15	17	18
M17R-908-1002	10	10	12	11	4	12	8	7	4
M17R-908-1003	8	3	13	10	5	9	3	13	9
M17R-908-1041	6	9	11	3	9	3	16	10	5
M17R-908-1042	5	8	8	4	15	5	11	6	6
MCH14R-501007	11	7	3	13	14	15	2	3	12

UNIFORM TEST I TRAITED MATERIAL, 2022

MATURITY (date)

Strain	Mean 6 Tests	Ames IA	Wanatah IN	West Lafayette IN	East Lansing MI	Saginaw MI	Lamberton MN	Waseca MN	Westbrook MN
MN1511CN (SCN) (I)	9/11	9/16	9/5	9/6	9/8	9/11		9/21	
U11-917032 (SCN) (L)	5	9	5	4	5	3		6	
AG11XF2 (E)	-2	1	0	-4	-4	-2		-2	
AG17XF2	2	5	2	3	4	-1		2	
E18169	5	5	4	2	6	5		5	
E19805N-05	8	11	9	9	7	7		6	
M05-363022HO-31	4	7	5	6	0	2		3	
M05-363022HO-6	5	3	7	7	5	6		5	
M07-296048HO-4	-1	1	-2	-3	-1	-3		-2	
M07-296048HOLL-26	5	10	5	7	5	2		3	
M14-250018	1	2	3	1	-1	1		0	
M15-221092	-1	4	-1	-4	-3	-2		-2	
M16-209042	-1	3	-2	-3	-1	-1		-0	
M17R-908-1002	1	4	2	-1	-1	1		3	
M17R-908-1003	4	8	7	3	2	4		3	
M17R-908-1041	5	7	7	4	5	2		6	
M17R-908-1042	4	7	4	2	2	2		6	
MCH14R-501007	1	1	2	1	0	2		1	
Date Planted	5/15	5/23	5/17	5/12	5/14	5/10		5/16	
Days to Mature	119	116	111	117	117	124		128	

UNIFORM TEST I TRAITED MATERIAL, 2022

LODGING (score)

Strain	Mean 8 Tests	Ames IA	Wanatah IN	West Lafayette IN	East Lansing MI	Saginaw MI	Lamber- ton MN	Waseca MN	West- brook MN
MN1511CN (SCN) (I)	1.4	1.0	1.5	1.5	1.5	1.0	1.7	2.0	1.0
U11-917032 (SCN) (L)	1.9	1.0	2.0	2.0	2.0	1.5	2.0	2.0	3.0
AG11XF2 (E)	1.2	1.0	1.5	1.0	1.0	1.0	1.0	2.0	1.0
AG17XF2	1.2	1.0	1.0	1.0	1.0	1.0	1.3	2.0	1.0
E18169	1.6	1.0	1.5	1.0	1.5	1.0	2.0	2.7	2.0
E19805N-05	1.9	1.0	3.0	1.5	1.5	1.0	2.7	2.0	2.3
M05-363022HO-31	1.3	1.0	1.0	1.5	1.0	1.0	1.3	2.0	1.7
M05-363022HO-6	1.5	1.0	2.0	1.0	1.0	1.0	2.0	2.0	2.3
M07-296048HO-4	2.0	1.0	4.0	1.0	1.0	1.0	2.3	2.7	3.0
M07-296048HOLL-26	1.5	1.0	2.5	1.0	1.0	1.0	2.0	2.0	1.7
M14-250018	1.8	1.0	3.0	1.0	1.0	1.0	2.3	2.7	2.0
M15-221092	1.2	1.0	1.0	1.0	1.0	1.0	1.3	2.0	1.3
M16-209042	1.4	1.0	1.5	1.0	1.0	1.0	2.0	2.0	1.3
M17R-908-1002	1.6	1.0	1.5	1.0	1.5	1.0	2.0	2.7	2.0
M17R-908-1003	1.6	1.0	2.0	1.0	1.0	1.0	2.0	2.3	2.3
M17R-908-1041	1.6	1.0	1.5	1.0	1.0	1.0	1.7	3.0	2.3
M17R-908-1042	1.6	1.0	2.0	1.0	1.0	1.0	2.0	2.7	2.0
MCH14R-501007	1.2	1.0	1.0	1.0	1.0	1.0	1.3	2.0	1.0

UNIFORM TEST I TRAITED MATERIAL, 2022

PLANT HEIGHT (inches)

Strain	Mean 8 Tests	Ames IA	Wanatah IN	West Lafayette IN	East Lansing MI	Saginaw MI	Lamber- ton MN	Waseca MN	West- brook MN
MN1511CN (SCN) (I)	33	29	38	28	22	28	42	38	41
U11-917032 (SCN) (L)	29	29	36	27	22	25	33	32	32
AG11XF2 (E)	28	27	35	26	21	21	31	31	33
AG17XF2	31	31	36	27	24	24	37	36	36
E18169	29	26	36	26	21	26	35	30	32
E19805N-05	28	24	33	24	20	26	34	30	33
M05-363022HO-31	29	28	38	24	20	27	35	32	32
M05-363022HO-6	32	32	38	27	22	28	38	35	37
M07-296048HO-4	31	30	40	25	19	30	37	36	36
M07-296048HOLL-26	32	34	43	28	23	17	38	34	37
M14-250018	28	26	37	24	19	17	35	32	35
M15-221092	26	26	32	24	19	19	29	31	28
M16-209042	32	30	39	26	20	29	38	36	40
M17R-908-1002	31	29	38	26	21	22	39	34	38
M17R-908-1003	31	29	39	26	21	28	36	34	37
M17R-908-1041	31	30	38	27	20	25	37	35	42
M17R-908-1042	32	30	39	26	23	28	37	33	39
MCH14R-501007	25	26	33	22	15	19	31	29	28

UNIFORM TEST I TRAITED MATERIAL, 2022

SEED SIZE (g/100)

Strain	Mean 7 Tests	Ames IA	Wanatah IN	West Lafayette IN	East Lansing MI	Saginaw MI	Lamber- ton MN	Waseca MN	West- brook MN
MN1511CN (SCN) (I)	15.6	14.4	16.2	16.5	13.8		16.5	15.9	15.9
U11-917032 (SCN) (L)	16.5	16.9	17.0	16.7	13.8		17.0	18.2	16.0
AG11XF2 (E)	16.0	15.0	16.1	16.9	13.1		16.7	16.4	17.5
AG17XF2	16.7	15.6	16.3	16.5	14.7		17.9	18.3	17.7
E18169	16.8	15.6	16.6	16.9	15.5		18.4	18.0	17.0
E19805N-05	16.2	16.0	15.8	17.3	13.4		17.5	17.1	16.7
M05-363022HO-31	17.5	16.6	17.9	18.5	14.9		18.8	17.9	17.7
M05-363022HO-6	16.9	16.6	17.3	16.5	14.1		18.3	17.8	18.0
M07-296048HO-4	15.9	14.3	17.6	16.0	14.1		16.8	17.3	15.5
M07-296048HOLL-26	19.3	19.3	19.5	19.0	16.9		21.4	19.7	19.6
M14-250018	20.5	19.0	21.7	20.7	17.1		22.1	22.6	20.6
M15-221092	15.5	15.1	15.9	15.3	12.4		16.8	16.9	16.4
M16-209042	16.0	15.2	16.8	16.2	13.9		16.9	17.2	15.8
M17R-908-1002	16.3	17.0	17.0	16.2	13.3		17.3	16.8	16.9
M17R-908-1003	18.3	17.9	18.7	18.3	15.5		19.2	18.8	20.0
M17R-908-1041	17.8	17.6	18.1	18.0	15.0		19.6	18.7	17.7
M17R-908-1042	17.3	15.3	17.6	17.3	13.8		19.2	19.0	18.9
MCH14R-501007	16.7	14.9	15.9	16.6	14.4		19.2	18.0	18.0

UNIFORM TEST I TRAITED MATERIAL, 2022

SEED QUALITY (score)

Strain	Mean 7 Tests	Ames IA	Wanatah IN	West Lafayette IN	East Lansing MI	Saginaw MI	Lamber- ton MN	Waseca MN	West- brook MN
MN1511CN (SCN) (I)	1.8	2.0	1.0	1.5	5.0		1.0	1.0	1.0
U11-917032 (SCN) (L)	1.6	2.0	1.0	1.0	4.0		1.0	1.0	1.0
AG11XF2 (E)	1.5	2.0	1.0	1.0	3.5		1.0	1.0	1.0
AG17XF2	1.4	2.0	1.0	1.0	3.0		1.0	1.0	1.0
E18169	1.7	2.0	1.0	1.0	3.0		2.0	2.0	1.0
E19805N-05	1.4	2.0	1.0	1.0	3.0		1.0	1.0	1.0
M05-363022HO-31	1.6	1.3	1.0	1.0	4.0		1.0	1.0	2.0
M05-363022HO-6	1.4	1.7	1.0	1.0	3.0		1.0	1.0	1.0
M07-296048HO-4	1.4	1.3	1.0	1.0	3.5		1.0	1.0	1.0
M07-296048HOLL-26	1.9	2.0	1.0	2.0	5.0		1.0	1.0	1.0
M14-250018	1.9	2.0	1.0	1.0	4.5		2.0	2.0	1.0
M15-221092	1.7	1.7	1.0	1.0	5.0		1.0	1.0	1.0
M16-209042	1.6	1.7	1.0	1.0	4.5		1.0	1.0	1.0
M17R-908-1002	1.6	2.0	1.0	1.0	4.0		1.0	1.0	1.0
M17R-908-1003	1.5	2.0	1.0	1.0	3.5		1.0	1.0	1.0
M17R-908-1041	1.8	3.3	1.0	1.0	3.0		2.0	1.0	1.0
M17R-908-1042	1.6	2.0	1.0	1.0	3.0		1.0	1.0	2.0
MCH14R-501007	1.5	1.5	1.0	1.0	4.0		1.0	1.0	1.0

UNIFORM TEST I TRAITED MATERIAL, 2022

PROTEIN (%)

Strain	Mean 7 Tests	Ames IA	Wanatah IN	West Lafayette IN	East Lansing MI	Saginaw MI	Lamber- ton MN	Waseca MN	West- brook MN
MN1511CN (SCN) (I)	33.7	33.0	35.1	35.6	31.9		34.3	32.6	33.6
U11-917032 (SCN) (L)	33.1	33.0	34.9	32.3	31.6		34.0	33.3	32.9
AG11XF2 (E)	34.5	32.9	35.2	36.6	34.0		34.6	33.6	34.9
AG17XF2	34.1	33.5	34.6	34.0	32.3		34.3	34.7	35.1
E18169	35.0	34.7	35.8	35.0	33.7		34.7	35.7	35.3
E19805N-05	35.7	34.7	36.2	37.0	34.1		35.5	35.6	36.9
M05-363022HO-31	35.8	35.6	36.6	35.6	34.4		36.7	35.4	36.2
M05-363022HO-6	34.1	33.6	35.5	33.5	32.8		34.4	33.8	35.6
M07-296048HO-4	36.4	34.9	37.7	36.4	35.5		36.7	36.5	37.4
M07-296048HOLL-26	34.1	34.3	35.9	34.6	32.9		33.7	32.8	34.3
M14-250018	37.5	37.8	38.6	37.5	36.0		38.0	37.7	36.9
M15-221092	35.7	35.8	37.7	35.8	35.7		37.2	30.4	37.5
M16-209042	40.6	39.9	41.9	40.9	39.5		41.2	40.4	40.6
M17R-908-1002	34.0	34.1	34.9	33.7	32.0		34.9	33.6	34.4
M17R-908-1003	35.2	35.3	35.5	35.8	33.3		36.3	34.6	36.0
M17R-908-1041	34.0	35.0	34.6	34.2	33.3		33.1	34.0	33.8
M17R-908-1042	33.8	34.3	34.3	33.0	32.8		34.0	32.6	35.4
MCH14R-501007	34.9	33.6	35.7	35.3	34.3		34.5	35.0	35.9

UNIFORM TEST I TRAITED MATERIAL, 2022

OIL (%)

Strain	Mean 7 Tests	Ames IA	Wanatah IN	West Lafayette IN	East Lansing MI	Saginaw MI	Lamber- ton MN	Waseca MN	West- brook MN
MN1511CN (SCN) (I)	19.2	19.5	19.0	18.7	20.0		19.0	19.2	19.1
U11-917032 (SCN) (L)	20.1	19.9	19.6	21.0	20.9		19.7	19.6	19.7
AG11XF2 (E)	18.9	19.9	19.3	16.9	19.6		18.8	19.0	18.6
AG17XF2	19.6	19.7	19.8	20.0	20.5		19.4	18.8	18.7
E18169	19.5	19.2	19.3	20.5	20.5		19.3	18.5	19.1
E19805N-05	19.0	19.4	19.1	19.0	19.9		18.9	18.8	18.1
M05-363022HO-31	19.6	20.4	19.3	19.9	20.4		19.2	19.5	18.8
M05-363022HO-6	20.2	20.3	20.0	20.9	20.7		19.8	19.9	19.8
M07-296048HO-4	18.6	19.6	18.6	19.1	19.0		18.2	18.0	17.7
M07-296048HOLL-26	19.5	19.5	19.2	19.6	20.3		19.3	19.6	19.2
M14-250018	18.3	18.3	18.2	18.6	19.1		18.0	17.6	18.0
M15-221092	19.0	18.3	18.2	19.2	18.8		18.2	22.3	17.8
M16-209042	16.7	17.3	16.4	17.2	17.5		16.4	16.5	15.7
M17R-908-1002	19.1	18.8	19.4	19.7	19.8		18.6	18.8	18.9
M17R-908-1003	18.4	18.0	18.9	18.3	19.0		18.8	18.5	17.3
M17R-908-1041	19.1	18.5	19.3	19.3	19.6		19.0	18.5	19.2
M17R-908-1042	19.3	19.2	19.5	19.9	19.6		19.0	19.2	18.5
MCH14R-501007	19.0	19.5	19.0	19.2	19.5		18.5	18.6	18.5

UNIFORM TEST I TRAITED MATERIAL, 2022
REGIONAL SUMMARY - SEED COMPOSITION (FATTY ACID)

No. of Tests Strain	Palmitic 7 %	Stearic 7 %	Oleic 7 %	Linoleic 7 %	Linolenic 7 %
MN1511CN (SCN) (I)	11.3	4.2	21.6	54.8	8.1
U11-917032 (SCN) (L)	10.9	4.3	21.8	54.6	8.5
E18169	4.4	4.1	81.5	6.4	3.6
E19805N-05	5.1	3.8	79.6	9.5	2.1
M05-363022HO-31	6.9	3.7	82.6	2.5	4.2
M05-363022HO-6	7.0	3.8	83.0	2.4	3.8
M07-296048HO-4	7.4	4.3	79.4	3.8	5.1
M07-296048HOLL-26	10.5	4.0	22.0	55.7	7.8
Mean	7.9	4.0	58.9	23.7	5.4

UNIFORM TEST I TRAITED MATERIAL, 2022

FATTY ACID, PALMITIC (%)

Strain	Mean 7 Tests	Ames IA	Wanatah IN	West Lafayette IN	East Lansing MI	Lamber- ton MN	Waseca MN	West- brook MN
MN1511CN (SCN) (I)	11.3	11.6	10.8	10.7	11.5	11.6	11.9	11.1
U11-917032 (SCN) (L)	10.9	11.4	10.9	10.7	10.3	10.2	11.4	11.2
E18169	4.4	4.1	4.3	4.2	4.8	3.9	4.8	4.5
E19805N-05	5.1	5.2	4.9	4.9	4.8	6.2	5.1	4.8
M05-363022HO-31	6.9	6.9	6.9	6.6	6.6	7.1	7.1	7.3
M05-363022HO-6	7.0	7.0	7.1	7.0	6.5	7.1	7.0	7.1
M07-296048HO-4	7.4	7.5	7.0	7.0	7.2	7.8	8.0	7.4
M07-296048HOLL-26	10.5	10.8	10.4	9.9	10.4	10.9	10.5	10.5

UNIFORM TEST I TRAITED MATERIAL, 2022

FATTY ACID, STEARIC (%)

Strain	Mean 7 Tests	Ames IA	Wanatah IN	West Lafayette IN	East Lansing MI	Lamber- ton MN	Waseca MN	West- brook MN
MN1511CN (SCN) (I)	4.2	3.9	4.6	4.4	4.1	4.4	3.8	4.0
U11-917032 (SCN) (L)	4.3	3.9	4.7	4.3	4.3	4.3	4.0	4.5
E18169	4.1	3.6	4.6	3.9	4.1	4.4	3.9	4.3
E19805N-05	3.8	3.4	4.2	3.7	3.6	4.3	3.3	3.9
M05-363022HO-31	3.7	3.4	3.8	3.6	3.6	3.9	3.6	4.1
M05-363022HO-6	3.8	3.5	4.0	4.0	3.8	4.1	3.4	3.9
M07-296048HO-4	4.3	3.8	4.8	3.9	4.3	4.7	3.9	4.9
M07-296048HOLL-26	4.0	3.6	4.2	4.1	4.1	4.0	3.7	4.3

UNIFORM TEST I TRAITED MATERIAL, 2022

FATTY ACID, OLEIC (%)

Strain	Mean 7 Tests	Ames IA	Wanatah IN	West Lafayette IN	East Lansing MI	Lamber- ton MN	Waseca MN	West- brook MN
MN1511CN (SCN) (I)	21.6	20.5	23.3	22.5	20.2	21.9	20.4	22.2
U11-917032 (SCN) (L)	21.8	18.7	20.5	21.6	21.3	29.4	20.3	20.7
E18169	81.5	83.5	80.9	83.8	80.5	82.1	81.1	78.5
E19805N-05	79.6	81.2	81.6	83.7	81.8	67.5	81.2	80.2
M05-363022HO-31	82.6	83.0	83.1	83.5	82.5	81.1	83.5	81.8
M05-363022HO-6	83.0	82.3	84.6	84.9	83.2	82.1	82.2	81.9
M07-296048HO-4	79.4	80.3	80.0	81.2	79.4	78.5	78.1	78.2
M07-296048HOLL-26	22.0	21.0	23.0	22.4	21.4	21.5	21.3	23.3

UNIFORM TEST I TRAITED MATERIAL, 2022

FATTY ACID, LINOLEIC (%)

Strain	Mean 7 Tests	Ames IA	Wanatah IN	West Lafayette IN	East Lansing MI	Lamber- ton MN	Waseca MN	West- brook MN
MN1511CN (SCN) (I)	54.8	55.5	54.4	55.0	55.9	53.8	54.8	54.1
U11-917032 (SCN) (L)	54.6	56.8	55.7	55.4	56.0	48.1	55.3	54.8
E18169	6.4	5.1	6.5	5.0	7.1	5.8	6.4	8.6
E19805N-05	9.5	8.4	7.5	6.1	8.0	18.6	8.6	9.1
M05-363022HO-31	2.5	2.4	2.0	2.2	2.6	3.8	1.9	2.6
M05-363022HO-6	2.4	3.2	0.3	0.2	2.9	2.9	3.7	3.2
M07-296048HO-4	3.8	3.4	3.4	3.7	3.9	3.9	4.3	3.9
M07-296048HOLL-26	55.7	56.4	55.1	56.0	56.4	55.7	56.2	54.1

UNIFORM TEST I TRAITED MATERIAL, 2022

FATTY ACID, LINOLENIC (%)

Strain	Mean 7 Tests	Ames IA	Wanatah IN	West Lafayette IN	East Lansing MI	Lamber- ton MN	Waseca MN	West- brook MN
MN1511CN (SCN) (I)	8.1	8.4	6.9	7.4	8.2	8.2	9.1	8.6
U11-917032 (SCN) (L)	8.5	9.2	8.2	8.0	8.0	8.0	9.0	8.8
E18169	3.6	3.8	3.7	3.0	3.4	3.8	3.8	4.1
E19805N-05	2.1	1.8	1.8	1.6	1.8	3.5	1.8	2.1
M05-363022HO-31	4.2	4.3	4.3	4.1	4.7	4.1	4.0	4.2
M05-363022HO-6	3.8	4.0	4.1	3.8	3.6	3.9	3.7	4.0
M07-296048HO-4	5.1	5.0	4.8	4.2	5.2	5.2	5.8	5.7
M07-296048HOLL-26	7.8	8.1	7.4	7.6	7.7	7.8	8.3	7.8

**Northern Regional Uniform Test
Uniform Test II, Traited Material, 2022**

Ent.	Strain	Parentage		Seed Source	Previous Testing	Gen. Comp.	Unique Traits
		Female	Male				
1	IA2102 (II)	A04-545045	AgriPro 98180-A01-0613	Cai	10	F4	
2	U14-910097 (L)	U09-105007	LD07-3419	Graef	4	F6	SCN, HR, MR, IDC
3	AG17XF2 (E)			Cai	Initial		RR2, Xtend Flex
4	AG25XF1			Cai	Initial		RR2, Xtend Flex
5	A14017-111	IA1027HO	IA2102	Singh	1		FA
6	A14017-166	IA1027HO	IA2102	Singh	1		FA
7	A14019-28	IA1026HO	IA2104HS	Singh	1		Sugar
8	A14019-35	IA1026HO	IA2104HS	Singh	UTITM-06		sugar
9	A14019-141	IA1026HO	IA2104HS	Singh	UTIIITM-05		Sugar
10	A14056-75	IA1026HO/IA2104HS	IA2102	Singh	1		FA
11	A14058-20	IA2104HS/IA2106HO	IA2102	Singh	UTITM-07		Prot
12	A14058-33	IA2104HS/IA2106HO	IA2102	Singh	UTITM-08		sugar
13	A14058-96	IA2104HS/IA2106HO	IA2102	Singh	1		sugar
14	A14061-177	IA1026HO/IA3051HS	IA2102	Singh	1		sugar
15	A14062-101	IA2106HO/IA3051HS	IA2102	Singh	1		sugar
16	A14062-182	IA2106HO/IA3051HS	IA2102	Singh	1		sugar
17	A14068-20	IA1026/IA3027LF	IA3050	Singh	21UTIIA-13		high prot, yhil
18	A14068-146	IA1026/IA3027LF	IA3050	Singh	21UTIIB-08		high prot, yhil
19	E17808-1	LD02-4485	E13906 x E13816	Wang	21UTITM-10	F5	HOLL, low saturated
20	E18331-34	E16854	E12076T	Wang	21PTIITM-05	F5	HOLLS, SCN, rps
21	E18610T	IA2102	E11128T	Wang	1	F5	SCN, Rps1, Pro
22	E19056	E16826	E14077	Wang	21PTIITM-07	F5	HOLLS, SCN, rps
23	E19269	E15917	E13100	Wang	21PTIITM-09	F5	SCN, rps, high protein
24	E19312T	E16902	E11128T	Wang	21PTIITM-10	F5	SCN, rps, high protein
25	E19323T	E16902	E11128T	Wang	21PTIITM-06	F5	SCN, rps, high protein
26	E19327T	E16902	E11128T	Wang	21PTIITM-11	F5	SCN, rps, high protein
27	E19495GT	U06-814223R	E13100	Wang	21PTIITM-12	F5	RR, SCN, rps
28	E19497GT	U06-814223R	E13100	Wang	21PTIITM-07	F5	RR, SCN, rps
29	E19517GT	U12-909109R	E12076T	Wang	21PTIITM-13	F5	RR, SCN, rps
30	HM17-06108	M09-W158	M10-W111	McHale	1	F4	High Oil, Rps
31	HM18-28068	HM11-W192	H09-4	McHale	21PTIITM-16	F4	High protein meal, rps

UNIFORM TEST II TRAITED MATERIAL, 2022

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code
IA2102 (II)	WGTDYYI
U14-910097 (SCN) (L)	PGTDYBfi
AG17XF2 (E)	PLtBDYBI
AG25XF1	PGTDYGI
A14017-111	WGBDYYI
A14017-166	WGTDYYI
A14019-28	WTTDYYI
A14019-35	PTB+TSYYI
A14019-141	PTB+TSYYI
A14056-75	WT+GTDYYI
A14058-20	WGTDYYI
A14058-33	PLtTDYYI
A14058-96	WTTSYII
A14061-177	PGB+TDYYI
A14062-101	PGTSYYI
A14062-182	WGTDYYI
A14068-20	WLtTDYYI
A14068-146	PLtTDYYI
E17808-1	PTB+TSYBrI
E18331-34	WGTDYYD
E18610T	WGTDYYI
E19056	PT+LtTDYBI
E19269	WGTDYHI
E19312T	PGTDYYI
E19323T	PGTDYYI
E19327T	PGTDYYI
E19495GT	WTB+TDYGI
E19497GT	WTBDYGI
E19517GT	WT+GTDYHD
HM17-06108	P+WGBSYII
HM18-28068	P+WTBSYBI

UNIFORM TEST II TRAITED MATERIAL, 2022

REGIONAL SUMMARY

No. of Tests Strain	Yield	Rank	Maturity	Lodging	Plant	Seed	Seed	<u>Composition</u>	
	7 bu/a	7 No.	6 Date	7 Score	7 In.	6 g/100	6 Score	6 Protein %	6 Oil %
IA2102 (II)	57.4	15	9/16	1.9	33	16.2	1.9	34.0	19.3
U14-910097 (SCN) (L)	69.9	1	5.4	1.8	31	16.3	2.0	32.3	20.6
AG17XF2 (E)	55.7	20	-4.4	1.1	29	16.0	1.7	33.8	19.9
AG25XF1	59.7	7	2.0	1.1	32	17.2	1.2	34.6	19.2
A14017-111	60.6	4	3.6	1.5	30	15.2	1.5	35.8	19.5
A14017-166	60.1	6	6.8	1.6	32	14.5	1.3	35.6	19.5
A14019-28	53.7	28	2.3	1.2	29	21.3	2.0	37.3	18.9
A14019-35	52.2	30	-1.5	1.0	29	16.5	1.4	35.9	19.9
A14019-141	57.1	18	5.4	1.4	31	17.6	1.9	36.4	18.8
A14056-75	58.1	13	1.9	1.0	33	16.2	1.5	36.9	19.4
A14058-20	58.9	11	-0.7	1.7	31	15.4	1.7	36.8	18.7
A14058-33	59.0	10	-0.2	1.1	30	17.3	1.6	35.3	19.7
A14058-96	56.2	19	1.8	1.4	33	15.6	1.8	35.4	19.8
A14061-177	59.0	9	3.0	1.6	34	20.1	1.8	35.7	19.0
A14062-101	60.9	2	2.2	1.7	30	17.1	1.8	35.1	18.7
A14062-182	54.2	25	2.5	1.3	32	18.8	1.6	34.5	19.8
A14068-20	57.2	16	1.8	1.3	31	16.7	1.8	36.0	18.6
A14068-146	55.0	23	5.1	1.2	32	20.0	2.3	35.9	18.2
E17808-1	48.6	31	-2.1	1.5	33	16.0	1.8	35.7	19.4
E18331-34	53.7	27	3.4	1.3	26	14.9	2.1	35.7	18.5
E18610T	59.7	8	1.5	1.8	32	18.8	2.0	35.7	18.6
E19056	57.7	14	2.0	2.3	36	16.9	1.7	34.7	19.0
E19269	57.1	17	9.9	1.8	35	18.8	1.9	36.0	18.3
E19312T	58.5	12	0.9	1.3	33	18.0	1.7	35.6	18.9
E19323T	55.6	21	-1.5	1.5	31	19.7	2.3	35.2	18.9
E19327T	53.9	26	-2.2	1.4	29	20.1	2.1	35.2	19.1
E19495GT	60.1	5	3.6	1.8	32	16.8	1.9	33.3	20.1
E19497GT	54.7	24	-0.7	1.3	29	16.1	2.2	33.3	20.6
E19517GT	55.2	22	5.6	1.8	33	13.4	2.1	32.8	20.1
HM17-06108	60.7	3	4.1	1.7	35	18.5	1.8	33.8	20.3
HM18-28068	53.2	29	6.6	2.3	42	18.2	1.8	39.1	17.3
Mean	57.2			1.5	31.9	17.2	1.8	35.3	19.2
C.V. (%)	9.6								
L.S.D. (5%)	3.3								

123.7 Days After Planting

UNIFORM TEST II TRAITED MATERIAL, 2022

2021-2022 2-YEAR MEAN

No. of Tests Strain	Yield	Rank	Maturity	Lodging	Plant	Seed	Seed	<u>Composition</u>	
	15 bu/a	15 No.	14 Date	13 Score	Height 13 In.	Size 13 g/100	Quality 12 Score	Protein 13 %	Oil 13 %
IA2102 (II)	58.8	8	9/15	2.0	32	15.9	1.8	34.3	19.3
U14-910097 (SCN) (L)	71.7	1	6.0	1.8	31	15.5	1.6	32.7	20.6
A14017-111	60.9	4	3.5	1.4	28	14.7	1.3	35.9	19.8
A14017-166	60.8	5	5.7	1.5	30	13.7	1.3	35.8	19.8
A14019-28	54.7	12	1.4	1.1	28	20.6	1.7	36.9	19.3
A14056-75	56.9	10	2.1	1.0	31	15.5	1.5	36.8	19.2
A14058-96	57.0	9	1.4	1.3	32	14.8	1.6	35.6	19.9
A14061-177	59.0	7	3.1	1.6	32	19.0	1.7	35.5	19.4
A14062-101	61.6	2	1.3	1.6	29	16.0	1.6	34.9	19.1
A14062-182	56.7	11	2.6	1.4	31	17.8	1.5	34.6	19.9
E18610T	60.3	6	1.5	2.1	31	18.3	1.9	35.9	18.7
HM17-06108	61.6	3	4.9	1.7	34	17.5	1.7	33.9	20.5

122.0 Days After Planting

UNIFORM TEST II TRAITED MATERIAL, 2022

YIELD (bu/a)

Strain	Mean	Ames IA	Urbana IL	Wanatah IN	West	Britton MI	East	Wooster OH
	7 Tests				Lafayette IN		Lansing MI	
IA2102 (II)	57.4	65.5	60.2	68.8	61.8	71.6	37.2	37.0
U14-910097 (SCN) (L)	69.9	78.3	79.8	79.5	66.6	84.0	54.7	46.5
AG17XF2 (E)	55.7	63.5	62.7	68.7	51.0	76.0	36.2	31.8
AG25XF1	59.7	70.4	68.3	69.4	62.2	70.9	41.2	35.5
A14017-111	60.6	67.9	64.9	72.3	59.2	69.4	50.4	40.4
A14017-166	60.1	71.3	65.1	70.7	59.5	69.9	47.8	36.2
A14019-28	53.7	61.8	61.0	66.4	50.7	66.3	43.7	26.0
A14019-35	52.2	64.2	53.7	59.2	50.7	65.9	41.1	30.9
A14019-141	57.1	70.0	58.4	66.8	57.6	68.7	46.7	31.3
A14056-75	58.1	71.2	57.4	63.9	51.4	66.2	51.8	44.9
A14058-20	58.9	63.1	61.4	72.4	60.3	73.7	43.9	37.3
A14058-33	59.0	75.2	64.0	63.3	53.0	67.2	49.5	40.5
A14058-96	56.2	55.5	60.7	66.4	62.1	65.0	43.7	40.2
A14061-177	59.0	75.5	59.6	68.5	57.7	64.2	45.2	42.1
A14062-101	60.9	70.0	68.9	72.4	58.7	68.6	47.4	40.5
A14062-182	54.2	59.1	64.6	66.2	52.4	65.2	44.7	27.1
A14068-20	57.2	75.6	61.6	63.6	48.6	68.4	42.7	40.0
A14068-146	55.0	64.9	61.5	61.9	46.7	60.4	44.5	45.1
E17808-1	48.6	60.4	52.8	61.1	46.6	54.8	35.3	29.0
E18331-34	53.7	73.4	55.8	59.4	49.1	72.0	37.2	29.4
E18610T	59.7	71.6	64.3	69.6	59.9	70.5	43.1	38.7
E19056	57.7	68.6	63.8	63.0	56.0	67.6	41.7	42.9
E19269	57.1	67.1	59.3	60.5	49.7	69.0	47.3	47.0
E19312T	58.5	73.4	63.7	66.6	53.5	69.2	42.4	40.4
E19323T	55.6	64.0	61.6	67.9	49.2	72.6	39.5	34.6
E19327T	53.9	69.2	58.5	62.9	44.5	68.6	39.2	34.7
E19495GT	60.1	71.4	62.6	65.7	55.2	76.2	46.9	42.8
E19497GT	54.7	64.7	55.5	67.9	46.9	73.0	41.1	33.6
E19517GT	55.2	71.0	62.0	60.4	55.2	62.7	33.0	42.0
HM17-06108	60.7	75.9	72.6	66.9	52.2	56.8	46.2	54.6
HM18-28068	53.2	61.3	60.8	52.2	48.7	54.3	44.0	51.4
Location Mean		68.2	62.2	66.0	54.1	68.0	43.5	38.5
C.V. (%)		7.7	6.2	4.7	7.5	6.2	11.0	10.1
L.S.D. (5%)		8.6	6.6	6.4	8.2	8.6	8.1	11.4
Row sp. (In.)		30	30	30	30	15	15	8
Rows/Plot		4	4	4	4	6	6	8
Reps		3	2	2	2	2	2	3

UNIFORM TEST II TRAITED MATERIAL, 2022

YIELD RANK

Strain	Yield Rank	Ames IA	Urbana IL	Wanatah IN	West	Britton MI	East	Wooster OH
					Lafayette IN		Lansing MI	
IA2102 (II)	15	20	22	8	4	8	28	19
U14-910097 (SCN) (L)	1	1	1	1	1	1	1	4
AG17XF2 (E)	20	25	12	9	20	3	29	25
AG25XF1	7	13	4	7	2	9	22	21
A14017-111	4	18	6	4	8	12	3	13
A14017-166	6	10	5	5	7	11	5	20
A14019-28	28	27	19	16	21	21	17	31
A14019-35	30	23	30	30	21	23	24	27
A14019-141	18	14	26	14	11	15	9	26
A14056-75	13	11	27	20	19	22	2	6
A14058-20	11	26	18	2	5	4	15	18
A14058-33	10	5	9	22	16	20	4	11
A14058-96	19	31	21	16	3	25	16	15
A14061-177	9	4	23	10	10	26	11	9
A14062-101	2	14	3	2	9	16	6	11
A14062-182	25	30	7	18	17	24	12	30
A14068-20	16	3	15	21	27	18	19	16
A14068-146	23	21	17	25	29	28	13	5
E17808-1	31	29	31	26	30	30	30	29
E18331-34	27	6	28	29	25	7	27	28
E18610T	8	8	8	6	6	10	18	17
E19056	14	17	10	23	12	19	21	7
E19269	17	19	24	27	23	14	7	3
E19312T	12	6	11	15	15	13	20	13
E19323T	21	24	15	11	24	6	25	23
E19327T	26	16	25	24	31	17	26	22
E19495GT	5	9	13	19	13	2	8	8
E19497GT	24	22	29	11	28	5	23	24
E19517GT	22	12	14	28	13	27	31	10
HM17-06108	3	2	2	13	18	29	10	1
HM18-28068	29	28	20	31	26	31	14	2

UNIFORM TEST II TRAITED MATERIAL, 2022

MATURITY (date)

Strain	Mean	Ames IA*	Urbana IL	Wanatah IN	West	Britton MI	East	Wooster OH
	6 Tests				Lafayette IN		Lansing MI	
IA2102 (II)	9/16	9/26	9/17	9/17	9/15	9/21	9/13	9/18
U14-910097 (SCN) (L)	5		6	3	7	4	12	2
AG17XF2 (E)	-4	-2	-5	-9	-7	-4	-3	1
AG25XF1	2	2	3	1	1	-2	5	5
A14017-111	4	3	1	1	2	-3	10	10
A14017-166	7	6	4	3	6	4	13	11
A14019-28	2	4	4	0	2	1	2	6
A14019-35	-2	0	-3	-8	-2	-2	3	2
A14019-141	5		5	4	3	3	16	3
A14056-75	2	4	0	0	1	-1	7	4
A14058-20	-1	-1	-3	-4	-4	0	3	4
A14058-33	-0	2	0	-4	-2	-3	4	3
A14058-96	2	2	1	1	1	1	5	3
A14061-177	3	6	3	2	3	0	8	3
A14062-101	2	4	3	-1	1	-2	9	3
A14062-182	3	3	2	2	2	1	5	4
A14068-20	2	3	0	-1	1	-3	5	9
A14068-146	5	5	5	2	6	-1	13	6
E17808-1	-2	1	-4	-5	-7	-1	1	4
E18331-34	3		5	3	4	3	5	2
E18610T	2	3	3	1	-1	-1	4	3
E19056	2	6	4	0	3	1	2	3
E19269	10	6	6	11	12	9	16	7
E19312T	1	3	1	-1	-1	-3	3	5
E19323T	-2	0	-2	-4	-3	-3	-3	5
E19327T	-2	-1	-2	-7	-5	-4	1	4
E19495GT	4	5	4	1	3	2	8	5
E19497GT	-1	1	-2	-4	-2	-2	-1	7
E19517GT	6		5	6	4	3	11	5
HM17-06108	4		5	4	5	-4	9	6
HM18-28068	7		9	4	4	4	16	4
Date Planted	5/16	5/23	5/17	5/17	5/12	5/13	5/14	5/24
Days to Mature	124	126	123	123	126	131	122	117

* Killing frost at maturity, data not included in mean.

UNIFORM TEST II TRAITED MATERIAL, 2022

LODGING (score)

Strain	Mean	Ames IA	Urbana IL	Wanatah IN	West	Britton MI	East	Wooster OH
	7 Tests				Lafayette IN		Lansing MI	
IA2102 (II)	1.9	2.0	2.5	2.0	2.0	3.0	1.0	1.0
U14-910097 (SCN) (L)	1.8	1.0	1.8	2.0	2.0	3.0	1.5	1.0
AG17XF2 (E)	1.1	1.0	1.3	1.0	1.0	1.5	1.0	1.0
AG25XF1	1.1	1.0	1.5	1.0	1.0	1.5	1.0	1.0
A14017-111	1.5	1.3	1.5	1.5	1.0	3.0	1.0	1.0
A14017-166	1.6	2.0	1.5	1.5	1.0	2.5	1.5	1.0
A14019-28	1.2	1.0	1.3	1.0	1.0	2.0	1.0	1.0
A14019-35	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
A14019-141	1.4	1.3	1.3	2.0	1.0	2.5	1.0	1.0
A14056-75	1.0	1.0	1.3	1.0	1.0	1.0	1.0	1.0
A14058-20	1.7	1.7	2.0	2.0	1.5	3.0	1.0	1.0
A14058-33	1.1	1.0	1.3	1.0	1.0	1.5	1.0	1.0
A14058-96	1.4	1.0	1.8	1.5	1.5	2.0	1.0	1.0
A14061-177	1.6	2.0	2.0	2.0	1.0	2.5	1.0	1.0
A14062-101	1.7	1.7	2.0	2.0	1.0	3.0	1.0	1.0
A14062-182	1.3	1.0	1.5	1.5	1.0	2.0	1.0	1.0
A14068-20	1.3	1.0	1.3	1.0	1.0	2.5	1.0	1.0
A14068-146	1.2	1.0	1.8	1.5	1.0	1.0	1.0	1.0
E17808-1	1.5	1.0	2.0	2.0	1.5	2.0	1.0	1.0
E18331-34	1.3	1.0	1.0	2.0	1.0	2.0	1.0	1.0
E18610T	1.8	1.7	2.0	2.5	1.5	3.0	1.0	1.0
E19056	2.3	2.7	2.8	2.5	2.0	3.0	2.0	1.0
E19269	1.8	1.3	2.0	2.5	1.5	2.5	1.5	1.0
E19312T	1.3	1.0	1.5	1.0	1.0	2.0	1.5	1.0
E19323T	1.5	1.0	1.8	2.0	1.0	2.0	1.5	1.0
E19327T	1.4	1.0	2.0	2.0	1.0	2.0	1.0	1.0
E19495GT	1.8	3.0	1.8	2.0	1.5	2.0	1.0	1.0
E19497GT	1.3	1.0	1.5	1.5	1.0	2.0	1.0	1.0
E19517GT	1.8	1.7	2.3	3.0	1.0	2.5	1.0	1.0
HM17-06108	1.7	2.3	2.5	2.0	1.5	1.5	1.0	1.0
HM18-28068	2.3	1.3	3.8	3.0	2.0	3.0	2.0	1.0

UNIFORM TEST II TRAITED MATERIAL, 2022

PLANT HEIGHT (inches)

Strain	Mean	Ames IA	Urbana IL	Wanatah IN	West	Britton MI	East	Wooster OH
	7 Tests				Lafayette IN		Lansing MI	
IA2102 (II)	33	33	37	42	31	39	29	23
U14-910097 (SCN) (L)	31	31	32	39	30	34	27	25
AG17XF2 (E)	29	29	32	36	27	34	22	25
AG25XF1	32	31	36	41	32	36	25	24
A14017-111	30	29	32	38	28	32	26	25
A14017-166	32	32	34	40	31	36	30	23
A14019-28	29	29	30	37	28	32	23	23
A14019-35	29	30	31	35	26	33	23	23
A14019-141	31	30	34	40	31	35	24	21
A14056-75	33	33	34	40	32	36	30	25
A14058-20	31	31	33	37	30	35	30	23
A14058-33	30	28	32	37	29	36	29	23
A14058-96	33	32	34	43	34	39	31	23
A14061-177	34	33	38	43	32	40	29	21
A14062-101	30	31	33	36	32	35	25	21
A14062-182	32	32	34	41	28	39	31	22
A14068-20	31	32	33	40	28	37	28	23
A14068-146	32	33	38	42	30	35	28	23
E17808-1	33	32	37	43	32	40	30	22
E18331-34	26	24	26	36	23	33	20	22
E18610T	32	33	35	41	30	38	26	21
E19056	36	37	40	48	32	44	32	23
E19269	35	36	41	42	33	44	30	21
E19312T	33	34	37	41	29	38	30	22
E19323T	31	31	34	41	29	36	25	22
E19327T	29	30	32	36	26	34	27	23
E19495GT	32	34	36	40	31	35	30	21
E19497GT	29	31	31	38	27	33	24	21
E19517GT	33	34	36	41	31	39	25	24
HM17-06108	35	36	43	44	30	36	30	29
HM18-28068	42	38	53	49	40	52	39	25

UNIFORM TEST II TRAITED MATERIAL, 2022

SEED SIZE (g/100)

Strain	Mean	Ames IA	Urbana IL	Wanatah IN	West	Britton MI	East	Wooster OH
	6 Tests				Lafayette IN		Lansing MI	
IA2102 (II)	16.2	16.0	16.7	17.3	17.1		13.5	16.7
U14-910097 (SCN) (L)	16.3	17.2	16.3	16.5	16.3		13.9	17.9
AG17XF2 (E)	16.0	15.3	16.8	16.3	16.5		13.7	17.4
AG25XF1	17.2	17.6	17.8	17.8	17.6		15.3	16.9
A14017-111	15.2	14.7	15.0	16.5	14.7		14.0	16.5
A14017-166	14.5	14.7	15.1	15.8	14.2		12.4	14.8
A14019-28	21.3	21.7	23.2	22.6	21.6		18.3	20.5
A14019-35	16.5	17.1	17.2	16.6	17.1		14.5	16.5
A14019-141	17.6	18.2	17.5	19.4	17.7		15.4	17.1
A14056-75	16.2	16.1	16.8	17.1	16.2		14.6	16.7
A14058-20	15.4	15.9	16.1	15.8	14.8		13.4	16.2
A14058-33	17.3	18.1	18.1	17.2	17.6		15.6	17.5
A14058-96	15.6	15.1	16.1	16.4	15.7		13.8	16.9
A14061-177	20.1	19.6	21.1	21.7	20.5		17.2	20.6
A14062-101	17.1	18.2	17.6	17.4	17.1		14.6	17.6
A14062-182	18.8	18.3	20.0	19.3	18.5		15.9	20.6
A14068-20	16.7	17.7	17.4	17.1	16.6		14.3	17.2
A14068-146	20.0	19.3	21.5	20.7	19.1		18.6	21.1
E17808-1	16.0	16.3	16.4	16.5	16.0		13.7	17.3
E18331-34	14.9	15.4	15.6	14.4	15.1		12.6	16.5
E18610T	18.8	18.9	19.8	20.1	19.3		15.9	18.8
E19056	16.9	17.3	17.8	16.9	17.2		14.2	17.9
E19269	18.8	17.7	20.4	19.9	18.7		16.8	19.3
E19312T	18.0	15.7	18.9	19.7	18.3		15.8	19.5
E19323T	19.7	19.7	20.6	21.1	20.4		17.2	19.3
E19327T	20.1	20.6	21.0	20.8	20.4		17.6	20.4
E19495GT	16.8	18.9	17.0	16.1	16.7		14.2	18.0
E19497GT	16.1	16.5	16.5	16.8	16.5		13.2	17.2
E19517GT	13.4	13.8	14.7	13.6	13.9		10.8	13.7
HM17-06108	18.5	17.3	20.1	19.5	18.2		15.7	20.2
HM18-28068	18.2	18.6	19.2	17.7	18.4		16.2	19.2

UNIFORM TEST II TRAITED MATERIAL, 2022

SEED QUALITY (score)

Strain	Mean	Ames IA	Urbana IL	Wanatah IN	West	Britton MI	East	Wooster OH
	6 Tests				Lafayette IN		Lansing MI	
IA2102 (II)	1.9	1.7	3.0	1.0	1.0		2.5	2.0
U14-910097 (SCN) (L)	2.0	1.7	2.0	1.0	2.0		3.0	2.0
AG17XF2 (E)	1.7	1.3	2.0	1.0	1.0		3.0	1.7
AG25XF1	1.2	1.0	1.0	1.0	1.0		1.0	2.0
A14017-111	1.5	2.0	1.0	1.0	1.0		3.0	1.0
A14017-166	1.3	1.0	1.0	1.0	1.0		3.0	1.0
A14019-28	2.0	2.3	3.0	1.0	2.0		2.5	1.0
A14019-35	1.4	1.0	2.0	1.0	1.0		2.0	1.7
A14019-141	1.9	1.7	2.0	1.5	1.0		3.0	2.0
A14056-75	1.5	1.3	2.0	1.0	1.0		2.5	1.0
A14058-20	1.7	2.0	1.0	1.0	1.0		3.0	2.0
A14058-33	1.6	1.3	2.0	1.0	1.0		3.0	1.0
A14058-96	1.8	2.0	2.0	1.0	1.0		3.5	1.0
A14061-177	1.8	1.0	3.0	1.0	1.0		4.0	1.0
A14062-101	1.8	2.0	2.0	1.0	1.0		2.5	2.0
A14062-182	1.6	1.3	1.0	1.5	1.0		3.0	1.7
A14068-20	1.8	2.0	2.0	1.0	1.0		3.0	1.7
A14068-146	2.3	1.5	3.0	1.5	2.5		3.5	2.0
E17808-1	1.8	1.3	2.0	1.0	1.0		3.0	2.7
E18331-34	2.1	2.0	2.0	1.5	1.0		3.0	3.0
E18610T	2.0	1.7	2.0	1.0	1.0		3.5	2.7
E19056	1.7	2.0	2.0	1.0	2.0		2.0	1.0
E19269	1.9	1.5	3.0	1.0	1.0		3.0	2.0
E19312T	1.7	1.0	2.0	2.0	1.0		3.0	1.0
E19323T	2.3	2.0	2.0	1.0	1.5		4.0	3.0
E19327T	2.1	2.0	2.0	1.0	1.5		3.5	2.7
E19495GT	1.9	2.0	2.0	1.0	1.5		3.0	2.0
E19497GT	2.2	2.0	2.0	1.5	1.0		5.0	1.7
E19517GT	2.1	2.0	2.0	1.5	1.0		5.0	1.3
HM17-06108	1.8	2.0	1.0	1.5	1.0		3.5	1.7
HM18-28068	1.8	2.0	2.0	1.5	1.0		3.5	1.0

UNIFORM TEST II TRAITED MATERIAL, 2022

PROTEIN (%)

Strain	Mean 6 Tests	Ames IA	Urbana IL	Wanatah IN	West Lafayette IN	Britton MI	East Lansing MI	Wooster OH
IA2102 (II)	34.0	32.6	34.6	35.4	32.2		34.1	35.0
U14-910097 (SCN) (L)	32.3	32.1	33.4	32.0	32.3		31.2	32.8
AG17XF2 (E)	33.8	32.9	34.5	34.1	33.1		32.8	35.2
AG25XF1	34.6	33.1	34.4	34.8	33.7		34.1	37.8
A14017-111	35.8	33.8	36.1	37.3	35.8		34.9	36.9
A14017-166	35.6	34.6	36.4	36.8	34.9		34.8	36.1
A14019-28	37.3	37.7	38.0	37.2	36.5		36.0	38.5
A14019-35	35.9	36.1	36.3	36.3	35.1		35.2	36.6
A14019-141	36.4	37.5	36.9	36.8	34.9		35.1	37.0
A14056-75	36.9	36.5	37.9	37.3	36.3		36.0	37.3
A14058-20	36.8	36.5	37.4	37.9	36.5		35.6	36.9
A14058-33	35.3	34.5	35.2	35.6	34.6		34.8	36.9
A14058-96	35.4	34.4	35.8	36.3	34.8		35.1	36.1
A14061-177	35.7	35.7	36.8	35.5	36.7		33.8	36.0
A14062-101	35.1	35.1	34.8	35.6	34.6		34.1	36.3
A14062-182	34.5	33.2	34.9	35.8	33.8		33.2	35.8
A14068-20	36.0	36.4	36.8	36.9	35.1		34.6	35.9
A14068-146	35.9	35.8	36.8	36.1	35.7		34.0	36.8
E17808-1	35.7	35.5	36.6	36.8	34.0		34.6	36.9
E18331-34	35.7	34.8	38.4	35.1	34.8		33.0	38.3
E18610T	35.7	35.3	36.4	36.9	34.3		34.2	37.2
E19056	34.7	35.3	36.2	34.7	33.5		33.3	35.4
E19269	36.0	33.7	38.2	36.6	36.6		34.8	36.4
E19312T	35.6	35.5	36.5	35.5	34.5		34.8	37.0
E19323T	35.2	34.2	38.2	35.5	33.3		34.3	35.9
E19327T	35.2	34.2	35.5	35.7	33.4		34.6	37.9
E19495GT	33.3	34.1	33.8	32.3	33.6		31.7	34.3
E19497GT	33.3	31.7	33.5	33.3	33.4		32.5	35.4
E19517GT	32.8	32.3	33.1	32.1	32.6		32.1	34.5
HM17-06108	33.8	34.5	33.8	34.0	33.4		32.7	34.3
HM18-28068	39.1	40.1	40.0	39.1	38.4		37.1	40.2

UNIFORM TEST II TRAITED MATERIAL, 2022

OIL (%)

Strain	Mean	Ames IA	Urbana IL	Wanatah IN	West	Britton MI	East	Wooster OH
	6 Tests				Lafayette IN		Lansing MI	
IA2102 (II)	19.3	19.3	19.3	18.9	20.0		19.2	18.8
U14-910097 (SCN) (L)	20.6	19.9	20.4	21.0	21.1		20.9	20.4
AG17XF2 (E)	19.9	19.9	20.0	19.8	20.3		20.1	19.6
AG25XF1	19.2	19.5	19.6	19.7	19.4		19.5	17.6
A14017-111	19.5	19.6	19.3	19.2	19.9		19.9	19.2
A14017-166	19.5	18.7	19.7	19.2	20.2		19.8	19.2
A14019-28	18.9	18.5	18.4	18.9	19.7		19.3	18.6
A14019-35	19.9	19.3	19.1	19.6	20.5		20.2	20.6
A14019-141	18.8	17.8	18.3	19.1	19.8		19.6	18.4
A14056-75	19.4	18.6	18.3	19.2	19.4		19.0	21.7
A14058-20	18.7	19.1	18.7	17.8	19.0		19.3	18.5
A14058-33	19.7	19.4	20.2	19.6	20.3		20.0	19.1
A14058-96	19.8	19.8	19.7	19.8	20.2		19.8	19.3
A14061-177	19.0	18.3	18.4	19.2	19.1		20.0	19.1
A14062-101	18.7	16.8	18.8	18.9	19.3		19.3	18.8
A14062-182	19.8	19.7	19.8	19.3	21.0		20.2	19.1
A14068-20	18.6	17.8	18.4	18.3	19.3		19.4	18.6
A14068-146	18.2	17.6	17.8	18.1	18.9		18.8	18.0
E17808-1	19.4	18.9	19.2	19.1	20.7		19.8	18.7
E18331-34	18.5	18.1	18.3	17.3	19.5		19.9	17.9
E18610T	18.6	17.8	18.4	18.0	19.8		19.0	18.5
E19056	19.0	17.7	18.6	19.4	19.6		19.6	19.1
E19269	18.3	19.2	17.6	18.0	18.0		18.9	18.2
E19312T	18.9	18.8	18.6	18.8	19.4		19.4	18.6
E19323T	18.9	19.2	17.5	19.0	19.9		19.2	18.5
E19327T	19.1	18.9	18.4	19.1	20.3		19.3	18.4
E19495GT	20.1	19.0	20.3	20.4	20.3		20.6	19.8
E19497GT	20.6	20.7	20.9	20.4	20.8		20.9	19.6
E19517GT	20.1	19.7	19.9	20.8	20.4		20.3	19.3
HM17-06108	20.3	19.4	20.3	20.4	20.8		20.7	20.1
HM18-28068	17.3	16.6	17.4	17.4	17.9		17.5	17.1

UNIFORM TEST II TRAITED MATERIAL, 2022

REGIONAL SUMMARY - SEED COMPOSITION (FATTY ACID)

No. of Tests Strain	Palmitic 6 %	Stearic 6 %	Oleic 6 %	Linoleic 6 %	Linolenic 6 %
IA2102 (II)	11.2	4.7	21.3	54.2	8.6
U14-910097 (SCN) (L)	11.2	4.1	22.4	54.6	7.7
A14017-111	7.5	3.7	76.0	7.9	5.0
A14017-166	7.6	4.0	76.2	7.6	4.7
A14056-75	7.5	4.7	76.6	5.4	5.7
E17808-1	4.5	3.4	82.8	7.1	2.2
E18331-34	3.2	3.8	82.8	8.3	1.9
E19056	5.1	3.4	79.6	7.3	4.6
Mean	7.2	4.0	64.7	19.0	5.0

UNIFORM TEST II TRAITED MATERIAL, 2022

FATTY ACID, PALMITIC (%)

Strain	Mean 6 Tests	Ames IA	Urbana IL	Wanatah IN	West Lafayette IN	East Lansing MI	Wooster OH
IA2102 (II)	11.2	11.3	10.8	11.1	11.0	11.3	11.5
U14-910097 (SCN) (L)	11.2	11.4	11.3	11.1	11.2	11.0	11.1
A14017-111	7.5	7.6	7.5	7.4	7.6	7.4	7.6
A14017-166	7.6	7.7	7.5	7.5	7.1	7.5	8.0
A14056-75	7.5	7.7	7.4	7.3	7.4	7.5	7.5
E17808-1	4.5	4.7	4.5	4.4	4.6	4.6	4.4
E18331-34	3.2	3.2	3.4	2.9	3.1	3.6	3.0
E19056	5.1	5.5	5.3	5.2	4.6	5.0	5.2

UNIFORM TEST II TRAITED MATERIAL, 2022

FATTY ACID, STEARIC (%)

Strain	Mean 6 Tests	Ames IA	Urbana IL	Wanatah IN	West Lafayette IN	East Lansing MI	Wooster OH
IA2102 (II)	4.7	4.8	4.5	4.9	4.3	4.7	5.0
U14-910097 (SCN) (L)	4.1	3.8	4.0	4.3	4.0	4.3	4.3
A14017-111	3.7	3.7	3.5	4.0	3.4	3.9	3.7
A14017-166	4.0	3.8	3.8	4.6	3.8	4.0	4.2
A14056-75	4.7	3.8	4.4	5.5	4.4	5.2	4.9
E17808-1	3.4	3.0	3.2	3.9	3.0	3.5	3.6
E18331-34	3.8	3.3	3.4	4.7	3.7	3.6	4.2
E19056	3.4	3.3	3.2	3.9	3.3	3.3	3.5

UNIFORM TEST II TRAITED MATERIAL, 2022

FATTY ACID, OLEIC (%)

Strain	Mean 6 Tests	Ames IA	Urbana IL	Wanatah IN	West Lafayette IN	East Lansing MI	Wooster OH
IA2102 (II)	21.3	20.5	21.6	21.8	21.8	20.3	22.0
U14-910097 (SCN) (L)	22.4	21.8	23.4	22.8	22.6	21.2	22.7
A14017-111	76.0	75.4	77.2	76.7	76.7	74.4	75.4
A14017-166	76.2	78.8	78.3	76.9	77.4	75.7	69.9
A14056-75	76.6	76.6	78.5	76.2	77.2	75.4	76.0
E17808-1	82.8	81.2	84.1	82.8	83.9	81.9	83.0
E18331-34	82.8	82.8	84.4	82.5	83.4	81.2	82.7
E19056	79.6	78.2	80.7	79.7	81.3	79.0	79.0

UNIFORM TEST II TRAITED MATERIAL, 2022

FATTY ACID, LINOLEIC (%)

Strain	Mean 6 Tests	Ames IA	Urbana IL	Wanatah IN	West Lafayette IN	East Lansing MI	Wooster OH
IA2102 (II)	54.2	54.2	54.7	54.0	54.8	55.3	52.4
U14-910097 (SCN) (L)	54.6	54.4	54.0	54.6	54.9	56.0	53.8
A14017-111	7.9	8.6	7.0	7.2	7.3	8.8	8.3
A14017-166	7.6	5.8	5.6	6.2	6.9	7.7	13.4
A14056-75	5.4	6.3	4.3	5.4	5.1	5.9	5.6
E17808-1	7.1	8.7	5.9	6.8	6.5	7.9	6.6
E18331-34	8.3	8.9	7.2	8.0	8.0	9.7	8.1
E19056	7.3	7.7	6.1	8.3	6.4	7.3	7.7

UNIFORM TEST II TRAITED MATERIAL, 2022

FATTY ACID, LINOLENIC (%)

Strain	Mean 6 Tests	Ames IA	Urbana IL	Wanatah IN	West Lafayette IN	East Lansing MI	Wooster OH
IA2102 (II)	8.6	9.1	8.3	8.2	8.2	8.5	9.0
U14-910097 (SCN) (L)	7.7	8.5	7.4	7.2	7.4	7.5	8.2
A14017-111	5.0	4.8	4.8	4.7	5.0	5.4	5.0
A14017-166	4.7	3.9	4.9	4.8	4.7	5.1	4.5
A14056-75	5.7	5.6	5.4	5.7	5.9	5.9	6.0
E17808-1	2.2	2.4	2.3	2.2	2.1	2.1	2.3
E18331-34	1.9	1.8	1.7	1.9	1.9	1.9	2.0
E19056	4.6	5.3	4.7	3.0	4.4	5.4	4.6

UNIFORM TEST II TRAITED MATERIAL, 2022

REGIONAL SUMMARY - SEED COMPOSITION (SUGAR)

Strain	Sucrose	Raffinose	Stachyose	Total
	6 %	6 %	6 %	Sugar 6 %
IA2102 (II)	3.2	0.7	2.7	6.7
U14-910097 (SCN) (L)	2.8	0.6	2.9	6.2
A14019-28	4.4	0.6	0.7	5.8
A14019-35	4.9	0.7	0.8	6.4
A14019-141	4.0	0.6	1.3	5.9
A14058-33	4.7	0.5	0.8	6.0
A14058-96	4.0	0.6	0.9	5.5
A14061-177	4.5	0.6	0.7	5.8
A14062-101	4.5	0.5	0.9	6.0
A14062-182	4.2	0.6	0.5	5.3
Mean	4.1	0.6	1.2	6.0

UNIFORM TEST II TRAITED MATERIAL, 2022

SEED SUGAR, SUCROSE (%)

Strain	Mean	Ames IA	Urbana IL	Wanatah IN	West	East	Wooster OH
	6 Tests				Lafayette IN	Lansing MI	
IA2102 (II)	3.2	3.6	2.5	2.9	4.1	2.7	3.6
U14-910097 (SCN) (L)	2.8	3.2	2.8	2.9	2.7	2.3	2.8
A14019-28	4.4	4.5	3.7	4.9	4.7	4.5	4.3
A14019-35	4.9	5.1	4.0	5.5	5.5	4.3	5.2
A14019-141	4.0	4.3	3.5	4.9	3.7	3.9	3.7
A14058-33	4.7	5.8	5.2	4.6	4.4	3.5	4.7
A14058-96	4.0	4.7	4.1	4.1	3.5	3.9	3.6
A14061-177	4.5	4.8	4.6	5.6	4.1	4.0	3.7
A14062-101	4.5	5.8	4.7	5.7	3.7	3.6	3.8
A14062-182	4.2	4.2	4.4	4.5	4.3	3.9	3.7

UNIFORM TEST II TRAITED MATERIAL, 2022

SEED SUGAR, RAFFINOSE (%)

Strain	Mean 6 Tests	Ames IA	Urbana IL	Wanatah IN	West Lafayette IN	East Lansing MI	Wooster OH
IA2102 (II)	0.7	0.5	0.7	0.6	0.8	0.8	0.7
U14-910097 (SCN) (L)	0.6	0.6	0.7	0.5	0.6	0.5	0.5
A14019-28	0.6	0.5	0.5	0.6	0.6	0.7	0.8
A14019-35	0.7	0.7	0.5	0.8	0.6	0.7	0.8
A14019-141	0.6	0.5	0.5	0.6	0.5	0.7	0.5
A14058-33	0.5	0.6	0.6	0.3	0.5	0.5	0.7
A14058-96	0.6	0.6	0.6	0.6	0.5	0.7	0.6
A14061-177	0.6	0.6	0.6	0.7	0.6	0.7	0.8
A14062-101	0.5	0.6	0.5	0.4	0.5	0.5	0.6
A14062-182	0.6	0.5	0.6	0.5	0.6	0.6	0.6

UNIFORM TEST II TRAITED MATERIAL, 2022

SEED SUGAR, STACHYOSE (%)

Strain	Mean 6 Tests	Ames IA	Urbana IL	Wanatah IN	West Lafayette IN	East Lansing MI	Wooster OH
IA2102 (II)	2.7	2.4	2.6	2.3	3.0	2.8	3.2
U14-910097 (SCN) (L)	2.9	2.8	3.1	2.6	2.7	2.7	3.2
A14019-28	0.7	0.8	0.7	0.6	0.7	0.8	0.8
A14019-35	0.8	0.8	0.6	0.8	0.8	0.8	0.8
A14019-141	1.3	1.3	1.2	1.1	1.2	1.6	1.6
A14058-33	0.8	1.0	0.8	0.7	1.0	0.7	0.9
A14058-96	0.9	0.9	1.0	0.8	1.0	1.1	0.9
A14061-177	0.7	0.6	0.8	0.6	0.8	0.8	0.7
A14062-101	0.9	1.0	0.9	0.8	0.9	0.9	0.8
A14062-182	0.5	0.6	0.5	0.1	0.6	0.7	0.6

UNIFORM TEST II TRAITED MATERIAL, 2022

SEED SUGAR, TOTAL (%)

Strain	Mean 6 Tests	Ames IA	Urbana IL	Wanatah IN	West Lafayette IN	East Lansing MI	Wooster OH
IA2102 (II)	6.7	6.6	5.8	5.9	7.9	6.3	7.6
U14-910097 (SCN) (L)	6.2	6.6	6.6	6.0	6.0	5.5	6.5
A14019-28	5.8	5.9	4.9	6.1	6.0	6.0	5.9
A14019-35	6.4	6.7	5.1	7.2	6.9	5.8	6.8
A14019-141	5.9	6.1	5.2	6.5	5.4	6.2	5.8
A14058-33	6.0	7.3	6.6	5.6	5.9	4.6	6.2
A14058-96	5.5	6.2	5.7	5.4	5.0	5.6	5.1
A14061-177	5.8	6.0	6.0	6.9	5.5	5.4	5.1
A14062-101	6.0	7.5	6.1	6.9	5.2	5.1	5.1
A14062-182	5.3	5.4	5.5	5.2	5.5	5.2	5.0

**Northern Regional Uniform Test
Preliminary Test II, Traited Material, 2022**

Ent.	Strain	Parentage		Seed Source	Gen. Comp.	Unique Traits
		Female	Male			
1	IA2102 (II)	A04-545045	AgriPro 98180-A01-0613	Cai	F4	
2	U14-910097 (L)	U09-105007	LD07-3419	Graef	F6	SCN, HR, MR, IDC
3	AG17XF2 (E)			Cai		RR2, Xtend Flex
4	AG25XF1			Cai		RR2, Xtend Flex
5	A16303-50	IA2106HO	LD11-2170	Singh	F5	FA
6	A16305-141	IA2106HO	U11-911079	Singh	F5	FA
7	A16307-117	IA2107HO	A2835	Singh	F5	FA
8	A16331-57	IA2104HS/LD07-3395bf (SCN)	LD10-10198	Singh	F5	Sug, SCN
9	A16333-172	IA2104HS/LD07-3395bf (SCN)	LD11-2170	Singh	F5	Sug
10	A16333-218	IA2104HS/LD07-3395bf (SCN)	LD11-2170	Singh	F5	
11	A16802-57	HR09-397	LD10-10198	Singh	F5	
12	E20154	E07051	E15806	Wang	F5	High Oleic, SCN, Rps
13	E20195	E16826	U12-909109R	Wang	F5	High Oleic
14	E20217GT	LD13-13228R1a	E14077	Wang	F5	SCN, Rps, RR
15	E20220GT	LD13-13228R1a	E14077	Wang	F5	SCN, Rps, RR
16	E21287	E16826	E14077	Wang	F5	High Oleic, SCN, Rps
17	E21312	E16804-1	LD02-4485	Wang	F5	High Oleic, SCN, Rps
18	E20234GT	LD13-13228R1a	E14077	Wang	F5	SCN, Rps, RR
19	E21417	U12-909109R	E18801-1	Wang	F5	High Oleic, SCN, Rps
20	E20303T	NE3400	E11128T	Wang	F5	High Protein, SCN, Rps
21	E20316T	NE3400	E11128T	Wang	F5	High Protein, SCN, Rps
22	E20394	E17805-12	LD13-13228R1a	Wang	F5	High Oleic, SCN, Rps
23	E20404	E17805-12	LD10-10198	Wang	F5	High Oleic, SCN
24	HM19-33314	Wyandot14	Dennison	McHale	F4	>48% Meal Protein, Rps
25	HM19-39232	Wyandot-14	HM13-W154	McHale	F4	High oil (>20.5%), Rps
26	HM19-40088	HS6-3967B	HM11-G021	McHale	F4	High oil (>20.5%), Rps
27	HM19-42050	HM13-R061	E11128T	McHale	F4	>48% Meal Protein, Rps
28	LD19-12524	(LD16-10111 x LD10-10198)	(LDXGL15-008-1 x LD12-3903)	Diers	F4	HOLL,SCN, Rps
29	LD19-12560	(LDXGL15-004-2 x U11-920017)	(LD12-6010a x LDXGL15-025-1)	Diers	F4	HOLL,SCN
30	LD19-12679	LD10-10198(4)x KB13F3:14-228LI	(LD10-10198(4) x KB12-1#70HO)	Diers	F4	HOLL,SCN
31	LD19-21029G	(U14-910097 x LDX16-216-2-1)	(LD11-2170 x LDX16-234-1-5)	Diers	F4	HOLL,SCN, Rps
32	LD19-21161	(LD11-2170 x LDX16-234-1-5)	(LD12-459 x LDX16-210-2-1)	Diers	F4	HOLL,SCN, Rps
33	LD19-22072	(LD12-3903 x LDX16-241-2-2)	(LD11-2170 x LDX16-233-1-1)	Diers	F4	HOLL,SCN, Rps
34	LD19-7475	LD07-3395bf x LDXGL15-009-1	(M09-285149 x LD16-10137)	Diers	F5	HOLL,SCN
35	LD20-5065051	LD12-459(4)	LD16-10188Ho x LL 8566-HOLL	Diers	F4	HOLL,SCN
36	LD20-5069041	LD12-459(4)	LD16-10188Ho x LL 8566-HOLL	Diers	F4	HOLL,SCN
37	M17R-908-1009	LD10-5213a X M10-218053	E13912	Lorenz	F6	Aphid R., SCN, RR
38	M17R-908-1045	LD10-5213a X M10-218053	E13912	Lorenz	F6	Aphid R., SCN, RR

PRELIMINARY TEST II TRAITED MATERIAL, 2022

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code
IA2102 (II)	WGTDYYI
U14-910097 (SCN) (L)	PGTDYBfI
AG17XF2 (E)	PLtBDYBI
AG25XF1	PGTDYGI
A16303-50	PTBDYBrI
A16305-141	PLtBDYBI
A16307-117	PGBSYBfI
A16331-57	WGBSYYI
A16333-172	WGBSYYI
A16333-218	WGBSYYI
A16802-57	PGB+TSYYI
E20154	PGTDYIbI
E20195	WTTDYBI
E20217GT	PGB+TDYHI
E20220GT	PGBDYIbI
E21287	PTBDYBI
E21312	PT+GBDYHI
E20234GT	PGBDYIbI
E21417	PT+LtB+TDYBI
E20303T	PGTSYHI
E20316T	PGTSYHI
E20394	PTBDYBrI
E20404	PTBDYBI
HM19-33314	WGTDYBfI
HM19-39232	PGTSYBfI
HM19-40088	PGB+TSYIbI
HM19-42050	PLtTSYBI
LD19-12524	WGBSYYI
LD19-12560	WTBDYHI
LD19-12679	PGBSYGI
LD19-21029G	PGBDYBfI
LD19-21161	PLtBSYHI
LD19-22072	WLtBSYBI
LD19-7475	PLtBSYYI
LD20-5065051	PGBDYIbI
LD20-5069041	PGBDYIbI
M17R-908-1009	WGB+TDYBfI
M17R-908-1045	WGTDYBfI

PRELIMINARY TEST II TRAITED MATERIAL, 2022

REGIONAL SUMMARY

No. of Tests Strain	Yield	Rank	Maturity	Lodging	Plant	Seed	Seed	Composition	
	4 bu/a	4 No.	3 Date	4 Score	4 In.	4 g/100	4 Score	4 Protein %	4 Oil %
IA2102 (II)	62.0	10	9/16	2.1	33	16.4	1.8	33.9	19.1
U14-910097 (SCN) (L)	73.8	1	9.5	1.9	31	16.1	1.8	31.9	20.4
AG17XF2 (E)	53.6	31	-6.0	1.1	28	16.0	1.9	33.5	20.0
AG25XF1	59.9	17	2.8	1.1	33	16.8	1.5	33.6	19.7
A16303-50	58.5	20	7.3	1.2	31	16.9	2.1	35.9	19.5
A16305-141	57.8	22	3.5	1.1	32	14.8	1.8	36.4	18.8
A16307-117	56.6	25	8.5	1.5	33	15.0	1.5	36.5	17.9
A16331-57	64.4	6	3.2	1.1	32	20.2	2.0	33.4	19.1
A16333-172	64.7	5	4.3	1.1	32	17.9	1.8	33.8	19.9
A16333-218	60.0	15	7.7	1.0	32	17.3	1.6	34.9	19.6
A16802-57	63.4	8	9.0	1.1	32	17.8	1.6	36.0	17.9
E20154	51.7	34	-2.3	1.1	28	20.0	2.0	36.0	19.2
E20195	54.8	30	4.2	1.3	31	16.4	1.8	33.4	19.5
E20217GT	55.3	29	0.7	1.7	33	15.6	2.1	31.8	20.3
E20220GT	56.1	27	0.7	1.4	35	16.5	2.1	33.0	20.4
E21287	42.2	36	0.5	1.7	29	16.2	2.1	35.1	19.1
E21312	32.9	37	8.0	1.5	30	16.9	1.9	35.8	19.4
E20234GT	65.6	3	5.5	1.3	32	15.9	2.0	31.5	20.1
E21417	32.1	38	13.0	1.9	33	16.5	2.8	35.0	19.3
E20303T	56.7	24	5.3	2.0	34	17.8	1.9	35.5	18.7
E20316T	60.6	14	4.0	1.1	33	16.8	1.8	35.4	19.2
E20394	51.3	35	2.8	1.5	36	15.8	1.6	36.2	19.4
E20404	53.6	32	4.3	1.5	36	14.4	1.9	36.5	18.6
HM19-33314	59.0	19	8.3	1.4	32	17.8	1.8	33.9	19.7
HM19-39232	56.0	28	10.5	1.3	34	17.0	1.9	33.2	19.4
HM19-40088	64.4	7	7.7	1.8	35	17.6	1.9	34.0	19.8
HM19-42050	61.6	11	8.0	1.4	35	18.5	1.6	37.0	18.1
LD19-12524	59.9	16	1.8	1.1	28	14.7	1.8	35.4	19.7
LD19-12560	56.3	26	-1.3	1.3	30	15.5	2.3	33.9	20.7
LD19-12679	61.3	12	2.0	1.0	31	14.8	1.4	34.7	19.7
LD19-21029G	65.1	4	5.7	1.1	29	13.5	1.5	34.1	19.8
LD19-21161	62.6	9	3.0	1.1	34	14.9	2.1	35.4	19.0
LD19-22072	66.4	2	5.5	1.8	32	13.9	1.8	34.0	19.9
LD19-7475	57.0	23	-4.2	1.1	27	17.4	2.3	34.0	20.4
LD20-5065051	59.6	18	4.2	1.1	27	15.7	1.9	35.2	18.9
LD20-5069041	60.8	13	5.0	1.1	28	14.9	1.6	34.6	19.5
M17R-908-1009	58.3	21	4.3	1.9	33	13.2	1.9	34.8	19.0
M17R-908-1045	52.5	33	0.0	1.1	31	13.4	1.8	32.6	19.8
Mean	57.6			1.4	31.7	16.2	1.9	34.5	19.4
C.V. (%)	10.9								
L.S.D. (5%)	6.2								

125.0 Days After Planting

PRELIMINARY TEST II TRAITED MATERIAL, 2022

YIELD (bu/a)

Strain	Mean 4 Tests	Ames IA	Urbana IL	West Lafayette IN	East Lansing MI
IA2102 (II)	62.0	70.7	67.8	58.2	51.3
U14-910097 (SCN) (L)	73.8	78.8	79.9	70.8	65.6
AG17XF2 (E)	53.6	64.6	62.2	47.3	40.2
AG25XF1	59.9	74.0	65.9	55.1	44.5
A16303-50	58.5	68.7	66.0	53.2	46.0
A16305-141	57.8	69.5	62.8	58.8	40.1
A16307-117	56.6	64.3	63.9	46.1	52.2
A16331-57	64.4	80.5	66.3	61.6	49.3
A16333-172	64.7	78.2	68.0	63.1	49.3
A16333-218	60.0	74.6	70.8	48.5	46.2
A16802-57	63.4	69.1	69.6	58.9	56.1
E20154	51.7	61.3	50.9	48.5	46.3
E20195	54.8	65.4	62.9	45.5	45.2
E20217GT	55.3	69.5	58.7	48.3	44.7
E20220GT	56.1	69.1	57.9	50.6	46.8
E21287	42.2	48.1	47.2	38.6	35.1
E21312	32.9	33.1	37.8	36.4	24.5
E20234GT	65.6	74.8	76.3	66.1	45.4
E21417	32.1	39.9	31.1	24.2	33.4
E20303T	56.7	66.9	55.1	55.1	49.6
E20316T	60.6	71.5	65.8	56.3	48.7
E20394	51.3	61.3	55.6	48.5	39.9
E20404	53.6	59.9	59.3	45.4	49.7
HM19-33314	59.0	76.4	61.1	45.5	53.1
HM19-39232	56.0	70.6	60.1	53.9	39.6
HM19-40088	64.4	68.0	68.5	63.3	57.8
HM19-42050	61.6	71.8	67.4	54.0	53.1
LD19-12524	59.9	62.8	66.9	61.1	48.8
LD19-12560	56.3	68.3	59.2	56.8	40.9
LD19-12679	61.3	73.5	62.1	58.4	51.2
LD19-21029G	65.1	73.9	74.9	66.5	45.1
LD19-21161	62.6	75.8	67.7	60.5	46.3
LD19-22072	66.4	73.3	70.7	66.6	54.9
LD19-7475	57.0	73.1	60.3	58.5	36.0
LD20-5065051	59.6	72.8	60.6	54.5	50.3
LD20-5069041	60.8	68.5	63.1	61.4	50.3
M17R-908-1009	58.3	69.0	65.0	54.9	44.2
M17R-908-1045	52.5	62.8	57.3	47.6	42.2
Location Mean		67.7	62.3	53.9	46.4
C.V. (%)		7.0	6.5	11.6	12.2
L.S.D. (5%)		9.6	6.9	12.7	9.6
Row sp. (In.)		30	30	30	15
Rows/Plot		4	4	4	6
Reps		2	2	2	2

PRELIMINARY TEST II TRAITED MATERIAL, 2022

YIELD RANK

Strain	Yield Rank	Ames IA	Urbana IL	West Lafayette IN	East Lansing MI
IA2102 (II)	10	16	9	15	8
U14-910097 (SCN) (L)	1	2	1	1	1
AG17XF2 (E)	31	29	22	31	31
AG25XF1	17	8	15	18	27
A16303-50	20	23	14	24	22
A16305-141	22	18	21	12	32
A16307-117	25	30	18	32	7
A16331-57	6	1	13	7	15
A16333-172	5	3	8	6	14
A16333-218	15	7	4	26	21
A16802-57	8	20	6	11	3
E20154	34	33	35	26	20
E20195	30	28	20	33	24
E20217GT	29	18	30	29	26
E20220GT	27	20	31	25	18
E21287	36	36	36	36	36
E21312	37	38	37	37	38
E20234GT	3	6	2	4	23
E21417	38	37	38	38	37
E20303T	24	27	34	18	13
E20316T	14	15	16	17	17
E20394	35	33	33	26	33
E20404	32	35	28	35	12
HM19-33314	19	4	24	33	5
HM19-39232	28	17	27	23	34
HM19-40088	7	26	7	5	2
HM19-42050	11	14	11	22	5
LD19-12524	16	31	12	9	16
LD19-12560	26	25	29	16	30
LD19-12679	12	10	23	14	9
LD19-21029G	4	9	3	3	25
LD19-21161	9	5	10	10	19
LD19-22072	2	11	5	2	4
LD19-7475	23	12	26	13	35
LD20-5065051	18	13	25	21	10
LD20-5069041	13	24	19	8	10
M17R-908-1009	21	22	17	20	28
M17R-908-1045	33	31	32	30	29

PRELIMINARY TEST II TRAITED MATERIAL, 2022

MATURITY (date)

Strain	Mean 3 Tests	Ames IA*	Urbana IL	West Lafayette IN	East Lansing MI
IA2102 (II)	9/16	9/28	9/17	9/14	9/18
U14-910097 (SCN) (L)	10		6	9	14
AG17XF2 (E)	-6	-9	-7	-6	-6
AG25XF1	3	0	3	2	4
A16303-50	7		7	6	9
A16305-141	4	2	5	4	2
A16307-117	9	5	7	4	15
A16331-57	3	4	3	5	2
A16333-172	4	4	5	4	4
A16333-218	8	5	6	5	12
A16802-57	9	5	6	9	12
E20154	-2	0	-1	-2	-4
E20195	4	3	5	3	5
E20217GT	1	2	2	1	-1
E20220GT	1	2	2	2	-2
E21287	1	3	2	-1	0
E21312	8	4	5	5	14
E20234GT	6	5	6	6	5
E21417	13		14	10	16
E20303T	5		5	6	5
E20316T	4		5	5	3
E20394	3	2	2	1	6
E20404	4	2	5	3	6
HM19-33314	8	3	4	6	16
HM19-39232	11	3	10	9	13
HM19-40088	8	5	6	9	9
HM19-42050	8	4	6	6	12
LD19-12524	2	1	1	4	1
LD19-12560	-1	-2	0	-1	-4
LD19-12679	2	2	2	3	2
LD19-21029G	6	4	5	6	6
LD19-21161	3	4	5	4	0
LD19-22072	6	3	5	6	6
LD19-7475	-4	-2	-3	-1	-9
LD20-5065051	4	5	5	2	6
LD20-5069041	5	5	5	5	5
M17R-908-1009	4	3	5	5	4
M17R-908-1045	0	-1	1	1	-2
Date Planted	5/14	5/23	5/17	5/12	5/14
Days to Mature	125	128	123	125	127

* Killing frost at maturity, data not included in mean.

PRELIMINARY TEST II TRAITED MATERIAL, 2022

LODGING (score)

Strain	Mean 4 Tests	Ames IA	Urbana IL	West Lafayette IN	East Lansing MI
IA2102 (II)	2.1	2.5	2.3	2.0	1.5
U14-910097 (SCN) (L)	1.9	2.0	2.3	1.5	2.0
AG17XF2 (E)	1.1	1.0	1.5	1.0	1.0
AG25XF1	1.1	1.0	1.5	1.0	1.0
A16303-50	1.2	1.0	1.3	1.0	1.5
A16305-141	1.1	1.0	1.3	1.0	1.0
A16307-117	1.5	1.0	2.0	1.0	2.0
A16331-57	1.1	1.0	1.5	1.0	1.0
A16333-172	1.1	1.0	1.3	1.0	1.0
A16333-218	1.0	1.0	1.0	1.0	1.0
A16802-57	1.1	1.0	1.3	1.0	1.0
E20154	1.1	1.0	1.5	1.0	1.0
E20195	1.3	1.5	1.8	1.0	1.0
E20217GT	1.7	1.0	1.8	2.0	2.0
E20220GT	1.4	1.0	2.0	1.0	1.5
E21287	1.7	1.0	2.3	1.5	2.0
E21312	1.5	1.0	1.5	1.5	2.0
E20234GT	1.3	1.0	1.5	1.5	1.0
E21417	1.9	1.0	2.0	2.0	2.5
E20303T	2.0	2.0	2.0	2.0	2.0
E20316T	1.1	1.0	1.5	1.0	1.0
E20394	1.5	1.0	2.0	1.0	2.0
E20404	1.5	1.0	2.0	1.5	1.5
HM19-33314	1.4	1.0	1.5	1.0	2.0
HM19-39232	1.3	1.0	1.5	1.5	1.0
HM19-40088	1.8	1.5	2.0	1.5	2.0
HM19-42050	1.4	1.0	2.0	1.5	1.0
LD19-12524	1.1	1.0	1.3	1.0	1.0
LD19-12560	1.3	1.0	1.8	1.0	1.5
LD19-12679	1.0	1.0	1.0	1.0	1.0
LD19-21029G	1.1	1.0	1.3	1.0	1.0
LD19-21161	1.1	1.0	1.5	1.0	1.0
LD19-22072	1.8	1.5	2.3	2.0	1.5
LD19-7475	1.1	1.0	1.5	1.0	1.0
LD20-5065051	1.1	1.0	1.3	1.0	1.0
LD20-5069041	1.1	1.0	1.3	1.0	1.0
M17R-908-1009	1.9	2.5	1.8	1.5	2.0
M17R-908-1045	1.1	1.0	1.5	1.0	1.0

PRELIMINARY TEST II TRAITED MATERIAL, 2022

PLANT HEIGHT (inches)

Strain	Mean 4 Tests	Ames IA	Urbana IL	West Lafayette IN	East Lansing MI
IA2102 (II)	33	32	40	32	30
U14-910097 (SCN) (L)	31	32	34	29	30
AG17XF2 (E)	28	30	32	27	23
AG25XF1	33	34	35	32	31
A16303-50	31	33	36	29	27
A16305-141	32	32	38	30	27
A16307-117	33	34	39	31	29
A16331-57	32	33	36	31	27
A16333-172	32	35	38	31	27
A16333-218	32	35	37	29	29
A16802-57	32	32	36	31	30
E20154	28	29	32	27	26
E20195	31	28	36	31	28
E20217GT	33	35	36	33	28
E20220GT	35	35	43	32	30
E21287	29	30	32	27	27
E21312	30	32	35	29	24
E20234GT	32	32	39	31	26
E21417	33	33	36	31	32
E20303T	34	37	38	37	25
E20316T	33	32	35	34	30
E20394	36	36	41	34	35
E20404	36	35	43	34	31
HM19-33314	32	33	35	29	32
HM19-39232	34	37	38	35	27
HM19-40088	35	36	38	35	31
HM19-42050	35	35	41	36	30
LD19-12524	28	29	31	27	26
LD19-12560	30	29	33	30	28
LD19-12679	31	31	36	29	28
LD19-21029G	29	28	35	30	25
LD19-21161	34	36	39	34	29
LD19-22072	32	31	36	32	29
LD19-7475	27	28	30	27	23
LD20-5065051	27	29	32	24	24
LD20-5069041	28	29	33	27	26
M17R-908-1009	33	35	36	32	32
M17R-908-1045	31	31	37	31	27

PRELIMINARY TEST II TRAITED MATERIAL, 2022

SEED SIZE (g/100)

Strain	Mean 4 Tests	Ames IA	Urbana IL	West Lafayette IN	East Lansing MI
IA2102 (II)	16.4	16.8	17.5	16.7	14.5
U14-910097 (SCN) (L)	16.1	16.3	16.6	16.6	15.0
AG17XF2 (E)	16.0	15.7	17.0	16.4	15.0
AG25XF1	16.8	17.8	16.8	17.4	15.1
A16303-50	16.9	19.0	16.9	17.0	14.9
A16305-141	14.8	15.9	15.2	15.2	12.8
A16307-117	15.0	15.8	16.1	14.4	13.7
A16331-57	20.2	21.5	20.5	21.0	17.7
A16333-172	17.9	19.1	18.5	18.1	16.0
A16333-218	17.3	19.1	18.1	17.5	14.4
A16802-57	17.8	19.0	18.1	18.2	15.9
E20154	20.0	20.1	20.9	20.9	18.2
E20195	16.4	17.4	17.1	15.9	15.1
E20217GT	15.6	16.0	16.3	16.5	13.9
E20220GT	16.5	16.5	17.5	17.7	14.2
E21287	16.2	18.1	16.1	16.1	14.6
E21312	16.9	17.2	17.8	16.5	16.2
E20234GT	15.9	15.8	17.4	16.9	13.5
E21417	16.5	17.3	17.0	15.8	15.7
E20303T	17.8	18.3	17.4	19.3	16.3
E20316T	16.8	18.2	17.7	16.8	14.6
E20394	15.8	15.8	16.7	16.2	14.7
E20404	14.4	15.1	15.0	14.3	13.3
HM19-33314	17.8	18.5	18.1	18.1	16.4
HM19-39232	17.0	18.0	17.5	17.1	15.3
HM19-40088	17.6	18.4	17.9	17.8	16.3
HM19-42050	18.5	19.5	18.4	19.3	16.7
LD19-12524	14.7	15.2	15.3	15.3	13.0
LD19-12560	15.5	15.8	16.1	16.0	14.1
LD19-12679	14.8	15.1	16.1	15.0	13.2
LD19-21029G	13.5	15.8	13.5	12.8	11.8
LD19-21161	14.9	16.1	15.3	15.1	13.2
LD19-22072	13.9	14.2	14.4	14.5	12.7
LD19-7475	17.4	17.1	18.5	18.8	15.4
LD20-5065051	15.7	20.3	15.6	14.6	12.5
LD20-5069041	14.9	15.4	15.8	15.2	13.4
M17R-908-1009	13.2	13.2	14.4	13.5	11.8
M17R-908-1045	13.4	13.4	15.3	13.3	11.5

PRELIMINARY TEST II TRAITED MATERIAL, 2022

SEED QUALITY (score)

Strain	Mean 4 Tests	Ames IA	Urbana IL	West Lafayette IN	East Lansing MI
IA2102 (II)	1.8	2.0	2.0	1.0	2.0
U14-910097 (SCN) (L)	1.8	2.0	2.0	1.0	2.0
AG17XF2 (E)	1.9	2.0	2.0	1.0	2.5
AG25XF1	1.5	1.0	1.0	1.0	3.0
A16303-50	2.1	2.0	2.0	1.0	3.5
A16305-141	1.8	2.0	1.0	1.0	3.0
A16307-117	1.5	1.0	1.0	1.0	3.0
A16331-57	2.0	1.5	2.0	2.0	2.5
A16333-172	1.8	2.0	1.0	1.0	3.0
A16333-218	1.6	1.0	2.0	1.0	2.5
A16802-57	1.6	1.5	2.0	1.0	2.0
E20154	2.0	2.0	2.0	1.0	3.0
E20195	1.8	1.5	1.0	1.0	3.5
E20217GT	2.1	2.0	2.0	1.0	3.5
E20220GT	2.1	2.0	2.0	1.5	3.0
E21287	2.1	3.0	2.0	1.0	2.5
E21312	1.9	2.5	1.0	1.0	3.0
E20234GT	2.0	2.0	2.0	1.0	3.0
E21417	2.8	2.5	3.0	2.0	3.5
E20303T	1.9	1.5	2.0	1.5	2.5
E20316T	1.8	1.0	2.0	1.0	3.0
E20394	1.6	1.5	1.0	1.0	3.0
E20404	1.9	1.0	2.0	1.0	3.5
HM19-33314	1.8	1.0	1.0	1.0	4.0
HM19-39232	1.9	1.0	2.0	1.0	3.5
HM19-40088	1.9	1.5	2.0	1.0	3.0
HM19-42050	1.6	2.0	1.0	1.0	2.5
LD19-12524	1.8	1.0	2.0	1.0	3.0
LD19-12560	2.3	2.0	2.0	1.0	4.0
LD19-12679	1.4	1.5	1.0	1.0	2.0
LD19-21029G	1.5	1.0	1.0	1.0	3.0
LD19-21161	2.1	2.0	2.0	1.0	3.5
LD19-22072	1.8	2.0	1.0	1.0	3.0
LD19-7475	2.3	2.0	2.0	1.0	4.0
LD20-5065051	1.9	2.0	2.0	1.0	2.5
LD20-5069041	1.6	1.5	2.0	1.0	2.0
M17R-908-1009	1.9	2.0	2.0	1.0	2.5
M17R-908-1045	1.8	1.5	2.0	1.0	2.5

PRELIMINARY TEST II TRAITED MATERIAL, 2022

PROTEIN (%)

Strain	Mean 4 Tests	Ames IA	Urbana IL	West Lafayette IN	East Lansing MI
IA2102 (II)	33.9	34.8	34.3	33.1	33.4
U14-910097 (SCN) (L)	31.9	33.8	30.9	32.3	30.5
AG17XF2 (E)	33.5	33.7	33.6	33.8	33.1
AG25XF1	33.6	32.6	34.3	34.6	33.0
A16303-50	35.9	36.6	37.4	35.8	33.9
A16305-141	36.4	37.3	36.5	37.3	34.3
A16307-117	36.5	36.8	37.8	35.8	35.6
A16331-57	33.4	34.6	32.0	34.7	32.5
A16333-172	33.8	35.0	33.7	34.0	32.7
A16333-218	34.9	36.8	35.0	35.2	32.5
A16802-57	36.0	36.3	38.1	35.8	34.0
E20154	36.0	36.0	36.9	36.2	35.0
E20195	33.4	34.1	34.3	32.5	32.7
E20217GT	31.8	32.1	32.6	31.3	31.1
E20220GT	33.0	34.9	32.3	33.4	31.6
E21287	35.1	36.3	35.0	35.0	34.3
E21312	35.8	36.7	35.6	36.6	34.4
E20234GT	31.5	32.5	31.3	32.1	30.2
E21417	35.0	35.3	36.0	34.8	34.1
E20303T	35.5	36.9	36.2	36.9	31.9
E20316T	35.4	35.0	36.9	35.9	33.9
E20394	36.2	39.3	35.8	35.5	34.3
E20404	36.5	37.4	37.2	35.6	35.9
HM19-33314	33.9	33.3	34.8	34.9	32.5
HM19-39232	33.2	33.2	34.9	32.6	32.1
HM19-40088	34.0	33.7	34.6	35.2	32.4
HM19-42050	37.0	37.6	37.8	37.1	35.5
LD19-12524	35.4	36.1	35.4	36.5	33.8
LD19-12560	33.9	34.5	34.6	32.7	33.8
LD19-12679	34.7	34.9	35.1	34.8	33.8
LD19-21029G	34.1	34.9	35.2	33.9	32.5
LD19-21161	35.4	35.2	36.9	35.8	33.9
LD19-22072	34.0	34.3	34.6	34.3	32.9
LD19-7475	34.0	33.9	34.5	35.0	32.5
LD20-5065051	35.2	37.7	35.3	34.1	33.6
LD20-5069041	34.6	35.5	35.5	34.5	33.0
M17R-908-1009	34.8	34.2	35.0	35.4	34.5
M17R-908-1045	32.6	32.7	33.1	33.0	31.8

PRELIMINARY TEST II TRAITED MATERIAL, 2022

OIL (%)

Strain	Mean 4 Tests	Ames IA	Urbana IL	West Lafayette IN	East Lansing MI
IA2102 (II)	19.1	18.2	19.6	19.7	19.0
U14-910097 (SCN) (L)	20.4	19.3	20.8	20.8	20.9
AG17XF2 (E)	20.0	20.1	20.0	20.3	19.7
AG25XF1	19.7	19.7	19.8	19.9	19.6
A16303-50	19.5	18.8	19.1	19.9	20.3
A16305-141	18.8	18.2	18.7	18.8	19.7
A16307-117	17.9	17.3	17.4	18.7	18.1
A16331-57	19.1	17.8	19.3	19.6	19.8
A16333-172	19.9	19.2	19.8	20.3	20.4
A16333-218	19.6	18.1	19.4	20.2	20.7
A16802-57	17.9	17.6	15.8	19.2	18.8
E20154	19.2	19.2	19.0	18.9	19.8
E20195	19.5	18.7	19.3	20.3	19.7
E20217GT	20.3	19.5	20.2	21.2	20.2
E20220GT	20.4	19.7	20.9	20.5	20.7
E21287	19.1	17.8	19.5	19.8	19.4
E21312	19.4	18.9	19.8	19.2	19.7
E20234GT	20.1	19.1	20.3	20.4	20.6
E21417	19.3	18.6	19.2	19.7	19.7
E20303T	18.7	16.8	18.8	18.7	20.5
E20316T	19.2	18.6	19.0	19.4	19.7
E20394	19.4	17.6	19.6	20.4	19.9
E20404	18.6	17.7	19.0	19.1	18.7
HM19-33314	19.7	19.2	19.5	20.4	19.9
HM19-39232	19.4	18.9	18.9	19.9	20.0
HM19-40088	19.8	19.5	19.6	19.7	20.5
HM19-42050	18.1	17.6	17.8	18.6	18.6
LD19-12524	19.7	18.8	20.1	19.6	20.4
LD19-12560	20.7	20.3	20.2	21.3	20.9
LD19-12679	19.7	19.1	19.9	20.0	19.9
LD19-21029G	19.8	18.7	19.4	20.2	21.0
LD19-21161	19.0	18.3	18.9	19.2	19.8
LD19-22072	19.9	19.0	19.8	20.4	20.4
LD19-7475	20.4	20.0	20.5	20.2	20.8
LD20-5065051	18.9	17.5	18.5	19.8	19.7
LD20-5069041	19.5	18.6	19.3	19.7	20.3
M17R-908-1009	19.0	18.6	19.3	18.9	19.0
M17R-908-1045	19.8	19.3	20.0	20.0	20.0

PRELIMINARY TEST II TRAITED MATERIAL, 2022

REGIONAL SUMMARY - SEED COMPOSITION (FATTY ACID)

No. of Tests Strain	Palmitic 4 %	Stearic 4 %	Oleic 4 %	Linoleic 4 %	Linolenic 4 %
IA2102 (II)	11.3	4.2	20.4	54.8	9.4
U14-910097 (SCN) (L)	11.0	3.8	26.8	50.9	7.6
A16303-50	7.0	3.4	78.2	7.0	4.4
A16305-141	7.5	3.9	78.0	6.4	4.3
A16307-117	7.5	3.3	77.6	9.0	2.6
E20154	4.8	3.4	82.8	6.8	2.1
E20195	3.5	3.1	82.9	8.3	2.1
E21287	5.5	3.4	79.0	9.6	2.4
E21312	5.1	4.0	81.1	7.7	2.1
E21417	4.9	3.7	77.5	9.9	3.9
E20394	7.1	3.8	75.9	9.4	3.8
E20404	5.6	3.2	80.1	6.8	4.2
LD19-12524	7.0	3.8	83.1	3.7	2.3
LD19-12560	6.8	3.6	83.9	3.5	2.2
LD19-12679	6.6	3.6	84.2	3.5	2.1
LD19-21029G	7.3	3.4	83.0	3.9	2.3
LD19-21161	7.4	3.5	82.9	3.7	2.5
LD19-22072	6.3	3.4	84.3	3.8	2.2
LD19-7475	5.9	3.1	85.9	3.1	2.0
LD20-5065051	7.8	3.9	68.7	15.8	3.9
LD20-5069041	6.6	3.2	83.7	4.1	2.5
Mean	6.8	3.6	75.2	11.0	3.4

PRELIMINARY TEST II TRAITED MATERIAL, 2022

FATTY ACID, PALMITIC (%)

Strain	Mean 4 Tests	Ames IA	Urbana IL	West Lafayette IN	East Lansing MI
IA2102 (II)	11.3	11.3	11.6	10.9	11.1
U14-910097 (SCN) (L)	11.0	10.3	11.4	11.0	11.4
A16303-50	7.0	7.6	7.0	6.6	6.8
A16305-141	7.5	7.9	7.5	7.3	7.2
A16307-117	7.5	7.7	7.8	7.0	7.5
E20154	4.8	4.7	4.8	4.7	5.0
E20195	3.5	3.6	3.4	3.5	3.6
E21287	5.5	5.8	5.5	5.4	5.4
E21312	5.1	6.1	4.5	4.5	5.1
E21417	4.9	6.3	4.6	4.2	4.6
E20394	7.1	7.9	6.9	6.9	6.8
E20404	5.6	6.4	5.0	5.4	5.6
LD19-12524	7.0	7.5	7.0	6.7	6.9
LD19-12560	6.8	7.3	6.9	6.4	6.4
LD19-12679	6.6	6.9	6.7	6.4	6.4
LD19-21029G	7.3	7.6	7.5	7.2	7.0
LD19-21161	7.4	7.8	7.2	7.5	6.9
LD19-22072	6.3	6.7	6.2	6.2	6.1
LD19-7475	5.9	6.3	5.8	5.8	5.7
LD20-5065051	7.8	10.8	7.1	6.6	6.6
LD20-5069041	6.6	6.7	6.7	6.3	6.7

PRELIMINARY TEST II TRAITED MATERIAL, 2022

FATTY ACID, STEARIC (%)

Strain	Mean 4 Tests	Ames IA	Urbana IL	West Lafayette IN	East Lansing MI
IA2102 (II)	4.2	4.5	3.9	4.5	4.0
U14-910097 (SCN) (L)	3.8	3.8	3.7	3.7	3.8
A16303-50	3.4	3.2	3.4	3.6	3.7
A16305-141	3.9	3.7	3.7	4.0	4.2
A16307-117	3.3	3.3	3.1	3.4	3.2
E20154	3.4	3.3	3.4	3.6	3.4
E20195	3.1	3.1	3.1	3.2	3.1
E21287	3.4	3.5	3.5	3.3	3.3
E21312	4.0	3.7	3.9	4.4	4.2
E21417	3.7	3.8	3.6	4.0	3.6
E20394	3.8	3.8	3.6	3.7	4.2
E20404	3.2	3.3	3.4	2.9	3.3
LD19-12524	3.8	3.8	4.0	3.6	3.8
LD19-12560	3.6	3.5	3.5	3.6	3.6
LD19-12679	3.6	3.4	3.5	3.6	3.8
LD19-21029G	3.4	3.3	3.5	3.4	3.7
LD19-21161	3.5	3.4	3.5	3.5	3.8
LD19-22072	3.4	3.4	3.3	3.5	3.4
LD19-7475	3.1	3.0	3.0	3.0	3.4
LD20-5065051	3.9	4.1	3.7	3.7	3.9
LD20-5069041	3.2	3.1	3.1	3.2	3.4

PRELIMINARY TEST II TRAITED MATERIAL, 2022

FATTY ACID, OLEIC (%)

Strain	Mean 4 Tests	Ames IA	Urbana IL	West Lafayette IN	East Lansing MI
IA2102 (II)	20.4	21.1	18.6	21.7	20.0
U14-910097 (SCN) (L)	26.8	41.9	22.8	21.5	20.7
A16303-50	78.2	76.8	79.0	79.1	77.9
A16305-141	78.0	76.5	80.0	77.3	78.2
A16307-117	77.6	77.3	78.7	77.9	76.7
E20154	82.8	83.3	83.9	82.9	81.3
E20195	82.9	82.4	84.2	83.1	81.8
E21287	79.0	78.2	79.8	80.5	77.7
E21312	81.1	79.1	82.6	81.7	81.1
E21417	77.5	66.5	82.2	81.8	79.7
E20394	75.9	65.5	80.7	79.8	77.4
E20404	80.1	79.0	81.6	80.7	79.2
LD19-12524	83.1	82.2	83.6	84.0	82.7
LD19-12560	83.9	82.6	83.9	84.5	84.5
LD19-12679	84.2	84.0	84.5	84.5	83.7
LD19-21029G	83.0	82.2	83.1	83.8	82.7
LD19-21161	82.9	81.2	83.6	83.4	83.6
LD19-22072	84.3	83.5	84.9	84.7	84.2
LD19-7475	85.9	84.8	86.4	86.6	85.7
LD20-5065051	68.7	25.3	82.6	83.7	83.4
LD20-5069041	83.7	82.3	84.1	85.2	83.1

PRELIMINARY TEST II TRAITED MATERIAL, 2022

FATTY ACID, LINOLEIC (%)

Strain	Mean 4 Tests	Ames IA	Urbana IL	West Lafayette IN	East Lansing MI
IA2102 (II)	54.8	53.5	56.5	54.4	54.8
U14-910097 (SCN) (L)	50.9	37.5	54.3	55.9	55.8
A16303-50	7.0	7.7	6.1	6.9	7.1
A16305-141	6.4	7.1	5.0	7.2	6.4
A16307-117	9.0	8.0	7.9	9.6	10.7
E20154	6.8	6.5	5.9	6.7	8.2
E20195	8.3	8.8	7.1	8.1	9.3
E21287	9.6	10.0	8.8	8.5	11.1
E21312	7.7	8.7	7.1	7.5	7.6
E21417	9.9	18.7	6.2	6.5	8.4
E20394	9.4	17.9	5.5	6.3	7.9
E20404	6.8	7.1	6.9	6.2	7.0
LD19-12524	3.7	4.0	3.3	3.5	4.1
LD19-12560	3.5	4.1	3.4	3.2	3.4
LD19-12679	3.5	3.5	3.2	3.5	3.9
LD19-21029G	3.9	4.4	3.6	3.5	4.3
LD19-21161	3.7	4.9	3.3	3.3	3.3
LD19-22072	3.8	4.1	3.4	3.5	4.1
LD19-7475	3.1	3.7	2.9	2.7	3.0
LD20-5065051	15.8	52.0	3.9	3.7	3.6
LD20-5069041	4.1	5.2	3.7	3.2	4.3

PRELIMINARY TEST II TRAITED MATERIAL, 2022

FATTY ACID, LINOLENIC (%)

Strain	Mean 4 Tests	Ames IA	Urbana IL	West Lafayette IN	East Lansing MI
IA2102 (II)	9.4	9.5	9.4	8.6	10.0
U14-910097 (SCN) (L)	7.6	6.4	7.8	7.8	8.2
A16303-50	4.4	4.8	4.6	3.8	4.5
A16305-141	4.3	4.7	3.9	4.3	4.1
A16307-117	2.6	3.6	2.6	2.2	2.0
E20154	2.1	2.3	2.0	2.1	2.2
E20195	2.1	2.1	2.2	2.1	2.2
E21287	2.4	2.6	2.4	2.2	2.4
E21312	2.1	2.3	2.0	1.9	2.1
E21417	3.9	4.8	3.4	3.5	3.8
E20394	3.8	5.0	3.3	3.3	3.7
E20404	4.2	4.2	3.1	4.8	4.9
LD19-12524	2.3	2.5	2.1	2.2	2.4
LD19-12560	2.2	2.5	2.2	2.2	2.1
LD19-12679	2.1	2.2	2.1	2.0	2.2
LD19-21029G	2.3	2.5	2.3	2.1	2.3
LD19-21161	2.5	2.7	2.4	2.3	2.4
LD19-22072	2.2	2.4	2.2	2.1	2.2
LD19-7475	2.0	2.2	1.9	1.8	2.1
LD20-5065051	3.9	7.8	2.7	2.4	2.6
LD20-5069041	2.5	2.7	2.5	2.2	2.6

PRELIMINARY TEST II TRAITED MATERIAL, 2022

REGIONAL SUMMARY - SEED COMPOSITION (SUGAR)

Strain	Sucrose 4 %	Raffinose 4 %	Stachyose 4 %	Total Sugar 4 %
IA2102 (II)	3.4	0.7	2.7	6.7
U14-910097 (SCN) (L)	3.0	0.6	3.0	6.6
A16331-57	3.3	0.6	3.0	7.0
A16333-172	2.6	0.5	3.0	6.1
A16333-218	2.5	0.5	3.0	6.1
A16802-57	2.5	0.5	2.3	5.3
Mean	2.9	0.6	2.8	6.3

PRELIMINARY TEST II TRAITED MATERIAL, 2022

SEED SUGAR, SUCROSE (%)

Strain	Mean 4 Tests	Ames IA	Urbana IL	West Lafayette IN	East Lansing MI
IA2102 (II)	3.4	4.7	2.6	2.9	3.3
U14-910097 (SCN) (L)	3.0	3.2	3.3	2.2	3.3
A16331-57	3.3	3.6	3.5	2.8	3.5
A16333-172	2.6	3.2	2.3	2.3	2.6
A16333-218	2.5	2.6	2.5	1.9	3.0
A16802-57	2.5	2.8	2.8	2.1	2.3

PRELIMINARY TEST II TRAITED MATERIAL, 2022

SEED SUGAR, RAFFINOSE (%)

Strain	Mean 4 Tests	Ames IA	Urbana IL	West Lafayette IN	East Lansing MI
IA2102 (II)	0.7	0.7	0.5	0.7	0.8
U14-910097 (SCN) (L)	0.6	0.5	0.7	0.6	0.6
A16331-57	0.6	0.5	0.6	0.6	0.7
A16333-172	0.5	0.5	0.6	0.6	0.5
A16333-218	0.5	0.4	0.5	0.6	0.6
A16802-57	0.5	0.4	0.6	0.5	0.4

PRELIMINARY TEST II TRAITED MATERIAL, 2022

SEED SUGAR, STACHYOSE (%)

Strain	Mean 4 Tests	Ames IA	Urbana IL	West Lafayette IN	East Lansing MI
IA2102 (II)	2.7	3.1	2.2	2.6	2.9
U14-910097 (SCN) (L)	3.0	2.8	3.3	2.7	3.2
A16331-57	3.0	2.8	3.0	2.9	3.4
A16333-172	3.0	3.0	2.8	3.1	3.1
A16333-218	3.0	2.6	2.9	3.0	3.6
A16802-57	2.3	2.3	2.6	2.2	2.1

PRELIMINARY TEST II TRAITED MATERIAL, 2022

SEED SUGAR, TOTAL (%)

Strain	Mean 4 Tests	Ames IA	Urbana IL	West Lafayette IN	East Lansing MI
IA2102 (II)	6.7	8.5	5.3	6.2	7.0
U14-910097 (SCN) (L)	6.6	6.6	7.3	5.5	7.1
A16331-57	7.0	7.0	7.1	6.3	7.5
A16333-172	6.1	6.6	5.7	6.0	6.2
A16333-218	6.1	5.6	6.0	5.5	7.2
A16802-57	5.3	5.5	6.0	4.8	4.9

**Northern Regional Uniform Test
Uniform Test III, Traited Material, 2022**

Ent.	Strain	Parentage		Seed Source	Previous Testing	Gen. Comp.	Unique Traits
		Female	Male				
1	LD11-2170 (III)	LD11-2170 (III)	Syngenta 03JR313108	Diers	7	F5	SCN
2	U15-606207 (SCN)	LD07-3419	U09-105007	Graef	2	F5	SCN (HR, HR), Rps
3	AG25XF1 (E)			Cai	Initial		RR2, Xtend Flex
4	AG38XF1 (L)			Cai	Initial		RR2, Xtend Flex
5	A14068-102	IA1026/IA3027LF	IA3050	Singh	UTIII-06		high prot, yhil
6	CR17-0594	KB10-22#1551 +	CL0J095-4-6	Rainey	1	F5	Sugar Comp
7	CR192033	KB10-22#1548 b	DS11-13024	Rainey	PTIIITM-05	F6	Sugar Comp, Rps
8	CR192111	KB10-22#1548 b	DS11-13024	Rainey	PTIIITM-06	F6	Sugar Comp, Rps
9	CR194807	KB10-22#1548 b	DS11-12057	Rainey	PTIIITM-07	F6	Sugar Comp, Rps
10	CR195446	KB10-22#1548 b	DS11-12057	Rainey	PTIIITM-08	F6	Sugar Comp, Rps
11	HM17-03278	M11-M055	M11-L012xSG0-717	McHale	1		>50% meal, Rps
12	HM18-26063	Summit	HS8W-103	McHale	PTIIITM-09	F4	High prot meal, rps
13	LD19-12315	LD12-459	(LD16-10099 x LD11-2170)	Diers	Initial	F6	HOLL, SCN, Rps
14	LD19-12834	LD07-3395bf x LDXGL15-009-1	LDXGL15-008-1 x LD12-3903	Diers	PTIIITM-18	F4	HOLL, SCN
15	LD19-12840	(LD07-3395bf x LDXGL15-009-1)	(LDXGL15-008-1 x LD12-3903)	Diers	Initial	F4	HOLL, SCN, Rps
16	LD19-22225	LD13-8769 x LDX16-210-2-2	LD13-1429 x LDX16-229-1-2	Diers	PTIIITM-20	F5	HOLL, SCN
17	SA19-311H	SA13-2699	F2 SA13-2699HOLL	Scaboo	PTIIITM-28	F5	HOLL
18	SA19-316H	SA13-2699	F2 SA13-2699HOLL	Scaboo	Initial	F5	HOLL, Rhg1b, SC

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code
LD11-2170 (III)	PLtBDYBrI
U15-606207 (SCN)	PGTDYBfI
AG25XF1 (E)	PGTDYGI
AG38XF1 (L)	PGBDYIbI
A14068-102	PLtTSYYI
CR17-0594	WTTSYGI
CR192033	WTBDYBI
CR192111	WLtBDYBI
CR194807	P+WGTDYHI
CR195446	P+WT+Lt+GTDYHI
HM17-03278	P+WT+GBDYHI
HM18-26063	PGBSYIbI
LD19-12315	PGBDYBfI
LD19-12834	WLtBSYBI
LD19-12840	PGB+TDYIbI
LD19-22225	WLtBDYBI
SA19-311H	PGTSYIbI
SA19-316H	PGBSYIbI

UNIFORM TEST III TRAITED MATERIAL, 2022

REGIONAL SUMMARY

No. of Tests Strain	Yield	Rank	Maturity	Lodging	Plant Height	Seed Size	Seed Quality	<u>Composition</u>	
	9 bu/a	9 No.	9 Date	9 Score	9 In.	7 g/100	7 Score	7 Protein %	7 Oil %
LD11-2170 (III)	66.6	2	9/26	1.4	31	16.5	1.2	34.4	20.1
U15-606207 (SCN)	66.2	4	4.6	1.2	32	16.6	1.2	33.0	20.1
AG25XF1 (E)	62.0	9	-3.0	1.5	32	17.2	1.3	34.4	19.7
AG38XF1 (L)	66.3	3	10.0	1.3	36	17.2	1.4	34.3	18.8
A14068-102	57.2	12	2.8	1.8	35	16.4	1.2	36.0	18.1
CR17-0594	54.4	16	1.6	1.5	35	15.7	1.9	36.7	18.7
CR192033	54.5	15	5.1	1.6	36	16.8	1.3	35.5	19.0
CR192111	52.7	18	6.1	2.2	40	17.1	1.3	33.4	19.2
CR194807	54.1	17	5.1	1.9	34	17.6	1.4	36.6	18.4
CR195446	56.9	13	6.8	1.6	35	18.6	1.4	36.0	18.3
HM17-03278	57.5	11	3.6	1.7	35	18.0	1.3	37.2	18.4
HM18-26063	55.3	14	5.4	2.7	40	18.6	1.6	37.9	17.9
LD19-12315	63.0	7	4.7	1.2	29	14.0	1.5	35.6	19.6
LD19-12834	66.7	1	7.2	1.5	33	15.6	1.3	34.5	20.2
LD19-12840	63.5	6	5.5	1.3	30	15.7	1.4	34.0	20.6
LD19-22225	64.1	5	3.4	2.1	36	15.7	1.4	34.9	19.3
SA19-311H	61.0	10	4.6	2.2	34	14.0	1.4	35.7	19.1
SA19-316H	62.3	8	7.8	1.6	36	15.6	1.3	36.6	18.9
Mean	60.2			1.7	34.4	16.5	1.4	35.4	19.1
C.V. (%)	9.2								
L.S.D. (5%)	3.0								

119.7 Days After Planting

UNIFORM TEST III TRAITED MATERIAL, 2022

2021-2022 2-YEAR MEAN

No. of Tests Strain	Yield	Rank	Maturity	Lodging	Plant Height	Seed Size	Seed Quality	<u>Composition</u>	
	16 bu/a	16 No.	17 Date	17 Score	16 In.	13 g/100	13 Score	13 Protein %	13 Oil %
LD11-2170 (III)	69.0	2	9/23	1.3	31	15.8	1.3	34.0	20.5
U15-606207 (SCN)	72.6	1	3.3	1.1	32	16.2	1.5	32.9	20.3
CR17-0594	57.3	4	0.3	1.6	35	15.1	1.7	36.5	19.0
HM17-03278	64.9	3	1.6	1.8	35	17.4	1.4	37.1	18.7

120.1 Days After Planting

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UNIFORM TEST III TRAITED MATERIAL, 2022

YIELD (bu/a)

Strain	Mean 9 Tests	Ames IA	Urbana IL	Butler- ville IN	Romney IN*	Wanatah IN
LD11-2170 (III)	66.6	76.9	78.0	91.7	66.2	75.0
U15-606207 (SCN)	66.2	71.1	73.5	91.5	89.8	76.5
AG25XF1 (E)	62.0	76.6	73.3	76.7	59.5	76.2
AG38XF1 (L)	66.3	68.8	78.5	93.1		72.8
A14068-102	57.2	59.3	69.3	66.5	79.5	70.9
CR17-0594	54.4	62.7	63.5	68.3	59.4	60.9
CR192033	54.5	64.9	64.3	67.4	60.7	57.7
CR192111	52.7	58.8	54.7	68.4	58.5	54.9
CR194807	54.1	57.9	62.0	68.2	63.0	64.9
CR195446	56.9	60.0	62.9	76.6	62.2	65.7
HM17-03278	57.5	66.3	69.5	79.6	49.0	64.1
HM18-26063	55.3	57.6	65.5	84.2	36.3	56.1
LD19-12315	63.0	76.3	72.0	82.7	82.1	77.2
LD19-12834	66.7	70.7	72.4	87.4	69.5	73.4
LD19-12840	63.5	68.1	73.1	80.8	72.8	70.1
LD19-22225	64.1	66.4	71.2	77.4	45.9	73.2
SA19-311H	61.0	65.5	67.8	69.5	60.0	68.5
SA19-316H	62.3	73.9	71.7	71.5	68.2	69.7
Location Mean		66.8	69.1	77.9	63.7	68.2
C.V. (%)		5.0	3.6	6.3	21.3	3.4
L.S.D. (5%)		5.5	5.2	10.4	28.9	5.9
Row sp. (In.)		30	30	30	30	30
Rows/Plot		4	4	4	2	4
Reps		3	2	2	2	2

* Data not included in mean.

UNIFORM TEST III TRAITED MATERIAL, 2022

YIELD (bu/a)

Strain	West Lafayette IN	Albany MO	Colum- bia MO	Novelty MO	Wooster OH
LD11-2170 (III)	69.6	57.3	52.8	43.6	54.2
U15-606207 (SCN)	58.3	52.3	71.5	46.7	54.6
AG25XF1 (E)	56.8	55.1	55.8	38.8	48.6
AG38XF1 (L)	60.6	58.5	62.6	51.6	49.8
A14068-102	52.0	57.8	40.2	41.0	58.0
CR17-0594	54.3	48.0	45.5	36.6	50.0
CR192033	57.0	50.2	39.0	39.3	50.5
CR192111	55.4	49.8	46.8	38.8	46.5
CR194807	52.8	43.5	46.3	42.6	48.7
CR195446	57.9	49.8	49.5	38.4	51.0
HM17-03278	60.8	51.2	46.5	33.1	46.6
HM18-26063	50.1	51.2	38.5	37.9	57.0
LD19-12315	57.7	47.5	56.0	46.4	51.4
LD19-12834	72.2	55.0	59.3	47.2	62.3
LD19-12840	69.3	48.7	68.5	44.1	48.6
LD19-22225	60.6	59.4	61.3	52.1	54.9
SA19-311H	59.8	57.0	61.6	40.0	59.4
SA19-316H	59.1	52.8	66.7	42.2	53.0
Location Mean	59.1	52.5	53.8	42.2	52.5
C.V. (%)	5.5	8.2	14.5	11.8	12.3
L.S.D. (5%)	6.8	7.2	13.0	8.3	14.9
Row sp. (In.)	30	30	30	30	8
Rows/Plot	4	4	4	4	8
Reps	2	3	3	3	3

UNIFORM TEST III TRAITED MATERIAL, 2022

YIELD RANK

Strain	Yield Rank	Ames IA	Urbana IL	Butler-ville IN	Romney IN	Wanatah IN
LD11-2170 (III)	2	1	2	2	7	4
U15-606207 (SCN)	4	5	3	3	1	2
AG25XF1 (E)	9	2	4	10	12	3
AG38XF1 (L)	3	7	1	1		7
A14068-102	12	15	11	18	3	8
CR17-0594	16	13	15	15	13	15
CR192033	15	12	14	17	10	16
CR192111	18	16	18	14	14	18
CR194807	17	17	17	16	8	13
CR195446	13	14	16	11	9	12
HM17-03278	11	10	10	8	15	14
HM18-26063	14	18	13	5	17	17
LD19-12315	7	3	7	6	2	1
LD19-12834	1	6	6	4	5	5
LD19-12840	6	8	5	7	4	9
LD19-22225	5	9	9	9	16	6
SA19-311H	10	11	12	13	11	11
SA19-316H	8	4	8	12	6	10

UNIFORM TEST III TRAITED MATERIAL, 2022

MATURITY (date)

Strain	Mean 9 Tests	Ames IA	Urbana IL	Butler-ville IN	Romney IN	Wanatah IN
LD11-2170 (III)	9/26		9/24	9/15	10/5	9/20
U15-606207 (SCN)	5		3	3	5	4
AG25XF1 (E)	-3		-4	-5	0	-2
AG38XF1 (L)	10		16	7		10
A14068-102	3		3	2	6	5
CR17-0594	2		4	-1	-1	4
CR192033	5		11	3	2	6
CR192111	6		10	4	6	6
CR194807	5		8	4	6	6
CR195446	7		12	5	3	7
HM17-03278	4		12	3	4	6
HM18-26063	5		13	5	5	8
LD19-12315	5		8	4	6	4
LD19-12834	7		10	7	6	7
LD19-12840	5		6	5	6	5
LD19-22225	3		3	3	6	5
SA19-311H	5		5	3	6	5
SA19-316H	8		14	8	6	8
Date Planted	5/30		5/17	5/11	6/13	5/17
Days to Mature	120		130	127	114	126

UNIFORM TEST III TRAITED MATERIAL, 2022

YIELD RANK

Strain	West Lafayette IN	Albany MO	Columbia MO	Novelty MO	Wooster OH
LD11-2170 (III)	2	4	10	7	7
U15-606207 (SCN)	9	9	1	4	6
AG25XF1 (E)	13	6	9	13	16
AG38XF1 (L)	5	2	4	2	13
A14068-102	17	3	16	10	3
CR17-0594	15	16	15	17	12
CR192033	12	12	17	12	11
CR192111	14	13	12	13	18
CR194807	16	18	14	8	14
CR195446	10	14	11	15	10
HM17-03278	4	11	13	18	17
HM18-26063	18	10	18	16	4
LD19-12315	11	17	8	5	9
LD19-12834	1	7	7	3	1
LD19-12840	3	15	2	6	15
LD19-22225	5	1	6	1	5
SA19-311H	7	5	5	11	2
SA19-316H	8	8	3	9	8

UNIFORM TEST III TRAITED MATERIAL, 2022

MATURITY (date)

Strain	West Lafayette IN	Albany MO	Columbia MO	Novelty MO	Wooster OH
LD11-2170 (III)	9/22	10/7	9/27	10/7	9/24
U15-606207 (SCN)	2	2	7	4	11
AG25XF1 (E)	-6	-4	2	-4	-4
AG38XF1 (L)	10	7	10	6	14
A14068-102	1	3	2	-2	6
CR17-0594	-1	2	3	-4	7
CR192033	5	3	4	2	11
CR192111	2	4	6	4	14
CR194807	5	3	3	2	11
CR195446	7	3	5	5	14
HM17-03278	1	3	4	-3	5
HM18-26063	5	3	4	-4	10
LD19-12315	3	3	6	0	9
LD19-12834	6	4	9	4	14
LD19-12840	6	2	7	3	11
LD19-22225	-1	3	7	-3	8
SA19-311H	4	2	5	4	9
SA19-316H	7	4	6	4	14
Date Planted	5/12	6/21	6/15	6/16	5/25
Days to Mature	133	108	104	113	122

UNIFORM TEST III TRAITED MATERIAL, 2022

LODGING (score)

Strain	Mean 9 Tests	Ames IA	Urbana IL	Butler- ville IN	Romney IN	Wanatah IN
LD11-2170 (III)	1.4	1.0	1.3	2.0		1.5
U15-606207 (SCN)	1.2	1.0	1.3	2.0		1.0
AG25XF1 (E)	1.5	1.0	1.5	2.0		2.0
AG38XF1 (L)	1.3	1.0	1.5	2.5		1.0
A14068-102	1.8	2.7	2.0	2.5		2.0
CR17-0594	1.5	1.0	1.3	2.5		2.0
CR192033	1.6	1.3	2.0	3.5		2.0
CR192111	2.2	2.0	2.0	3.0		3.5
CR194807	1.9	1.7	2.3	4.0		2.5
CR195446	1.6	1.0	2.0	3.0		1.5
HM17-03278	1.7	1.0	2.3	2.5		2.5
HM18-26063	2.7	2.3	4.3	3.5		3.0
LD19-12315	1.2	1.0	1.5	1.5		1.5
LD19-12834	1.5	1.0	1.8	2.5		1.5
LD19-12840	1.3	1.0	1.5	3.0		1.0
LD19-22225	2.1	2.7	1.8	2.5		2.5
SA19-311H	2.2	3.3	2.3	4.0		2.5
SA19-316H	1.6	1.0	2.3	3.0		2.0

UNIFORM TEST III TRAITED MATERIAL, 2022

PLANT HEIGHT (inches)

Strain	Mean 9 Tests	Ames IA	Urbana IL	Butler- ville IN	Romney IN	Wanatah IN
LD11-2170 (III)	31.4	31	35	39		40
U15-606207 (SCN)	31.6	33	35	38		41
AG25XF1 (E)	32.1	32	37	39		40
AG38XF1 (L)	35.6	36	41	44		44
A14068-102	34.7	37	41	38		43
CR17-0594	34.8	36	40	41		44
CR192033	35.8	36	45	42		45
CR192111	40.5	38	47	46		48
CR194807	33.5	34	42	43		40
CR195446	35.1	36	43	43		45
HM17-03278	35.0	35	42	39		45
HM18-26063	39.9	38	50	48		46
LD19-12315	29.1	30	35	35		39
LD19-12834	33.2	34	36	39		41
LD19-12840	30.2	33	32	38		39
LD19-22225	35.8	36	41	41		44
SA19-311H	34.5	37	41	42		44
SA19-316H	36.4	37	41	47		48

UNIFORM TEST III TRAITED MATERIAL, 2022

LODGING (score)

Strain	West Lafayette IN	Albany MO	Columbia MO	Novelty MO	Wooster OH
LD11-2170 (III)	1.0	1.8	1.3	1.5	1.0
U15-606207 (SCN)	1.0	1.0	1.0	1.5	1.0
AG25XF1 (E)	1.0	2.0	1.3	1.5	1.0
AG38XF1 (L)	1.0	1.2	1.0	1.5	1.0
A14068-102	1.0	1.8	1.3	1.5	1.0
CR17-0594	1.0	1.5	1.8	1.5	1.0
CR192033	1.0	1.3	1.2	1.5	1.0
CR192111	2.0	2.0	1.7	2.5	1.0
CR194807	1.0	1.5	1.7	1.5	1.0
CR195446	1.0	1.8	1.5	1.5	1.0
HM17-03278	1.5	1.3	2.0	1.5	1.0
HM18-26063	2.0	2.7	3.7	2.0	1.0
LD19-12315	1.0	1.2	1.0	1.5	1.0
LD19-12834	1.0	1.5	1.7	1.5	1.0
LD19-12840	1.0	1.0	1.0	1.5	1.0
LD19-22225	1.0	2.0	2.8	2.3	1.0
SA19-311H	1.5	2.0	1.7	1.8	1.0
SA19-316H	1.0	1.5	1.5	1.5	1.0

UNIFORM TEST III TRAITED MATERIAL, 2022

PLANT HEIGHT (inches)

Strain	West Lafayette IN	Albany MO	Columbia MO	Novelty MO	Wooster OH
LD11-2170 (III)	33	28	24	29	24
U15-606207 (SCN)	32	29	26	27	24
AG25XF1 (E)	32	30	28	28	25
AG38XF1 (L)	36	34	30	28	27
A14068-102	35	35	30	26	28
CR17-0594	36	33	27	28	28
CR192033	38	33	29	28	27
CR192111	43	41	35	35	31
CR194807	35	32	28	24	26
CR195446	36	35	27	25	28
HM17-03278	39	34	29	28	25
HM18-26063	44	41	35	29	29
LD19-12315	30	27	24	21	23
LD19-12834	35	31	28	29	27
LD19-12840	32	27	25	24	23
LD19-22225	37	35	31	30	29
SA19-311H	35	33	26	27	25
SA19-316H	37	34	29	27	28

UNIFORM TEST III TRAITED MATERIAL, 2022

SEED SIZE (g/100)

Strain	Mean 7 Tests	Ames IA	Urbana IL	Butler- ville IN	Romney IN	Wanatah IN
LD11-2170 (III)	16.5	17.4	17.2	15.8		16.6
U15-606207 (SCN)	16.6	15.4	16.6	16.5		16.2
AG25XF1 (E)	17.2	16.7	17.9	16.0		17.5
AG38XF1 (L)	17.2	16.2	17.0	16.0		17.5
A14068-102	16.4	17.1	16.6	15.8		17.4
CR17-0594	15.7	16.4	15.4	14.6		17.0
CR192033	16.8	16.7	16.0	15.9		17.4
CR192111	17.1	16.0	16.8	16.4		17.1
CR194807	17.6	17.4	17.6	16.8		18.8
CR195446	18.6	17.1	18.6	17.5		20.3
HM17-03278	18.0	18.0	18.3	17.4		18.7
HM18-26063	18.6	18.4	19.0	18.7		19.7
LD19-12315	14.0	13.3	18.4	12.6		14.0
LD19-12834	15.6	15.0	15.0	15.7		16.1
LD19-12840	15.7	16.2	16.4	15.2		15.3
LD19-22225	15.7	16.4	15.1	14.4		16.2
SA19-311H	14.0	15.0	14.1	13.0		14.4
SA19-316H	15.6		16.0	14.5		16.4

UNIFORM TEST III TRAITED MATERIAL, 2022

SEED QUALITY (score)

Strain	Mean 7 Tests	Ames IA	Urbana IL	Butler- ville IN	Romney IN	Wanatah IN
LD11-2170 (III)	1.2	1.5	2.0	1.0		1.0
U15-606207 (SCN)	1.2	1.7	1.0	1.0		1.0
AG25XF1 (E)	1.3	2.0	2.0	1.0		1.0
AG38XF1 (L)	1.4	2.0	2.0	1.0		1.0
A14068-102	1.2	1.7	1.0	1.0		1.0
CR17-0594	1.9	3.0	2.0	1.0		2.5
CR192033	1.3	1.3	2.0	1.0		1.0
CR192111	1.3	2.3	1.0	1.0		1.0
CR194807	1.4	2.0	2.0	1.0		1.0
CR195446	1.4	2.3	2.0	1.0		1.0
HM17-03278	1.3	1.0	2.0	1.0		2.0
HM18-26063	1.6	3.0	2.0	1.0		1.0
LD19-12315	1.5	2.0	2.0	1.0		1.0
LD19-12834	1.3	1.3	2.0	1.0		1.0
LD19-12840	1.4	1.7	2.0	1.0		1.0
LD19-22225	1.4	2.0	2.0	1.0		1.0
SA19-311H	1.4	1.7	2.0	1.0		1.0
SA19-316H	1.3		2.0	1.0		1.0

UNIFORM TEST III TRAITED MATERIAL, 2022

SEED SIZE (g/100)

Strain	West Lafayette IN	Albany MO	Colum- bia MO	Novelty MO	Wooster OH
LD11-2170 (III)	16.0		14.7		17.7
U15-606207 (SCN)	16.8		15.9		18.6
AG25XF1 (E)	17.1		17.8		17.3
AG38XF1 (L)	17.1		17.9		19.1
A14068-102	16.2		14.1		17.4
CR17-0594	15.6		13.6		17.1
CR192033	16.4		16.0		19.0
CR192111	16.7		17.8		18.7
CR194807	17.2		15.9		19.5
CR195446	19.2		16.8		20.7
HM17-03278	18.0		17.0		18.3
HM18-26063	17.8		15.5		21.2
LD19-12315	12.7		12.7		14.4
LD19-12834	15.3		14.8		17.4
LD19-12840	15.7		13.9		17.0
LD19-22225	15.5		15.1		17.5
SA19-311H	13.5		12.5		15.8
SA19-316H	15.0		14.4		17.3

UNIFORM TEST III TRAITED MATERIAL, 2022

SEED QUALITY (score)

Strain	West Lafayette IN	Albany MO	Colum- bia MO	Novelty MO	Wooster OH
LD11-2170 (III)	1.0		1.0		1.0
U15-606207 (SCN)	1.0		2.0		1.0
AG25XF1 (E)	1.0		1.0		1.0
AG38XF1 (L)	1.5		1.0		1.0
A14068-102	1.0		2.0		1.0
CR17-0594	2.0		2.0		1.0
CR192033	1.0		2.0		1.0
CR192111	1.0		2.0		1.0
CR194807	1.0		2.0		1.0
CR195446	1.5		1.0		1.0
HM17-03278	1.0		1.0		1.0
HM18-26063	1.0		2.0		1.0
LD19-12315	1.0		2.0		1.7
LD19-12834	1.0		2.0		1.0
LD19-12840	1.0		2.0		1.0
LD19-22225	1.0		2.0		1.0
SA19-311H	1.0		2.0		1.0
SA19-316H	1.0		2.0		1.0

UNIFORM TEST III TRAITED MATERIAL, 2022

PROTEIN (%)

Strain	Mean 7 Tests	Ames IA	Urbana IL	Butler- ville IN	Romney IN	Wanatah IN
LD11-2170 (III)	34.4	34.4	34.9	35.1		34.1
U15-606207 (SCN)	33.0	33.2	33.8	33.6		31.8
AG25XF1 (E)	34.4	32.8	33.5	35.7		35.0
AG38XF1 (L)	34.3	34.3	34.8	34.7		33.5
A14068-102	36.0	36.7	29.8	37.8		36.4
CR17-0594	36.7	37.6	37.6	36.8		36.9
CR192033	35.5	34.8	36.7	35.7		35.5
CR192111	33.4	33.4	33.3	33.7		33.3
CR194807	36.6	36.0	36.3	36.4		36.8
CR195446	36.0	35.6	37.3	36.3		35.3
HM17-03278	37.2	37.0	38.0	37.4		37.7
HM18-26063	37.9	37.1	39.6	39.2		37.4
LD19-12315	35.6	35.0	36.1	35.0		35.2
LD19-12834	34.5	35.0	35.2	34.6		33.9
LD19-12840	34.0	34.0	33.9	34.2		33.8
LD19-22225	34.9	35.5	34.0	35.2		34.5
SA19-311H	35.7	35.9	37.4	35.4		34.9
SA19-316H	36.6	35.9	37.2	37.3		36.0

UNIFORM TEST III TRAITED MATERIAL, 2022

OIL (%)

Strain	Mean 7 Tests	Ames IA	Urbana IL	Butler- ville IN	Romney IN	Wanatah IN
LD11-2170 (III)	20.1	19.0	19.6	20.1		20.3
U15-606207 (SCN)	20.1	19.1	19.6	19.7		20.8
AG25XF1 (E)	19.7	19.4	19.8	18.9		19.7
AG38XF1 (L)	18.8	17.8	18.2	19.3		18.9
A14068-102	18.1	16.4	20.2	17.8		18.0
CR17-0594	18.7	17.8	17.8	19.0		18.8
CR192033	19.0	18.0	18.7	19.8		18.9
CR192111	19.2	18.3	18.9	19.4		19.1
CR194807	18.4	17.2	18.6	18.9		18.6
CR195446	18.3	17.5	17.6	19.1		17.8
HM17-03278	18.4	17.8	17.6	18.9		17.9
HM18-26063	17.9	17.3	16.4	18.1		18.5
LD19-12315	19.6	19.0	19.2	19.2		20.1
LD19-12834	20.2	18.9	19.8	20.5		20.2
LD19-12840	20.6	19.5	20.6	20.9		20.4
LD19-22225	19.3	17.8	19.7	19.5		19.4
SA19-311H	19.1	17.7	18.1	19.3		19.6
SA19-316H	18.9	18.0	18.5	18.8		19.0

UNIFORM TEST III TRAITED MATERIAL, 2022

PROTEIN (%)

Strain	West Lafayette IN	Albany MO	Colum- bia MO	Novelty MO	Wooster OH
LD11-2170 (III)	34.0		34.1		34.1
U15-606207 (SCN)	31.8		33.9		32.7
AG25XF1 (E)	34.7		33.3		36.0
AG38XF1 (L)	33.3		34.6		35.0
A14068-102	37.5		36.4		37.2
CR17-0594	35.7		35.4		37.0
CR192033	34.9		34.5		36.2
CR192111	33.0		32.8		34.4
CR194807	38.3		35.6		37.1
CR195446	36.0		34.1		37.5
HM17-03278	36.1		37.3		37.1
HM18-26063	37.0		37.3		38.1
LD19-12315	35.7		35.4		36.4
LD19-12834	35.1		32.9		35.0
LD19-12840	33.9		33.9		34.5
LD19-22225	33.9		34.9		36.3
SA19-311H	36.3		34.5		35.7
SA19-316H	36.4		35.8		37.6

UNIFORM TEST III TRAITED MATERIAL, 2022

OIL (%)

Strain	West Lafayette IN	Albany MO	Colum- bia MO	Novelty MO	Wooster OH
LD11-2170 (III)	20.1		21.1		20.4
U15-606207 (SCN)	20.8		20.8		19.9
AG25XF1 (E)	19.9		20.6		19.4
AG38XF1 (L)	19.4		19.3		18.7
A14068-102	17.7		18.8		18.2
CR17-0594	19.1		20.1		18.5
CR192033	19.3		19.8		18.7
CR192111	19.6		20.0		19.0
CR194807	17.0		20.0		18.6
CR195446	18.6		19.9		17.7
HM17-03278	19.0		19.3		18.5
HM18-26063	18.8		18.4		17.8
LD19-12315	19.6		20.4		19.6
LD19-12834	20.5		21.2		20.2
LD19-12840	20.6		21.2		20.8
LD19-22225	20.1		19.7		19.2
SA19-311H	19.3		20.2		19.5
SA19-316H	19.3		19.8		18.5

UNIFORM TEST III TRAITED MATERIAL, 2022

REGIONAL SUMMARY - SEED COMPOSITION (FATTY ACID)

No. of Tests Strain	Palmitic 7 %	Stearic 7 %	Oleic 7 %	Linoleic 7 %	Linolenic 7 %
LD11-2170 (III)	11.1	3.9	25.5	52.6	6.9
U15-606207 (SCN)	11.0	4.0	20.9	55.6	8.5
LD19-12315	7.0	3.9	81.0	5.5	2.6
LD19-12834	6.2	3.5	84.6	3.5	2.2
LD19-12840	7.0	3.5	83.5	3.7	2.3
LD19-22225	7.3	3.4	83.8	3.4	2.1
SA19-311H	6.9	3.2	79.5	7.8	2.6
SA19-316H	6.5	3.2	79.0	8.8	2.6
Mean	7.9	3.6	67.2	17.6	3.7

UNIFORM TEST III TRAITED MATERIAL, 2022

FATTY ACID, PALMITIC (%)

Strain	Mean 7 Tests	Ames IA	Urbana IL	Butler- ville IN	Wanatah IN	West Lafayette IN	Colum- bia MO	Wooster OH
LD11-2170 (III)	11.1	11.2	10.9	11.4	10.9	10.5	11.5	11.2
U15-606207 (SCN)	11.0	11.4	10.7	11.2	10.7	10.7	11.4	10.8
LD19-12315	7.0	7.2	7.3	7.1	7.0	6.4	7.2	6.6
LD19-12834	6.2	6.3	6.3	6.2	6.1	6.2	6.3	6.3
LD19-12840	7.0	7.5	7.3	7.0	6.9	6.4	7.0	6.7
LD19-22225	7.3	7.2	7.4	7.4	6.8	7.3	7.4	7.2
SA19-311H	6.9	7.2	7.3	6.8	6.7	6.6	6.8	6.9
SA19-316H	6.5		6.4	6.6	6.2	6.2	6.9	6.4

UNIFORM TEST III TRAITED MATERIAL, 2022

FATTY ACID, STEARIC (%)

Strain	Mean 7 Tests	Ames IA	Urbana IL	Butler- ville IN	Wanatah IN	West Lafayette IN	Colum- bia MO	Wooster OH
LD11-2170 (III)	3.9	3.5	3.8	3.6	4.4	3.8	4.1	4.1
U15-606207 (SCN)	4.0	4.0	4.1	3.8	4.0	3.8	4.4	4.2
LD19-12315	3.9	3.9	3.5	3.4	4.5	3.8	4.0	4.3
LD19-12834	3.5	3.3	3.3	3.4	3.7	3.3	3.8	3.4
LD19-12840	3.5	3.2	3.4	3.2	4.1	3.3	3.5	3.9
LD19-22225	3.4	3.1	3.3	3.4	3.7	3.3	3.5	3.6
SA19-311H	3.2	3.4	3.2	2.9	3.5	3.0	3.3	3.1
SA19-316H	3.2		3.1	3.2	3.3	3.3	3.2	3.2

UNIFORM TEST III TRAITED MATERIAL, 2022

FATTY ACID, OLEIC (%)

Strain	Mean 7 Tests	Ames IA	Urbana IL	Butler- ville IN	Wanatah IN	West Lafayette IN	Colum- bia MO	Wooster OH
LD11-2170 (III)	25.5	24.5	28.1	21.8	27.4	24.3	27.2	25.0
U15-606207 (SCN)	20.9	20.0	21.8	21.3	21.4	20.8	21.5	19.7
LD19-12315	81.0	79.8	81.2	81.7	81.2	82.5	79.0	81.5
LD19-12834	84.6	83.8	84.7	85.1	84.4	85.0	84.8	84.3
LD19-12840	83.5	82.2	83.8	84.4	83.7	84.8	83.2	82.5
LD19-22225	83.8	83.6	84.0	83.9	84.3	84.2	83.3	83.6
SA19-311H	79.5	77.1	79.6	80.8	80.2	80.2	79.6	78.9
SA19-316H	79.0		79.3	79.7	79.2	79.9	77.9	78.1

UNIFORM TEST III TRAITED MATERIAL, 2022

FATTY ACID, LINOLEIC (%)

Strain	Mean 7 Tests	Ames IA	Urbana IL	Butler- ville IN	Wanatah IN	West Lafayette IN	Colum- bia MO	Wooster OH
LD11-2170 (III)	52.6	53.4	50.5	55.9	50.5	54.4	51.0	52.4
U15-606207 (SCN)	55.6	55.0	55.3	55.2	55.8	56.6	55.0	56.0
LD19-12315	5.5	6.2	5.3	5.3	4.9	4.9	6.9	5.1
LD19-12834	3.5	4.2	3.5	3.1	3.5	3.4	3.1	3.7
LD19-12840	3.7	4.4	3.3	3.3	3.1	3.4	3.7	4.5
LD19-22225	3.4	3.8	3.2	3.3	3.1	3.2	3.7	3.3
SA19-311H	7.8	9.4	7.3	6.9	7.0	7.7	7.8	8.5
SA19-316H	8.8		8.7	7.9	8.9	8.2	9.2	9.6

UNIFORM TEST III TRAITED MATERIAL, 2022

FATTY ACID, LINOLENIC (%)

Strain	Mean 7 Tests	Ames IA	Urbana IL	Butler- ville IN	Wanatah IN	West Lafayette IN	Colum- bia MO	Wooster OH
LD11-2170 (III)	6.9	7.5	6.7	7.4	6.7	7.0	6.0	7.3
U15-606207 (SCN)	8.5	9.6	8.1	8.5	8.1	8.0	7.7	9.2
LD19-12315	2.6	2.9	2.6	2.5	2.4	2.4	2.9	2.5
LD19-12834	2.2	2.5	2.2	2.2	2.2	2.1	2.1	2.3
LD19-12840	2.3	2.7	2.2	2.2	2.1	2.1	2.6	2.3
LD19-22225	2.1	2.4	2.1	2.0	2.0	2.0	2.1	2.3
SA19-311H	2.6	2.9	2.6	2.5	2.5	2.5	2.6	2.6
SA19-316H	2.6		2.5	2.5	2.4	2.4	2.9	2.7

UNIFORM TEST III TRAITED MATERIAL, 2022

REGIONAL SUMMARY - SEED COMPOSITION (SUGAR)

Strain	Sucrose	Raffinose	Stachyose	Total
	7 %	7 %	7 %	Sugar 7 %
LD11-2170 (III)	3.2	0.6	3.0	6.8
U15-606207 (SCN)	2.5	0.5	3.2	6.2
CR17-0594	3.2	0.5	1.1	4.8
CR192033	3.3	0.7	2.6	6.5
CR192111	4.1	0.8	2.8	7.7
CR194807	5.0	0.7	0.8	6.5
CR195446	3.9	0.6	2.5	7.1
Mean	3.6	0.6	2.3	6.5

UNIFORM TEST III TRAITED MATERIAL, 2022

SEED SUGAR, SUCROSE (%)

Strain	Mean	Ames IA	Urbana IL	Butler- ville IN	Wanatah IN	West Lafayette IN	Colum- bia MO	Wooster OH
	7 Tests							
LD11-2170 (III)	3.2	6.5	2.9	2.7	2.8	2.8	2.3	2.5
U15-606207 (SCN)	2.5	2.4	2.1	2.8	2.9	2.1	2.1	2.7
CR17-0594	3.2	4.2	2.5	2.9	4.0	2.8	2.8	3.1
CR192033	3.3	3.3	3.4	3.5	4.1	2.8	2.6	3.1
CR192111	4.1	5.5	4.0	4.4	4.8	3.2	3.5	3.4
CR194807	5.0	4.9	6.2	5.8	5.5	3.4	4.2	4.9
CR195446	3.9	3.8	3.3	5.3	5.7	2.7	3.0	3.7

UNIFORM TEST III TRAITED MATERIAL, 2022

SEED SUGAR, RAFFINOSE (%)

Strain	Mean 7 Tests	Ames IA	Urbana IL	Butler- ville IN	Wanatah IN	West Lafayette IN	Colum- bia MO	Wooster OH
LD11-2170 (III)	0.6	0.9	0.5	0.6	0.5	0.7	0.7	0.5
U15-606207 (SCN)	0.5	0.4	0.5	0.6	0.5	0.5	0.6	0.6
CR17-0594	0.5	0.5	0.4	0.5	0.5	0.5	0.7	0.6
CR192033	0.7	0.5	0.6	0.8	0.6	0.7	0.9	0.6
CR192111	0.8	0.8	0.7	0.9	0.7	0.8	1.0	0.6
CR194807	0.7	0.5	0.7	0.7	0.6	0.5	0.8	0.8
CR195446	0.6	0.5	0.5	0.8	0.6	0.5	0.7	0.6

UNIFORM TEST III TRAITED MATERIAL, 2022

SEED SUGAR, STACHYOSE (%)

Strain	Mean 7 Tests	Ames IA	Urbana IL	Butler- ville IN	Wanatah IN	West Lafayette IN	Colum- bia MO	Wooster OH
LD11-2170 (III)	3.0	4.3	2.6	2.6	2.7	3.0	3.0	2.6
U15-606207 (SCN)	3.2	2.8	2.8	3.7	3.3	2.9	3.1	3.8
CR17-0594	1.1	1.0	0.9	1.2	1.0	1.2	1.1	1.0
CR192033	2.6	2.2	2.2	2.8	2.9	2.4	3.0	2.4
CR192111	2.8	2.9	2.4	2.8	2.9	2.6	2.9	2.7
CR194807	0.8	0.6	0.9	1.2	0.4	0.8	1.0	0.8
CR195446	2.5	2.3	2.1	3.2	2.7	2.0	2.9	2.5

UNIFORM TEST III TRAITED MATERIAL, 2022

SEED SUGAR, TOTAL (%)

Strain	Mean 7 Tests	Ames IA	Urbana IL	Butler- ville IN	Wanatah IN	West Lafayette IN	Colum- bia MO	Wooster OH
LD11-2170 (III)	6.8	11.6	6.0	5.9	6.0	6.4	6.1	5.6
U15-606207 (SCN)	6.2	5.6	5.4	7.1	6.7	5.5	5.8	7.1
CR17-0594	4.8	5.7	3.9	4.6	5.5	4.5	4.6	4.7
CR192033	6.5	6.0	6.2	7.1	7.6	5.9	6.5	6.1
CR192111	7.7	9.3	7.2	8.1	8.5	6.7	7.4	6.7
CR194807	6.5	6.0	7.8	7.7	6.6	4.7	6.1	6.5
CR195446	7.1	6.7	5.9	9.4	9.0	5.2	6.6	6.8

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**Northern Regional Uniform Test
Preliminary Test III, Traited Material, 2022**

Ent.	Strain	Parentage		Seed Source	Gen. Comp.	Unique Traits
		Female	Male			
1	LD11-2170 (III)	LD11-2170 (III)	Syngenta 03JR313108	Diers	F5	SCN
2	U15-606207	LD07-3419	U09-105007	Graef	F5	SCN (HR, HR), Rps
3	AG25XF1 (E)			Cai		RR2, Xtend Flex
4	AG38XF1 (L)			Cai		RR2, Xtend Flex
5	A16333-162	IA2104HS/LD07-3395bf (SCN)	LD11-2170	Singh	F5	Sugar
6	A16335-93	IA3051HS /LD07-3395bf (SCN)	U11-396034	Singh	F5	Sugar
7	A16335-119	IA3051HS /LD07-3395bf (SCN)	U11-396034	Singh	F5	Sugar
8	A16336-119	IA3051HS /LD07-3395bf (SCN)	U11-911079	Singh	F5	Sugar
9	A16356-32	LD11-2170/LD07-3395bf (SCN)	IA3051	Singh	F5	LSS, Yhil
10	HM19-31191	HM14-W132	DS11-06152	McHale	F4	>48% Meal Prot, Rps
11	HM19-32060	HM14-W132	DS11-06152	McHale	F4	>48% Meal Prot, Rps
12	HM19-33292	HM11-W193	HM09-W153	McHale	F4	>48% Meal Prot, Rps
13	HM19-33322	Kottman	Wyandot14	McHale	F4	>48% Meal Prot, Rps
14	HM19-37023	HM11-H015	HM11-W193	McHale	F4	>48% Meal Prot, Rps
15	HM19-37315	HM13-R061	E11128T	McHale	F4	>48% Meal Prot, Rps
16	HM19-40091	HS6-3967B	HM11-G021	McHale	F4	>48% Meal Prot, Rps
17	HM19-41261	HM14-W132	DS11-06152	McHale	F4	>48% Meal Prot, Rps
18	HM19-42057	HM13-R061	E11128T	McHale	F4	>48% Meal Prot, Rps
19	HM19-42215	HM11-H015	HM11-W193	McHale	F4	>48% Meal Prot, Rps
20	HM19-42291	HM14-W018	E06240	McHale	F4	>48% Meal Prot, Rps
21	HM19-42339	S13-16675	HM11-W193	McHale	F4	>48% Meal Prot, Rps
22	LD20-12210	(LD16-10150 x LD15-5776793)	(LD16-10150 x LD15-3818)	Diers	F4	HOLL, SCN, Rps
23	LD20-12214	(LD16-10150 x LD15-5776793)	(LD16-10150 x LD15-3818)	Diers	F4	HOLL, SCN, Rps
24	LD20-12217	(LD16-10150 x LD15-5776793)	(LD16-10150 x LD15-3818)	Diers	F4	HOLL, SCN, Rps
25	LD20-12239	(LD16-10150 x LD15-3818)	(LD16-10150 x LD15-5776793)	Diers	F4	HOLL, SCN, Rps
26	LD20-5031191	LD11-2170	PRico HOLL	Diers	F4	HOLL, SCN, Rps
27	LD20-5031291	LD11-2170	PRico HOLL	Diers	F4	HOLL, SCN, Rps
28	LD20-8854	(LD12-3903 x LDX16-237-1-2)	(SA13-1310 x LDX16-206-1-4)	Diers	F5	HOLL, SCN, Rps
29	LD20-8968	(LD12-3903 x LDX16-237-1-2)	(LD12-459 x LDX16-216-1-2)	Diers	F5	HOLL, SCN, Rps
30	LD20-9131	(LD12-3903 x LDX16-241-2-2)	(LD11-2170 x LDX16-234-1-5)	Diers	F5	HOLL, SCN, Rps
31	LD20-9134	(LD12-3903 x LDX16-241-2-2)	(LD11-2170 x LDX16-234-1-5)	Diers	F5	HOLL, SCN, Rps
32	SA19-195H	U14-605217	F2 SA13-2699HOLL	Scaboo	F5	HOLL
33	SA19-23234	F3 SA13-1363	KB13-15 F3 14-224	Scaboo	F5	HOLL
34	SA19-23636	F3 SA13-1363	KB13-15 F3 14-224	Scaboo	F5	HOLL, Rhg1b, SC
35	SA19-237H	SA14-9742	F2 SA13-2699HOLL	Scaboo	F5	HOLL
36	SA19-24395	F3 SA13-2699	KB13-15 F3 14-224	Scaboo	F5	HOLL, Rhg1b, SC
37	SA20-13276	SA13-1385	LD16-10289	Scaboo	F5	HOLL
38	SA20-14242	LD16-10351	U14-211226	Scaboo	F5	HOLL
39	SA20-14505	LD16-10351	K13-1515	Scaboo	F5	HOLL
40	SA20-14624	LD16-10351	K13-1515	Scaboo	F5	HOLL

PRELIMINARY TEST III TRAITED MATERIAL, 2022

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code
LD11-2170 (III)	PLtBDYBrI
U15-606207 (SCN)	PGTDYBfI
AG25XF1 (E)	PGTDYGI
AG38XF1 (L)	PGBDYIbI
A16333-162	WLtB+TDYYI
A16335-93	WGTDYYI
A16335-119	WGTDYYI
A16336-119	WGTSYYI
A16356-32	WGTDYYI
HM19-31191	WLtTDYBI
HM19-32060	WLtTDYBI
HM19-33292	PGBSYIbI
HM19-33322	WTTSYBrI
HM19-37023	PTBSYBrI
HM19-37315	PLtTDYBI
HM19-40091	PGBDYIbI
HM19-41261	WLtTDYBI
HM19-42057	PGTSYIbI
HM19-42215	WGBDYYI
HM19-42291	WGBDYYI
HM19-42339	PT+Lt+GBSYHI
LD20-12210	PLtTDYHI
LD20-12214	PLtBDYBI
LD20-12217	PLtBDYBI
LD20-12239	PLtBDYBI
LD20-5031191	WLtBDYBrI
LD20-5031291	P+WLtBDYBrI
LD20-8854	PTTDYBrI
LD20-8968	PGBSYBfI
LD20-9131	P+WLtBDYBrI
LD20-9134	P+WLtBDYBrI
SA19-195H	WGBSYBfI
SA19-23234	WLtTDYBI
SA19-23636	WLtTDYBrI
SA19-237H	PGBSYIbI
SA19-24395	WGTDYBfI
SA20-13276	PGTDYIbI
SA20-14242	WLtBDYHI
SA20-14505	WLtBDYBI
SA20-14624	WLtBDYBI

PRELIMINARY TEST III TRAITED MATERIAL, 2022

REGIONAL SUMMARY

No. of Tests Strain	Yield 6 bu/a	Rank 6 No.	Maturity 6 Date	Lodging 6 Score	Plant Height 6 In.	Seed Size 4 g/100	Seed Quality 4 Score	Composition	
								Protein 4 %	Oil 4 %
LD11-2170 (III)	66.3	3	9/29	1.3	31	16.7	1.0	34.5	20.4
U15-606207 (SCN)	62.6	8	4.5	1.2	31	16.9	1.4	32.7	20.2
AG25XF1 (E)	60.1	18	-2.2	1.4	31	17.1	1.3	34.2	19.6
AG38XF1 (L)	61.3	13	9.2	1.3	34	15.5	1.5	34.2	18.7
A16333-162	55.5	33	1.4	1.2	30	15.3	1.5	34.9	19.3
A16335-93	56.6	30	2.5	1.2	33	17.1	1.5	34.3	18.9
A16335-119	55.2	34	3.6	1.3	33	17.8	1.3	36.4	18.5
A16336-119	62.8	7	2.9	1.3	29	19.9	1.6	34.7	19.3
A16356-32	53.8	39	-1.0	1.3	33	19.6	1.4	35.7	19.1
HM19-31191	57.7	25	2.7	1.2	33	16.6	1.5	35.6	19.1
HM19-32060	61.8	12	4.4	2.5	37	17.7	1.4	35.8	18.1
HM19-33292	50.6	40	6.5	1.9	34	17.9	1.6	36.7	17.9
HM19-33322	54.2	38	3.1	1.4	31	19.8	1.5	34.8	19.5
HM19-37023	54.6	36	0.3	2.0	35	19.7	1.5	34.5	19.5
HM19-37315	56.1	31	0.2	2.2	35	17.9	1.5	36.1	18.5
HM19-40091	62.2	9	2.7	1.3	36	19.3	1.1	35.7	18.9
HM19-41261	57.0	27	2.3	1.9	36	13.7	1.5	33.3	19.8
HM19-42057	54.4	37	4.8	2.1	39	18.4	1.5	36.9	17.8
HM19-42215	56.7	29	5.1	1.8	36	16.8	1.8	35.4	19.2
HM19-42291	55.6	32	4.8	2.2	37	17.7	1.0	36.7	18.8
HM19-42339	57.3	26	2.8	2.5	37	15.6	1.8	36.8	18.5
LD20-12210	64.1	6	6.6	1.3	28	18.1	1.8	37.2	18.3
LD20-12214	67.6	2	4.1	1.1	28	17.1	1.6	35.5	19.6
LD20-12217	67.9	1	3.3	1.2	29	19.1	1.8	35.8	19.1
LD20-12239	60.0	19	2.3	1.3	27	17.5	1.5	35.8	19.5
LD20-5031191	62.1	10	1.3	1.2	28	15.5	1.3	36.1	20.0
LD20-5031291	60.2	17	0.6	1.2	28	14.8	1.5	35.3	20.2
LD20-8854	61.3	14	3.9	1.3	30	14.8	1.1	35.0	19.6
LD20-8968	65.5	4	2.5	1.4	32	15.3	1.5	35.1	19.6
LD20-9131	64.8	5	1.0	1.5	29	14.5	1.0	35.1	19.6
LD20-9134	61.8	11	-1.1	1.6	29	14.4	1.0	35.4	19.5
SA19-195H	59.2	23	2.3	1.5	34	13.7	1.4	33.9	20.2
SA19-23234	59.2	22	5.4	1.1	28	14.0	1.1	34.6	19.5
SA19-23636	59.4	21	7.2	1.2	29	13.2	1.4	34.1	19.4
SA19-237H	58.4	24	4.8	2.2	34	12.3	1.0	35.4	19.4
SA19-24395	56.7	28	7.4	1.2	32	13.3	1.5	36.7	19.1
SA20-13276	60.3	16	5.4	1.1	31	13.9	1.1	34.0	19.6
SA20-14242	54.8	35	2.3	1.4	35	13.1	1.1	35.5	19.3
SA20-14505	59.4	20	3.1	1.3	31	13.1	1.3	35.4	19.7
SA20-14624	61.3	15	6.3	1.9	34	12.2	1.0	35.4	19.2
Mean	59.4			1.5	32.2	16.2	1.4	35.3	19.3
C.V. (%)	10.0								
L.S.D. (5%)	4.8								

117.5 Days After Planting

PRELIMINARY TEST III TRAITED MATERIAL, 2022

YIELD (bu/a)

Strain	Mean 6 Tests	Ames IA	Urbana IL	Romney IN*	West Lafayette IN	Albany MO	Colum- bia MO	Novelty MO
LD11-2170 (III)	66.3	82.6	69.4	69.7	73.6	65.8	59.9	46.2
U15-606207 (SCN)	62.6	70.8	69.7	83.1	73.4	57.6	63.3	40.9
AG25XF1 (E)	60.1	76.7	66.7	64.4	71.0	54.4	51.3	40.7
AG38XF1 (L)	61.3	72.2	63.0	77.1	64.4	56.1	62.7	49.5
A16333-162	55.5	72.0	60.1	50.1	73.7	45.9	54.0	27.1
A16335-93	56.6	74.8	53.8	61.0	55.8	56.6	58.4	40.3
A16335-119	55.2	70.9	59.0	58.8	54.7	53.2	58.4	34.7
A16336-119	62.8	78.7	69.0	66.7	76.3	50.9	59.4	42.5
A16356-32	53.8	66.7	64.9	62.6	51.2	53.5	53.4	33.3
HM19-31191	57.7	78.7	63.4	52.2	48.4	61.4	54.4	39.7
HM19-32060	61.8	73.7	57.5	64.5	74.6	58.4	58.3	48.4
HM19-33292	50.6	59.5	53.3	59.2	45.7	50.7	56.7	37.5
HM19-33322	54.2	68.2	51.8	70.5	49.1	60.7	57.0	38.5
HM19-37023	54.6	65.6	54.2	47.3	66.7	52.6	52.6	35.9
HM19-37315	56.1	83.5	53.8	64.7	60.7	58.2	48.3	32.0
HM19-40091	62.2	79.9	62.9	61.1	82.2	56.2	50.4	41.8
HM19-41261	57.0	73.1	55.4	65.7	56.4	50.0	63.6	43.5
HM19-42057	54.4	66.5	54.4	69.4	55.0	52.1	53.2	45.5
HM19-42215	56.7	67.2	51.2	47.3	62.2	64.3	54.3	40.8
HM19-42291	55.6	64.5	50.4	60.0	71.6	52.1	53.1	41.6
HM19-42339	57.3	67.9	57.8	57.7	59.8	57.1	56.6	44.7
LD20-12210	64.1	68.6	65.9	76.4	81.0	61.7	63.6	43.9
LD20-12214	67.6	80.7	74.2	76.3	79.5	62.9	62.7	45.6
LD20-12217	67.9	79.0	70.5	77.1	76.3	64.0	66.6	51.3
LD20-12239	60.0	72.8	67.2	66.6	63.1	59.3	53.4	44.3
LD20-5031191	62.1	79.7	69.9	62.2	65.8	59.3	55.0	42.9
LD20-5031291	60.2	76.4	68.1	71.2	66.9	53.7	56.7	39.4
LD20-8854	61.3	76.6	63.3	74.8	79.4	54.5	61.7	32.3
LD20-8968	65.5	78.8	58.0	65.2	73.3	66.8	67.9	48.2
LD20-9131	64.8	81.8	69.7	58.9	77.6	57.9	58.2	43.8
LD20-9134	61.8	74.7	67.1	69.0	71.7	61.2	53.4	42.8
SA19-195H	59.2	67.0	64.9	70.9	72.6	57.8	54.5	38.2
SA19-23234	59.2	71.3	64.0	74.5	64.3	57.9	58.2	39.7
SA19-23636	59.4	67.7	58.5	75.4	68.6	59.0	62.6	39.7
SA19-237H	58.4	60.7	57.1	64.7	76.8	53.2	55.7	46.7
SA19-24395	56.7	66.8	59.0	63.4	71.4	52.9	54.9	35.0
SA20-13276	60.3	71.4	61.2	73.7	71.5	49.9	60.4	47.2
SA20-14242	54.8	63.5	59.0	56.9	57.0	54.9	56.1	38.0
SA20-14505	59.4	72.8	66.7	52.6	65.9	55.7	57.8	37.4
SA20-14624	61.3	66.4	68.9	65.6	79.1	49.7	58.3	45.4
Location Mean		72.3	61.9	65.2	67.2	56.5	57.4	41.2
C.V. (%)		6.9	9.4	14.9	14.0	9.0	7.6	10.8
L.S.D. (5%)		10.0	11.8	19.7	19.1	10.3	8.8	7.5
Row sp. (In.)		30	30	30	30	30	30	30
Rows/Plot		4	4	2	4	4	4	4
Reps		2	2	2	2	2	2	2

* Data not included in mean.

PRELIMINARY TEST III TRAITED MATERIAL, 2022

YIELD RANK

Strain	Yield Rank	Ames IA	Urbana IL	Romney IN	West Lafayette IN	Albany MO	Columbia MO	Novelty MO
LD11-2170 (III)	3	2	6	13	12	2	11	7
U15-606207 (SCN)	8	25	4	1	13	18	5	21
AG25XF1 (E)	18	11	12	24	20	26	38	23
AG38XF1 (L)	13	20	20	2	26	22	6	2
A16333-162	33	21	23	38	11	40	31	40
A16335-93	30	14	35	29	34	20	14	24
A16335-119	34	24	25	33	36	30	13	36
A16336-119	7	9	7	16	8	35	12	18
A16356-32	39	33	15	26	37	28	34	37
HM19-31191	25	9	18	37	39	7	29	26
HM19-32060	12	16	30	23	10	13	15	3
HM19-33292	40	40	37	31	40	36	21	32
HM19-33322	38	27	38	12	38	9	20	29
HM19-37023	36	36	34	39	23	32	37	34
HM19-37315	31	1	36	21	30	14	40	39
HM19-40091	9	5	21	28	1	21	39	19
HM19-41261	27	17	32	18	33	37	3	15
HM19-42057	37	34	33	14	35	34	35	9
HM19-42215	29	30	39	39	29	3	30	22
HM19-42291	32	37	40	30	17	33	36	20
HM19-42339	26	28	29	34	31	19	23	11
LD20-12210	6	26	14	4	2	6	4	13
LD20-12214	2	4	1	5	3	5	7	8
LD20-12217	1	7	2	2	8	4	2	1
LD20-12239	19	18	10	17	28	10	33	12
LD20-5031191	10	6	3	27	25	11	26	16
LD20-5031291	17	13	9	10	22	27	22	28
LD20-8854	14	12	19	7	4	25	9	38
LD20-8968	4	8	28	20	14	1	1	4
LD20-9131	5	3	5	32	6	16	18	14
LD20-9134	11	15	11	15	16	8	32	17
SA19-195H	23	31	15	11	15	17	28	30
SA19-23234	22	23	17	8	27	15	17	25
SA19-23636	21	29	27	6	21	12	8	27
SA19-237H	24	39	31	22	7	29	25	6
SA19-24395	28	32	24	25	19	31	27	35
SA20-13276	16	22	22	9	18	38	10	5
SA20-14242	35	38	26	35	32	24	24	31
SA20-14505	20	18	12	36	24	23	19	33
SA20-14624	15	35	8	19	5	39	16	10

PRELIMINARY TEST III TRAITED MATERIAL, 2022

MATURITY (date)

Strain	Mean 6 Tests	Ames IA	Urbana IL	Romney IN	West Lafayette IN	Albany MO	Colum- bia MO	Novelty MO
LD11-2170 (III)	9/29		9/23	10/8	9/21	10/5	9/27	10/3
U15-606207 (SCN)	5		5	2	4	4	6	7
AG25XF1 (E)	-2		-5	2	-4	-1	-4	-1
AG38XF1 (L)	9		15	2	11	9	8	11
A16333-162	1		-1	2	2	3	0	4
A16335-93	3		1	2	3	4	1	4
A16335-119	4		3	2	4	4	3	7
A16336-119	3		3	0	3	4	3	5
A16356-32	-1		-1	-1	-3	-1	0	-1
HM19-31191	3		4	1	4	4	1	3
HM19-32060	4		8	1	6	5	3	4
HM19-33292	7		9	2	5	8	8	8
HM19-33322	3		4	1	5	4	2	4
HM19-37023	0		0	-3	2	4	0	0
HM19-37315	0		-1	-4	3	4	0	0
HM19-40091	3		4	0	4	4	3	2
HM19-41261	2		1	2	3	4	1	3
HM19-42057	5		7	2	6	3	5	7
HM19-42215	5		5	2	7	4	5	8
HM19-42291	5		6	2	6	5	5	6
HM19-42339	3		6	0	4	4	3	1
LD20-12210	7		11	-3	9	7	9	8
LD20-12214	4		5	1	3	4	6	8
LD20-12217	3		5	2	3	3	5	3
LD20-12239	2		2	-2	2	4	3	5
LD20-5031191	1		2	2	1	2	1	1
LD20-5031291	1		0	-1	-1	3	1	3
LD20-8854	4		5	2	5	6	4	3
LD20-8968	3		2	2	4	5	2	1
LD20-9131	1		-1	2	-2	2	2	4
LD20-9134	-1		-1	-4	-3	2	-1	0
SA19-195H	2		1	-1	4	3	3	4
SA19-23234	5		8	1	7	4	6	8
SA19-23636	7		10	2	8	5	10	9
SA19-237H	5		5	3	7	6	3	6
SA19-24395	7		11	2	9	7	9	8
SA20-13276	5		6	2	8	5	5	8
SA20-14242	2		2	-2	2	4	2	6
SA20-14505	3		5	-3	4	4	4	5
SA20-14624	6		9	2	7	7	5	9
Date Planted	6/4		5/17	6/13	5/12	6/21	6/7	6/16
Days to Mature	118		129	117	132	106	112	109

PRELIMINARY TEST III TRAITED MATERIAL, 2022

LODGING (score)

Strain	Mean 6 Tests	Ames IA	Urbana IL	Romney IN	West Lafayette IN	Albany MO	Colum- bia MO	Novelty MO
LD11-2170 (III)	1.3	1.0	1.5		1.0	2.0	1.0	1.5
U15-606207 (SCN)	1.2	1.0	1.3		1.0	1.0	1.3	1.5
AG25XF1 (E)	1.4	1.0	1.5		1.0	1.8	1.5	1.5
AG38XF1 (L)	1.3	1.0	1.5		1.0	1.3	1.3	1.5
A16333-162	1.2	1.0	1.0		1.0	1.5	1.3	1.5
A16335-93	1.2	1.0	1.0		1.0	1.8	1.0	1.5
A16335-119	1.3	1.0	1.5		1.0	1.0	1.5	1.5
A16336-119	1.3	1.0	1.5		1.0	1.3	1.3	1.5
A16356-32	1.3	1.0	1.3		1.0	1.5	1.3	1.5
HM19-31191	1.2	1.0	1.3		1.0	1.3	1.0	1.5
HM19-32060	2.5	2.5	3.0		2.0	2.5	3.0	2.0
HM19-33292	1.9	2.0	2.3		1.5	1.8	2.0	2.0
HM19-33322	1.4	1.5	1.3		1.5	1.3	1.5	1.5
HM19-37023	2.0	2.5	2.0		2.0	1.3	2.0	2.0
HM19-37315	2.2	2.5	2.0		2.0	2.5	2.5	1.5
HM19-40091	1.3	1.0	1.5		1.5	1.0	1.5	1.5
HM19-41261	1.9	2.0	1.8		1.5	2.3	2.3	1.5
HM19-42057	2.1	2.5	2.0		2.0	2.0	2.0	2.0
HM19-42215	1.8	1.0	1.8		2.0	1.8	1.8	2.5
HM19-42291	2.2	3.5	1.8		2.0	1.5	2.5	2.0
HM19-42339	2.5	1.5	2.5		2.0	3.0	3.8	2.0
LD20-12210	1.3	1.0	1.5		1.5	1.5	1.0	1.5
LD20-12214	1.1	1.0	1.0		1.0	1.0	1.0	1.5
LD20-12217	1.2	1.0	1.3		1.0	1.3	1.0	1.5
LD20-12239	1.3	1.0	1.0		1.5	1.3	1.5	1.5
LD20-5031191	1.2	1.0	1.0		1.0	1.5	1.0	1.5
LD20-5031291	1.2	1.0	1.3		1.0	1.5	1.0	1.5
LD20-8854	1.3	1.0	1.3		1.5	1.0	1.5	1.5
LD20-8968	1.4	2.0	1.3		1.0	1.3	1.5	1.5
LD20-9131	1.5	2.0	1.5		1.5	1.3	1.3	1.5
LD20-9134	1.6	2.0	1.8		1.0	2.0	1.5	1.5
SA19-195H	1.5	2.0	1.5		1.5	1.5	1.0	1.5
SA19-23234	1.1	1.0	1.0		1.0	1.0	1.3	1.5
SA19-23636	1.2	1.0	1.0		1.0	1.5	1.3	1.5
SA19-237H	2.2	2.5	2.0		2.0	2.0	3.0	1.5
SA19-24395	1.2	1.0	1.3		1.0	1.3	1.3	1.5
SA20-13276	1.1	1.0	1.0		1.0	1.0	1.0	1.5
SA20-14242	1.4	2.0	1.3		1.0	1.5	1.3	1.5
SA20-14505	1.3	1.0	1.3		1.0	1.3	1.5	1.5
SA20-14624	1.9	2.5	2.0		2.0	1.3	1.5	2.0

PRELIMINARY TEST III TRAITED MATERIAL, 2022

PLANT HEIGHT (inches)

Strain	Mean 6 Tests	Ames IA	Urbana IL	Romney IN	West Lafayette IN	Albany MO	Colum- bia MO	Novelty MO
LD11-2170 (III)	31	33	37		36	30	26	24
U15-606207 (SCN)	31	32	36		34	31	28	26
AG25XF1 (E)	31	33	39		35	30	26	25
AG38XF1 (L)	34	35	40		40	34	31	27
A16333-162	30	33	35		36	27	26	25
A16335-93	33	35	36		37	33	30	26
A16335-119	33	36	39		35	34	31	25
A16336-119	29	32	37		35	28	24	21
A16356-32	33	34	39		33	34	31	28
HM19-31191	33	35	40		32	34	31	26
HM19-32060	37	38	44		43	37	31	28
HM19-33292	34	37	39		35	34	33	27
HM19-33322	31	34	35		33	33	27	27
HM19-37023	35	38	41		38	34	31	29
HM19-37315	35	37	42		36	35	31	28
HM19-40091	36	38	42		41	35	33	29
HM19-41261	36	37	43		38	36	33	28
HM19-42057	39	39	47		44	40	34	30
HM19-42215	36	36	41		39	37	33	28
HM19-42291	37	38	41		43	34	34	33
HM19-42339	37	35	44		37	39	34	32
LD20-12210	28	31	33		30	29	24	24
LD20-12214	28	28	33		32	28	24	22
LD20-12217	29	31	35		32	30	25	22
LD20-12239	27	28	33		29	28	24	22
LD20-5031191	28	30	35		30	28	24	21
LD20-5031291	28	31	34		31	26	24	21
LD20-8854	30	36	34		37	28	26	22
LD20-8968	32	36	35		35	33	27	27
LD20-9131	29	34	31		31	27	26	23
LD20-9134	29	31	34		32	30	24	24
SA19-195H	34	35	42		37	36	29	29
SA19-23234	28	31	33		31	27	25	22
SA19-23636	29	31	33		31	30	27	25
SA19-237H	34	37	39		41	33	28	28
SA19-24395	32	36	35		38	32	28	25
SA20-13276	31	35	37		36	27	26	24
SA20-14242	35	37	42		37	34	32	27
SA20-14505	31	32	38		33	30	27	25
SA20-14624	34	36	39		40	32	32	26

PRELIMINARY TEST III TRAITED MATERIAL, 2022

SEED SIZE (g/100)

Strain	Mean 4 Tests	Ames IA	Urbana IL	Romney IN	West Lafayette IN	Albany MO	Colum- bia MO	Novelty MO
LD11-2170 (III)	16.7	17.3	16.9		16.7		15.9	
U15-606207 (SCN)	16.9	15.2	17.2		16.8		18.3	
AG25XF1 (E)	17.1	16.4	17.1		18.5		16.2	
AG38XF1 (L)	15.5	14.9	12.1		17.5		17.4	
A16333-162	15.3	15.8	15.1		15.5		14.8	
A16335-93	17.1	17.2	17.3		17.7		16.3	
A16335-119	17.8	17.5	18.7		17.8		17.1	
A16336-119	19.9	19.6	20.2		19.9		19.9	
A16356-32	19.6	19.5	20.0		21.1		17.9	
HM19-31191	16.6	16.5	17.0		17.5		15.5	
HM19-32060	17.7	17.9	17.9		17.7		17.4	
HM19-33292	17.9	18.0	17.7		17.7		18.2	
HM19-33322	19.8	20.4	19.2		20.2		19.4	
HM19-37023	19.7	20.1	19.0		20.6		18.9	
HM19-37315	17.9	18.4	18.0		19.0		16.3	
HM19-40091	19.3	19.1	19.2		20.3		18.7	
HM19-41261	13.7	13.5	13.6		13.9		13.7	
HM19-42057	18.4	19.7	17.6		19.1		17.3	
HM19-42215	16.8	16.6	16.3		16.4		17.9	
HM19-42291	17.7		18.2		17.2		17.7	
HM19-42339	15.6	15.3	15.8		16.0		15.4	
LD20-12210	18.1	17.2	18.9		17.9		18.5	
LD20-12214	17.1	18.0	18.1		16.9		15.6	
LD20-12217	19.1	18.8	19.3		18.3		20.1	
LD20-12239	17.5	18.0	18.0		17.9		16.1	
LD20-5031191	15.5	15.5	16.2		15.3		15.1	
LD20-5031291	14.8	15.3	14.8		14.1		15.0	
LD20-8854	14.8	15.1	14.6		15.6		13.8	
LD20-8968	15.3	15.9	15.0		15.4		14.9	
LD20-9131	14.5	14.2	14.9		15.9		13.0	
LD20-9134	14.4	14.4	14.4		15.0		14.0	
SA19-195H	13.7	13.6	14.5		14.5		12.1	
SA19-23234	14.0	14.2	14.6		14.8		12.4	
SA19-23636	13.2	12.6	13.4		13.5		13.5	
SA19-237H	12.3	12.4	13.1		13.0		10.9	
SA19-24395	13.3	13.5	14.5		12.9		12.4	
SA20-13276	13.9	13.9	14.2		14.3		13.4	
SA20-14242	13.1	13.8	13.1		12.9		12.6	
SA20-14505	13.1	12.5	13.6		13.7		12.7	
SA20-14624	12.2	12.1	12.4		12.7		11.5	

PRELIMINARY TEST III TRAITED MATERIAL, 2022

SEED QUALITY (score)

Strain	Mean 4 Tests	Ames IA	Urbana IL	Romney IN	West Lafayette IN	Albany MO	Colum- bia MO	Novelty MO
LD11-2170 (III)	1.0	1.0	1.0		1.0		1.0	
U15-606207 (SCN)	1.4	1.5	2.0		1.0		1.0	
AG25XF1 (E)	1.3	1.0	2.0		1.0		1.0	
AG38XF1 (L)	1.5	2.0	2.0		1.0		1.0	
A16333-162	1.5	2.0	2.0		1.0		1.0	
A16335-93	1.5	2.0	2.0		1.0		1.0	
A16335-119	1.3	1.0	1.0		2.0		1.0	
A16336-119	1.6	2.0	2.0		1.5		1.0	
A16356-32	1.4	1.5	2.0		1.0		1.0	
HM19-31191	1.5	2.0	1.0		1.0		2.0	
HM19-32060	1.4	1.5	2.0		1.0		1.0	
HM19-33292	1.6	1.0	2.0		1.5		2.0	
HM19-33322	1.5	1.5	2.0		1.5		1.0	
HM19-37023	1.5	2.0	2.0		1.0		1.0	
HM19-37315	1.5	2.0	1.0		1.0		2.0	
HM19-40091	1.1	1.5	1.0		1.0		1.0	
HM19-41261	1.5	2.0	2.0		1.0		1.0	
HM19-42057	1.5	2.0	2.0		1.0		1.0	
HM19-42215	1.8	2.0	2.0		1.0		2.0	
HM19-42291	1.0		1.0		1.0		1.0	
HM19-42339	1.8	2.0	2.0		1.0		2.0	
LD20-12210	1.8	2.0	2.0		1.0		2.0	
LD20-12214	1.6	2.0	2.0		1.5		1.0	
LD20-12217	1.8	2.0	2.0		1.0		2.0	
LD20-12239	1.5	2.0	2.0		1.0		1.0	
LD20-5031191	1.3	2.0	1.0		1.0		1.0	
LD20-5031291	1.5	1.0	2.0		1.0		2.0	
LD20-8854	1.1	1.5	1.0		1.0		1.0	
LD20-8968	1.5	2.0	2.0		1.0		1.0	
LD20-9131	1.0	1.0	1.0		1.0		1.0	
LD20-9134	1.0	1.0	1.0		1.0		1.0	
SA19-195H	1.4	1.5	1.0		1.0		2.0	
SA19-23234	1.1	1.5	1.0		1.0		1.0	
SA19-23636	1.4	1.5	1.0		1.0		2.0	
SA19-237H	1.0	1.0	1.0		1.0		1.0	
SA19-24395	1.5	2.0	1.0		2.0		1.0	
SA20-13276	1.1	1.5	1.0		1.0		1.0	
SA20-14242	1.1	1.5	1.0		1.0		1.0	
SA20-14505	1.3	2.0	1.0		1.0		1.0	
SA20-14624	1.0	1.0	1.0		1.0		1.0	

PRELIMINARY TEST III TRAITED MATERIAL, 2022

PROTEIN (%)

Strain	Mean 4 Tests	Ames IA	Urbana IL	Romney IN	West Lafayette IN	Albany MO	Colum- bia MO	Novelty MO
LD11-2170 (III)	34.5	34.3	35.0		34.0		34.5	
U15-606207 (SCN)	32.7	32.8	33.0		31.7		33.4	
AG25XF1 (E)	34.2	33.7	34.2		34.4		34.4	
AG38XF1 (L)	34.2	33.5	35.0		32.7		35.5	
A16333-162	34.9	34.2	35.3		34.7		35.3	
A16335-93	34.3	34.4	35.2		33.7		33.9	
A16335-119	36.4	36.4	37.0		35.7		36.4	
A16336-119	34.7	33.9	34.9		35.5		34.5	
A16356-32	35.7	35.1	35.3		36.2		36.0	
HM19-31191	35.6	34.4	35.3		35.4		37.4	
HM19-32060	35.8	34.7	37.2		35.7		35.8	
HM19-33292	36.7	35.8	37.3		36.5		37.2	
HM19-33322	34.8	35.2	34.5		34.1		35.4	
HM19-37023	34.5	35.0	33.9		34.3		34.7	
HM19-37315	36.1	35.1	36.1		36.5		36.8	
HM19-40091	35.7	34.9	36.9		35.5		35.6	
HM19-41261	33.3	32.6	34.0		33.5		33.3	
HM19-42057	36.9	36.2	38.0		36.2		37.3	
HM19-42215	35.4	34.6	36.0		36.3		34.9	
HM19-42291	36.7		37.7		35.8		36.6	
HM19-42339	36.8	36.3	37.0		36.9		36.9	
LD20-12210	37.2	35.0	43.6		34.7		35.6	
LD20-12214	35.5	35.0	36.0		35.8		35.1	
LD20-12217	35.8	35.2	36.6		35.4		35.8	
LD20-12239	35.8	34.7	36.6		36.6		35.3	
LD20-5031191	36.1	35.3	36.0		37.3		35.9	
LD20-5031291	35.3	35.5	36.1		34.6		34.9	
LD20-8854	35.0	35.3	34.8		35.2		34.6	
LD20-8968	35.1	35.2	35.5		35.4		34.5	
LD20-9131	35.1	35.1	35.4		35.4		34.6	
LD20-9134	35.4	35.5	35.8		35.1		35.2	
SA19-195H	33.9	33.7	34.1		34.6		33.2	
SA19-23234	34.6	34.0	34.7		34.7		35.1	
SA19-23636	34.1	33.7	34.6		33.9		34.1	
SA19-237H	35.4	34.6	35.6		35.4		35.9	
SA19-24395	36.7	36.1	37.2		37.2		36.2	
SA20-13276	34.0	34.0	34.1		34.5		33.3	
SA20-14242	35.5	35.7	35.5		35.6		35.2	
SA20-14505	35.4	34.7	36.0		36.3		34.6	
SA20-14624	35.4	34.3	36.5		36.6		34.1	

PRELIMINARY TEST III TRAITED MATERIAL, 2022

OIL (%)

Strain	Mean 4 Tests	Ames IA	Urbana IL	Romney IN	West Lafayette IN	Albany MO	Colum- bia MO	Novelty MO
LD11-2170 (III)	20.4	19.5	19.7		21.3		21.2	
U15-606207 (SCN)	20.2	19.6	19.9		20.5		20.7	
AG25XF1 (E)	19.6	19.0	19.6		19.4		20.3	
AG38XF1 (L)	18.7	18.3	18.5		19.1		19.0	
A16333-162	19.3	18.7	19.3		19.1		20.1	
A16335-93	18.9	17.5	18.5		19.0		20.8	
A16335-119	18.5	17.3	18.2		18.8		19.5	
A16336-119	19.3	18.8	19.0		19.0		20.5	
A16356-32	19.1	18.6	18.9		19.1		19.6	
HM19-31191	19.1	18.9	19.0		19.6		19.0	
HM19-32060	18.1	18.1	16.5		18.7		18.9	
HM19-33292	17.9	17.2	17.5		17.9		19.0	
HM19-33322	19.5	18.3	19.7		20.1		20.0	
HM19-37023	19.5	18.4	20.0		19.4		20.4	
HM19-37315	18.5	17.8	18.8		18.3		19.4	
HM19-40091	18.9	18.0	18.6		19.3		19.8	
HM19-41261	19.8	19.3	19.6		19.8		20.6	
HM19-42057	17.8	17.1	17.6		18.3		18.3	
HM19-42215	19.2	18.5	19.3		19.0		20.2	
HM19-42291	18.8		18.3		18.8		19.4	
HM19-42339	18.5	17.9	18.4		18.5		19.3	
LD20-12210	18.3	19.0	14.4		19.8		20.2	
LD20-12214	19.6	19.1	19.6		19.3		20.2	
LD20-12217	19.1	18.5	18.9		19.2		19.6	
LD20-12239	19.5	18.8	19.3		19.5		20.3	
LD20-5031191	20.0	19.6	19.7		19.7		20.8	
LD20-5031291	20.2	19.4	19.9		20.3		21.3	
LD20-8854	19.6	18.7	19.8		19.3		20.6	
LD20-8968	19.6	18.7	19.5		19.8		20.6	
LD20-9131	19.6	18.9	19.4		19.4		20.7	
LD20-9134	19.5	18.4	19.4		19.5		20.6	
SA19-195H	20.2	19.3	20.5		20.0		21.0	
SA19-23234	19.5	18.9	19.1		19.7		20.2	
SA19-23636	19.4	18.6	19.1		19.7		20.3	
SA19-237H	19.4	18.5	19.5		19.2		20.2	
SA19-24395	19.1	18.2	18.9		19.0		20.1	
SA20-13276	19.6	19.2	18.6		19.8		20.7	
SA20-14242	19.3	18.3	19.2		19.4		20.3	
SA20-14505	19.7	18.8	19.5		19.6		20.8	
SA20-14624	19.2	19.0	18.4		19.0		20.6	

PRELIMINARY TEST III TRAITED MATERIAL, 2022

REGIONAL SUMMARY - SEED COMPOSITION (FATTY ACID)

No. of Tests Strain	Palmitic 4 %	Stearic 4 %	Oleic 4 %	Linoleic 4 %	Linolenic 4 %
LD11-2170 (III)	11.1	3.9	25.4	52.4	7.1
U15-606207 (SCN)	11.0	4.1	21.4	54.8	8.6
LD20-12210	6.7	3.4	82.8	4.7	2.4
LD20-12214	6.7	3.3	84.5	3.3	2.2
LD20-12217	6.8	3.4	84.5	3.2	2.1
LD20-12239	6.7	3.4	84.4	3.4	2.2
LD20-5031191	7.2	3.2	83.8	3.5	2.3
LD20-5031291	7.3	3.1	83.7	3.7	2.2
LD20-8854	6.5	3.3	84.3	3.8	2.2
LD20-8968	6.9	3.4	83.5	3.9	2.4
LD20-9131	6.8	3.3	83.7	3.9	2.3
LD20-9134	6.8	3.6	82.9	4.2	2.4
SA19-195H	7.0	3.2	78.9	8.4	2.4
SA19-23234	7.0	3.5	83.2	4.0	2.3
SA19-23636	6.7	3.4	83.2	4.3	2.4
SA19-237H	7.3	3.3	78.7	8.4	2.3
SA19-24395	6.6	3.3	83.4	4.2	2.5
SA20-13276	7.3	3.2	82.2	4.7	2.5
SA20-14242	7.1	3.7	83.0	3.8	2.4
SA20-14505	6.8	3.3	83.8	3.9	2.2
SA20-14624	6.9	3.6	83.2	4.0	2.2
Mean	7.3	3.4	77.4	9.1	2.8

PRELIMINARY TEST III TRAITED MATERIAL, 2022

FATTY ACID, PALMITIC (%)

Strain	Mean 4 Tests	Ames IA	Urbana IL	West Lafayette IN	Colum- bia MO
LD11-2170 (III)	11.1	11.3	10.8	10.9	11.5
U15-606207 (SCN)	11.0	11.0	10.9	10.5	11.5
LD20-12210	6.7	6.4	7.0	6.8	6.7
LD20-12214	6.7	6.9	6.8	6.5	6.7
LD20-12217	6.8	6.8	6.8	6.9	6.6
LD20-12239	6.7	6.8	6.5	6.5	6.8
LD20-5031191	7.2	7.2	7.4	7.2	7.2
LD20-5031291	7.3	7.6	7.2	6.9	7.4
LD20-8854	6.5	6.4	6.5	6.4	6.6
LD20-8968	6.9	7.2	6.6	6.7	7.3
LD20-9131	6.8	6.7	7.0	6.6	6.8
LD20-9134	6.8	7.0	6.8	6.5	6.8
SA19-195H	7.0	6.8	7.2	6.9	7.1
SA19-23234	7.0	7.3	7.0	6.7	7.1
SA19-23636	6.7	6.7	6.6	6.6	6.7
SA19-237H	7.3	7.7	7.1	7.0	7.2
SA19-24395	6.6	6.6	6.7	6.6	6.6
SA20-13276	7.3	7.6	7.1	7.0	7.5
SA20-14242	7.1	7.0	7.1	7.0	7.4
SA20-14505	6.8	7.1	6.7	6.5	7.0
SA20-14624	6.9	6.7	7.2	6.8	7.0

PRELIMINARY TEST III TRAITED MATERIAL, 2022

FATTY ACID, STEARIC (%)

Strain	Mean 4 Tests	Ames IA	Urbana IL	West Lafayette IN	Colum- bia MO
LD11-2170 (III)	3.9	3.6	3.9	4.1	4.3
U15-606207 (SCN)	4.1	3.9	4.2	4.1	4.4
LD20-12210	3.4	3.1	3.4	3.4	3.7
LD20-12214	3.3	3.1	3.2	3.3	3.6
LD20-12217	3.4	3.0	3.4	3.4	3.9
LD20-12239	3.4	3.2	3.2	3.3	3.8
LD20-5031191	3.2	2.8	3.2	3.1	3.5
LD20-5031291	3.1	2.8	3.0	3.1	3.6
LD20-8854	3.3	3.0	3.4	3.2	3.6
LD20-8968	3.4	3.6	3.5	3.1	3.2
LD20-9131	3.3	3.1	3.4	3.3	3.7
LD20-9134	3.6	3.5	3.5	3.6	3.9
SA19-195H	3.2	3.1	3.2	3.1	3.4
SA19-23234	3.5	3.4	3.4	3.4	3.8
SA19-23636	3.4	3.1	3.6	3.3	3.6
SA19-237H	3.3	3.3	3.4	3.3	3.3
SA19-24395	3.3	3.1	3.4	3.2	3.5
SA20-13276	3.2	3.1	3.3	3.2	3.4
SA20-14242	3.7	3.5	3.7	3.7	3.8
SA20-14505	3.3	3.3	3.3	3.1	3.4
SA20-14624	3.6	3.5	3.6	3.6	3.9

PRELIMINARY TEST III TRAITED MATERIAL, 2022

FATTY ACID, OLEIC (%)

Strain	Mean 4 Tests	Ames IA	Urbana IL	West Lafayette IN	Colum- bia MO
LD11-2170 (III)	25.4	21.0	28.7	25.4	26.6
U15-606207 (SCN)	21.4	20.3	22.0	23.1	20.5
LD20-12210	82.8	83.7	81.8	82.8	83.1
LD20-12214	84.5	83.7	84.6	85.1	84.7
LD20-12217	84.5	84.0	84.4	84.4	85.0
LD20-12239	84.4	83.7	84.7	84.5	84.7
LD20-5031191	83.8	83.2	83.8	84.0	84.2
LD20-5031291	83.7	82.7	83.9	84.1	84.0
LD20-8854	84.3	83.7	84.7	84.8	83.8
LD20-8968	83.5	82.1	84.6	84.2	82.9
LD20-9131	83.7	83.4	83.6	83.8	84.1
LD20-9134	82.9	81.9	83.0	83.1	83.8
SA19-195H	78.9	78.0	79.2	79.7	78.8
SA19-23234	83.2	82.4	83.5	83.6	83.3
SA19-23636	83.2	82.0	83.8	83.8	83.3
SA19-237H	78.7	75.9	79.0	79.4	80.4
SA19-24395	83.4	82.9	83.7	83.6	83.4
SA20-13276	82.2	81.1	82.6	82.5	82.6
SA20-14242	83.0	82.5	83.6	83.7	82.3
SA20-14505	83.8	82.0	84.1	84.7	84.3
SA20-14624	83.2	82.6	82.8	84.0	83.5

PRELIMINARY TEST III TRAITED MATERIAL, 2022

FATTY ACID, LINOLEIC (%)

Strain	Mean 4 Tests	Ames IA	Urbana IL	West Lafayette IN	Colum- bia MO
LD11-2170 (III)	52.4	55.5	50.0	52.7	51.5
U15-606207 (SCN)	54.8	55.6	54.4	54.2	55.1
LD20-12210	4.7	4.3	5.2	4.8	4.3
LD20-12214	3.3	3.8	3.3	3.1	2.9
LD20-12217	3.2	3.7	3.1	3.2	2.7
LD20-12239	3.4	3.8	3.4	3.7	2.6
LD20-5031191	3.5	4.2	3.4	3.5	3.0
LD20-5031291	3.7	4.5	3.8	3.8	2.9
LD20-8854	3.8	4.7	3.3	3.4	3.7
LD20-8968	3.9	4.4	3.1	3.9	4.2
LD20-9131	3.9	4.5	3.9	3.9	3.2
LD20-9134	4.2	4.9	4.3	4.5	3.3
SA19-195H	8.4	9.7	7.9	7.9	8.1
SA19-23234	4.0	4.4	3.9	4.2	3.5
SA19-23636	4.3	5.5	3.7	4.0	4.1
SA19-237H	8.4	10.6	8.2	8.1	6.9
SA19-24395	4.2	4.7	3.9	4.4	4.0
SA20-13276	4.7	5.5	4.7	4.8	4.0
SA20-14242	3.8	4.3	3.3	3.4	4.0
SA20-14505	3.9	5.1	3.7	3.5	3.1
SA20-14624	4.0	4.8	4.1	3.6	3.5

PRELIMINARY TEST III TRAITED MATERIAL, 2022

FATTY ACID, LINOLENIC (%)

Strain	Mean 4 Tests	Ames IA	Urbana IL	West Lafayette IN	Colum- bia MO
LD11-2170 (III)	7.1	8.6	6.6	6.9	6.1
U15-606207 (SCN)	8.6	9.2	8.6	8.1	8.5
LD20-12210	2.4	2.5	2.6	2.3	2.2
LD20-12214	2.2	2.5	2.1	2.0	2.1
LD20-12217	2.1	2.4	2.2	2.0	1.9
LD20-12239	2.2	2.5	2.2	2.1	2.1
LD20-5031191	2.3	2.5	2.3	2.2	2.1
LD20-5031291	2.2	2.4	2.2	2.1	2.1
LD20-8854	2.2	2.2	2.1	2.0	2.3
LD20-8968	2.4	2.7	2.2	2.2	2.5
LD20-9131	2.3	2.4	2.2	2.4	2.2
LD20-9134	2.4	2.7	2.4	2.4	2.2
SA19-195H	2.4	2.5	2.4	2.3	2.6
SA19-23234	2.3	2.6	2.2	2.2	2.3
SA19-23636	2.4	2.6	2.3	2.3	2.4
SA19-237H	2.3	2.6	2.2	2.2	2.2
SA19-24395	2.5	2.7	2.3	2.3	2.4
SA20-13276	2.5	2.8	2.3	2.5	2.4
SA20-14242	2.4	2.7	2.3	2.2	2.5
SA20-14505	2.2	2.5	2.2	2.1	2.1
SA20-14624	2.2	2.4	2.3	2.1	2.1

PRELIMINARY TEST III TRAITED MATERIAL, 2022

REGIONAL SUMMARY - SEED COMPOSITION (SUGAR)

Strain	Sucrose 4 %	Raffinose 4 %	Stachyose 4 %	Total Sugar 4 %
LD11-2170 (III)	2.7	0.6	2.7	6.1
U15-606207 (SCN)	2.5	0.6	3.2	6.3
A16333-162	2.3	0.7	2.8	5.8
A16335-93	3.6	0.7	3.1	7.3
A16335-119	3.7	0.6	1.9	6.2
A16336-119	5.2	0.6	0.9	6.7
Mean	3.3	0.6	2.4	6.4

PRELIMINARY TEST III TRAITED MATERIAL, 2022

SEED SUGAR, SUCROSE (%)

Strain	Mean 4 Tests	Ames IA	Urbana IL	West Lafayette IN	Colum- bia MO
LD11-2170 (III)	2.7	2.5	3.4	2.4	2.6
U15-606207 (SCN)	2.5	2.3	2.8	2.2	2.6
A16333-162	2.3	2.3	2.8	2.1	1.9
A16335-93	3.6	3.6	4.0	3.7	2.9
A16335-119	3.7	4.4	4.3	2.8	3.5
A16336-119	5.2	6.1	5.6	4.2	5.0

PRELIMINARY TEST III TRAITED MATERIAL, 2022

SEED SUGAR, RAFFINOSE (%)

Strain	Mean 4 Tests	Ames IA	Urbana IL	West Lafayette IN	Colum- bia MO
LD11-2170 (III)	0.6	0.4	0.7	0.6	0.8
U15-606207 (SCN)	0.6	0.4	0.6	0.6	0.9
A16333-162	0.7	0.5	0.8	0.6	0.9
A16335-93	0.7	0.5	0.7	0.8	0.7
A16335-119	0.6	0.5	0.6	0.5	0.7
A16336-119	0.6	0.5	0.5	0.5	0.7

PRELIMINARY TEST III TRAITED MATERIAL, 2022

SEED SUGAR, STACHYOSE (%)

Strain	Mean 4 Tests	Ames IA	Urbana IL	West Lafayette IN	Colum- bia MO
LD11-2170 (III)	2.7	2.1	3.0	2.8	3.1
U15-606207 (SCN)	3.2	2.6	3.4	3.0	3.9
A16333-162	2.8	2.4	3.3	2.6	3.0
A16335-93	3.1	2.5	3.0	3.7	3.1
A16335-119	1.9	2.1	1.8	1.9	1.6
A16336-119	0.9	1.0	0.8	0.9	0.9

PRELIMINARY TEST III TRAITED MATERIAL, 2022

SEED SUGAR, TOTAL (%)

Strain	Mean 4 Tests	Ames IA	Urbana IL	West Lafayette IN	Colum- bia MO
LD11-2170 (III)	6.1	5.0	7.1	5.8	6.5
U15-606207 (SCN)	6.3	5.4	6.7	5.7	7.4
A16333-162	5.8	5.1	6.9	5.4	5.8
A16335-93	7.3	6.6	7.6	8.2	6.7
A16335-119	6.2	7.1	6.6	5.2	5.9
A16336-119	6.7	7.7	6.9	5.6	6.7

**Northern Regional Uniform Test
Uniform Test IV, Traited Material, 2022**

Ent.	Strain	Parentage		Seed Source	Previous Testing	Gen. Comp.	Unique Traits
		Female	Male				
1	LD15-3818 (IV)	LD09-3913	BN09002129	Diers	1	F5	SCN
2	LD07-3395bf (E)	LD07-3395 Reselection		Diers	7	F5	SCN
3	AG38XF1			Cai	Initial		RR2, Xtend Flex
4	AG42XF2 (L)			Cai	Initial		RR2, Xtend Flex
5	CR191706	IA2104HS	DS11-15053	Rainey	1	F6	Sugar Comp
6	CR195515	KB10-22#1548 b	DS11-12057	Rainey	1	F6	Sugar Comp, Rps
7	LD18-12747	LD12-1843	LD16-10275	Diers	1	F4	HOLL,SCN
8	LD18-14554	LDX16-236-1-2	LDX16-230-1-2	Diers	1	F4	HOLL,SCN
9	LD19-12097	LD07-3395bf x LDXGL15-009-1	LDXGL15-008-1 x LD12-3903	Diers	Initial	F3	HOLL, SCN, Rps
10	LD19-12893	LD12-1843 x LD16-10275	LDXGL15-008-1 x LD12-3903	Diers	Initial	F4	SCN, FA
11	LD19-12943	LD12-1843 x LD16-10275	LD13-3483 x LDXGL15-012-1	Diers	Initial	F4	SCN, FA
12	S17-20605C	S13-16675	S13-10592	Chen	Initial	F5	High Oleic, Stem Canker
13	S19-1176	S15-7499RR	S15-9779RR	Chen	Initial	F5	RR1, SCN, Stem Canker, Rps
14	S19-1987R	S14-15138RR	S15-8839RR	Chen	Initial	F5	RR1, SCN, RKNT, Stem Canker
15	S19-2082	S14-15146RR/STS	LD11-13948R	Chen	Initial	F5	RR1, SCN, Stem Canker
16	S19-2100R	S14-15146RR/STS	LD11-13948R	Chen	Initial	F5	RR1, SCN, RKNT, Stem Canker, Rps
17	S19-2591R	S15-7174RR	LD11-13948R	Chen	Initial	F5	RR1, Stem Canker
18	S19-2594	S15-7174RR	LD11-13948R	Chen	Initial	F5	RR1, SCN, Stem Canker
19	S19-3530RY	S15-2702RY	S15-3772RY	Chen	Initial	F5	R2Y
20	S19-5296	S13-3851	S15-8839RR	Chen	Initial	F5	R2Y, SCN, Stem Canker
21	S19-5563	S14-9051RR	LD11-13948R	Chen	Initial	F5	R2Y, SCN, Stem Canker
22	S19-7867	S13-10590	S15-9779RR	Chen	Initial	F5	RR1, SCN, RKNT, Stem Canker
23	SA19-215H	LD12-10534	F2 SA13-2699HOLL	Scaboo	Initial	F5	HOLL
24	SA19-23068	F3 SA13-1363	KB13-15 F3 14-224	Scaboo	Initial	F5	HOLL
25	SA19-242H	SA14-9742	F2 SA13-2699HOLL	Scaboo	Initial	F5	HOLL
26	SA19-24408	F3 SA13-2699	KB13-15 F3 14-224	Scaboo	1	F5	HOLL
27	SA20-1026	SA13-2699 (4)	KB13-15 F3 14-224	Scaboo	Initial	F5	HOLL
28	SA20-13268	SA13-1385	LD16-10289	Scaboo	Initial	F5	HOLL
29	SA20-13813	LD16-10351	SA16-12491	Scaboo	Initial	F5	HOLL
30	SA20-13888	LD16-10351	SA16-12491	Scaboo	Initial	F5	HOLL
31	SA20-14398	LD16-10351	K13-1515	Scaboo	Initial	F5	HOLL
32	SA20-14689	LD16-10351	K13-1515	Scaboo	Initial	F5	HOLL

UNIFORM TEST IV TRAITED MATERIAL, 2022

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code
LD15-3818 (IV)	PLtTDYBI
LD07-3395bf (SCN) (E)	WGTDYBfI
AG38XF1	PGBDYIbI
AG42XF2 (L)	PLtBDYBI
CR191706	WLtB+TDYBI
CR195515	WGTDYBfI
LD18-12747	WTBDYBI
LD18-14554	WGB+TSYBfI
LD19-12097	P+WLt+GBSYHI
LD19-12893	P+WLtBDYBI
LD19-12943	WGBDYBfI
S17-20605C	WLtTSYBI
S19-1176	WLtTSYBI
S19-1987R	PLtTDYBI
S19-2082	WTTDYBI
S19-2100R	PTTDYBI
S19-2591R	PTBSYBI
S19-2594	PTBDYBI
S19-3530RY	WGTSYBfI
S19-5296	PLtTDYBI
S19-5563	P+WLtTDYBI
S19-7867	PTTDYBI
SA19-215H	WGBDYBfI
SA19-23068	WLtTDYGI
SA19-242H	PGTSYIbI
SA19-24408	PGTDYIbI
SA20-1026	PGTDYIbI
SA20-13268	PGTDYIbI
SA20-13813	PLtTSYBrI
SA20-13888	PGBSYGI
SA20-14398	WLtBDYBrI
SA20-14689	PLtBDYBI

UNIFORM TEST IV TRAITED MATERIAL, 2022

REGIONAL SUMMARY

No. of Tests Strain	Yield	Rank	Maturity	Lodging	Plant	Seed	Seed	<u>Composition</u>	
	6 bu/a	6 No.	9 Date	8 Score	6 In.	6 g/100	6 Score	5 Protein %	5 Oil %
LD15-3818 (IV)	68.8	2	10/1	1.4	35	15.7	1.3	35.2	19.2
LD07-3395bf (SCN) (E)	65.8	8	-1.4	1.5	32	16.6	1.4	33.1	20.2
AG38XF1	70.4	1	2.1	1.5	37	17.5	1.5	34.9	19.0
AG42XF2 (L)	67.1	5	2.7	1.8	40	18.3	1.4	35.3	18.7
CR191706	60.3	20	-2.6	1.5	32	16.6	1.5	34.8	19.0
CR195515	55.6	31	-2.8	1.8	39	16.0	1.5	35.3	19.1
LD18-12747	64.3	11	0.1	1.7	37	16.1	1.5	37.1	19.1
LD18-14554	67.7	4	0.4	1.6	34	15.2	1.5	34.9	20.2
LD19-12097	59.7	24	-2.1	1.4	30	16.6	1.7	35.1	19.9
LD19-12893	63.9	13	0.8	1.2	31	16.2	1.6	37.1	19.3
LD19-12943	66.7	7	2.4	1.4	34	14.4	1.3	36.6	19.1
S17-20605C	53.9	32	7.1	3.3	38	14.4	1.0	35.2	19.3
S19-1176	59.8	22	5.8	2.0	39	16.3	1.6	35.6	18.1
S19-1987R	65.0	9	4.0	2.2	42	15.4	1.5	35.5	18.4
S19-2082	59.5	26	6.9	2.5	42	15.5	1.5	35.7	18.8
S19-2100R	59.8	23	7.2	2.0	41	16.4	1.5	35.4	19.1
S19-2591R	59.6	25	7.5	1.5	36	17.5	1.2	35.6	18.8
S19-2594	59.3	27	7.3	2.0	39	17.5	1.6	35.2	19.4
S19-3530RY	58.3	30	4.3	1.7	40	16.6	1.2	34.2	19.1
S19-5296	68.2	3	3.1	1.9	40	16.6	1.5	35.8	19.3
S19-5563	66.8	6	5.0	2.1	42	15.9	1.6	33.8	19.4
S19-7867	64.9	10	5.4	2.3	40	17.9	1.4	33.7	19.4
SA19-215H	62.2	17	-0.6	1.2	34	12.0	1.1	35.0	19.4
SA19-23068	62.7	14	-0.9	1.2	33	14.8	1.6	36.0	19.7
SA19-242H	60.8	18	-1.7	1.2	32	12.2	1.3	35.5	19.4
SA19-24408	62.6	15	1.8	1.3	34	12.9	1.3	36.7	18.8
SA20-1026	59.0	29	1.6	1.4	35	13.8	1.3	37.2	18.8
SA20-13268	59.0	28	-1.2	1.4	34	13.8	1.2	34.6	20.2
SA20-13813	59.8	21	2.1	1.5	35	14.2	1.3	36.0	19.1
SA20-13888	62.3	16	1.9	1.4	34	13.6	1.3	36.9	18.5
SA20-14398	60.4	19	3.4	2.1	35	13.0	1.5	35.4	19.6
SA20-14689	64.2	12	2.4	2.1	36	14.0	1.5	35.8	19.8
Mean	62.4			1.7	36.3	15.4	1.4	35.4	19.2
C.V. (%)	10.8								
L.S.D. (5%)	4.5								

128.1 Days After Planting

UNIFORM TEST IV TRAITED MATERIAL, 2022

2021-2022 2-YEAR MEAN

No. of Tests Strain	Yield	Rank	Maturity	Lodging	Plant Height	Seed Size	Seed Quality	<u>Composition</u>	
	12 bu/a	12 No.	17 Date	16 Score	11 In.	12 g/100	12 Score	Protein %	Oil %
LD15-3818 (IV)	68.3	1	9/28	1.5	35	15.2	1.6	34.8	19.7
LD07-3395bf (SCN) (E)	66.1	2	-2.4	1.5	32	15.8	1.9	32.3	20.6
CR191706	60.1	6	-3.5	1.9	32	16.0	1.8	34.5	19.3
CR195515	58.7	7	-3.6	1.8	39	15.8	2.0	35.4	19.2
LD18-12747	64.0	5	-0.5	1.9	36	15.3	1.8	36.5	19.5
LD18-14554	64.7	3	-0.2	1.6	33	14.5	1.7	34.6	20.4
SA19-24408	64.2	4	0.9	1.2	35	12.3	1.4	36.4	19.0

127.6 Days After Planting

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UNIFORM TEST IV TRAITED MATERIAL, 2022

YIELD (bu/a)

Strain	Mean 6 Tests	Urbana IL	Butler- ville IN	Romney IN**	West Lafayette IN
LD15-3818 (IV)	68.8	67.8	97.4	54.3	72.6
LD07-3395bf (SCN) (E)	65.8	72.3	84.1	78.9	73.3
AG38XF1	70.4	73.2	81.3	86.1	76.2
AG42XF2 (L)	67.1	65.1	84.9	69.5	75.7
CR191706	60.3	66.4	81.5	45.4	69.8
CR195515	55.6	53.8	78.6	57.0	62.8
LD18-12747	64.3	71.3	78.0	36.7	70.9
LD18-14554	67.7	68.4	89.3	78.2	86.2
LD19-12097	59.7	63.3	80.1	69.9	69.2
LD19-12893	63.9	78.7	78.4	71.6	74.1
LD19-12943	66.7	71.3	85.9	65.7	75.2
S17-20605C	53.9	62.9	64.4	65.9	60.3
S19-1176	59.8	55.8	73.9	62.1	66.4
S19-1987R	65.0	69.0	78.4	67.0	73.1
S19-2082	59.5	55.7	79.4	66.3	72.3
S19-2100R	59.8	56.8	76.9	52.5	62.2
S19-2591R	59.6	59.4	83.6	72.9	58.7
S19-2594	59.3	56.0	73.4	74.7	67.4
S19-3530RY	58.3	55.4	80.1	62.5	66.0
S19-5296	68.2	67.9	86.9	51.1	75.6
S19-5563	66.8	66.2	92.6	87.5	73.6
S19-7867	64.9	68.3	74.0	69.9	68.2
SA19-215H	62.2	64.4	84.2	69.4	63.4
SA19-23068	62.7	65.1	80.0	67.2	73.8
SA19-242H	60.8	59.2	87.0	83.0	66.7
SA19-24408	62.6	69.6	85.8	67.9	68.2
SA20-1026	59.0	60.5	83.4	73.3	66.9
SA20-13268	59.0	63.0	69.6	63.1	62.8
SA20-13813	59.8	57.0	79.5	62.5	63.3
SA20-13888	62.3	65.5	78.5	68.5	68.1
SA20-14398	60.4	63.2	69.8	54.0	70.9
SA20-14689	64.2	72.5	77.2	60.1	74.0
Location Mean		64.5	80.6	66.1	69.6
C.V. (%)		7.8	7.5	21.9	7.3
L.S.D. (5%)		8.6	12.3	29.6	10.4
Row sp. (In.)		30	30	30	30
Rows/Plot		4	4	2	4
Reps		2	2	2	2

** Data not included in mean.

UNIFORM TEST IV TRAITED MATERIAL, 2022

YIELD (bu/a)

Strain	Albany MO	Colum- bia MO	Novelty MO	Portageville	
				Clay MO*	Loam MO*
LD15-3818 (IV)	53.7	57.2	63.9	37.4	49.4
LD07-3395bf (SCN) (E)	52.1	46.5	66.5	45.0	44.3
AG38XF1	58.7	65.2	67.8	73.1	109.5
AG42XF2 (L)	51.6	60.7	64.4	84.0	118.9
CR191706	53.8	41.3	49.2	26.6	44.6
CR195515	44.0	43.3	50.9	32.3	51.8
LD18-12747	52.9	50.3	62.1	44.0	62.3
LD18-14554	43.1	56.8	62.5	41.4	52.8
LD19-12097	48.7	41.2	55.8	29.4	36.0
LD19-12893	46.4	47.8	58.1	42.9	61.7
LD19-12943	54.6	49.2	64.3	36.5	43.9
S17-20605C	44.6	37.4	54.0	58.2	60.5
S19-1176	50.4	50.7	61.5	58.7	90.9
S19-1987R	51.5	53.1	64.6	55.9	76.9
S19-2082	45.4	43.1	60.9	50.3	60.5
S19-2100R	46.4	54.5	61.8	53.5	55.9
S19-2591R	46.0	50.8	58.8	60.8	72.5
S19-2594	43.0	52.8	63.1	47.0	67.6
S19-3530RY	48.0	41.0	59.2	67.0	73.3
S19-5296	58.9	57.4	62.4	56.5	94.5
S19-5563	46.9	55.5	65.9	58.2	82.3
S19-7867	49.8	64.5	64.9	60.7	84.4
SA19-215H	44.4	59.5	57.6	37.2	54.2
SA19-23068	47.0	53.4	57.2	35.2	55.6
SA19-242H	47.7	45.3	58.9	40.5	52.3
SA19-24408	44.0	50.3	57.9	46.3	73.4
SA20-1026	35.5	49.2	58.4	43.2	71.1
SA20-13268	43.9	56.9	57.6	37.5	63.0
SA20-13813	51.0	49.8	58.2	43.9	73.5
SA20-13888	52.9	44.6	64.3	32.9	50.1
SA20-14398	53.9	40.6	64.0	44.4	72.6
SA20-14689	50.4	47.9	63.5	48.1	67.3
Location Mean	48.8	50.6	60.6	47.8	66.5
C.V. (%)	11.3	14.5	8.3	13.1	12.2
L.S.D. (5%)	9.0	12.0	8.2	12.2	15.8
Row sp. (In.)	30	30	30	30	30
Rows/Plot	4	4	4	4	4
Reps	3	3	3	3	3

* Dicamba damage, data not included in mean.

UNIFORM TEST IV TRAITED MATERIAL, 2022

YIELD RANK

Strain	Yield Rank	Urbana IL	Butler-ville IN	Romney IN	West Lafayette IN
LD15-3818 (IV)	2	12	1	27	12
LD07-3395bf (SCN) (E)	8	4	10	4	10
AG38XF1	1	2	14	2	2
AG42XF2 (L)	5	16	8	12	3
CR191706	20	13	13	31	16
CR195515	31	32	20	26	28
LD18-12747	11	5	24	32	14
LD18-14554	4	9	3	5	1
LD19-12097	24	19	15	11	17
LD19-12893	13	1	22	9	6
LD19-12943	7	6	6	20	5
S17-20605C	32	22	32	19	31
S19-1176	22	29	28	24	24
S19-1987R	9	8	22	17	11
S19-2082	26	30	19	18	13
S19-2100R	23	27	26	29	30
S19-2591R	25	24	11	8	32
S19-2594	27	28	29	6	21
S19-3530RY	30	31	15	22	25
S19-5296	3	11	5	30	4
S19-5563	6	14	2	1	9
S19-7867	10	10	27	10	18
SA19-215H	17	18	9	13	26
SA19-23068	14	17	17	16	8
SA19-242H	18	25	4	3	23
SA19-24408	15	7	7	15	18
SA20-1026	29	23	12	7	22
SA20-13268	28	21	31	21	28
SA20-13813	21	26	18	23	27
SA20-13888	16	15	21	14	20
SA20-14398	19	20	30	28	14
SA20-14689	12	3	25	25	7

UNIFORM TEST IV TRAITED MATERIAL, 2022

YIELD RANK

Strain	Albany MO	Colum- bia MO	Novelty MO	Portageville	
				Clay MO	Loam MO
LD15-3818 (IV)	6	6	10	25	28
LD07-3395bf (SCN) (E)	9	23	2	16	30
AG38XF1	2	1	1	2	2
AG42XF2 (L)	10	3	6	1	1
CR191706	5	28	32	32	29
CR195515	28	26	31	30	26
LD18-12747	7	17	15	18	17
LD18-14554	30	8	13	22	24
LD19-12097	16	29	29	31	32
LD19-12893	21	22	24	21	18
LD19-12943	3	19	7	27	31
S17-20605C	25	32	30	7	19
S19-1176	13	15	17	6	4
S19-1987R	11	12	5	10	7
S19-2082	24	27	18	12	19
S19-2100R	21	10	16	11	21
S19-2591R	23	14	21	4	12
S19-2594	31	13	12	14	14
S19-3530RY	17	30	19	3	10
S19-5296	1	5	14	9	3
S19-5563	20	9	3	7	6
S19-7867	15	2	4	5	5
SA19-215H	26	4	27	26	23
SA19-23068	19	11	28	28	22
SA19-242H	18	24	20	23	25
SA19-24408	27	16	25	15	9
SA20-1026	32	20	22	20	13
SA20-13268	29	7	26	24	16
SA20-13813	12	18	23	19	8
SA20-13888	8	25	8	29	27
SA20-14398	4	31	9	17	11
SA20-14689	14	21	11	13	15

UNIFORM TEST IV TRAITED MATERIAL, 2022

MATURITY (date)

Strain	Mean 9 Tests	Urbana IL	Butler- ville IN	Romney IN	West Lafayette IN
LD15-3818 (IV)	10/1	10/6	9/22	10/10	10/1
LD07-3395bf (SCN) (E)	-1	-6	-2	0	-3
AG38XF1	2	3	1	1	4
AG42XF2 (L)	3	3	2	0	0
CR191706	-3	-6	-3	-1	-5
CR195515	-3	-5	-3	0	-3
LD18-12747	0	0	1	-3	-2
LD18-14554	0	1	2	-2	-1
LD19-12097	-2	-6	-2	0	-5
LD19-12893	1	0	-1	0	-1
LD19-12943	2	3	2	-3	4
S17-20605C	7	6	6	0	6
S19-1176	6	6	6	0	5
S19-1987R	4	4	4	2	4
S19-2082	7	8	8	-3	6
S19-2100R	7	10	7	-3	6
S19-2591R	8	8	6	0	8
S19-2594	7	8	7	0	6
S19-3530RY	4	4	4	0	3
S19-5296	3	4	5	-1	4
S19-5563	5	4	7	0	3
S19-7867	5	9	4	0	6
SA19-215H	-1	-2	2	0	-5
SA19-23068	-1	-1	-2	-3	-2
SA19-242H	-2	-5	1	0	-4
SA19-24408	2	4	0	1	0
SA20-1026	2	1	1	0	2
SA20-13268	-1	-5	-2	0	-5
SA20-13813	2	0	3	-1	0
SA20-13888	2	2	3	0	0
SA20-14398	3	2	5	0	3
SA20-14689	2	2	5	-4	2
Date Planted	5/26	5/17	5/11	6/13	5/12
Days to Mature	128	142	134	119	142

UNIFORM TEST IV TRAITED MATERIAL, 2022

MATURITY (date)

Strain	Albany MO	Colum- bia MO	Novelty MO	Portageville	
				Clay MO	Loam MO
LD15-3818 (IV)	10/13	10/5	9/22	10/5	9/22
LD07-3395bf (SCN) (E)	-2	-0	-2	-1	3
AG38XF1	0	2	8	-2	3
AG42XF2 (L)	1	3	8	2	5
CR191706	-2	1	-3	-6	2
CR195515	-3	-1	-1	-7	-3
LD18-12747	-2	2	0	0	5
LD18-14554	-2	1	0	0	4
LD19-12097	-1	-1	-3	-2	0
LD19-12893	-1	1	-1	1	9
LD19-12943	0	2	6	1	7
S17-20605C	4	8	10	7	18
S19-1176	3	4	10	5	14
S19-1987R	1	1	9	1	10
S19-2082	2	8	10	5	18
S19-2100R	4	7	9	7	18
S19-2591R	3	4	17	7	15
S19-2594	5	6	13	6	14
S19-3530RY	3	3	8	5	9
S19-5296	-1	-0	4	1	13
S19-5563	2	4	7	5	14
S19-7867	2	3	9	4	12
SA19-215H	-1	0	1	-3	2
SA19-23068	-2	0	-1	-1	4
SA19-242H	-1	1	-0	-7	1
SA19-24408	0	1	1	0	9
SA20-1026	-0	2	3	0	6
SA20-13268	-0	-1	-1	0	3
SA20-13813	1	2	1	2	11
SA20-13888	-1	2	5	2	5
SA20-14398	3	4	3	3	9
SA20-14689	2	2	2	4	7
Date Planted	6/21	6/14	5/17	6/1	5/10
Days to Mature	114	113	128	126	135

UNIFORM TEST IV TRAITED MATERIAL, 2022

LODGING (score)

Strain	Mean 8 Tests	Urbana IL	Butler- ville IN	Romney IN	West Lafayette IN
LD15-3818 (IV)	1.4	1.5	2.5		1.0
LD07-3395bf (SCN) (E)	1.5	1.5	2.5		1.0
AG38XF1	1.5	1.5	2.5		1.0
AG42XF2 (L)	1.8	2.0	3.0		1.0
CR191706	1.5	1.5	3.0		1.0
CR195515	1.8	1.5	3.0		1.0
LD18-12747	1.7	1.8	3.5		1.0
LD18-14554	1.6	1.8	3.0		1.0
LD19-12097	1.4	1.5	2.0		1.0
LD19-12893	1.2	1.3	1.5		1.0
LD19-12943	1.4	1.5	2.5		1.0
S17-20605C	3.3	3.0	4.0		2.5
S19-1176	2.0	2.0	3.0		1.5
S19-1987R	2.2	2.0	3.5		2.0
S19-2082	2.5	2.5	4.0		2.0
S19-2100R	2.0	2.0	3.0		1.5
S19-2591R	1.5	1.3	2.0		1.0
S19-2594	2.0	2.0	3.0		1.5
S19-3530RY	1.7	1.5	3.5		1.5
S19-5296	1.9	2.8	2.5		2.0
S19-5563	2.1	2.5	2.5		2.5
S19-7867	2.3	2.8	3.5		1.5
SA19-215H	1.2	1.3	1.5		1.0
SA19-23068	1.2	1.0	2.0		1.0
SA19-242H	1.2	1.0	1.5		1.0
SA19-24408	1.3	1.3	2.0		1.0
SA20-1026	1.4	1.5	2.5		1.0
SA20-13268	1.4	1.3	2.5		1.0
SA20-13813	1.5	1.8	2.5		1.0
SA20-13888	1.4	1.5	3.0		1.0
SA20-14398	2.1	3.0	3.5		2.0
SA20-14689	2.1	3.3	4.0		1.0

UNIFORM TEST IV TRAITED MATERIAL, 2022

LODGING (score)

Strain	Albany MO	Colum- bia MO	Novelty MO	Portageville	
				Clay MO	Loam MO
LD15-3818 (IV)	1.3	1.7	1.5	1.0	1.0
LD07-3395bf (SCN) (E)	1.5	1.5	1.5	1.0	1.3
AG38XF1	1.3	1.5	1.5	1.0	1.7
AG42XF2 (L)	1.2	1.5	2.2	1.3	2.3
CR191706	1.5	1.5	1.5	1.0	1.3
CR195515	1.5	2.3	2.5	1.0	1.3
LD18-12747	1.7	1.8	1.8	1.0	1.3
LD18-14554	1.5	1.7	1.5	1.0	1.0
LD19-12097	1.5	1.5	1.5	1.0	1.0
LD19-12893	1.2	1.5	1.5	1.0	1.0
LD19-12943	1.2	1.5	1.3	1.0	1.0
S17-20605C	1.7	1.7	3.2	5.0	5.0
S19-1176	1.7	1.5	2.7	1.7	2.0
S19-1987R	1.5	2.0	2.8	1.7	1.7
S19-2082	1.5	1.7	2.8	1.7	4.0
S19-2100R	1.5	1.5	2.2	1.7	3.0
S19-2591R	1.0	1.5	2.2	1.0	2.0
S19-2594	1.5	1.5	2.5	1.3	2.3
S19-3530RY	1.3	1.5	1.5	1.7	1.3
S19-5296	1.3	1.8	1.8	1.0	2.0
S19-5563	1.5	1.3	2.5	2.0	2.3
S19-7867	1.5	1.7	3.0	1.7	3.0
SA19-215H	1.0	1.5	1.5	1.0	1.0
SA19-23068	1.0	1.2	1.5	1.0	1.0
SA19-242H	1.0	1.5	1.5	1.0	1.0
SA19-24408	1.0	1.5	1.5	1.0	1.0
SA20-1026	1.2	1.3	1.3	1.0	1.3
SA20-13268	1.5	1.5	1.5	1.0	1.0
SA20-13813	1.3	1.5	1.7	1.0	1.0
SA20-13888	1.2	1.3	1.0	1.0	1.0
SA20-14398	1.7	1.7	2.5	1.7	1.0
SA20-14689	1.5	2.2	2.5	1.0	1.3

UNIFORM TEST IV TRAITED MATERIAL, 2022

PLANT HEIGHT (inches)

Strain	Mean 6 Tests	Urbana IL	Butler- ville IN	Romney IN	West Lafayette IN
LD15-3818 (IV)	35	38	45		35
LD07-3395bf (SCN) (E)	32	34	39		34
AG38XF1	37	39	45		38
AG42XF2 (L)	40	38	52		44
CR191706	32	36	38		35
CR195515	39	39	51		42
LD18-12747	37	40	45		40
LD18-14554	34	39	40		36
LD19-12097	30	32	35		31
LD19-12893	31	37	39		29
LD19-12943	34	38	46		34
S17-20605C	38	45	47		42
S19-1176	39	41	44		41
S19-1987R	42	44	53		44
S19-2082	42	45	55		42
S19-2100R	41	47	49		45
S19-2591R	36	40	46		35
S19-2594	39	43	48		44
S19-3530RY	40	42	51		42
S19-5296	40	46	51		44
S19-5563	42	41	54		45
S19-7867	40	44	48		42
SA19-215H	34	41	42		36
SA19-23068	33	38	41		35
SA19-242H	32	35	40		34
SA19-24408	34	37	43		37
SA20-1026	35	39	46		38
SA20-13268	34	37	42		38
SA20-13813	35	35	42		38
SA20-13888	34	36	44		38
SA20-14398	35	40	40		39
SA20-14689	36	41	44		39

UNIFORM TEST IV TRAITED MATERIAL, 2022

PLANT HEIGHT (inches)

Strain	Albany MO	Colum- bia MO	Novelty MO	Portageville	
				Clay MO*	Loam MO*
LD15-3818 (IV)	29	26	36	16	18
LD07-3395bf (SCN) (E)	29	24	32	19	18
AG38XF1	31	31	38	31	37
AG42XF2 (L)	35	33	38	36	45
CR191706	29	24	33	16	17
CR195515	35	29	38	18	21
LD18-12747	32	25	37	18	24
LD18-14554	28	26	34	18	18
LD19-12097	26	23	30	16	14
LD19-12893	26	26	30	17	19
LD19-12943	31	25	35	16	20
S17-20605C	35	30	33	26	34
S19-1176	38	30	40	22	27
S19-1987R	39	34	40	24	28
S19-2082	38	35	38	27	35
S19-2100R	34	30	39	26	33
S19-2591R	29	26	39	22	26
S19-2594	34	29	39	22	27
S19-3530RY	36	32	39	24	26
S19-5296	32	28	40	24	32
S19-5563	37	33	44	23	30
S19-7867	37	32	40	23	30
SA19-215H	28	25	31	17	20
SA19-23068	25	26	32	16	20
SA19-242H	27	23	33	16	19
SA19-24408	30	25	34	18	24
SA20-1026	28	24	35	18	24
SA20-13268	29	27	34	18	20
SA20-13813	33	26	36	21	25
SA20-13888	31	24	33	15	19
SA20-14398	32	24	37	17	26
SA20-14689	31	27	37	20	23

* Dicamba damage, data not included in mean.

UNIFORM TEST IV TRAITED MATERIAL, 2022

SEED SIZE (g/100)

Strain	Mean 6 Tests	Urbana IL	Butler- ville IN	Romney IN	West Lafayette IN
LD15-3818 (IV)	15.7	16.0	15.9		16.4
LD07-3395bf (SCN) (E)	16.6	17.4	16.8		17.6
AG38XF1	17.5	17.3	16.0		17.6
AG42XF2 (L)	18.3	18.2	17.9		17.2
CR191706	16.6	16.9	16.6		17.5
CR195515	16.0	16.2	15.8		17.3
LD18-12747	16.1	16.5	16.8		15.9
LD18-14554	15.2	15.6	15.6		15.2
LD19-12097	16.6	17.1	16.4		16.7
LD19-12893	16.2	16.9	15.2		16.7
LD19-12943	14.4	15.1	14.8		14.9
S17-20605C	14.4	15.0	13.7		14.5
S19-1176	16.3	16.0	16.5		16.9
S19-1987R	15.4	16.1	15.6		15.7
S19-2082	15.5	15.5	16.1		16.5
S19-2100R	16.4	17.2	17.4		16.8
S19-2591R	17.5	18.6	17.7		17.5
S19-2594	17.5	17.1	16.9		17.4
S19-3530RY	16.6	15.5	17.7		16.8
S19-5296	16.6	16.7	16.8		16.0
S19-5563	15.9	16.8	17.1		16.2
S19-7867	17.9	18.5	17.6		17.8
SA19-215H	12.0	12.7	12.8		11.4
SA19-23068	14.8	14.9	14.3		15.3
SA19-242H	12.2	12.2	12.7		12.0
SA19-24408	12.9	14.1	13.2		12.7
SA20-1026	13.8	14.0	15.0		14.0
SA20-13268	13.8	14.4	13.3		14.2
SA20-13813	14.2	13.4	13.4		14.4
SA20-13888	13.6	13.6	13.7		13.5
SA20-14398	13.0	13.5	12.9		12.9
SA20-14689	14.0	14.3	14.9		14.2

UNIFORM TEST IV TRAITED MATERIAL, 2022

SEED SIZE (g/100)

Strain	Albany MO	Colum- bia MO	Novelty MO	Portageville	
				Clay MO	Loam MO
LD15-3818 (IV)		15.3		15.7	14.8
LD07-3395bf (SCN) (E)		16.4		15.8	16.0
AG38XF1		18.7		17.3	17.9
AG42XF2 (L)		18.6		17.8	20.0
CR191706		16.4		16.6	15.4
CR195515		15.9		15.6	15.1
LD18-12747		17.6		15.5	14.4
LD18-14554		15.7		14.7	14.4
LD19-12097		17.2		16.4	15.7
LD19-12893		17.1		15.6	15.5
LD19-12943		14.3		14.5	13.0
S17-20605C		13.0		14.8	15.4
S19-1176		15.8		16.5	16.1
S19-1987R		15.1		14.8	15.1
S19-2082		14.3		14.6	16.0
S19-2100R		15.9		15.1	16.3
S19-2591R		16.5		17.3	17.5
S19-2594		17.0		17.5	19.0
S19-3530RY		17.6		16.4	15.9
S19-5296		17.2		16.0	16.9
S19-5563		15.5		15.0	15.1
S19-7867		19.4		16.6	17.6
SA19-215H		11.6		12.2	11.5
SA19-23068		17.0		14.2	12.9
SA19-242H		11.7		12.1	12.3
SA19-24408		12.0		12.7	12.4
SA20-1026		13.5		13.3	12.9
SA20-13268		13.9		13.8	13.1
SA20-13813		14.6		14.4	15.0
SA20-13888		13.7		13.8	13.3
SA20-14398		12.6		12.6	13.2
SA20-14689		12.6		14.0	13.8

UNIFORM TEST IV TRAITED MATERIAL, 2022

SEED QUALITY (score)

Strain	Mean 6 Tests	Urbana IL	Butler- ville IN	Romney IN	West Lafayette IN
LD15-3818 (IV)	1.3	2.0	1.0		1.0
LD07-3395bf (SCN) (E)	1.4	2.0	1.0		1.0
AG38XF1	1.5	2.0	1.0		1.0
AG42XF2 (L)	1.4	2.0	1.0		1.0
CR191706	1.5	2.0	1.0		1.5
CR195515	1.5	2.0	1.0		1.5
LD18-12747	1.5	2.0	1.0		1.5
LD18-14554	1.5	2.0	1.0		1.0
LD19-12097	1.7	2.0	1.0		1.0
LD19-12893	1.6	2.0	1.0		1.0
LD19-12943	1.3	2.0	1.0		1.0
S17-20605C	1.0	1.0	1.0		1.0
S19-1176	1.6	2.0	1.0		1.0
S19-1987R	1.5	2.0	1.0		1.0
S19-2082	1.5	2.0	1.0		1.0
S19-2100R	1.5	2.0	1.0		1.0
S19-2591R	1.2	2.0	1.0		1.0
S19-2594	1.6	3.0	1.0		1.0
S19-3530RY	1.2	2.0	1.0		1.0
S19-5296	1.5	2.0	1.0		1.0
S19-5563	1.6	2.0	1.0		1.0
S19-7867	1.4	2.0	1.0		1.0
SA19-215H	1.1	1.0	1.0		1.0
SA19-23068	1.6	2.0	1.0		1.0
SA19-242H	1.3	2.0	1.0		1.0
SA19-24408	1.3	2.0	1.0		1.0
SA20-1026	1.3	2.0	1.0		1.0
SA20-13268	1.2	2.0	1.0		1.0
SA20-13813	1.3	2.0	1.0		1.0
SA20-13888	1.3	2.0	1.0		1.5
SA20-14398	1.5	2.0	1.0		1.0
SA20-14689	1.5	2.0	1.0		1.0

UNIFORM TEST IV TRAITED MATERIAL, 2022

SEED QUALITY (score)

Strain	Albany MO	Colum- bia MO	Novelty MO	Portageville	
				Clay MO	Loam MO
LD15-3818 (IV)		1.0		1.0	1.7
LD07-3395bf (SCN) (E)		1.0		1.3	2.0
AG38XF1		1.0		1.7	2.0
AG42XF2 (L)		1.0		1.3	2.0
CR191706		1.0		1.7	2.0
CR195515		1.0		1.0	2.7
LD18-12747		2.0		1.0	1.3
LD18-14554		1.0		1.7	2.0
LD19-12097		2.0		2.0	2.0
LD19-12893		2.0		1.3	2.0
LD19-12943		1.0		1.0	1.7
S17-20605C		1.0		1.0	1.0
S19-1176		2.0		1.7	2.0
S19-1987R		1.0		2.0	2.0
S19-2082		1.0		2.0	2.0
S19-2100R		1.0		2.0	2.0
S19-2591R		1.0		1.0	1.3
S19-2594		1.0		1.7	1.7
S19-3530RY		1.0		1.0	1.0
S19-5296		1.0		2.0	2.0
S19-5563		2.0		1.7	2.0
S19-7867		1.0		1.3	2.0
SA19-215H		1.0		1.0	1.7
SA19-23068		2.0		1.7	2.0
SA19-242H		1.0		1.0	2.0
SA19-24408		1.0		1.3	1.7
SA20-1026		1.0		1.3	1.7
SA20-13268		1.0		1.0	1.0
SA20-13813		1.0		1.0	1.7
SA20-13888		1.0		1.0	1.0
SA20-14398		2.0		1.7	1.0
SA20-14689		2.0		1.0	2.0

UNIFORM TEST IV TRAITED MATERIAL, 2022

PROTEIN (%)

Strain	Mean 5 Tests	Urbana IL	Butler- ville IN	Romney IN	West Lafayette IN
LD15-3818 (IV)	35.2	36.7	36.7		34.8
LD07-3395bf (SCN) (E)	33.1	33.7	33.7		32.4
AG38XF1	34.9	33.9	34.5		34.0
AG42XF2 (L)	35.3	34.9	35.9		34.1
CR191706	34.8	34.4	35.4		35.1
CR195515	35.3	35.5	35.9		36.0
LD18-12747	37.1	37.1	38.4		36.8
LD18-14554	34.9	34.8	35.5		35.4
LD19-12097	35.1	34.9	35.7		34.2
LD19-12893	37.1	36.4	36.6		37.4
LD19-12943	36.6	36.9	37.1		36.8
S17-20605C	35.2	35.6	35.2		35.0
S19-1176	35.6	36.0	36.7		35.4
S19-1987R	35.5	36.5	36.0		35.1
S19-2082	35.7	35.9	36.9		36.3
S19-2100R	35.4	36.5	36.2		35.4
S19-2591R	35.6	36.4	35.9		35.9
S19-2594	35.2	35.2	35.2		35.5
S19-3530RY	34.2	34.8	35.7		33.7
S19-5296	35.8	36.9	36.6		35.2
S19-5563	33.8	33.6	34.3		33.3
S19-7867	33.7	34.3	34.3		32.6
SA19-215H	35.0	35.0	36.0		33.8
SA19-23068	36.0	36.4	35.8		36.1
SA19-242H	35.5	36.1	35.6		35.3
SA19-24408	36.7	37.5	37.3		36.6
SA20-1026	37.2	37.4	37.9		37.1
SA20-13268	34.6	34.1	36.6		33.8
SA20-13813	36.0	35.6	36.5		35.9
SA20-13888	36.9	37.6	37.2		36.8
SA20-14398	35.4	35.5	36.3		35.7
SA20-14689	35.8	36.0	36.1		36.6

UNIFORM TEST IV TRAITED MATERIAL, 2022

PROTEIN (%)

Strain	Albany MO	Colum- bia MO	Novelty MO	Portageville	
				Clay MO	Loam MO
LD15-3818 (IV)		34.9			32.9
LD07-3395bf (SCN) (E)		31.2			34.5
AG38XF1		35.5			36.6
AG42XF2 (L)		35.1			36.7
CR191706		33.9			35.3
CR195515		34.4			34.8
LD18-12747		37.1			36.3
LD18-14554		33.7			34.9
LD19-12097		35.3			35.6
LD19-12893		36.8			38.1
LD19-12943		35.9			36.6
S17-20605C		34.7			35.5
S19-1176		34.0			36.1
S19-1987R		33.9			36.0
S19-2082		32.8			36.6
S19-2100R		33.3			35.8
S19-2591R		35.2			34.5
S19-2594		35.1			34.9
S19-3530RY		33.1			33.6
S19-5296		35.7			34.6
S19-5563		32.8			34.8
S19-7867		33.6			34.0
SA19-215H		34.3			35.8
SA19-23068		36.0			35.7
SA19-242H		34.8			35.8
SA19-24408		35.8			36.5
SA20-1026		36.5			36.9
SA20-13268		34.4			33.8
SA20-13813		35.6			36.3
SA20-13888		35.7			36.9
SA20-14398		33.8			36.0
SA20-14689		34.2			36.2

UNIFORM TEST IV TRAITED MATERIAL, 2022

OIL (%)

Strain	Mean 5 Tests	Urbana IL	Butler- ville IN	Romney IN	West Lafayette IN
LD15-3818 (IV)	19.2	18.2	18.5		19.1
LD07-3395bf (SCN) (E)	20.2	19.8	19.8		20.5
AG38XF1	19.0	18.5	19.3		19.0
AG42XF2 (L)	18.7	18.4	18.7		19.1
CR191706	19.0	18.9	18.7		19.0
CR195515	19.1	18.7	18.6		18.7
LD18-12747	19.1	19.1	18.6		19.1
LD18-14554	20.2	19.9	19.7		19.8
LD19-12097	19.9	19.6	20.0		20.1
LD19-12893	19.3	19.3	19.2		18.8
LD19-12943	19.1	18.6	19.0		19.0
S17-20605C	19.3	18.5	19.6		18.8
S19-1176	18.1	16.7	17.8		17.9
S19-1987R	18.4	17.7	17.8		18.3
S19-2082	18.8	17.9	18.7		18.2
S19-2100R	19.1	17.8	19.3		18.7
S19-2591R	18.8	17.7	18.9		18.6
S19-2594	19.4	18.7	19.6		18.8
S19-3530RY	19.1	18.0	18.8		18.9
S19-5296	19.3	18.1	19.0		19.1
S19-5563	19.4	19.2	18.9		19.5
S19-7867	19.4	18.5	19.2		19.2
SA19-215H	19.4	19.0	19.0		19.6
SA19-23068	19.7	19.3	19.3		19.4
SA19-242H	19.4	18.8	19.3		19.2
SA19-24408	18.8	18.1	18.4		18.8
SA20-1026	18.8	18.4	18.6		18.4
SA20-13268	20.2	20.3	18.9		20.6
SA20-13813	19.1	18.8	18.7		18.8
SA20-13888	18.5	18.0	18.4		18.0
SA20-14398	19.6	18.8	19.2		19.2
SA20-14689	19.8	19.2	19.9		19.2

UNIFORM TEST IV TRAITED MATERIAL, 2022

OIL (%)

Strain	Albany MO	Colum- bia MO	Novelty MO	Portageville	
				Clay MO	Loam MO
LD15-3818 (IV)		19.7			20.5
LD07-3395bf (SCN) (E)		21.7			19.1
AG38XF1		19.3			18.7
AG42XF2 (L)		18.6			18.5
CR191706		19.8			18.5
CR195515		20.1			19.5
LD18-12747		19.3			19.7
LD18-14554		20.9			20.8
LD19-12097		20.0			20.1
LD19-12893		19.6			19.6
LD19-12943		19.5			19.7
S17-20605C		19.6			19.9
S19-1176		18.9			19.0
S19-1987R		19.4			18.8
S19-2082		20.0			19.1
S19-2100R		20.2			19.5
S19-2591R		19.2			19.9
S19-2594		19.7			20.2
S19-3530RY		19.3			20.4
S19-5296		20.0			20.4
S19-5563		19.9			19.5
S19-7867		19.5			20.7
SA19-215H		20.0			19.3
SA19-23068		20.2			20.3
SA19-242H		20.1			19.6
SA19-24408		19.4			19.3
SA20-1026		19.3			19.6
SA20-13268		20.5			20.9
SA20-13813		19.3			19.9
SA20-13888		18.9			19.4
SA20-14398		20.5			20.1
SA20-14689		20.8			20.1

UNIFORM TEST IV TRAITED MATERIAL, 2022
REGIONAL SUMMARY - SEED COMPOSITION (FATTY ACID)

No. of Tests Strain	Palmitic 6 %	Stearic 6 %	Oleic 6 %	Linoleic 6 %	Linolenic 6 %
LD15-3818 (IV)	9.9	4.2	27.2	51.8	7.0
LD07-3395bf (SCN) (E)	10.5	3.9	23.6	54.5	7.5
LD18-12747	6.6	3.3	83.3	4.5	2.3
LD18-14554	6.8	3.5	84.1	3.3	2.2
LD19-12097	6.4	3.3	85.3	3.0	2.0
LD19-12893	6.7	3.3	83.9	3.8	2.2
LD19-12943	6.9	3.5	83.3	3.9	2.4
S17-20605C	7.1	3.2	77.5	6.7	5.6
SA19-215H	7.2	3.2	79.3	7.7	2.5
SA19-23068	7.2	3.3	83.4	3.9	2.2
SA19-242H	7.6	3.4	80.0	6.8	2.2
SA19-24408	6.9	3.5	83.3	3.9	2.4
SA20-1026	6.9	3.5	83.8	3.5	2.3
SA20-13268	7.1	3.3	83.6	3.7	2.2
SA20-13813	7.0	3.4	83.8	3.6	2.3
SA20-13888	6.8	3.9	83.6	3.4	2.4
SA20-14398	6.9	3.2	83.7	4.0	2.2
SA20-14689	6.8	3.3	84.1	3.6	2.1
Mean	7.3	3.5	76.5	9.7	3.0

UNIFORM TEST IV TRAITED MATERIAL, 2022
FATTY ACID, PALMITIC (%)

Strain	Mean 6 Tests	Urbana IL	Butler- ville IN	West Lafayette IN	Colum- bia MO	Portageville	
						Clay MO	Loam MO
LD15-3818 (IV)	9.9	9.8	9.8	9.2	10.9	10.0	9.7
LD07-3395bf (SCN) (E)	10.5	10.5	10.2	10.1	10.6	10.7	10.8
LD18-12747	6.6	6.7	6.4	6.2	6.6	6.7	6.9
LD18-14554	6.8	7.0	6.7	6.5	6.7	7.0	7.1
LD19-12097	6.4	6.3	6.5	5.9	6.5	6.7	6.6
LD19-12893	6.7	7.0	6.8	6.5	6.7	6.9	6.7
LD19-12943	6.9	6.6	7.3	6.7	7.3	6.8	6.7
S17-20605C	7.1	7.2	6.8	7.5	6.9	7.2	6.9
SA19-215H	7.2	7.2	7.4	6.7	7.4	7.2	7.4
SA19-23068	7.2	7.0	7.2	7.1	7.0	7.3	7.3
SA19-242H	7.6	7.7	7.8	7.7	7.8	7.2	7.0
SA19-24408	6.9	7.1	6.8	6.6	6.9	6.9	7.2
SA20-1026	6.9	6.6	7.1	6.7	7.2	7.0	6.9
SA20-13268	7.1	7.2	7.1	6.9	7.2	7.3	7.2
SA20-13813	7.0	6.7	7.1	6.5	7.1	7.1	7.2
SA20-13888	6.8	7.0	6.8	6.8	6.6	6.8	6.8
SA20-14398	6.9	6.6	7.0	6.3	7.0	7.1	7.3
SA20-14689	6.8	6.8	6.5	6.6	6.8	7.1	6.8

UNIFORM TEST IV TRAITED MATERIAL, 2022

FATTY ACID, STEARIC (%)

Strain	Mean 6 Tests	Urbana IL	Butler- ville IN	West Lafayette IN	Colum- bia MO	Portageville	
						Clay MO	Loam MO
LD15-3818 (IV)	4.2	4.3	4.0	4.3	4.6	3.8	4.1
LD07-3395bf (SCN) (E)	3.9	4.0	3.6	3.8	4.3	3.7	4.0
LD18-12747	3.3	3.4	3.2	3.4	3.5	3.1	3.5
LD18-14554	3.5	3.5	3.4	3.6	3.7	3.4	3.5
LD19-12097	3.3	3.4	2.9	3.3	3.7	3.2	3.4
LD19-12893	3.3	3.3	3.3	3.2	3.4	3.3	3.6
LD19-12943	3.5	3.5	3.4	3.3	3.7	3.7	3.5
S17-20605C	3.2	3.0	3.0	3.4	3.3	3.1	3.3
SA19-215H	3.2	3.2	3.0	3.3	3.2	3.2	3.1
SA19-23068	3.3	3.4	3.2	3.3	3.5	3.4	3.3
SA19-242H	3.4	3.4	3.1	3.4	3.6	3.4	3.3
SA19-24408	3.5	3.4	3.2	3.3	3.7	3.6	3.7
SA20-1026	3.5	3.5	3.3	3.4	3.4	3.4	3.7
SA20-13268	3.3	3.2	3.2	3.2	3.2	3.3	3.4
SA20-13813	3.4	3.3	3.2	3.3	3.8	3.3	3.8
SA20-13888	3.9	3.8	3.7	3.8	4.1	3.9	3.9
SA20-14398	3.2	3.3	3.1	3.1	3.3	3.2	3.2
SA20-14689	3.3	3.6	3.1	3.5	3.3	3.3	3.3

UNIFORM TEST IV TRAITED MATERIAL, 2022

FATTY ACID, OLEIC (%)

Strain	Mean 6 Tests	Urbana IL	Butler- ville IN	West Lafayette IN	Colum- bia MO	Portageville	
						Clay MO	Loam MO
LD15-3818 (IV)	27.2	27.0	32.7	27.3	25.8	22.5	27.6
LD07-3395bf (SCN) (E)	23.6	25.1	23.6	23.3	23.8	21.3	24.5
LD18-12747	83.3	82.8	83.3	82.4	84.1	83.1	84.3
LD18-14554	84.1	84.0	84.4	83.5	84.0	84.7	84.3
LD19-12097	85.3	85.4	86.0	85.5	84.5	85.2	85.2
LD19-12893	83.9	83.0	82.9	84.0	84.2	84.6	84.5
LD19-12943	83.3	83.6	82.9	84.2	81.7	83.1	84.5
S17-20605C	77.5	78.3	81.0	63.9	78.8	81.6	81.3
SA19-215H	79.3	78.1	79.4	78.8	77.6	81.6	80.5
SA19-23068	83.4	83.1	83.0	83.1	83.4	84.2	83.7
SA19-242H	80.0	79.3	79.7	78.2	77.7	82.6	82.8
SA19-24408	83.3	82.3	83.6	83.9	82.6	84.3	83.2
SA20-1026	83.8	83.4	84.1	83.6	83.4	84.8	83.4
SA20-13268	83.6	82.8	83.6	83.5	83.4	84.6	83.8
SA20-13813	83.8	83.5	83.5	84.1	82.6	85.0	83.9
SA20-13888	83.6	82.1	84.0	83.3	83.5	84.2	84.4
SA20-14398	83.7	83.2	84.1	84.1	82.9	84.3	83.5
SA20-14689	84.1	84.0	84.9	83.8	83.4	84.2	84.5

UNIFORM TEST IV TRAITED MATERIAL, 2022

FATTY ACID, LINOLEIC (%)

Strain	Mean 6 Tests	Urbana IL	Butler- ville IN	West Lafayette IN	Colum- bia MO	Portageville	
						Clay MO	Loam MO
LD15-3818 (IV)	51.8	51.7	47.1	51.9	51.4	56.3	52.2
LD07-3395bf (SCN) (E)	54.5	52.4	54.6	54.9	53.9	57.5	53.8
LD18-12747	4.5	4.7	4.7	5.5	3.6	4.8	3.3
LD18-14554	3.3	3.3	3.2	4.0	3.3	3.0	3.0
LD19-12097	3.0	2.9	2.6	3.3	3.1	3.0	2.9
LD19-12893	3.8	4.2	4.6	4.2	3.6	3.2	3.1
LD19-12943	3.9	3.9	3.8	3.6	4.5	4.1	3.3
S17-20605C	6.7	5.3	4.0	18.8	5.3	3.2	3.5
SA19-215H	7.7	8.8	7.6	8.7	8.9	5.8	6.6
SA19-23068	3.9	4.2	4.3	4.3	3.9	3.1	3.4
SA19-242H	6.8	7.2	6.9	8.3	8.4	5.0	5.0
SA19-24408	3.9	4.6	4.1	3.9	4.3	3.1	3.6
SA20-1026	3.5	4.0	3.1	3.9	3.6	2.7	3.8
SA20-13268	3.7	4.3	3.8	4.1	3.8	2.9	3.5
SA20-13813	3.6	4.1	3.7	3.9	3.9	2.6	3.1
SA20-13888	3.4	4.4	3.3	3.7	3.4	2.9	2.8
SA20-14398	4.0	4.4	3.6	4.3	4.3	3.4	3.9
SA20-14689	3.6	3.5	3.4	3.9	4.1	3.4	3.4

UNIFORM TEST IV TRAITED MATERIAL, 2022

FATTY ACID, LINOLENIC (%)

Strain	Mean 6 Tests	Urbana IL	Butler- ville IN	West Lafayette IN	Colum- bia MO	Portageville	
						Clay MO	Loam MO
LD15-3818 (IV)	7.0	7.2	6.5	7.3	7.3	7.3	6.4
LD07-3395bf (SCN) (E)	7.5	7.9	8.1	7.9	7.4	6.7	6.9
LD18-12747	2.3	2.4	2.4	2.5	2.3	2.2	2.1
LD18-14554	2.2	2.2	2.2	2.4	2.2	2.0	2.1
LD19-12097	2.0	2.0	1.9	2.0	2.3	1.9	1.9
LD19-12893	2.2	2.4	2.4	2.2	2.2	2.1	2.1
LD19-12943	2.4	2.3	2.5	2.2	2.8	2.3	2.0
S17-20605C	5.6	6.2	5.2	6.4	5.7	5.0	5.0
SA19-215H	2.5	2.7	2.6	2.6	2.8	2.3	2.4
SA19-23068	2.2	2.3	2.3	2.2	2.3	2.0	2.1
SA19-242H	2.2	2.3	2.4	2.4	2.4	1.9	1.9
SA19-24408	2.4	2.6	2.3	2.3	2.6	2.1	2.3
SA20-1026	2.3	2.5	2.3	2.4	2.4	2.0	2.2
SA20-13268	2.2	2.5	2.3	2.3	2.4	2.0	2.1
SA20-13813	2.3	2.4	2.5	2.2	2.5	2.0	2.0
SA20-13888	2.4	2.7	2.3	2.5	2.4	2.2	2.2
SA20-14398	2.2	2.4	2.2	2.2	2.4	2.0	2.1
SA20-14689	2.1	2.2	2.1	2.2	2.3	2.0	2.0

UNIFORM TEST IV TRAITED MATERIAL, 2022

REGIONAL SUMMARY - SEED COMPOSITION (SUGAR)

Strain	Sucrose	Raffinose	Stachyose	Total Sugar
	6 %	6 %	6 %	6 %
LD15-3818 (IV)	2.7	0.7	3.1	6.5
LD07-3395bf (SCN) (E)	2.7	0.7	3.3	6.8
CR191706	3.9	0.9	2.9	7.7
CR195515	4.5	0.7	0.6	5.8
Mean	3.4	0.8	2.5	6.7

UNIFORM TEST IV TRAITED MATERIAL, 2022

SEED SUGAR, SUCROSE (%)

Strain	Mean 6 Tests	Urbana IL	Butler- ville IN	West Lafayette IN	Colum- bia MO	Portageville	
						Clay MO	Loam MO
LD15-3818 (IV)	2.7	3.5	2.3	2.3	2.8	2.6	2.7
LD07-3395bf (SCN) (E)	2.7	3.5	3.3	2.2	3.0	2.1	2.2
CR191706	3.9	6.5	3.7	3.3	3.1	3.2	3.4
CR195515	4.5	5.6	4.8	4.2	3.8	4.0	4.2

UNIFORM TEST IV TRAITED MATERIAL, 2022

SEED SUGAR, RAFFINOSE (%)

Strain	Mean 6 Tests	Urbana IL	Butler- ville IN	West Lafayette IN	Colum- bia MO	Portageville	
						Clay MO	Loam MO
LD15-3818 (IV)	0.7	0.6	0.5	0.4	0.8	0.7	1.0
LD07-3395bf (SCN) (E)	0.7	0.7	0.7	0.5	1.0	0.7	0.7
CR191706	0.9	1.0	0.7	0.7	0.9	1.1	1.0
CR195515	0.7	0.7	0.6	0.7	0.8	0.7	0.8

UNIFORM TEST IV TRAITED MATERIAL, 2022

SEED SUGAR, STACHYOSE (%)

Strain	Mean 6 Tests	Urbana IL	Butler- ville IN	West Lafayette IN	Colum- bia MO	Portageville	
						Clay MO	Loam MO
LD15-3818 (IV)	3.1	3.0	2.4	2.4	3.5	3.5	3.6
LD07-3395bf (SCN) (E)	3.3	3.6	3.4	2.8	3.8	3.1	3.4
CR191706	2.9	3.6	2.6	2.4	2.7	3.3	3.1
CR195515	0.6	0.2	0.7	0.6	0.6	0.6	0.9

UNIFORM TEST IV TRAITED MATERIAL, 2022

SEED SUGAR, TOTAL (%)

Strain	Mean 6 Tests	Urbana IL	Butler- ville IN	West Lafayette IN	Colum- bia MO	Portageville	
						Clay MO	Loam MO
LD15-3818 (IV)	6.5	7.2	5.3	5.1	7.1	6.8	7.3
LD07-3395bf (SCN) (E)	6.8	7.8	7.4	5.5	7.8	6.0	6.3
CR191706	7.7	11.1	7.0	6.4	6.7	7.6	7.4
CR195515	5.8	6.5	6.2	5.4	5.3	5.3	5.9

Parentage data of strains in Uniform Tests can be found at:
<https://soybase.org/uniformtrial/index.php?page=lines>

