# UNIFORM SOYBEAN TESTS

# SOUTHERN STATES

# 2023

**COORDINATED, ANALYZED AND EDITED BY:**

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**Annual reports are available online at** http://www.ars.usda.gov/Main/docs.htm?docid=23815
**Uniform Soybean Test Parentage Information Database is available at:**
https://soybase.org/uniformtrial/index.php?page=lines



**ISSUED MARCH 2024**

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# INTRODUCTION

The Uniform Soybean Testing Program has been directed toward the testing of elite breeding lines that ultimately leads to the release of varieties. Breeding lines are developed and evaluated in several participating federal and state research programs. As breeding lines demonstrate specific qualities in the individual programs, they are advanced to the preliminary and uniform regional tests conducted in cooperation with research workers in the southern states. This testing program enables breeders to evaluate new lines under a wide variety of conditions; and permits new lines to be put into production in a minimum amount of time. Lines are usually entered only once in the Preliminary Test and then are either dropped or advanced to the Uniform Test for a maximum of three years if performance warrants further testing.

Eleven uniform test groups have been established to evaluate the best lines developed in the breeding programs. The groups 00 through IV are adapted in the northern part of the United States, and the groups IV-S through VIII are grown in the southern part. Within their area of adaptation, there is a maturity range of 12 to 18 days within each maturity class. The best varieties available in each maturity class are used as check varieties with which to compare new lines as to seed yield, chemical composition, maturity, height, lodging, seed quality, and reaction to diseases and nematodes. For the groups grown in the southern area, the check varieties are:
AG38XF1, AG43XF2, LD015-3818, S13-3851C, S16-7922, AG46X6, AG48X9, AG48XF2, S16-14869, AG53XF2, AG55XF0, TN09-008, TN11-5140, AG56XF2, AG64X8 RR2X, USDA-N6005 (release of N10-687), NC-Dunphy (release of NCC07-8138), NC-Dilday (release of NCC06-1090), P68A07SX, SH 7418LL, AG72XF0, AGS-738RR, NC-Wilder (release of NCC06-899), AG79X9RR2X/SR, N8002 .

A wide range of soil and climatic conditions exists in the regions. As an aid in recognizing regional adaptation, the region has been subdivided into five rather broad areas which still represent a wide range of soil types. These are: (1) the East Coast, consisting of the Coastal Plain and Tidewater areas of the eastern shore of Maryland, Virginia, North Carolina, and the upper half of South Carolina; (2) the Southeast, consisting primarily of the Coastal Plain soils of the Gulf Coast area, but also including similar soil from South Carolina, southward; (3) the Upper and Central South, including the Piedmont and loessial hill soils east of the Mississippi River; (4) the Delta area, composed of the alluvial soils along the Mississippi River from southern Missouri, southward; and (5) the West, comprising Arkansas and Louisiana (outside the Delta), Kansas, Oklahoma, and Texas. In the West, the potential soybean-growing areas would include alluvial soils, and the Gulf Coast of Louisiana.

# POLICY ON EVALUATION AND RELEASE OF LINES

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 in an effort 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 lines.

## Qualifications for Participation in the Uniform Soybean Tests

Participants must be willing and able to conduct unified tests with conventional lines and lines containing proprietary and/or transgenic traits.

Participants, upon submission of entries, must disclose pedigrees to the Uniform Soybean Test Coordinator for publication with performance data in the Uniform Soybean Test Report.

Participants are individually responsible to ensure that any transgenic entries that they submit are cleared for sale as commodity seed.

## Use of Uniform Soybean Test Entries in Soybean Breeding and Research

Seed of Uniform Soybean Test entries is for evaluation in the Uniform Soybean Tests only and may not be distributed to non-participants in these tests without prior approval by the originator of the entry.

Trueness-to-type or purity of seed produced by the entries in the Uniform Soybean Tests cannot be guaranteed by the USDA. Therefore, seed produced by lines in the Uniform Test trials will not be distributed by the USDA to anyone, including the developer, except for trait analyses in connection with the Uniform Test program.

Non-transgenic entries in the Uniform Soybean Test may be used by Uniform Soybean Test participants as parents in biparental crosses or for developing recurrent selection populations, subject to the material transfer requirements of the institution who owns the entry. Transgenic entries may be used in crossing subject to similar rules unless licensing or patenting restrictions regarding ownership of the transgenic trait limit this use.

Uniform Soybean Test participants must obtain prior approval before using any entry, other than their own, as recurrent parent in backcrossing, molecular research, genetic studies, or any other research.

Seed of any 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.

All published results from the USDA-ARS Uniform Soybean Tests Southern States may be used as a data base for statistical research and publication related to soybean breeding.

## Release of Uniform Soybean Test Entries

Entries in the Uniform Soybean Tests are released according to USDA-ARS and State Agricultural Experiment Station policies.

# ACKNOWLEDGEMENTS

The cooperation of the following scientists is gratefully acknowledged for their ratings of the Uniform Test entries: Dr. Zenglu Li and Dr. Melissa Mitchum, University of Georgia, Athens, Georgia - root-knot nematode; Dr. Lesley Schumacher, USDA-ARS, Jackson, Tennessee - soybean cyst nematode; Dr. Andrew Scaboo, Bishnu Dhital and Clinton Meinhardt, Univ of Missouri, Columbia – soybean cyst nematode; Dr. Anne Gillen and Dr. Shuxian Li, USDA-ARS, Stoneville, MS – southern stem canker; Dr, Steven Cermak and Ben Lowery, USDA-ARS, Peoria, Illinois - seed protein and oil; Dr. Grover Shannon and Destiny Hunt, University of Missouri, Portageville - seed fatty acid analysis; Dr. Bo Zhang, Virginia Tech – seed sugars. We thank Dr. Grover Shannon for service above and beyond for coming out of retirement to lead the University of Missouri breeding program at Portageville.

We would like to acknowledge the support of this project provided by the United Soybean Board.

A special thanks to the following people whose cooperation and participation have helped to make the Uniform Soybean Tests, Southern States possible:

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## LINE DESIGNATION

The lines designated by number carry a letter prefix. This letter identifies where each line was selected:

| | | |
|---|---|---|
| DA | - | Delta Branch Experiment Station and USDA-ARS, Stoneville, MS |
| DS | - | Delta Branch Experiment Station and USDA-ARS, Stoneville, MS |
| G | - | Georgia Agricultural Experiment Station |
| JTN | - | Tennessee Agricultural Experiment Station, Jackson and USDA-ARS |
| K | - | Kansas Agricultural Experiment Station |
| LG | - | Illinois Agricultural Experiment Station and USDA-ARS |
| N | - | North Carolina Agricultural Experiment Station and USDA-ARS |
| NDPJE | - | North Carolina Agricultural Experiment Station and USDA-ARS |
| R | - | Arkansas Agricultural Experiment Station |
| S | - | Missouri Agricultural Experiment Station |
| SA | - | Missouri Agricultural Experiment Station |
| SC | - | South Carolina Agricultural Experiment Station, Clemson |
| TC | - | North Carolina Agricultural Experiment Station and USDA-ARS |
| TN | - | Tennessee Agricultural Experiment Station |
| V | - | Virginia Agricultural Experiment Station, Virginia Tech |

## UNIFORM SOYBEAN TESTS PARENTAGE INFORMATION DATABASE

Historical Uniform Soybean Test Parentage Information can be found at the following:
https://soybase.org/uniformtrial/index.php?page=lines

# SOYBEAN NURSERY INFORMATION

A. LOCATION CONTACT AND TESTS- 2023

| Location | Contact | PIV-S-E* | PIV-S-L | PV-E | PV-L | PVI | PVII-VIII | UIV-S-E | UIV-S-L | UV | UVI | UVII-VIII |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Belle Mina,AL | Jenny Koebernick | | | | | | | | U | U | | |
| Fairhope,AL | Jenny Koebernick | | | | | | | | | | | U |
| Tallassee,AL | Jenny Koebernick | | | | | P | | | | | U | |
| Marianna.AR | Caio Viera | P | P | P | P | | | U | U | U | | |
| Stuttgart,AR | Caio Viera | P | P | P | P | | | | U | U | | |
| Athens,GA(A) | Zenglu Li | | | | | P | P | | | | U | U |
| Athens,GA(B) | Zenglu Li | | | | | | | | | | | U |
| Plains,GA | Zenglu Li | | | | | P | P | | | | U | U |
| McCune,KS | W. T. Schapaugh, Jr. | | P | | | | | | U | U | | |
| Ottawa,KS | W. T. Schapaugh, Jr. | P | | | | | | | | | | |
| Pittsburg,KS | W. T. Schapaugh, Jr. | | | P | | | | | U | U | | |
| Bossier City,LA | Russell Anderson | | | | | P | | | U | U | U | |
| Portageville,MO(A) | Grover Shannon | | | | | | | U | U | U | | |
| Portageville,MO(B) | Grover Shannon | P | P | P | | | | U | U | U | | |
| Novelty,MO | Andrew Scaboo | P | | | | | | U | | | | |
| Starkville,MS | Brad Burgess | P | P | P | P | | | U | U | U | | |
| Stoneville,MS | Anne Gillen | P | P | P | P | | | U | U | U | | |
| Jackson Springs, NC | Ben Fallen | | | P | P | | P | | | | | U |
| Kinston,NC | Ben Fallen | | | | P | P | P | | | | U | U |
| Plymouth,NC | Rouf Mian | | | P | | P | P | | | U | U | U |
| Jackson,TN | Chris Smallwood | P | P | P | P | | | U | U | U | | |
| Knoxville,TN | Vincent Pantalone | P | P | P | P | | | U | U | U | | |
| Springfield,TN | Vincent Pantalone | | | | | | | U | U | U | | |
| Orange,VA | Greg Lillard | P | P | | | | | | U | U | | |
| Suffolk,VA* | Not Active | | | | | | | | | | | |
| Warsaw,VA | Bo Zhang | | | P | P | | | | U | U | | |
| Total Locations Planned | | 10 | 9 | 11 | 9 | 6 | 5 | 9 | 15 | 16 | 6 | 7 |
| Total Locations Reporting Data | | 8 | 8 | 10 | 8 | 6 | 5 | 9 | 14 | 16 | 6 | 6 |
| *P = Preliminary Test; U = Uniform Test. | | | | | | | | | | | | |

B. PLANTING DATES – 2023

| Location* | PIV-S-E | PIV-S-L | PV-E | PV-L | PVI | PVII-VIII | UIV-S-E | UIV-S-L | UV | UVI | UVII-VIII |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Belle Mina,AL | | | | | | | | 15-May | 15-May | | |
| Fairhope,AL*** | | | | | | | | | | | NH |
| Tallassee,AL | | | | | 22-May | | | | | 22-May | |
| Marianna.AR** | 16-May | 16-May | 16-May | 16-May | | | 16-May | 16-May | 16-May | | |
| Stuttgart,AR | 10-May | 10-May | 10-May | 26-May | | | | 10-May | 10-May | | |
| Athens,GA(A) | | | | | 1-Jun | 1-Jun | | | | 1-Jun | 1-Jun |
| Athens,GA(B) | | | | | | | | | | | NR |
| Plains,GA | | | | | NR | NR | | | | NR | NR |
| McCune,KS | | 5-Jun | | | | | | 5-Jun | 5-Jun | | |
| Ottawa,KS | 24-May | | | | | | | | | | |
| Pittsburg,KS | | | 6-Jun | | | | | 6-Jun | 6-Jun | | |
| Bossier City,LA | | | | | 23-May | | | 23-May | 23-May | 23-May | |
| Portageville,MO(A)** | | | | | | | 30-May | 30-May | 30-May | | |
| Portageville,MO(B)** | 30-May | 30-May | 30-May | | | | 30-May | 30-May | 30-May | | |
| Novelty,MO | 14-Jun | | | | | | 14-Jun | | | | |
| Starkville,MS | 24-Apr | 24-Apr | 24-Apr | 24-Apr | | | 24-Apr | 24-Apr | 24-Apr | | |
| Stoneville,MS** | 20-Apr | 20-Apr | 20-Apr | 20-Apr | | | 20-Apr | 20-Apr | 20-Apr | | |
| Jackson Springs, NC*** | | | 1-Jun | 1-Jun | | 1-Jun | | | | | 1-Jun |
| Kinston,NC | | | | 11-May | 22-May | 23-May | | | | 22-May | 23-May |
| Plymouth,NC | | | 10-May | | 11-May | 10-May | | | 10-May | 10-May | 11-May |
| Jackson,TN | NH | NH | NR | NR | | | NR | NH | NR | | |
| Knoxville,TN | 10-May | 10-May | 10-May | 10-May | | | 10-May | 10-May | 10-May | | |
| Springfield,TN | | | | | | | 5-Jun | 5-Jun | 5-Jun | | |
| Orange,VA*** | 5-May | 5-May | | | | | | 5-May | 5-May | | |
| Suffolk,VA* | | | | | | | | | | | |
| Warsaw,VA | | | 3-May | 3-May | | | | 3-May | 3-May | | |

*NR = Date not reported, trial harvested. NH = Not Harvested or Data not reported due to various problems; Suffolk did not particpate due to personnel changes

** Locations with significant damage due to Dicamba herbicide.

*** Location damage- Fairhope- rain after planting; Jackson Springs and Orange - drought

C. HARVEST DATES – 2023

| Location* | PIV-S-E | PIV-S-L | PV-E | PV-L | PVI | PVII-VIII | UIV-S-E | UIV-S-L | UV | UVI | UVII-VIII |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Belle Mina,AL | | | | | | | | 4-Oct | 17-Oct | | |
| Fairhope,AL*** | | | | | | NH | | | | | NH |
| Tallassee,AL | | | | | 2-Nov | | | | | 2-Nov | |
| Marianna.AR** | 25-Oct | 25-Oct | 25-Oct | 26-Oct | | | 25-Oct | 25-Oct | 25-Oct | | |
| Stuttgart,AR | 25-Oct | 25-Oct | 7-Nov | 7-Nov | | | | 25-Oct | 7-Nov | | |
| Athens,GA(A) | | | | | 8-Nov | 8-Nov | | | | 8-Nov | 8-Nov |
| Athens,GA(B) | | | | | | | | | | | NR |
| Plains,GA | | | | | NR | NR | | | | NR | NR |
| McCune,KS | | 6-Nov | | | | | | 6-Nov | 6-Nov | | |
| Ottawa,KS | 6-Oct | | | | | | | | | | |
| Pittsburg,KS | | | 7-Nov | | | | | 7-Nov | 7-Nov | | |
| Bossier City,LA | | | | | 7-Nov | | | 10-Oct | 24-Oct | 7-Nov | |
| Portageville,MO(A)** | | | | | | | 16-Oct | 18-Oct | 18-Oct | | |
| Portageville,MO(B)** | 13-Oct | 13-Oct | 19-Oct | | | | 13-Oct | 13-Oct | 23-Oct | | |
| Novelty,MO | 2-Nov | | | | | | 6-Nov | | | | |
| Starkville,MS | NH | 19-Oct | 19-Oct | 19-Oct | | | 19-Oct | 19-Oct | 19-Oct | | |
| Stoneville,MS** | 26-Sep | 2-Oct | 19-Oct | 23-Oct | | | 25-Sep | 27-Sep | 19-Oct | | |
| Jackson Springs, NC*** | | | NH | NH | | 16-Nov | | | | | 16-Nov |
| Kinston,NC | | | | 16-Nov | 16-Nov | 29-Nov | | | | 17-Nov | 29-Nov |
| Plymouth,NC | | | 1-Nov | | 7-Nov | 8-Nov | | | 2-Nov | 2-Nov | 8-Nov |
| Jackson,TN | NH | NH | NR | NR | | | NR | NH | NR | | |
| Knoxville,TN | 11-Oct | 18-Oct | 27-Oct | 26-Oct | | | 12-Oct | 19-Oct | 11-Jan | | |
| Springfield,TN | | | | | | | 23-Oct | 23-Oct | 25-Oct | | |
| Orange,VA*** | 19-Oct | 19-Oct | | | | | | 19-Oct | 19-Oct | | |
| Suffolk,VA* | | | | | | | | | | | |
| Warsaw,VA | | | 26-Oct | 3-Nov | | | | 25-Oct | 3-Nov | | |

*NR = Date not reported, trial harvested. NH = Not Harvested or Data not reported due to various problems; Suffolk did not particpate due to personnel changes

** Locations with moderate to signficiant damage due to Dicamba herbicide.

*** Location damage- Fairhope- rain after planting; Jackson Springs and Orange - drought

## D. AGRONOMIC CHARACTERISTICS OF LOCATIONS – 2023

| 2023 Location | Soil type | Row Spacing | Planted Length | Harvested Length | Trial Bordered | End Trim-med | # Rows Planted | # Rows Harvested | Prior Crop | Irri-gated |
|---|---|---|---|---|---|---|---|---|---|---|
| Belle Mina,AL | Decatur silt loan | 30 | 20 | 20 | Yes | No | 4 | 2 | Fallow | Yes |
| Fairhope,AL | Malbis fine sandy loan | 38 | 20 | 18 | Yes | Yes | 4 | 2 | Cotton | No |
| Tallassee,AL | Cahaba fine sandy loam | 36 | 20 | 20 | No | No | 4 | 2 | Corn | Yes |
| Marianna,AR | Sharkey silty clay | 38 | 15 | 15 | Yes | No | 4 | 2 | Corn | Yes |
| Stuttgart,AR | Crowley silt loam | 30 | 15 | 15 | Yes | No | 4 | 2 | Rice | Yes |
| Athens,GA(A) | Wickham sandy loam | 30 | 16 | 12 | Yes | Yes | 4 | 2 | Corn/Small Grains | Yes |
| Athens,GA(B) | Wickham sandy loam | 30 | 16 | 16 | Yes | No | 4 | 2 | Corn | Yes |
| Plains,GA | Tifton sandy loam | 30 | 16 | 12 | Yes | Yes | 4 | 2 | Corn | Yes |
| McCune,KS | Parsons silt loam | 30 | 12 | 12 | Yes | No | 4 | 2 | Corn | No |
| Ottawa,KS | Woodson silt loam | 30 | 12 | 12 | Yes | No | 4 | 2 | Corn | No |
| Pittsburg,KS | Parsons silt loam | 30 | 12 | 12 | Yes | No | 4 | 2 | Corn | No |
| Bossier City,LA | Caplis very fine sandy loam | 40 | 28 | 20 | Yes | Yes | 4 | 2 | Soybeans | Yes |
| Portageville,MO(A) | Dundee silt loam | 30 | 12 | 12 | Yes | No | 4 | 2 | Soybean | Yes |
| Portageville,MO(B) | Sharkey clay | 30 | 12 | 12 | Yes | No | 4 | 2 | Soybean | Yes |
| Novelty,MO | Putnam silt loam | 30 | 12 | 12 | Yes | No | 4 | 2 | Corn | No |
| Starkville,MS | Brooksville silty clay | 19 | 18 | 16 | Yes | Yes | 3 | 3 | Wheat | No |
| Stoneville,MS | Sharkey clay | 26 | 18 | 15.5 | Yes | Yes | 5 | 3 | Soybean | Yes |
| Jackson Springs, NC | Ailey loamy sand | 38 | 12 | 10 | Yes | Yes | 4 | 2 | Corn | Yes |
| Kinston,NC | Stallings loamy sand | 30 | 16 | 14 | Yes | Yes | 4 | 2 | Corn | No |
| Plymouth,NC | Portsmouth silt loam | 38 | 12 | 10 | Yes | Yes | 4 | 2 | Corn | No |
| Jackson,TN | Lexington silt loam/Collins silt loam | 30 | 12 | 12 | Yes | No | 4 | 2 | Soybeans | Yes |
| Knoxville,TN | Sequatchie silt loam | 30 | 20 | 16 | Yes | Yes | 4 | 2 | Corn | No |
| Springfield,TN | Staser silt loam | 30 | 25 | 16 | Yes | Yes | 4 | 2 | N/A | Yes |
| Orange,VA | LittleJoe Silt Loam | 21 | 16 | 12 | Yes | Yes | 3 | 3 | Turf | No |
| Suffolk,VA | Dragston fine sandy loam | 15 | 24 | 17 | Yes | Yes | 6 | 4 | Corn | No |
| Warsaw,VA | Kempsville loam | 30 | 16 | 12 | Yes | Yes | 4 | 2 | Tillage radish | No |

## E. WEATHER STATION INFORMATION – as of 2013

| Location | Weather Station URL | Notes |
|---|---|---|
| Belle Mina, AL | national weather sevice | |
| Fairhope, AL | national weather sevice | |
| Tallassee, AL(A) | not reported | |
| Tallassee, AL(B) | not reported | |
| Pine Tree, AR | N/A | |
| Rohwer, AR | http://www.aragriculture.org/weather/default.asp | |
| Georgetown, DE | http://www.rec.udel.edu/TopLevel/Weather.htm | |
| Athens, GA (A) | http://www.griffin.uga.edu/aemn/cgi-bin/AEMN.pl?site=GAWP | |
| Athens, GA (B) | http://www.griffin.uga.edu/aemn/cgi-bin/AEMN.pl?site=GAWP | |
| Calhoun, GA | http://www.griffin.uga.edu/aemn/cgi-bin/AEMN.pl?site=GACA | |
| Plains, GA | http://www.griffin.uga.edu/aemn/cgi-bin/AEMN.pl?site=GAPL | |
| Tifton, GA | http://www.griffin.uga.edu/aemn/cgi-bin/AEMN.pl?site=GATI | |
| Ullin, IL | none | |
| McCune, KS | http://www.oznet.ksu.edu/wdl/ | |
| Pittsburg, KS | http://www.oznet.ksu.edu/wdl/ | |
| Princeton, KY | http://www.nass.usda.gov/Statistics_by_State/Kentucky/Publications/Agri-News/oct226.pdf | |
| Alexandria, LA | www.lsuagcenter.com/weather | |
| Bossier City, LA | www.lsuagcenter.com/weather/tabledata.asp | |
| Queenstown, MD | none | |
| Portageville, MO(A) | http://agebb.missouri.edu/weather/realtime/portageville.asp | |
| Portageville, MO(B) | http://agebb.missouri.edu/weather/realtime/portageville.asp | |
| Starkville, MS | http://www.deltaweather.msstate.edu/ | |
| Stoneville, MS | http://www.deltaweather.msstate.edu/ | Stoneville is at the end of the list of weather stations. |
| Jackson Springs, NC | http://www.nc-climate.ncsu.edu/cronos/index.php?station=JACK&temporal=daily | Sandhills Station, NC (Jackson Springs) |
| Kinston, NC | http://www.nc-climate.ncsu.edu/cronos/index.php?station=314689&temporal=D | Kinston, NC |
| Plymouth, NC(A) | http://www.nc-climate.ncsu.edu/cronos/?station=PLYM | Tidewater Research Station |
| Plymouth, NC(B) | http://www.nc-climate.ncsu.edu/cronos/?station=PLYM | Tidewater Research Station |
| Bixby, OK | www.mesonet.ou.edu | |
| Stillwater, OK | www.mesonet.ou.edu | |
| Blackville, SC(A) | http://www.ncdc.noaa.gov/crn/ | |
| Blackville, SC(B) | http://www.ncdc.noaa.gov/crn/ | |
| Clemson, SC | http://www.wunderground.com/weatherstation/WXDailyHistory.asp?ID=KSCCLEMS1&graphspan=month&month=6&day=1&year=2007 | |
| Florence, SC | not reported | |
| Jackson, TN | None on the web | |
| Knoxville, TN | www.ncdc.noaa.gov | Look on left menu for "Find a Station" for Knoxville Experiment Station |
| Springfield, TN | not reported | |
| Bardwell, TX | not reported | |
| Cooper, TX | not reported | |
| Orange, VA | not reported | |
| Petersburg, VA | http://www.accuweather.com/forecast-climo.asp?partner=30371&traveler=0&zipChg=1&zipcode=23841&metric=0 | This only has the past two months of data |
| Suffolk, VA | not reported | |
| Warsaw, VA | http://www.ext.vt.edu/cgi-bin/WebObjects/Mesonet.woa/wa/lookupCoordinate?472,102 | EVAREC is location name |

# METHODS

## CULTURAL PRACTICES

Please see Soybean Nursery Information – Tables A, B, C, D, and E for details on locations including contacts, row spacing, plot dimensions, end trimming, planting dates, harvest dates, crop rotation, and weather station URLs. Cultural practices, including fertilization, chemical application and irrigation practices, varied at each location to conform to the normal practices of each collaborator. The uniform tests were planted with three (3) replications and the preliminary tests were planted with two (2) replications except three (3) replications were planted for PVI, PVII-VIII.

## AGRONOMIC CHARACTERISTICS

Height. Height (HT) in a plot was measured as the average length of plants in inches from the ground to the top extremity at maturity.

Lodging. Lodging (LOD) notes were recorded on a scale of 1 to 5 according to the following criteria:

1 - almost all plants erect
2 - either all plants leaning slightly, or a few plants down
3 - either all plants leaning moderately, or 25 to 50% of the plants down
4 - either all plants leaning considerably, or 50 to 80% of the plants down
5 - all plants down

Maturity. Maturity (MAT) was recorded as the date when 95% of the pods had reached mature pod color (Fehr and Caviness, 1977). Maturity in all summaries is expressed as days earlier (-) or later (+) than the reference variety. The reference variety in each test is the first entry in each test.

Yield. Please see Agronomic Characteristics of Locations for information on end trimming and which rows were harvested for yield data at each location. Actual seed weights were recorded after the seed of the lines had reached uniform moisture content or seed weight at harvest was adjusted to 13% moisture content. Seed weights were converted to bushels per acre (60 lbs/bu.) by using the appropriate conversion factor for each location with respect to harvested plot size.

Seed Quality. Seed quality was rated from 1 to 5 according to the following scale:

1 - very good; 2 - good; 3 - fair; 4 - poor; 5 - very poor

Factors considered in estimating seed quality were development of seed, wrinkling damage, and brightness. While the seed quality score indicates relative appearance of seed for lines at one location, considerable differences can exist among factors responsible for the poorer grades at different locations. Seed size for each strain was determined from a composite sample from all replications at a location. Seed size is reported as grams per 100 seed.

## SEED COMPOSITION

Oil and Protein. Oil and protein (PRO) percentages were determined from representative locations of the uniform and preliminary tests. A 50 ml composite sample 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 sample of 20ml 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 lines known 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. There were no seed analyzed for amino acid this year.

Fatty Acids. Fatty acid analysis of lines known 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 Hunt 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 µL of extract to vial and adding 75 µL 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 lines 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 0.1 gram of ground sample was used to extract sucrose, raffinose and stachyose and analyzed by High Performance Liquid Chromatography (HPLC). Four calibration standards are used: Standard Level 1: 75,7.5,18.75 ug/mL for sucrose, raffinose and stachyose, Standard Level 2: 150, 15, and 37.5 ug/mL for sucrose, raffinose and stachyose, Standard Level 3: 500, 50 and 125 ug/mL for sucrose, raffinose and stachyose and Standard Level 4: 1000, 100, and 250 ug/mL for sucrose, raffinose and stachyose. A reference standard is used as well: 4.90, 0.70 and 1.40 mg/mL of sucrose, raffinose and stachyose. Data is converted to percentage of sugars.

## PEST ASSESSMENT

Root-knot Nematode. Screenings of lines of UIV-S - UVIII for reaction to southern root-knot nematode (*Meloidogyne incognita* (Kofoid and White) Chitwood) (SRK), peanut root-knot nematode (*Meloidogyne arenaria* (Neal) Chitwood ) (PRK), and *Meloidogyne javanica (*Treub) Chitwood (JRK) were conducted in a greenhouse at the University of Georgia by Dr. Melissa G. Mitchum.

Four 3-day-old seedlings of each genotype were individually transplanted in a Ray Leach Cone-tainer (20.6 cm long) filled with heat-sterilized sandy loam soil to within 5 cm of the top. Eight Cone-tainers each of a susceptible and resistant standard cultivar were included in each test. Forty-nine Cone-tainers were placed in a RL-98 tray, filling every other row of the tray. The trays were placed on a greenhouse bench under supplemental light provided by 400-watt high pressure sodium lamps. Seven days after planting, each Cone-tainer was inoculated with 2500 root-knot nematode eggs collected using the 0.5% NaOCL (10% Clorox) method. A hole at a depth of 2-3 cm was poked on each side of the seedling. One ml of inoculum (1250 eggs/mL) was placed in each hole with a digital dispensing pump. Plants were overhead watered manually for 14 days following inoculation before being placed on a greenhouse bench in an automatic pan irrigation system. All plants were fertilized weekly with 20-20-20 (N = 20%, P = 8.7%, K = 16.6%) fertilizer solution.

Six weeks after inoculation, shoots were excised and root systems removed from the Cone-tainers and washed free of soil. For screening genotypes in the Uniform Tests, the total number of galls per root system was counted. The galls on each root system were converted to a gall index (GI) relative to the average number of galls on the susceptible check (GaSoy17) using a scale of 1-5 where 1 = <10% GI; 2=11-20%, 3=21-30%, 4=31-40%, 5 = >40% GI. The average GI across the four replications of each genotype is reported.

Soybean Cyst Nematode (SCN). Screening for plant reaction to soybean cyst nematode (Heterodera glycines Ichinohe) (SCN) populations was conducted in the greenhouse at the ARS-Crop Genetics Research Unit in Jackson, TN in 2023. Screening for SCN was done with HG Type 1.2.5.7 (race 2) and HG Type 2.5.7 (race 5). One seed of each soybean entry (UIVS-UVIII and PIV-S-PVIII) was planted in sterile soil mix with 5 replications per each SCN population. At the time of planting, approximately 2,500 eggs of the population being evaluated were added to each pot. Approximately four weeks after planting, plants were rated based on the number of cysts on the roots. The ratings were as follows: 1 (resistant, R) = 0-5 cysts on the root, 2 (moderately resistant, MR) = 6-10 cysts on the root, 3 (moderately susceptible, MS) = 11-20 cysts on the root, 4 (susceptible, S) = 21-40 cysts on the root, and 5 (highly susceptible, HS) = >40 cysts on the root. The 5 replications were averaged and if there were less than 4 plants to rate, the screening was repeated. The mean rating = (rating category x number of plants receiving rating)/total number of plants in that comparison. The tests were performed in two parts based on available greenhouse space.

In 2023, the HG Types of the populations were as follows: HG Type 1.2.5.7 (race 2) and HG Type 2.5.7 (race 5). 5601T was used as the standard susceptible along with Hutcheson as an additional susceptible. The standard index lines were included in every test to confirm characterization.

For part 1 of the HG Type 1.2.5.7 screening, 5601T had an average of 142 cysts and Hutcheson had 102. The female index for the cultures were as follows: Pickett FI 71(%), PI 548402 FI 34(%), PI 88788 FI 84(%), PI 90763 FI 0(%), PI 437654 FI 0(%), PI 209332 FI 74(%), PI 89772 FI 0(%), and PI 548316 FI 36(%). For part 2 of the HG Type 1.2.5.7 screening, 5601T had an average of 132 cysts and Hutcheson had 112. The female index for the cultures were as follows: Pickett FI 52(%), PI 548402 FI 12(%), PI 88788 FI 44(%), PI 90763 FI 0(%), PI 437654 FI 0(%), PI 209332 FI 42(%), PI 89772 FI 0(%), and PI 548316 FI 28(%).

For part 1 of the HG Type 2.5.7 screening, 5601T had an average of 135 cysts and Hutcheson had 174. The female index for the cultures were as follows: Pickett FI 42(%), PI 548402 FI 4(%), PI 88788 FI 77(%), PI 90763 FI

0(%), PI 437654 FI 0(%), PI 209332 FI 73(%), PI 89772 FI 0(%), and PI 548316 FI 86(%). For part 2 of the HG Type 2.5.7 screening, 5601T had an average of 129 cysts and Hutcheson had 131. The female index for the cultures were as follows: Pickett FI 70(%), PI 548402 FI 5(%), PI 88788 FI 46(%), PI 90763 FI 0(%), PI 437654 FI 0(%), PI 209332 FI 68(%), PI 89772 FI 0(%), and PI 548316 FI 61(%).

Stem Canker (SC). Soybean lines from all tests were evaluated at the Delta Research and Extension Center, Stoneville, Mississippi for their reaction to *Diaporthe aspalathi* E. Jansen, Castl. & Crous (Syn D. *phaseolorum* var *meridionalis*) (SC), the fungus that causes southern stem canker. Lines were planted in non-replicated single-row plots 1.8 m long. Inoculum was produced by aseptically culturing isolates. Autoclaved, flat toothpicks containing a single isolate from Mississippi known as LiDA18-2 [isolated in 2006 (not 2018 as reported in prior annual reports) from Stoneville, MS, and also known as MS-SSC91] were provided by Dr. Shuxian Li, USDA-ARS. Eight plants per plot were inoculated by forcing a toothpick through the stem in the upper one-third of a young plant. Lesion development on the stem at the inoculation site was observed and noted approximately every 2 weeks beginning with initial signs of disease on the susceptible checks. Final scores were determined when the susceptible checks had been killed by the disease, or the plot was near maturity. Plants having any external lesion were considered as susceptible. The final score was based on the overall appearance of all inoculated plants in a plot.

A rating of R = resistant, MR = moderately resistant, SS = segregating or somewhat susceptible, MS = moderately susceptible or S = susceptible was applied to each strain and derived based on a comparison of the final score with the disease level of the susceptible checks. Leaf symptoms were based on the presence or absence of interveinal chlorosis as observed on inoculated plants. The presence of main stem lesions was observed at or around the point of inoculation based on the presence of a toothpick. Individual soybean lines were rated as follows:

1. No plants exhibited external lesions, no leaf damage and no dead plants (R).
2. No plants exhibited external lesions. A few plants showed minor leaf symptoms (MR).
3. Segregating for susceptible and resistant plants based on stem lesion; **or** minor external lesions and minor leaf symptoms, but no dead plants (SS).
4. All plants exhibited external lesions, all plant have leaf symptoms, some plants are not dead (MS).
5. All plants exhibited external lesion and all plants dead (S).

Technical errors during inoculum production caused low infectivity, poor symptom development, and unacceptable results in 2023. Therefore, the data was not reported. The score for susceptible checks is not reported.

Sudden Death Syndrome (SDS). SDS, which is caused by the fungus *Fusarium virguliforme*. SDS screening was discontinued in 2017 due to a lack of funding.

## STATISTICAL ANALYSES

Yield, maturity, height, lodging and quality data for each test were analyzed by location by analysis of variance using a mixed model (Proc Mixed in SAS software) with variety as the fixed effect and replication as random effect. Coefficient of variation (CV), LSD ($\alpha = 0.05$) and LSD ($\alpha = 0.10$) were calculated from the Proc Mixed output for yield. LSmeans are presented when multiple replications of data were available. Any location that does not have at least two replications of yield data is not included in the yield analysis. In the cases when only I replication of data was provided for variables other than yield, the actual values for that replication were presented.

Yield, maturity, height, lodging and quality for each test were analyzed over all locations for the uniform tests and the preliminary tests by analysis of variance using a mixed model (Proc Mixed in SAS software) with variety as a fixed effect and location, replication nested within location, and the interaction of location and variety as random effects. Coefficient of variation (CV), LSD ($\alpha = 0.05$) and LSD ($\alpha = 0.10$)(for yield only) were calculated from the Proc Mixed output. **Yield data from locations with a yield CV of over 15 were omitted from yield test means and yield ranks.**

The protein and oil data for a variety/strain at a location is the NIR analysis results from one composite sample of all replications for each entry at the location, except in 2019 and 2020 when certain trials in the Uniform Tests had replicated data. Size data is collected either for all replications, or as a composite sample. Arithmetic means are presented for composite samples and LSmeans are presented for replicated data. Protein, oil and size were analyzed by test by analysis of variance using a mixed model (Proc Mixed in SAS) with variety as a fixed effect and location as a random effect. Coefficient of variation (CV) and average LSD ($\alpha = 0.05$) were calculated from the Proc Mixed output. LSmeans are presented for the test means.

The Rank column in the general summary tables indicated the relative ranking of the yield based on the average performance of a line across locations. Locations with a high yield CV value are not included in Rank calculations.

The Average Rank column in the general summary tables indicates the yield rank of a line based on the average of a line's rank at each individual location. Locations with a high yield CV value are not included in Average Rank calculations.

When a 2-year mean is missing from the general summary table for a Uniform Test, the strain/variety was not in the test for the prior year. In this case the 3-year mean is the average of two years.

***TABLE 1 - PARENTAGE OF ENTRIES***
***UNIFORM GROUP IV-S-EARLY 2023***

| Ent | Strain/Variety | Parentage | Source | Fn | Trans-genic† | Special Traits‡ |
|---|---|---|---|---|---|---|
| 1 | AG43XF2 | Commercial check | check | | RR2, LL, DIC | |
| 2 | AG38XF1 | Commercial check | check | | RR2, LL, DIC | |
| 3 | LD15-3818 | Commercial check | check | | | |
| 4 | S13-3851C | Commercial check | check | | | |
| 5 | S19-1176 | S15-7499RR x S15-9779RR | Shannon | | RR1 | SCN, SC, PRR, FLS, High oil |
| 6 | S19-2082 | S14-15146RR/STS x LD11-13948R | Shannon | | RR1 | SCN, SC, BSR |
| 7 | S19-7867 | S13-10590 x S15-9779RR | Shannon | | RR1 | SCN, RKN, SC, FLS, High oil |
| 8 | TN19-4734R1 | S12-2336 x S12-8223 | Pantalone | | RR1 | Higher protein |
| 9 | V17-2478R | S10-11200 x V11-3163 | B. Zhang | | RR1 | |
| 10 | V18-2720HOR2 | V12-0253R2 x S09-12096 | B. Zhang | | RR2 | |
| 11 | V18-3782R | V12-0956 x V11-2187 | B. Zhang | | RR1 | |

† Conv= Conventional(non-transgenic),DIC - Dicamba resistance Xtend®, E3= Enlist E3®, LL=Liberty Link®, RR1=Roundup Ready®, RR2=Roundup Ready 2 Yield®,
‡ AA= modified amino acids, DNC= Do not cross with this, FLS= Frogeye leaf spot resistance, LJ= Long juvenile, LN= low linolenic acid, LP= low phytate, HO= high olelic acid, HOLN= high oleic acid/low linolenic acid, SC= Southern stem canker, SCN= Soybean cyst nematode resistance, SR= Soybean rust resistance, and STS= sulfonylurea tolerant

***TABLE 2 - GENERAL SUMMARY OF PERFORMANCE***
***UNIFORM TEST IV-S-EARLY 2023***

| STRAIN/ | | AVG. | YIELD† | | | PROTEIN‡ | | | OIL‡ | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| VARIETY | RANK | RANK | 2023 | 22-23 | 21-23 | 2023 | 22-23 | 21-23 | 2023 | 22-23 | 21-23 |
| AG43XF2 | 2 | 3 | 63.6 | 64.8 | . | 34.4 | 33.9 | . | 20.4 | 20.5 | . |
| AG38XF1 | 1 | 3 | 63.9 | 60.2 | . | 35.3 | 35.2 | . | 19.5 | 19.6 | . |
| LD15-3818 | 8 | 7 | 52.2 | 47.6 | 47.3 | 34.6 | 34.4 | 34.8 | 20.5 | 20.6 | 21 |
| S13-3851C | 4 | 4 | 57.6 | 56.5 | 58.7 | 35.8 | 35.1 | 35.1 | 19.6 | 20.1 | 20 |
| S19-1176 | 10 | 7 | 51.2 | . | . | 36.1 | . | . | 19.1 | . | . |
| S19-2082 | 11 | 7 | 49.8 | . | . | 35.8 | . | . | 19.3 | . | . |
| S19-7867 | 3 | 5 | 58.0 | . | . | 34.0 | . | . | 20.1 | . | . |
| TN19-4734R1 | 5 | 7 | 53.6 | 52.0 | . | 38.3 | 37.8 | . | 17.4 | 17.5 | . |
| V17-2478R | 7 | 7 | 52.6 | 50.5 | 53.3 | 35.1 | 34.5 | 34.8 | 18.8 | 19.1 | 19 |
| V18-2720HOR2 | 6 | 7 | 53.1 | . | . | 34.8 | . | . | 19.8 | . | . |
| V18-3782R | 9 | 7 | 52.0 | . | . | 34.0 | . | . | 20.4 | . | . |
| | | | | | | | | | | | |
| Mean | . | . | 55.2 | . | . | 35.3 | . | . | 19.5 | . | . |
| LSD(0.05) | . | . | 7.2 | . | . | 0.9 | . | . | 0.4 | . | . |
| LSD(0.10) | . | . | 6.0 | . | . | . | . | . | . | . | . |
| CV(%) | . | . | 14.5 | . | . | 2.4 | . | . | 2.1 | . | . |

† Data not included in yield mean: 2021 Knoxville; 2022 Knoxville. Certain field trials had damage consistent with dicamba exposure, which may have resulted in an unfair yield advantage
for dicamba resistant check lines.
‡ Protein percentage and oil percentage reported on a 13% moisture basis beginning in 2015.

***TABLE 3 - GENERAL SUMMARY OF PERFORMANCE -Part 2***
***UNIFORM TEST IV-S-EARLY 2023***

| STRAIN/ VARIETY | MEAL† PRO % | MAT INDEX | LOD | HT | SEED QUALITY | SEED SIZE | FL. COLOR | PUB. COLOR | POD COLOR |
|---|---|---|---|---|---|---|---|---|---|
| AG43XF2 | 47.0 | 0 | 1.4 | 32 | 1.9 | 14.5 | W | | |
| AG38XF1 | 47.6 | -4 | 1.3 | 32 | 2.0 | 16.1 | P | | |
| LD15-3818 | 47.3 | -8 | 1.2 | 23 | 2.2 | 15.1 | P | | |
| S13-3851C | 48.3 | 1 | 1.9 | 28 | 2.1 | 15.6 | P | | |
| S19-1176 | 48.5 | -2 | 1.7 | 28 | 2.4 | 15.5 | W | Lt | T |
| S19-2082 | 48.2 | 1 | 1.9 | 32 | 1.8 | 14.6 | W | T | T |
| S19-7867 | 46.3 | -3 | 1.9 | 30 | 1.9 | 16.2 | P | T | T |
| TN19-4734R1 | 50.4 | 2 | 1.4 | 29 | 1.5 | 14.4 | P | T | |
| V17-2478R | 47.0 | 5 | 1.7 | 32 | 1.7 | 14.0 | P | G | |
| V18-2720HOR2 | 47.1 | 0 | 2.1 | 34 | 1.7 | 13.6 | P | G | |
| V18-3782R | 46.4 | 2 | 2.0 | 31 | 1.7 | 12.8 | W | T | |
| | | | | | | | | | |
| Mean | 47.7 | -1 | 1.7 | 30 | 1.9 | 14.8 | | | |
| LSD(0.05) | 1.0 | 4 | 0.4 | 4 | 0.6 | 0.8 | | | |
| CV(%) | 2.0 | 741 | 27.0 | 13 | 30.0 | 6.5 | | | |

† Estimated meal protein content was added to the annual report in 2018.

***TABLE 4 - GENERAL SUMMARY OF PEST REACTION***
***UNIFORM TEST IV-S-EARLY 2023***

| STRAIN/ | SCN Cyst Score (1-5 Scale)† | | | RKN Gall Score (1-5 Scale)‡ | | | SC | SC |
|---|---|---|---|---|---|---|---|---|
| VARIETY | Race 2 | Race 3 | Race 5 | PRK | SRK | JRK | RATING | SCORE |
| AG43XF2 | 5 | . | 5 | 3.0 | 5.0 | 5.0 | | . |
| AG38XF1 | 3 | . | 5 | 3.3 | 5.0 | 4.5 | | . |
| LD15-3818 | 4 | . | 4 | 5.0 | 5.0 | 5.0 | | . |
| S13-3851C | 4 | . | 4 | 4.3 | 5.0 | 4.3 | | . |
| S19-1176 | 5 | . | 3 | 3.3 | 5.0 | 4.5 | | . |
| S19-2082 | 4 | . | 3 | 5.0 | 5.0 | 5.0 | | . |
| S19-7867 | 1 | . | 2 | 5.0 | 4.0 | 5.0 | | . |
| TN19-4734R1 | 5 | . | 2 | 4.8 | 3.3 | 5.0 | | . |
| V17-2478R | 3 | . | 3 | 3.0 | 5.0 | 4.8 | | . |
| V18-2720HOR2 | 5 | . | 3 | 4.8 | 1.0 | 5.0 | | . |
| V18-3782R | 3 | . | 4 | 3.8 | 5.0 | 5.0 | | . |

†The race 2 and 5 SCN populations used in these tests were typed as HG (Heterodera glycines) Type 1.2.5.7 and HG Type 2.5.7, respectively. Results for race 3 were omitted.

‡The root-knot nematode (RKN) species used in these tests were Meloidogyne incognita (southern root knot = SRK), M. arenaria (peanut root knot = PRK), and M. javanica (Javanese root-knot = JRK;)MR = mixed reaction.

***TABLE 5 - SEED YIELD (BUSHELS PER ACRE)***
***UNIFORM TEST IV-S-EARLY 2023 †***

| STRAIN/ VARIETY | Jackson, TN | Knoxville, TN | Marianna, AR * | Novelty, MO | Portageville, MO(A) * | Portageville, MO(B) * | Springfield, TN | Stoneville, MS * | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| AG43XF2 | 68.8 | 49.7 | 58.3 | 66.6 | 48.5 | 71.6 | 68.0 | 63.1 | 63.6 |
| AG38XF1 | 79.6 | 60.0 | 42.9 | 65.2 | 53.1 | 64.9 | 81.5 | 60.1 | 63.9 |
| LD15-3818 | 69.6 | 49.0 | 33.8 | 68.5 | 26.5 | 49.3 | 66.0 | . | 52.2 |
| S13-3851C | 67.9 | 61.5 | 51.6 | 69.9 | 36.6 | 51.2 | 67.9 | 57.6 | 57.6 |
| S19-1176 | 66.3 | 62.5 | 38.6 | 60.7 | 39.7 | 50.0 | 59.6 | 43.3 | 51.2 |
| S19-2082 | 56.0 | 52.7 | 48.5 | 62.1 | 31.4 | 50.4 | 62.3 | 37.8 | 49.8 |
| S19-7867 | 86.0 | 64.5 | 39.5 | 62.1 | 38.6 | 58.9 | 80.4 | 40.8 | 58.0 |
| TN19-4734R1 | 69.8 | 62.2 | 42.6 | 57.5 | 27.6 | 44.9 | 73.0 | 56.9 | 53.6 |
| V17-2478R | 59.1 | 64.9 | 47.9 | 57.9 | 30.7 | 47.5 | 75.8 |  | 52.6 |
| V18-2720HOR2 | 64.1 | 63.6 | 46.2 | 57.7 | 37.3 | 40.7 | 65.1 | 60.5 | 53.1 |
| V18-3782R | 59.1 | 48.3 | 46.0 | 60.6 | 27.7 | 48.5 | 69.0 | 53.2 | 52.0 |
| Mean | 67.8 | 58.1 | 45.1 | 62.6 | 36.2 | 52.5 | 69.9 | 52.6 | 55.2 |
| LSD(0.05) | 16.5 | 17.9 | 5.9 | 4.7 | 8.8 | 12.9 | 9.3 | 7.5 | 7.2 |
| LSD(0.10) | 13.7 | 14.8 | 4.9 | 3.9 | 7.2 | 10.6 | 7.7 | 6.2 | 6.0 |
| CV(%) | 13.9 | 18.1 | 7.7 | 4.4 | 13.0 | 12.3 | 7.8 | 8.2 | 14.5 |

†Location data not included in Test Mean due to CV > 15%: Knoxville.
*Locations with obvious damage consistent with exposure to the herbicide Dicamba.

***TABLE 6 - RELATIVE MATURITY (DAYS EARLIER (-) OR LATER (+) THAN ENTRY 1)***
***UNIFORM GROUP IV-S-EARLY 2023***

| STRAIN/ VARIETY | Knoxville, TN | Marianna, AR | Novelty, MO | Portageville, MO(A) | Portageville, MO(B) | Springfield, TN | Stoneville, MS | Test Mean |
|---|---|---|---|---|---|---|---|---|
| AG43XF2 | 9/29 | 9/23 | 10/7 | 10/8 | 10/5 | 10/2 | 9/13 | 9/30 |
| AG38XF1 | -7 | -8 | -5 | -2 | -1 | -5 | 1 | -4 |
| LD15-3818 | -7 | -7 | -6 | -2 | -1 | -5 | -23 | -8 |
| S13-3851C | -2 | 3 | -1 | 1 | 3 | -1 | 5 | 1 |
| S19-1176 | -2 | -2 | -2 | -2 | 1 | 0 | -8 | -2 |
| S19-2082 | 4 | 2 | 0 | 1 | 3 | -1 | -4 | 1 |
| S19-7867 | -4 | -4 | -1 | -2 | -1 | -1 | -8 | -3 |
| TN19-4734R1 | -2 | 1 | 3 | 2 | 2 | 1 | 5 | 2 |
| V17-2478R | 2 | 7 | 4 | 8 | 6 | 1 | . | 5 |
| V18-2720HOR2 | -3 | -2 | 5 | -2 | -1 | 0 | 7 | 0 |
| V18-3782R | 3 | 3 | 3 | 1 | 4 | -1 | 5 | 2 |
| Mean | -2 | -1 | 0 | 0 | 1 | -1 | -2 | -1 |
| LSD(0.05) | 2 | 3 | . | 2 | 2 | 2 | 12 | 4 |
| CV(%) | 72 | 278 | . | 504 | 87 | 120 | 320 | 741 |

***TABLE 7 - PLANT HEIGHT (INCHES)***
***UNIFORM GROUP IV-S-EARLY 2023***

| STRAIN/ VARIETY | Jackson, TN | Knoxville, TN | Marianna, AR | Novelty, MO | Portageville, MO(A) | Portageville, MO(B) | Springfield, TN | Stoneville, MS | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| AG43XF2 | . | 26 | 33 | 37 | 26 | 32 | 39 | 31 | 32 |
| AG38XF1 | . | 30 | 31 | 37 | 27 | 33 | 37 | 27 | 32 |
| LD15-3818 | . | 26 | 22 | 37 | 13 | 18 | 32 | 14 | 23 |
| S13-3851C | . | 28 | 32 | 34 | 19 | 21 | 36 | 25 | 28 |
| S19-1176 | . | 34 | 25 | 35 | 20 | 19 | 41 | 22 | 28 |
| S19-2082 | . | 36 | 34 | 35 | 23 | 28 | 45 | 23 | 32 |
| S19-7867 | . | 35 | 27 | 37 | 21 | 25 | 42 | 22 | 30 |
| TN19-4734R1 | . | 33 | 29 | 35 | 19 | 19 | 40 | 26 | 29 |
| V17-2478R | . | 35 | 34 | 39 | 20 | 21 | 44 | 30 | 32 |
| V18-2720HOR2 | . | 42 | 35 | 41 | 22 | 21 | 45 | 33 | 34 |
| V18-3782R | . | 30 | 31 | 41 | 19 | 25 | 48 | 25 | 31 |
| Mean | . | 32 | 30 | 37 | 21 | 24 | 41 | 25 | 30 |
| LSD(0.05) | . | 6 | 3 | . | 3 | 4 | 4 | 2 | 4 |
| CV(%) | . | 11 | 6 | . | 8 | 11 | 5 | 5 | 13 |

***TABLE 8 - PLANT LODGING (1-5)***
***UNIFORM GROUP IV-S-EARLY 2023***

| STRAIN/ VARIETY | Jackson, TN | Knoxville, TN | Marianna, AR | Novelty, MO | Portageville, MO(A) | Portageville, MO(B) | Springfield, TN | Stoneville, MS | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| AG43XF2 | . | 2.2 | 1.0 | 1.5 | 1.0 | 1.3 | 1.2 | 1.7 | 1.4 |
| AG38XF1 | . | 2.2 | 1.0 | 1.5 | 1.0 | 1.3 | 1.0 | 1.2 | 1.3 |
| LD15-3818 | . | 2.0 | 1.0 | 1.5 | 1.0 | 1.0 | 1.0 | 1.0 | 1.2 |
| S13-3851C | . | 2.5 | 2.3 | 2.0 | 1.0 | 2.0 | 1.8 | 1.5 | 1.9 |
| S19-1176 | . | 2.3 | 1.3 | 1.5 | 1.7 | 1.7 | 1.3 | 1.7 | 1.7 |
| S19-2082 | . | 2.7 | 2.0 | 3.0 | 1.3 | 2.0 | 1.5 | 1.5 | 1.9 |
| S19-7867 | . | 2.8 | 1.3 | 3.0 | 1.3 | 2.0 | 1.7 | 1.8 | 1.9 |
| TN19-4734R1 | . | 2.2 | 1.0 | 1.5 | 1.0 | 1.0 | 1.7 | 1.7 | 1.4 |
| V17-2478R | . | 2.8 | 1.7 | 1.5 | 1.0 | 1.3 | 1.3 | 2.0 | 1.7 |
| V18-2720HOR2 | . | 3.5 | 2.0 | 2.0 | 1.0 | 1.3 | 2.2 | 3.0 | 2.1 |
| V18-3782R | . | 2.5 | 1.7 | 2.0 | 2.0 | 2.0 | 2.0 | 1.8 | 2.0 |
| Mean | . | 2.5 | 1.5 | 1.9 | 1.2 | 1.5 | 1.5 | 1.7 | 1.7 |
| LSD(0.05) | . | 0.6 | 0.6 | . | 0.5 | 1.0 | 0.6 | 0.9 | 0.4 |
| CV(%) | . | 14.5 | 22.2 | . | 23.2 | 38.7 | 22.1 | 25.2 | 26.9 |

***TABLE 9 - SEED QUALITY (1-5)***
***UNIFORM GROUP IV-S-EARLY 2023***

| STRAIN/ VARIETY | Jackson, TN | Knoxville, TN | Marianna, AR | Novelty, MO | Portageville, MO(A) | Portageville, MO(B) | Springfield, TN | Stoneville, MS | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| AG43XF2 | . | 1.5 | 2.3 | 1.0 | 2.0 | 2.3 | 2.0 | . | 1.9 |
| AG38XF1 | . | 1.7 | 3.0 | 1.0 | 3.0 | 1.3 | 1.8 | . | 2.0 |
| LD15-3818 | . | 2.0 | 3.7 | 1.0 | 1.9 | 2.0 | 2.2 | . | 2.2 |
| S13-3851C | . | 1.7 | 2.3 | 1.0 | 2.7 | 3.0 | 1.7 | . | 2.1 |
| S19-1176 | . | 2.2 | 4.0 | 1.0 | 1.7 | 3.5 | 1.8 | . | 2.4 |
| S19-2082 | . | 1.7 | 2.3 | 1.0 | 2.0 | 2.0 | 2.0 | . | 1.8 |
| S19-7867 | . | 1.5 | 3.0 | 1.0 | 2.0 | 2.0 | 2.0 | . | 1.9 |
| TN19-4734R1 | . | 1.5 | 1.3 | 1.0 | 2.0 | 2.0 | 1.5 | . | 1.5 |
| V17-2478R | . | 1.5 | 2.0 | 1.0 | 2.0 | 2.3 | 1.5 | . | 1.7 |
| V18-2720HOR2 | . | 1.5 | 1.3 | 1.0 | 2.7 | 2.0 | 1.5 | . | 1.7 |
| V18-3782R | . | 1.5 | 2.0 | 1.0 | 1.7 | 2.3 | 1.7 | . | 1.7 |
| Mean | . | 1.7 | 2.5 | 1.0 | 2.1 | 2.3 | 1.8 | . | 1.9 |
| LSD(0.05) | . | 0.3 | 1.1 | . | 0.6 | 1.1 | 0.3 | . | 0.6 |
| CV(%) | . | 10.1 | 24.8 | . | 13.9 | 24.4 | 10.9 | . | 29.8 |

***TABLE 10 - SEED SIZE (GRAMS PER 100 SEED)***
***UNIFORM GROUP IV-S-EARLY 2023***

| STRAIN/ VARIETY | Jackson, TN | Knoxville, TN | Marianna, AR | Novelty, MO | Portageville, MO(A) | Portageville, MO(B) | Springfield, TN | Stoneville, MS | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| AG43XF2 | . | 12.9 | 14.0 | 14.1 | 15.2 | 14.7 | 16.6 | . | 14.5 |
| AG38XF1 | . | 15.2 | 15.3 | 14.1 | 16.2 | 16.7 | 18.5 | . | 16.1 |
| LD15-3818 | . | 13.8 | 14.6 | 14.2 | 15.1 | 14.6 | 17.5 | . | 15.1 |
| S13-3851C | . | 13.5 | 15.1 | 13.9 | 17.1 | 16.1 | 17.3 | . | 15.6 |
| S19-1176 | . | 14.6 | 15.1 | 14.2 | 15.7 | 14.9 | 17.9 | . | 15.5 |
| S19-2082 | . | 13.1 | 14.5 | 13.9 | 15.4 | 15.4 | 15.7 | . | 14.6 |
| S19-7867 | . | 14.9 | 15.9 | 14.9 | 16.3 | 16.1 | 19.2 | . | 16.2 |
| TN19-4734R1 | . | 12.6 | 13.7 | 14.0 | 15.0 | 14.6 | 17.1 | . | 14.4 |
| V17-2478R | . | 12.4 | 12.4 | 13.1 | 15.8 | 13.8 | 16.5 | . | 14.0 |
| V18-2720HOR2 | . | 11.4 | 13.1 | 11.7 | 16.3 | 13.9 | 14.9 | . | 13.6 |
| V18-3782R | . | 11.6 | 12.4 | 11.7 | 12.7 | 12.7 | 15.4 | . | 12.8 |
| Mean | . | 13.3 | 14.2 | 13.6 | 15.5 | 14.9 | 17.0 | . | 14.8 |
| LSD(0.05) | . | 1.4 | 0.8 | . | 3.2 | 1.0 | 0.9 | . | 0.8 |
| CV(%) | . | 6.2 | 3.3 | . | 11.0 | 3.3 | 3.0 | . | 6.5 |

***TABLE 11 - OIL (%)†***
***UNIFORM GROUP IV-S-EARLY 2023***

| STRAIN/ VARIETY | Jackson, TN | Knoxville, TN | Marianna, AR | Novelty, MO | Portageville, MO(A) | Portageville, MO(B) | Springfield, TN | Stoneville, MS | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| AG43XF2 | . | 21.5 | 21.1 | 19.7 | 19.9 | 20.0 | 19.6 | 21.0 | 20.4 |
| AG38XF1 | . | 20.6 | 19.9 | 18.9 | 18.7 | 19.2 | 19.3 | 20.2 | 19.5 |
| LD15-3818 | . | 20.8 | 21.6 | 19.5 | 20.6 | 19.9 | 19.6 | 21.2 | 20.4 |
| S13-3851C | . | 20.6 | 19.7 | 19.2 | 18.9 | 18.9 | 19.2 | 20.7 | 19.6 |
| S19-1176 | . | 20.1 | 19.3 | 18.3 | 18.9 | 18.7 | 17.8 | 20.7 | 19.1 |
| S19-2082 | . | 20.5 | 19.7 | 19.3 | 18.7 | 19.0 | 19.0 | 19.2 | 19.3 |
| S19-7867 | . | 21.1 | 20.3 | 19.5 | 20.0 | 20.0 | 19.3 | 20.7 | 20.1 |
| TN19-4734R1 | . | 18.7 | 17.2 | 17.2 | 17.0 | 17.1 | 17.3 | 17.5 | 17.4 |
| V17-2478R | . | 20.1 | 18.3 | 18.6 | 18.6 | 18.3 | 18.7 | 19.1 | 18.8 |
| V18-2720HOR2 | . | 21.2 | 19.8 | 19.3 | 20.1 | 19.7 | 19.0 | 19.6 | 19.8 |
| V18-3782R | . | 21.3 | 19.9 | 19.8 | 20.5 | 20.2 | 20.3 | 20.7 | 20.4 |
| Mean | . | 20.6 | 19.7 | 19.0 | 19.3 | 19.2 | 19.0 | 20.0 | 19.5 |
| LSD(0.05) | . | . | . | . | . | . | . | . | 0.4 |
| CV(%) | . | . | . | . | . | . | . | . | 2.1 |

†Oil percentage is reported on a 13% moisture basis beginning in 2015.

***TABLE 12 - PROTEIN (%)†***
***UNIFORM GROUP IV-S-EARLY 2023***

| STRAIN/ VARIETY | Jackson, TN | Knoxville, TN | Marianna, AR | Novelty, MO | Portageville, MO(A) | Portageville, MO(B) | Springfield, TN | Stoneville, MS | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| AG43XF2 | . | 33.5 | 34.6 | 33.1 | 35.2 | 35.4 | 35.0 | 34.1 | 34.4 |
| AG38XF1 | . | 34.2 | 36.1 | 34.1 | 36.6 | 36.1 | 35.4 | 34.4 | 35.3 |
| LD15-3818 | . | 35.5 | 33.7 | 34.2 | 33.7 | 34.9 | 36.3 | 34.2 | 34.6 |
| S13-3851C | . | 34.3 | 35.9 | 34.8 | 37.1 | 36.8 | 37.3 | 34.2 | 35.8 |
| S19-1176 | . | 35.8 | 37.4 | 34.2 | 36.2 | 37.1 | 37.2 | 34.5 | 36.1 |
| S19-2082 | . | 34.6 | 36.6 | 34.4 | 35.4 | 36.4 | 36.3 | 36.8 | 35.8 |
| S19-7867 | . | 34.0 | 35.7 | 33.1 | 34.0 | 34.0 | 33.2 | 34.1 | 34.0 |
| TN19-4734R1 | . | 35.9 | 39.9 | 37.0 | 38.7 | 38.8 | 38.3 | 39.7 | 38.3 |
| V17-2478R | . | 33.9 | 36.9 | 34.1 | 35.1 | 35.5 | 35.1 | 35.4 | 35.1 |
| V18-2720HOR2 | . | 32.4 | 35.8 | 33.8 | 33.9 | 35.4 | 35.7 | 36.4 | 34.8 |
| V18-3782R | . | 32.8 | 35.1 | 33.5 | 33.7 | 34.1 | 34.1 | 34.3 | 34.0 |
| Mean | . | 34.3 | 36.1 | 34.2 | 35.4 | 35.9 | 35.8 | 35.3 | 35.3 |
| LSD(0.05) | . | . | . | . | . | . | . | . | 0.9 |
| CV(%) | . | . | . | . | . | . | . | . | 2.4 |

†Protein percentage reported on a 13% moisture basis beginning in 2015.

***TABLE 13 - ESTIMATED MEAL PROTEIN (%)†***
***UNIFORM GROUP IV-S-EARLY 2023***

| STRAIN/ VARIETY | Jackson, TN | Knoxville, TN | Marianna, AR | Novelty, MO | Portageville, MO(A) | Portageville, MO(B) | Springfield, TN | Stoneville, MS | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| AG43XF2 | . | 46.3 | 47.7 | 44.8 | 47.8 | 48.1 | 47.3 | 46.8 | 47.0 |
| AG38XF1 | . | 46.9 | 48.9 | 45.7 | 49.0 | 48.6 | 47.7 | 46.9 | 47.6 |
| LD15-3818 | . | 48.7 | 46.6 | 46.2 | 46.1 | 47.4 | 49.1 | 47.2 | 47.3 |
| S13-3851C | . | 46.9 | 48.6 | 46.7 | 49.8 | 49.4 | 50.2 | 46.8 | 48.3 |
| S19-1176 | . | 48.7 | 50.4 | 45.5 | 48.5 | 49.6 | 49.2 | 47.3 | 48.5 |
| S19-2082 | . | 47.3 | 49.5 | 46.4 | 47.2 | 48.8 | 48.7 | 49.4 | 48.2 |
| S19-7867 | . | 46.9 | 48.6 | 44.6 | 46.2 | 46.3 | 44.7 | 46.8 | 46.3 |
| TN19-4734R1 | . | 48.0 | 52.4 | 48.6 | 50.6 | 50.8 | 50.3 | 52.3 | 50.4 |
| V17-2478R | . | 46.1 | 49.0 | 45.6 | 46.9 | 47.2 | 46.9 | 47.5 | 47.0 |
| V18-2720HOR2 | . | 44.8 | 48.5 | 45.5 | 46.1 | 47.9 | 47.9 | 49.2 | 47.1 |
| V18-3782R | . | 45.3 | 47.6 | 45.4 | 46.1 | 46.4 | 46.6 | 47.0 | 46.4 |
| Mean | . | 46.9 | 48.9 | 45.9 | 47.7 | 48.2 | 48.1 | 47.9 | 47.7 |
| LSD(0.05) | . | . | . | . | . | . | . | . | 1.0 |
| CV(%) | . | . | . | . | . | . | . | . | 2.0 |

INTENTIONALLY BLANK

***TABLE 14 - PARENTAGE OF ENTRIES***
***UNIFORM GROUP IV-S-LATE 2023***

| Ent | Strain/Variety | Parentage | Source | Fn | Trans-genic† | Special Traits‡ |
|---|---|---|---|---|---|---|
| 1 | S16-7922 | Commercial check | check | | | |
| 2 | AG46X6 | Commercial check | check | | RR2, DIC | |
| 3 | AG48X9 | Commercial check | check | | RR2, DIC | |
| 4 | AG48XF2 | Commercial check | check | | RR2, LL, DIC | |
| 5 | DA1541-102F | DA1036-14F x DA1030-09F | Gillen | | | |
| 6 | DA1601-18 | DA0865-88F x Osage | Gillen | | | |
| 7 | DA1643-01-10 | DA0841-193F x DA0939-17F | Gillen | | | |
| 8 | DS1061-25 | R99-1613 x JTN 5203 | Rusty Smith | F5 | | Res reniform nematode |
| 9 | K19-2402 | S12-2418 / K11-2363B | Schapaugh | F5 | | |
| 10 | R19-39444 | LG13-4321 / R11-7141 | Vieira | F3:4 | | 12.5% HI0800685 & 12.5% PI290126B |
| 11 | S19-12409 | S14-6391 x K14-1358 | Shannon | | | SCN, SC, BSR |
| 12 | S19-12459 | S14-6391 x K14-1358 | Shannon | | | SCN, RKN, SC, BSR, High oil |
| 13 | S19-14058 | S14-3831 x S11-20124 | Shannon | | | SCN, RKN, BSR, Salt Excluder |
| 14 | TN18-4110b | Ellis(4) x TN13-5001-ln x Ellis(4) x TN10-4037-HO | Pantalone | | | HOLN |
| 15 | V16-0248DI | R99-1613F x R05-4114 | B. Zhang | | | |
| 16 | V16-0293 | S08-17361 x JTN-4307 | B. Zhang | | | |
| 17 | V18-3081HP | S11-20967 x V11-3522 | B. Zhang | | | |

† Conv= Conventional(non-transgenic),DIC - Dicamba resistance Xtend®, E3= Enlist E3®, LL=Liberty Link®, RR1=Roundup Ready®, RR2=Roundup Ready 2 Yield®,
‡ AA= modified amino acids, DNC= Do not cross with this, FLS= Frogeye leaf spot resistance, LJ= Long juvenile, LN= low linolenic acid, LP= low phytate, HO= high olelic acid, HOLN= high oleic acid/low linolenic acid, SC= Southern stem canker, SCN= Soybean cyst nematode resistance, SR= Soybean rust resistance, and STS= sulfonylurea tolerant

***TABLE 15 - GENERAL SUMMARY OF PERFORMANCE***
***UNIFORM TEST IV-S-LATE 2023***

| STRAIN/ VARIETY | RANK | AVG. RANK | YIELD† 2023 | YIELD† 22-23 | YIELD† 21-23 | PROTEIN‡ 2023 | PROTEIN‡ 22-23 | PROTEIN‡ 21-23 | OIL‡ 2023 | OIL‡ 22-23 | OIL‡ 21-23 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S16-7922 | 6 | 7 | 57.4 | 56.9 | 62.6 | 35.2 | 34.8 | 35.2 | 19.6 | 19.5 | 19.5 |
| AG46X6 | 2 | 6 | 61.5 | 63.3 | 66.1 | 35.2 | 35.0 | 35.0 | 19.5 | 19.5 | 19.5 |
| AG48X9 | 1 | 3 | 64.6 | 66.1 | 71.0 | 35.4 | 35.2 | 35.1 | 19.6 | 19.5 | 19.7 |
| AG48XF2 | 3 | 5 | 61.2 | 62.2 | . | 34.7 | 34.5 | . | 19.5 | 19.5 | . |
| DA1541-102F | 13 | 12 | 52.8 | 52.4 | . | 36.5 | 36.2 | . | 18.5 | 18.6 | . |
| DA1601-18 | 12 | 9 | 53.9 | . | . | 35.6 | . | . | 19.1 | . | . |
| DA1643-01-10 | 16 | 13 | 50.8 | . | . | 35.3 | . | . | 19.5 | . | . |
| DS1061-25 | 8 | 11 | 55.6 | 55.0 | . | 35.7 | 35.1 | . | 19.7 | 19.8 | . |
| K19-2402 | 4 | 7 | 58.4 | . | . | 36.3 | . | . | 19.1 | . | . |
| R19-39444 | 15 | 12 | 51.5 | . | . | 35.0 | . | . | 19.3 | . | . |
| S19-12409 | 14 | 10 | 52.3 | . | . | 35.9 | . | . | 18.5 | . | . |
| S19-12459 | 9 | 11 | 54.9 | . | . | 37.1 | . | . | 19.0 | . | . |
| S19-14058 | 5 | 7 | 57.9 | . | . | 35.8 | . | . | 18.7 | . | . |
| TN18-4110b | 17 | 15 | 45.3 | . | . | 35.6 | . | . | 19.5 | . | . |
| V16-0248DI | 11 | 10 | 54.0 | . | . | 36.7 | . | . | 18.7 | . | . |
| V16-0293 | 7 | 8 | 57.1 | 55.5 | 60.5 | 35.4 | 33.6 | 34.0 | 19.5 | 19.8 | 19.9 |
| V18-3081HP | 10 | 10 | 54.4 | . | . | 36.2 | . | . | 19.2 | . | . |
| | | | | | | | | | | | |
| Mean | . | . | 55.5 | . | . | 35.7 | . | . | 19.2 | . | . |
| LSD(0.05) | . | . | 5.7 | . | . | 0.6 | . | . | 0.3 | . | . |
| LSD(0.10) | . | . | 4.7 | . | . | . | . | . | . | . | . |
| CV(%) | . | . | 13.3 | . | . | 2.0 | . | . | 2.2 | . | . |

† Data not included in yield mean: 2021 Bossier City and Orange; 2022 Belle Mina.
Certain field trials had damage consistent with dicamba exposure, which may have resulted in an unfair yield advantage for dicamba resistant check lines.
‡ Protein percentage and oil percentage reported on a 13% moisture basis beginning in 2015.

***TABLE 16 - GENERAL SUMMARY OF PERFORMANCE -Part 2***
***UNIFORM TEST IV-S-LATE 2023***

| STRAIN/ VARIETY | MEAL† PRO % | MAT INDEX | LOD | HT | SEED QUALITY | SEED SIZE | FL. COLOR | PUB. COLOR | POD COLOR |
|---|---|---|---|---|---|---|---|---|---|
| S16-7922 | 47.6 | 0 | 2.0 | 31 | 1.8 | 13.7 | W | | |
| AG46X6 | 47.5 | -3 | 1.5 | 34 | 1.6 | 16.1 | P | | |
| AG48X9 | 47.8 | -2 | 1.3 | 38 | 1.8 | 14.4 | P | | |
| AG48XF2 | 46.8 | -4 | 1.6 | 34 | 1.6 | 15.0 | P | | |
| DA1541-102F | 48.7 | 1 | 1.3 | 25 | 1.7 | 12.2 | P | G | |
| DA1601-18 | 47.9 | -2 | 1.2 | 22 | 1.5 | 12.0 | P | T | T |
| DA1643-01-10 | 47.7 | -3 | 1.3 | 24 | 1.3 | 12.3 | P | T | T |
| DS1061-25 | 48.2 | -4 | 1.5 | 36 | 1.6 | 13.0 | P | Tw | Tn |
| K19-2402 | 48.8 | -4 | 1.4 | 32 | 2.1 | 16.4 | | | |
| R19-39444 | 47.1 | -1 | 1.6 | 36 | 1.7 | 14.6 | P | T | T |
| S19-12409 | 47.9 | -5 | 2.1 | 37 | 2.2 | 15.0 | W | T | T |
| S19-12459 | 49.8 | -5 | 1.8 | 36 | 2.1 | 15.9 | W | T | T |
| S19-14058 | 47.8 | 0 | 1.8 | 29 | 1.3 | 13.6 | W | G | T |
| TN18-4110b | 48.1 | 0 | 1.4 | 22 | 1.4 | 11.6 | W | G | |
| V16-0248DI | 49.1 | -5 | 1.4 | 25 | 1.5 | 12.7 | P | G | |
| V16-0293 | 47.8 | -1 | 1.6 | 35 | 1.6 | 15.4 | W | T | |
| V18-3081HP | 48.7 | -3 | 1.6 | 34 | 1.9 | 15.0 | W | LT | |
| | | | | | | | | | |
| Mean | 48.1 | -2 | 1.6 | 31 | 1.7 | 14.1 | | | |
| LSD(0.05) | 0.6 | 2 | 0.3 | 3 | 0.4 | 0.7 | | | |
| CV(%) | 1.7 | 112 | 33.0 | 13 | 40.0 | 7.6 | | | |

† Estimated meal protein content was added to the annual report in 2018.

***TABLE 17 - GENERAL SUMMARY OF PEST REACTION***
***UNIFORM TEST IV-S-LATE 2023***

| STRAIN/ VARIETY | SCN Cyst Score (1-5 Scale)† | | | RKN Gall Score (1-5 Scale)‡ | | | SC RATING | SC SCORE |
|---|---|---|---|---|---|---|---|---|
| | Race 2 | Race 3 | Race 5 | PRK | SRK | JRK | | |
| S16-7922 | 2 | . | 2 | 1.8 | 1.0 | 2.5 | | . |
| AG46X6 | 4 | . | 3 | 2.0 | 5.0 | 4.3 | | . |
| AG48X9 | 3 | . | 2 | 3.5 | 5.0 | 5.0 | | . |
| AG48XF2 | 2 | . | 4 | 2.3 | 5.0 | 4.0 | | . |
| DA1541-102F | 5 | . | 4 | 5.0 | 5.0 | 5.0 | | . |
| DA1601-18 | 4 | . | 4 | 4.5 | 5.0 | 5.0 | | . |
| DA1643-01-10 | 4 | . | 3 | 4.0 | 1.3 | 2.5 | | . |
| DS1061-25 | 3 | . | 2 | 2.5 | 5.0 | 4.3 | | . |
| K19-2402 | 5 | . | 3 | 5.0 | 5.0 | 4.5 | | . |
| R19-39444 | 3 | . | 3 | 4.8 | 5.0 | 5.0 | | . |
| S19-12409 | 4 | . | 4 | 4.5 | 5.0 | 5.0 | | . |
| S19-12459 | 3 | . | 4 | 3.0 | 2.8 | 2.3 | | . |
| S19-14058 | 1 | . | 1 | 3.0 | 1.0 | 1.8 | | . |
| TN18-4110b | 2 | . | 3 | 4.8 | 1.8 | 5.0 | | . |
| V16-0248DI | 4 | . | 2 | 2.3 | 5.0 | 2.0 | | . |
| V16-0293 | 2 | . | 2 | 5.0 | 5.0 | 5.0 | | . |
| V18-3081HP | 2 | . | 2 | 4.5 | 4.0 | 5.0 | | . |

†The race 2 and 5 SCN populations used in these tests were typed as HG (Heterodera glycines) Type 1.2.5.7 and HG Type 2.5.7, respectively. Results for race 3 were omitted.

‡The root-knot nematode (RKN) species used in these tests were Meloidogyne incognita (southern root knot = SRK), M. arenaria (peanut root knot = PRK), and M. javanica (Javanese root-knot = JRK;)MR = mixed reaction.

***TABLE 18 - SEED YIELD (BUSHELS PER ACRE)***
***UNIFORM TEST IV-S-LATE 2023 †***

| STRAIN/ VARIETY | Belle Mina, AL | Bossier City, LA | Knoxville, TN | Marianna, AR * | McCune, KS | Orange, VA | Pittsburg, KS |
|---|---|---|---|---|---|---|---|
| S16-7922 | 59.7 | 64.8 | 55.1 | 49.8 | 42.0 | 47.1 | 56.8 |
| AG46X6 | 57.6 | 53.1 | 46.9 | 49.1 | 39.4 | 42.5 | 49.1 |
| AG48X9 | 60.1 | 49.4 | 77.7 | 52.3 | 44.8 | 41.0 | 51.3 |
| AG48XF2 | 53.7 | 55.7 | 56.1 | 53.1 | 42.4 | 43.1 | 48.8 |
| DA1541-102F | 46.7 | 65.2 | 45.9 | 45.5 | 38.2 | 46.0 | 48.5 |
| DA1601-18 | 48.4 | 44.0 | 35.2 | 50.9 | 40.6 | 51.6 | 53.5 |
| DA1643-01-10 | 47.8 | 63.0 | 27.5 | 47.2 | 39.3 | 41.7 | 44.6 |
| DS1061-25 | 54.7 | 45.6 | 49.3 | 42.2 | 37.5 | 47.3 | 55.4 |
| K19-2402 | 54.3 | 58.1 | 72.0 | 55.1 | 40.5 | 44.0 | 48.7 |
| R19-39444 | 39.9 | 53.6 | 55.2 | 47.4 | 38.7 | 43.7 | 47.5 |
| S19-12409 | 46.1 | 33.3 | 72.4 | 51.9 | 42.4 | 36.9 | 50.0 |
| S19-12459 | 61.9 | 60.8 | 67.0 | 47.1 | 38.5 | 24.9 | 44.1 |
| S19-14058 | 62.1 | 60.4 | 58.7 | 50.7 | 39.8 | 36.6 | 52.6 |
| TN18-4110b | 34.7 | 55.9 | 29.4 | 39.9 | 40.4 | 34.0 | 45.3 |
| V16-0248DI | 56.6 | 46.4 | 59.0 | 42.5 | 42.6 | 28.7 | 46.7 |
| V16-0293 | 48.4 | 55.8 | 55.7 | 55.6 | 37.9 | 45.7 | 51.5 |
| V18-3081HP | 41.9 | 53.9 | 50.3 | 43.6 | 39.2 | 29.5 | 47.8 |
| | | | | | | | |
| Mean | 51.4 | 54.1 | 53.7 | 48.5 | 40.3 | 40.3 | 49.5 |
| LSD(0.05) | 11.0 | 17.7 | 16.7 | 8.4 | 3.3 | 17.7 | 6.0 |
| LSD(0.10) | 9.1 | 14.7 | 13.9 | 7.0 | 2.7 | 14.7 | 5.0 |
| CV(%) | 12.4 | 19.7 | 18.7 | 9.9 | 4.9 | 26.4 | 7.3 |

†Location data not included in Test Mean due to CV > 15%: Bossier City, Knoxville, Orange, Portageville(A), Starkville, and Warsaw.
*Locations with obvious damage consistent with exposure to the herbicide Dicamba.

***TABLE 18 - SEED YIELD (BUSHELS PER ACRE) (continued)***
***UNIFORM TEST IV-S-LATE 2023 †***

| STRAIN/ VARIETY | Portageville, MO(A) * | Portageville, MO(B) * | Springfield, TN | Starkville, MS | Stoneville, MS * | Stuttgart, AR | Warsaw, VA | Test Mean |
|---|---|---|---|---|---|---|---|---|
| S16-7922 | 39.6 | 43.0 | 82.9 | 90.8 | 54.9 | 70.2 | 53.4 | 57.4 |
| AG46X6 | 54.7 | 67.3 | 77.3 | 76.8 | 69.5 | 82.7 | 51.5 | 61.5 |
| AG48X9 | 56.2 | 67.5 | 81.0 | 84.5 | 73.4 | 86.5 | 63.7 | 64.6 |
| AG48XF2 | 49.2 | 68.4 | 79.2 | 73.3 | 62.1 | 81.5 | 61.0 | 61.2 |
| DA1541-102F | 39.6 | 48.2 | 66.0 | 94.0 | 56.4 | 72.6 | 57.5 | 52.8 |
| DA1601-18 | 23.1 | 39.7 | 79.6 | 82.0 | 57.7 | 61.2 | 59.6 | 53.9 |
| DA1643-01-10 | 22.6 | 41.7 | 66.3 | 65.9 | 55.7 | 63.4 | 61.2 | 50.8 |
| DS1061-25 | 35.8 | 55.9 | 73.6 | 80.6 | 54.4 | 71.7 | 59.8 | 55.6 |
| K19-2402 | 30.9 | 58.7 | 80.2 | 75.2 | 51.0 | 79.0 | 46.3 | 58.4 |
| R19-39444 | 32.1 | 38.9 | 62.7 | 74.6 | 57.6 | 77.9 | 52.3 | 51.5 |
| S19-12409 | 37.5 | 43.9 | 69.9 | 74.0 | 40.8 | 73.7 | 55.9 | 52.3 |
| S19-12459 | 38.0 | 47.0 | 80.8 | 77.8 | 46.7 | 72.3 | 53.7 | 54.9 |
| S19-14058 | 46.0 | 58.2 | 81.0 | 74.1 | 53.5 | 65.2 | 53.1 | 57.9 |
| TN18-4110b | 13.6 | 37.8 | 70.7 | 61.0 | 43.9 | 49.1 | 53.0 | 45.3 |
| V16-0248DI | 34.2 | 45.1 | 75.9 | 70.7 | 54.7 | 67.9 | 53.6 | 54.0 |
| V16-0293 | 32.0 | 56.7 | 77.2 | 78.2 | 55.7 | 74.0 | 49.3 | 57.1 |
| V18-3081HP | 34.2 | 50.9 | 76.2 | 79.5 | 59.3 | 75.3 | 46.3 | 54.4 |
| | | | | | | | | |
| Mean | 36.4 | 51.1 | 75.3 | 77.2 | 55.7 | 72.0 | 54.8 | 55.5 |
| LSD(0.05) | 11.1 | 10.4 | 11.2 | 21.5 | 13.4 | 11.5 | 14.5 | 5.7 |
| LSD(0.10) | 9.2 | 8.6 | 9.3 | 17.9 | 11.2 | 9.6 | 12.0 | 4.7 |
| CV(%) | 16.6 | 10.8 | 9.0 | 16.8 | 14.5 | 9.5 | 15.9 | 13.3 |

***TABLE 19 - RELATIVE MATURITY (DAYS EARLIER (-) OR LATER (+) THAN ENTRY 1)***
***UNIFORM GROUP IV-S-LATE 2023***

| STRAIN/ VARIETY | Belle Mina, AL | Bossier City, LA | Knoxville, TN | Marianna, AR | McCune, KS | Pittsburg, KS | Portageville, MO(A) |
|---|---|---|---|---|---|---|---|
| S16-7922 | 9/23 | 9/29 | 10/2 | 9/29 | 10/10 | 10/10 | 10/12 |
| AG46X6 | 0 | 0 | -3 | -3 | -10 | -5 | -2 |
| AG48X9 | 0 | -2 | -2 | -1 | -11 | -5 | 0 |
| AG48XF2 | -2 | -3 | -1 | -5 | -10 | -5 | 0 |
| DA1541-102F | -2 | 0 | -1 | 0 | -5 | 4 | 0 |
| DA1601-18 | -5 | -2 | -2 | -2 | -5 | -4 | -2 |
| DA1643-01-10 | -3 | -1 | -4 | -3 | -7 | -5 | -3 |
| DS1061-25 | -2 | -2 | -3 | -6 | -6 | -4 | -2 |
| K19-2402 | -3 | -2 | -4 | -3 | -11 | -6 | 0 |
| R19-39444 | -1 | -1 | 0 | 1 | -5 | -4 | -1 |
| S19-12409 | -1 | -4 | -6 | -4 | -12 | -4 | -2 |
| S19-12459 | 2 | -2 | -5 | -7 | -11 | -6 | -2 |
| S19-14058 | 0 | -4 | 0 | 0 | -1 | 5 | -1 |
| TN18-4110b | -2 | -1 | 0 | 1 | -6 | 0 | -2 |
| V16-0248DI | -4 | -4 | -3 | -6 | -7 | -5 | -5 |
| V16-0293 | -1 | 0 | -1 | 2 | -7 | -4 | 0 |
| V18-3081HP | 0 | -1 | -1 | -2 | -8 | -4 | 0 |
| | | | | | | | |
| Mean | -1 | -2 | -2 | -2 | -7 | -3 | -1 |
| LSD(0.05) | 4 | 2 | 2 | 3 | 2 | 2 | 3 |
| CV(%) | 158 | 76 | 52 | 88 | 15 | 43 | 133 |

***TABLE 19 - RELATIVE MATURITY (continued)***
***UNIFORM GROUP IV-S-LATE 2023***

| STRAIN/ VARIETY | Portageville, MO(B) | Springfield, TN | Stoneville, MS | Stuttgart, AR | Warsaw, VA | Test Mean |
|---|---|---|---|---|---|---|
| S16-7922 | 10/9 | 10/12 | 9/20 | 9/26 | 10/7 | 10/3 |
| AG46X6 | 1 | -6 | 0 | -1 | -7 | -3 |
| AG48X9 | -1 | -7 | -1 | 3 | -2 | -2 |
| AG48XF2 | -2 | -7 | -2 | -1 | -10 | -4 |
| DA1541-102F | 0 | -1 | 6 | 8 | 2 | 1 |
| DA1601-18 | -3 | -4 | 2 | 3 | -1 | -2 |
| DA1643-01-10 | -2 | -6 | 3 | 3 | -3 | -3 |
| DS1061-25 | -2 | -6 | -2 | -4 | -7 | -4 |
| K19-2402 | 0 | -4 | -4 | -3 | -10 | -4 |
| R19-39444 | -1 | -6 | 4 | 0 | -5 | -1 |
| S19-12409 | -1 | -6 | -9 | -5 | -10 | -5 |
| S19-12459 | -2 | -6 | -6 | -6 | -9 | -5 |
| S19-14058 | 0 | 0 | -1 | 0 | -2 | 0 |
| TN18-4110b | 0 | 2 | 6 | 6 | 0 | 0 |
| V16-0248DI | -5 | -5 | -8 | 1 | -8 | -5 |
| V16-0293 | 1 | -5 | 3 | -1 | -3 | -1 |
| V18-3081HP | 1 | -3 | -3 | -3 | -5 | -3 |
| | | | | | | |
| Mean | -1 | -4 | -1 | 0 | -5 | -2 |
| LSD(0.05) | 3 | 3 | 7 | 3 | 3 | 2 |
| CV(%) | 208 | 40 | 535 | 7013 | 42 | 112 |

***TABLE 20 - PLANT HEIGHT (INCHES)***
***UNIFORM GROUP IV-S-LATE 2023***

| STRAIN/ VARIETY | Belle Mina, AL | Bossier City, LA | Knoxville, TN | Marianna, AR | McCune, KS | Orange, VA | Pittsburg, KS |
|---|---|---|---|---|---|---|---|
| S16-7922 | 31 | 34 | 25 | 27 | 40 | . | 48 |
| AG46X6 | 35 | 41 | 29 | 37 | 36 | . | 38 |
| AG48X9 | 38 | 44 | 37 | 39 | 40 | . | 39 |
| AG48XF2 | 35 | 40 | 28 | 36 | 37 | . | 37 |
| DA1541-102F | 32 | 26 | 23 | 21 | 33 | . | 34 |
| DA1601-18 | 27 | 20 | 18 | 19 | 29 | . | 33 |
| DA1643-01-10 | 35 | 25 | 18 | 19 | 30 | . | 34 |
| DS1061-25 | 42 | 40 | 31 | 34 | 41 | . | 45 |
| K19-2402 | 35 | 40 | 35 | 31 | 35 | . | 38 |
| R19-39444 | 39 | 43 | 33 | 36 | 38 | . | 41 |
| S19-12409 | 34 | 45 | 40 | 37 | 42 | . | 46 |
| S19-12459 | 35 | 46 | 35 | 34 | 42 | . | 42 |
| S19-14058 | 30 | 33 | 25 | 28 | 38 | . | 42 |
| TN18-4110b | 22 | 26 | 17 | 18 | 30 | . | 30 |
| V16-0248DI | 30 | 29 | 24 | 20 | 31 | . | 31 |
| V16-0293 | 41 | 42 | 33 | 36 | 38 | . | 41 |
| V18-3081HP | 40 | 42 | 27 | 33 | 38 | . | 43 |
| | | | | | | | |
| Mean | 34 | 36 | 28 | 30 | 37 | . | 39 |
| LSD(0.05) | 6 | 5 | 4 | 5 | 3 | . | 3 |
| CV(%) | 11 | 8 | 10 | 9 | 5 | . | 5 |

***TABLE 20 - PLANT HEIGHT (INCHES) (continued)***
***UNIFORM GROUP IV-S-LATE 2023***

| STRAIN/ VARIETY | Portageville, MO(A) | Portageville, MO(B) | Springfield, TN | Starkville, MS | Stoneville, MS | Stuttgart, AR | Warsaw, VA | Test Mean |
|---|---|---|---|---|---|---|---|---|
| S16-7922 | 20 | 19 | 36 | . | 24 | 30 | 39 | 31 |
| AG46X6 | 29 | 34 | 37 | . | 31 | 29 | 33 | 34 |
| AG48X9 | 32 | 38 | 43 | . | 36 | 32 | 36 | 38 |
| AG48XF2 | 29 | 33 | 38 | . | 32 | 27 | 35 | 34 |
| DA1541-102F | 14 | 17 | 30 | . | 19 | 23 | 27 | 25 |
| DA1601-18 | 13 | 14 | 29 | . | 17 | 19 | 25 | 22 |
| DA1643-01-10 | 14 | 16 | 34 | . | 16 | 21 | 30 | 24 |
| DS1061-25 | 23 | 30 | 42 | . | 38 | 36 | 39 | 37 |
| K19-2402 | 17 | 22 | 39 | . | 25 | 32 | 32 | 32 |
| R19-39444 | 23 | 21 | 41 | . | 42 | 40 | 38 | 36 |
| S19-12409 | 25 | 25 | 44 | . | 28 | 33 | 40 | 37 |
| S19-12459 | 23 | 25 | 46 | . | 31 | 35 | 42 | 36 |
| S19-14058 | 20 | 22 | 33 | . | 24 | 22 | 36 | 29 |
| TN18-4110b | 12 | 12 | 27 | . | 13 | 19 | 31 | 22 |
| V16-0248DI | 15 | 16 | 34 | . | 19 | 20 | 29 | 25 |
| V16-0293 | 20 | 27 | 45 | . | 27 | 30 | 35 | 35 |
| V18-3081HP | 21 | 25 | 42 | . | 28 | 32 | 33 | 34 |
| Mean | 21 | 23 | 38 | . | 26 | 28 | 34 | 31 |
| LSD(0.05) | 3 | 6 | 5 | . | 2 | 4 | 6 | 3 |
| CV(%) | 8 | 14 | 8 | . | 5 | 8 | 11 | 13 |

***TABLE 21 - PLANT LODGING (1-5)***
***UNIFORM GROUP IV-S-LATE 2023***

| STRAIN/ VARIETY | Belle Mina, AL | Bossier City, LA | Knoxville, TN | Marianna, AR | McCune, KS | Orange, VA | Pittsburg, KS |
|---|---|---|---|---|---|---|---|
| S16-7922 | 3.7 | 1.7 | 3.0 | 2.0 | 3.0 | 1.0 | 3.0 |
| AG46X6 | 2.0 | 1.7 | 2.3 | 2.0 | 1.0 | 1.0 | 1.0 |
| AG48X9 | 2.0 | 1.0 | 2.3 | 1.3 | 1.0 | 1.0 | 1.0 |
| AG48XF2 | 2.3 | 1.7 | 2.2 | 2.0 | 1.0 | 1.0 | 1.3 |
| DA1541-102F | 2.3 | 1.0 | 2.3 | 1.0 | 1.0 | 1.0 | 1.0 |
| DA1601-18 | 1.7 | 1.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| DA1643-01-10 | 2.7 | 1.0 | 1.8 | 1.0 | 1.0 | 1.0 | 1.0 |
| DS1061-25 | 2.7 | 1.0 | 2.2 | 1.0 | 1.0 | 1.0 | 1.7 |
| K19-2402 | 2.0 | 1.0 | 2.7 | 1.0 | 1.0 | 1.0 | 1.3 |
| R19-39444 | 2.0 | 2.0 | 2.3 | 1.7 | 1.0 | 1.0 | 1.0 |
| S19-12409 | 3.7 | 1.7 | 3.7 | 2.0 | 1.7 | 1.0 | 3.0 |
| S19-12459 | 2.7 | 1.7 | 3.2 | 1.7 | 1.7 | 1.0 | 2.3 |
| S19-14058 | 3.0 | 1.7 | 2.8 | 1.0 | 2.7 | 1.0 | 3.0 |
| TN18-4110b | 3.3 | 1.0 | 2.0 | 1.0 | 1.3 | 1.0 | 1.3 |
| V16-0248DI | 2.7 | 1.0 | 2.5 | 1.0 | 1.0 | 1.0 | 1.3 |
| V16-0293 | 2.0 | 1.3 | 2.3 | 1.7 | 1.0 | 1.0 | 1.0 |
| V18-3081HP | 3.3 | 1.7 | 2.2 | 1.0 | 1.0 | 1.0 | 1.0 |
| | | | | | | | |
| Mean | 2.6 | 1.4 | 2.5 | 1.4 | 1.3 | 1.0 | 1.5 |
| LSD(0.05) | 1.3 | 0.8 | 0.5 | 0.7 | 0.5 | . | 0.6 |
| CV(%) | 29.1 | 34.3 | 13.3 | 27.8 | 21.3 | 0.0 | 22.0 |

***TABLE 21 - PLANT LODGING (1-5) (continued)***
***UNIFORM GROUP IV-S-LATE 2023***

| STRAIN/ VARIETY | Portageville, MO(A) | Portageville, MO(B) | Springfield, TN | Starkville, MS | Stoneville, MS | Stuttgart, AR | Warsaw, VA | Test Mean |
|---|---|---|---|---|---|---|---|---|
| S16-7922 | 1.3 | 2.0 | 1.3 | . | 1.2 | 1.0 | 2.0 | 2.0 |
| AG46X6 | 1.7 | 1.3 | 1.3 | . | 2.0 | 1.0 | 1.0 | 1.5 |
| AG48X9 | 1.3 | 1.3 | 1.0 | . | 1.7 | 1.0 | 1.3 | 1.3 |
| AG48XF2 | 1.0 | 2.3 | 1.3 | . | 2.0 | 1.0 | 1.7 | 1.6 |
| DA1541-102F | 1.0 | 1.0 | 2.2 | . | 1.0 | 1.0 | 1.0 | 1.3 |
| DA1601-18 | 1.0 | 1.0 | 2.0 | . | 1.0 | 1.0 | 1.0 | 1.2 |
| DA1643-01-10 | 1.0 | 1.0 | 2.5 | . | 1.0 | 1.0 | 1.0 | 1.3 |
| DS1061-25 | 1.0 | 1.0 | 2.0 | . | 2.2 | 1.0 | 1.3 | 1.5 |
| K19-2402 | 1.7 | 2.0 | 1.5 | . | 1.5 | 1.0 | 1.0 | 1.4 |
| R19-39444 | 1.7 | 1.7 | 1.5 | . | 2.0 | 1.0 | 1.3 | 1.6 |
| S19-12409 | 2.0 | 2.3 | 2.0 | . | 1.8 | 1.3 | 1.7 | 2.1 |
| S19-12459 | 1.3 | 1.3 | 2.0 | . | 1.8 | 1.0 | 2.0 | 1.8 |
| S19-14058 | 1.0 | 2.0 | 2.0 | . | 1.2 | 1.0 | 1.7 | 1.8 |
| TN18-4110b | 1.0 | 1.0 | 1.5 | . | 1.0 | 1.0 | 1.3 | 1.4 |
| V16-0248DI | 1.0 | 1.0 | 2.2 | . | 1.0 | 1.0 | 1.0 | 1.4 |
| V16-0293 | 1.7 | 2.7 | 2.2 | . | 1.7 | 1.0 | 1.3 | 1.6 |
| V18-3081HP | 1.7 | 2.0 | 2.0 | . | 1.8 | 1.0 | 1.0 | 1.6 |
| | | | | | | | | |
| Mean | 1.3 | 1.6 | 1.8 | . | 1.5 | 1.0 | 1.3 | 1.6 |
| LSD(0.05) | 0.6 | 0.8 | 0.8 | . | 0.4 | 0.2 | 0.7 | 0.3 |
| CV(%) | 25.7 | 30.7 | 25.2 | . | 15.3 | 13.9 | 31.2 | 33.4 |

***TABLE 22 - SEED QUALITY (1-5)***
***UNIFORM GROUP IV-S-LATE 2023***

| STRAIN/ VARIETY | Belle Mina, AL | Bossier City, LA | Knoxville, TN | Marianna, AR | McCune, KS | Orange, VA | Pittsburg, KS |
|---|---|---|---|---|---|---|---|
| S16-7922 | 4.7 | 1.0 | 1.5 | 2.0 | 2.0 | 1.0 | 1.0 |
| AG46X6 | 1.3 | 1.0 | 1.5 | 2.0 | 1.0 | 1.3 | 1.0 |
| AG48X9 | 1.3 | 1.0 | 1.8 | 1.7 | 2.0 | 1.3 | 2.0 |
| AG48XF2 | 1.0 | 1.0 | 1.5 | 1.7 | 2.0 | 1.0 | 1.0 |
| DA1541-102F | 1.0 | 1.0 | 1.5 | 2.0 | 2.0 | 1.0 | 2.0 |
| DA1601-18 | 1.0 | 1.0 | 1.5 | 1.3 | 2.0 | 1.0 | 2.0 |
| DA1643-01-10 | 1.0 | 1.0 | 1.7 | 1.3 | 1.0 | 1.0 | 2.0 |
| DS1061-25 | 1.0 | 2.0 | 1.5 | 1.7 | 2.0 | 1.0 | 2.0 |
| K19-2402 | 1.5 | 3.0 | 1.8 | 2.3 | 1.0 | 1.7 | 1.0 |
| R19-39444 | 1.0 | 2.0 | 1.5 | 2.0 | 2.0 | 1.0 | 2.0 |
| S19-12409 | 1.3 | 2.0 | 1.8 | 2.3 | 2.0 | 3.0 | 2.0 |
| S19-12459 | 1.3 | 3.0 | 1.8 | 2.0 | 2.0 | 2.0 | 2.0 |
| S19-14058 | 1.0 | 1.0 | 1.7 | 1.3 | 2.0 | 1.0 | 2.0 |
| TN18-4110b | 1.0 | 1.0 | 1.8 | 1.7 | 1.0 | 1.0 | 1.0 |
| V16-0248DI | 1.0 | 1.0 | 1.5 | 1.7 | 2.0 | 1.0 | 2.0 |
| V16-0293 | 1.0 | 2.0 | 1.5 | 1.3 | 2.0 | 1.3 | 1.0 |
| V18-3081HP | 1.0 | 2.0 | 1.5 | 2.0 | 1.0 | 1.3 | 2.0 |
| | | | | | | | |
| Mean | 1.3 | 1.5 | 1.6 | 1.8 | 1.7 | 1.3 | 1.6 |
| LSD(0.05) | 2.4 | . | 0.3 | 1.1 | . | 0.8 | . |
| CV(%) | 106.7 | 0.0 | 11.5 | 36.1 | . | 35.9 | . |

***TABLE 22 - SEED QUALITY (1-5) (continued)***
***UNIFORM GROUP IV-S-LATE 2023***

| STRAIN/ VARIETY | Portageville, MO(A) | Portageville, MO(B) | Springfield, TN | Starkville, MS | Stoneville, MS | Stuttgart, AR | Warsaw, VA | Test Mean |
|---|---|---|---|---|---|---|---|---|
| S16-7922 | 2.0 | 1.3 | 1.7 | . | . | 1.3 | . | 1.8 |
| AG46X6 | 2.0 | 2.3 | 1.8 | . | . | 1.7 | . | 1.6 |
| AG48X9 | 3.7 | 2.0 | 1.7 | . | . | 1.3 | . | 1.8 |
| AG48XF2 | 3.0 | 2.0 | 2.0 | . | . | 1.3 | . | 1.6 |
| DA1541-102F | 2.0 | 2.5 | 2.0 | . | . | 2.0 | . | 1.7 |
| DA1601-18 | 2.0 | 2.0 | 1.7 | . | . | 2.0 | . | 1.5 |
| DA1643-01-10 | 1.7 | 1.3 | 1.5 | . | . | 1.3 | . | 1.3 |
| DS1061-25 | 2.0 | 2.0 | 1.7 | . | . | 1.3 | . | 1.6 |
| K19-2402 | 2.7 | 2.9 | 2.0 | . | . | 2.0 | . | 2.1 |
| R19-39444 | 2.0 | 2.0 | 1.7 | . | . | 2.0 | . | 1.7 |
| S19-12409 | 3.0 | 2.3 | 1.8 | . | . | 2.0 | . | 2.2 |
| S19-12459 | 2.0 | 2.5 | 2.0 | . | . | 2.7 | . | 2.1 |
| S19-14058 | 1.7 | 1.3 | 1.5 | . | . | 1.0 | . | 1.3 |
| TN18-4110b | 2.0 | 1.4 | 1.8 | . | . | 1.0 | . | 1.4 |
| V16-0248DI | 2.0 | 1.7 | 1.7 | . | . | 1.3 | . | 1.5 |
| V16-0293 | 2.0 | 1.7 | 1.7 | . | . | 1.7 | . | 1.6 |
| V18-3081HP | 3.3 | 1.8 | 1.8 | . | . | 2.0 | . | 1.9 |
| | | | | | | | | |
| Mean | 2.3 | 1.9 | 1.8 | . | . | 1.6 | . | 1.7 |
| LSD(0.05) | 0.6 | 0.9 | 0.4 | . | . | 0.8 | . | 0.4 |
| CV(%) | 14.2 | 25.3 | 13.2 | . | . | 29.9 | . | 39.9 |

***TABLE 23 - SEED SIZE (GRAMS PER 100 SEED)***
***UNIFORM GROUP IV-S-LATE 2023***

| STRAIN/ VARIETY | Belle Mina, AL | Bossier City, LA | Knoxville, TN | Marianna, AR | McCune, KS | Orange, VA | Pittsburg, KS |
|---|---|---|---|---|---|---|---|
| S16-7922 | 14.8 | 14.0 | 12.5 | 12.7 | 12.5 | 16.3 | 13.2 |
| AG46X6 | 16.9 | 13.0 | 15.3 | 15.9 | 13.6 | 15.7 | 14.8 |
| AG48X9 | 15.4 | 13.0 | 14.4 | 13.5 | 11.7 | 14.7 | 12.7 |
| AG48XF2 | 15.9 | 14.0 | 14.9 | 14.4 | 12.4 | 14.3 | 12.4 |
| DA1541-102F | 11.5 | 13.0 | 11.0 | 11.1 | 10.6 | 15.3 | 12.3 |
| DA1601-18 | 11.1 | 12.0 | 10.9 | 11.7 | 11.1 | 13.7 | 11.5 |
| DA1643-01-10 | 12.0 | 14.0 | 10.7 | 12.5 | 10.2 | 15.0 | 11.4 |
| DS1061-25 | 14.2 | 13.5 | 11.7 | 12.4 | 11.1 | 13.3 | 12.7 |
| K19-2402 | 16.4 | 17.0 | 16.4 | 15.7 | 14.8 | 17.7 | 14.5 |
| R19-39444 | 13.6 | 14.0 | 14.1 | 14.0 | 13.4 | 16.7 | 13.8 |
| S19-12409 | 14.8 | 13.5 | 15.2 | 14.0 | 13.7 | 15.7 | 14.0 |
| S19-12459 | 16.8 | 13.0 | 16.9 | 16.3 | 14.0 | 14.0 | 14.6 |
| S19-14058 | 14.3 | 14.0 | 11.9 | 12.7 | 12.1 | 16.0 | 13.6 |
| TN18-4110b | 12.0 | 11.3 | 10.9 | 11.4 | 9.9 | 12.0 | 11.1 |
| V16-0248DI | 13.4 | 13.0 | 12.7 | 12.4 | 11.5 | 13.7 | 10.9 |
| V16-0293 | 15.4 | 15.0 | 14.4 | 15.0 | 12.7 | 16.7 | 14.4 |
| V18-3081HP | 15.1 | 16.0 | 13.9 | 14.7 | 13.0 | 14.7 | 14.7 |
| | | | | | | | |
| Mean | 14.3 | 13.7 | 13.4 | 13.6 | 12.3 | 15.0 | 13.1 |
| LSD(0.05) | 1.9 | 0.7 | 0.8 | 0.8 | . | 1.9 | . |
| CV(%) | 7.9 | 3.1 | 3.6 | 3.2 | . | 7.5 | . |

***TABLE 23 - SEED SIZE (GRAMS PER 100 SEED) (continued)***
***UNIFORM GROUP IV-S-LATE 2023***

| STRAIN/ VARIETY | Portageville, MO(A) | Portageville, MO(B) | Springfield, TN | Starkville, MS | Stoneville, MS | Stuttgart, AR | Warsaw, VA | Test Mean |
|---|---|---|---|---|---|---|---|---|
| S16-7922 | 13.2 | 12.8 | 15.6 | . | . | 14.0 | 12.7 | 13.7 |
| AG46X6 | 18.4 | 18.5 | 19.1 | . | . | 18.4 | 13.3 | 16.1 |
| AG48X9 | 16.7 | 15.5 | 16.9 | . | . | 15.6 | 12.3 | 14.4 |
| AG48XF2 | 17.4 | 16.7 | 17.0 | . | . | 16.7 | 12.3 | 15.0 |
| DA1541-102F | 12.5 | 12.2 | 12.4 | . | . | 13.2 | 11.3 | 12.2 |
| DA1601-18 | 12.9 | 11.6 | 13.6 | . | . | 12.9 | 11.0 | 12.0 |
| DA1643-01-10 | 12.6 | 12.1 | 12.7 | . | . | 13.7 | 10.7 | 12.3 |
| DS1061-25 | 14.2 | 13.5 | 14.8 | . | . | 13.6 | 11.0 | 13.0 |
| K19-2402 | 18.2 | 16.9 | 18.9 | . | . | 16.7 | 13.3 | 16.4 |
| R19-39444 | 15.8 | 15.1 | 16.1 | . | . | 15.8 | 12.3 | 14.6 |
| S19-12409 | 15.8 | 15.6 | 17.7 | . | . | 16.3 | 13.3 | 15.0 |
| S19-12459 | 17.4 | 16.7 | 19.3 | . | . | 17.4 | 14.0 | 15.9 |
| S19-14058 | 13.6 | 13.3 | 15.4 | . | . | 13.7 | 12.3 | 13.6 |
| TN18-4110b | 10.8 | 11.4 | 14.7 | . | . | 12.1 | 10.7 | 11.6 |
| V16-0248DI | 13.1 | 12.3 | 14.9 | . | . | 14.0 | 10.3 | 12.7 |
| V16-0293 | 16.2 | 16.6 | 18.2 | . | . | 16.5 | 12.7 | 15.4 |
| V18-3081HP | 15.4 | 16.1 | 17.5 | . | . | 16.4 | 12.3 | 15.0 |
| | | | | | | | | |
| Mean | 15.0 | 14.5 | 16.2 | . | . | 15.1 | 12.1 | 14.1 |
| LSD(0.05) | 1.0 | 0.7 | 1.2 | . | . | 1.0 | 1.0 | 0.7 |
| CV(%) | 3.6 | 2.6 | 4.6 | . | . | 4.0 | 4.9 | 7.6 |

***TABLE 24 - OIL (%)†***
***UNIFORM GROUP IV-S-LATE 2023***

| STRAIN/ VARIETY | Belle Mina, AL | Bossier City, LA | Knoxville, TN | Marianna, AR | McCune, KS | Orange, VA | Pittsburg, KS |
|---|---|---|---|---|---|---|---|
| S16-7922 | 20.2 | 19.7 | 20.2 | 19.2 | 18.9 | 19.7 | 19.9 |
| AG46X6 | 19.7 | 19.6 | 21.2 | 19.6 | 19.7 | 19.0 | 19.9 |
| AG48X9 | 19.9 | 19.7 | 20.7 | 19.9 | 18.7 | 19.0 | 19.5 |
| AG48XF2 | 19.7 | 20.0 | 20.7 | 19.6 | 18.8 | 19.3 | 20.2 |
| DA1541-102F | 18.0 | 18.5 | 18.2 | 19.4 | 17.5 | 18.9 | 19.0 |
| DA1601-18 | 18.7 | 19.1 | 19.6 | 18.3 | 18.6 | 19.3 | 19.4 |
| DA1643-01-10 | 19.9 | 20.1 | 19.4 | 19.5 | 18.8 | 19.8 | 19.2 |
| DS1061-25 | 20.3 | 19.1 | 20.4 | 19.2 | 19.3 | 20.1 | 20.0 |
| K19-2402 | 19.5 | 19.2 | 19.9 | 18.8 | 19.6 | 19.4 | 19.2 |
| R19-39444 | 19.4 | 20.0 | 20.9 | 19.0 | 18.4 | 18.2 | 19.4 |
| S19-12409 | 18.6 | 19.5 | 19.3 | 18.4 | 18.4 | 18.1 | 18.1 |
| S19-12459 | 19.6 | 18.9 | 19.6 | 19.3 | 18.6 | 19.4 | 18.3 |
| S19-14058 | 19.3 | 19.0 | 19.0 | 18.1 | 17.7 | 18.9 | 18.8 |
| TN18-4110b | 19.6 | 20.0 | 20.1 | 19.3 | 19.3 | 19.6 | 19.8 |
| V16-0248DI | 18.7 | 19.1 | 19.0 | 18.4 | 18.1 | 19.5 | 18.4 |
| V16-0293 | 19.8 | 19.6 | 20.8 | 19.5 | 18.9 | 19.3 | 19.6 |
| V18-3081HP | 19.2 | 19.3 | 20.6 | 19.4 | 18.5 | 19.5 | 18.9 |
| Mean | 19.4 | 19.4 | 20.0 | 19.1 | 18.7 | 19.2 | 19.3 |
| LSD(0.05) | . | . | . | . | . | . | . |
| CV(%) | . | . | . | . | . | . | . |

†Oil percentage is reported on a 13% moisture basis beginning in 2015.

*TABLE 24 - OIL (%)† (continued)*
*UNIFORM GROUP IV-S-LATE 2023*

| STRAIN/ VARIETY | Portageville, MO(A) | Portageville, MO(B) | Springfield, TN | Starkville, MS | Stoneville, MS | Stuttgart, AR | Warsaw, VA | Test Mean |
|---|---|---|---|---|---|---|---|---|
| S16-7922 | 19.3 | 18.9 | 18.8 | . | 20.1 | 20.2 | 19.4 | 19.6 |
| AG46X6 | 18.7 | 18.8 | 19.8 | . | 20.0 | 18.9 | 18.9 | 19.5 |
| AG48X9 | 18.8 | 19.1 | 19.8 | . | 20.8 | 20.3 | 18.3 | 19.6 |
| AG48XF2 | 18.9 | 19.2 | 19.7 | . | 19.9 | 18.6 | 18.9 | 19.5 |
| DA1541-102F | 18.6 | 18.2 | 18.5 | . | 17.7 | 19.1 | 18.3 | 18.5 |
| DA1601-18 | 19.3 | 18.9 | 18.9 | . | 19.6 | 19.2 | 19.2 | 19.1 |
| DA1643-01-10 | 19.1 | 18.8 | 18.9 | . | 20.4 | 19.7 | 19.5 | 19.5 |
| DS1061-25 | 19.1 | 19.3 | 19.9 | . | 19.0 | 20.0 | 19.9 | 19.7 |
| K19-2402 | 18.4 | 18.7 | 19.2 | . | 18.8 | 18.5 | 18.9 | 19.1 |
| R19-39444 | 18.5 | 19.2 | 19.4 | . | 19.5 | 20.1 | 19.4 | 19.3 |
| S19-12409 | 17.8 | 18.2 | 18.4 | . | 18.7 | 18.9 | 18.1 | 18.5 |
| S19-12459 | 18.4 | 18.1 | 18.7 | . | 19.5 | 19.9 | 18.5 | 19.0 |
| S19-14058 | 18.2 | 18.2 | 18.7 | . | 19.2 | 19.2 | 18.6 | 18.7 |
| TN18-4110b | 19.3 | 19.1 | 18.2 | . | 19.8 | 20.0 | 19.6 | 19.5 |
| V16-0248DI | 18.6 | 18.5 | 18.3 | . | 19.0 | 18.9 | 18.7 | 18.7 |
| V16-0293 | 18.8 | 19.2 | 19.0 | . | 20.2 | 19.9 | 19.4 | 19.5 |
| V18-3081HP | 18.9 | 18.9 | 18.3 | . | 19.7 | 19.2 | 19.5 | 19.2 |
| Mean | 18.7 | 18.8 | 19.0 | . | 19.5 | 19.4 | 19.0 | 19.2 |
| LSD(0.05) | . | . | . | . | . | . | . | 0.3 |
| CV(%) | . | . | . | . | . | . | . | 2.2 |

***TABLE 25 - PROTEIN (%)†***
***UNIFORM GROUP IV-S-LATE 2023***

| STRAIN/ VARIETY | Belle Mina, AL | Bossier City, LA | Knoxville, TN | Marianna, AR | McCune, KS | Orange, VA | Pittsburg, KS |
|---|---|---|---|---|---|---|---|
| S16-7922 | 34.5 | 37.6 | 34.7 | 36.0 | 35.8 | 33.9 | 33.8 |
| AG46X6 | 35.3 | 36.1 | 33.3 | 35.9 | 35.1 | 33.5 | 34.3 |
| AG48X9 | 35.0 | 36.9 | 34.6 | 36.3 | 36.5 | 34.6 | 33.9 |
| AG48XF2 | 34.8 | 35.2 | 33.5 | 35.6 | 36.0 | 32.8 | 32.9 |
| DA1541-102F | 36.3 | 38.5 | 36.4 | 36.4 | 38.4 | 34.7 | 35.0 |
| DA1601-18 | 36.6 | 37.9 | 34.6 | 37.0 | 36.7 | 33.7 | 34.6 |
| DA1643-01-10 | 36.0 | 36.7 | 35.7 | 35.6 | 36.6 | 33.2 | 34.7 |
| DS1061-25 | 35.4 | 38.2 | 34.7 | 36.3 | 35.9 | 34.2 | 34.3 |
| K19-2402 | 36.1 | 38.2 | 35.7 | 36.9 | 35.6 | 34.2 | 35.5 |
| R19-39444 | 34.4 | 34.8 | 34.7 | 35.3 | 36.3 | 36.6 | 33.4 |
| S19-12409 | 35.7 | 35.4 | 36.1 | 36.0 | 36.1 | 35.5 | 35.9 |
| S19-12459 | 37.0 | 38.2 | 36.9 | 37.4 | 38.5 | 34.5 | 37.0 |
| S19-14058 | 35.0 | 37.2 | 35.3 | 37.1 | 37.3 | 33.9 | 34.7 |
| TN18-4110b | 35.9 | 36.7 | 35.2 | 35.8 | 36.4 | 33.6 | 34.7 |
| V16-0248DI | 36.6 | 37.5 | 36.8 | 36.6 | 37.8 | 34.1 | 36.5 |
| V16-0293 | 35.9 | 37.8 | 33.5 | 35.8 | 36.0 | 33.9 | 33.7 |
| V18-3081HP | 36.7 | 38.5 | 34.5 | 36.5 | 37.1 | 34.2 | 35.6 |
| Mean | 35.7 | 37.1 | 35.1 | 36.3 | 36.6 | 34.2 | 34.7 |
| LSD(0.05) | . | . | . | . | . | . | . |
| CV(%) | . | . | . | . | . | . | . |

†Protein percentage reported on a 13% moisture basis beginning in 2015.

***TABLE 25 - PROTEIN (%)† (continued)***
***UNIFORM GROUP IV-S-LATE 2023***

| STRAIN/ VARIETY | Portageville, MO(A) | Portageville, MO(B) | Springfield, TN | Starkville, MS | Stoneville, MS | Stuttgart, AR | Warsaw, VA | Test Mean |
|---|---|---|---|---|---|---|---|---|
| S16-7922 | 34.8 | 35.8 | 34.8 | . | 35.6 | 35.4 | 34.9 | 35.2 |
| AG46X6 | 37.0 | 37.2 | 34.3 | . | 34.1 | 35.5 | 35.8 | 35.2 |
| AG48X9 | 36.7 | 36.3 | 34.7 | . | 33.6 | 34.6 | 36.5 | 35.4 |
| AG48XF2 | 36.2 | 35.2 | 33.8 | . | 34.2 | 35.6 | 35.3 | 34.7 |
| DA1541-102F | 36.9 | 36.6 | 35.8 | . | 37.2 | 36.7 | 35.9 | 36.5 |
| DA1601-18 | 35.1 | 35.8 | 34.7 | . | 35.5 | 36.4 | 34.8 | 35.6 |
| DA1643-01-10 | 35.1 | 35.7 | 34.6 | . | 35.1 | 35.6 | 34.5 | 35.3 |
| DS1061-25 | 37.0 | 36.5 | 34.2 | . | 36.8 | 35.7 | 34.5 | 35.7 |
| K19-2402 | 36.5 | 36.7 | 35.9 | . | 36.3 | 37.7 | 36.7 | 36.3 |
| R19-39444 | 36.3 | 34.9 | 33.8 | . | 35.5 | 34.5 | 34.4 | 35.0 |
| S19-12409 | 36.5 | 36.1 | 36.0 | . | 35.8 | 35.5 | 36.4 | 35.9 |
| S19-12459 | 37.2 | 38.5 | 37.1 | . | 35.4 | 36.9 | 38.0 | 37.1 |
| S19-14058 | 36.0 | 35.8 | 35.0 | . | 35.7 | 35.9 | 36.0 | 35.8 |
| TN18-4110b | 35.9 | 36.0 | 36.4 | . | 35.8 | 35.2 | 35.7 | 35.6 |
| V16-0248DI | 36.7 | 37.0 | 37.7 | . | 36.8 | 37.4 | 36.2 | 36.7 |
| V16-0293 | 36.1 | 35.1 | 36.1 | . | 35.4 | 35.6 | 35.6 | 35.4 |
| V18-3081HP | 35.5 | 36.9 | 36.9 | . | 36.1 | 36.6 | 35.8 | 36.2 |
| Mean | 36.2 | 36.2 | 35.4 | . | 35.6 | 35.9 | 35.7 | 35.7 |
| LSD(0.05) | . | . | . | . | . | . | . | 0.6 |
| CV(%) | . | . | . | . | . | . | . | 2.0 |

***TABLE 26 - ESTIMATED MEAL PROTEIN (%)†***
***UNIFORM GROUP IV-S-LATE 2023***

| STRAIN/ VARIETY | Belle Mina, AL | Bossier City, LA | Knoxville, TN | Marianna, AR | McCune, KS | Orange, VA | Pittsburg, KS |
|---|---|---|---|---|---|---|---|
| S16-7922 | 47.0 | 50.9 | 47.3 | 48.4 | 48.0 | 46.0 | 45.9 |
| AG46X6 | 47.8 | 48.7 | 45.9 | 48.6 | 47.4 | 45.0 | 46.6 |
| AG48X9 | 47.5 | 50.0 | 47.5 | 49.3 | 48.8 | 46.4 | 45.8 |
| AG48XF2 | 47.0 | 47.8 | 46.0 | 48.1 | 48.2 | 44.2 | 44.8 |
| DA1541-102F | 48.1 | 51.3 | 48.4 | 49.0 | 50.6 | 46.5 | 47.0 |
| DA1601-18 | 49.0 | 50.9 | 46.8 | 49.3 | 49.0 | 45.4 | 46.6 |
| DA1643-01-10 | 48.8 | 49.9 | 48.1 | 48.1 | 49.0 | 45.1 | 46.7 |
| DS1061-25 | 48.2 | 51.3 | 47.3 | 48.8 | 48.3 | 46.6 | 46.6 |
| K19-2402 | 48.7 | 51.3 | 48.5 | 49.4 | 48.1 | 46.1 | 47.8 |
| R19-39444 | 46.3 | 47.2 | 47.6 | 47.3 | 48.4 | 48.6 | 45.0 |
| S19-12409 | 47.6 | 47.8 | 48.7 | 47.9 | 48.0 | 47.1 | 47.6 |
| S19-12459 | 50.0 | 51.2 | 49.9 | 50.4 | 51.3 | 46.5 | 49.2 |
| S19-14058 | 47.2 | 49.9 | 47.4 | 49.2 | 49.2 | 45.4 | 46.5 |
| TN18-4110b | 48.6 | 49.9 | 47.9 | 48.2 | 49.0 | 45.4 | 46.9 |
| V16-0248DI | 48.9 | 50.3 | 49.4 | 48.8 | 50.1 | 46.0 | 48.6 |
| V16-0293 | 48.6 | 51.1 | 45.9 | 48.3 | 48.2 | 45.6 | 45.6 |
| V18-3081HP | 49.4 | 51.8 | 47.1 | 49.2 | 49.5 | 46.2 | 47.7 |
| Mean | 48.2 | 50.1 | 47.6 | 48.7 | 48.9 | 46.0 | 46.8 |
| LSD(0.05) | . | . | . | . | . | . | . |
| CV(%) | . | . | . | . | . | . | . |

***TABLE 26 - ESTIMATED MEAL PROTEIN (%)† (continued)***
***UNIFORM GROUP IV-S-LATE 2023***

| STRAIN/ VARIETY | Portageville, MO(A) | Portageville, MO(B) | Springfield, TN | Starkville, MS | Stoneville, MS | Stuttgart, AR | Warsaw, VA | Test Mean |
|---|---|---|---|---|---|---|---|---|
| S16-7922 | 46.8 | 48.0 | 46.6 | . | 48.4 | 48.2 | 47.1 | 47.6 |
| AG46X6 | 49.4 | 49.8 | 46.4 | . | 46.3 | 47.6 | 48.0 | 47.5 |
| AG48X9 | 49.1 | 48.7 | 47.1 | . | 46.0 | 47.1 | 48.5 | 47.8 |
| AG48XF2 | 48.6 | 47.4 | 45.7 | . | 46.4 | 47.6 | 47.2 | 46.8 |
| DA1541-102F | 49.2 | 48.6 | 47.7 | . | 49.1 | 49.3 | 47.8 | 48.7 |
| DA1601-18 | 47.2 | 47.9 | 46.4 | . | 48.0 | 49.0 | 46.9 | 47.9 |
| DA1643-01-10 | 47.1 | 47.7 | 46.4 | . | 48.0 | 48.3 | 46.5 | 47.7 |
| DS1061-25 | 49.7 | 49.1 | 46.4 | . | 49.5 | 48.5 | 46.8 | 48.2 |
| K19-2402 | 48.7 | 49.0 | 48.3 | . | 48.7 | 50.3 | 49.2 | 48.8 |
| R19-39444 | 48.4 | 46.9 | 45.5 | . | 47.9 | 46.9 | 46.3 | 47.1 |
| S19-12409 | 48.2 | 48.0 | 47.9 | . | 47.8 | 47.6 | 48.3 | 47.9 |
| S19-12459 | 49.5 | 51.1 | 49.5 | . | 47.8 | 50.1 | 50.7 | 49.8 |
| S19-14058 | 47.9 | 47.5 | 46.8 | . | 47.9 | 48.3 | 48.0 | 47.8 |
| TN18-4110b | 48.3 | 48.4 | 48.4 | . | 48.4 | 47.9 | 48.2 | 48.1 |
| V16-0248DI | 49.0 | 49.3 | 50.2 | . | 49.4 | 50.2 | 48.4 | 49.1 |
| V16-0293 | 48.2 | 47.2 | 48.4 | . | 48.2 | 48.3 | 48.1 | 47.8 |
| V18-3081HP | 47.6 | 49.5 | 49.1 | . | 48.9 | 49.2 | 48.4 | 48.7 |
| Mean | 48.4 | 48.5 | 47.5 | . | 48.0 | 48.5 | 47.9 | 48.1 |
| LSD(0.05) | . | . | . | . | . | . | . | 0.6 |
| CV(%) | . | . | . | . | . | . | . | 1.7 |

## *SUMMARY OF SEED FATTY ACIDS (%)*
## *UNIFORM TEST IV-S-LATE 2023 †*

| STRAIN/ VARIETY | Palmitic Acid | Stearic Acid | Oleic Acid | Linoleic Acid | Linolenic Acid |
|---|---|---|---|---|---|
| S16-7922 | 10.9 | 3.3 | 26.1 | 53.9 | 5.8 |
| AG46X6 | 11.9 | 3.9 | 19.9 | 57.3 | 7.1 |
| TN18-4110b | 7.6 | 2.8 | 82.6 | 4.8 | 2.2 |
| | | | | | |
| Mean | 10.2 | 3.3 | 42.9 | 38.7 | 5.0 |
| LSD(0.05) | 0.2 | 0.2 | 1.3 | 1.2 | 0.3 |
| CV(%) | 2.5 | 5.6 | 3.5 | 3.7 | 6.9 |

†Fatty acid percentage in seed oil reported beginning in 2017.

## *SEED PALMITIC ACID (%)*
## *UNIFORM GROUP IV-S-LATE 2023*

| STRAIN/ VARIETY | Belle Mina, AL | Bossier City, LA | Knoxville, TN | Marianna, AR | McCune, KS | Orange, VA | Pittsburg, KS |
|---|---|---|---|---|---|---|---|
| S16-7922 | 10.8 | 11.9 | 11.0 | 10.3 | 11.3 | 10.9 | 10.2 |
| AG46X6 | 12.2 | 12.3 | 12.3 | 11.4 | 11.7 | 12.0 | 11.6 |
| TN18-4110b | 7.5 | 8.1 | 7.7 | 7.3 | 7.5 | 7.7 | 7.0 |
| | | | | | | | |
| Mean | 10.2 | 10.8 | 10.3 | 9.7 | 10.2 | 10.2 | 9.6 |
| LSD(0.05) | . | . | . | . | . | . | . |
| CV(%) | . | . | . | . | . | . | . |

## *SEED STEARIC ACID (%)*
## *UNIFORM GROUP IV-S-LATE 2023*

| STRAIN/ VARIETY | Belle Mina, AL | Bossier City, LA | Knoxville, TN | Marianna, AR | McCune, KS | Orange, VA | Pittsburg, KS |
|---|---|---|---|---|---|---|---|
| S16-7922 | 3.1 | 3.0 | 3.3 | 3.3 | 4.4 | 3.5 | 3.6 |
| AG46X6 | 3.7 | 3.4 | 4.0 | 3.7 | 4.5 | 4.1 | 4.3 |
| TN18-4110b | 2.6 | 2.6 | 2.8 | 2.4 | 3.5 | 2.6 | 2.8 |
| | | | | | | | |
| Mean | 3.1 | 3.0 | 3.4 | 3.1 | 4.1 | 3.4 | 3.6 |
| LSD(0.05) | . | . | . | . | . | . | . |
| CV(%) | . | . | . | . | . | . | . |

***SEED PALMITIC ACID (%) (continued)***
***UNIFORM GROUP IV-S-LATE 2023***

| STRAIN/ VARIETY | Portageville, MO(A) | Portageville, MO(B) | Springfield, TN | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|
| S16-7922 | 10.9 | 10.8 | 10.6 | 11.5 | 10.9 | 10.9 |
| AG46X6 | 11.6 | 12.2 | 12.0 | 12.3 | 11.3 | 11.9 |
| TN18-4110b | 7.6 | 7.6 | 8.0 | 7.9 | 7.6 | 7.6 |
| Mean | 10.0 | 10.2 | 10.2 | 10.6 | 9.9 | 10.2 |
| LSD(0.05) | . | . | . | . | . | 0.2 |
| CV(%) | . | . | . | . | . | 2.5 |

***SEED STEARIC ACID (%) (continued)***
***UNIFORM GROUP IV-S-LATE 2023***

| STRAIN/ VARIETY | Portageville, MO(A) | Portageville, MO(B) | Springfield, TN | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|
| S16-7922 | 3.3 | 3.3 | 3.2 | 2.6 | 3.1 | 3.3 |
| AG46X6 | 4.0 | 3.6 | 4.0 | 3.7 | 3.5 | 3.9 |
| TN18-4110b | 2.8 | 2.7 | 3.0 | 2.6 | 2.7 | 2.8 |
| Mean | 3.4 | 3.2 | 3.4 | 3.0 | 3.1 | 3.3 |
| LSD(0.05) | . | . | . | . | . | 0.2 |
| CV(%) | . | . | . | . | . | 5.6 |

***SEED OLEIC ACID (%)***
***UNIFORM GROUP IV-S-LATE 2023***

| STRAIN/ VARIETY | Belle Mina, AL | Bossier City, LA | Knoxville, TN | Marianna, AR | McCune, KS | Orange, VA | Pittsburg, KS |
|---|---|---|---|---|---|---|---|
| S16-7922 | 28.8 | 27.4 | 25.3 | 28.0 | 26.0 | 22.3 | 28.6 |
| AG46X6 | 19.9 | 20.9 | 19.9 | 19.5 | 21.8 | 19.1 | 21.2 |
| TN18-4110b | 85.7 | 84.4 | 81.6 | 83.8 | 81.5 | 81.1 | 83.0 |
| Mean | 44.8 | 44.2 | 42.3 | 43.8 | 43.1 | 40.8 | 44.3 |
| LSD(0.05) | . | . | . | . | . | . | . |
| CV(%) | . | . | . | . | . | . | . |

***SEED LINOLEIC ACID (%)***
***UNIFORM GROUP IV-S-LATE 2023***

| STRAIN/ VARIETY | Belle Mina, AL | Bossier City, LA | Knoxville, TN | Marianna, AR | McCune, KS | Orange, VA | Pittsburg, KS |
|---|---|---|---|---|---|---|---|
| S16-7922 | 52.3 | 53.0 | 54.1 | 52.6 | 52.4 | 56.7 | 52.0 |
| AG46X6 | 57.5 | 57.4 | 56.6 | 58.3 | 55.3 | 57.0 | 55.5 |
| TN18-4110b | . | 3.1 | 5.5 | 4.5 | 5.2 | 6.1 | 5.0 |
| Mean | 37.4 | 37.8 | 38.7 | 38.5 | 37.6 | 39.9 | 37.5 |
| LSD(0.05) | . | . | . | . | . | . | . |
| CV(%) | . | . | . | . | . | . | . |

***SEED LINOLENIC ACID (%)***
***UNIFORM GROUP IV-S-LATE 2023***

| STRAIN/ VARIETY | Belle Mina, AL | Bossier City, LA | Knoxville, TN | Marianna, AR | McCune, KS | Orange, VA | Pittsburg, KS |
|---|---|---|---|---|---|---|---|
| S16-7922 | 5.0 | 4.7 | 6.3 | 5.7 | 5.9 | 6.6 | 5.6 |
| AG46X6 | 6.7 | 6.0 | 7.3 | 7.1 | 6.8 | 7.8 | 7.3 |
| TN18-4110b | 1.8 | 1.8 | 2.4 | 2.0 | 2.3 | 2.4 | 2.1 |
| Mean | 4.5 | 4.2 | 5.3 | 4.9 | 5.0 | 5.6 | 5.0 |
| LSD(0.05) | . | . | . | . | . | . | . |
| CV(%) | . | . | . | . | . | . | . |

***SEED OLEIC ACID (%) (continued)***
***UNIFORM GROUP IV-S-LATE 2023***

| STRAIN/ VARIETY | Portageville, MO(A) | Portageville, MO(B) | Springfield, TN | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|
| S16-7922 | 22.0 | 26.0 | 22.0 | 27.3 | 29.2 | 26.1 |
| AG46X6 | 20.3 | 18.3 | 19.5 | 18.8 | 19.6 | 19.9 |
| TN18-4110b | 81.6 | 81.2 | 81.3 | 83.1 | 83.0 | 82.6 |
| Mean | 41.3 | 41.8 | 40.9 | 43.1 | 43.9 | 42.9 |
| LSD(0.05) | . | . | . | . | . | 1.3 |
| CV(%) | . | . | . | . | . | 3.5 |

***SEED LINOLEIC ACID (%) (continued)***
***UNIFORM GROUP IV-S-LATE 2023***

| STRAIN/ VARIETY | Portageville, MO(A) | Portageville, MO(B) | Springfield, TN | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|
| S16-7922 | 57.7 | 53.8 | 56.7 | 53.8 | 51.9 | 53.9 |
| AG46X6 | 56.8 | 58.2 | 57.0 | 58.8 | 58.9 | 57.3 |
| TN18-4110b | 5.6 | 6.1 | 5.1 | 4.8 | 4.6 | 4.8 |
| Mean | 40.0 | 39.4 | 39.6 | 39.1 | 38.5 | 38.7 |
| LSD(0.05) | . | . | . | . | . | 1.2 |
| CV(%) | . | . | . | . | . | 3.7 |

***SEED LINOLENIC ACID (%) (continued)***
***UNIFORM GROUP IV-S-LATE 2023***

| STRAIN/ VARIETY | Portageville, MO(A) | Portageville, MO(B) | Springfield, TN | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|
| S16-7922 | 6.1 | 6.1 | 7.5 | 4.7 | 5.0 | 5.8 |
| AG46X6 | 7.3 | 7.8 | 7.5 | 6.4 | 6.6 | 7.1 |
| TN18-4110b | 2.4 | 2.3 | 2.6 | 1.7 | 2.0 | 2.2 |
| Mean | 5.3 | 5.4 | 5.9 | 4.3 | 4.5 | 5.0 |
| LSD(0.05) | . | . | . | . | . | 0.3 |
| CV(%) | . | . | . | . | . | 6.9 |

***TABLE 27 - PARENTAGE OF ENTRIES***
***PRELIMINARY GROUP IV-S-EARLY 2023***

| Ent | Strain/Variety | Parentage | Source | Fn | Trans-genic† | Special Traits‡ |
|---|---|---|---|---|---|---|
| 1 | AG43XF2 | Commercial check | check | | RR2, LL, DIC | |
| 2 | AG38XF1 | Commercial check | check | | RR2, LL, DIC | |
| 3 | LD15-3818 | Commercial check | check | | | |
| 4 | S13-3851C | Commercial check | check | | | |
| 5 | JT22-4004 | LG05-2870-3-1 x PI 494182 | Smallwood | F6 | | unique SCN, diversity, 75% exotic |
| 6 | K20-1313 | 46X714 / KS4117Ns | Schapaugh | F5 | | |
| 7 | K20-2499 | e4993 / KS4117Ns | Schapaugh | F5 | | |
| 8 | K20-4064 | 49X715 / KS4117Ns | Schapaugh | F5 | | |
| 9 | K20-4938 | 46X714 / HM11-W192 | Schapaugh | F5 | | |
| 10 | K20-4994 | 46X714 / HM11-W192 | Schapaugh | F5 | | |
| 11 | LG18-2475 | LD09-30015 x LG11-6205 | Mahan | | | Genetic diversity. 26% exotic |
| 12 | R19C-1012 | S09-13635 / R11-328 | Vieira | F4:5 | | |
| 13 | R19C-1035 | S09-13635 / R11-328 | Vieira | F4:5 | | |
| 14 | R19C-1081 | S09-13635 / R11-328 | Vieira | F4:5 | | |
| 15 | S20-12454 | G13LL-44 x S13-10590C | Shannon | | LL | SCN,RKN,SC,PRR,BSR,Salt Excluder |
| 16 | S20-17501 | PR17-540 x SA15-740PR | Shannon | | RR1 | SC,BSR, HOLN |
| 17 | S20-17527 | PR17-540 x SA15-740PR | Shannon | | RR1 | RKN,SC,BSR, HOLN |
| 18 | S20-18805 | PR17-629 x SA15-617F | Shannon | | RR1 | RKN,SC,BSR, HOLN |
| 19 | S20-2227 | S13-10590C x SA13-2699 | Shannon | | | SCN,SC |
| 20 | TN21-4660 | DA10x30-09F x TN15-4011 | Pantalone | | | |
| 21 | TN21-4668 | DA10x30-09F x TN15-4011 | Pantalone | | | |
| 22 | TN21-5005 | S13-10590 x Ellis-HOLL | Pantalone | | | HOLN |
| 23 | TN21-5016 | SA12-1451 x TN15-5005 | Pantalone | | | low LN |
| 24 | TN21-5050 | TN09-008 x S13-10590 | Pantalone | | | Higher protein |
| 25 | TN22-4620 | Ellis-HOLL x SA13-1310 | Pantalone | | | |
| 26 | V14-1235 | B05-8046 x S04-12996 | B. Zhang | | | |
| 27 | V18-2940OA | S11-20967 x V13-0096 | B. Zhang | | | HO |
| 28 | V18-3452HP | V11-3522 x Md 09-5148 | B. Zhang | | | High protein |
| 29 | V18-3788 | V12-0956 x V11-2187 | B. Zhang | | | |
| 30 | V18-3866 | V11-2149 x V11-3522 | B. Zhang | | | |
| 31 | V19-0064DT | Md 09-5148 x Fendou78 | B. Zhang | | | 50% exotic |

† Conv= Conventional(non-transgenic), E3= Enlist E3®, LL= Liberty Link®, RR1= Roundup Ready®, RR2=Roundup Ready 2 Yield®, and RRX= Roundup Ready 2 Xtend®

‡ AA= modified amino acids, DNC= Do not cross with this, FLS= Frogeye leaf spot resistance, LJ= Long juvenile, LN= low linolenic acid, LP= low phytate, HO= high oleic acid, HOLN= high oleic acid/low linolenic acid, SC= Southern stem canker, SCN= Soybean cyst nematode resistance, SR= Soybean rust resistance, and STS= sulfonylurea tolerant

## *TABLE 28 - GENERAL SUMMARY OF PERFORMANCE*
## *PRELIMINARY TEST IV-S-EARLY 2023*

| STRAIN/ VARIETY | SEED YIELD† | RANK | AVG. RANK | MAT. INDEX | LOD | HT | SCN Cyst Score (1-5)‡ Race 2 | Race 3 | Race 5 | SC RATING | SC SCORE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AG43XF2 | 61.3 | 2 | 8 | 0 | 1.4 | 33 | 5 | . | 5 | | . |
| AG38XF1 | 58.5 | 6 | 11 | -7 | 1.3 | 31 | 5 | . | 4 | | . |
| LD15-3818 | 53.2 | 17 | 16 | -9 | 1.2 | 26 | 4 | . | 3 | | . |
| S13-3851C | 53.1 | 18 | 16 | 0 | 1.5 | 30 | 5 | . | 5 | | . |
| JT22-4004 | 48.6 | 26 | 21 | -7 | 1.8 | 31 | 4 | . | 3 | | . |
| K20-1313 | 61.4 | 1 | 5 | 2 | 1.7 | 31 | 5 | . | 5 | | . |
| K20-2499 | 55.8 | 10 | 13 | 4 | 1.7 | 32 | 4 | . | 5 | | . |
| K20-4064 | 52.2 | 20 | 16 | -1 | 1.8 | 30 | 5 | . | 5 | | . |
| K20-4938 | 60.5 | 3 | 7 | 1 | 1.5 | 30 | 4 | . | 4 | | . |
| K20-4994 | 55.4 | 12 | 14 | 4 | 2.0 | 34 | 5 | . | 3 | | . |
| LG18-2475 | 52.5 | 19 | 17 | -8 | 1.6 | 26 | 4 | . | 3 | | . |
| R19C-1012 | 58.6 | 5 | 10 | 5 | 1.6 | 38 | 5 | . | 4 | | . |
| R19C-1035 | 58.8 | 4 | 11 | 6 | 1.9 | 36 | 5 | . | 4 | | . |
| R19C-1081 | 57.8 | 8 | 11 | 4 | 1.9 | 37 | 5 | . | 4 | | . |
| S20-12454 | 48.6 | 27 | 18 | -2 | 1.5 | 31 | 2 | . | 2 | | . |
| S20-17501 | 55.0 | 13 | 14 | 0 | 1.5 | 35 | 5 | . | 4 | | . |
| S20-17527 | 53.8 | 15 | 15 | -1 | 1.7 | 35 | 5 | . | 4 | | . |
| S20-18805 | 47.1 | 28 | 23 | -1 | 1.5 | 34 | 5 | . | 3 | | . |
| S20-2227 | 58.4 | 7 | 10 | -3 | 1.3 | 30 | 4 | . | 4 | | . |
| TN21-4660 | 55.8 | 11 | 13 | 4 | 1.6 | 32 | 3 | . | 3 | | . |
| TN21-4668 | 53.4 | 16 | 16 | 2 | 1.6 | 31 | 2 | . | 3 | | . |
| TN21-5005 | 52.1 | 21 | 19 | 11 | 2.3 | 40 | 2 | . | 1 | | . |
| TN21-5016 | 49.7 | 24 | 21 | 9 | 1.4 | 27 | 4 | . | 4 | | . |
| TN21-5050 | 42.1 | 30 | 26 | 9 | 1.4 | 23 | 1 | . | 1 | | . |
| TN22-4620 | 57.4 | 9 | 12 | 5 | 1.7 | 36 | 5 | . | 4 | | . |
| V14-1235 | 49.6 | 25 | 20 | -2 | 1.6 | 31 | 4 | . | 4 | | . |
| V18-2940OA | 34.2 | 31 | 30 | -2 | 1.5 | 30 | 3 | . | 4 | | . |
| V18-3452HP | 43.4 | 29 | 25 | -3 | 1 | 28 | 5 | . | 4 | | . |
| V18-3788 | 54.6 | 14 | 16 | 2 | 1.6 | 33 | 4 | . | 4 | | . |
| V18-3866 | 50.5 | 23 | 20 | -2 | 1.6 | 34 | 5 | . | 5 | | . |
| V19-0064DT | 51.7 | 22 | 18 | -3 | 1.5 | 32 | 3 | . | 3 | | . |
| Mean | 53.1 | . | . | 1 | 1.6 | 32 | . | . | . | | . |
| LSD(0.05) | 7.5 | . | . | 4 | 0.4 | 3 | . | . | . | | . |
| LSD(0.10) | 6.3 | . | . | . | . | . | . | . | . | | . |
| CV(%) | 14.9 | . | . | 730 | 33.0 | 10 | . | . | . | | . |

†Data not included in the mean due to CV >15%: Orange.

‡The race 2 and 5 SCN populations used in these tests were typed as HG (Heterodera glycines) Type1.2.5.7 and HG Type 2.5.7, respectively.

***TABLE 29 - GENERAL SUMMARY OF PERFORMANCE (continued)***
***PRELIMINARY TEST IV-S-EARLY 2023***

| STRAIN/ VARIETY | SEED QUALITY | SEED SIZE | PROTEIN§ % | OIL§ % | MEAL PRO% | FL COLOR | PUB. COLOR | POD COLOR |
|---|---|---|---|---|---|---|---|---|
| AG43XF2 | 1.9 | 13.4 | 33.6 | 20.6 | 46.0 | W | | |
| AG38XF1 | 1.7 | 14.8 | 34.8 | 19.8 | 47.1 | P | | |
| LD15-3818 | 2.2 | 14.6 | 34.3 | 20.6 | 46.9 | P | | |
| S13-3851C | 1.7 | 13.7 | 34.2 | 20.2 | 46.6 | P | | |
| JT22-4004 | 1.8 | 14.6 | 33.5 | 19.7 | 45.4 | P | G | |
| K20-1313 | 1.8 | 14.6 | 34.5 | 19.9 | 46.8 | | | |
| K20-2499 | 2.1 | 13.3 | 35.1 | 19.0 | 47.1 | | | |
| K20-4064 | 2.0 | 14.8 | 33.6 | 20.7 | 46.0 | | | |
| K20-4938 | 2.0 | 13.7 | 36.5 | 19.0 | 49.0 | | | |
| K20-4994 | 2.0 | 15.5 | 35.8 | 19.4 | 48.3 | | | |
| LG18-2475 | 2.1 | 12.8 | 33.0 | 20.2 | 44.9 | P | Lt | |
| R19C-1012 | 1.8 | 12.1 | 34.0 | 19.1 | 45.7 | P | G | B |
| R19C-1035 | 1.5 | 11.9 | 36.3 | 17.9 | 48.0 | W | G | B |
| R19C-1081 | 1.7 | 14.4 | 35.0 | 19.1 | 47.0 | W | G | B |
| S20-12454 | 2.2 | 15.5 | 34.7 | 20.3 | 47.3 | W | Lt | Br |
| S20-17501 | 1.9 | 13.2 | 35.3 | 20.2 | 48.1 | P | G | |
| S20-17527 | 2.0 | 11.7 | 35.7 | 19.9 | 48.4 | P | G | |
| S20-18805 | 2.4 | 14.1 | 36.0 | 20.1 | 49.0 | P | Lt | |
| S20-2227 | 1.8 | 14.9 | 34.5 | 20.3 | 47.0 | P | G | |
| TN21-4660 | 1.5 | 11.1 | 35.1 | 18.5 | 46.8 | P | T | |
| TN21-4668 | 1.5 | 11.2 | 35.4 | 18.6 | 47.2 | P | T | |
| TN21-5005 | 2.0 | 13.8 | 36.8 | 18.9 | 49.4 | W | | |
| TN21-5016 | 1.5 | 12.3 | 34.4 | 19.1 | 46.2 | W | | |
| TN21-5050 | 1.8 | 14.0 | 34.0 | 20.0 | 46.2 | P | | |
| TN22-4620 | 1.7 | 13.2 | 34.7 | 20.1 | 47.2 | P | G | |
| V14-1235 | 1.7 | 11.9 | 32.4 | 20.8 | 44.4 | P | T | |
| V18-2940OA | 1.5 | 13.1 | 35.8 | 19.9 | 48.5 | W | T | |
| V18-3452HP | 1.9 | 15.0 | 36.5 | 19.3 | 49.1 | P | LT | |
| V18-3788 | 2.0 | 12.1 | 34.2 | 20.3 | 46.6 | W | T | |
| V18-3866 | 1.8 | 12.7 | 34.2 | 19.5 | 46.1 | P | G | |
| V19-0064DT | 2.1 | 12.8 | 35.5 | 18.8 | 47.6 | P | G | |
| | | | | | | | | |
| Mean | 1.9 | 13.5 | 34.8 | 19.7 | 47.1 | | | |
| LSD(0.05) | 0.6 | 0.9 | 0.9 | 0.4 | 1 | | | |
| LSD(0.10) | . | . | . | . | . | | | |
| CV(%) | 36.8 | 7.5 | 2.5 | 2.3 | 2.2 | | | |

§ Protein percentage and oil percentage are reported on a 13% moisture basis beginning in 2015.

## *TABLE 30 - SEED YIELD (BUSHELS PER ACRE)*
## *PRELIMINARY GROUP IV-S-EARLY 2023 †*

| STRAIN/ VARIETY | Knoxville, TN | Marianna, AR * | Novelty, MO | Orange, VA | Ottawa, KS | Portageville, MO(B) * | Stoneville, MS* | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| AG43XF2 | 57.1 | 56.7 | 71.6 | 54.0 | 30.0 | 74.7 | 64.4 | 75.1 | 61.3 |
| AG38XF1 | 70.3 | 40.9 | 75.6 | 39.0 | 28.4 | 73.3 | 62.2 | 58.9 | 58.5 |
| LD15-3818 | 68.1 | 41.1 | 69.3 | 44.0 | 33.2 | 53.8 | . | 54.1 | 53.2 |
| S13-3851C | 59.6 | 45.1 | 60.5 | 51.0 | 32.2 | 59.4 | 50.9 | 64.1 | 53.1 |
| JT22-4004 | 48.2 | 39.0 | 68.0 | 34.0 | 26.2 | 51.6 | . | 59.5 | 48.6 |
| K20-1313 | 71.9 | 54.2 | 69.6 | 44.5 | 34.4 | 66.7 | 57.6 | 75.2 | 61.4 |
| K20-2499 | 64.0 | 40.2 | 68.8 | 59.3 | 31.1 | 60.9 | 58.2 | 67.7 | 55.8 |
| K20-4064 | 61.7 | 42.0 | 62.2 | 40.0 | 35.4 | 60.8 | 40.9 | 61.0 | 52.2 |
| K20-4938 | 75.7 | 49.5 | 69.5 | 45.8 | 31.0 | 66.3 | 53.5 | 78.1 | 60.5 |
| K20-4994 | 71.8 | 51.2 | 54.8 | 55.0 | 27.3 | 58.8 | 51.0 | 72.6 | 55.4 |
| LG18-2475 | 60.0 | 34.8 | 73.5 | 28.9 | 34.2 | 49.6 | . | 64.3 | 52.5 |
| R19C-1012 | 69.5 | 49.8 | 61.3 | 45.4 | 29.4 | 57.0 | 64.8 | 80.9 | 58.6 |
| R19C-1035 | 75.6 | 41.9 | 61.2 | 68.1 | 30.6 | 56.2 | 66.2 | 78.3 | 58.8 |
| R19C-1081 | 65.5 | 54.7 | 59.7 | 60.4 | 31.2 | 60.6 | 63.4 | 69.1 | 57.8 |
| S20-12454 | 39.2 | 44.5 | 62.5 | 50.3 | 31.6 | 53.9 | 46.5 | 61.9 | 48.6 |
| S20-17501 | 66.6 | 36.5 | 63.7 | 56.5 | 30.9 | 62.7 | 53.5 | 70.9 | 55.0 |
| S20-17527 | 62.0 | 45.4 | 60.0 | 54.1 | 34.1 | 59.5 | 56.5 | 58.6 | 53.8 |
| S20-18805 | 65.9 | 37.7 | 59.7 | 58.6 | 24.5 | 50.7 | 48.3 | 44.3 | 47.1 |
| S20-2227 | 79.4 | 41.4 | 68.5 | 58.7 | 32.1 | 64.3 | 52.6 | 70.2 | 58.4 |
| TN21-4660 | 78.5 | 51.7 | 52.5 | 74.1 | 24.3 | 63.2 | 54.0 | 62.9 | 55.8 |
| TN21-4668 | 73.4 | 49.9 | 54.8 | 66.0 | 25.5 | 55.5 | 57.6 | 57.4 | 53.4 |
| TN21-5005 | 69.0 | 48.5 | 50.7 | 77.9 | 22.4 | 44.0 | . | 78.7 | 52.1 |
| TN21-5016 | 60.0 | 50.1 | 58.1 | 87.1 | 23.7 | 53.1 | 49.3 | 53.2 | 49.7 |
| TN21-5050 | 38.8 | 46.9 | 50.4 | 74.0 | 24.0 | 51.0 | . | 42.2 | 42.1 |
| TN22-4620 | 62.4 | 50.5 | 63.8 | 68.3 | 23.0 | 67.7 | 65.4 | 69.0 | 57.4 |
| V14-1235 | 65.1 | 48.0 | 65.1 | 71.8 | 24.4 | 50.6 | 35.7 | 58.0 | 49.6 |
| V18-2940OA | 41.8 | 23.7 | 56.0 | 49.1 | 17.7 | 47.2 | . | 19.6 | 34.2 |
| V18-3452HP | 44.3 | 29.0 | 58.8 | 61.4 | 25.7 | 48.0 | 41.9 | 57.2 | 43.4 |
| V18-3788 | 72.6 | 45.6 | 56.4 | 57.9 | 21.7 | 62.5 | 56.1 | 67.2 | 54.6 |
| V18-3866 | 71.7 | 37.2 | 59.0 | 69.0 | 25.3 | 56.2 | 44.4 | 60.0 | 50.5 |
| V19-0064DT | 72.5 | 46.2 | 59.7 | 53.0 | 24.1 | 57.7 | 49.7 | 52.5 | 51.7 |
| | | | | | | | | | |
| Mean | 63.9 | 44.3 | 62.1 | 56.7 | 28.0 | 58.0 | 53.8 | 62.7 | 53.1 |
| LSD(0.05) | 19.0 | 10.7 | 10.1 | 25.5 | 3.1 | 7.6 | 9.1 | 8.7 | 7.5 |
| LSD(0.10) | 15.8 | 8.9 | 8.4 | 21.1 | 2.5 | 6.3 | 7.5 | 7.2 | 6.3 |
| CV(%) | 14.6 | 11.6 | 7.6 | 21.3 | 5.3 | 6.3 | 6.9 | 6.7 | 14.9 |

† Data not included in the test mean due to CV > 15%: Orange.

*Locations with obvious damage consistent with exposure to the herbicide Dicamba. The Dicamba resistant checks (all the AG lines) may have had a yield advantage.

## *TABLE 31 - RELATIVE MATURITY (DAYS EARLIER (-) OR LATER (+) THAN ENTRY 1)*
## *PRELIMINARY GROUP IV-S-EARLY 2023*

| STRAIN/ VARIETY | Knoxville, TN | Marianna, AR | Novelty, MO | Orange, VA | Ottawa, KS | Portageville, MO(B) | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| AG43XF2 | 9/26 | 9/21 | 10/7 | . | 9/26 | 10/3 | 9/15 | 9/22 | 9/26 |
| AG38XF1 | -6 | -7 | -3 | . | -5 | -4 | -20 | -4 | -7 |
| LD15-3818 | -4 | -5 | -6 | . | -11 | -1 | -33 | -5 | -9 |
| S13-3851C | 0 | 0 | 0 | . | -3 | 3 | 0 | -1 | 0 |
| JT22-4004 | -4 | -2 | -1 | . | -8 | -1 | -29 | -3 | -7 |
| K20-1313 | 1 | 3 | 3 | . | 1 | 6 | 2 | 1 | 2 |
| K20-2499 | 7 | 2 | 5 | . | 4 | 8 | 4 | 1 | 4 |
| K20-4064 | 0 | -1 | -1 | . | -2 | 2 | -6 | -2 | -1 |
| K20-4938 | 1 | 3 | 4 | . | -2 | 2 | -1 | 1 | 1 |
| K20-4994 | 2 | 8 | 4 | . | 2 | 9 | 4 | 1 | 4 |
| LG18-2475 | -1 | -5 | -3 | . | -5 | -5 | -33 | -3 | -8 |
| R19C-1012 | 4 | 10 | 6 | . | 4 | 4 | 8 | 0 | 5 |
| R19C-1035 | 7 | 8 | 7 | . | 6 | 8 | 7 | 1 | 6 |
| R19C-1081 | 2 | 6 | 5 | . | 3 | 7 | 3 | -1 | 4 |
| S20-12454 | -3 | -5 | -3 | . | -4 | -3 | 4 | -3 | -2 |
| S20-17501 | 1 | -2 | 3 | . | -1 | 1 | 0 | -2 | 0 |
| S20-17527 | -1 | -2 | 0 | . | -3 | 0 | 1 | -4 | -1 |
| S20-18805 | -2 | -1 | 0 | . | -5 | 3 | -1 | -1 | -1 |
| S20-2227 | -2 | -4 | -3 | . | -4 | 1 | -9 | -2 | -3 |
| TN21-4660 | 6 | 1 | 11 | . | 6 | 0 | 4 | 0 | 4 |
| TN21-4668 | 3 | 1 | 7 | . | 6 | 1 | 1 | -2 | 2 |
| TN21-5005 | 10 | 15 | 12 | . | 11 | 8 | . | 16 | 11 |
| TN21-5016 | 9 | 10 | 12 | . | 8 | 10 | . | 10 | 9 |
| TN21-5050 | 9 | 10 | 11 | . | 8 | 9 | . | 9 | 9 |
| TN22-4620 | 7 | 2 | 10 | . | 5 | 6 | 3 | 1 | 5 |
| V14-1235 | -3 | -3 | -3 | . | -7 | 1 | 4 | -4 | -2 |
| V18-2940OA | 1 | -3 | 6 | . | -1 | 5 | -13 | -6 | -2 |
| V18-3452HP | 0 | -2 | 1 | . | -4 | 1 | -17 | -3 | -3 |
| V18-3788 | 2 | 5 | 4 | . | 1 | 6 | 1 | -1 | 2 |
| V18-3866 | 2 | -2 | 6 | . | -4 | 2 | -12 | -3 | -2 |
| V19-0064DT | 2 | -2 | 4 | . | -5 | 0 | -17 | -2 | -3 |
| | | | | | | | | | |
| Mean | 1 | 1 | 3 | . | 0 | 3 | -5 | 0 | 1 |
| LSD(0.05) | 3 | 3 | . | . | 3 | 5 | 7 | 1 | 4 |
| CV(%) | 101 | 130 | . | . | 1426 | 82 | 67 | 1455 | 730 |

***TABLE 32 - PLANT HEIGHT (INCHES)***
***PRELIMINARY GROUP IV-S-EARLY 2023***

| STRAIN/ VARIETY | Knoxville, TN | Marianna, AR | Novelty, MO | Orange, VA | Ottawa, KS | Portageville, MO(B) | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| AG43XF2 | 28 | 37 | 37 | . | 35 | 35 | 30 | 30 | 33 |
| AG38XF1 | 31 | 31 | 36 | . | 32 | 36 | 26 | 27 | 31 |
| LD15-3818 | 29 | 26 | 34 | . | 32 | 23 | 15 | 28 | 26 |
| S13-3851C | 29 | 33 | 35 | . | 33 | 31 | 25 | 26 | 30 |
| JT22-4004 | 32 | 31 | 41 | . | 37 | 28 | 17 | 30 | 31 |
| K20-1313 | 32 | 34 | 35 | . | 32 | 27 | 25 | 30 | 31 |
| K20-2499 | 30 | 35 | 37 | . | 37 | 30 | 25 | 31 | 32 |
| K20-4064 | 31 | 30 | 35 | . | 35 | 26 | 23 | 29 | 30 |
| K20-4938 | 31 | 32 | 34 | . | 32 | 31 | 20 | 29 | 30 |
| K20-4994 | 37 | 39 | 41 | . | 37 | 32 | 20 | 33 | 34 |
| LG18-2475 | 29 | 26 | 35 | . | 31 | 24 | 14 | 25 | 26 |
| R19C-1012 | 42 | 40 | 42 | . | 42 | 37 | 30 | 35 | 38 |
| R19C-1035 | 37 | 36 | 43 | . | 39 | 34 | 28 | 35 | 36 |
| R19C-1081 | 36 | 40 | 45 | . | 40 | 37 | 27 | 33 | 37 |
| S20-12454 | 31 | 33 | 38 | . | 35 | 27 | 23 | 30 | 31 |
| S20-17501 | 38 | 35 | 41 | . | 37 | 32 | 29 | 31 | 35 |
| S20-17527 | 39 | 36 | 43 | . | 38 | 32 | 30 | 31 | 35 |
| S20-18805 | 36 | 36 | 44 | . | 38 | 27 | 26 | 32 | 34 |
| S20-2227 | 36 | 29 | 35 | . | 33 | 30 | 23 | 27 | 30 |
| TN21-4660 | 33 | 28 | 45 | . | 42 | 25 | 23 | 32 | 32 |
| TN21-4668 | 28 | 28 | 44 | . | 42 | 25 | 20 | 29 | 31 |
| TN21-5005 | 40 | 43 | 45 | . | 39 | 38 | 34 | 41 | 40 |
| TN21-5016 | 30 | 24 | 43 | . | 37 | 20 | 14 | 23 | 27 |
| TN21-5050 | 18 | 20 | 35 | . | 32 | 20 | 18 | 20 | 23 |
| TN22-4620 | 35 | 39 | 45 | . | 38 | 32 | 34 | 32 | 36 |
| V14-1235 | 35 | 32 | 38 | . | 33 | 29 | 22 | 26 | 31 |
| V18-2940OA | 32 | 32 | 41 | . | 35 | 26 | 21 | 26 | 30 |
| V18-3452HP | 25 | 29 | 37 | . | 35 | 23 | 18 | 27 | 28 |
| V18-3788 | 38 | 31 | 39 | . | 38 | 31 | 27 | 31 | 33 |
| V18-3866 | 36 | 36 | 43 | . | 39 | 27 | 26 | 30 | 34 |
| V19-0064DT | 36 | 33 | 39 | . | 37 | 27 | 24 | 29 | 32 |
| Mean | 33 | 33 | 40 | . | 36 | 29 | 24 | 29 | 32 |
| LSD(0.05) | 5 | 4 | . | . | 3 | 4 | 6 | 6 | 3 |
| CV(%) | 7 | 6 | . | . | 4 | 7 | 13 | 10 | 10 |

***TABLE 33 - PLANT LODGING (1-5)***
***PRELIMINARY GROUP IV-S-EARLY 2023***

| STRAIN/ VARIETY | Knoxville, TN | Marianna, AR | Novelty, MO | Orange, VA | Ottawa, KS | Portageville, MO(B) | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| AG43XF2 | 2.0 | 1.0 | 1.5 | 1.0 | 1.0 | 1.5 | 2.0 | 1.0 | 1.4 |
| AG38XF1 | 1.8 | 1.0 | 1.5 | 1.0 | 1.0 | 1.5 | 1.3 | 1.0 | 1.3 |
| LD15-3818 | 2.0 | 1.0 | 1.5 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.2 |
| S13-3851C | 2.5 | 2.0 | 1.5 | 1.0 | 1.0 | 1.5 | 1.3 | 1.0 | 1.5 |
| JT22-4004 | 2.8 | 3.5 | 2.0 | 1.0 | 1.0 | 2.0 | 1.0 | 1.0 | 1.8 |
| K20-1313 | 3.0 | 2.5 | 2.0 | 1.0 | 1.0 | 2.0 | 1.3 | 1.0 | 1.7 |
| K20-2499 | 2.5 | 2.0 | 2.0 | 1.0 | 1.0 | 2.5 | 1.8 | 1.0 | 1.7 |
| K20-4064 | 2.5 | 3.0 | 2.0 | 1.0 | 1.0 | 2.5 | 1.3 | 1.0 | 1.8 |
| K20-4938 | 2.8 | 2.0 | 2.0 | 1.0 | 1.0 | 1.5 | 1.0 | 1.0 | 1.5 |
| K20-4994 | 3.0 | 2.5 | 2.0 | 1.0 | 1.0 | 2.5 | 1.5 | 2.0 | 2.0 |
| LG18-2475 | 2.0 | 3.5 | 1.5 | 1.0 | 1.0 | 1.5 | 1.0 | 1.0 | 1.6 |
| R19C-1012 | 2.3 | 2.5 | 3.0 | 1.0 | 1.0 | 1.0 | 1.5 | 1.0 | 1.6 |
| R19C-1035 | 3.0 | 2.5 | 2.5 | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 1.9 |
| R19C-1081 | 3.0 | 2.5 | 4.0 | 1.0 | 1.0 | 2.0 | 1.3 | 1.0 | 1.9 |
| S20-12454 | 2.2 | 2.0 | 1.5 | 1.0 | 1.0 | 1.5 | 1.3 | 1.0 | 1.5 |
| S20-17501 | 3.0 | 2.0 | 1.5 | 1.0 | 1.0 | 1.0 | 1.5 | 1.0 | 1.5 |
| S20-17527 | 3.8 | 2.0 | 2.0 | 1.0 | 1.0 | 1.5 | 1.5 | 1.0 | 1.7 |
| S20-18805 | 2.0 | 1.5 | 2.5 | 1.0 | 1.0 | 1.5 | 1.5 | 1.0 | 1.5 |
| S20-2227 | 2.0 | 1.5 | 1.5 | 1.0 | 1.0 | 1.0 | 1.3 | 1.0 | 1.3 |
| TN21-4660 | 3.0 | 1.0 | 4.0 | 1.0 | 1.0 | 1.5 | 1.0 | 1.0 | 1.6 |
| TN21-4668 | 2.5 | 1.0 | 4.0 | 1.0 | 1.0 | 1.5 | 1.0 | 1.0 | 1.6 |
| TN21-5005 | 2.8 | 4.5 | 2.0 | 1.0 | 1.0 | 2.0 | 2.8 | 2.0 | 2.3 |
| TN21-5016 | 2.3 | 1.0 | 3.0 | 1.0 | 1.0 | 1.5 | 1.0 | 1.0 | 1.4 |
| TN21-5050 | 2.3 | 1.0 | 3.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.4 |
| TN22-4620 | 2.2 | 2.5 | 2.0 | 1.0 | 1.0 | 1.5 | 2.0 | 1.0 | 1.7 |
| V14-1235 | 3.0 | 2.0 | 2.0 | 1.0 | 1.0 | 1.5 | 1.0 | 1.0 | 1.6 |
| V18-2940OA | 3.5 | 1.0 | 2.0 | 1.0 | 1.0 | 1.5 | 1.0 | 1.0 | 1.5 |
| V18-3452HP | 2.0 | 2.0 | 1.5 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.3 |
| V18-3788 | 3.5 | 1.5 | 1.5 | 1.0 | 1.0 | 1.5 | 1.8 | 1.0 | 1.6 |
| V18-3866 | 2.5 | 2.5 | 2.0 | 1.0 | 1.0 | 1.5 | 1.0 | 1.0 | 1.6 |
| V19-0064DT | 2.7 | 1.5 | 2.5 | 1.0 | 1.0 | 1.5 | 1.0 | 1.0 | 1.5 |
| | | | | | | | | | |
| Mean | 2.6 | 2.0 | 2.2 | 1.0 | 1.0 | 1.6 | 1.3 | 1.1 | 1.6 |
| LSD(0.05) | 0.8 | 1.0 | . | . | . | 1.0 | 1.3 | . | 0.4 |
| CV(%) | 16.0 | 23.7 | . | 0.0 | 0.0 | 30.2 | 47.7 | 0.0 | 33.0 |

***TABLE 34 - SEED QUALITY (1-5)***
***PRELIMINARY GROUP IV-S-EARLY 2023***

| STRAIN/ VARIETY | Knoxville, TN | Marianna, AR | Novelty, MO | Orange, VA | Ottawa, KS | Portageville, MO(B) | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| AG43XF2 | 1.8 | 2.0 | 1.0 | 2 | 1.0 | 2.0 | . | 3.0 | 1.9 |
| AG38XF1 | 1.5 | 2.0 | 1.0 | 1 | 2.0 | 2.0 | . | 2.5 | 1.7 |
| LD15-3818 | 2.0 | 3.0 | 1.0 | 2 | 2.0 | 2.5 | . | 2.5 | 2.2 |
| S13-3851C | 1.5 | 2.0 | 1.0 | 1 | 2.0 | 2.5 | . | 2.0 | 1.7 |
| JT22-4004 | 1.5 | 2.5 | 1.0 | 1 | 2.0 | 2.0 | . | 2.5 | 1.8 |
| K20-1313 | 1.5 | 2.0 | 1.0 | 2 | 1.0 | 3.0 | . | 1.5 | 1.8 |
| K20-2499 | 1.8 | 2.0 | 1.0 | 3 | 2.0 | 2.5 | . | 2.0 | 2.1 |
| K20-4064 | 1.5 | 2.0 | 1.0 | 2 | 2.0 | 2.5 | . | 3.5 | 2.0 |
| K20-4938 | 1.5 | 2.5 | 1.0 | 2 | 2.0 | 3.0 | . | 2.0 | 2.0 |
| K20-4994 | 2.0 | 2.5 | 1.0 | 2 | 2.0 | 3.0 | . | 2.0 | 2.0 |
| LG18-2475 | 2.0 | 2.5 | 1.0 | 1 | 3.0 | 2.0 | . | 4.0 | 2.1 |
| R19C-1012 | 1.5 | 2.5 | 1.0 | 1 | 3.0 | 2.5 | . | 1.5 | 1.8 |
| R19C-1035 | 1.5 | 2.1 | 1.0 | 1 | 3.0 | 1.5 | . | 1.5 | 1.5 |
| R19C-1081 | 1.5 | 2.0 | 1.0 | 1 | 2.0 | 2.0 | . | 2.5 | 1.7 |
| S20-12454 | 1.8 | 3.0 | 1.0 | 2 | 2.0 | 1.5 | . | 4.0 | 2.2 |
| S20-17501 | 1.5 | 2.5 | 1.0 | 2 | 2.0 | 2.0 | . | 2.0 | 1.9 |
| S20-17527 | 1.5 | 2.5 | 1.0 | 2 | 2.0 | 2.0 | . | 2.5 | 2.0 |
| S20-18805 | 2.0 | 3.0 | 1.0 | 2 | 2.0 | 2.5 | . | 3.5 | 2.4 |
| S20-2227 | 1.8 | 2.5 | 1.0 | 1 | 2.0 | 1.5 | . | 3.0 | 1.8 |
| TN21-4660 | 1.5 | 2.0 | 1.0 | 1 | 2.0 | 2.0 | . | 1.0 | 1.5 |
| TN21-4668 | 1.5 | 1.5 | 1.0 | 1 | 2.0 | 2.0 | . | 1.5 | 1.5 |
| TN21-5005 | 2.0 | 2.0 | 2.0 | 1 | 4.0 | 2.5 | . | 2.0 | 2.0 |
| TN21-5016 | 1.8 | 2.0 | 1.0 | 1 | 2.0 | 2.0 | . | 1.0 | 1.5 |
| TN21-5050 | 1.8 | 1.5 | 2.0 | 1 | 1.0 | 3.0 | . | 2.0 | 1.8 |
| TN22-4620 | 1.5 | 1.5 | 1.0 | 1 | 2.0 | 2.0 | . | 3.0 | 1.7 |
| V14-1235 | 1.5 | 1.5 | 1.0 | 1 | 2.0 | 2.0 | . | 3.0 | 1.7 |
| V18-2940OA | 1.5 | 1.0 | 1.0 | 1 | 2.0 | 1.0 | . | 3.0 | 1.5 |
| V18-3452HP | 1.5 | 3.0 | 1.0 | 2 | 1.0 | 1.5 | . | 3.0 | 1.9 |
| V18-3788 | 1.5 | 2.0 | 1.0 | 2 | 3.0 | 2.0 | . | 3.0 | 2.0 |
| V18-3866 | 1.5 | 2.0 | 1.0 | 1 | 3.0 | 3.0 | . | 2.0 | 1.8 |
| V19-0064DT | 2.0 | 2.5 | 1.0 | 2 | 3.0 | 2.0 | . | 3.0 | 2.1 |
| | | | | | | | | | |
| Mean | 1.6 | 2.2 | 1.1 | 1 | 2.1 | 2.2 | . | 2.4 | 1.9 |
| LSD(0.05) | 0.4 | 1.1 | . | 1 | . | 1.8 | . | 2.1 | 0.6 |
| CV(%) | 12.2 | 23.6 | . | 48 | . | 38.9 | . | 42.1 | 36.8 |

## *TABLE 35 - SEED SIZE (GRAMS PER 100 SEED)*
## *PRELIMINARY GROUP IV-S-EARLY 2023*

| STRAIN/ VARIETY | Knoxville, TN | Marianna, AR | Novelty, MO | Orange, VA | Ottawa, KS | Portageville, MO(B) | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| AG43XF2 | 13.0 | 13.0 | 13.9 | 13 | 10.9 | 15.2 | . | 14.8 | 13.4 |
| AG38XF1 | 14.7 | 14.3 | 15.6 | 15 | 12.2 | 16.4 | . | 15.5 | 14.8 |
| LD15-3818 | 15.4 | 13.9 | 14.9 | 16 | 11.8 | 15.5 | . | 15.4 | 14.6 |
| S13-3851C | 13.5 | 14.9 | 14.7 | 13 | 11.6 | 15.3 | . | 13.9 | 13.7 |
| JT22-4004 | 14.1 | 14.9 | 15.7 | 16 | 11.6 | 15.0 | . | 15.9 | 14.6 |
| K20-1313 | 14.4 | 14.8 | 15.9 | 15 | 11.2 | 16.0 | . | 15.2 | 14.6 |
| K20-2499 | 13.2 | 12.7 | 14.3 | 14 | 11.3 | 13.7 | . | 15.3 | 13.3 |
| K20-4064 | 15.0 | 14.8 | 15.6 | 14 | 12.1 | 15.9 | . | 16.7 | 14.8 |
| K20-4938 | 13.4 | 13.6 | 14.6 | 13 | 11.1 | 14.4 | . | 17.1 | 13.7 |
| K20-4994 | 15.9 | 15.5 | 15.1 | 16 | 12.5 | 16.2 | . | 17.7 | 15.5 |
| LG18-2475 | 13.8 | 12.4 | 14.7 | 13 | 10.3 | 12.8 | . | 14.0 | 12.8 |
| R19C-1012 | 12.5 | 11.3 | 11.9 | 13 | 9.7 | 12.6 | . | 13.4 | 12.1 |
| R19C-1035 | 12.1 | 11.1 | 11.6 | 14 | 10.6 | 12.4 | . | 12.0 | 11.9 |
| R19C-1081 | 13.8 | 14.7 | 15.3 | 16 | 11.7 | 14.5 | . | 15.0 | 14.4 |
| S20-12454 | 17.8 | 15.0 | 16.5 | 16 | 11.7 | 15.4 | . | 15.9 | 15.5 |
| S20-17501 | 12.6 | 13.6 | 12.7 | 14 | 10.6 | 13.5 | . | 15.4 | 13.2 |
| S20-17527 | 11.8 | 12.1 | 10.9 | 12 | 9.1 | 12.0 | . | 13.4 | 11.7 |
| S20-18805 | 14.2 | 14.2 | 13.6 | 16 | 11.1 | 14.8 | . | 15.0 | 14.1 |
| S20-2227 | 15.7 | 14.5 | 14.6 | 16 | 11.6 | 15.2 | . | 16.8 | 14.9 |
| TN21-4660 | 10.8 | 11.2 | 10.6 | 13 | 9.4 | 10.9 | . | 12.2 | 11.1 |
| TN21-4668 | 11.2 | 11.0 | 9.2 | 13 | 8.8 | 11.7 | . | 13.1 | 11.2 |
| TN21-5005 | 13.2 | 13.4 | 12.9 | 17 | 11.8 | 13.1 | . | 15.7 | 13.8 |
| TN21-5016 | 12.3 | 12.8 | 10.4 | 14 | 9.7 | 13.1 | . | 13.1 | 12.3 |
| TN21-5050 | 13.9 | 13.7 | 12.3 | 16 | 10.4 | 14.5 | . | 16.4 | 14.0 |
| TN22-4620 | 12.9 | 13.0 | 12.3 | 15 | 11.1 | 14.0 | . | 14.2 | 13.2 |
| V14-1235 | 11.1 | 11.8 | 11.1 | 14 | 10.1 | 11.6 | . | 14.2 | 11.9 |
| V18-2940OA | 13.1 | 13.4 | 13.0 | 15 | 9.8 | 13.4 | . | 14.2 | 13.1 |
| V18-3452HP | 13.9 | 14.1 | 15.9 | 17 | 12.0 | 15.5 | . | 17.2 | 15.0 |
| V18-3788 | 11.8 | 11.7 | 11.9 | 13 | 8.3 | 12.4 | . | 15.3 | 12.1 |
| V18-3866 | 12.4 | 11.6 | 12.1 | 14 | 9.1 | 13.1 | . | 16.1 | 12.7 |
| V19-0064DT | 12.6 | 12.9 | 13.7 | 13 | 8.7 | 13.6 | . | 14.9 | 12.8 |
| | | | | | | | | | |
| Mean | 13.4 | 13.3 | 13.5 | 14 | 10.7 | 14.0 | . | 15.0 | 13.5 |
| LSD(0.05) | 1.4 | 0.6 | . | 2 | . | 1.2 | . | 3.2 | 0.9 |
| CV(%) | 5.1 | 2.3 | . | 7 | . | 4.2 | . | 10.4 | 7.5 |

***TABLE 36 - OIL (%)†***
***PRELIMINARY GROUP IV-S-EARLY 2023***

| STRAIN/ VARIETY | Knoxville, TN | Marianna, AR | Novelty, MO | Orange, VA | Ottawa, KS | Portageville, MO(B) | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| AG43XF2 | 21.1 | 20.6 | 19.6 | 21.4 | 20.6 | 20.2 | 20.7 | 20.3 | 20.6 |
| AG38XF1 | 20.6 | 19.9 | 19.1 | 20.2 | 19.7 | 19.3 | 20.2 | 19.2 | 19.8 |
| LD15-3818 | 20.5 | 21.2 | 19.5 | 21.3 | 21.0 | 20.0 | 21.0 | 20.2 | 20.6 |
| S13-3851C | 20.6 | 19.8 | 19.8 | 21.6 | 20.4 | 19.3 | 20.4 | 19.5 | 20.2 |
| JT22-4004 | 20.4 | 19.6 | 19.0 | 21.1 | 19.8 | 18.6 | 19.3 | 20.0 | 19.7 |
| K20-1313 | 20.9 | 19.5 | 19.2 | 21.5 | 19.4 | 19.2 | 19.7 | 19.8 | 19.9 |
| K20-2499 | 19.8 | 18.5 | 18.4 | 20.4 | 18.5 | 18.3 | 18.6 | 19.2 | 19.0 |
| K20-4064 | 21.4 | 20.5 | 19.9 | 21.9 | 20.5 | 20.3 | 20.4 | 20.5 | 20.7 |
| K20-4938 | 19.3 | 18.8 | 19.0 | 20.8 | 18.3 | 18.7 | 18.4 | 18.9 | 19.0 |
| K20-4994 | 20.6 | 18.8 | 18.6 | 21.4 | 19.2 | 18.4 | 19.5 | 19.0 | 19.4 |
| LG18-2475 | 20.8 | 20.6 | 19.6 | 21.8 | 19.8 | 19.6 | 19.8 | 19.7 | 20.2 |
| R19C-1012 | 19.8 | 18.4 | 18.0 | 20.6 | 18.5 | 18.4 | 19.5 | 19.5 | 19.1 |
| R19C-1035 | 18.4 | 17.5 | 17.2 | 19.1 | 16.5 | 17.2 | 18.9 | 18.3 | 17.9 |
| R19C-1081 | 19.7 | 19.0 | 18.3 | 20.5 | 18.5 | 18.4 | 19.3 | 19.4 | 19.1 |
| S20-12454 | 21.0 | 20.4 | 18.9 | 21.2 | 19.8 | 20.3 | 20.1 | 21.1 | 20.3 |
| S20-17501 | 20.5 | 19.9 | 19.6 | 21.6 | 19.9 | 19.9 | 20.9 | 19.7 | 20.2 |
| S20-17527 | 20.0 | 19.3 | 18.7 | 20.9 | 20.3 | 19.3 | 20.5 | 20.3 | 19.9 |
| S20-18805 | 21.2 | 19.6 | 19.0 | 21.2 | 19.9 | 19.2 | 20.5 | 20.4 | 20.1 |
| S20-2227 | 20.8 | 20.3 | 19.6 | 21.3 | 20.0 | 19.7 | 20.9 | 19.9 | 20.3 |
| TN21-4660 | 18.8 | 17.9 | 18.0 | 20.4 | 17.4 | 17.8 | 19.4 | 18.5 | 18.5 |
| TN21-4668 | 19.0 | 18.5 | 17.5 | 19.5 | 17.9 | 17.9 | 19.1 | 19.1 | 18.6 |
| TN21-5005 | 20.2 | 19.1 | 17.7 | 18.0 | 19.2 | 18.6 | . | 19.7 | 18.9 |
| TN21-5016 | 20.4 | 19.1 | 18.7 | 20.1 | 19.0 | 19.0 | 18.0 | 18.9 | 19.1 |
| TN21-5050 | 20.9 | 19.7 | 19.5 | 21.3 | 19.1 | 20.0 | 19.9 | 20.0 | 20.0 |
| TN22-4620 | 20.8 | 19.8 | 19.2 | 21.0 | 19.0 | 19.6 | 20.9 | 20.5 | 20.1 |
| V14-1235 | 21.1 | 21.3 | 20.3 | 20.6 | 21.0 | 20.2 | 21.2 | 20.9 | 20.8 |
| V18-2940OA | 20.3 | 19.9 | 19.5 | 20.7 | 19.7 | 19.4 | 20.2 | 19.7 | 19.9 |
| V18-3452HP | 20.0 | 19.7 | 18.1 | 20.0 | 19.4 | 18.5 | 19.7 | 19.1 | 19.3 |
| V18-3788 | 21.0 | 20.3 | 20.2 | 21.4 | 19.5 | 20.1 | 20.1 | 19.9 | 20.3 |
| V18-3866 | 20.0 | 19.3 | 18.8 | . | 19.8 | 18.2 | 19.8 | 19.8 | 19.5 |
| V19-0064DT | 18.9 | 19.3 | 17.7 | 20.1 | 18.4 | 18.3 | 18.5 | 19.6 | 18.8 |
| Mean | 20.3 | 19.5 | 18.9 | 20.8 | 19.4 | 19.1 | 19.8 | 19.7 | 19.7 |
| LSD(0.05) | . | . | . | . | . | . | . | . | 0.4 |
| CV(%) | . | . | . | . | . | . | . | . | 2.3 |

† Oil percentage is reported on a 13% moisture basis beginning in 2015.

***TABLE 37 - PROTEIN (%)†***
***PRELIMINARY GROUP IV-S-EARLY 2023***

| STRAIN/ VARIETY | Knoxville, TN | Marianna, AR | Novelty, MO | Orange, VA | Ottawa, KS | Portageville, MO(B) | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| AG43XF2 | 33.7 | 34.4 | 33.9 | 30.0 | 33.1 | 34.8 | 34.4 | 34.6 | 33.6 |
| AG38XF1 | 34.7 | 36.0 | 34.0 | 32.8 | 34.1 | 36.1 | 34.4 | 36.0 | 34.8 |
| LD15-3818 | 36.9 | 33.7 | 34.1 | 32.2 | 32.6 | 34.7 | 34.3 | 36.0 | 34.3 |
| S13-3851C | 34.1 | 35.7 | 33.8 | 30.8 | 33.1 | 35.5 | 35.1 | 35.8 | 34.2 |
| JT22-4004 | 33.9 | 34.1 | 32.4 | 30.0 | 33.0 | 35.2 | 34.6 | 35.2 | 33.5 |
| K20-1313 | 34.1 | 35.6 | 33.8 | 30.7 | 35.2 | 35.4 | 35.5 | 36.1 | 34.5 |
| K20-2499 | 33.6 | 36.1 | 34.8 | 31.0 | 36.2 | 36.8 | 36.0 | 36.6 | 35.1 |
| K20-4064 | 33.6 | 35.3 | 32.9 | 29.2 | 33.9 | 34.7 | 34.3 | 34.7 | 33.6 |
| K20-4938 | 37.4 | 38.7 | 34.5 | 32.1 | 37.7 | 37.4 | 38.1 | 36.3 | 36.5 |
| K20-4994 | 35.1 | 37.9 | 35.0 | 31.8 | 35.5 | 36.3 | 37.1 | 37.6 | 35.8 |
| LG18-2475 | 33.5 | 33.3 | 32.4 | 28.9 | 32.4 | 34.0 | 34.4 | 34.9 | 33.0 |
| R19C-1012 | 33.7 | 35.3 | 33.6 | 30.4 | 35.2 | 34.9 | 35.0 | 33.8 | 34.0 |
| R19C-1035 | 36.3 | 37.3 | 35.6 | 33.0 | 38.5 | 37.3 | 35.7 | 36.4 | 36.3 |
| R19C-1081 | 36.1 | 33.7 | 35.0 | 31.9 | 35.8 | 36.2 | 35.4 | 35.9 | 35.0 |
| S20-12454 | 35.2 | 35.7 | 34.8 | 32.6 | 35.0 | 33.7 | 36.1 | 34.6 | 34.7 |
| S20-17501 | 35.7 | 37.5 | 34.4 | 30.6 | 35.6 | 35.6 | 35.6 | 37.1 | 35.3 |
| S20-17527 | 36.8 | 37.7 | 35.9 | 31.8 | 34.8 | 35.8 | 36.7 | 36.1 | 35.7 |
| S20-18805 | 35.2 | 37.8 | 35.0 | 33.3 | 36.3 | 37.4 | 36.5 | 36.7 | 36.0 |
| S20-2227 | 35.1 | 35.9 | 32.8 | 31.6 | 34.4 | 35.9 | 34.2 | 36.0 | 34.5 |
| TN21-4660 | 35.0 | 36.4 | 33.5 | 31.1 | 37.3 | 34.8 | 36.0 | 36.4 | 35.1 |
| TN21-4668 | 35.5 | 35.5 | 34.5 | 32.5 | 36.3 | 36.1 | 36.4 | 36.0 | 35.4 |
| TN21-5005 | 36.2 | 37.6 | 36.2 | 35.8 | 38.3 | 37.4 | . | 35.6 | 36.8 |
| TN21-5016 | 33.0 | 35.0 | 32.8 | 30.2 | 33.9 | 35.9 | 37.5 | 36.6 | 34.4 |
| TN21-5050 | 33.9 | 35.3 | 31.9 | 29.9 | 34.9 | 33.7 | 36.5 | 35.9 | 34.0 |
| TN22-4620 | 34.5 | 35.8 | 34.3 | 31.6 | 35.9 | 35.1 | 35.5 | 35.1 | 34.7 |
| V14-1235 | 32.5 | 32.7 | 31.2 | 30.8 | 32.0 | 32.7 | 32.4 | 34.5 | 32.4 |
| V18-2940OA | 36.3 | 36.7 | 34.5 | 32.4 | 36.5 | 36.6 | 36.3 | 36.8 | 35.8 |
| V18-3452HP | 35.9 | 36.5 | 36.4 | 35.0 | 35.6 | 37.2 | 36.8 | 38.5 | 36.5 |
| V18-3788 | 34.0 | 34.9 | 33.8 | 31.7 | 33.8 | 34.4 | 35.4 | 35.6 | 34.2 |
| V18-3866 | 33.9 | 35.4 | 33.9 | . | 32.6 | 35.9 | 35.3 | 35.3 | 34.2 |
| V19-0064DT | 36.6 | 35.9 | 36.2 | 31.0 | 36.1 | 35.6 | 36.8 | 36.1 | 35.5 |
| Mean | 34.9 | 35.8 | 34.1 | 31.5 | 35.0 | 35.6 | 35.6 | 35.9 | 34.8 |
| LSD(0.05) | . | . | . | . | . | . | . | . | 0.9 |
| CV(%) | . | . | . | . | . | . | . | . | 2.5 |

† Protein percentage is reported on a 13% moisture basis beginning in 2015.

***TABLE 38 - ESTIMATED MEAL PROTEIN (%)†***
***PRELIMINARY GROUP IV-S-EARLY 2023***

| STRAIN/ VARIETY | Knoxville, TN | Marianna, AR | Novelty, MO | Orange, VA | Ottawa, KS | Portageville, MO(B) | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| AG43XF2 | 46.4 | 47.2 | 45.9 | 41.4 | 45.3 | 47.4 | 47.2 | 47.1 | 46.0 |
| AG38XF1 | 47.5 | 48.8 | 45.7 | 44.7 | 46.2 | 48.6 | 46.8 | 48.5 | 47.1 |
| LD15-3818 | 50.4 | 46.4 | 46.0 | 44.4 | 44.8 | 47.1 | 47.2 | 49.0 | 46.9 |
| S13-3851C | 46.7 | 48.4 | 45.9 | 42.6 | 45.2 | 47.9 | 47.9 | 48.4 | 46.6 |
| JT22-4004 | 46.2 | 46.1 | 43.5 | 41.3 | 44.7 | 46.9 | 46.6 | 47.9 | 45.4 |
| K20-1313 | 46.8 | 48.1 | 45.5 | 42.5 | 47.4 | 47.5 | 48.0 | 48.9 | 46.8 |
| K20-2499 | 45.5 | 48.2 | 46.3 | 42.3 | 48.2 | 48.9 | 48.1 | 49.2 | 47.1 |
| K20-4064 | 46.5 | 48.3 | 44.6 | 40.6 | 46.4 | 47.3 | 46.8 | 47.4 | 46.0 |
| K20-4938 | 50.4 | 51.7 | 46.4 | 44.0 | 50.2 | 49.9 | 50.7 | 48.6 | 49.0 |
| K20-4994 | 48.1 | 50.7 | 46.7 | 44.0 | 47.8 | 48.3 | 50.1 | 50.5 | 48.3 |
| LG18-2475 | 45.9 | 45.6 | 43.7 | 40.1 | 43.8 | 45.9 | 46.6 | 47.3 | 44.9 |
| R19C-1012 | 45.6 | 47.0 | 44.6 | 41.7 | 46.9 | 46.5 | 47.3 | 45.7 | 45.7 |
| R19C-1035 | 48.3 | 49.1 | 46.8 | 44.3 | 50.1 | 48.9 | 47.9 | 48.3 | 48.0 |
| R19C-1081 | 48.8 | 45.2 | 46.6 | 43.6 | 47.8 | 48.3 | 47.7 | 48.4 | 47.0 |
| S20-12454 | 48.4 | 48.7 | 46.7 | 44.9 | 47.4 | 46.0 | 49.1 | 47.7 | 47.3 |
| S20-17501 | 48.7 | 50.9 | 46.6 | 42.5 | 48.2 | 48.3 | 48.9 | 50.3 | 48.1 |
| S20-17527 | 49.9 | 50.7 | 48.0 | 43.7 | 47.4 | 48.2 | 50.2 | 49.1 | 48.4 |
| S20-18805 | 48.5 | 51.1 | 46.9 | 45.9 | 49.3 | 50.4 | 49.8 | 50.1 | 49.0 |
| S20-2227 | 48.2 | 48.9 | 44.4 | 43.6 | 46.7 | 48.5 | 47.0 | 48.8 | 47.0 |
| TN21-4660 | 46.8 | 48.2 | 44.3 | 42.5 | 49.1 | 46.0 | 48.6 | 48.6 | 46.8 |
| TN21-4668 | 47.7 | 47.4 | 45.4 | 43.9 | 48.1 | 47.8 | 48.8 | 48.3 | 47.2 |
| TN21-5005 | 49.2 | 50.5 | 47.8 | 47.4 | 51.5 | 49.9 | . | 48.2 | 49.4 |
| TN21-5016 | 45.0 | 47.0 | 43.9 | 41.0 | 45.5 | 48.2 | 49.7 | 49.0 | 46.2 |
| TN21-5050 | 46.6 | 47.8 | 43.1 | 41.3 | 46.8 | 45.8 | 49.6 | 48.8 | 46.2 |
| TN22-4620 | 47.3 | 48.5 | 46.2 | 43.5 | 48.2 | 47.5 | 48.8 | 48.1 | 47.2 |
| V14-1235 | 44.8 | 45.2 | 42.6 | 42.1 | 44.1 | 44.6 | 44.7 | 47.4 | 44.4 |
| V18-2940OA | 49.6 | 49.8 | 46.6 | 44.4 | 49.3 | 49.3 | 49.4 | 49.8 | 48.5 |
| V18-3452HP | 48.8 | 49.3 | 48.3 | 47.5 | 48.0 | 49.6 | 49.8 | 51.7 | 49.1 |
| V18-3788 | 46.7 | 47.6 | 46.0 | 43.8 | 45.6 | 46.8 | 48.1 | 48.3 | 46.6 |
| V18-3866 | 46.0 | 47.6 | 45.3 | . | 44.2 | 47.7 | 47.9 | 47.9 | 46.1 |
| V19-0064DT | 49.0 | 48.3 | 47.8 | 42.2 | 48.0 | 47.3 | 49.1 | 48.8 | 47.6 |
| Mean | 47.6 | 48.3 | 45.7 | 43.3 | 47.2 | 47.8 | 48.3 | 48.6 | 47.1 |
| LSD(0.05) | . | . | . | . | . | . | . | . | 1.0 |
| CV(%) | . | . | . | . | . | . | . | . | 2.2 |

† Estimated meal protein percentage is reported on a 13% moisture basis.

## SUMMARY OF SEED FATTY ACIDS (%)
## PRELIMINARY TEST IV-S-EARLY 2023 †

| STRAIN/ VARIETY | Palmitic Acid | Stearic Acid | Oleic Acid | Linoleic Acid | Linolenic Acid |
|---|---|---|---|---|---|
| AG43XF2 | 9.9 | 4.3 | 22.3 | 57.1 | 6.4 |
| AG38XF1 | 11.8 | 4.2 | 23.4 | 54.1 | 6.6 |
| S20-17501 | 7.6 | 3.2 | 77.6 | 9.5 | 2.1 |
| S20-17527 | 7.7 | 3.1 | 77.6 | 9.2 | 2.4 |
| S20-18805 | 8.4 | 3.9 | 79.0 | 6.8 | 1.9 |
| TN21-5005 | 7.5 | 3.1 | 80.4 | 6.2 | 2.8 |
| TN21-5016 | 10.5 | 3.2 | 24.0 | 57.8 | 4.4 |
| V18-2940OA | 8.7 | 3.9 | 61.7 | 20.4 | 5.3 |
| Mean | 9.0 | 3.6 | 55.7 | 27.6 | 4.0 |
| LSD(0.05) | 0.5 | 0.3 | 6.1 | 5.4 | 0.6 |
| CV(%) | 5.2 | 7.6 | 10.7 | 19.3 | 15.3 |

† Fatty acid percentage in seed oil reported beginning in 2017.

## SEED PALMITIC ACID (%)
## PRELIMINARY GROUP IV-S-EARLY 2023

| STRAIN/ VARIETY | Knoxville, TN | Marianna, AR | Novelty, MO | Orange, VA | Ottawa, KS | Portageville, MO(B) | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| AG43XF2 | 10.3 | 9.3 | 9.8 | 9.9 | 9.9 | 10.0 | 10.4 | 9.7 | 9.9 |
| AG38XF1 | 11.7 | 11.7 | 11.2 | 12.0 | 12.0 | 11.6 | 12.1 | 11.7 | 11.8 |
| S20-17501 | 8.0 | 7.3 | 7.5 | 7.6 | 8.0 | 7.9 | 7.2 | 7.3 | 7.6 |
| S20-17527 | 7.5 | 7.6 | 7.6 | 7.4 | 7.4 | 8.0 | 7.3 | 8.9 | 7.7 |
| S20-18805 | 8.6 | 7.8 | 8.7 | 8.3 | 8.1 | 9.1 | 8.3 | 8.5 | 8.4 |
| TN21-5005 | 7.5 | 7.1 | 6.8 | 7.4 | 7.1 | 7.5 | . | 9.1 | 7.5 |
| TN21-5016 | 10.9 | 10.6 | 10.0 | 10.2 | 10.3 | 10.3 | 11.2 | 10.6 | 10.5 |
| V18-2940OA | 9.2 | 8.4 | 7.8 | 9.3 | 7.7 | 8.2 | 10.0 | 8.7 | 8.7 |
| Mean | 9.2 | 8.7 | 8.7 | 9.0 | 8.8 | 9.1 | 9.5 | 9.3 | 9.0 |
| LSD(0.05) | . | . | . | . | . | . | . | . | 0.5 |
| CV(%) | . | . | . | . | . | . | . | . | 5.2 |

## SEED STEARIC ACID (%)
## PRELIMINARY GROUP IV-S-EARLY 2023

| STRAIN/ VARIETY | Knoxville, TN | Marianna, AR | Novelty, MO | Orange, VA | Ottawa, KS | Portageville, MO(B) | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| AG43XF2 | 4.3 | 4.3 | 4.9 | 4.6 | 4.3 | 4.1 | 3.8 | 4.1 | 4.3 |
| AG38XF1 | 4.2 | 4.0 | 5.8 | 4.8 | 4.6 | 3.6 | 3.6 | 3.5 | 4.2 |
| S20-17501 | 3.1 | 2.9 | 3.8 | 3.1 | 3.5 | 3.2 | 2.9 | 2.7 | 3.2 |
| S20-17527 | 2.9 | 2.9 | 3.5 | 3.1 | 3.6 | 3.0 | 2.7 | 3.1 | 3.1 |
| S20-18805 | 3.9 | 3.4 | 4.6 | 4.1 | 4.5 | 3.7 | 3.5 | 3.4 | 3.9 |
| TN21-5005 | 3.1 | 3.2 | 3.5 | 2.5 | 3.4 | 3.1 | . | 3.4 | 3.1 |
| TN21-5016 | 3.0 | 3.3 | 3.8 | 3.1 | 3.6 | 3.1 | 2.8 | 3.2 | 3.2 |
| V18-2940OA | 3.7 | 3.7 | 4.9 | 3.6 | 4.1 | 3.9 | 3.7 | 3.6 | 3.9 |
| Mean | 3.5 | 3.5 | 4.3 | 3.6 | 3.9 | 3.5 | 3.3 | 3.4 | 3.6 |
| LSD(0.05) | . | . | . | . | . | . | . | . | 0.3 |
| CV(%) | . | . | . | . | . | . | . | . | 7.6 |

## SEED OLEIC ACID (%)
## PRELIMINARY GROUP IV-S-EARLY 2023

| STRAIN/ VARIETY | Knoxville, TN | Marianna, AR | Novelty, MO | Orange, VA | Ottawa, KS | Portageville, MO(B) | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| AG43XF2 | 24.3 | 25.6 | 23.5 | 19.5 | 24.7 | 19.3 | 21.2 | 20.2 | 22.3 |
| AG38XF1 | 26.2 | 24.6 | 23.3 | 20.2 | 26.5 | 24.0 | 21.4 | 20.7 | 23.4 |
| S20-17501 | 78.0 | 81.7 | 74.6 | 76.2 | 69.2 | 75.2 | 84.2 | 82.0 | 77.6 |
| S20-17527 | 82.4 | 82.4 | 76.0 | 79.9 | 79.9 | 78.2 | 85.2 | 56.8 | 77.6 |
| S20-18805 | 81.6 | 83.3 | 74.8 | 78.8 | 79.1 | 78.1 | 84.1 | 72.0 | 79.0 |
| TN21-5005 | 84.0 | 84.0 | 82.3 | 83.3 | 84.1 | 83.0 | . | 61.7 | 80.4 |
| TN21-5016 | 22.3 | 24.0 | 23.4 | 21.8 | 26.7 | 23.4 | 25.9 | 24.5 | 24.0 |
| V18-2940OA | 50.9 | 68.1 | 66.0 | 55.9 | 74.8 | 64.2 | 44.9 | 69.1 | 61.7 |
| Mean | 56.2 | 59.2 | 55.5 | 54.4 | 58.1 | 55.7 | 52.4 | 50.9 | 55.7 |
| LSD(0.05) | . | . | . | . | . | . | . | . | 6.1 |
| CV(%) | . | . | . | . | . | . | . | . | 10.7 |

## SEED LINOLEIC ACID (%)
## PRELIMINARY GROUP IV-S-EARLY 2023

| STRAIN/ VARIETY | Knoxville, TN | Marianna, AR | Novelty, MO | Orange, VA | Ottawa, KS | Portageville, MO(B) | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| AG43XF2 | 54.7 | 55.5 | 54.6 | 58.3 | 55.4 | 59.2 | 59.3 | 59.9 | 57.1 |
| AG38XF1 | 51.8 | 53.7 | 52.0 | 55.7 | 50.8 | 53.8 | 57.1 | 57.6 | 54.1 |
| S20-17501 | 8.8 | 6.2 | 11.7 | 10.7 | 17.0 | 11.4 | 4.2 | 6.2 | 9.5 |
| S20-17527 | 5.0 | 5.1 | 9.9 | 7.2 | 7.1 | 8.2 | 3.2 | 27.8 | 9.2 |
| S20-18805 | 4.0 | 3.8 | 9.5 | 6.7 | 6.6 | 7.0 | 2.7 | 13.9 | 6.8 |
| TN21-5005 | 2.7 | 3.0 | 4.4 | 4.0 | 3.0 | 3.8 | . | 22.1 | 6.2 |
| TN21-5016 | 59.0 | 57.6 | 58.2 | 61.0 | 55.7 | 59.4 | 55.3 | 56.6 | 57.8 |
| V18-2940OA | 30.7 | 15.3 | 14.3 | 24.3 | 8.8 | 17.7 | 36.7 | 15.3 | 20.4 |
| Mean | 27.1 | 25.0 | 26.8 | 28.5 | 25.6 | 27.6 | 31.2 | 32.4 | 27.6 |
| LSD(0.05) | . | . | . | . | . | . | . | . | 5.4 |
| CV(%) | . | . | . | . | . | . | . | . | 19.3 |

## SEED LINOLENIC ACID (%)
## PRELIMINARY GROUP IV-S-EARLY 2023

| STRAIN/ VARIETY | Knoxville, TN | Marianna, AR | Novelty, MO | Orange, VA | Ottawa, KS | Portageville, MO(B) | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| AG43XF2 | 6.5 | 5.2 | 7.1 | 7.7 | 5.7 | 7.3 | 5.3 | 6.2 | 6.4 |
| AG38XF1 | 6.2 | 6.0 | 7.8 | 7.4 | 6.0 | 6.9 | 5.8 | 6.5 | 6.6 |
| S20-17501 | 2.2 | 1.9 | 2.3 | 2.3 | 2.3 | 2.4 | 1.4 | 1.8 | 2.1 |
| S20-17527 | 2.2 | 2.1 | 2.9 | 2.4 | 2.2 | 2.5 | 1.6 | 3.4 | 2.4 |
| S20-18805 | 1.8 | 1.7 | 2.4 | 2.1 | 1.6 | 2.1 | 1.3 | 2.3 | 1.9 |
| TN21-5005 | 2.8 | 2.8 | 3.1 | 2.8 | 2.4 | 2.6 | . | 3.7 | 2.8 |
| TN21-5016 | 4.8 | 4.6 | 4.7 | 3.8 | 3.8 | 3.8 | 4.8 | 5.1 | 4.4 |
| V18-2940OA | 5.6 | 4.4 | 7.0 | 7.0 | 4.6 | 6.1 | 4.6 | 3.3 | 5.3 |
| Mean | 4.0 | 3.6 | 4.7 | 4.5 | 3.6 | 4.2 | 3.6 | 4.0 | 4.0 |
| LSD(0.05) | . | . | . | . | . | . | . | . | 0.6 |
| CV(%) | . | . | . | . | . | . | . | . | 15.3 |

## *TABLE 39 - PARENTAGE OF ENTRIES*
## *PRELIMINARY GROUP IV-S-LATE 2023*

| Ent | Strain/Variety | Parentage | Source | Fn | Trans-genic† | Special Traits‡ |
|---|---|---|---|---|---|---|
| 1 | S16-7922 | Commercial check | check | | | |
| 2 | AG46X6 | Commercial check | check | | RR2, DIC | |
| 3 | AG48X9 | Commercial check | check | | RR2, DIC | |
| 4 | AG48XF2 | Commercial check | check | | RR2, LL, DIC | |
| 5 | DS1627-12 | DS25-1 x (PI 594445 x Jake) | Rusty Smith | F5 | | High germinability, 50% exotic |
| 6 | JT22-5023 | DC2864 x DC7816 | Smallwood | F10 | | SCN, charcoal rot, 16% exotic |
| 7 | JT22-5024 | DC2864 x DC7816 | Smallwood | F10 | | SCN, charcoal rot. 16% exotic |
| 8 | R18C-13665 | LD11-7311 / R05-3239 | Vieira | F2:4 :5 | | SDS,SCN |
| 9 | R19-39415 | LG13-4321 / R11-7141 | Vieira | F3:4 | | |
| 10 | R19C-1001 | S09-13635 / R11-328 | Vieira | F4:5 | | |
| 11 | R19C-2678 | R09-430 / DA10x30-09F | Vieira | F3:4 | | |
| 12 | R19C-3147 | R16-253 / LD11-2170 | Vieira | F2:3 | | |
| 13 | S20-13444 | S13-3851C x S13-10590LL F2 | Shannon | | LL | SCN,RKN,SC,PRR,BSR |
| 14 | S20-14129 | S14-15138R x LD14-6766 | Shannon | | RR1 | SC |
| 15 | S20-15411 | S16-16814 x S11-20337GT | Shannon | | RR1 | SCN,RKN,BSR,Salt Excluder |
| 16 | S20-5669 | LD07-3395bf x S13-3851C | Shannon | | | SC |
| 17 | S20-7117 | K15-1809 x S13-3851C | Shannon | | | SC,PRR |
| 18 | TN19-4070 | LG11-6760 x TN15-4038 | Pantalone | | | Higher protein; diversity. 25% exotic |
| 19 | TN20-4708R1 | TN14-5017 x S11-20337RR1 | Pantalone | | RR1 | |
| 20 | TN21-4606 | S13-10590 x Ellis-HOLL | Pantalone | | | HOLN |
| 21 | TN21-4659 | DA10x30-09F x TN15-4011 | Pantalone | | | |
| 22 | TN21-4721R1 | TN16-521R1 x Ellis-HOLL | Pantalone | | RR1 | LN |
| 23 | TN21-4723R1 | TN16-521R1 x Ellis-HOLL | Pantalone | | RR1 | |
| 24 | V18-0483DT | V11-0730 x Jindou 19 | B. Zhang | | | 50% exotic |
| 25 | V18-2973OA | S11-20967 x V13-0096 | B. Zhang | | | |
| 26 | V18-3977 | V12-0956 x V11-2149 | B. Zhang | | | |
| 27 | V18-4246R | Ellis x V11-3522 | B. Zhang | | RR1 | |

† Conv= Conventional(non-transgenic), E3= Enlist E3®, LL= Liberty Link®, RR1= Roundup Ready®, RR2=Roundup Ready 2 Yield®, and RRX= Roundup Ready 2 Xtend®

‡ AA= modified amino acids, DNC= Do not cross with this, FLS= Frogeye leaf spot resistance, LJ= Long juvenile, LN= low linolenic acid, LP= low phytate, HO= high oleic acid, HOLN= high oleic acid/low linolenic acid, SC= Southern stem canker, SCN= Soybean cyst nematode resistance, SR= Soybean rust resistance, and STS= sulfonylurea tolerant

## *TABLE 40 - GENERAL SUMMARY OF PERFORMANCE*
## *PRELIMINARY TEST IV-S-LATE 2023*

| STRAIN/ VARIETY | SEED YIELD† | RANK | AVG. RANK | MAT. INDEX | LOD | HT | SCN Cyst Score (1-5)‡ Race 2 | Race 3 | Race 5 | SC RATING | SC SCORE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S16-7922 | 62.3 | 7 | 12 | 0 | 2.0 | 29 | 3 | . | 2 | | . |
| AG46X6 | 66.9 | 2 | 7 | -2 | 1.6 | 35 | 5 | . | 3 | | . |
| AG48X9 | 70.0 | 1 | 4 | -1 | 1.4 | 38 | 5 | . | 2 | | . |
| AG48XF2 | 66.1 | 3 | 7 | -3 | 1.7 | 34 | 5 | . | 3 | | . |
| DS1627-12 | 54.1 | 23 | 20 | -4 | 2.5 | 37 | 5 | . | 4 | | . |
| JT22-5023 | 61.5 | 10 | 11 | -3 | 1.9 | 27 | 2 | . | 1 | | . |
| JT22-5024 | 59.5 | 16 | 13 | -4 | 1.9 | 27 | 1 | . | 1 | | . |
| R18C-13665 | 65.6 | 4 | 9 | 1 | 1.7 | 39 | 5 | . | 4 | | . |
| R19-39415 | 58.2 | 18 | 17 | 1 | 1.9 | 40 | 4 | . | 3 | | . |
| R19C-1001 | 64.3 | 6 | 10 | 0 | 2.8 | 40 | 5 | . | 4 | | . |
| R19C-2678 | 59.1 | 17 | 15 | 0 | 1.8 | 32 | 5 | . | 3 | | . |
| R19C-3147 | 60.4 | 13 | 15 | 3 | 1.6 | 36 | 4 | . | 4 | | . |
| S20-13444 | 57.3 | 20 | 15 | -3 | 1.6 | 36 | 3 | . | 2 | | . |
| S20-14129 | 59.8 | 15 | 14 | -4 | 1.5 | 33 | 5 | . | 3 | | . |
| S20-15411 | 59.8 | 14 | 14 | -3 | 1.4 | 29 | 1 | . | 1 | | . |
| S20-5669 | 61.3 | 11 | 11 | -4 | 1.1 | 31 | 5 | . | 2 | | . |
| S20-7117 | 62.0 | 9 | 11 | -1 | 1.6 | 31 | 4 | . | 2 | | . |
| TN19-4070 | 60.4 | 12 | 14 | 2 | 2.6 | 41 | 5 | . | 2 | | . |
| TN20-4708R1 | 56.2 | 21 | 17 | 4 | 1.2 | 26 | 1 | . | 1 | | . |
| TN21-4606 | 62.2 | 8 | 11 | 2 | 1.3 | 22 | 3 | . | 1 | | . |
| TN21-4659 | 64.6 | 5 | 8 | 2 | 1.5 | 28 | 1 | . | 1 | | . |
| TN21-4721R1 | 54.0 | 24 | 19 | 1 | 1.1 | 21 | 5 | . | 3 | | . |
| TN21-4723R1 | 55.5 | 22 | 17 | 3 | 1.3 | 22 | 5 | . | 3 | | . |
| V18-0483DT | 48.0 | 26 | 24 | -2 | 1.1 | 20 | 5 | . | 4 | | . |
| V18-2973OA | 46.9 | 27 | 24 | 0 | 2.1 | 36 | 5 | . | 3 | | . |
| V18-3977 | 51.5 | 25 | 20 | -4 | 1.4 | 34 | 5 | . | 3 | | . |
| V18-4246R | 58.0 | 19 | 17 | 2 | 1.5 | 36 | 4 | . | 3 | | . |
| | | | | | | | | | | | |
| Mean | 59.5 | . | . | -1 | 1.7 | 32 | . | . | . | | . |
| LSD(0.05) | 7.4 | . | . | 3 | 0.8 | 4 | . | . | . | | . |
| LSD(0.10) | 6.2 | . | . | . | . | . | . | . | . | | . |
| CV(%) | 13.3 | . | . | 340 | 55.4 | 11 | . | . | . | | . |

†Data not included in the mean due to CV >15%: Orange.

‡The race 2 and 5 SCN populations used in these tests were typed as HG (Heterodera glycines) Type 1.2.5.7 and HG Type 2.5.7, respectively.

***TABLE 41 - GENERAL SUMMARY OF PERFORMANCE (continued)***
***PRELIMINARY TEST IV-S-LATE 2023***

| STRAIN/ VARIETY | SEED QUALITY | SEED SIZE | PROTEIN§ % | OIL§ % | MEAL PRO% | FL COLOR | PUB. COLOR | POD COLOR |
|---|---|---|---|---|---|---|---|---|
| S16-7922 | 1.5 | 13.3 | 35.3 | 19.6 | 47.7 | W | | |
| AG46X6 | 2.0 | 16.2 | 34.9 | 19.7 | 47.3 | P | | |
| AG48X9 | 1.9 | 14.2 | 34.9 | 20.0 | 47.4 | P | | |
| AG48XF2 | 1.9 | 15.0 | 34.3 | 19.7 | 46.4 | P | | |
| DS1627-12 | 1.7 | 13.3 | 36.7 | 17.6 | 48.4 | P | Tw | Tn |
| JT22-5023 | 1.3 | 12.5 | 34.4 | 18.7 | 46.0 | P | T | |
| JT22-5024 | 1.1 | 12.8 | 34.2 | 18.8 | 45.7 | P | T | |
| R18C-13665 | 1.7 | 14.4 | 34.5 | 19.5 | 46.5 | W | Lt | B |
| R19-39415 | 1.7 | 16.1 | 34.9 | 19.8 | 47.3 | P | G | T |
| R19C-1001 | 1.8 | 12.6 | 34.3 | 19.4 | 46.3 | P | G | B |
| R19C-2678 | 1.6 | 11.9 | 35.6 | 19.0 | 47.7 | P | T | T |
| R19C-3147 | 1.8 | 14.0 | 35.2 | 19.0 | 47.2 | W | T | T |
| S20-13444 | 1.7 | 15.3 | 34.3 | 19.8 | 46.4 | W | Lt | T |
| S20-14129 | 1.3 | 14.7 | 34.6 | 19.6 | 46.7 | P | T | |
| S20-15411 | 1.3 | 11.1 | 35.9 | 19.1 | 48.3 | P | G | |
| S20-5669 | 1.8 | 16.5 | 34.8 | 20.4 | 47.5 | W | | Br |
| S20-7117 | 1.6 | 15.1 | 36.4 | 18.9 | 48.8 | W | T | |
| TN19-4070 | 1.8 | 13.7 | 35.7 | 19.6 | 48.3 | P | G | |
| TN20-4708R1 | 1.4 | 11.0 | 35.1 | 19.0 | 47.1 | P | G | |
| TN21-4606 | 1.3 | 13.2 | 36.5 | 19.1 | 49.0 | W | G | |
| TN21-4659 | 1.4 | 12.4 | 34.8 | 19.2 | 46.8 | P | T | |
| TN21-4721R1 | 1.5 | 10.5 | 34.5 | 19.3 | 46.5 | W | G | |
| TN21-4723R1 | 1.3 | 11.4 | 34.6 | 18.5 | 46.2 | W | G | |
| V18-0483DT | 1.6 | 12.8 | 35.0 | 20.0 | 47.5 | W | T | |
| V18-2973OA | 1.6 | 13.5 | 36.6 | 19.9 | 49.6 | P | T | |
| V18-3977 | 1.7 | 12.6 | 33.6 | 20.6 | 46.0 | W | T | |
| V18-4246R | 1.6 | 13.1 | 34.5 | 20.1 | 46.9 | W | T | |
| | | | | | | | | |
| Mean | 1.6 | 13.5 | 35.0 | 19.4 | 47.2 | | | |
| LSD(0.05) | 0.4 | 0.9 | 0.7 | 0.4 | 0.9 | | | |
| LSD(0.10) | . | . | . | . | . | | | |
| CV(%) | 27.5 | 6.7 | 2.0 | 1.8 | 1.7 | | | |

§ Protein percentage and oil percentage are reported on a 13% moisture basis beginning in 2015.

## *TABLE 42 - SEED YIELD (BUSHELS PER ACRE)*
## *PRELIMINARY GROUP IV-S-LATE 2023 †*

| STRAIN/ VARIETY | Knoxville, TN | Marianna, AR * | McCune, KS | Orange, VA | Portageville, MO(B) * | Starkville, MS | Stoneville, MS * | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| S16-7922 | 57.2 | 52.6 | 39.7 | 62.2 | 63.1 | 87.0 | 65.1 | 71.1 | 62.3 |
| AG46X6 | 58.5 | 54.0 | 46.5 | 40.4 | 74.6 | 72.3 | 76.7 | 85.7 | 66.9 |
| AG48X9 | 68.9 | 52.3 | 44.7 | 47.7 | 73.4 | 88.0 | 77.3 | 85.6 | 70.0 |
| AG48XF2 | 60.7 | 56.2 | 47.8 | 38.9 | 79.5 | 60.9 | 74.7 | 82.7 | 66.1 |
| DS1627-12 | 44.7 | 39.3 | 34.9 | 54.8 | 54.3 | 80.4 | 58.7 | 66.2 | 54.1 |
| JT22-5023 | 61.7 | 57.9 | 45.1 | 50.9 | 55.8 | 79.1 | 64.5 | 66.2 | 61.5 |
| JT22-5024 | 53.7 | 54.0 | 46.2 | 60.8 | 57.8 | 72.8 | 64.1 | 67.8 | 59.5 |
| R18C-13665 | 59.3 | 51.2 | 42.3 | 63.4 | 67.0 | 79.6 | 70.9 | 88.9 | 65.6 |
| R19-39415 | 56.1 | 51.2 | 38.1 | 49.6 | 57.5 | 67.6 | 63.9 | 73.0 | 58.2 |
| R19C-1001 | 62.2 | 46.7 | 44.5 | 48.6 | 63.7 | 83.8 | 72.4 | 76.5 | 64.3 |
| R19C-2678 | 48.8 | 51.2 | 46.4 | 56.7 | 61.0 | 81.8 | 62.2 | 62.4 | 59.1 |
| R19C-3147 | 48.8 | 48.1 | 43.7 | 53.5 | 56.9 | 78.6 | 64.9 | 81.8 | 60.4 |
| S20-13444 | 59.8 | 50.9 | 33.0 | 51.7 | 70.6 | 51.0 | 55.9 | 79.7 | 57.3 |
| S20-14129 | 64.4 | 49.7 | 42.7 | 60.2 | 64.8 | 68.7 | 52.2 | 76.0 | 59.8 |
| S20-15411 | 62.0 | 52.6 | 41.3 | 60.0 | 62.9 | 69.6 | 59.5 | 71.0 | 59.8 |
| S20-5669 | 68.8 | 54.9 | 36.1 | 62.8 | 68.8 | 62.4 | . | 76.6 | 61.3 |
| S20-7117 | 61.6 | 45.3 | 46.6 | 64.9 | 66.1 | 83.6 | 51.4 | 79.4 | 62.0 |
| TN19-4070 | 58.3 | 48.1 | 43.8 | 70.3 | 64.9 | 81.7 | 50.1 | 76.1 | 60.4 |
| TN20-4708R1 | 57.8 | 50.4 | 47.3 | 67.4 | 59.2 | 70.8 | 46.5 | 61.0 | 56.2 |
| TN21-4606 | 53.3 | 56.1 | 52.5 | 73.9 | 66.5 | 79.0 | 53.3 | 74.5 | 62.2 |
| TN21-4659 | 65.5 | 55.0 | 44.5 | 68.0 | 69.6 | 82.1 | 59.7 | 76.0 | 64.6 |
| TN21-4721R1 | 50.6 | 45.3 | 48.0 | 59.1 | 50.2 | 76.9 | 49.1 | 57.9 | 54.0 |
| TN21-4723R1 | 52.5 | 47.3 | 49.7 | 74.9 | 55.2 | 82.6 | 45.6 | 55.8 | 55.5 |
| V18-0483DT | 45.2 | 44.5 | 44.2 | 79.4 | 45.8 | 65.9 | 41.1 | 48.9 | 48.0 |
| V18-2973OA | 48.6 | 37.7 | 33.7 | 66.2 | 47.1 | 44.5 | 52.0 | 64.9 | 46.9 |
| V18-3977 | 53.0 | 53.4 | 34.5 | 60.3 | 62.5 | 45.4 | 48.3 | 63.4 | 51.5 |
| V18-4246R | 56.5 | 46.1 | 37.1 | 64.5 | 58.3 | 68.3 | 57.9 | 81.5 | 58.0 |
| | | | | | | | | | |
| Mean | 57.0 | 50.1 | 42.8 | 59.7 | 62.1 | 72.8 | 59.1 | 72.2 | 59.5 |
| LSD(0.05) | 13.6 | 8.9 | 3.4 | 24.0 | 5.7 | 17.7 | 8.3 | 11.0 | 7.4 |
| LSD(0.10) | 11.3 | 7.4 | 2.9 | 19.9 | 4.7 | 14.7 | 6.9 | 9.1 | 6.2 |
| CV(%) | 11.6 | 8.7 | 3.9 | 19.2 | 4.5 | 11.8 | 6.8 | 7.4 | 13.3 |

† Data not included in the test mean due to CV > 15%: Orange.

*Locations with obvious damage consistent with exposure to the herbicide Dicamba. The Dicamba resistant checks (all the AG lines) may have had a yield advantage.

## *TABLE 43 - RELATIVE MATURITY (DAYS EARLIER (-) OR LATER (+) THAN ENTRY 1)*
## *PRELIMINARY GROUP IV-S-LATE 2023*

| STRAIN/ VARIETY | Knoxville, TN | Marianna, AR | McCune, KS | Orange, VA | Portageville, MO(B) | Starkville, MS | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| S16-7922 | 10/1 | 9/28 | 10/5 | . | 10/8 | . | 9/20 | 9/29 | 9/30 |
| AG46X6 | -2 | -2 | -5 | . | -1 | . | -1 | 0 | -2 |
| AG48X9 | 0 | 1 | -3 | . | -1 | . | -3 | 0 | -1 |
| AG48XF2 | -1 | -4 | -4 | . | -2 | . | -3 | -3 | -3 |
| DS1627-12 | -1 | -5 | -1 | . | -7 | . | -3 | -9 | -4 |
| JT22-5023 | -1 | -5 | -1 | . | -6 | . | -4 | -3 | -3 |
| JT22-5024 | -1 | -6 | -1 | . | -7 | . | -4 | -7 | -4 |
| R18C-13665 | -1 | 2 | -3 | . | 2 | . | 7 | -3 | 1 |
| R19-39415 | 1 | 1 | -1 | . | 3 | . | 5 | -7 | 1 |
| R19C-1001 | -2 | 2 | -3 | . | 4 | . | 5 | -7 | 0 |
| R19C-2678 | 0 | 1 | 1 | . | -2 | . | -2 | -1 | 0 |
| R19C-3147 | 3 | 3 | -1 | . | 4 | . | 7 | 1 | 3 |
| S20-13444 | -1 | -5 | -7 | . | 2 | . | -3 | -8 | -3 |
| S20-14129 | -3 | -3 | -8 | . | 2 | . | -3 | -6 | -4 |
| S20-15411 | -2 | -5 | -4 | . | -2 | . | -1 | -7 | -3 |
| S20-5669 | -1 | 1 | -6 | . | 3 | . | -14 | -7 | -4 |
| S20-7117 | -2 | 1 | -5 | . | 2 | . | -2 | -1 | -1 |
| TN19-4070 | 3 | 2 | 0 | . | 5 | . |  | -1 | 2 |
| TN20-4708R1 | 4 | 2 | 2 | . | 4 | . | 7 | 3 | 4 |
| TN21-4606 | 1 | 2 | -2 | . | 4 | . | 5 | 0 | 2 |
| TN21-4659 | 0 | 0 | 0 | . | 3 | . | 5 | 3 | 2 |
| TN21-4721R1 | 0 | 1 | -1 | . | 0 | . | 5 | 0 | 1 |
| TN21-4723R1 | 0 | 2 | 1 | . | 4 | . | 6 | 2 | 3 |
| V18-0483DT | -2 | -2 | -7 | . | -2 | . | 3 | -5 | -2 |
| V18-2973OA | 0 | 0 | -1 | . | 3 | . | -2 | -4 | 0 |
| V18-3977 | -2 | -5 | -6 | . | -1 | . | -5 | -6 | -4 |
| V18-4246R | 1 | 2 | -1 | . | 5 | . | 2 | 1 | 2 |
| | | | | | | | | | |
| Mean | 0 | -1 | -2 | . | 1 | . | 0 | -3 | -1 |
| LSD(0.05) | 2 | 3 | 2 | . | 4 | . | 4 | 3 | 3 |
| CV(%) | 409 | 163 | 45 | . | 276 | . | 743 | 54 | 340 |

## *TABLE 44 - PLANT HEIGHT (INCHES)*
## *PRELIMINARY GROUP IV-S-LATE 2023*

| *STRAIN/ VARIETY* | *Knoxville, TN* | *Marianna, AR* | *McCune, KS* | *Orange, VA* | *Portageville, MO(B)* | *Starkville, MS* | *Stoneville, MS* | *Stuttgart, AR* | *Test Mean* |
|---|---|---|---|---|---|---|---|---|---|
| S16-7922 | 29 | 34 | 42 | . | 22 | . | 22 | 24 | 29 |
| AG46X6 | 34 | 40 | 40 | . | 37 | . | 33 | 29 | 35 |
| AG48X9 | 35 | 40 | 43 | . | 40 | . | 35 | 36 | 38 |
| AG48XF2 | 31 | 38 | 38 | . | 38 | . | 31 | 29 | 34 |
| DS1627-12 | 34 | 42 | 47 | . | 28 | . | 29 | 45 | 37 |
| JT22-5023 | 28 | 31 | 41 | . | 23 | . | 19 | 23 | 27 |
| JT22-5024 | 24 | 32 | 41 | . | 24 | . | 20 | 23 | 27 |
| R18C-13665 | 40 | 42 | 43 | . | 34 | . | 35 | 41 | 39 |
| R19-39415 | 38 | 46 | 46 | . | 37 | . | 30 | 42 | 40 |
| R19C-1001 | 43 | 43 | 46 | . | 38 | . | 30 | 41 | 40 |
| R19C-2678 | 34 | 29 | 46 | . | 28 | . | 27 | 29 | 32 |
| R19C-3147 | 38 | 40 | 43 | . | 33 | . | 29 | 37 | 36 |
| S20-13444 | 38 | 42 | 44 | . | 34 | . | 31 | 29 | 36 |
| S20-14129 | 37 | 32 | 41 | . | 29 | . | 27 | 32 | 33 |
| S20-15411 | 30 | 31 | 42 | . | 27 | . | 21 | 23 | 29 |
| S20-5669 | 33 | 34 | 38 | . | 31 | . | 25 | 28 | 31 |
| S20-7117 | 30 | 36 | 40 | . | 32 | . | 26 | 25 | 31 |
| TN19-4070 | 38 | 43 | 50 | . | 38 | . | 38 | 44 | 41 |
| TN20-4708R1 | 26 | 26 | 36 | . | 23 | . | 19 | 26 | 26 |
| TN21-4606 | 20 | 21 | 32 | . | 23 | . | 16 | 19 | 22 |
| TN21-4659 | 29 | 30 | 42 | . | 29 | . | 19 | 23 | 28 |
| TN21-4721R1 | 20 | 24 | 33 | . | 19 | . | 14 | 17 | 21 |
| TN21-4723R1 | 23 | 21 | 34 | . | 22 | . | 16 | 19 | 22 |
| V18-0483DT | 21 | 21 | 29 | . | 16 | . | 14 | 23 | 20 |
| V18-2973OA | 38 | 38 | 43 | . | 32 | . | 32 | 35 | 36 |
| V18-3977 | 37 | 38 | 44 | . | 31 | . | 25 | 33 | 34 |
| V18-4246R | 40 | 37 | 46 | . | 31 | . | 26 | 36 | 36 |
| | | | | | | | | | |
| Mean | 32 | 34 | 41 | . | 29 | . | 25 | 30 | 32 |
| LSD(0.05) | 7 | 5 | 4 | . | 4 | . | 4 | 7 | 4 |
| CV(%) | 11 | 7 | 5 | . | 6 | . | 8 | 11 | 11 |

***TABLE 45 - PLANT LODGING (1-5)***
***PRELIMINARY GROUP IV-S-LATE 2023***

| STRAIN/ VARIETY | Knoxville, TN | Marianna, AR | McCune, KS | Orange, VA | Portageville, MO(B) | Starkville, MS | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| S16-7922 | 3.0 | 2.5 | 3.0 | 1.0 | 2.5 | . | 1.0 | 1.0 | 2.0 |
| AG46X6 | 2.5 | 2.0 | 1.0 | 1.0 | 1.5 | . | 2.0 | 1.0 | 1.6 |
| AG48X9 | 2.0 | 1.5 | 1.0 | 1.0 | 1.5 | . | 1.8 | 1.0 | 1.4 |
| AG48XF2 | 2.0 | 3.0 | 1.0 | 1.0 | 2.0 | . | 1.8 | 1.0 | 1.7 |
| DS1627-12 | 3.2 | 3.0 | 3.0 | 1.0 | 2.5 | . | 1.8 | 2.5 | 2.5 |
| JT22-5023 | 3.0 | 2.5 | 3.0 | 1.0 | 2.0 | . | 1.0 | 1.0 | 1.9 |
| JT22-5024 | 2.5 | 2.5 | 3.0 | 1.0 | 2.5 | . | 1.0 | 1.0 | 1.9 |
| R18C-13665 | 2.5 | 2.0 | 1.0 | 1.0 | 2.0 | . | 2.5 | 1.0 | 1.7 |
| R19-39415 | 2.2 | 4.0 | 1.0 | 1.0 | 1.5 | . | 2.8 | 1.0 | 1.9 |
| R19C-1001 | 2.7 | 3.0 | 1.0 | 1.0 | 2.0 | . | 8.3 | 1.0 | 2.8 |
| R19C-2678 | 2.7 | 1.0 | 3.0 | 1.0 | 2.0 | . | 2.0 | 1.0 | 1.8 |
| R19C-3147 | 2.2 | 2.0 | 1.0 | 1.0 | 2.0 | . | 1.8 | 1.0 | 1.6 |
| S20-13444 | 2.2 | 2.5 | 1.0 | 1.0 | 1.5 | . | 1.8 | 1.0 | 1.6 |
| S20-14129 | 2.2 | 2.0 | 1.0 | 1.0 | 1.5 | . | 1.5 | 1.0 | 1.5 |
| S20-15411 | 2.5 | 1.0 | 1.5 | 1.0 | 2.0 | . | 1.0 | 1.0 | 1.4 |
| S20-5669 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | . | 1.0 | 1.0 | 1.1 |
| S20-7117 | 2.0 | 2.0 | 1.0 | 1.0 | 2.0 | . | 2.0 | 1.0 | 1.6 |
| TN19-4070 | 2.7 | 4.0 | 1.0 | 1.0 | 2.0 | . | 4.5 | 2.5 | 2.6 |
| TN20-4708R1 | 2.5 | 1.0 | 1.0 | 1.0 | 1.0 | . | 1.0 | 1.0 | 1.2 |
| TN21-4606 | 2.0 | 1.0 | 1.0 | 1.0 | 2.0 | . | 1.0 | 1.0 | 1.3 |
| TN21-4659 | 3.2 | 1.0 | 1.5 | 1.0 | 2.0 | . | 1.0 | 1.0 | 1.5 |
| TN21-4721R1 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | . | 1.0 | 1.0 | 1.1 |
| TN21-4723R1 | 2.5 | 1.0 | 1.5 | 1.0 | 1.0 | . | 1.0 | 1.0 | 1.3 |
| V18-0483DT | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | . | 1.0 | 1.0 | 1.1 |
| V18-2973OA | 3.0 | 2.0 | 2.0 | 1.0 | 2.5 | . | 3.3 | 1.0 | 2.1 |
| V18-3977 | 2.2 | 1.0 | 1.0 | 1.0 | 2.0 | . | 1.8 | 1.0 | 1.4 |
| V18-4246R | 2.7 | 1.0 | 1.0 | 1.0 | 2.0 | . | 2.0 | 1.0 | 1.5 |
| | | | | | | | | | |
| Mean | 2.5 | 1.9 | 1.5 | 1.0 | 1.8 | . | 1.9 | 1.1 | 1.7 |
| LSD(0.05) | 0.7 | 0.8 | 0.5 | . | 1.1 | . | 3.8 | 0.4 | 0.8 |
| CV(%) | 13.4 | 20.7 | 16.1 | . | 31.0 | . | 96.2 | 17.3 | 55.4 |

***TABLE 46 - SEED QUALITY (1-5)***
***PRELIMINARY GROUP IV-S-LATE 2023***

| STRAIN/ VARIETY | Knoxville, TN | Marianna, AR | McCune, KS | Orange, VA | Portageville, MO(B) | Starkville, MS | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| S16-7922 | 1.5 | 1.0 | 2.0 | 1 | 2.0 | . | . | 1.5 | 1.5 |
| AG46X6 | 1.5 | 2.0 | 2.0 | 2 | 2.5 | . | . | 2.0 | 2.0 |
| AG48X9 | 1.5 | 3.0 | 1.0 | 2 | 2.0 | . | . | 2.0 | 1.9 |
| AG48XF2 | 1.5 | 2.0 | 2.0 | 2 | 2.0 | . | . | 2.0 | 1.9 |
| DS1627-12 | 1.5 | 2.0 | 2.0 | 1 | 2.0 | . | . | 1.5 | 1.7 |
| JT22-5023 | 1.5 | 1.0 | 2.0 | 1 | 1.5 | . | . | 1.0 | 1.3 |
| JT22-5024 | 1.5 | 1.0 | 1.0 | 1 | 1.0 | . | . | 1.0 | 1.1 |
| R18C-13665 | 1.5 | 2.0 | 2.0 | 1 | 2.0 | . | . | 1.5 | 1.7 |
| R19-39415 | 1.5 | 1.5 | 2.0 | 1 | 2.0 | . | . | 2.0 | 1.7 |
| R19C-1001 | 1.5 | 3.0 | 2.0 | 1 | 2.0 | . | . | 1.5 | 1.8 |
| R19C-2678 | 1.5 | 1.5 | 2.0 | 1 | 2.0 | . | . | 1.5 | 1.6 |
| R19C-3147 | 1.5 | 2.0 | 2.0 | 2 | 2.0 | . | . | 1.5 | 1.8 |
| S20-13444 | 1.5 | 1.0 | 2.0 | 2 | 2.0 | . | . | 2.0 | 1.7 |
| S20-14129 | 1.5 | 1.0 | 1.0 | 1 | 1.5 | . | . | 1.5 | 1.3 |
| S20-15411 | 1.5 | 1.0 | 2.0 | 1 | 1.5 | . | . | 1.0 | 1.3 |
| S20-5669 | 1.5 | 2.0 | 2.0 | 2 | 1.5 | . | . | 2.0 | 1.8 |
| S20-7117 | 1.5 | 2.0 | 1.0 | 2 | 1.5 | . | . | 1.5 | 1.6 |
| TN19-4070 | 1.8 | 1.5 | 2.0 | 1 | 2.5 | . | . | 2.0 | 1.8 |
| TN20-4708R1 | 1.5 | 1.5 | 2.0 | 1 | 1.5 | . | . | 1.0 | 1.4 |
| TN21-4606 | 1.5 | 1.0 | 1.0 | 1 | 2.0 | . | . | 1.0 | 1.3 |
| TN21-4659 | 1.5 | 1.0 | 2.0 | 1 | 1.5 | . | . | 1.5 | 1.4 |
| TN21-4721R1 | 1.5 | 1.5 | 2.0 | 1 | 1.5 | . | . | 1.5 | 1.5 |
| TN21-4723R1 | 1.5 | 1.0 | 2.0 | 1 | 1.5 | . | . | 1.0 | 1.3 |
| V18-0483DT | 1.5 | 2.0 | 2.0 | 1 | 1.5 | . | . | 1.5 | 1.6 |
| V18-2973OA | 1.5 | 1.5 | 2.0 | 2 | 1.5 | . | . | 1.5 | 1.6 |
| V18-3977 | 1.5 | 1.5 | 3.0 | 1 | 1.5 | . | . | 2.0 | 1.7 |
| V18-4246R | 1.5 | 1.0 | 2.0 | 1 | 2.0 | . | . | 2.0 | 1.6 |
| | | | | | | | | | |
| Mean | 1.5 | 1.6 | 1.9 | 1 | 1.8 | . | . | 1.6 | 1.6 |
| LSD(0.05) | 0.1 | 0.7 | . | 1 | 1.0 | . | . | 1.0 | 0.4 |
| CV(%) | 4.5 | 22.9 | . | 32 | 28.6 | . | . | 30.1 | 27.5 |

## TABLE 47 - SEED SIZE (GRAMS PER 100 SEED)
## PRELIMINARY GROUP IV-S-LATE 2023

| STRAIN/ VARIETY | Knoxville, TN | Marianna, AR | McCune, KS | Orange, VA | Portageville, MO(B) | Starkville, MS | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| S16-7922 | 12.2 | 12.2 | 12.7 | 16 | 13.2 | . | . | 14.3 | 13.3 |
| AG46X6 | 16.4 | 15.9 | 14.5 | 16 | 17.4 | . | . | 17.6 | 16.2 |
| AG48X9 | 13.4 | 13.7 | 13.3 | 14 | 15.1 | . | . | 15.9 | 14.2 |
| AG48XF2 | 15.5 | 14.5 | 13.5 | 14 | 16.3 | . | . | 16.5 | 15.0 |
| DS1627-12 | 12.1 | 12.5 | 12.7 | 15 | 13.4 | . | . | 14.4 | 13.3 |
| JT22-5023 | 12.7 | 11.4 | 12.2 | 14 | 11.8 | . | . | 13.4 | 12.5 |
| JT22-5024 | 13.2 | 11.7 | 12.3 | 15 | 12.0 | . | . | 13.2 | 12.8 |
| R18C-13665 | 12.6 | 13.9 | 13.1 | 16 | 14.9 | . | . | 16.0 | 14.4 |
| R19-39415 | 15.3 | 15.2 | 15.3 | 18 | 16.0 | . | . | 17.2 | 16.1 |
| R19C-1001 | 12.1 | 11.8 | 12.5 | 14 | 12.7 | . | . | 13.4 | 12.6 |
| R19C-2678 | 10.8 | 11.4 | 11.6 | 14 | 11.8 | . | . | 12.7 | 11.9 |
| R19C-3147 | 14.2 | 12.6 | 14.2 | 14 | 14.7 | . | . | 14.8 | 14.0 |
| S20-13444 | 14.2 | 15.5 | 13.7 | 15 | 16.5 | . | . | 16.7 | 15.3 |
| S20-14129 | 13.2 | 14.9 | 12.7 | 16 | 14.7 | . | . | 16.6 | 14.7 |
| S20-15411 | 10.8 | 10.8 | 10.0 | 12 | 11.1 | . | . | 12.5 | 11.1 |
| S20-5669 | 15.6 | 16.9 | 13.9 | 16 | 16.7 | . | . | 19.1 | 16.5 |
| S20-7117 | 14.6 | 14.6 | 11.8 | 16 | 15.9 | . | . | 17.5 | 15.1 |
| TN19-4070 | 12.7 | 13.4 | 12.2 | 16 | 14.0 | . | . | 14.4 | 13.7 |
| TN20-4708R1 | 10.0 | 10.5 | 10.1 | 13 | 10.8 | . | . | 12.0 | 11.0 |
| TN21-4606 | 13.5 | 13.1 | 10.5 | 14 | 12.1 | . | . | 15.8 | 13.2 |
| TN21-4659 | 11.8 | 11.8 | 11.4 | 14 | 12.2 | . | . | 13.3 | 12.4 |
| TN21-4721R1 | 9.7 | 10.2 | 9.6 | 12 | 9.9 | . | . | 11.9 | 10.5 |
| TN21-4723R1 | 10.2 | 11.1 | 10.3 | 13 | 11.2 | . | . | 13.3 | 11.4 |
| V18-0483DT | 12.0 | 12.6 | 10.7 | 16 | 12.4 | . | . | 13.6 | 12.8 |
| V18-2973OA | 13.1 | 12.3 | 13.6 | 16 | 12.8 | . | . | 13.6 | 13.5 |
| V18-3977 | 12.6 | 12.1 | 11.1 | 14 | 12.6 | . | . | 13.4 | 12.6 |
| V18-4246R | 12.3 | 12.2 | 13.2 | 14 | 13.1 | . | . | 14.4 | 13.1 |
| | | | | | | | | | |
| Mean | 12.8 | 12.9 | 12.3 | 15 | 13.5 | . | . | 14.7 | 13.5 |
| LSD(0.05) | 1.0 | 0.8 | . | 3 | 0.9 | . | . | 1.3 | 0.9 |
| CV(%) | 3.7 | 2.9 | . | 8 | 3.2 | . | . | 4.2 | 6.7 |

***TABLE 48 - OIL (%)†***
***PRELIMINARY GROUP IV-S-LATE 2023***

| STRAIN/ VARIETY | Knoxville, TN | Marianna, AR | McCune, KS | Orange, VA | Portageville, MO(B) | Starkville, MS | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| S16-7922 | 20.3 | 19.0 | 19.1 | 20.3 | 18.7 | . | 19.4 | 20.1 | 19.6 |
| AG46X6 | 20.7 | 19.7 | 19.9 | 19.7 | 19.1 | . | 20.1 | 18.8 | 19.7 |
| AG48X9 | 20.8 | 19.9 | 19.1 | 20.6 | 19.1 | . | 20.3 | 20.0 | 20.0 |
| AG48XF2 | 20.7 | 19.5 | 19.9 | 20.2 | 19.1 | . | 19.6 | 18.7 | 19.7 |
| DS1627-12 | 18.6 | 17.1 | 16.4 | 18.9 | 17.0 | . | 17.7 | 17.5 | 17.6 |
| JT22-5023 | 19.3 | 18.5 | 18.0 | 19.3 | 18.0 | . | 19.2 | 19.0 | 18.7 |
| JT22-5024 | 19.2 | 18.5 | 18.3 | 19.1 | 18.0 | . | 19.4 | 19.1 | 18.8 |
| R18C-13665 | 20.3 | 18.8 | 19.6 | 19.9 | 18.7 | . | 19.7 | 19.7 | 19.5 |
| R19-39415 | 21.6 | 19.1 | 19.2 | 20.1 | 19.2 | . | 19.5 | 19.9 | 19.8 |
| R19C-1001 | 20.2 | 19.1 | 18.8 | 20.3 | 18.3 | . | 19.7 | 19.6 | 19.4 |
| R19C-2678 | 19.3 | 18.3 | 18.7 | 19.9 | 18.5 | . | 18.9 | 19.3 | 19.0 |
| R19C-3147 | 19.9 | 18.3 | 18.6 | 19.9 | 18.4 | . | 18.7 | 19.2 | 19.0 |
| S20-13444 | 20.4 | 18.9 | 19.3 | 20.9 | 19.3 | . | 20.0 | 19.6 | 19.8 |
| S20-14129 | 20.1 | 19.2 | 18.8 | 20.6 | 18.9 | . | 19.8 | 20.1 | 19.6 |
| S20-15411 | 19.5 | 18.9 | 19.4 | 19.9 | 18.3 | . | 18.9 | 18.9 | 19.1 |
| S20-5669 | 21.5 | 20.0 | 19.1 | 21.1 | 19.8 | . | 21.2 | 20.4 | 20.4 |
| S20-7117 | 19.4 | 17.8 | 18.9 | 19.6 | 18.4 | . | 19.5 | 19.0 | 18.9 |
| TN19-4070 | 20.5 | 18.7 | 19.6 | 20.3 | 18.6 | . | 19.8 | 19.9 | 19.6 |
| TN20-4708R1 | 19.1 | 18.8 | 19.0 | 19.2 | 18.3 | . | 19.6 | 19.3 | 19.0 |
| TN21-4606 | 19.4 | 19.2 | 18.7 | 19.5 | 18.7 | . | 19.4 | 18.9 | 19.1 |
| TN21-4659 | 19.9 | 18.6 | 19.0 | 19.3 | 18.5 | . | 19.3 | 19.7 | 19.2 |
| TN21-4721R1 | 19.7 | 18.7 | 18.8 | 19.8 | 18.8 | . | 19.8 | 19.9 | 19.3 |
| TN21-4723R1 | 19.1 | 18.2 | 18.6 | 18.5 | 17.9 | . | 18.8 | 18.4 | 18.5 |
| V18-0483DT | 20.3 | 19.5 | 19.5 | 20.8 | 19.4 | . | 20.3 | 20.0 | 20.0 |
| V18-2973OA | 20.7 | 19.1 | 19.6 | 20.3 | 19.7 | . | 19.8 | 19.8 | 19.9 |
| V18-3977 | 21.3 | 20.7 | 20.0 | 21.0 | 20.6 | . | 20.5 | 20.2 | 20.6 |
| V18-4246R | 20.9 | 19.3 | 19.6 | 21.1 | 19.8 | . | 19.8 | 20.1 | 20.1 |
| Mean | 20.1 | 18.9 | 19.0 | 20.0 | 18.8 | . | 19.6 | 19.4 | 19.4 |
| LSD(0.05) | . | . | . | . | . | . | . | . | 0.4 |
| CV(%) | . | . | . | . | . | . | . | . | 1.8 |

† Oil percentage is reported on a 13% moisture basis beginning in 2015.

***TABLE 49 - PROTEIN (%)†***
***PRELIMINARY GROUP IV-S-LATE 2023***

| STRAIN/ VARIETY | Knoxville, TN | Marianna, AR | McCune, KS | Orange, VA | Portageville, MO(B) | Starkville, MS | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| S16-7922 | 34.1 | 35.9 | 35.9 | 32.4 | 36.2 | . | 36.7 | 35.8 | 35.3 |
| AG46X6 | 34.0 | 35.7 | 35.0 | 32.8 | 36.7 | . | 34.1 | 36.3 | 34.9 |
| AG48X9 | 34.4 | 36.1 | 35.8 | 32.3 | 35.9 | . | 34.7 | 35.3 | 34.9 |
| AG48XF2 | 33.5 | 35.7 | 34.2 | 31.5 | 35.3 | . | 34.5 | 35.3 | 34.3 |
| DS1627-12 | 35.3 | 38.1 | 37.8 | 33.0 | 37.0 | . | 37.9 | 37.9 | 36.7 |
| JT22-5023 | 33.8 | 35.0 | 35.5 | 31.0 | 34.8 | . | 35.4 | 35.2 | 34.4 |
| JT22-5024 | 34.0 | 34.8 | 33.7 | 31.7 | 34.8 | . | 34.8 | 35.3 | 34.2 |
| R18C-13665 | 33.9 | 35.8 | 34.7 | 31.5 | 35.3 | . | 35.1 | 34.9 | 34.5 |
| R19-39415 | 35.2 | 36.0 | 35.7 | 31.8 | 34.9 | . | 36.1 | 34.7 | 34.9 |
| R19C-1001 | 33.7 | 34.3 | 35.3 | 31.4 | 35.9 | . | 35.1 | 34.7 | 34.3 |
| R19C-2678 | 35.7 | 37.0 | 36.4 | 31.5 | 35.6 | . | 36.8 | 35.9 | 35.6 |
| R19C-3147 | 35.5 | 36.6 | 35.0 | 31.7 | 36.3 | . | 37.0 | 34.3 | 35.2 |
| S20-13444 | 33.5 | 35.6 | 34.7 | 30.6 | 34.9 | . | 35.7 | 35.0 | 34.3 |
| S20-14129 | 34.0 | 36.1 | 36.0 | 30.5 | 35.4 | . | 35.3 | 34.7 | 34.6 |
| S20-15411 | 35.5 | 36.3 | 35.2 | 32.5 | 36.8 | . | 37.8 | 37.3 | 35.9 |
| S20-5669 | 34.4 | 36.3 | 36.7 | 31.5 | 35.9 | . | 32.9 | 35.6 | 34.8 |
| S20-7117 | 36.1 | 38.3 | 36.9 | 34.2 | 37.2 | . | 34.2 | 38.1 | 36.4 |
| TN19-4070 | 34.9 | 38.3 | 35.9 | 31.8 | 36.7 | . | 36.6 | 36.0 | 35.7 |
| TN20-4708R1 | 35.4 | 36.2 | 35.7 | 31.9 | 35.9 | . | 34.9 | 35.8 | 35.1 |
| TN21-4606 | 37.2 | 36.7 | 36.8 | 34.4 | 36.4 | . | 36.8 | 37.2 | 36.5 |
| TN21-4659 | 34.0 | 36.1 | 35.3 | 32.4 | 35.2 | . | 35.8 | 34.6 | 34.8 |
| TN21-4721R1 | 33.7 | 36.0 | 35.6 | 31.9 | 35.0 | . | 34.8 | 34.3 | 34.5 |
| TN21-4723R1 | 34.1 | 35.7 | 34.8 | 32.4 | 35.1 | . | 35.2 | 35.0 | 34.6 |
| V18-0483DT | 34.1 | 35.6 | 35.7 | 32.5 | 36.3 | . | 35.5 | 35.4 | 35.0 |
| V18-2973OA | 35.8 | 37.4 | 36.4 | 34.7 | 37.2 | . | 38.0 | 36.6 | 36.6 |
| V18-3977 | 33.3 | 34.1 | 34.1 | 31.5 | 33.3 | . | 34.3 | 34.6 | 33.6 |
| V18-4246R | 33.7 | 35.9 | 35.4 | 30.9 | 34.4 | . | 35.8 | 35.3 | 34.5 |
| Mean | 34.5 | 36.1 | 35.6 | 32.1 | 35.7 | . | 35.6 | 35.6 | 35.0 |
| LSD(0.05) | . | . | . | . | . | . | . | . | 0.7 |
| CV(%) | . | . | . | . | . | . | . | . | 2.0 |

† Protein percentage is reported on a 13% moisture basis beginning in 2015.

***TABLE 50 - ESTIMATED MEAL PROTEIN (%)†***
***PRELIMINARY GROUP IV-S-LATE 2023***

| STRAIN/ VARIETY | Knoxville, TN | Marianna, AR | McCune, KS | Orange, VA | Portageville, MO(B) | Starkville, MS | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| S16-7922 | 46.5 | 48.2 | 48.2 | 44.2 | 48.4 | . | 49.4 | 48.7 | 47.7 |
| AG46X6 | 46.5 | 48.3 | 47.5 | 44.4 | 49.2 | . | 46.4 | 48.6 | 47.3 |
| AG48X9 | 47.2 | 49.0 | 48.1 | 44.2 | 48.2 | . | 47.3 | 48.0 | 47.4 |
| AG48XF2 | 45.9 | 48.2 | 46.4 | 42.9 | 47.4 | . | 46.7 | 47.1 | 46.4 |
| DS1627-12 | 47.1 | 49.9 | 49.1 | 44.2 | 48.4 | . | 50.0 | 49.9 | 48.4 |
| JT22-5023 | 45.5 | 46.7 | 47.1 | 41.7 | 46.1 | . | 47.6 | 47.2 | 46.0 |
| JT22-5024 | 45.8 | 46.5 | 44.8 | 42.5 | 46.1 | . | 46.9 | 47.5 | 45.7 |
| R18C-13665 | 46.2 | 47.9 | 46.8 | 42.8 | 47.2 | . | 47.6 | 47.3 | 46.5 |
| R19-39415 | 48.8 | 48.3 | 48.0 | 43.3 | 47.0 | . | 48.7 | 47.1 | 47.3 |
| R19C-1001 | 45.8 | 46.1 | 47.3 | 42.8 | 47.8 | . | 47.5 | 46.9 | 46.3 |
| R19C-2678 | 48.1 | 49.2 | 48.7 | 42.8 | 47.5 | . | 49.4 | 48.4 | 47.7 |
| R19C-3147 | 48.2 | 48.7 | 46.7 | 43.0 | 48.3 | . | 49.4 | 46.1 | 47.2 |
| S20-13444 | 45.8 | 47.8 | 46.7 | 42.0 | 47.0 | . | 48.5 | 47.3 | 46.4 |
| S20-14129 | 46.3 | 48.6 | 48.1 | 41.7 | 47.4 | . | 47.9 | 47.2 | 46.7 |
| S20-15411 | 47.9 | 48.7 | 47.5 | 44.1 | 49.0 | . | 50.6 | 50.0 | 48.3 |
| S20-5669 | 47.6 | 49.3 | 49.2 | 43.4 | 48.7 | . | 45.4 | 48.6 | 47.5 |
| S20-7117 | 48.6 | 50.6 | 49.4 | 46.2 | 49.6 | . | 46.2 | 51.1 | 48.8 |
| TN19-4070 | 47.7 | 51.1 | 48.5 | 43.3 | 49.0 | . | 49.6 | 48.8 | 48.3 |
| TN20-4708R1 | 47.6 | 48.4 | 47.9 | 42.9 | 47.8 | . | 47.2 | 48.2 | 47.1 |
| TN21-4606 | 50.1 | 49.4 | 49.2 | 46.4 | 48.6 | . | 49.6 | 49.9 | 49.0 |
| TN21-4659 | 46.1 | 48.2 | 47.4 | 43.6 | 46.9 | . | 48.2 | 46.9 | 46.8 |
| TN21-4721R1 | 45.7 | 48.1 | 47.6 | 43.2 | 46.9 | . | 47.2 | 46.5 | 46.5 |
| TN21-4723R1 | 45.9 | 47.4 | 46.4 | 43.3 | 46.4 | . | 47.1 | 46.7 | 46.2 |
| V18-0483DT | 46.5 | 48.0 | 48.2 | 44.6 | 49.0 | . | 48.3 | 48.1 | 47.5 |
| V18-2973OA | 49.0 | 50.3 | 49.2 | 47.3 | 50.4 | . | 51.5 | 49.6 | 49.6 |
| V18-3977 | 46.0 | 46.8 | 46.4 | 43.4 | 45.5 | . | 46.9 | 47.1 | 46.0 |
| V18-4246R | 46.3 | 48.3 | 47.9 | 42.5 | 46.7 | . | 48.5 | 48.0 | 46.9 |
| Mean | 47.0 | 48.4 | 47.7 | 43.6 | 47.8 | . | 48.1 | 48.0 | 47.2 |
| LSD(0.05) | . | . | . | . | . | . | . | . | 0.9 |
| CV(%) | . | . | . | . | . | . | . | . | 1.7 |

† Estimated meal protein percentage is reported on a 13% moisture basis.

## *SUMMARY OF SEED FATTY ACIDS (%)*
## *PRELIMINARY TEST IV-S-LATE 2023 †*

| STRAIN/ VARIETY | Palmitic Acid | Stearic Acid | Oleic Acid | Linoleic Acid | Linolenic Acid |
|---|---|---|---|---|---|
| S16-7922 | 10.9 | 3.2 | 25.3 | 54.7 | 5.9 |
| AG46X6 | 12.1 | 3.9 | 19.4 | 57.4 | 7.1 |
| TN21-4606 | 7.0 | 2.6 | 83.6 | 3.6 | 3.1 |
| TN21-4721R1 | 9.4 | 3.5 | 54.2 | 30.0 | 2.8 |
| V18-2973OA | 8.0 | 3.7 | 76.4 | 7.5 | 4.5 |
| | | | | | |
| Mean | 9.5 | 3.4 | 51.8 | 30.7 | 4.7 |
| LSD(0.05) | 0.6 | 0.2 | 6.3 | 5.7 | 0.4 |
| CV(%) | 6.0 | 4.1 | 11.1 | 16.8 | 8.0 |

† Fatty acid percentage in seed oil reported beginning in 2017.

## *SEED PALMITIC ACID (%)*
## *PRELIMINARY GROUP IV-S-LATE 2023*

| STRAIN/ VARIETY | Knoxville, TN | Marianna, AR | McCune, KS | Orange, VA | Portageville, MO(B) | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|---|
| S16-7922 | 11.2 | 10.6 | 10.5 | 10.5 | 10.7 | 11.6 | 11.3 | 10.9 |
| AG46X6 | 12.4 | 12.1 | 12.0 | 12.3 | 12.2 | 12.1 | 11.6 | 12.1 |
| TN21-4606 | 7.2 | 6.8 | 6.4 | 6.8 | 6.9 | 7.7 | 7.3 | 7.0 |
| TN21-4721R1 | 9.9 | 8.8 | 10.5 | 9.0 | 7.4 | 9.8 | 10.4 | 9.4 |
| V18-2973OA | 7.4 | 7.3 | 7.8 | 8.1 | 8.1 | 8.7 | 8.4 | 8.0 |
| | | | | | | | | |
| Mean | 9.6 | 9.1 | 9.4 | 9.3 | 9.1 | 10.0 | 9.8 | 9.5 |
| LSD(0.05) | . | . | . | . | . | . | . | 0.6 |
| CV(%) | . | . | . | . | . | . | . | 6.0 |

## *SEED STEARIC ACID (%)*
## *PRELIMINARY GROUP IV-S-LATE 2023*

| STRAIN/ VARIETY | Knoxville, TN | Marianna, AR | McCune, KS | Orange, VA | Portageville, MO(B) | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|---|
| S16-7922 | 3.2 | 3.0 | 3.9 | 3.2 | 3.2 | 2.8 | 3.1 | 3.2 |
| AG46X6 | 4.0 | 3.7 | 4.5 | 3.8 | 3.8 | 3.9 | 3.7 | 3.9 |
| TN21-4606 | 2.5 | 2.3 | 3.4 | 2.5 | 2.7 | 2.2 | 2.4 | 2.6 |
| TN21-4721R1 | 3.4 | 3.5 | 4.6 | 3.1 | 3.4 | 3.4 | 3.3 | 3.5 |
| V18-2973OA | 3.7 | 3.6 | 4.5 | 3.3 | 3.6 | 3.4 | 3.6 | 3.7 |
| | | | | | | | | |
| Mean | 3.4 | 3.2 | 4.2 | 3.2 | 3.4 | 3.1 | 3.2 | 3.4 |
| LSD(0.05) | . | . | . | . | . | . | . | 0.2 |
| CV(%) | . | . | . | . | . | . | . | 4.1 |

## SEED OLEIC ACID (%)
## PRELIMINARY GROUP IV-S-LATE 2023

| STRAIN/ VARIETY | Knoxville, TN | Marianna, AR | McCune, KS | Orange, VA | Portageville, MO(B) | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|---|
| S16-7922 | 25.8 | 25.5 | 26.7 | 22.4 | 24.6 | 28.0 | 24.3 | 25.3 |
| AG46X6 | 20.4 | 19.5 | 20.9 | 17.3 | 19.4 | 19.6 | 19.1 | 19.4 |
| TN21-4606 | 85.5 | 84.7 | 82.1 | 82.6 | 82.5 | 83.6 | 84.5 | 83.6 |
| TN21-4721R1 | 51.3 | 62.4 | 41.2 | 57.7 | 73.8 | 54.1 | 39.0 | 54.2 |
| V18-2973OA | 80.4 | 81.8 | 78.5 | 69.9 | 78.1 | 75.6 | 70.1 | 76.4 |
| Mean | 52.7 | 54.8 | 49.9 | 50.0 | 55.7 | 52.2 | 47.4 | 51.8 |
| LSD(0.05) | . | . | . | . | . | . | . | 6.3 |
| CV(%) | . | . | . | . | . | . | . | 11.1 |

## SEED LINOLEIC ACID (%)
## PRELIMINARY GROUP IV-S-LATE 2023

| STRAIN/ VARIETY | Knoxville, TN | Marianna, AR | McCune, KS | Orange, VA | Portageville, MO(B) | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|---|
| S16-7922 | 53.9 | 55.2 | 52.8 | 57.2 | 55.4 | 52.8 | 55.5 | 54.7 |
| AG46X6 | 55.9 | 58.1 | 55.8 | 58.2 | 57.1 | 58.4 | 58.5 | 57.4 |
| TN21-4606 | 1.6 | 3.5 | 4.7 | 4.3 | 4.5 | 4.1 | 2.8 | 3.6 |
| TN21-4721R1 | 32.5 | 22.7 | 40.7 | 27.2 | 12.8 | 29.7 | 44.6 | 30.0 |
| V18-2973OA | 3.7 | 3.3 | 4.6 | 13.4 | 4.5 | 9.0 | 13.7 | 7.5 |
| Mean | 29.5 | 28.6 | 31.7 | 32.1 | 26.9 | 30.8 | 35.0 | 30.7 |
| LSD(0.05) | . | . | . | . | . | . | . | 5.7 |
| CV(%) | . | . | . | . | . | . | . | 16.8 |

## SEED LINOLENIC ACID (%)
## PRELIMINARY GROUP IV-S-LATE 2023

| STRAIN/ VARIETY | Knoxville, TN | Marianna, AR | McCune, KS | Orange, VA | Portageville, MO(B) | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|---|
| S16-7922 | 5.9 | 5.7 | 6.1 | 6.7 | 6.1 | 4.8 | 5.7 | 5.9 |
| AG46X6 | 7.3 | 6.6 | 6.9 | 8.5 | 7.5 | 6.0 | 7.2 | 7.1 |
| TN21-4606 | 3.2 | 2.7 | 3.4 | 3.9 | 3.3 | 2.4 | 3.0 | 3.1 |
| TN21-4721R1 | 2.9 | 2.6 | 3.0 | 3.0 | 2.6 | 3.0 | 2.7 | 2.8 |
| V18-2973OA | 4.7 | 4.0 | 4.5 | 5.3 | 5.6 | 3.3 | 4.1 | 4.5 |
| Mean | 4.8 | 4.3 | 4.8 | 5.5 | 5.0 | 3.9 | 4.5 | 4.7 |
| LSD(0.05) | . | . | . | . | . | . | . | 0.4 |
| CV(%) | . | . | . | . | . | . | . | 8.0 |

***TABLE 51 - PARENTAGE OF ENTRIES***
***UNIFORM GROUP V 2023***

| Ent | Strain/Variety | Parentage | Source | Fn | Trans-genic† | Special Traits‡ |
|---|---|---|---|---|---|---|
| 1 | S16-14869 | Commercial check | check | | | |
| 2 | AG53XF2 | Commercial check | check | | RR2, LL, DIC | |
| 3 | AG55XF0 | Commercial check | check | | RR2, LL, DIC | |
| 4 | AG56XF2 | Commercial check | check | | RR2, LL, DIC | |
| 5 | TN09-008 | Commercial check | check | | | |
| 6 | TN11-5140 | Commercial check | check | | | |
| 7 | DA1539-1010F | DB04-10836 x R10-5086 | Gillen | | | |
| 8 | K19-3177 | K12-1348 / N10-7404 | Schapaugh | F5 | | |
| 9 | N16-10889 | NC-Roy x N01-11771 | Fallen | | | |
| 10 | N17-2488 | R05-655 x NC-Miller | Mian | | | High oil |
| 11 | N18-235 | Ellis x R10-3536 | Mian | | | High oil |
| 12 | N19-1095 | N06-06 x R11-8346 | Mian | | | High meal |
| 13 | N19-1097 | N06-06 x R11-8346 | Mian | | | High protein |
| 14 | NDPJE-14-133 | N07-14221 x Clifford | Fallen | | | 12.5% exotic |
| 15 | NDPJE-14-217 | N07-14221 x Clifford | Fallen | | | 12.5% exotic |
| 16 | R18-10491 | R09-3742 / R10-28 | Vieira | F4:5 | | High protein, 50% protein meal |
| 17 | S17-2509 | S11-20124 x S13-11940 | Shannon | | | SCN, RKN, SC, High oil |
| 18 | S19-12537 | S13-10590 x K14-1717 | Shannon | | | SCN, RKN, SC, BSR, High oil |
| 19 | S19-14797 | S11-16653 x S15-11985 | Shannon | | | SCN, RKN, SC, BSR,PRR,High oil |
| 20 | S19-19764 | S11-16653 BC-12-36 | Shannon | | | SCN, SC, PRR,BSR, Salt Exclude, HOLN |
| 21 | S19-19923 | S11-16653 BC | Shannon | | | SCN,RKN,PRR,BSR,SC,Salt Excluder, HOLN |
| 22 | TN21-5002 | S13-10590 x Ellis-HOLL | Pantalone | | | HOLN |
| 23 | V16-1706R2 | 04-05-N41 x RR2Y | B. Zhang | | RR2 | |
| 24 | V17-2361R | S09-6201 x V11-3163 | B. Zhang | | RR1 | |
| 25 | V18-0400 | R05-4114 x R09-430 | B. Zhang | | | |
| 26 | V18-0678 | V12-4831 x R10-5086 | B. Zhang | | | |
| 27 | V18-1255 | Md 99-6226 x R11-8346 | B. Zhang | | | |
| 28 | V18-2423 | Ellis x Md 99-6226 | B. Zhang | | | |
| 29 | V18-4040HP | V11-3485 x R11-8346 | B. Zhang | | | |
| 30 | V18-4411R2DI | V12-0287R2 x R09-1418 | B. Zhang | | RR2 | |
| 31 | V19-1409RR | Ellis x V11-3392 | B. Zhang | | RR1 | |

† Conv= Conventional(non-transgenic),DIC - Dicamba resistance Xtend®, E3= Enlist E3®, LL=Liberty Link®, RR1=Roundup Ready®, RR2=Roundup Ready 2 Yield®,

‡ AA= modified amino acids, DNC= Do not cross with this, FLS= Frogeye leaf spot resistance, LJ= Long juvenile, LN= low linolenic acid, LP= low phytate, HO= high olelic acid, HOLN= high oleic acid/low linolenic acid, SC= Southern stem canker, SCN= Soybean cyst nematode resistance, SR= Soybean rust resistance, and STS= sulfonylurea tolerant

***TABLE 52 - GENERAL SUMMARY OF PERFORMANCE***
***UNIFORM TEST V 2023***

| STRAIN/ VARIETY | RANK | AVG. RANK | YIELD† 2023 | YIELD† 22-23 | YIELD† 21-23 | PROTEIN‡ 2023 | PROTEIN‡ 22-23 | PROTEIN‡ 21-23 | OIL‡ 2023 | OIL‡ 22-23 | OIL‡ 21-23 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S16-14869 | 16 | 14 | 59.9 | 58.8 | 63.3 | 34.5 | 34.6 | 34.7 | 19.6 | 19.5 | 19.4 |
| AG53XF2 | 4 | 10 | 63.2 | 60.2 | . | 33.2 | 33.2 | . | 20.0 | 19.9 | . |
| AG55XF0 | 9 | 14 | 61.1 | 58.8 | . | 34.7 | 34.9 | . | 19.0 | 18.9 | . |
| AG56XF2 | 7 | 13 | 61.3 | 60.3 | . | 35.0 | 34.7 | . | 18.6 | 18.7 | . |
| TN09-008 | 20 | 17 | 57.9 | 53.5 | 55.5 | 33.2 | 32.9 | 33.1 | 19.5 | 19.6 | 19.5 |
| TN11-5140 | 10 | 16 | 60.9 | 55.9 | 58.9 | 35.1 | 35.3 | 35.4 | 19.5 | 19.2 | 19.2 |
| DA1539-1010F | 17 | 16 | 58.5 | 55.6 | . | 34.8 | 34.8 | . | 19.4 | 19.3 | . |
| K19-3177 | 3 | 9 | 63.5 | . | . | 34.0 | . | . | 18.8 | . | . |
| N16-10889 | 31 | 19 | 54.6 | . | . | 36.0 | . | . | 18.3 | . | . |
| N17-2488 | 28 | 22 | 56.0 | 53.7 | 54.7 | 33.7 | 33.8 | 33.9 | 20.8 | 20.8 | 20.7 |
| N18-235 | 27 | 19 | 56.0 | 54.0 | . | 34.8 | 34.6 | . | 20.0 | 20.1 | . |
| N19-1095 | 18 | 19 | 58.2 | . | . | 36.8 | . | . | 18.8 | . | . |
| N19-1097 | 26 | 22 | 56.5 | . | . | 37.4 | . | . | 18.8 | . | . |
| NDPJE-14-133 | 24 | 20 | 57.1 | . | . | 35.7 | . | . | 19.0 | . | . |
| NDPJE-14-217 | 11 | 16 | 60.7 | 56.6 | 59.8 | 35.7 | 35.6 | 35.6 | 18.8 | 18.8 | 18.9 |
| R18-10491 | 25 | 22 | 56.5 | . | . | 37.9 | . | . | 18.4 | . | . |
| S17-2509 | 2 | 8 | 65.0 | . | . | 35.4 | . | . | 19.3 | . | . |
| S19-12537 | 1 | 7 | 65.3 | . | . | 35.0 | . | . | 19.6 | . | . |
| S19-14797 | 12 | 14 | 60.7 | . | . | 35.3 | . | . | 19.2 | . | . |
| S19-19764 | 13 | 13 | 60.3 | . | . | 36.5 | . | . | 19.0 | . | . |
| S19-19923 | 19 | 18 | 58.2 | . | . | 36.8 | . | . | 19.1 | . | . |
| TN21-5002 | 23 | 18 | 57.1 | . | . | 35.4 | . | . | 19.3 | . | . |
| V16-1706R2 | 5 | 13 | 62.0 | . | . | 34.7 | . | . | 18.9 | . | . |
| V17-2361R | 22 | 18 | 57.6 | 54.3 | 56.8 | 36.5 | 36.5 | 36.8 | 18.7 | 18.7 | 18.6 |
| V18-0400 | 14 | 13 | 60.3 | . | . | 35.8 | . | . | 19.3 | . | . |
| V18-0678 | 15 | 15 | 60.3 | . | . | 35.7 | . | . | 20.0 | . | . |
| V18-1255 | 8 | 13 | 61.2 | . | . | 35.8 | . | . | 19.2 | . | . |
| V18-2423 | 21 | 17 | 57.6 | . | . | 35.4 | . | . | 18.8 | . | . |
| V18-4040HP | 29 | 23 | 54.9 | . | . | 37.9 | . | . | 18.0 | . | . |
| V18-4411R2DI | 30 | 24 | 54.8 | . | . | 36.7 | . | . | 18.6 | . | . |
| V19-1409RR | 6 | 13 | 61.7 | . | . | 33.7 | . | . | 19.3 | . | . |
| | | | | | | | | | | | |
| Mean | . | . | 59.3 | . | . | 35.4 | . | . | 19.1 | . | . |
| LSD(0.05) | . | . | 5.0 | . | . | 0.6 | . | . | 0.3 | . | . |
| LSD(0.10) | . | . | 4.2 | . | . | . | . | . | . | . | . |
| CV(%) | . | . | 14.1 | . | . | 2.1 | . | . | 2.2 | . | . |

and Suffolk. Certain field trials had damage consistent with Dicamba exposure, which may have resulted in an unfair yield advantage

for Dicamba resistant check lines.

‡ Protein percentage and oil percentage reported on a 13% moisture basis beginning in 2015.

***TABLE 53 - GENERAL SUMMARY OF PERFORMANCE -Part 2***
***UNIFORM TEST V 2023***

| STRAIN/ VARIETY | MEAL† PRO % | MAT INDEX | LOD | HT | SEED QUALITY | SEED SIZE | FL. COLOR | PUB. COLOR | POD COLOR |
|---|---|---|---|---|---|---|---|---|---|
| S16-14869 | 46.7 | 0 | 2.2 | 31 | 1.6 | 14.4 | W | | |
| AG53XF2 | 45.1 | -3 | 1.4 | 37 | 1.9 | 14.6 | P | | |
| AG55XF0 | 46.6 | 1 | 1.4 | 33 | 1.8 | 15.2 | W | | |
| AG56XF2 | 46.7 | 0 | 1.3 | 33 | 1.8 | 15.1 | W | | |
| TN09-008 | 44.9 | 0 | 1.3 | 26 | 1.8 | 15.7 | P | | |
| TN11-5140 | 47.3 | 7 | 1.7 | 31 | 2.2 | 14.3 | W | | |
| DA1539-1010F | 46.9 | -1 | 1.3 | 25 | 2.1 | 12.3 | P | T | T |
| K19-3177 | 45.5 | -2 | 1.7 | 28 | 1.8 | 13.3 | | | |
| N16-10889 | 47.5 | 11 | 1.8 | 31 | 2.5 | 11.9 | P | G | |
| N17-2488 | 46.3 | 0 | 1.2 | 27 | 1.8 | 16.8 | P | G | |
| N18-235 | 47.3 | -1 | 1.5 | 27 | 1.6 | 13.4 | W | G | |
| N19-1095 | 49.3 | 7 | 1.3 | 27 | 2.3 | 13.5 | P | T | |
| N19-1097 | 50.0 | 4 | 1.5 | 30 | 1.8 | 15.1 | P | T | |
| NDPJE-14-133 | 47.9 | 5 | 1.7 | 28 | 2.4 | 16.0 | P | T | |
| NDPJE-14-217 | 47.8 | 1 | 1.5 | 29 | 1.6 | 14.9 | P | T | |
| R18-10491 | 50.4 | 1 | 1.8 | 32 | 1.6 | 14.0 | P | G | T |
| S17-2509 | 47.7 | -1 | 1.8 | 29 | 2.1 | 15.6 | W | T | T |
| S19-12537 | 47.3 | -2 | 1.8 | 35 | 1.9 | 14.7 | W | G | T |
| S19-14797 | 47.5 | -1 | 1.7 | 33 | 2.0 | 14.7 | P | T | T |
| S19-19764 | 49.0 | -1 | 1.6 | 28 | 1.7 | 14.4 | W | T | T |
| S19-19923 | 49.5 | -4 | 1.6 | 27 | 1.8 | 14.3 | W | T | T |
| TN21-5002 | 47.6 | 3 | 1.7 | 39 | 2.0 | 12.6 | W | | |
| V16-1706R2 | 46.5 | 0 | 1.4 | 31 | 1.7 | 14.7 | W | T | |
| V17-2361R | 48.7 | -2 | 1.6 | 36 | 2.0 | 14.5 | P | G | |
| V18-0400 | 48.2 | -2 | 1.4 | 27 | 2.0 | 13.3 | P | G | |
| V18-0678 | 48.5 | 4 | 1.3 | 31 | 2.2 | 13.1 | P | G | |
| V18-1255 | 48.2 | 1 | 1.3 | 26 | 2.1 | 14.0 | P | T | |
| V18-2423 | 47.4 | -3 | 1.3 | 25 | 1.6 | 12.2 | W | G | |
| V18-4040HP | 50.2 | -1 | 1.4 | 30 | 1.9 | 14.3 | P | T | |
| V18-4411R2DI | 49.1 | -2 | 1.3 | 26 | 2.1 | 16.6 | P | G | |
| V19-1409RR | 45.4 | 0 | 1.3 | 30 | 1.7 | 13.0 | W | T | |
| | | | | | | | | | |
| Mean | 47.6 | 1 | 1.5 | 30 | 1.9 | 14.3 | | | |
| LSD(0.05) | 0.7 | 2 | 0.3 | 2 | 0.5 | 0.6 | | | |
| CV(%) | 1.9 | 510 | 30.0 | 12 | 35.0 | 6.6 | | | |

† Estimated meal protein content was added to the annual report in 2018.

## *TABLE 54 - GENERAL SUMMARY OF PEST REACTION*
## *UNIFORM TEST V 2023*

| *STRAIN/* | *SCN Cyst Score (1-5 Scale)†* | | | *RKN Gall Score (1-5 Scale)‡* | | | *SC* | *SC* |
|---|---|---|---|---|---|---|---|---|
| *VARIETY* | *Race 2* | *Race 3* | *Race 5* | *PRK* | *SRK* | *JRK* | *RATING* | *SCORE* |
| S16-14869 | 4 | . | 4 | 1.3 | 1.3 | 2.0 | | . |
| AG53XF2 | 4 | . | 4 | 5.0 | 5.0 | 5.0 | | . |
| AG55XF0 | 3 | . | 3 | 1.3 | 1.8 | 1.8 | | . |
| AG56XF2 | 4 | . | 2 | 2.3 | 1.0 | 2.3 | | . |
| TN09-008 | 1 | . | 2 | 5.0 | 5.0 | 3.8 | | . |
| TN11-5140 | 5 | . | 5 | 4.3 | 1.3 | 5.0 | | . |
| DA1539-1010F | 5 | . | 5 | 4.8 | 3.8 | 4.8 | | . |
| K19-3177 | 2 | . | 2 | 4.3 | 5.0 | 5.0 | | . |
| N16-10889 | 5 | . | 4 | 5.0 | 4.8 | 4.8 | | . |
| N17-2488 | 5 | . | 3 | 5.0 | 4.8 | 4.8 | | . |
| N18-235 | 5 | . | 4 | 3.0 | 2.3 | 3.0 | | . |
| N19-1095 | 5 | . | 4 | 5.0 | 1.3 | 3.8 | | . |
| N19-1097 | 4 | . | 4 | 5.0 | 1.5 | 3.3 | | . |
| NDPJE-14-133 | 3 | . | 4 | 5.0 | 5.0 | 5.0 | | . |
| NDPJE-14-217 | 3 | . | 4 | 5.0 | 3.3 | 4.5 | | . |
| R18-10491 | 2 | . | 4 | 4.5 | 5.0 | 3.8 | | . |
| S17-2509 | 2 | . | 2 | 2.8 | 4.3 | 1.0 | | . |
| S19-12537 | 2 | . | 1 | 2.5 | 3.5 | 1.3 | | . |
| S19-14797 | 2 | . | 4 | 3.0 | 1.3 | 2.0 | | . |
| S19-19764 | 2 | . | 2 | 3.5 | 5.0 | 2.3 | | . |
| S19-19923 | 1 | . | 1 | 3.0 | 1.3 | 2.5 | | . |
| TN21-5002 | 2 | . | 4 | 4.3 | 2.5 | 2.5 | | . |
| V16-1706R2 | 2 | . | 2 | 3.5 | 2.8 | 2.8 | | . |
| V17-2361R | 3 | . | 2 | 4.5 | 4.5 | 4.0 | | . |
| V18-0400 | 4 | . | 2 | 3.5 | 5.0 | 2.3 | | . |
| V18-0678 | 4 | . | 3 | 5.0 | 5.0 | 5.0 | | . |
| V18-1255 | 4 | . | 1 | 5.0 | 4.5 | 5.0 | | . |
| V18-2423 | 3 | . | 4 | 4.0 | 2.5 | 4.0 | | . |
| V18-4040HP | 3 | . | 3 | 5.0 | 5.0 | 4.8 | | . |
| V18-4411R2DI | 2 | . | 2 | 5.0 | 5.0 | 5.0 | | . |
| V19-1409RR | 4 | . | 2 | 1.3 | 1.3 | 4.0 | | . |

†The race 2 and 5 SCN populations used in these tests were typed as HG (Heterodera glycines) Type 1.2.5.7 and HG Type 2.5.7, respectively. Results for race 3 were omitted.

‡The root-knot nematode (RKN) species used in these tests were Meloidogyne incognita (southern root knot = SRK), M. arenaria (peanut root knot = PRK), and M. javanica (Javanese root-knot = JRK;)MR = mixed reaction.

***TABLE 55 - SEED YIELD (BUSHELS PER ACRE)***
***UNIFORM TEST V 2023 †***

| STRAIN/ VARIETY | Belle Mina, AL | Bossier City, LA | Jackson, TN | Knoxville, TN | Marianna, AR | McCune, KS | Orange, VA | Pittsburg, KS |
|---|---|---|---|---|---|---|---|---|
| S16-14869 | 56.5 | 53.1 | 77.3 | 60.7 | 52.3 | 43.9 | 66.0 | 46.3 |
| AG53XF2 | 56.8 | 56.5 | 99.1 | 67.6 | 55.8 | 46.5 | 64.0 | 48.8 |
| AG55XF0 | 54.6 | 55.9 | 92.3 | 62.4 | 55.2 | 38.0 | 76.9 | 44.9 |
| AG56XF2 | 54.2 | 63.5 | 94.6 | 63.8 | 57.0 | 40.6 | 61.3 | 47.8 |
| TN09-008 | 50.3 | 37.9 | 93.0 | 62.9 | 55.3 | 41.0 | 57.7 | 52.9 |
| TN11-5140 | 45.0 | 74.6 | 90.9 | 55.2 | 51.7 | 40.3 | 81.9 | 44.8 |
| DA1539-1010F | 49.0 | 59.1 | 96.1 | 58.9 | 58.7 | 41.8 | 57.8 | 45.3 |
| K19-3177 | 52.8 | 50.2 | 100.1 | 70.4 | 60.4 | 49.0 | 68.9 | 53.6 |
| N16-10889 | 40.0 | 71.1 | 55.5 | 58.8 | 44.0 | 45.6 | 58.6 | 43.0 |
| N17-2488 | 45.1 | 63.0 | 92.4 | 53.7 | 51.0 | 37.5 | 75.4 | 43.5 |
| N18-235 | 52.2 | 68.5 | 85.2 | 40.8 | 54.5 | 46.6 | 66.1 | 42.7 |
| N19-1095 | 43.4 | 60.6 | 89.0 | 68.5 | 55.8 | 43.6 | 74.9 | 42.9 |
| N19-1097 | 46.2 | 62.0 | 91.1 | 52.5 | 50.1 | 42.4 | 78.1 | 40.7 |
| NDPJE-14-133 | 54.2 | 60.5 | 84.3 | 62.3 | 49.7 | 41.6 | 54.2 | 38.3 |
| NDPJE-14-217 | 49.7 | 61.2 | 86.9 | 74.4 | 49.8 | 43.0 | 81.7 | 40.8 |
| R18-10491 | 45.0 | 55.4 | 94.1 | 51.8 | 48.1 | 36.3 | 55.7 | 37.6 |
| S17-2509 | 57.6 | 50.6 | 103.1 | 81.0 | 57.1 | 45.0 | 50.8 | 45.6 |
| S19-12537 | 58.5 | 59.5 | 99.8 | 78.8 | 59.8 | 45.8 | 57.1 | 46.5 |
| S19-14797 | 51.7 | 64.0 | 95.5 | 60.9 | 57.8 | 43.1 | 64.4 | 43.1 |
| S19-19764 | 53.3 | 49.3 | 102.0 | 63.1 | 53.3 | 46.7 | 59.3 | 47.5 |
| S19-19923 | 56.1 | 50.1 | 93.7 | 69.4 | 53.9 | 43.6 | 48.0 | 42.4 |
| TN21-5002 | 51.6 | 58.4 | 71.6 | 49.5 | 50.0 | 47.6 | 63.2 | 45.4 |
| V16-1706R2 | 49.9 | 57.4 | 91.2 | 72.6 | 55.1 | 42.0 | 69.8 | 46.0 |
| V17-2361R | 46.4 | 61.1 | 94.9 | 53.9 | 50.1 | 45.0 | 63.0 | 47.0 |
| V18-0400 | 51.8 | 69.9 | 101.8 | 47.7 | 56.2 | 47.2 | 77.4 | 42.9 |
| V18-0678 | 46.4 | 64.0 | 94.0 | 58.3 | 50.8 | 41.3 | 84.7 | 45.8 |
| V18-1255 | 45.7 | 62.0 | 95.1 | 54.1 | 58.9 | 43.8 | 83.1 | 42.6 |
| V18-2423 | 43.9 | 60.6 | 101.6 | 46.6 | 58.7 | 49.5 | 66.9 | 45.1 |
| V18-4040HP | 50.7 | 51.3 | 86.9 | 46.7 | 55.6 | 39.5 | 72.1 | 39.5 |
| V18-4411R2DI | 47.4 | 34.3 | 96.3 | 55.5 | 48.2 | 38.6 | 81.6 | 39.0 |
| V19-1409RR | 49.7 | 53.7 | 95.0 | 70.3 | 55.7 | 44.3 | 72.4 | 47.8 |
| | | | | | | | | |
| Mean | 50.2 | 58.0 | 91.8 | 60.4 | 53.9 | 43.3 | 67.5 | 44.5 |
| LSD(0.05) | 8.8 | 15.8 | 16.7 | 14.8 | 6.1 | 3.8 | 22.6 | 3.5 |
| LSD(0.10) | 7.4 | 13.2 | 13.9 | 12.3 | 5.1 | 3.2 | 18.9 | 2.9 |
| CV(%) | 10.7 | 16.7 | 11.1 | 15.0 | 6.9 | 5.4 | 20.5 | 4.8 |

†Location data not included in Test Mean due to CV > 15%: Bossier City, Knoxville, Orange, Portageville(A), Stoneville.
*Locations with obvious damage consistent with exposure to the herbicide Dicamba.

*TABLE 55 - SEED YIELD (BUSHELS PER ACRE) (continued)*
*UNIFORM TEST V 2023 †*

| STRAIN/ VARIETY | Plymouth, NC | Portageville, MO(A) | Portageville, MO(B) | Springfield, TN | Starkville, MS | Stoneville, MS | Stuttgart, AR | Warsaw, VA | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| S16-14869 | 33.8 | 53.0 | 67.1 | 83.2 | 79.7 | 61.9 | 66.0 | 51.9 | 59.9 |
| AG53XF2 | 28.7 | 51.7 | 61.3 | 88.7 | 79.8 | 68.7 | 69.7 | 56.1 | 63.2 |
| AG55XF0 | 33.8 | 50.9 | 61.2 | 74.5 | 88.9 | 62.1 | 67.3 | 59.6 | 61.1 |
| AG56XF2 | 34.9 | 58.5 | 64.4 | 71.5 | 85.8 | 64.7 | 69.8 | 51.9 | 61.3 |
| TN09-008 | 22.4 | 35.9 | 57.2 | 88.8 | 66.4 | 52.1 | 47.8 | 57.4 | 57.9 |
| TN11-5140 | 35.2 | 38.9 | 61.1 | 75.2 | 78.4 | 52.5 | 79.5 | 74.0 | 60.9 |
| DA1539-1010F | 38.6 | 34.7 | 42.9 | 63.5 | 72.9 | 62.3 | 71.6 | 60.7 | 58.5 |
| K19-3177 | 34.3 | 36.3 | 62.3 | 70.9 | 82.7 | 63.8 | 61.2 | 64.9 | 63.5 |
| N16-10889 | 35.9 | 39.7 | 46.5 | 68.7 | 78.8 | . | 78.2 | 59.8 | 54.6 |
| N17-2488 | 27.4 | 38.8 | 58.7 | 71.8 | 76.9 | 70.8 | 57.0 | 56.6 | 56.0 |
| N18-235 | 28.5 | 31.9 | 62.1 | 72.4 | 73.3 | 60.7 | 56.9 | 57.9 | 56.0 |
| N19-1095 | 20.9 | 36.7 | 56.6 | 65.4 | 83.0 | 61.9 | 69.5 | 59.4 | 58.2 |
| N19-1097 | 32.0 | 26.9 | 49.4 | 78.1 | 73.2 | 59.9 | 66.6 | 56.0 | 56.5 |
| NDPJE-14-133 | 32.2 | 36.0 | 43.6 | 75.2 | 73.2 | 54.0 | 75.5 | 54.7 | 57.1 |
| NDPJE-14-217 | 31.8 | 30.3 | 66.1 | 80.2 | 84.1 | 63.9 | 74.7 | 48.0 | 60.7 |
| R18-10491 | 35.1 | 43.9 | 54.1 | 68.4 | 77.7 | 55.1 | 74.9 | 55.4 | 56.5 |
| S17-2509 | 33.0 | 43.9 | 64.5 | 84.4 | 72.8 | 69.7 | 74.8 | 61.7 | 65.0 |
| S19-12537 | 31.9 | 35.4 | 64.5 | 77.9 | 82.6 | 63.6 | 78.0 | 59.5 | 65.3 |
| S19-14797 | 33.1 | 43.3 | 64.8 | 68.3 | 88.8 | 56.7 | 70.8 | 50.2 | 60.7 |
| S19-19764 | 29.5 | 38.1 | 66.7 | 83.2 | 67.9 | 50.5 | 58.4 | 53.5 | 60.3 |
| S19-19923 | 27.9 | 27.8 | 57.8 | 76.2 | 79.0 | 61.5 | 45.9 | 52.1 | 58.2 |
| TN21-5002 | 28.8 | 35.4 | 53.7 | 70.5 | 83.8 | 53.7 | 79.1 | 53.3 | 57.1 |
| V16-1706R2 | 38.2 | 36.5 | 57.5 | 79.0 | 86.1 | 65.5 | 71.4 | 54.7 | 62.0 |
| V17-2361R | 18.7 | 24.4 | 58.7 | 72.0 | 82.3 | 61.0 | 74.1 | 48.0 | 57.6 |
| V18-0400 | 33.0 | 33.1 | 55.7 | 82.3 | 83.1 | 58.2 | 61.4 | 60.4 | 60.3 |
| V18-0678 | 34.5 | 32.4 | 55.7 | 72.0 | 87.3 | 61.4 | 80.1 | 56.3 | 60.3 |
| V18-1255 | 38.2 | 48.6 | 52.2 | 77.3 | 92.9 | 73.9 | 80.4 | 53.5 | 61.2 |
| V18-2423 | 36.8 | 30.0 | 52.2 | 76.5 | 74.9 | 63.4 | 51.6 | 53.1 | 57.6 |
| V18-4040HP | 30.4 | 25.2 | 50.7 | 70.1 | 64.9 | 64.5 | 71.6 | 52.1 | 54.9 |
| V18-4411R2DI | 28.7 | 29.9 | 45.0 | 70.6 | 81.7 | 60.4 | 60.9 | 45.6 | 54.8 |
| V19-1409RR | 33.0 | 36.8 | 62.2 | 86.1 | 74.3 | 66.7 | 69.1 | 52.7 | 61.7 |
| | | | | | | | | | |
| Mean | 31.6 | 37.6 | 57.3 | 75.6 | 79.3 | 61.5 | 68.2 | 55.8 | 59.3 |
| LSD(0.05) | 6.7 | 10.9 | 10.2 | 10.4 | 19.1 | 16.5 | 9.6 | 11.3 | 5.0 |
| LSD(0.10) | 5.6 | 9.1 | 8.5 | 8.7 | 15.9 | 13.8 | 8.0 | 9.4 | 4.2 |
| CV(%) | 12.9 | 16.2 | 10.2 | 8.4 | 14.7 | 16.3 | 8.5 | 12.3 | 14.1 |

## *TABLE 56 - RELATIVE MATURITY (DAYS EARLIER (-) OR LATER (+) THAN ENTRY 1)*
## *UNIFORM GROUP V 2023*

| *STRAIN/ VARIETY* | *Belle Mina, AL* | *Bossier City, LA* | *Knoxville, TN* | *Marianna, AR* | *McCune, KS* | *Pittsburg, KS* | *Plymouth, NC* | *Portageville, MO(A)* |
|---|---|---|---|---|---|---|---|---|
| S16-14869 | 9/25 | 10/13 | 10/9 | 10/1 | 10/12 | 10/19 | 10/14 | 10/12 |
| AG53XF2 | -1 | -3 | -3 | -1 | -7 | -10 | 4 | 2 |
| AG55XF0 | 0 | 2 | 2 | 2 | 1 | -1 | 0 | -1 |
| AG56XF2 | -3 | 2 | 0 | 1 | 0 | -1 | -1 | 3 |
| TN09-008 | 2 | -2 | 1 | 2 | -6 | -7 | 7 | 1 |
| TN11-5140 | 4 | 3 | 6 | 4 | 7 | 9 | 9 | 6 |
| DA1539-1010F | 2 | 0 | 0 | 2 | -7 | -5 | -1 | 0 |
| K19-3177 | -4 | -3 | 1 | -1 | -5 | -5 | -3 | 3 |
| N16-10889 | 4 | 5 | 7 | 16 | 13 | 20 | 16 | 8 |
| N17-2488 | 2 | 2 | 0 | 2 | -7 | -4 | 2 | 0 |
| N18-235 | 1 | 0 | -3 | -1 | -3 | -3 | -1 | -2 |
| N19-1095 | 4 | 2 | 6 | 13 | 6 | 11 | 10 | 6 |
| N19-1097 | -1 | 2 | 4 | 3 | 2 | 0 | 6 | 3 |
| NDPJE-14-133 | 3 | 3 | 4 | 2 | 3 | 14 | 7 | 2 |
| NDPJE-14-217 | 1 | 2 | 0 | 3 | 1 | -1 | 3 | -1 |
| R18-10491 | -2 | -2 | 2 | -1 | 4 | -1 | 3 | 2 |
| S17-2509 | 0 | 2 | 0 | 0 | -3 | -3 | -1 | 1 |
| S19-12537 | 0 | 3 | 0 | -1 | -8 | -10 | -3 | 3 |
| S19-14797 | -4 | -2 | 0 | 0 | -2 | 3 | -2 | 1 |
| S19-19764 | 3 | 3 | 1 | 0 | -3 | -7 | 0 | 1 |
| S19-19923 | 0 | 3 | 0 | -1 | -9 | -14 | -2 | -4 |
| TN21-5002 | 1 | 3 | 2 | 3 | 0 | 1 | 0 | 7 |
| V16-1706R2 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 |
| V17-2361R | -1 | 2 | 0 | 2 | -7 | -14 | -2 | 2 |
| V18-0400 | -3 | -3 | 0 | -2 | -7 | -11 | 3 | 2 |
| V18-0678 | 1 | 1 | 2 | 3 | 6 | 6 | 6 | 5 |
| V18-1255 | -1 | 3 | 0 | 2 | -3 | -3 | 3 | 2 |
| V18-2423 | 0 | 1 | -3 | -1 | -8 | -12 | -1 | -3 |
| V18-4040HP | -1 | -1 | 0 | 0 | -6 | -4 | 11 | 0 |
| V18-4411R2DI | 1 | 0 | 0 | -1 | -6 | -4 | -1 | -6 |
| V19-1409RR | -1 | 2 | 1 | 0 | -1 | 0 | -1 | 1 |
| | | | | | | | | |
| Mean | 0 | 1 | 1 | 2 | -2 | -2 | 2 | 1 |
| LSD(0.05) | 2 | 4 | 3 | 2 | 4 | 5 | 5 | 3 |
| CV(%) | 436 | 226 | 178 | 56 | 146 | 153 | 115 | 141 |

***TABLE 56 - RELATIVE MATURITY (continued)***
***UNIFORM GROUP V 2023***

| STRAIN/ VARIETY | Portageville, MO(B) | Springfield, TN | Stoneville, MS | Stuttgart, AR | Warsaw, VA | Test Mean |
|---|---|---|---|---|---|---|
| S16-14869 | 10/11 | 10/14 | 9/24 | 10/2 | 10/14 | 10/8 |
| AG53XF2 | -2 | -1 | -5 | -1 | -5 | -3 |
| AG55XF0 | 0 | -1 | 3 | 3 | 1 | 1 |
| AG56XF2 | 1 | -1 | 2 | 2 | -1 | 0 |
| TN09-008 | 1 | 1 | 1 | 2 | -5 | 0 |
| TN11-5140 | 8 | 4 | 8 | 12 | 13 | 7 |
| DA1539-1010F | 1 | 0 | -1 | 3 | -3 | -1 |
| K19-3177 | 0 | 2 | -1 | 1 | -7 | -2 |
| N16-10889 | 5 | 5 | . | 15 | 16 | 11 |
| N17-2488 | 0 | -1 | 7 | 4 | -3 | 0 |
| N18-235 | 1 | 1 | 0 | 0 | -7 | -1 |
| N19-1095 | 8 | 4 | 2 | 13 | 13 | 7 |
| N19-1097 | 4 | 5 | 7 | 3 | 8 | 4 |
| NDPJE-14-133 | 0 | 2 | 21 | 1 | 7 | 5 |
| NDPJE-14-217 | 1 | 1 | 2 | 2 | -2 | 1 |
| R18-10491 | 0 | 3 | 1 | 3 | 0 | 1 |
| S17-2509 | 0 | 0 | 0 | -2 | -6 | -1 |
| S19-12537 | 3 | -1 | 1 | -2 | -10 | -2 |
| S19-14797 | 0 | -1 | -1 | 1 | -4 | -1 |
| S19-19764 | 0 | 0 | 0 | 1 | -5 | -1 |
| S19-19923 | -5 | 0 | 3 | -5 | -11 | -4 |
| TN21-5002 | 5 | 2 | 9 | 3 | 5 | 3 |
| V16-1706R2 | 1 | 0 | 2 | 2 | -2 | 0 |
| V17-2361R | 4 | -1 | -1 | -3 | -10 | -2 |
| V18-0400 | -1 | 0 | 1 | 1 | -8 | -2 |
| V18-0678 | 2 | 3 | -8 | 7 | 12 | 4 |
| V18-1255 | 0 | 1 | 5 | 2 | 0 | 1 |
| V18-2423 | -4 | -1 | -1 | -2 | -9 | -3 |
| V18-4040HP | -1 | 2 | -1 | -1 | -4 | -1 |
| V18-4411R2DI | -5 | -1 | -2 | 2 | -4 | -2 |
| V19-1409RR | 2 | 1 | 0 | 2 | -3 | 0 |
| | | | | | | |
| Mean | 1 | 1 | 2 | 2 | -1 | 1 |
| LSD(0.05) | 3 | 2 | 11 | 2 | 4 | 2 |
| CV(%) | 220 | 124 | 284 | 53 | 212 | 510 |

## *TABLE 57 - PLANT HEIGHT (INCHES)*
## *UNIFORM GROUP V 2023*

| *STRAIN/ VARIETY* | *Belle Mina, AL* | *Bossier City, LA* | *Jackson, TN* | *Knoxville, TN* | *Marianna, AR* | *McCune, KS* | *Orange, VA* | *Pittsburg, KS* |
|---|---|---|---|---|---|---|---|---|
| S16-14869 | 31 | 27 | . | 27 | 33 | 41 | . | 40 |
| AG53XF2 | 39 | 41 | . | 33 | 39 | 44 | . | 42 |
| AG55XF0 | 38 | 26 | . | 26 | 36 | 40 | . | 39 |
| AG56XF2 | 37 | 29 | . | 30 | 38 | 38 | . | 39 |
| TN09-008 | 33 | 23 | . | 23 | 27 | 35 | . | 39 |
| TN11-5140 | 36 | 32 | . | 28 | 30 | 38 | . | 45 |
| DA1539-1010F | 31 | 23 | . | 22 | 27 | 34 | . | 34 |
| K19-3177 | 32 | 27 | . | 24 | 30 | 36 | . | 36 |
| N16-10889 | 31 | 29 | . | 25 | 32 | 46 | . | 44 |
| N17-2488 | 34 | 28 | . | 20 | 25 | 34 | . | 36 |
| N18-235 | 35 | 29 | . | 22 | 27 | 36 | . | 38 |
| N19-1095 | 31 | 28 | . | 23 | 24 | 34 | . | 36 |
| N19-1097 | 36 | 31 | . | 29 | 28 | 40 | . | 43 |
| NDPJE-14-133 | 31 | 31 | . | 25 | 26 | 37 | . | 37 |
| NDPJE-14-217 | 36 | 28 | . | 26 | 26 | 36 | . | 37 |
| R18-10491 | 32 | 33 | . | 29 | 29 | 41 | . | 45 |
| S17-2509 | 31 | 26 | . | 25 | 28 | 37 | . | 38 |
| S19-12537 | 37 | 39 | . | 39 | 34 | 41 | . | 38 |
| S19-14797 | 34 | 37 | . | 27 | 34 | 42 | . | 44 |
| S19-19764 | 32 | 26 | . | 24 | 28 | 38 | . | 39 |
| S19-19923 | 34 | 27 | . | 23 | 28 | 36 | . | 35 |
| TN21-5002 | 41 | 40 | . | 32 | 43 | 44 | . | 42 |
| V16-1706R2 | 33 | 32 | . | 29 | 31 | 38 | . | 41 |
| V17-2361R | 37 | 44 | . | 34 | 40 | 44 | . | 43 |
| V18-0400 | 33 | 30 | . | 21 | 24 | 32 | . | 33 |
| V18-0678 | 34 | 27 | . | 26 | 31 | 37 | . | 41 |
| V18-1255 | 32 | 25 | . | 21 | 25 | 34 | . | 34 |
| V18-2423 | 31 | 23 | . | 19 | 23 | 32 | . | 33 |
| V18-4040HP | 38 | 31 | . | 23 | 30 | 40 | . | 37 |
| V18-4411R2DI | 33 | 25 | . | 24 | 25 | 32 | . | 34 |
| V19-1409RR | 36 | 27 | . | 25 | 31 | 41 | . | 43 |
| | | | | | | | | |
| Mean | 34 | 30 | . | 26 | 30 | 38 | . | 39 |
| LSD(0.05) | 6 | 5 | . | 4 | 5 | 3 | . | 3 |
| CV(%) | 11 | 11 | . | 11 | 10 | 5 | . | 5 |

## TABLE 57 - PLANT HEIGHT (INCHES) (continued)
## UNIFORM GROUP V 2023

| STRAIN/ VARIETY | Plymouth, NC | Portageville, MO(A) | Portageville, MO(B) | Springfield, TN | Starkville, MS | Stoneville, MS | Stuttgart, AR | Warsaw, VA | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| S16-14869 | 35 | 20 | 24 | 35 | . | 25 | 22 | 42 | 31 |
| AG53XF2 | 35 | 33 | 34 | 39 | . | 35 | 27 | 38 | 37 |
| AG55XF0 | 29 | 29 | 33 | 33 | . | 35 | 26 | 38 | 33 |
| AG56XF2 | 29 | 33 | 33 | 34 | . | 33 | 23 | 37 | 33 |
| TN09-008 | 27 | 17 | 20 | 33 | . | 15 | 19 | 33 | 27 |
| TN11-5140 | 30 | 20 | 26 | 29 | . | 25 | 26 | 42 | 31 |
| DA1539-1010F | 22 | 17 | 19 | 28 | . | 18 | 22 | 32 | 25 |
| K19-3177 | 27 | 18 | 21 | 31 | . | 21 | 22 | 36 | 28 |
| N16-10889 | 32 | 20 | 27 | 28 | . | 21 | 29 | 38 | 31 |
| N17-2488 | 27 | 17 | 23 | 34 | . | 20 | 20 | 33 | 27 |
| N18-235 | 30 | 15 | 20 | 32 | . | 19 | 19 | 33 | 27 |
| N19-1095 | 27 | 19 | 23 | 28 | . | 18 | 23 | 32 | 27 |
| N19-1097 | 31 | 17 | 24 | 31 | . | 21 | 27 | 37 | 30 |
| NDPJE-14-133 | 26 | 20 | 22 | 35 | . | 21 | 21 | 38 | 28 |
| NDPJE-14-217 | 29 | 16 | 22 | 39 | . | 20 | 24 | 33 | 29 |
| R18-10491 | 35 | 21 | 24 | 36 | . | 23 | 26 | 42 | 32 |
| S17-2509 | 29 | 19 | 23 | 33 | . | 22 | 21 | 38 | 29 |
| S19-12537 | 33 | 23 | 25 | 36 | . | 33 | 35 | 41 | 35 |
| S19-14797 | 36 | 21 | 24 | 38 | . | 25 | 22 | 42 | 33 |
| S19-19764 | 27 | 17 | 22 | 33 | . | 23 | 20 | 35 | 28 |
| S19-19923 | 30 | 17 | 20 | 32 | . | 20 | 20 | 33 | 27 |
| TN21-5002 | 38 | 25 | 32 | 44 | . | 42 | 39 | 41 | 39 |
| V16-1706R2 | 33 | 19 | 23 | 33 | . | 24 | 28 | 38 | 31 |
| V17-2361R | 32 | 23 | 31 | 41 | . | 28 | 34 | 39 | 36 |
| V18-0400 | 28 | 18 | 19 | 37 | . | 18 | 21 | 35 | 27 |
| V18-0678 | 27 | 19 | 26 | 40 | . | 28 | 29 | 33 | 31 |
| V18-1255 | 28 | 16 | 20 | 31 | . | 22 | 20 | 36 | 26 |
| V18-2423 | 29 | 16 | 17 | 32 | . | 16 | 18 | 33 | 25 |
| V18-4040HP | 31 | 18 | 23 | 36 | . | 18 | 24 | 36 | 30 |
| V18-4411R2DI | 28 | 12 | 19 | 33 | . | 18 | 20 | 34 | 26 |
| V19-1409RR | 30 | 20 | 23 | 34 | . | 22 | 23 | 38 | 30 |
| Mean | 30 | 20 | 24 | 34 | . | 24 | 24 | 37 | 30 |
| LSD(0.05) | 6 | 4 | 3 | 6 | . | 3 | 5 | 5 | 2 |
| CV(%) | 9 | 13 | 8 | 11 | . | 7 | 12 | 8 | 12 |

***TABLE 58 - PLANT LODGING (1-5)***
***UNIFORM GROUP V 2023***

| STRAIN/ VARIETY | Belle Mina, AL | Bossier City, LA | Jackson, TN | Knoxville, TN | Marianna, AR | McCune, KS | Orange, VA | Pittsburg, KS |
|---|---|---|---|---|---|---|---|---|
| S16-14869 | 4.0 | 1.7 | . | 3.2 | 1.3 | 3.0 | 1.0 | 3.3 |
| AG53XF2 | 2.7 | 1.7 | . | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| AG55XF0 | 2.7 | 1.0 | . | 2.2 | 1.0 | 1.0 | 1.0 | 1.0 |
| AG56XF2 | 2.3 | 1.0 | . | 2.3 | 1.0 | 1.0 | 1.0 | 1.0 |
| TN09-008 | 2.0 | 1.0 | . | 2.2 | 1.0 | 1.0 | 1.0 | 1.0 |
| TN11-5140 | 3.0 | 2.0 | . | 2.7 | 1.0 | 1.3 | 1.0 | 2.0 |
| DA1539-1010F | 2.3 | 1.3 | . | 2.0 | 1.0 | 1.0 | 1.0 | 1.3 |
| K19-3177 | 2.7 | 1.3 | . | 3.2 | 1.0 | 2.0 | 1.0 | 2.0 |
| N16-10889 | 2.3 | 1.3 | . | 2.3 | 1.3 | 2.3 | 1.0 | 2.0 |
| N17-2488 | 2.0 | 1.0 | . | 1.7 | 1.0 | 1.0 | 1.0 | 1.0 |
| N18-235 | 2.7 | 1.3 | . | 2.3 | 1.0 | 1.7 | 1.0 | 2.0 |
| N19-1095 | 2.3 | 1.3 | . | 2.2 | 1.0 | 1.0 | 1.0 | 1.0 |
| N19-1097 | 2.3 | 1.7 | . | 2.3 | 1.0 | 1.0 | 1.0 | 1.7 |
| NDPJE-14-133 | 3.3 | 1.3 | . | 2.3 | 1.3 | 1.0 | 1.0 | 2.0 |
| NDPJE-14-217 | 3.0 | 1.3 | . | 2.2 | 1.0 | 1.0 | 1.0 | 1.7 |
| R18-10491 | 3.0 | 1.7 | . | 3.0 | 1.3 | 2.0 | 1.0 | 2.3 |
| S17-2509 | 3.0 | 1.3 | . | 2.8 | 1.7 | 2.3 | 1.0 | 2.3 |
| S19-12537 | 2.7 | 1.3 | . | 2.8 | 2.7 | 1.0 | 1.0 | 2.0 |
| S19-14797 | 2.3 | 1.7 | . | 2.7 | 1.0 | 2.3 | 1.0 | 2.7 |
| S19-19764 | 2.7 | 1.0 | . | 2.5 | 1.3 | 1.7 | 1.0 | 2.0 |
| S19-19923 | 3.0 | 1.0 | . | 2.3 | 1.3 | 2.0 | 1.0 | 2.3 |
| TN21-5002 | 2.7 | 2.3 | . | 2.2 | 2.0 | 1.0 | 1.0 | 2.0 |
| V16-1706R2 | 2.7 | 1.3 | . | 2.5 | 1.0 | 1.0 | 1.0 | 1.0 |
| V17-2361R | 2.3 | 2.0 | . | 2.2 | 2.0 | 1.0 | 1.0 | 2.0 |
| V18-0400 | 2.7 | 1.7 | . | 2.2 | 1.0 | 1.0 | 1.0 | 1.0 |
| V18-0678 | 2.7 | 1.0 | . | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| V18-1255 | 2.0 | 1.0 | . | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| V18-2423 | 2.0 | 1.0 | . | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| V18-4040HP | 2.3 | 1.3 | . | 2.2 | 1.0 | 1.0 | 1.0 | 1.0 |
| V18-4411R2DI | 2.7 | 1.7 | . | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| V19-1409RR | 2.3 | 1.0 | . | 2.2 | 1.0 | 1.0 | 1.0 | 1.3 |
| | | | | | | | | |
| Mean | 2.6 | 1.4 | . | 2.3 | 1.2 | 1.3 | 1.0 | 1.6 |
| LSD(0.05) | 1.2 | 0.8 | . | 0.5 | 0.5 | 0.6 | . | 0.5 |
| CV(%) | 28.3 | 35.1 | . | 14.0 | 23.5 | 26.6 | 0.0 | 18.2 |

*TABLE 58 - PLANT LODGING (1-5) (continued)*
*UNIFORM GROUP V 2023*

| STRAIN/ VARIETY | Plymouth, NC | Portageville, MO(A) | Portageville, MO(B) | Springfield, TN | Starkville, MS | Stoneville, MS | Stuttgart, AR | Warsaw, VA | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| S16-14869 | 2.8 | 1.0 | 2.0 | 3.2 | . | 1.3 | 1.0 | 2.7 | 2.2 |
| AG53XF2 | 1.8 | 1.0 | 1.0 | 1.5 | . | 1.8 | 1.0 | 1.0 | 1.4 |
| AG55XF0 | 2.3 | 1.0 | 1.0 | 1.7 | . | 1.3 | 1.0 | 1.0 | 1.4 |
| AG56XF2 | 2.0 | 1.0 | 1.0 | 2.0 | . | 1.3 | 1.0 | 1.0 | 1.3 |
| TN09-008 | 1.8 | 1.0 | 1.0 | 2.0 | . | 1.0 | 1.0 | 1.7 | 1.3 |
| TN11-5140 | 2.5 | 1.0 | 1.0 | 2.0 | . | 1.0 | 1.0 | 2.3 | 1.7 |
| DA1539-1010F | 1.5 | 1.0 | 1.0 | 1.8 | . | 1.0 | 1.0 | 1.0 | 1.3 |
| K19-3177 | 2.5 | 1.0 | 1.0 | 3.2 | . | 1.5 | 1.0 | 1.0 | 1.7 |
| N16-10889 | 2.0 | 1.0 | 2.7 | 2.0 | . | . | 1.3 | 1.7 | 1.8 |
| N17-2488 | 1.3 | 1.0 | 1.0 | 1.3 | . | 1.3 | 1.0 | 1.0 | 1.2 |
| N18-235 | 1.5 | 1.0 | 1.0 | 2.2 | . | 1.0 | 1.0 | 1.0 | 1.5 |
| N19-1095 | 1.5 | 1.0 | 1.0 | 1.8 | . | 1.0 | 1.0 | 1.0 | 1.3 |
| N19-1097 | 3.0 | 1.0 | 1.0 | 1.7 | . | 1.0 | 1.0 | 1.0 | 1.5 |
| NDPJE-14-133 | 2.2 | 1.0 | 1.0 | 2.5 | . | 1.0 | 1.0 | 2.0 | 1.7 |
| NDPJE-14-217 | 2.5 | 1.0 | 1.0 | 2.3 | . | 1.0 | 1.0 | 1.3 | 1.5 |
| R18-10491 | 2.8 | 1.0 | 1.3 | 2.0 | . | 1.0 | 1.0 | 2.0 | 1.8 |
| S17-2509 | 2.2 | 1.0 | 1.0 | 2.7 | . | 1.0 | 1.0 | 1.3 | 1.8 |
| S19-12537 | 2.5 | 1.0 | 1.0 | 2.0 | . | 3.0 | 1.0 | 1.3 | 1.8 |
| S19-14797 | 2.5 | 1.0 | 1.0 | 2.5 | . | 1.0 | 1.0 | 1.7 | 1.7 |
| S19-19764 | 2.2 | 1.0 | 1.0 | 2.7 | . | 1.0 | 1.0 | 1.0 | 1.6 |
| S19-19923 | 2.2 | 1.0 | 1.0 | 2.7 | . | 1.0 | 1.0 | 1.0 | 1.6 |
| TN21-5002 | 2.2 | 1.0 | 1.0 | 1.8 | . | 3.1 | 1.0 | 1.0 | 1.7 |
| V16-1706R2 | 2.2 | 1.0 | 1.0 | 2.2 | . | 1.0 | 1.0 | 1.0 | 1.4 |
| V17-2361R | 1.5 | 1.0 | 1.0 | 2.5 | . | 1.8 | 1.0 | 1.0 | 1.6 |
| V18-0400 | 1.5 | 1.0 | 1.0 | 2.8 | . | 1.0 | 1.0 | 1.3 | 1.4 |
| V18-0678 | 1.8 | 1.0 | 1.0 | 2.2 | . | 1.0 | 1.0 | 1.0 | 1.3 |
| V18-1255 | 1.8 | 1.0 | 1.0 | 2.0 | . | 1.0 | 1.0 | 1.0 | 1.3 |
| V18-2423 | 2.2 | 1.0 | 1.0 | 1.8 | . | 1.0 | 1.0 | 1.0 | 1.3 |
| V18-4040HP | 2.5 | 1.0 | 1.0 | 1.7 | . | 1.0 | 1.0 | 1.0 | 1.4 |
| V18-4411R2DI | 1.8 | 1.0 | 1.0 | 1.7 | . | 1.0 | 1.0 | 1.0 | 1.3 |
| V19-1409RR | 1.7 | 1.0 | 1.0 | 1.7 | . | 1.0 | 1.0 | 1.0 | 1.3 |
| Mean | 2.1 | 1.0 | 1.1 | 2.1 | . | 1.2 | 1.0 | 1.3 | 1.5 |
| LSD(0.05) | 1.1 | . | 0.2 | 0.8 | . | 0.4 | 0.2 | 0.7 | 0.3 |
| CV(%) | 25.3 | 0.0 | 13.3 | 23.4 | . | 16.6 | 10.3 | 33.2 | 30.0 |

***TABLE 59 - SEED QUALITY (1-5)***
***UNIFORM GROUP V 2023***

| STRAIN/ VARIETY | Belle Mina, AL | Bossier City, LA | Jackson, TN | Knoxville, TN | Marianna, AR | McCune, KS | Orange, VA | Pittsburg, KS |
|---|---|---|---|---|---|---|---|---|
| S16-14869 | . | 1.0 | . | 2.0 | 1.3 | 2.0 | 1.0 | 2.0 |
| AG53XF2 | . | 2.0 | . | 2.0 | 1.3 | 2.0 | 1.0 | 2.0 |
| AG55XF0 | . | 3.0 | . | 1.7 | 1.3 | 1.0 | 2.3 | 1.0 |
| AG56XF2 | . | 2.0 | . | 1.7 | 2.0 | 2.0 | 1.3 | 2.0 |
| TN09-008 | . | 2.0 | . | 1.8 | 1.3 | 2.0 | 1.3 | 3.0 |
| TN11-5140 | . | 1.0 | . | 1.7 | 1.0 | 2.0 | 4.7 | 3.0 |
| DA1539-1010F | . | 3.0 | . | 2.0 | 1.3 | 2.0 | 1.3 | 2.0 |
| K19-3177 | . | 2.0 | . | 1.8 | 1.0 | 2.0 | 1.3 | 2.0 |
| N16-10889 | . | 4.0 | . | 2.0 | 2.0 | 2.0 | 5.0 | 2.0 |
| N17-2488 | . | 2.0 | . | 1.8 | 1.7 | 2.0 | 1.3 | 3.0 |
| N18-235 | . | 1.0 | . | 1.7 | 1.7 | 2.0 | 1.0 | 2.0 |
| N19-1095 | . | 3.0 | . | 2.0 | 1.3 | 2.0 | 4.3 | 2.0 |
| N19-1097 | . | 1.0 | . | 1.7 | 1.3 | 1.0 | 2.3 | 3.0 |
| NDPJE-14-133 | . | 3.0 | . | 2.0 | 2.7 | 3.0 | 3.0 | 3.0 |
| NDPJE-14-217 | . | 1.0 | . | 2.0 | 1.3 | 2.0 | 1.3 | 2.0 |
| R18-10491 | . | 1.0 | . | 2.0 | 1.0 | 1.0 | 1.0 | 2.0 |
| S17-2509 | . | 3.0 | . | 2.0 | 2.0 | 2.0 | 1.7 | 2.0 |
| S19-12537 | . | 3.0 | . | 1.7 | 2.0 | 2.0 | 1.0 | 1.0 |
| S19-14797 | . | 2.0 | . | 1.7 | 1.7 | 3.0 | 1.0 | 2.0 |
| S19-19764 | . | 2.0 | . | 2.0 | 1.3 | 2.0 | 1.0 | 2.0 |
| S19-19923 | . | 3.0 | . | 2.0 | 1.3 | 2.0 | 1.0 | 2.0 |
| TN21-5002 | . | 3.0 | . | 1.7 | 1.7 | 2.0 | 2.0 | 2.0 |
| V16-1706R2 | . | 2.0 | . | 2.0 | 1.7 | 2.0 | 1.3 | 1.0 |
| V17-2361R | . | 2.0 | . | 2.0 | 2.0 | 1.0 | 1.0 | 3.0 |
| V18-0400 | . | 2.0 | . | 2.0 | 1.7 | 2.0 | 1.0 | 3.0 |
| V18-0678 | . | 2.0 | . | 2.0 | 1.0 | 1.0 | 5.0 | 2.0 |
| V18-1255 | . | 2.0 | . | 2.0 | 1.7 | 2.0 | 1.3 | 3.0 |
| V18-2423 | . | 2.0 | . | 2.0 | 1.3 | 2.0 | 1.0 | 2.0 |
| V18-4040HP | . | 2.0 | . | 2.0 | 1.0 | 2.0 | 1.3 | 2.0 |
| V18-4411R2DI | . | 3.0 | . | 2.0 | 2.0 | 2.0 | 1.0 | 2.0 |
| V19-1409RR | . | 1.0 | . | 1.8 | 1.7 | 1.0 | 1.3 | 2.0 |
| | | | | | | | | |
| Mean | . | 2.1 | . | 1.9 | 1.5 | 1.9 | 1.8 | 2.2 |
| LSD(0.05) | . | . | . | 0.3 | 0.8 | . | 1.3 | . |
| CV(%) | . | 0.0 | . | 10.6 | 30.2 | . | 45.8 | . |

*TABLE 59 - SEED QUALITY (1-5) (continued)*
*UNIFORM GROUP V 2023*

| STRAIN/ VARIETY | Plymouth, NC | Portageville, MO(A) | Portageville, MO(B) | Springfield, TN | Starkville, MS | Stoneville, MS | Stuttgart, AR | Warsaw, VA | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| S16-14869 | 2.0 | 1.5 | 1.7 | 1.8 | . | . | 1.3 | . | 1.6 |
| AG53XF2 | 3.0 | 2.0 | 1.7 | 1.8 | . | . | 2.0 | . | 1.9 |
| AG55XF0 | 2.0 | 2.0 | 1.7 | 2.0 | . | . | 1.7 | . | 1.8 |
| AG56XF2 | 2.0 | 2.0 | 1.7 | 2.0 | . | . | 1.5 | . | 1.8 |
| TN09-008 | 2.3 | 1.3 | 1.5 | 2.2 | . | . | 1.7 | . | 1.8 |
| TN11-5140 | 2.3 | 3.7 | 1.7 | 2.0 | . | . | 1.0 | . | 2.2 |
| DA1539-1010F | 2.3 | 2.3 | 3.0 | 2.0 | . | . | 1.3 | . | 2.1 |
| K19-3177 | 2.3 | 2.0 | 1.7 | 2.0 | . | . | 1.7 | . | 1.8 |
| N16-10889 | 2.3 | . | 2.0 | 1.8 | . | . | 1.3 | . | 2.5 |
| N17-2488 | 2.3 | 1.0 | 2.0 | 2.0 | . | . | 1.3 | . | 1.8 |
| N18-235 | 2.3 | 1.5 | 1.0 | 2.0 | . | . | 1.7 | . | 1.6 |
| N19-1095 | 2.3 | . | 2.7 | 2.2 | . | . | 1.3 | . | 2.3 |
| N19-1097 | 2.0 | 2.0 | 2.3 | 2.3 | . | . | 1.0 | . | 1.8 |
| NDPJE-14-133 | 2.0 | 2.0 | 1.7 | 2.0 | . | . | 2.0 | . | 2.4 |
| NDPJE-14-217 | 2.0 | 2.0 | 1.0 | 2.2 | . | . | 1.3 | . | 1.6 |
| R18-10491 | 2.3 | 2.0 | 2.0 | 2.0 | . | . | 1.0 | . | 1.6 |
| S17-2509 | 2.8 | 2.3 | 1.7 | 1.7 | . | . | 2.0 | . | 2.1 |
| S19-12537 | 3.8 | 1.0 | 2.0 | 2.0 | . | . | 1.5 | . | 1.9 |
| S19-14797 | 2.8 | 2.0 | 2.0 | 2.0 | . | . | 2.0 | . | 2.0 |
| S19-19764 | 2.8 | 1.7 | 1.0 | 1.7 | . | . | 1.3 | . | 1.7 |
| S19-19923 | 2.8 | 1.3 | 1.0 | 2.0 | . | . | 1.7 | . | 1.8 |
| TN21-5002 | 2.8 | 1.7 | 2.0 | 2.0 | . | . | 1.3 | . | 2.0 |
| V16-1706R2 | 2.3 | 1.7 | 1.0 | 1.8 | . | . | 2.0 | . | 1.7 |
| V17-2361R | 3.3 | 2.0 | 1.7 | 1.8 | . | . | 2.0 | . | 2.0 |
| V18-0400 | 3.0 | 1.7 | 2.3 | 1.7 | . | . | 2.0 | . | 2.0 |
| V18-0678 | 2.5 | 2.7 | 2.0 | 2.0 | . | . | 1.0 | . | 2.2 |
| V18-1255 | 2.8 | 3.0 | 2.0 | 2.0 | . | . | 1.3 | . | 2.1 |
| V18-2423 | 2.5 | 1.0 | 1.0 | 1.7 | . | . | 1.3 | . | 1.6 |
| V18-4040HP | 3.3 | 2.0 | 1.3 | 2.0 | . | . | 1.7 | . | 1.9 |
| V18-4411R2DI | 2.5 | 2.0 | 2.3 | 1.8 | . | . | 2.7 | . | 2.1 |
| V19-1409RR | 2.5 | 2.7 | 1.3 | 1.7 | . | . | 1.3 | . | 1.7 |
| | | | | | | | | | |
| Mean | 2.5 | 1.9 | 1.7 | 1.9 | . | . | 1.6 | . | 1.9 |
| LSD(0.05) | 0.6 | 0.8 | 0.8 | 0.4 | . | . | 0.8 | . | 0.5 |
| CV(%) | 10.8 | 22.9 | 27.7 | 12.2 | . | . | 30.8 | . | 35.2 |

## *TABLE 60 - SEED SIZE (GRAMS PER 100 SEED)*
## *UNIFORM GROUP V 2023*

| STRAIN/ VARIETY | Belle Mina, AL | Bossier City, LA | Jackson, TN | Knoxville, TN | Marianna, AR | McCune, KS | Orange, VA | Pittsburg, KS |
|---|---|---|---|---|---|---|---|---|
| S16-14869 | . | 15.1 | . | 13.6 | 13.1 | 13.0 | 16.3 | 16.9 |
| AG53XF2 | . | 16.0 | . | 13.1 | 13.7 | 13.1 | 15.0 | 16.7 |
| AG55XF0 | . | 15.5 | . | 14.0 | 14.6 | 13.2 | 17.7 | 16.9 |
| AG56XF2 | . | 15.0 | . | 13.8 | 14.6 | 13.2 | 16.3 | 16.8 |
| TN09-008 | . | 15.0 | . | 15.6 | 14.2 | 13.6 | 16.7 | 16.8 |
| TN11-5140 | . | 15.0 | . | 12.7 | 12.0 | 13.1 | 17.3 | 14.3 |
| DA1539-1010F | . | 14.0 | . | 11.4 | 11.9 | 10.7 | 13.3 | 12.4 |
| K19-3177 | . | 15.0 | . | 12.9 | 12.8 | 13.0 | 14.0 | 13.8 |
| N16-10889 | . | 13.0 | . | 10.3 | 9.5 | 12.6 | 14.3 | 13.2 |
| N17-2488 | . | 20.0 | . | 14.5 | 15.5 | 14.6 | 18.7 | 17.1 |
| N18-235 | . | 14.0 | . | 11.6 | 12.8 | 12.5 | 14.7 | 15.8 |
| N19-1095 | . | 14.0 | . | 12.7 | 12.0 | 12.6 | 17.0 | 13.8 |
| N19-1097 | . | 17.0 | . | 14.1 | 14.1 | 13.4 | 17.0 | 15.1 |
| NDPJE-14-133 | . | 17.2 | . | 14.5 | 13.8 | 15.4 | 18.7 | 17.6 |
| NDPJE-14-217 | . | 15.3 | . | 14.0 | 13.5 | 14.7 | 17.3 | 18.1 |
| R18-10491 | . | 15.3 | . | 12.9 | 12.4 | 13.3 | 15.7 | 15.2 |
| S17-2509 | . | 15.4 | . | 15.3 | 14.3 | 14.7 | 15.7 | 16.7 |
| S19-12537 | . | 16.5 | . | 14.4 | 15.1 | 14.3 | 14.7 | 15.2 |
| S19-14797 | . | 16.5 | . | 12.7 | 13.8 | 14.0 | 16.0 | 16.7 |
| S19-19764 | . | 15.0 | . | 14.3 | 13.9 | 13.2 | 15.3 | 14.7 |
| S19-19923 | . | 16.0 | . | 13.8 | 14.1 | 13.7 | 15.0 | 13.5 |
| TN21-5002 | . | 14.5 | . | 11.4 | 11.9 | 11.9 | 13.7 | 14.3 |
| V16-1706R2 | . | 15.2 | . | 13.7 | 14.1 | 13.1 | 15.3 | 14.6 |
| V17-2361R | . | 17.0 | . | 13.7 | 14.0 | 12.8 | 15.7 | 14.0 |
| V18-0400 | . | 14.0 | . | 12.7 | 12.5 | 11.9 | 14.7 | 13.7 |
| V18-0678 | . | 13.2 | . | 12.0 | 11.3 | 12.4 | 15.7 | 15.3 |
| V18-1255 | . | 15.5 | . | 12.1 | 13.2 | 12.3 | 16.0 | 15.2 |
| V18-2423 | . | 14.0 | . | 12.0 | 12.3 | 11.0 | 12.7 | 10.8 |
| V18-4040HP | . | 14.0 | . | 13.1 | 13.9 | 12.3 | 16.0 | 14.9 |
| V18-4411R2DI | . | 18.5 | . | 15.8 | 15.1 | 16.2 | 18.3 | 18.5 |
| V19-1409RR | . | 14.2 | . | 11.9 | 11.8 | 11.8 | 14.0 | 14.5 |
| | | | | | | | | |
| Mean | . | 15.4 | . | 13.2 | 13.3 | 13.1 | 15.8 | 15.3 |
| LSD(0.05) | . | . | . | 0.9 | 0.7 | . | 2.1 | . |
| CV(%) | . | 0.0 | . | 4.2 | 3.2 | . | 8.1 | . |

*TABLE 60 - SEED SIZE (GRAMS PER 100 SEED) (continued)*
*UNIFORM GROUP V 2023*

| STRAIN/ VARIETY | Plymouth, NC | Portageville, MO(A) | Portageville, MO(B) | Springfield, TN | Starkville, MS | Stoneville, MS | Stuttgart, AR | Warsaw, VA | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| S16-14869 | 13.8 | 14.0 | 14.1 | 15.7 | . | | 14.9 | 12.7 | 14.4 |
| AG53XF2 | 13.9 | 15.1 | 14.3 | 17.0 | . | . | 15.5 | 12.0 | 14.6 |
| AG55XF0 | 13.9 | 14.3 | 14.5 | 15.9 | . | . | 17.6 | 14.3 | 15.2 |
| AG56XF2 | 14.4 | 14.3 | 14.6 | 16.3 | . | . | 17.9 | 14.0 | 15.1 |
| TN09-008 | 15.7 | 15.1 | 15.8 | 18.8 | . | . | 16.6 | 14.3 | 15.7 |
| TN11-5140 | 12.9 | 14.4 | 13.7 | 15.2 | . | . | 16.3 | 14.0 | 14.3 |
| DA1539-1010F | 12.5 | 12.4 | 12.3 | 12.5 | . | . | 13.3 | 10.7 | 12.3 |
| K19-3177 | 13.3 | 13.3 | 13.1 | 13.7 | . | . | 13.9 | 11.3 | 13.3 |
| N16-10889 | 10.8 | . | 10.2 | 13.2 | . | . | 12.5 | 11.7 | 11.9 |
| N17-2488 | 15.9 | 16.8 | 16.3 | 16.7 | . | . | 19.9 | 14.7 | 16.8 |
| N18-235 | 12.2 | 12.6 | 13.4 | 14.8 | . | . | 15.5 | 11.3 | 13.4 |
| N19-1095 | 11.6 | . | 13.0 | 14.4 | . | . | 14.4 | 12.7 | 13.5 |
| N19-1097 | 12.7 | 15.4 | 14.7 | 17.0 | . | . | 15.9 | 14.0 | 15.1 |
| NDPJE-14-133 | 14.5 | 15.9 | 15.2 | 18.0 | . | . | 17.1 | 14.3 | 16.0 |
| NDPJE-14-217 | 12.6 | 13.6 | 14.8 | 16.5 | . | . | 15.8 | 13.3 | 14.9 |
| R18-10491 | 12.3 | 13.7 | 12.9 | 15.2 | . | . | 15.1 | 13.7 | 14.0 |
| S17-2509 | 14.2 | 16.8 | 15.8 | 17.8 | . | . | 17.6 | 13.3 | 15.6 |
| S19-12537 | 13.1 | 14.8 | 14.9 | 16.1 | . | . | 15.9 | 11.7 | 14.7 |
| S19-14797 | 14.0 | 14.8 | 14.4 | 14.9 | . | . | 16.9 | 12.7 | 14.7 |
| S19-19764 | 13.8 | 14.9 | 13.9 | 15.9 | . | . | 16.1 | 11.7 | 14.4 |
| S19-19923 | 13.0 | 15.1 | 14.5 | 15.8 | . | . | 15.5 | 11.3 | 14.3 |
| TN21-5002 | 11.1 | 12.5 | 12.1 | 14.7 | . | . | 13.5 | 10.7 | 12.6 |
| V16-1706R2 | 13.7 | 15.3 | 14.6 | 16.6 | . | . | 17.5 | 12.7 | 14.7 |
| V17-2361R | 12.2 | 15.3 | 13.9 | 16.3 | . | . | 15.4 | 12.7 | 14.5 |
| V18-0400 | 13.1 | 14.0 | 12.9 | 14.1 | . | . | 14.2 | 12.0 | 13.3 |
| V18-0678 | 11.2 | 13.2 | 11.7 | 13.8 | . | . | 13.6 | 14.3 | 13.1 |
| V18-1255 | 13.2 | 14.3 | 13.2 | 15.7 | . | . | 15.6 | 12.0 | 14.0 |
| V18-2423 | 11.9 | 11.6 | 11.8 | 13.1 | . | . | 14.2 | 10.7 | 12.2 |
| V18-4040HP | 14.4 | 14.3 | 13.7 | 15.9 | . | . | 16.5 | 12.3 | 14.3 |
| V18-4411R2DI | 14.0 | 16.3 | 15.0 | 16.8 | . | . | 20.6 | 14.3 | 16.6 |
| V19-1409RR | 11.8 | 12.8 | 12.2 | 15.1 | . | . | 14.8 | 11.0 | 13.0 |
| | | | | | | | | | |
| Mean | 13.1 | 14.4 | 13.8 | 15.6 | . | . | 15.8 | 12.7 | 14.3 |
| LSD(0.05) | 1.0 | 1.1 | 0.8 | 1.1 | . | . | 0.9 | 1.3 | 0.6 |
| CV(%) | 4.5 | 4.4 | 3.3 | 4.2 | . | . | 3.3 | 6.2 | 6.6 |

***TABLE 61 - OIL (%)†***
***UNIFORM GROUP V 2023***

| STRAIN/ VARIETY | Belle Mina, AL | Bossier City, LA | Jackson, TN | Knoxville, TN | Marianna, AR | McCune, KS | Orange, VA | Pittsburg, KS |
|---|---|---|---|---|---|---|---|---|
| S16-14869 | . | 19.5 | . | 20.5 | 19.1 | 19.3 | 20.6 | 18.9 |
| AG53XF2 | . | 20.4 | . | 21.1 | 20.1 | 19.9 | 20.7 | 20.0 |
| AG55XF0 | . | 19.3 | . | 19.6 | 18.9 | 18.8 | 19.1 | 18.6 |
| AG56XF2 | . | 19.1 | . | 18.8 | 18.4 | 18.5 | 19.2 | 18.2 |
| TN09-008 | . | 20.0 | . | 20.2 | 19.5 | 19.2 | 20.3 | 19.1 |
| TN11-5140 | . | 20.1 | . | 20.0 | 19.0 | 19.5 | 21.7 | 18.8 |
| DA1539-1010F | . | 19.6 | . | 19.8 | 19.1 | 19.8 | 19.8 | 19.9 |
| K19-3177 | . | 19.3 | . | 19.2 | 18.0 | 19.0 | 19.3 | 19.0 |
| N16-10889 | . | 19.6 | . | 19.1 | 18.4 | 18.5 | . | 17.7 |
| N17-2488 | . | 21.3 | . | 21.2 | 20.3 | 20.3 | 20.8 | 20.8 |
| N18-235 | . | 20.4 | . | 20.6 | 19.8 | 19.4 | 20.9 | 19.3 |
| N19-1095 | . | 18.8 | . | 19.4 | 18.7 | 18.8 | 20.8 | 18.6 |
| N19-1097 | . | 18.1 | . | 20.3 | 18.4 | 19.1 | 20.5 | 17.8 |
| NDPJE-14-133 | . | 18.9 | . | 20.3 | 18.5 | 18.5 | 20.0 | 17.9 |
| NDPJE-14-217 | . | 18.4 | . | 19.3 | 18.2 | 18.9 | 19.6 | 18.4 |
| R18-10491 | . | 19.2 | . | 18.1 | 18.0 | 18.7 | 19.3 | 18.3 |
| S17-2509 | . | 19.5 | . | 20.1 | 19.1 | 19.5 | 19.4 | 18.9 |
| S19-12537 | . | 19.6 | . | 20.4 | 19.1 | 19.8 | 19.9 | 19.6 |
| S19-14797 | . | 19.4 | . | 20.2 | 19.0 | 19.0 | 19.8 | 18.6 |
| S19-19764 | . | 19.4 | . | 20.0 | 18.7 | 18.7 | 19.5 | 18.7 |
| S19-19923 | . | 18.8 | . | 20.3 | 18.8 | 18.2 | 19.9 | 19.2 |
| TN21-5002 | . | 19.3 | . | 20.9 | 18.4 | 19.3 | 19.6 | 18.7 |
| V16-1706R2 | . | 19.7 | . | 19.3 | 18.8 | 18.9 | 18.8 | 18.7 |
| V17-2361R | . | 18.9 | . | 19.9 | 18.0 | 19.2 | 19.9 | 18.8 |
| V18-0400 | . | 19.8 | . | 19.7 | 19.1 | 19.6 | 20.1 | 19.4 |
| V18-0678 | . | 19.9 | . | 20.2 | 19.2 | 20.6 | 22.7 | 19.6 |
| V18-1255 | . | 18.6 | . | 19.8 | 18.8 | 19.9 | 20.0 | 19.4 |
| V18-2423 | . | 18.0 | . | 19.0 | 18.2 | 18.5 | 19.8 | 18.8 |
| V18-4040HP | . | 18.3 | . | 19.2 | 17.1 | 17.4 | 19.0 | 17.8 |
| V18-4411R2DI | . | 18.6 | . | 19.2 | 18.8 | 18.5 | 19.6 | 18.9 |
| V19-1409RR | . | 19.4 | . | 20.0 | 18.8 | 19.5 | 19.7 | 18.9 |
| | | | | | | | | |
| Mean | . | 19.3 | . | 19.9 | 18.8 | 19.1 | 20.0 | 18.9 |
| LSD(0.05) | . | . | . | . | . | . | . | . |
| CV(%) | . | . | . | . | . | . | . | . |

†Oil percentage is reported on a 13% moisture basis beginning in 2015.

*TABLE 61 - OIL (%)† (continued)*
*UNIFORM GROUP V 2023*

| STRAIN/ VARIETY | Plymouth, NC | Portageville, MO(A) | Portageville, MO(B) | Springfield, TN | Starkville, MS | Stoneville, MS | Stuttgart, AR | Warsaw, VA | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| S16-14869 | 19.3 | 19.4 | 19.0 | 19.1 | . | 19.7 | 19.9 | 20.0 | 19.6 |
| AG53XF2 | 19.4 | 19.3 | 19.7 | 19.0 | . | 20.8 | 20.0 | 19.3 | 20.0 |
| AG55XF0 | 18.6 | 18.8 | 18.3 | 18.9 | . | 19.7 | 19.3 | 18.6 | 19.0 |
| AG56XF2 | 18.1 | 18.2 | 18.5 | 18.4 | . | 19.0 | 19.0 | 18.5 | 18.6 |
| TN09-008 | 19.3 | 19.3 | 19.2 | 18.6 | . | 19.7 | 20.1 | 19.6 | 19.5 |
| TN11-5140 | 18.5 | 19.3 | 19.1 | 19.1 | . | 19.8 | 19.6 | 18.5 | 19.5 |
| DA1539-1010F | 18.8 | 19.2 | 19.1 | 18.7 | . | 19.1 | 19.7 | 19.3 | 19.4 |
| K19-3177 | 18.4 | 18.1 | 18.3 | 18.1 | . | 19.3 | 19.2 | 18.9 | 18.8 |
| N16-10889 | 17.6 | . | 17.6 | 17.2 | . | 19.9 | 18.8 | 17.4 | 18.4 |
| N17-2488 | 20.4 | 20.8 | 20.5 | 20.1 | . | 21.2 | 21.6 | 20.6 | 20.8 |
| N18-235 | 20.0 | 19.9 | 19.7 | 19.5 | . | 20.3 | 20.9 | 19.8 | 20.0 |
| N19-1095 | 18.2 | . | 18.6 | 18.4 | . | 18.6 | 19.3 | 18.1 | 18.8 |
| N19-1097 | 17.9 | 19.0 | 18.7 | 17.8 | . | 18.7 | 18.7 | 19.2 | 18.8 |
| NDPJE-14-133 | 18.0 | 19.3 | 19.1 | 19.0 | . | 19.0 | 19.3 | 19.3 | 19.0 |
| NDPJE-14-217 | 18.3 | 19.1 | 18.4 | 18.1 | . | 20.3 | 19.2 | 18.7 | 18.8 |
| R18-10491 | 18.2 | 17.2 | 17.7 | 17.6 | . | 18.9 | 19.0 | 18.5 | 18.4 |
| S17-2509 | 19.6 | 18.9 | 19.0 | 18.6 | . | 19.5 | 19.9 | 19.5 | 19.3 |
| S19-12537 | 19.4 | 19.3 | 19.2 | 18.9 | . | 20.1 | 19.6 | 19.7 | 19.6 |
| S19-14797 | 18.9 | 18.9 | 19.0 | 18.5 | . | 19.4 | 19.6 | 19.3 | 19.2 |
| S19-19764 | 18.3 | 18.4 | 18.9 | 18.1 | . | 19.7 | 19.3 | 19.0 | 19.0 |
| S19-19923 | 19.2 | 19.0 | 19.0 | 18.1 | . | 19.4 | 19.7 | 18.7 | 19.1 |
| TN21-5002 | 19.7 | 19.0 | 19.2 | 18.1 | . | 18.9 | 20.2 | 19.1 | 19.3 |
| V16-1706R2 | 18.2 | 18.2 | 18.4 | 18.3 | . | 19.6 | 19.6 | 18.6 | 18.9 |
| V17-2361R | 17.6 | 18.2 | 18.9 | 18.6 | . | 18.6 | 17.9 | 18.6 | 18.7 |
| V18-0400 | 18.8 | 18.7 | 18.9 | 18.5 | . | 20.0 | 19.3 | 19.1 | 19.3 |
| V18-0678 | 19.0 | 19.6 | 19.0 | 19.5 | . | 20.0 | 20.7 | 19.7 | 20.0 |
| V18-1255 | 18.8 | 19.0 | 19.1 | 19.1 | . | 19.2 | 19.1 | 18.7 | 19.2 |
| V18-2423 | 19.0 | 18.8 | 18.6 | 18.2 | . | 20.1 | 19.1 | 18.6 | 18.8 |
| V18-4040HP | 17.7 | 18.2 | 17.8 | 16.5 | . | 18.0 | 18.0 | 19.1 | 18.0 |
| V18-4411R2DI | 17.7 | 18.8 | 18.0 | 18.3 | . | 18.9 | 18.6 | 18.0 | 18.6 |
| V19-1409RR | 18.9 | 18.9 | 19.1 | 18.9 | . | 20.0 | 19.7 | 19.4 | 19.3 |
| Mean | 18.7 | 18.9 | 18.8 | 18.5 | . | 19.5 | 19.5 | 19.0 | 19.1 |
| LSD(0.05) | . | . | . | . | . | . | . | . | 0.3 |
| CV(%) | . | . | . | . | . | . | . | . | 2.2 |

***TABLE 62 - PROTEIN (%)†***
***UNIFORM GROUP V 2023***

| STRAIN/ VARIETY | Belle Mina, AL | Bossier City, LA | Jackson, TN | Knoxville, TN | Marianna, AR | McCune, KS | Orange, VA | Pittsburg, KS |
|---|---|---|---|---|---|---|---|---|
| S16-14869 | . | 37.1 | . | 33.9 | 36.2 | 35.0 | 29.8 | 35.3 |
| AG53XF2 | . | 34.3 | . | 32.1 | 34.3 | 33.6 | 30.1 | 33.6 |
| AG55XF0 | . | 37.2 | . | 34.4 | 35.8 | 35.0 | 31.4 | 35.0 |
| AG56XF2 | . | 36.5 | . | 34.7 | 36.8 | 35.3 | 31.1 | 34.7 |
| TN09-008 | . | 33.9 | . | 32.3 | 33.9 | 34.6 | 29.8 | 34.1 |
| TN11-5140 | . | 35.7 | . | 34.8 | 35.5 | 34.8 | 31.9 | 34.8 |
| DA1539-1010F | . | 37.1 | . | 34.7 | 35.7 | 33.9 | 31.4 | 34.0 |
| K19-3177 | . | 37.1 | . | 34.0 | 35.6 | 33.4 | 30.7 | 32.9 |
| N16-10889 | . | 36.8 | . | 35.7 | 35.8 | 36.1 | . | 36.5 |
| N17-2488 | . | 34.5 | . | 34.4 | 34.3 | 35.2 | 31.2 | 32.5 |
| N18-235 | . | 36.6 | . | 34.7 | 35.8 | 35.1 | 31.7 | 35.2 |
| N19-1095 | . | 38.7 | . | 36.7 | 37.6 | 36.9 | 33.0 | 37.0 |
| N19-1097 | . | 38.8 | . | 36.2 | 38.9 | 36.0 | 32.3 | 37.8 |
| NDPJE-14-133 | . | 38.1 | . | 35.1 | 36.6 | 36.2 | 32.2 | 36.5 |
| NDPJE-14-217 | . | 37.8 | . | 35.6 | 37.7 | 35.3 | 34.0 | 36.4 |
| R18-10491 | . | 38.7 | . | 39.0 | 39.0 | 37.7 | 32.7 | 37.2 |
| S17-2509 | . | 37.8 | . | 35.3 | 36.5 | 34.8 | 31.9 | 35.7 |
| S19-12537 | . | 37.2 | . | 34.3 | 36.9 | 35.0 | 31.3 | 34.4 |
| S19-14797 | . | 37.1 | . | 34.4 | 36.3 | 36.3 | 31.2 | 35.7 |
| S19-19764 | . | 39.0 | . | 35.5 | 37.0 | 36.2 | 32.4 | 36.2 |
| S19-19923 | . | 39.7 | . | 35.0 | 38.6 | 37.9 | 33.7 | 36.1 |
| TN21-5002 | . | 36.5 | . | 33.9 | 35.7 | 35.7 | 32.2 | 36.3 |
| V16-1706R2 | . | 35.9 | . | 34.2 | 35.6 | 34.7 | 30.4 | 34.1 |
| V17-2361R | . | 37.4 | . | 35.5 | 38.0 | 35.9 | 33.1 | 35.7 |
| V18-0400 | . | 37.1 | . | 35.3 | 36.4 | 36.1 | 32.8 | 36.2 |
| V18-0678 | . | 35.1 | . | 36.3 | 37.0 | 34.8 | 32.6 | 36.2 |
| V18-1255 | . | 38.4 | . | 35.6 | 36.9 | 35.2 | 32.4 | 35.8 |
| V18-2423 | . | 38.0 | . | 35.8 | 35.9 | 35.7 | 30.6 | 34.7 |
| V18-4040HP | . | 39.1 | . | 36.6 | 39.7 | 38.5 | 33.7 | 38.0 |
| V18-4411R2DI | . | 39.3 | . | 35.9 | 36.3 | 36.8 | 32.4 | 35.9 |
| V19-1409RR | . | 35.8 | . | 33.4 | 34.7 | 34.3 | 29.8 | 34.1 |
| | | | | | | | | |
| Mean | . | 37.2 | . | 35.0 | 36.5 | 35.5 | 31.8 | 35.4 |
| LSD(0.05) | . | . | . | . | . | . | . | . |
| CV(%) | . | . | . | . | . | . | . | . |

†Protein percentage reported on a 13% moisture basis beginning in 2015.

*TABLE 62 - PROTEIN (%)† (continued)*
*UNIFORM GROUP V 2023*

| STRAIN/ VARIETY | Plymouth, NC | Portageville, MO(A) | Portageville, MO(B) | Springfield, TN | Starkville, MS | Stoneville, MS | Stuttgart, AR | Warsaw, VA | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| S16-14869 | 34.7 | 33.7 | 34.6 | 34.1 | . | 36.2 | 35.1 | 33.5 | 34.5 |
| AG53XF2 | 32.7 | 34.2 | 34.0 | 33.4 | . | 32.0 | 33.8 | 33.7 | 33.2 |
| AG55XF0 | 34.6 | 34.1 | 34.8 | 33.9 | . | 35.2 | 35.6 | 34.5 | 34.7 |
| AG56XF2 | 35.6 | 35.1 | 34.3 | 34.4 | . | 35.5 | 36.0 | 34.9 | 35.0 |
| TN09-008 | 33.0 | 34.1 | 33.6 | 33.3 | . | 33.9 | 32.0 | 33.7 | 33.2 |
| TN11-5140 | 35.6 | 36.7 | 35.5 | 35.0 | . | 34.3 | 35.1 | 36.1 | 35.0 |
| DA1539-1010F | 35.1 | 34.9 | 35.8 | 34.7 | . | 35.4 | 35.2 | 34.5 | 34.8 |
| K19-3177 | 33.8 | 34.9 | 34.9 | 34.6 | . | 33.3 | 34.0 | 33.5 | 34.0 |
| N16-10889 | 35.1 | . | 37.1 | 37.0 | . | 34.2 | 35.2 | 36.2 | 35.7 |
| N17-2488 | 33.9 | 33.6 | 33.9 | 34.1 | . | 33.1 | 34.1 | 33.7 | 33.7 |
| N18-235 | 34.8 | 34.2 | 35.2 | 35.1 | . | 34.6 | 33.5 | 35.4 | 34.8 |
| N19-1095 | 37.4 | . | 36.3 | 35.8 | . | 37.0 | 37.0 | 38.5 | 36.8 |
| N19-1097 | 38.9 | 37.0 | 38.0 | 38.1 | . | 38.0 | 38.7 | 37.3 | 37.4 |
| NDPJE-14-133 | 37.2 | 35.5 | 34.5 | 35.1 | . | 36.0 | 35.8 | 35.2 | 35.7 |
| NDPJE-14-217 | 36.0 | 34.9 | 36.9 | 34.9 | . | 32.9 | 36.6 | 35.5 | 35.7 |
| R18-10491 | 38.3 | 39.1 | 38.9 | 38.6 | . | 37.4 | 37.9 | 37.6 | 37.9 |
| S17-2509 | 34.8 | 36.5 | 35.6 | 34.6 | . | 36.1 | 36.0 | 34.9 | 35.4 |
| S19-12537 | 35.1 | 34.6 | 36.0 | 35.1 | . | 34.5 | 36.1 | 34.5 | 35.0 |
| S19-14797 | 35.6 | 35.6 | 34.8 | 35.2 | . | 36.2 | 35.7 | 34.7 | 35.3 |
| S19-19764 | 37.6 | 37.6 | 36.0 | 36.1 | . | 37.0 | 37.5 | 36.7 | 36.5 |
| S19-19923 | 37.4 | 36.8 | 37.0 | 36.9 | . | 36.8 | 37.4 | 35.8 | 36.8 |
| TN21-5002 | 35.1 | 36.3 | 35.3 | 35.7 | . | 37.0 | 34.9 | 35.7 | 35.4 |
| V16-1706R2 | 35.6 | 35.1 | 35.2 | 34.7 | . | 35.4 | 35.4 | 34.4 | 34.7 |
| V17-2361R | 37.9 | 36.8 | 35.6 | 36.1 | . | 37.0 | 38.3 | 36.7 | 36.5 |
| V18-0400 | 35.9 | 35.7 | 36.0 | 36.3 | . | 35.2 | 36.6 | 36.1 | 35.8 |
| V18-0678 | 36.8 | 36.6 | 37.4 | 35.6 | . | 34.9 | 35.1 | 36.3 | 35.7 |
| V18-1255 | 35.5 | 36.6 | 35.4 | 35.0 | . | 35.8 | 36.5 | 36.7 | 35.8 |
| V18-2423 | 34.7 | 35.0 | 36.6 | 35.4 | . | 35.6 | 36.5 | 36.0 | 35.4 |
| V18-4040HP | 40.9 | 36.7 | 38.1 | 38.6 | . | 36.9 | 38.7 | 36.9 | 37.9 |
| V18-4411R2DI | 38.9 | 36.2 | 37.3 | 36.8 | . | 35.8 | 38.1 | 38.0 | 36.7 |
| V19-1409RR | 35.0 | 34.1 | 33.4 | 32.1 | . | 33.8 | 34.8 | 32.9 | 33.7 |
| Mean | 35.9 | 35.6 | 35.7 | 35.4 | . | 35.4 | 35.9 | 35.5 | 35.4 |
| LSD(0.05) | . | . | . | . | . | . | . | . | 0.6 |
| CV(%) | . | . | . | . | . | . | . | . | 2.1 |

***TABLE 63 - ESTIMATED MEAL PROTEIN (%)†***
***UNIFORM GROUP V 2023***

| STRAIN/ VARIETY | Belle Mina, AL | Bossier City, LA | Jackson, TN | Knoxville, TN | Marianna, AR | McCune, KS | Orange, VA | Pittsburg, KS |
|---|---|---|---|---|---|---|---|---|
| S16-14869 | . | 50.0 | . | 46.3 | 48.6 | 47.1 | 40.9 | 47.3 |
| AG53XF2 | . | 46.9 | . | 44.3 | 46.6 | 45.6 | 41.3 | 45.6 |
| AG55XF0 | . | 50.1 | . | 46.4 | 47.9 | 46.8 | 42.2 | 46.8 |
| AG56XF2 | . | 49.0 | . | 46.5 | 49.0 | 47.0 | 41.8 | 46.1 |
| TN09-008 | . | 46.1 | . | 43.9 | 45.8 | 46.5 | 40.5 | 45.8 |
| TN11-5140 | . | 48.6 | . | 47.3 | 47.6 | 47.0 | 44.3 | 46.6 |
| DA1539-1010F | . | 50.2 | . | 47.0 | 48.0 | 45.9 | 42.5 | 46.1 |
| K19-3177 | . | 50.0 | . | 45.7 | 47.2 | 44.8 | 41.3 | 44.1 |
| N16-10889 | . | 49.7 | . | 48.0 | 47.6 | 48.2 | . | 48.2 |
| N17-2488 | . | 47.6 | . | 47.5 | 46.8 | 47.9 | 42.8 | 44.6 |
| N18-235 | . | 50.0 | . | 47.5 | 48.6 | 47.3 | 43.6 | 47.4 |
| N19-1095 | . | 51.9 | . | 49.4 | 50.3 | 49.4 | 45.3 | 49.4 |
| N19-1097 | . | 51.5 | . | 49.3 | 51.8 | 48.4 | 44.1 | 50.0 |
| NDPJE-14-133 | . | 51.0 | . | 47.9 | 48.8 | 48.3 | 43.8 | 48.3 |
| NDPJE-14-217 | . | 50.4 | . | 47.9 | 50.1 | 47.3 | 45.9 | 48.4 |
| R18-10491 | . | 52.0 | . | 51.7 | 51.7 | 50.4 | 44.0 | 49.6 |
| S17-2509 | . | 51.1 | . | 48.0 | 49.0 | 46.9 | 43.0 | 47.9 |
| S19-12537 | . | 50.2 | . | 46.9 | 49.6 | 47.5 | 42.4 | 46.6 |
| S19-14797 | . | 50.1 | . | 46.9 | 48.7 | 48.8 | 42.3 | 47.7 |
| S19-19764 | . | 52.5 | . | 48.2 | 49.4 | 48.4 | 43.8 | 48.4 |
| S19-19923 | . | 53.1 | . | 47.7 | 51.6 | 50.3 | 45.7 | 48.6 |
| TN21-5002 | . | 49.1 | . | 46.5 | 47.6 | 48.0 | 43.6 | 48.6 |
| V16-1706R2 | . | 48.6 | . | 46.1 | 47.6 | 46.5 | 40.7 | 45.6 |
| V17-2361R | . | 50.1 | . | 48.2 | 50.3 | 48.2 | 44.9 | 47.7 |
| V18-0400 | . | 50.3 | . | 47.8 | 48.9 | 48.8 | 44.6 | 48.8 |
| V18-0678 | . | 47.6 | . | 49.5 | 49.8 | 47.7 | 45.8 | 49.0 |
| V18-1255 | . | 51.3 | . | 48.3 | 49.4 | 47.8 | 44.1 | 48.3 |
| V18-2423 | . | 50.3 | . | 48.0 | 47.7 | 47.6 | 41.5 | 46.5 |
| V18-4040HP | . | 52.0 | . | 49.2 | 52.0 | 50.7 | 45.2 | 50.2 |
| V18-4411R2DI | . | 52.5 | . | 48.3 | 48.6 | 49.0 | 43.8 | 48.1 |
| V19-1409RR | . | 48.3 | . | 45.4 | 46.4 | 46.2 | 40.3 | 45.6 |
| Mean | . | 50.1 | . | 47.5 | 48.8 | 47.8 | 43.2 | 47.5 |
| LSD(0.05) | . | . | . | . | . | . | . | . |
| CV(%) | . | . | . | . | . | . | . | . |

***TABLE 63 - ESTIMATED MEAL PROTEIN (%)† (continued)***
***UNIFORM GROUP V 2023***

| STRAIN/ VARIETY | Plymouth, NC | Portageville, MO(A) | Portageville, MO(B) | Springfield, TN | Starkville, MS | Stoneville, MS | Stuttgart, AR | Warsaw, VA | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| S16-14869 | 46.7 | 45.5 | 46.4 | 45.9 | . | 48.9 | 47.6 | 45.5 | 46.7 |
| AG53XF2 | 44.1 | 46.1 | 46.0 | 44.8 | . | 43.9 | 45.9 | 45.4 | 45.1 |
| AG55XF0 | 46.2 | 45.6 | 46.3 | 45.4 | . | 47.6 | 47.9 | 46.1 | 46.6 |
| AG56XF2 | 47.3 | 46.6 | 45.8 | 45.8 | . | 47.6 | 48.3 | 46.5 | 46.7 |
| TN09-008 | 44.5 | 45.9 | 45.2 | 44.4 | . | 45.9 | 43.5 | 45.6 | 44.9 |
| TN11-5140 | 47.4 | 49.5 | 47.7 | 47.0 | . | 46.5 | 47.5 | 48.1 | 47.3 |
| DA1539-1010F | 47.0 | 46.9 | 48.1 | 46.4 | . | 47.6 | 47.7 | 46.4 | 46.9 |
| K19-3177 | 45.0 | 46.4 | 46.4 | 45.9 | . | 44.8 | 45.7 | 44.9 | 45.5 |
| N16-10889 | 46.4 | . | 48.8 | 48.6 | . | 46.4 | 47.1 | 47.6 | 47.5 |
| N17-2488 | 46.2 | 46.2 | 46.4 | 46.3 | . | 45.7 | 47.2 | 46.2 | 46.3 |
| N18-235 | 47.3 | 46.5 | 47.7 | 47.5 | . | 47.3 | 46.0 | 48.0 | 47.3 |
| N19-1095 | 49.6 | . | 48.5 | 47.7 | . | 49.3 | 49.8 | 51.0 | 49.3 |
| N19-1097 | 51.6 | 49.6 | 50.8 | 50.3 | . | 50.8 | 51.7 | 50.2 | 50.0 |
| NDPJE-14-133 | 49.3 | 47.7 | 46.3 | 47.1 | . | 48.3 | 48.2 | 47.4 | 47.9 |
| NDPJE-14-217 | 47.9 | 46.9 | 49.1 | 46.3 | . | 44.8 | 49.2 | 47.4 | 47.8 |
| R18-10491 | 50.8 | 51.4 | 51.4 | 50.9 | . | 50.1 | 50.8 | 50.2 | 50.4 |
| S17-2509 | 47.0 | 48.9 | 47.7 | 46.2 | . | 48.8 | 48.8 | 47.1 | 47.7 |
| S19-12537 | 47.3 | 46.6 | 48.3 | 47.0 | . | 47.0 | 48.8 | 46.7 | 47.3 |
| S19-14797 | 47.8 | 47.7 | 46.6 | 47.0 | . | 48.8 | 48.3 | 46.7 | 47.5 |
| S19-19764 | 49.9 | 50.1 | 48.3 | 47.9 | . | 50.1 | 50.5 | 49.3 | 49.0 |
| S19-19923 | 50.4 | 49.4 | 49.7 | 49.0 | . | 49.6 | 50.6 | 47.8 | 49.5 |
| TN21-5002 | 47.5 | 48.7 | 47.4 | 47.3 | . | 49.6 | 47.5 | 48.0 | 47.6 |
| V16-1706R2 | 47.4 | 46.7 | 46.8 | 46.2 | . | 47.8 | 47.9 | 46.0 | 46.5 |
| V17-2361R | 49.9 | 48.9 | 47.7 | 48.3 | . | 49.4 | 50.8 | 49.0 | 48.7 |
| V18-0400 | 48.1 | 47.7 | 48.2 | 48.4 | . | 47.8 | 49.3 | 48.5 | 48.2 |
| V18-0678 | 49.4 | 49.4 | 50.2 | 48.1 | . | 47.5 | 48.1 | 49.2 | 48.5 |
| V18-1255 | 47.5 | 49.1 | 47.5 | 47.1 | . | 48.2 | 49.0 | 49.0 | 48.2 |
| V18-2423 | 46.5 | 46.8 | 48.8 | 47.0 | . | 48.4 | 49.0 | 48.0 | 47.4 |
| V18-4040HP | 54.0 | 48.8 | 50.4 | 50.2 | . | 49.0 | 51.3 | 49.5 | 50.2 |
| V18-4411R2DI | 51.3 | 48.5 | 49.5 | 48.9 | . | 48.0 | 50.9 | 50.4 | 49.1 |
| V19-1409RR | 46.9 | 45.6 | 44.8 | 43.0 | . | 45.9 | 47.1 | 44.4 | 45.4 |
| Mean | 48.0 | 47.7 | 47.8 | 47.2 | . | 47.8 | 48.5 | 47.6 | 47.6 |
| LSD(0.05) | . | . | . | . | . | . | . | . | 0.7 |
| CV(%) | . | . | . | . | . | . | . | . | 1.9 |

## SUMMARY OF SEED FATTY ACIDS (%)
## UNIFORM TEST V 2023 †

| STRAIN/ VARIETY | Palmitic Acid | Stearic Acid | Oleic Acid | Linoleic Acid | Linolenic Acid |
|---|---|---|---|---|---|
| S16-14869 | 11.4 | 3.4 | 23.5 | 54.8 | 6.7 |
| AG53XF2 | 10.4 | 4.2 | 22.8 | 55.2 | 7.5 |
| S19-19764 | 7.1 | 3.0 | 77.5 | 10.0 | 2.4 |
| S19-19923 | 7.2 | 3.3 | 80.4 | 7.0 | 2.2 |
| TN21-5002 | 7.2 | 2.9 | 82.2 | 5.3 | 2.4 |
| | | | | | |
| Mean | 8.7 | 3.4 | 57.3 | 26.5 | 4.2 |
| LSD(0.05) | 0.3 | 0.2 | 2.7 | 2.3 | 0.4 |
| CV(%) | 4.0 | 6.7 | 5.5 | 9.9 | 11.9 |

†Fatty acid percentage in seed oil reported beginning in 2017.

## SEED PALMITIC ACID (%)
## UNIFORM GROUP V 2023

| STRAIN/ VARIETY | Belle Mina, AL | Bossier City, LA | Knoxville, TN | Marianna, AR | McCune, KS | Orange, VA | Pittsburg, KS |
|---|---|---|---|---|---|---|---|
| S16-14869 | . | 11.6 | 11.4 | 11.0 | 11.2 | 11.2 | 11.1 |
| AG53XF2 | . | 10.6 | 10.5 | 9.9 | 9.9 | 10.2 | 10.3 |
| S19-19764 | . | 6.9 | 7.1 | 6.5 | 7.1 | 6.8 | 6.8 |
| S19-19923 | . | 7.6 | 7.2 | 7.2 | 6.9 | 7.2 | 7.2 |
| TN21-5002 | . | 7.9 | 6.7 | 6.7 | 8.1 | 6.7 | 6.5 |
| | | | | | | | |
| Mean | . | 8.9 | 8.6 | 8.3 | 8.6 | 8.4 | 8.4 |
| LSD(0.05) | . | . | . | . | . | . | . |
| CV(%) | . | . | . | . | . | . | . |

## SEED STEARIC ACID (%)
## UNIFORM GROUP V 2023

| STRAIN/ VARIETY | Belle Mina, AL | Bossier City, LA | Knoxville, TN | Marianna, AR | McCune, KS | Orange, VA | Pittsburg, KS |
|---|---|---|---|---|---|---|---|
| S16-14869 | . | 2.9 | 3.1 | 3.5 | 4.6 | 3.1 | 3.9 |
| AG53XF2 | . | 3.8 | 4.2 | 4.5 | 5.5 | 4.0 | 4.8 |
| S19-19764 | . | 2.9 | 3.1 | 3.0 | 3.7 | 2.9 | 3.4 |
| S19-19923 | . | 3.3 | 3.2 | 3.2 | 4.5 | 3.1 | 4.0 |
| TN21-5002 | . | 3.0 | 2.8 | 3.0 | 4.1 | 2.3 | 3.0 |
| | | | | | | | |
| Mean | . | 3.2 | 3.3 | 3.4 | 4.5 | 3.1 | 3.8 |
| LSD(0.05) | . | . | . | . | . | . | . |
| CV(%) | . | . | . | . | . | . | . |

***SEED PALMITIC ACID (%) (continued)***
***UNIFORM GROUP V 2023***

| STRAIN/ VARIETY | Plymouth, NC | Portageville, MO(A) | Portageville, MO(B) | Springfield, TN | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|
| S16-14869 | 12.3 | 11.5 | 11.2 | 11.3 | . | 11.5 | 11.4 |
| AG53XF2 | 12.6 | 10.0 | 10.1 | 10.4 | 10.4 | 9.5 | 10.4 |
| S19-19764 | . | 7.3 | 6.8 | 7.3 | 7.6 | 6.8 | 7.1 |
| S19-19923 | . | 6.8 | 7.1 | 7.0 | 7.0 | 6.7 | 7.2 |
| TN21-5002 | . | 7.2 | 6.9 | 7.3 | . | 7.2 | 7.2 |
| Mean | 12.5 | 8.6 | 8.4 | 8.7 | 8.3 | 8.3 | 8.7 |
| LSD(0.05) | . | . | . | . | . | . | 0.3 |
| CV(%) | . | . | . | . | . | . | 4.0 |

***SEED STEARIC ACID (%) (continued)***
***UNIFORM GROUP V 2023***

| STRAIN/ VARIETY | Plymouth, NC | Portageville, MO(A) | Portageville, MO(B) | Springfield, TN | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|
| S16-14869 | 3.8 | 3.4 | 3.1 | 3.8 | . | 3.0 | 3.4 |
| AG53XF2 | 3.7 | 4.3 | 4.2 | 4.0 | 3.7 | 3.8 | 4.2 |
| S19-19764 | . | 2.9 | 3.0 | 3.1 | 2.7 | 2.9 | 3.0 |
| S19-19923 | . | 3.1 | 3.2 | 3.3 | 2.6 | 2.9 | 3.3 |
| TN21-5002 | . | 2.8 | 2.7 | 3.1 | . | 3.0 | 2.9 |
| Mean | 3.8 | 3.3 | 3.2 | 3.5 | 3.0 | 3.1 | 3.4 |
| LSD(0.05) | . | . | . | . | . | . | 0.2 |
| CV(%) | . | . | . | . | . | . | 6.7 |

***SEED OLEIC ACID (%)***
***UNIFORM GROUP V 2023***

| STRAIN/ VARIETY | Belle Mina, AL | Bossier City, LA | Knoxville, TN | Marianna, AR | McCune, KS | Orange, VA | Pittsburg, KS |
|---|---|---|---|---|---|---|---|
| S16-14869 | . | 26.8 | 23.9 | 24.3 | 25.5 | 19.4 | 24.8 |
| AG53XF2 | . | 25.7 | 22.4 | 25.1 | 25.2 | 19.1 | 24.6 |
| S19-19764 | . | 84.0 | 76.7 | 80.7 | 76.5 | 76.2 | 77.4 |
| S19-19923 | . | 84.0 | 80.9 | 81.4 | 77.1 | 77.4 | 78.1 |
| TN21-5002 | . | 73.7 | 85.5 | 85.3 | 72.0 | 83.9 | 85.9 |
| Mean | . | 58.8 | 57.9 | 59.4 | 55.3 | 55.2 | 58.2 |
| LSD(0.05) | . | . | . | . | . | . | . |
| CV(%) | . | . | . | . | . | . | . |

***SEED LINOLEIC ACID (%)***
***UNIFORM GROUP V 2023***

| STRAIN/ VARIETY | Belle Mina, AL | Bossier City, LA | Knoxville, TN | Marianna, AR | McCune, KS | Orange, VA | Pittsburg, KS |
|---|---|---|---|---|---|---|---|
| S16-14869 | . | 54.1 | 55.5 | 55.0 | 51.9 | 58.3 | 53.6 |
| AG53XF2 | . | 53.6 | 55.4 | 53.6 | 52.1 | 57.8 | 53.0 |
| S19-19764 | . | 4.5 | 10.5 | 7.8 | 10.4 | 11.6 | 10.0 |
| S19-19923 | . | 3.4 | 6.5 | 6.1 | 9.2 | 9.9 | 8.4 |
| TN21-5002 | . | 12.6 | 2.9 | 2.9 | 13.3 | 4.6 | 2.7 |
| Mean | . | 25.6 | 26.2 | 25.1 | 27.4 | 28.4 | 25.5 |
| LSD(0.05) | . | . | . | . | . | . | . |
| CV(%) | . | . | . | . | . | . | . |

***SEED LINOLENIC ACID (%)***
***UNIFORM GROUP V 2023***

| STRAIN/ VARIETY | Belle Mina, AL | Bossier City, LA | Knoxville, TN | Marianna, AR | McCune, KS | Orange, VA | Pittsburg, KS |
|---|---|---|---|---|---|---|---|
| S16-14869 | . | 4.7 | 6.1 | 6.2 | 6.7 | 8.0 | 6.6 |
| AG53XF2 | . | 6.4 | 7.6 | 6.9 | 7.3 | 9.0 | 7.3 |
| S19-19764 | . | 1.7 | 2.6 | 2.1 | 2.3 | 2.4 | 2.3 |
| S19-19923 | . | 1.8 | 2.2 | 2.1 | 2.3 | 2.3 | 2.3 |
| TN21-5002 | . | 2.8 | 2.1 | 2.0 | 2.5 | 2.5 | 1.9 |
| Mean | . | 3.5 | 4.1 | 3.9 | 4.2 | 4.8 | 4.1 |
| LSD(0.05) | . | . | . | . | . | . | . |
| CV(%) | . | . | . | . | . | . | . |

### *SEED OLEIC ACID (%) (continued)*
### *UNIFORM GROUP V 2023*

| STRAIN/ VARIETY | Plymouth, NC | Portageville, MO(A) | Portageville, MO(B) | Springfield, TN | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|
| S16-14869 | 17.2 | 24.3 | 24.5 | 24.0 | . | 24.3 | 23.5 |
| AG53XF2 | 19.0 | 22.6 | 24.2 | 20.4 | 23.0 | 21.9 | 22.8 |
| S19-19764 | . | 76.5 | 77.2 | 74.9 | 72.0 | 81.3 | 77.5 |
| S19-19923 | . | 79.9 | 80.0 | 79.0 | 83.6 | 83.8 | 80.4 |
| TN21-5002 | . | 83.3 | 84.5 | 83.6 | . | 84.7 | 82.2 |
| Mean | 18.1 | 57.3 | 58.1 | 56.4 | 59.5 | 59.2 | 57.3 |
| LSD(0.05) | . | . | . | . | . | . | 2.7 |
| CV(%) | . | . | . | . | . | . | 5.5 |

### *SEED LINOLEIC ACID (%) (continued)*
### *UNIFORM GROUP V 2023*

| STRAIN/ VARIETY | Plymouth, NC | Portageville, MO(A) | Portageville, MO(B) | Springfield, TN | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|
| S16-14869 | 58.1 | 54.0 | 54.2 | 53.3 | . | 55.2 | 54.8 |
| AG53XF2 | 55.9 | 55.7 | 54.4 | 55.9 | 56.7 | 58.0 | 55.2 |
| S19-19764 | . | 10.8 | 10.6 | 12.0 | 15.2 | 7.0 | 10.0 |
| S19-19923 | . | 8.0 | 7.5 | 8.3 | 4.9 | 4.8 | 7.0 |
| TN21-5002 | . | 4.2 | 3.7 | 3.5 | . | 3.0 | 5.3 |
| Mean | 57.0 | 26.5 | 26.1 | 26.6 | 25.6 | 25.6 | 26.5 |
| LSD(0.05) | . | . | . | . | . | . | 2.3 |
| CV(%) | . | . | . | . | . | . | 9.9 |

### *SEED LINOLENIC ACID (%) (continued)*
### *UNIFORM GROUP V 2023*

| STRAIN/ VARIETY | Plymouth, NC | Portageville, MO(A) | Portageville, MO(B) | Springfield, TN | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|
| S16-14869 | 8.6 | 6.8 | 7.0 | 7.6 | . | 6.0 | 6.7 |
| AG53XF2 | 8.7 | 7.4 | 7.1 | 9.2 | 6.3 | 6.9 | 7.5 |
| S19-19764 | . | 2.4 | 2.4 | 2.7 | 2.6 | 2.0 | 2.4 |
| S19-19923 | . | 2.2 | 2.2 | 2.3 | 1.9 | 1.7 | 2.2 |
| TN21-5002 | . | 2.4 | 2.2 | 2.5 | . | 2.2 | 2.4 |
| Mean | 8.7 | 4.2 | 4.2 | 4.9 | 3.6 | 3.8 | 4.2 |
| LSD(0.05) | . | . | . | . | . | . | 0.4 |
| CV(%) | . | . | . | . | . | . | 11.9 |

***TABLE 64 - PARENTAGE OF ENTRIES***
***PRELIMINARY GROUP V-EARLY 2023***

| Ent | Strain/Variety | Parentage | Source | Fn | Trans-genic† | Special Traits‡ |
|---|---|---|---|---|---|---|
| 1 | S16-14869 | Commercial check | check | | | |
| 2 | AG53XF2 | Commercial check | check | | RR2, LL, DIC | |
| 3 | AG55XF0 | Commercial check | check | | RR2, LL, DIC | |
| 4 | TN09-008 | Commercial check | check | | | SCN check |
| 5 | DS1520-34 | [DS-880)2 x L62-1251] x CM422 | Rusty Smith | F5 | | Dt2, Rpp4, Rps1k, 9% exotic |
| 6 | JT22-5003 | J98-32 x Anand | Smallwood | F16 | | JTN-5110 reselection, 19% exotic |
| 7 | JT22-5012 | DC2864 x DC7816 | Smallwood | F10 | | SCN, charcoal rot, 16% exotic |
| 8 | JT22-5019 | DC2864 x DC7816 | Smallwood | F10 | | SCN, charcoal rot, 16% exotic |
| 9 | JTN-5110 | J98-32 x Anand | Smallwood | F4 | | Released germplasm,19% exotic |
| 10 | N16-7526 | Holladay x Fiskeby 3 | Fallen | | | Ozone&Heat Tol./Slow Wilting |
| 11 | N19-0042 | G00-3213 x R13-7797 | Mian | | | High meal protein |
| 12 | N19-0238 | N08-174-1 x S09-13185 | Mian | | | High meal protein |
| 13 | N19-0318 | N09-9-1 x LMN09-19 | Mian | | | High protein |
| 14 | N19-0573 | N06-06-1 x R11-8346 | Mian | | | High meal protein |
| 15 | R19-410712 | TN08-100 / R11-2299 | Vieira | F4:5 | | |
| 16 | R19-411424 | R11-1578 / K12-1348 | Vieira | F4:5 | | |
| 17 | R19-42447b | XC5110 / R05-3239 | Vieira | F4:5 | | |
| 18 | R19-45980 | Ellis / R04-357 | Vieira | F4:5 | | |
| 19 | R19-46252 | FNA1.31 / R05-4114 | Vieira | F4:5 | | |
| 20 | R19C-3194 | R16-253 x LD11-2170 | Vieira | F2:3 | | |
| 21 | S20-13179 | S13-10590C x S13-10590LL | Shannon | | LL | SCN,RKN,SC,BSR,Salt Excluder |
| 22 | S20-1435 | S12-4718 x S16-14730 | Shannon | | | SC |
| 23 | S20-1492 | S12-4718 x S16-14730 | Shannon | | | SC |
| 24 | S20-14936 | S14-9017R x K14-1717 | Shannon | | RR1 | SCN,SC,PRR,BSR |
| 25 | S20-4428 | S16-15170 x S16-14558 | Shannon | | | SC,BSR |
| 26 | TC19HMUPRO-21 | TC11POMUT-20 x TC11POMUT-5 | Fallen | | | Increased protein |
| 27 | TN16-5024 | TN09-008 / Ellis | Pantalone | | | |
| 28 | TN20-5043 | TN14-5017 x TN15-4023 | Pantalone | | | Higher protein |
| 29 | TN21-5707R1 | S14-15146 x Ellis-HOLL | Pantalone | | RR1 | |
| 30 | TN21-5708R1 | S14-15146 x Ellis-HOLL | Pantalone | | RR1 | HOLN |
| 31 | TN21-5710R1 | S14-15146 x Ellis-HOLL | Pantalone | | RR1 | |
| 32 | TN22-5060 | Ellis-HOLL x K15-1310 | Pantalone | | | HOLN |
| 33 | V18-2393 | V11-0730 x Ellis | B. Zhang | | | |
| 34 | V19-0300 | V11-1172 x V09-4076 | B. Zhang | | | |
| 35 | V19-0873 | R10-230 x Md 99-6226 | B. Zhang | | | |
| 36 | V19-1625HO | V10-0262 x R11-8346 | B. Zhang | | | High oil |
| 37 | V19-1626 | V10-0262 x R11-8346 | B. Zhang | | | |

† Conv= Conventional(non-transgenic), E3= Enlist E3®, LL= Liberty Link®, RR1= Roundup Ready®, RR2=Roundup Ready 2 Yield®, and RRX= Roundup Ready 2 Xtend®

‡ AA= modified amino acids, DNC= Do not cross with this, FLS= Frogeye leaf spot resistance, LJ= Long juvenile, LN= low linolenic acid, LP= low phytate, HO= high oleic acid, HOLN= high oleic acid/low linolenic acid, SC= Southern stem canker, SCN= Soybean cyst nematode resistance, SR= Soybean rust resistance, and STS= sulfonylurea tolerant

## *TABLE 65 - GENERAL SUMMARY OF PERFORMANCE*
## *PRELIMINARY TEST V-EARLY 2023*

| STRAIN/ VARIETY | SEED YIELD† | RANK | AVG. RANK | MAT. INDEX | LOD | HT | SCN Cyst Score (1-5)‡ Race 2 | Race 3 | Race 5 | SC RATING | SC SCORE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S16-14869 | 67.8 | 1 | 5 | 0 | 2.1 | 31 | 3 | . | 2 | | . |
| AG53XF2 | 64.4 | 5 | 11 | -1 | 1.3 | 36 | 3 | . | 3 | | . |
| AG55XF0 | 66.0 | 2 | 9 | 2 | 1.5 | 33 | 3 | . | 1 | | . |
| TN09-008 | 57.5 | 26 | 20 | 1 | 1.3 | 24 | 1 | . | 1 | | . |
| DS1520-34 | 53.8 | 35 | 30 | 1 | 1.8 | 34 | 4 | . | 4 | | . |
| JT22-5003 | 58.6 | 24 | 20 | -3 | 1.3 | 26 | 1 | . | 1 | | . |
| JT22-5012 | 63.6 | 9 | 12 | 2 | 2.0 | 33 | 1 | . | 1 | | . |
| JT22-5019 | 58.9 | 23 | 20 | -3 | 2.0 | 29 | 1 | . | 1 | | . |
| JTN-5110 | 59.4 | 19 | 16 | -1 | 1.5 | 29 | 1 | . | 1 | | . |
| N16-7526 | 50.5 | 37 | 33 | 2 | 1.3 | 25 | 4 | . | 5 | | . |
| N19-0042 | 55.5 | 31 | 27 | 2 | 1.3 | 26 | 5 | . | 4 | | . |
| N19-0238 | 56.6 | 30 | 23 | -1 | 1.4 | 26 | 4 | . | 2 | | . |
| N19-0318 | 53.3 | 36 | 28 | 8 | 1.7 | 31 | 4 | . | 4 | | . |
| N19-0573 | 57.2 | 28 | 22 | 4 | 1.3 | 27 | 5 | . | 3 | | . |
| R19-410712 | 60.0 | 16 | 18 | 3 | 1.6 | 32 | 5 | . | 4 | | . |
| R19-411424 | 61.7 | 11 | 16 | 0 | 2.2 | 32 | 4 | . | 4 | | . |
| R19-42447b | 60.2 | 15 | 18 | 0 | 1.8 | 39 | 3 | . | 1 | | . |
| R19-45980 | 65.9 | 3 | 10 | 2 | 1.5 | 30 | 5 | . | 3 | | . |
| R19-46252 | 59.0 | 22 | 20 | 2 | 1.9 | 41 | 4 | . | 4 | | . |
| R19C-3194 | 57.6 | 25 | 22 | -1 | 1.5 | 35 | 5 | . | 5 | | . |
| S20-13179 | 63.7 | 7 | 11 | 1 | 1.8 | 39 | 3 | . | 1 | | . |
| S20-1435 | 61.3 | 13 | 17 | -1 | 1.8 | 37 | 5 | . | 4 | | . |
| S20-1492 | 63.8 | 6 | 13 | -1 | 1.8 | 36 | 5 | . | 4 | | . |
| S20-14936 | 62.5 | 10 | 16 | 1 | 2.5 | 40 | 5 | . | 4 | | . |
| S20-4428 | 64.7 | 4 | 11 | 2 | 1.5 | 39 | 4 | . | 3 | | . |
| TC19HMUPRO-21 | 54.6 | 32 | 27 | -1 | 1.3 | 24 | 5 | . | 4 | | . |
| TN16-5024 | 54.5 | 33 | 22 | 1 | 1.4 | 23 | 2 | . | 2 | | . |
| TN20-5043 | 59.1 | 21 | 19 | 0 | 1.4 | 29 | 3 | . | 1 | | . |
| TN21-5707R1 | 59.3 | 20 | 19 | -1 | 1.9 | 38 | 5 | . | 5 | | . |
| TN21-5708R1 | 61.4 | 12 | 17 | -1 | 1.5 | 35 | 3 | . | 4 | | . |
| TN21-5710R1 | 60.6 | 14 | 18 | 5 | 1.7 | 39 | 5 | . | 4 | | . |
| TN22-5060 | 59.5 | 18 | 17 | 3 | 2.0 | 36 | 5 | . | 4 | | . |
| V18-2393 | 56.9 | 29 | 25 | -4 | 1.3 | 23 | 5 | . | 4 | | . |
| V19-0300 | 57.3 | 27 | 25 | -3 | 1.2 | 23 | 5 | . | 4 | | . |
| V19-0873 | 59.9 | 17 | 20 | -2 | 1.3 | 24 | 5 | . | 4 | | . |
| V19-1625HO | 54.5 | 34 | 30 | 0 | 1.4 | 28 | 5 | . | 4 | | . |
| V19-1626 | 63.6 | 8 | 14 | -2 | 1.3 | 28 | 5 | . | 4 | | . |
| | | | | | | | | | | | |
| Mean | 59.6 | . | . | 0 | 1.6 | 31 | . | . | . | | . |
| LSD(0.05) | 7.0 | . | . | 3 | 0.5 | 4 | . | . | . | | . |
| LSD(0.10) | 5.8 | . | . | . | . | . | . | . | . | | . |
| CV(%) | 12.9 | . | . | 694 | 33.8 | 13 | . | . | . | | . |

†Data not included in the mean due to CV >15%: Knoxville, Plymouth, Warsaw.

‡The race 2 and 5 SCN populations used in these tests were typed as HG (Heterodera glycines) Type 1.2.5.7 and HG Type 2.5.7, respectively.

***TABLE 66 - GENERAL SUMMARY OF PERFORMANCE (continued)***
***PRELIMINARY TEST V-EARLY 2023***

| STRAIN/ VARIETY | SEED QUALITY | SEED SIZE | PROTEIN§ % | OIL§ % | MEAL PRO% | FL COLOR | PUB. COLOR | POD COLOR |
|---|---|---|---|---|---|---|---|---|
| S16-14869 | 1.5 | 13.8 | 34.0 | 19.9 | 46.2 | W | | |
| AG53XF2 | 2.0 | 14.3 | 33.3 | 20.1 | 45.4 | P | | |
| AG55XF0 | 1.9 | 14.9 | 35.2 | 18.9 | 47.3 | W | | |
| TN09-008 | 2.1 | 15.2 | 33.3 | 19.6 | 45.0 | P | | |
| DS1520-34 | 1.9 | 17.2 | 35.7 | 20.6 | 48.9 | P | Tw | Tn |
| JT22-5003 | 2.2 | 13.9 | 35.5 | 19.5 | 47.9 | P | T | |
| JT22-5012 | 1.8 | 13.3 | 35.5 | 19.1 | 47.6 | P | T | |
| JT22-5019 | 1.5 | 12.8 | 35.3 | 19.5 | 47.7 | W | G | |
| JTN-5110 | 1.9 | 14.0 | 35.2 | 19.7 | 47.6 | P | T | |
| N16-7526 | 2.0 | 15.0 | 35.1 | 19.4 | 47.4 | P | G | |
| N19-0042 | 1.8 | 14.2 | 38.0 | 19.0 | 50.9 | W | T | |
| N19-0238 | 2.2 | 14.4 | 35.9 | 19.1 | 48.2 | P | T | |
| N19-0318 | 1.7 | 15.1 | 40.5 | 17.6 | 53.5 | W | T | |
| N19-0573 | 2.1 | 11.9 | 36.8 | 19.2 | 49.5 | P | T | |
| R19-410712 | 1.9 | 12.9 | 33.6 | 19.3 | 45.2 | P | G | T |
| R19-411424 | 1.5 | 11.8 | 35.2 | 19.6 | 47.6 | W | G | T |
| R19-42447b | 2.1 | 13.7 | 34.5 | 19.8 | 46.7 | P | Lt | B |
| R19-45980 | 1.5 | 11.9 | 35.9 | 18.7 | 47.9 | W | G | T |
| R19-46252 | 1.6 | 12.6 | 35.4 | 19.1 | 47.5 | P | G | T |
| R19C-3194 | 2.2 | 13.9 | 35.9 | 18.8 | 48.0 | W | T | T |
| S20-13179 | 2.1 | 14.8 | 34.9 | 20.0 | 47.5 | W | | Br |
| S20-1435 | 2.2 | 14.5 | 35.5 | 18.9 | 47.6 | P | T | |
| S20-1492 | 1.6 | 13.3 | 33.2 | 20.3 | 45.2 | P | T | |
| S20-14936 | 1.8 | 13.5 | 34.7 | 19.2 | 46.8 | W | G | |
| S20-4428 | 1.9 | 14.5 | 33.8 | 20.1 | 46.0 | | Lt | |
| TC19HMUPRO-21 | 1.9 | 12.4 | 35.3 | 19.8 | 47.9 | P | G | |
| TN16-5024 | 2.0 | 12.5 | 34.1 | 18.8 | 45.7 | W | G | |
| TN20-5043 | 1.8 | 12.9 | 36.9 | 18.6 | 49.4 | P | G | |
| TN21-5707R1 | 1.6 | 12.9 | 33.0 | 20.1 | 44.9 | W | T | |
| TN21-5708R1 | 1.7 | 13.4 | 35.4 | 20.1 | 48.1 | W | T | |
| TN21-5710R1 | 1.6 | 12.4 | 35.9 | 18.9 | 48.1 | W | T | |
| TN22-5060 | 1.9 | 13.8 | 34.7 | 20.3 | 47.4 | P | | |
| V18-2393 | 1.7 | 11.6 | 35.9 | 19.2 | 48.3 | W | T | |
| V19-0300 | 1.6 | 11.7 | 34.6 | 19.3 | 46.6 | W | G | |
| V19-0873 | 2.0 | 13.4 | 35.5 | 18.9 | 47.6 | W | G | |
| V19-1625HO | 2.1 | 13.2 | 39.1 | 18.8 | 52.4 | P | T | |
| V19-1626 | 2.0 | 13.1 | 37.2 | 19.0 | 49.9 | P | T | |
| | | | | | | | | |
| Mean | 1.9 | 13.5 | 35.4 | 19.4 | 47.7 | | | |
| LSD(0.05) | 0.4 | 0.8 | 0.9 | 0.4 | 1.0 | | | |
| LSD(0.10) | . | . | . | . | . | | | |
| CV(%) | 24.6 | 6.2 | 2.5 | 2.0 | 2.2 | | | |

§ Protein percentage and oil percentage are reported on a 13% moisture basis beginning in 2015.

## *TABLE 67 - SEED YIELD (BUSHELS PER ACRE)*
## *PRELIMINARY GROUP V-EARLY 2023 †*

| STRAIN/ VARIETY | Jackson, TN | Knoxville, TN | Marianna, AR * | Pittsburg, KS | Plymouth, NC | Portageville, MO(B) * | Starkville, MS |
|---|---|---|---|---|---|---|---|
| S16-14869 | 74.5 | 66.3 | 65.2 | 50.6 | 28.6 | 51.2 | 86.0 |
| AG53XF2 | 77.0 | 73.6 | 58.5 | 48.1 | 36.2 | 54.7 | 81.6 |
| AG55XF0 | 67.1 | 58.6 | 58.7 | 46.7 | 35.3 | 49.4 | 86.2 |
| TN09-008 | 73.0 | 68.0 | 52.2 | 57.0 | 30.2 | 41.3 | 82.6 |
| DS1520-34 | 53.1 | 50.3 | 46.8 | 38.6 | 30.9 | 33.9 | 73.8 |
| JT22-5003 | 67.5 | 49.7 | 52.9 | 49.9 | 23.1 | 39.6 | 85.8 |
| JT22-5012 | 66.7 | 51.8 | 54.8 | 52.4 | 34.0 | 42.7 | 87.1 |
| JT22-5019 | 64.9 | 58.7 | 56.2 | 50.1 | 32.2 | 40.8 | 72.6 |
| JTN-5110 | 69.2 | 53.2 | 58.0 | 49.7 | 29.7 | 39.0 | 85.2 |
| N16-7526 | 55.8 | 44.5 | 52.2 | 38.7 | 17.7 | 36.5 | 70.0 |
| N19-0042 | 63.2 | 56.6 | 52.0 | 45.2 | 43.1 | 34.3 | 69.4 |
| N19-0238 | 59.9 | 39.4 | 57.5 | 44.4 | 43.2 | 31.4 | 71.0 |
| N19-0318 | 53.0 | 52.9 | 50.6 | 41.2 | 29.0 | 39.3 | 52.9 |
| N19-0573 | 62.7 | 79.3 | 64.3 | 47.9 | 41.1 | 32.7 | 63.9 |
| R19-410712 | 67.4 | 47.9 | 58.0 | 39.7 | 37.8 | 41.7 | 68.3 |
| R19-411424 | 64.6 | 60.7 | 55.0 | 46.7 | 36.5 | 45.6 | 85.2 |
| R19-42447b | 62.0 | 52.8 | 56.6 | 50.9 | 33.3 | 43.6 | 80.6 |
| R19-45980 | 66.8 | 56.1 | 60.2 | 47.2 | 40.0 | 41.7 | 96.6 |
| R19-46252 | 59.7 | 70.7 | 55.6 | 50.4 | 36.0 | 44.8 | 72.1 |
| R19C-3194 | 52.5 | 38.2 | 53.2 | 41.3 | 39.0 | 42.7 | 82.2 |
| S20-13179 | 73.2 | 71.4 | 58.0 | 51.1 | 24.7 | 47.7 | 83.2 |
| S20-1435 | 67.2 | 71.1 | 55.6 | 45.8 | 24.6 | 53.4 | 67.2 |
| S20-1492 | 68.9 | 73.5 | 53.8 | 48.0 | 29.4 | 56.1 | 83.6 |
| S20-14936 | 64.4 | 81.1 | 52.7 | 53.2 | 34.5 | 56.5 | 88.0 |
| S20-4428 | 67.7 | 65.8 | 59.5 | 47.1 | 36.3 | 54.0 | 84.9 |
| TC19HMUPRO-21 | 56.5 | 45.3 | 56.7 | 39.8 | 33.3 | 31.5 | 75.0 |
| TN16-5024 | 71.5 | 56.2 | 53.6 | 54.3 | 27.6 | 36.3 | 79.7 |
| TN20-5043 | 68.7 | 67.5 | 52.4 | 50.5 | 29.0 | 45.4 | 72.4 |
| TN21-5707R1 | 67.1 | 81.5 | 57.3 | 50.4 | 38.9 | 41.3 | 79.6 |
| TN21-5708R1 | 66.5 | 63.3 | 53.0 | 41.0 | 31.8 | 46.1 | 83.2 |
| TN21-5710R1 | 70.1 | 72.0 | 52.5 | 46.8 | 30.7 | 42.7 | 77.5 |
| TN22-5060 | 66.6 | 70.1 | 62.8 | 49.6 | 28.8 | 48.8 | 63.8 |
| V18-2393 | 63.7 | 39.0 | 51.2 | 42.0 | 38.9 | 29.6 | 81.3 |
| V19-0300 | 59.7 | 54.5 | 50.5 | 49.2 | 42.5 | 38.7 | 76.9 |
| V19-0873 | 78.1 | 68.2 | 53.2 | 41.3 | 31.6 | 42.5 | 76.4 |
| V19-1625HO | 66.1 | 66.6 | 49.8 | 39.3 | 27.1 | 35.3 | 72.8 |
| V19-1626 | 66.9 | 67.6 | 57.5 | 41.9 | 41.8 | 45.0 | 96.2 |
| | | | | | | | |
| Mean | 65.5 | 60.6 | 55.4 | 46.7 | 33.2 | 42.6 | 78.2 |
| LSD(0.05) | 12.0 | 24.0 | 6.5 | 3.4 | 10.9 | 10.2 | 17.5 |
| LSD(0.10) | 10.0 | 20.0 | 5.4 | 2.9 | 9.1 | 8.5 | 14.5 |
| CV(%) | 9.0 | 18.8 | 5.8 | 3.6 | 16.3 | 11.8 | 11.0 |

† Data not included in the test mean due to CV > 15%: Knoxville, Plymouth, Warsaw.

*Locations with obvious damage consistent with exposure to the herbicide Dicamba. The Dicamba resistant checks (all the AG lines) may have had a yield advantage.

## *TABLE 67 - SEED YIELD (BUSHELS PER ACRE) (continued)*
## *PRELIMINARY GROUP V-EARLY 2023 †*

| STRAIN/ VARIETY | Stoneville, MS * | Stuttgart, AR | Warsaw, VA | Test Mean |
|---|---|---|---|---|
| S16-14869 | 74.5 | 72.9 | 54.3 | 67.8 |
| AG53XF2 | 71.9 | 59.1 | 60.9 | 64.4 |
| AG55XF0 | 76.6 | 77.7 | 53.6 | 66.0 |
| TN09-008 | 56.8 | 40.1 | 54.5 | 57.5 |
| DS1520-34 | 59.2 | 71.6 | 49.5 | 53.8 |
| JT22-5003 | 61.8 | 52.7 | 62.2 | 58.6 |
| JT22-5012 | 73.6 | 67.8 | 55.2 | 63.6 |
| JT22-5019 | 67.7 | 60.1 | 50.6 | 58.9 |
| JTN-5110 | 64.3 | 50.4 | 54.3 | 59.4 |
| N16-7526 | 50.7 | 49.8 | 51.0 | 50.5 |
| N19-0042 | 66.2 | 58.4 | 46.6 | 55.5 |
| N19-0238 | 69.8 | 62.3 | 63.6 | 56.6 |
| N19-0318 | 60.5 | 76.0 | 51.0 | 53.3 |
| N19-0573 | 67.4 | 61.6 | 56.3 | 57.2 |
| R19-410712 | 65.1 | 79.5 | 50.3 | 60.0 |
| R19-411424 | 66.2 | 68.2 | 54.8 | 61.7 |
| R19-42447b | 57.7 | 69.8 | 42.4 | 60.2 |
| R19-45980 | 69.2 | 79.4 | 41.7 | 65.9 |
| R19-46252 | 57.7 | 72.7 | 55.9 | 59.0 |
| R19C-3194 | 63.4 | 68.0 | 55.0 | 57.6 |
| S20-13179 | 59.5 | 73.0 | 45.5 | 63.7 |
| S20-1435 | 62.5 | 77.5 | 58.2 | 61.3 |
| S20-1492 | 59.7 | 76.6 | 55.2 | 63.8 |
| S20-14936 | 55.8 | 66.9 | 38.9 | 62.5 |
| S20-4428 | 63.3 | 76.3 | 48.5 | 64.7 |
| TC19HMUPRO-21 | 62.5 | 60.6 | 43.6 | 54.6 |
| TN16-5024 | 51.0 | 35.4 | 59.6 | 54.5 |
| TN20-5043 | 62.6 | 61.4 | 59.3 | 59.1 |
| TN21-5707R1 | 52.7 | 67.0 | 56.8 | 59.3 |
| TN21-5708R1 | 67.5 | 72.4 | 51.1 | 61.4 |
| TN21-5710R1 | 56.9 | 77.7 | 50.9 | 60.6 |
| TN22-5060 | 46.1 | 78.6 | 56.6 | 59.5 |
| V18-2393 | 63.0 | 67.4 | 48.2 | 56.9 |
| V19-0300 | 65.8 | 60.2 | 54.6 | 57.3 |
| V19-0873 | 63.2 | 64.9 | 60.4 | 59.9 |
| V19-1625HO | 56.3 | 61.9 | 68.8 | 54.5 |
| V19-1626 | 72.2 | 65.4 | 49.4 | 63.6 |
| | | | | |
| Mean | 62.7 | 66.0 | 53.2 | 59.6 |
| LSD(0.05) | 11.3 | 12.0 | 20.5 | 7.0 |
| LSD(0.10) | 9.4 | 10.0 | 17.0 | 5.8 |
| CV(%) | 8.7 | 9.0 | 19.0 | 12.9 |

## *TABLE 68 - RELATIVE MATURITY (DAYS EARLIER (-) OR LATER (+) THAN ENTRY 1)*
## *PRELIMINARY GROUP V-EARLY 2023*

| STRAIN/ VARIETY | Jackson, TN | Knoxville, TN | Marianna, AR | Pittsburg, KS | Plymouth, NC | Portageville, MO(B) | Starkville, MS |
|---|---|---|---|---|---|---|---|
| S16-14869 | . | 10/6 | 10/2 | 10/17 | 10/13 | 10/13 | . |
| AG53XF2 | . | -1 | -2 | -7 | 7 | -3 | . |
| AG55XF0 | . | 2 | 2 | 5 | -1 | 0 | . |
| TN09-008 | . | 1 | 1 | -4 | 9 | 0 | . |
| DS1520-34 | . | 0 | -1 | -1 | 1 | 0 | . |
| JT22-5003 | . | -1 | -2 | -11 | 3 | -2 | . |
| JT22-5012 | . | 3 | 0 | 8 | 3 | -1 | . |
| JT22-5019 | . | 1 | -3 | -2 | 2 | -6 | . |
| JTN-5110 | . | 0 | 1 | -3 | 0 | -2 | . |
| N16-7526 | . | 2 | 2 | 1 | -1 | 0 | . |
| N19-0042 | . | 2 | -1 | 4 | 0 | 2 | . |
| N19-0238 | . | 0 | -1 | 0 | 0 | -1 | . |
| N19-0318 | . | 3 | 2 | 16 | 10 | 3 | . |
| N19-0573 | . | 3 | 3 | 2 | 4 | 2 | . |
| R19-410712 | . | 2 | 1 | 0 | 4 | 1 | . |
| R19-411424 | . | 1 | 0 | 1 | 0 | 0 | . |
| R19-42447b | . | 1 | 1 | -2 | 1 | -1 | . |
| R19-45980 | . | 1 | 1 | 0 | 4 | 2 | . |
| R19-46252 | . | 1 | 1 | 0 | 1 | 5 | . |
| R19C-3194 | . | 0 | 1 | -7 | -1 | 1 | . |
| S20-13179 | . | 0 | -1 | 0 | -1 | 3 | . |
| S20-1435 | . | -1 | 2 | -8 | 0 | 3 | . |
| S20-1492 | . | -1 | -2 | -5 | -2 | 2 | . |
| S20-14936 | . | 2 | 1 | -2 | 1 | 5 | . |
| S20-4428 | . | 1 | 1 | 0 | 1 | 5 | . |
| TC19HMUPRO-21 | . | -1 | -1 | -4 | 2 | -5 | . |
| TN16-5024 | . | 2 | 0 | -6 | 1 | -1 | . |
| TN20-5043 | . | 0 | 1 | -3 | 1 | 0 | . |
| TN21-5707R1 | . | 1 | -3 | -9 | -1 | 3 | . |
| TN21-5708R1 | . | 1 | -6 | -3 | 0 | 2 | . |
| TN21-5710R1 | . | 2 | 1 | 2 | 10 | 6 | . |
| TN22-5060 | . | 1 | 3 | -2 | 1 | 6 | . |
| V18-2393 | . | -1 | -3 | -12 | -2 | -3 | . |
| V19-0300 | . | -1 | -2 | -10 | 2 | -3 | . |
| V19-0873 | . | -1 | -3 | -8 | 1 | -2 | . |
| V19-1625HO | . | 1 | -1 | -5 | 2 | -1 | . |
| V19-1626 | . | 1 | -1 | -8 | -2 | -2 | . |
| | | | | | | | |
| Mean | . | 1 | 0 | -2 | 2 | 1 | . |
| LSD(0.05) | . | 1 | 3 | 5 | 3 | 3 | . |
| CV(%) | . | 97 | 604 | 114 | 89 | 318 | . |

## *TABLE 68 - RELATIVE MATURITY (continued)*
## *PRELIMINARY GROUP V-EARLY 2023*

| *STRAIN/ VARIETY* | *Stoneville, MS* | *Stuttgart, AR* | *Warsaw, VA* | *Test Mean* |
|---|---|---|---|---|
| S16-14869 | 9/22 | 10/3 | 10/10 | 10/7 |
| AG53XF2 | -4 | -3 | 0 | -1 |
| AG55XF0 | 6 | 2 | 4 | 2 |
| TN09-008 | 5 | -2 | 1 | 1 |
| DS1520-34 | 8 | 0 | 2 | 1 |
| JT22-5003 | 4 | -6 | -5 | -3 |
| JT22-5012 | 2 | -2 | 3 | 2 |
| JT22-5019 | -10 | -9 | 1 | -3 |
| JTN-5110 | 5 | -5 | -1 | -1 |
| N16-7526 | 7 | 2 | 3 | 2 |
| N19-0042 | 7 | 0 | 5 | 2 |
| N19-0238 | 2 | -5 | -3 | -1 |
| N19-0318 | 13 | 7 | 8 | 8 |
| N19-0573 | 9 | 4 | 3 | 4 |
| R19-410712 | 8 | 2 | 7 | 3 |
| R19-411424 | 2 | -1 | -1 | 0 |
| R19-42447b | 6 | -3 | -5 | 0 |
| R19-45980 | 7 | 1 | -2 | 2 |
| R19-46252 | 11 | -4 | 1 | 2 |
| R19C-3194 | 6 | -2 | -3 | -1 |
| S20-13179 | 9 | -3 | 1 | 1 |
| S20-1435 | 2 | -4 | -1 | -1 |
| S20-1492 | 7 | -7 | -4 | -1 |
| S20-14936 | 9 | -4 | -3 | 1 |
| S20-4428 | 9 | -1 | -2 | 2 |
| TC19HMUPRO-21 | 5 | -3 | -4 | -1 |
| TN16-5024 | 10 | 1 | 1 | 1 |
| TN20-5043 | 3 | -1 | 3 | 0 |
| TN21-5707R1 | 11 | -6 | -2 | -1 |
| TN21-5708R1 | 4 | -3 | -2 | -1 |
| TN21-5710R1 | 14 | 2 | 7 | 5 |
| TN22-5060 | 13 | 2 | 2 | 3 |
| V18-2393 | -3 | -8 | -5 | -4 |
| V19-0300 | -3 | -3 | -6 | -3 |
| V19-0873 | 4 | 0 | -5 | -2 |
| V19-1625HO | 4 | -2 | 3 | 0 |
| V19-1626 | 1 | -5 | 1 | -2 |
| | | | | |
| Mean | 5 | -2 | 0 | 0 |
| LSD(0.05) | 5 | 3 | 4 | 3 |
| CV(%) | 48 | 89 | 1652 | 694 |

## *TABLE 69 - PLANT HEIGHT (INCHES)*
## *PRELIMINARY GROUP V-EARLY 2023*

| STRAIN/ VARIETY | Jackson, TN | Knoxville, TN | Marianna, AR | Pittsburg, KS | Plymouth, NC | Portageville, MO(B) | Starkville, MS |
|---|---|---|---|---|---|---|---|
| S16-14869 | . | 28 | 27 | 42 | 33 | 26 | . |
| AG53XF2 | . | 28 | 43 | 44 | 37 | 38 | . |
| AG55XF0 | . | 25 | 35 | 42 | 32 | 32 | . |
| TN09-008 | . | 24 | 21 | 38 | 27 | 19 | . |
| DS1520-34 | . | 33 | 37 | 42 | 31 | 29 | . |
| JT22-5003 | . | 22 | 25 | 35 | 29 | 21 | . |
| JT22-5012 | . | 27 | 30 | 47 | 36 | 26 | . |
| JT22-5019 | . | 26 | 28 | 40 | 32 | 23 | . |
| JTN-5110 | . | 28 | 26 | 44 | 29 | 24 | . |
| N16-7526 | . | 21 | 22 | 36 | 26 | 21 | . |
| N19-0042 | . | 23 | 23 | 40 | 28 | 22 | . |
| N19-0238 | . | 20 | 25 | 39 | 29 | 24 | . |
| N19-0318 | . | 26 | 29 | 44 | 34 | 27 | . |
| N19-0573 | . | 31 | 22 | 39 | 29 | 21 | . |
| R19-410712 | . | 25 | 27 | 46 | 38 | 27 | . |
| R19-411424 | . | 31 | 30 | 42 | 34 | 29 | . |
| R19-42447b | . | 40 | 42 | 47 | 40 | 34 | . |
| R19-45980 | . | 23 | 27 | 44 | 35 | 27 | . |
| R19-46252 | . | 40 | 40 | 46 | 41 | 36 | . |
| R19C-3194 | . | 32 | 35 | 40 | 39 | 29 | . |
| S20-13179 | . | 41 | 37 | 48 | 38 | 35 | . |
| S20-1435 | . | 35 | 40 | 44 | 37 | 35 | . |
| S20-1492 | . | 33 | 37 | 38 | 35 | 29 | . |
| S20-14936 | . | 43 | 40 | 41 | 41 | 37 | . |
| S20-4428 | . | 38 | 43 | 44 | 39 | 32 | . |
| TC19HMUPRO-21 | . | 20 | 20 | 35 | 26 | 20 | . |
| TN16-5024 | . | 19 | 20 | 38 | 27 | 20 | . |
| TN20-5043 | . | 28 | 24 | 41 | 32 | 25 | . |
| TN21-5707R1 | . | 38 | 37 | 41 | 42 | 32 | . |
| TN21-5708R1 | . | 31 | 36 | 41 | 37 | 28 | . |
| TN21-5710R1 | . | 42 | 40 | 43 | 39 | 31 | . |
| TN22-5060 | . | 38 | 35 | 38 | 34 | 30 | . |
| V18-2393 | . | 24 | 20 | 36 | 27 | 19 | . |
| V19-0300 | . | 20 | 17 | 36 | 28 | 20 | . |
| V19-0873 | . | 24 | 18 | 37 | 28 | 20 | . |
| V19-1625HO | . | 29 | 23 | 37 | 33 | 21 | . |
| V19-1626 | . | 27 | 23 | 36 | 33 | 24 | . |
| | | | | | | | |
| Mean | . | 29 | 30 | 41 | 33 | 27 | . |
| LSD(0.05) | . | 7 | 4 | 4 | 5 | 6 | . |
| CV(%) | . | 11 | 6 | 5 | 7 | 10 | . |

## *TABLE 69 - PLANT HEIGHT (INCHES) (continued)*
## *PRELIMINARY GROUP V-EARLY 2023*

| *STRAIN/ VARIETY* | *Stoneville, MS* | *Stuttgart, AR* | *Warsaw, VA* | *Test Mean* |
|---|---|---|---|---|
| S16-14869 | 24 | 27 | 40 | 31 |
| AG53XF2 | 34 | 29 | 34 | 36 |
| AG55XF0 | 34 | 31 | 32 | 33 |
| TN09-008 | 14 | 22 | 31 | 24 |
| DS1520-34 | 27 | 32 | 41 | 34 |
| JT22-5003 | 20 | 23 | 34 | 26 |
| JT22-5012 | 23 | 33 | 39 | 33 |
| JT22-5019 | 21 | 26 | 36 | 29 |
| JTN-5110 | 22 | 24 | 36 | 29 |
| N16-7526 | 19 | 27 | 28 | 25 |
| N19-0042 | 20 | 24 | 33 | 26 |
| N19-0238 | 18 | 23 | 36 | 26 |
| N19-0318 | 24 | 29 | 38 | 31 |
| N19-0573 | 18 | 24 | 36 | 27 |
| R19-410712 | 21 | 32 | 41 | 32 |
| R19-411424 | 22 | 29 | 43 | 32 |
| R19-42447b | 40 | 37 | 34 | 39 |
| R19-45980 | 21 | 31 | 34 | 30 |
| R19-46252 | 39 | 43 | 41 | 41 |
| R19C-3194 | 31 | 35 | 39 | 35 |
| S20-13179 | 40 | 42 | 37 | 39 |
| S20-1435 | 33 | 36 | 38 | 37 |
| S20-1492 | 41 | 38 | 36 | 36 |
| S20-14936 | 41 | 39 | 39 | 40 |
| S20-4428 | 42 | 39 | 36 | 39 |
| TC19HMUPRO-21 | 14 | 26 | 30 | 24 |
| TN16-5024 | 13 | 19 | 33 | 23 |
| TN20-5043 | 15 | 27 | 39 | 29 |
| TN21-5707R1 | 41 | 35 | 40 | 38 |
| TN21-5708R1 | 38 | 36 | 33 | 35 |
| TN21-5710R1 | 41 | 36 | 43 | 39 |
| TN22-5060 | 40 | 36 | 41 | 36 |
| V18-2393 | 15 | 19 | 25 | 23 |
| V19-0300 | 14 | 21 | 30 | 23 |
| V19-0873 | 15 | 20 | 32 | 24 |
| V19-1625HO | 19 | 28 | 35 | 28 |
| V19-1626 | 19 | 28 | 36 | 28 |
| | | | | |
| Mean | 26 | 30 | 36 | 31 |
| LSD(0.05) | 3 | 7 | 7 | 4 |
| CV(%) | 6 | 11 | 10 | 13 |

## *TABLE 70 - PLANT LODGING (1-5)*
## *PRELIMINARY GROUP V-EARLY 2023*

| STRAIN/ VARIETY | Jackson, TN | Knoxville, TN | Marianna, AR | Pittsburg, KS | Plymouth, NC | Portageville, MO(B) | Starkville, MS |
|---|---|---|---|---|---|---|---|
| S16-14869 | . | 3.5 | 1.5 | 3.0 | 2.3 | 2.0 | . |
| AG53XF2 | . | 1.9 | 1.0 | 1.0 | 1.8 | 1.0 | . |
| AG55XF0 | . | 2.3 | 1.0 | 1.0 | 2.5 | 1 | . |
| TN09-008 | . | 2.3 | 1.0 | 1.0 | 2.0 | 1.0 | . |
| DS1520-34 | . | 2.5 | 2.0 | 1.0 | 3.3 | 1.0 | . |
| JT22-5003 | . | 2.0 | 1.0 | 1.0 | 2.3 | 1.0 | . |
| JT22-5012 | . | 2.9 | 1.5 | 3.0 | 3.0 | 1.5 | . |
| JT22-5019 | . | 3.3 | 2.0 | 3.0 | 3.0 | 1.0 | . |
| JTN-5110 | . | 2.5 | 1.0 | 2.0 | 2.3 | 1.0 | . |
| N16-7526 | . | 2.0 | 1.0 | 1.0 | 2.0 | 1.0 | . |
| N19-0042 | . | 2.0 | 1.0 | 1.0 | 1.8 | 1.0 | . |
| N19-0238 | . | 2.0 | 1.0 | 1.0 | 2.5 | 1.0 | . |
| N19-0318 | . | 3.3 | 1.0 | 1.5 | 2.8 | 1.0 | . |
| N19-0573 | . | 2.0 | 1.0 | 1.0 | 2.3 | 1.0 | . |
| R19-410712 | . | 2.3 | 1.0 | 2.0 | 2.5 | 1.0 | . |
| R19-411424 | . | 4.0 | 2.0 | 3.0 | 3.3 | 1.0 | . |
| R19-42447b | . | 2.3 | 2.5 | 1.5 | 2.3 | 1.0 | . |
| R19-45980 | . | 2.3 | 1.0 | 2.5 | 2.5 | 1.0 | . |
| R19-46252 | . | 2.0 | 3.0 | 2.0 | 2.5 | 1.0 | . |
| R19C-3194 | . | 2.0 | 1.5 | 1.0 | 2.8 | 1.0 | . |
| S20-13179 | . | 2.3 | 2.0 | 2.0 | 2.0 | 1.0 | . |
| S20-1435 | . | 2.3 | 2.5 | 1.5 | 2.3 | 1.0 | . |
| S20-1492 | . | 2.4 | 1.5 | 1.5 | 2.3 | 1.0 | . |
| S20-14936 | . | 3.5 | 3.0 | 2.0 | 3.8 | 1.5 | . |
| S20-4428 | . | 2.0 | 1.5 | 1.0 | 2.3 | 1.0 | . |
| TC19HMUPRO-21 | . | 2.5 | 1.0 | 1.0 | 2.0 | 1.0 | . |
| TN16-5024 | . | 2.3 | 1.0 | 2.0 | 1.8 | 1.0 | . |
| TN20-5043 | . | 2.0 | 1.0 | 2.0 | 2.3 | 1.0 | . |
| TN21-5707R1 | . | 2.5 | 2.0 | 1.0 | 2.5 | 1.0 | . |
| TN21-5708R1 | . | 2.0 | 1.5 | 1.0 | 2.0 | 1.0 | . |
| TN21-5710R1 | . | 3.0 | 2.0 | 1.0 | 1.8 | 1 | . |
| TN22-5060 | . | 3.0 | 2.5 | 1.0 | 2.3 | 1.0 | . |
| V18-2393 | . | 2.0 | 1.0 | 1.0 | 2.5 | 1.0 | . |
| V19-0300 | . | 2.0 | 1.0 | 1.0 | 1.8 | 1.0 | . |
| V19-0873 | . | 2.0 | 1.0 | 1.0 | 1.5 | 1.0 | . |
| V19-1625HO | . | 2.8 | 1.0 | 1.0 | 2.5 | 1.0 | . |
| V19-1626 | . | 2.5 | 1.0 | 1.0 | 2.2 | 1.0 | . |
| | | | | | | | |
| Mean | . | 2.4 | 1.5 | 1.5 | 2.3 | 1.1 | . |
| LSD(0.05) | . | 0.9 | 0.9 | 0.5 | 0.8 | 0.6 | . |
| CV(%) | . | 17.2 | 31.7 | 17.3 | 17.4 | 26.4 | . |

## *TABLE 70 - PLANT LODGING (1-5) (continued)*
## *PRELIMINARY GROUP V-EARLY 2023*

| *STRAIN/ VARIETY* | *Stoneville, MS* | *Stuttgart, AR* | *Warsaw, VA* | *Test Mean* |
|---|---|---|---|---|
| S16-14869 | 1.5 | 1.0 | 2.0 | 2.1 |
| AG53XF2 | 1.8 | 1.0 | 1.0 | 1.3 |
| AG55XF0 | 2.0 | 1.0 | 1.0 | 1.5 |
| TN09-008 | 1.0 | 1.0 | 1.0 | 1.3 |
| DS1520-34 | 1.5 | 1.0 | 2.0 | 1.8 |
| JT22-5003 | 1.0 | 1.0 | 1.5 | 1.3 |
| JT22-5012 | 1.0 | 1.0 | 2.0 | 2.0 |
| JT22-5019 | 1.0 | 1.0 | 1.5 | 2.0 |
| JTN-5110 | 1.0 | 1.0 | 1.5 | 1.5 |
| N16-7526 | 1.0 | 1.0 | 1.0 | 1.3 |
| N19-0042 | 1.0 | 1.0 | 1.5 | 1.3 |
| N19-0238 | 1.0 | 1.0 | 1.5 | 1.4 |
| N19-0318 | 1.0 | 1.0 | 2.0 | 1.7 |
| N19-0573 | 1.0 | 1.0 | 1.0 | 1.3 |
| R19-410712 | 1.0 | 1.0 | 2.0 | 1.6 |
| R19-411424 | 1.0 | 1.0 | 2.0 | 2.2 |
| R19-42447b | 3.0 | 1.0 | 1.0 | 1.8 |
| R19-45980 | 1.0 | 1.0 | 1.0 | 1.5 |
| R19-46252 | 2.5 | 1.0 | 1.0 | 1.9 |
| R19C-3194 | 1.5 | 1.0 | 1.0 | 1.5 |
| S20-13179 | 2.8 | 1.0 | 1.0 | 1.8 |
| S20-1435 | 2.0 | 1.0 | 1.5 | 1.8 |
| S20-1492 | 3.0 | 1.0 | 1.5 | 1.8 |
| S20-14936 | 3.0 | 2.5 | 1.0 | 2.5 |
| S20-4428 | 2.0 | 1.0 | 1.0 | 1.5 |
| TC19HMUPRO-21 | 1.0 | 1.0 | 1.0 | 1.3 |
| TN16-5024 | 1.0 | 1.0 | 1.5 | 1.4 |
| TN20-5043 | 1.0 | 1.0 | 1.0 | 1.4 |
| TN21-5707R1 | 4.0 | 1.0 | 1.5 | 1.9 |
| TN21-5708R1 | 2.8 | 1.0 | 1.0 | 1.5 |
| TN21-5710R1 | 3.0 | 1.0 | 1.0 | 1.7 |
| TN22-5060 | 3.5 | 1.0 | 1.5 | 2.0 |
| V18-2393 | 1.0 | 1.0 | 1.0 | 1.3 |
| V19-0300 | 1.0 | 1.0 | 1.0 | 1.2 |
| V19-0873 | 1.0 | 1.0 | 1.5 | 1.3 |
| V19-1625HO | 1.0 | 1.0 | 1.0 | 1.4 |
| V19-1626 | 1.0 | 1.0 | 1.0 | 1.3 |
| | | | | |
| Mean | 1.6 | 1.0 | 1.3 | 1.6 |
| LSD(0.05) | 0.5 | 0.2 | 0.9 | 0.5 |
| CV(%) | 15.4 | 11.2 | 32.2 | 33.8 |

***TABLE 71 - SEED QUALITY (1-5)***
***PRELIMINARY GROUP V-EARLY 2023***

| STRAIN/ VARIETY | Jackson, TN | Knoxville, TN | Marianna, AR | Pittsburg, KS | Plymouth, NC | Portageville, MO(B) | Starkville, MS |
|---|---|---|---|---|---|---|---|
| S16-14869 | . | 1.5 | 1.0 | 2.0 | 2.0 | 1.5 | . |
| AG53XF2 | . | . | 1.0 | 2.0 | 3.0 | 2.0 | . |
| AG55XF0 | . | 1.5 | 2.0 | 3.0 | 2.0 | 2 | . |
| TN09-008 | . | 1.8 | 2.0 | 2.0 | 2.5 | 2.5 | . |
| DS1520-34 | . | 1.5 | 2.0 | 1.0 | 2.0 | 2.5 | . |
| JT22-5003 | . | 1.5 | 1.5 | 3.0 | 2.7 | 2.5 | . |
| JT22-5012 | . | 1.5 | 1.0 | 2.0 | 2.2 | 2.5 | . |
| JT22-5019 | . | 1.5 | 1.0 | 2.0 | 2.2 | 1.5 | . |
| JTN-5110 | . | 2.0 | 1.0 | 2.0 | 2.5 | 2.5 | . |
| N16-7526 | . | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | . |
| N19-0042 | . | 2.0 | 1.5 | 2.0 | 2.0 | 2.5 | . |
| N19-0238 | . | 2.0 | 2.5 | 3.0 | 2.0 | 2.0 | . |
| N19-0318 | . | 1.5 | 1.0 | 2.0 | 2.5 | 2.5 | . |
| N19-0573 | . | 1.8 | 2.5 | 2.0 | 2.0 | 2.5 | . |
| R19-410712 | . | 1.5 | 1.5 | 2.0 | 2.2 | 2.0 | . |
| R19-411424 | . | 1.5 | 1.0 | 1.0 | 2.5 | 1.5 | . |
| R19-42447b | . | 1.5 | 2.0 | 3.0 | 2.7 | 1.5 | . |
| R19-45980 | . | 1.5 | 1.0 | 2.0 | 2.2 | 1.5 | . |
| R19-46252 | . | 1.5 | 1.0 | 2.0 | 2.2 | 2.0 | . |
| R19C-3194 | . | 2.0 | 2.0 | 2.0 | 2.0 | 2.5 | . |
| S20-13179 | . | 1.5 | 2.0 | 3.0 | 2.5 | 2.5 | . |
| S20-1435 | . | 1.5 | 2.5 | 2.0 | 2.5 | 2.5 | . |
| S20-1492 | . | 1.5 | 1.5 | 2.0 | 2.0 | 1.5 | . |
| S20-14936 | . | 1.5 | 1.5 | 2.0 | 2.0 | 2.0 | . |
| S20-4428 | . | 1.5 | 1.5 | 3.0 | 2.0 | 2.0 | . |
| TC19HMUPRO-21 | . | 1.5 | 1.0 | 2.0 | 2.5 | 2.5 | . |
| TN16-5024 | . | 1.5 | 2.0 | 3.0 | 2.0 | 2.0 | . |
| TN20-5043 | . | 1.5 | 2.0 | 2.0 | 2.0 | 2.5 | . |
| TN21-5707R1 | . | 1.5 | 2.0 | 1.0 | 2.0 | 2.0 | . |
| TN21-5708R1 | . | 1.5 | 1.0 | 2.0 | 2.2 | 2.0 | . |
| TN21-5710R1 | . | 1.5 | 1.0 | 2.0 | 2.2 | 2 | . |
| TN22-5060 | . | 1.5 | 2.0 | 2.0 | 2.0 | 2.5 | . |
| V18-2393 | . | 1.8 | 1.0 | 1.0 | 2.0 | 2.5 | . |
| V19-0300 | . | 1.5 | 1.0 | 2.0 | 2.0 | 2.0 | . |
| V19-0873 | . | 1.5 | 1.5 | 2.0 | 2.2 | 2.5 | . |
| V19-1625HO | . | 1.8 | 2.0 | 2.0 | 2.7 | 2.0 | . |
| V19-1626 | . | 1.5 | 2.0 | 2.0 | 2.2 | 2.5 | . |
| | | | | | | | |
| Mean | . | 1.6 | 1.6 | 2.1 | 2.2 | 2.1 | . |
| LSD(0.05) | . | 0.3 | 0.8 | . | 0.4 | 1.4 | . |
| CV(%) | . | 7.6 | 26.3 | . | 8.4 | 32.0 | . |

## *TABLE 71 - SEED QUALITY (1-5) (continued)*
## *PRELIMINARY GROUP V-EARLY 2023*

| *STRAIN/ VARIETY* | *Stoneville, MS* | *Stuttgart, AR* | *Warsaw, VA* | *Test Mean* |
|---|---|---|---|---|
| S16-14869 | . | 1.0 | . | 1.5 |
| AG53XF2 | . | 2.0 | . | 2.0 |
| AG55XF0 | . | 1.5 | . | 1.9 |
| TN09-008 | . | 1.5 | . | 2.1 |
| DS1520-34 | . | 2.0 | . | 1.9 |
| JT22-5003 | . | 2.0 | . | 2.2 |
| JT22-5012 | . | 1.5 | . | 1.8 |
| JT22-5019 | . | 1.0 | . | 1.5 |
| JTN-5110 | . | 1.5 | . | 1.9 |
| N16-7526 | . | 2.0 | . | 2.0 |
| N19-0042 | . | 1.0 | . | 1.8 |
| N19-0238 | . | 2.0 | . | 2.2 |
| N19-0318 | . | 1.0 | . | 1.7 |
| N19-0573 | . | 2.0 | . | 2.1 |
| R19-410712 | . | 2.0 | . | 1.9 |
| R19-411424 | . | 1.0 | . | 1.5 |
| R19-42447b | . | 2.0 | . | 2.1 |
| R19-45980 | . | 1.0 | . | 1.5 |
| R19-46252 | . | 1.0 | . | 1.6 |
| R19C-3194 | . | 2.5 | . | 2.2 |
| S20-13179 | . | 1.5 | . | 2.1 |
| S20-1435 | . | 2.0 | . | 2.2 |
| S20-1492 | . | 1.5 | . | 1.6 |
| S20-14936 | . | 2.0 | . | 1.8 |
| S20-4428 | . | 2.0 | . | 1.9 |
| TC19HMUPRO-21 | . | 2.0 | . | 1.9 |
| TN16-5024 | . | 2.0 | . | 2.0 |
| TN20-5043 | . | 1.0 | . | 1.8 |
| TN21-5707R1 | . | 1.0 | . | 1.6 |
| TN21-5708R1 | . | 1.5 | . | 1.7 |
| TN21-5710R1 | . | 1.0 | . | 1.6 |
| TN22-5060 | . | 1.5 | . | 1.9 |
| V18-2393 | . | 1.5 | . | 1.7 |
| V19-0300 | . | 1.0 | . | 1.6 |
| V19-0873 | . | 2.0 | . | 2.0 |
| V19-1625HO | . | 2.0 | . | 2.1 |
| V19-1626 | . | 1.5 | . | 2.0 |
| | | | | |
| Mean | . | 1.6 | . | 1.9 |
| LSD(0.05) | . | 0.8 | . | 0.4 |
| CV(%) | . | 25.4 | . | 24.6 |

## *TABLE 72 - SEED SIZE (GRAMS PER 100 SEED)*
## *PRELIMINARY GROUP V-EARLY 2023*

| STRAIN/ VARIETY | Jackson, TN | Knoxville, TN | Marianna, AR | Pittsburg, KS | Plymouth, NC | Portageville, MO(B) | Starkville, MS |
|---|---|---|---|---|---|---|---|
| S16-14869 | . | 13.1 | 13.8 | 16.0 | 11.7 | 14.2 | . |
| AG53XF2 | . | . | 13.8 | 17.1 | 13.6 | 14.4 | . |
| AG55XF0 | . | 13.3 | 14.2 | 15.6 | 13.6 | 15.2 | . |
| TN09-008 | . | 14.1 | 14.3 | 16.2 | 16.2 | 15.5 | . |
| DS1520-34 | . | 14.7 | 16.9 | 18.9 | 17.0 | 16.5 | . |
| JT22-5003 | . | 14.2 | 13.9 | 13.3 | 13.3 | 13.4 | . |
| JT22-5012 | . | 13.3 | 12.9 | 15.1 | 12.0 | 12.6 | . |
| JT22-5019 | . | 12.6 | 12.1 | 14.5 | 12.0 | 12.5 | . |
| JTN-5110 | . | 12.9 | 13.7 | 14.4 | 13.6 | 14.4 | . |
| N16-7526 | . | 13.2 | 14.8 | 16.1 | 12.0 | 15.6 | . |
| N19-0042 | . | 13.4 | 13.8 | 15.1 | 12.8 | 14.6 | . |
| N19-0238 | . | 14.0 | 14.3 | 15.3 | 14.0 | 14.3 | . |
| N19-0318 | . | 13.5 | 13.4 | 17.2 | 13.9 | 14.4 | . |
| N19-0573 | . | 11.9 | 12.0 | 12.2 | 11.0 | 11.5 | . |
| R19-410712 | . | 11.3 | 12.7 | 14.3 | 11.9 | 12.4 | . |
| R19-411424 | . | 11.5 | 11.6 | 13.0 | 11.1 | 11.9 | . |
| R19-42447b | . | 12.5 | 15.0 | 14.8 | 13.2 | 14.0 | . |
| R19-45980 | . | 11.8 | 12.0 | 11.9 | 11.3 | 12.3 | . |
| R19-46252 | . | 11.7 | 12.6 | 14.4 | 11.2 | 13.4 | . |
| R19C-3194 | . | 13.6 | 13.4 | 15.5 | 13.0 | 15.1 | . |
| S20-13179 | . | 14.2 | 15.8 | 16.7 | 12.7 | 15.4 | . |
| S20-1435 | . | 13.2 | 14.3 | 16.1 | 12.6 | 15.4 | . |
| S20-1492 | . | 12.9 | 13.5 | 14.7 | 12.0 | 14.4 | . |
| S20-14936 | . | 12.6 | 13.3 | 15.0 | 13.4 | 14.1 | . |
| S20-4428 | . | 13.1 | 15.0 | 16.5 | 13.5 | 15.8 | . |
| TC19HMUPRO-21 | . | 11.5 | 12.4 | 13.5 | 12.0 | 11.8 | . |
| TN16-5024 | . | 13.1 | 12.2 | 11.6 | 11.5 | 13.0 | . |
| TN20-5043 | . | 12.0 | 12.7 | 14.2 | 11.5 | 13.0 | . |
| TN21-5707R1 | . | 12.1 | 13.1 | 14.4 | 11.5 | 13.0 | . |
| TN21-5708R1 | . | 12.3 | 13.3 | 14.3 | 12.4 | 13.9 | . |
| TN21-5710R1 | . | 11.5 | 12.2 | 14.0 | 11.7 | 11.2 | . |
| TN22-5060 | . | 13.4 | 13.7 | 15.9 | 11.8 | 14.0 | . |
| V18-2393 | . | 10.9 | 12.4 | 11.6 | 10.8 | 12.0 | . |
| V19-0300 | . | 11.1 | 11.6 | 11.7 | 11.4 | 11.7 | . |
| V19-0873 | . | 13.3 | 14.2 | 12.8 | 12.0 | 13.3 | . |
| V19-1625HO | . | 13.5 | 13.1 | 12.7 | 11.9 | 13.8 | . |
| V19-1626 | . | 13.1 | 13.2 | 13.5 | 12.2 | 13.5 | . |
| | | | | | | | |
| Mean | . | 12.8 | 13.4 | 14.6 | 12.6 | 13.7 | . |
| LSD(0.05) | . | 0.9 | 0.7 | . | 1.0 | 1.1 | . |
| CV(%) | . | 3.5 | 2.8 | . | 3.8 | 4.0 | . |

## *TABLE 72 - SEED SIZE (GRAMS PER 100 SEED) (continued)*
## *PRELIMINARY GROUP V-EARLY 2023*

| STRAIN/ VARIETY | Stoneville, MS | Stuttgart, AR | Warsaw, VA | Test Mean |
|---|---|---|---|---|
| S16-14869 | . | 15.1 | 13.0 | 13.8 |
| AG53XF2 | . | 15.3 | 12.5 | 14.3 |
| AG55XF0 | . | 18.6 | 14.0 | 14.9 |
| TN09-008 | . | 15.7 | 14.5 | 15.2 |
| DS1520-34 | . | 20.4 | 16.5 | 17.2 |
| JT22-5003 | . | 16.0 | 13.0 | 13.9 |
| JT22-5012 | . | 14.0 | 13.5 | 13.3 |
| JT22-5019 | . | 13.5 | 12.5 | 12.8 |
| JTN-5110 | . | 15.7 | 13.0 | 14.0 |
| N16-7526 | . | 17.5 | 16.0 | 15.0 |
| N19-0042 | . | 15.3 | 14.5 | 14.2 |
| N19-0238 | . | 16.1 | 13.0 | 14.4 |
| N19-0318 | . | 17.8 | 15.5 | 15.1 |
| N19-0573 | . | 13.2 | 11.5 | 11.9 |
| R19-410712 | . | 14.3 | 13.5 | 12.9 |
| R19-411424 | . | 12.3 | 11.0 | 11.8 |
| R19-42447b | . | 14.4 | 12.0 | 13.7 |
| R19-45980 | . | 13.7 | 10.5 | 11.9 |
| R19-46252 | . | 13.1 | 12.0 | 12.6 |
| R19C-3194 | . | 14.8 | 12.0 | 13.9 |
| S20-13179 | . | 15.3 | 14.0 | 14.8 |
| S20-1435 | . | 16.1 | 14.0 | 14.5 |
| S20-1492 | . | 13.9 | 12.0 | 13.3 |
| S20-14936 | . | 14.9 | 11.5 | 13.5 |
| S20-4428 | . | 15.6 | 12.5 | 14.5 |
| TC19HMUPRO-21 | . | 14.6 | 11.0 | 12.4 |
| TN16-5024 | . | 14.6 | 10.9 | 12.5 |
| TN20-5043 | . | 14.4 | 13.0 | 12.9 |
| TN21-5707R1 | . | 13.6 | 12.5 | 12.9 |
| TN21-5708R1 | . | 14.7 | 13.0 | 13.4 |
| TN21-5710R1 | . | 13.6 | 13.0 | 12.4 |
| TN22-5060 | . | 15.9 | 12.5 | 13.8 |
| V18-2393 | . | 12.5 | 10.5 | 11.6 |
| V19-0300 | . | 13.9 | 10.5 | 11.7 |
| V19-0873 | . | 16.6 | 11.5 | 13.4 |
| V19-1625HO | . | 14.4 | 12.5 | 13.2 |
| V19-1626 | . | 14.5 | 11.5 | 13.1 |
| | | | | |
| Mean | . | 15.0 | 12.7 | 13.5 |
| LSD(0.05) | . | 1.1 | 1.4 | 0.8 |
| CV(%) | . | 3.5 | 5.3 | 6.2 |

***TABLE 73 - OIL (%)†***
***PRELIMINARY GROUP V-EARLY 2023***

| STRAIN/ VARIETY | Jackson, TN | Knoxville, TN | Marianna, AR | Pittsburg, KS | Plymouth, NC | Portageville, MO(B) | Starkville, MS |
|---|---|---|---|---|---|---|---|
| S16-14869 | . | 20.6 | 19.4 | 19.4 | 20.6 | 19.5 | . |
| AG53XF2 | . | 21.1 | 20.2 | 19.8 | 18.9 | 19.7 | . |
| AG55XF0 | . | 20.1 | 18.5 | 18.4 | 18.9 | 18.6 | . |
| TN09-008 | . | 20.1 | 19.4 | 19.7 | 19.3 | 19.3 | . |
| DS1520-34 | . | 21.9 | 19.7 | 20.2 | 21.1 | 19.5 | . |
| JT22-5003 | . | 20.2 | 19.1 | 19.5 | 18.9 | 19.4 | . |
| JT22-5012 | . | 20.1 | 18.5 | 17.9 | 19.1 | 18.7 | . |
| JT22-5019 | . | 20.1 | 19.2 | 19.0 | 19.6 | 18.6 | . |
| JTN-5110 | . | 20.1 | 20.0 | 19.4 | 20.1 | 19.4 | . |
| N16-7526 | . | 19.4 | 18.9 | 19.1 | 20.7 | 18.6 | . |
| N19-0042 | . | 20.1 | 18.6 | 19.0 | 19.1 | 18.9 | . |
| N19-0238 | . | 19.5 | 18.4 | 18.9 | 19.7 | 18.5 | . |
| N19-0318 | . | 18.7 | 17.4 | 16.9 | 17.5 | 17.0 | . |
| N19-0573 | . | 19.9 | 19.2 | 19.2 | 19.3 | 18.9 | . |
| R19-410712 | . | 19.9 | 18.6 | 19.2 | 19.2 | 18.7 | . |
| R19-411424 | . | 20.2 | 19.0 | 19.2 | 19.4 | 18.7 | . |
| R19-42447b | . | 20.6 | 18.8 | 19.7 | 20.2 | 19.4 | . |
| R19-45980 | . | 19.5 | 18.4 | 18.8 | 18.0 | 18.0 | . |
| R19-46252 | . | 19.7 | 18.7 | 18.5 | 19.0 | 18.6 | . |
| R19C-3194 | . | 20.3 | 18.2 | 18.7 | 18.7 | 18.7 | . |
| S20-13179 | . | 20.7 | 19.2 | 19.5 | 21.2 | 19.4 | . |
| S20-1435 | . | 20.1 | 18.3 | 19.2 | 19.6 | 18.4 | . |
| S20-1492 | . | 20.6 | 19.4 | 20.0 | 21.7 | 19.8 | . |
| S20-14936 | . | 20.1 | 18.8 | 19.7 | 18.5 | 18.6 | . |
| S20-4428 | . | 21.0 | 19.6 | 19.6 | 19.8 | 19.2 | . |
| TC19HMUPRO-21 | . | 20.0 | 19.7 | 19.4 | 19.8 | 19.2 | . |
| TN16-5024 | . | 19.4 | 18.3 | 19.0 | 19.0 | 18.1 | . |
| TN20-5043 | . | 19.2 | 18.4 | 18.2 | 18.5 | 18.9 | . |
| TN21-5707R1 | . | 20.5 | 19.3 | 19.8 | 20.9 | 19.2 | . |
| TN21-5708R1 | . | 20.8 | 19.9 | 19.4 | 20.3 | 19.3 | . |
| TN21-5710R1 | . | 19.6 | 18.4 | 18.6 | 18.5 | 18.1 | . |
| TN22-5060 | . | 20.9 | 19.8 | 20.0 | 21.2 | 19.6 | . |
| V18-2393 | . | 19.9 | 18.7 | 18.6 | 19.3 | 18.6 | . |
| V19-0300 | . | 19.8 | 19.0 | 18.9 | 19.3 | 18.7 | . |
| V19-0873 | . | 18.9 | 19.1 | 18.6 | 19.6 | 18.4 | . |
| V19-1625HO | . | 19.4 | 18.5 | 18.8 | 18.3 | 18.9 | . |
| V19-1626 | . | 19.9 | 18.7 | 18.9 | 19.1 | 18.9 | . |
| | | | | | | | |
| Mean | . | 20.1 | 18.9 | 19.1 | 19.5 | 18.9 | . |
| LSD(0.05) | . | . | . | . | . | . | . |
| CV(%) | . | . | . | . | . | . | . |

† Oil percentage is reported on a 13% moisture basis beginning in 2015.

***TABLE 73 - OIL (%)† (continued)***
***PRELIMINARY GROUP V-EARLY 2023***

| STRAIN/ VARIETY | Stoneville, MS | Stuttgart, AR | Warsaw, VA | Test Mean |
|---|---|---|---|---|
| S16-14869 | 20.1 | 20.0 | 19.7 | 19.9 |
| AG53XF2 | 21.2 | 20.3 | 20.0 | 20.1 |
| AG55XF0 | 19.5 | 19.2 | 18.3 | 18.9 |
| TN09-008 | 20.0 | 20.3 | 19.1 | 19.6 |
| DS1520-34 | 21.2 | 20.9 | 20.1 | 20.6 |
| JT22-5003 | 19.1 | 19.9 | 19.7 | 19.5 |
| JT22-5012 | 19.6 | 19.6 | 19.0 | 19.1 |
| JT22-5019 | 20.5 | 20.1 | 19.2 | 19.5 |
| JTN-5110 | 19.7 | 19.6 | 19.5 | 19.7 |
| N16-7526 | 19.8 | 19.4 | 19.4 | 19.4 |
| N19-0042 | 18.7 | 19.6 | 18.3 | 19.0 |
| N19-0238 | 19.8 | 19.5 | 18.6 | 19.1 |
| N19-0318 | 18.2 | 18.5 | 16.4 | 17.6 |
| N19-0573 | 19.3 | 19.5 | 18.7 | 19.2 |
| R19-410712 | 19.7 | 19.9 | 18.9 | 19.3 |
| R19-411424 | 20.6 | 19.9 | 19.8 | 19.6 |
| R19-42447b | 20.1 | 20.0 | 19.9 | 19.8 |
| R19-45980 | 19.1 | 19.1 | 19.0 | 18.7 |
| R19-46252 | 19.4 | 19.6 | 19.0 | 19.1 |
| R19C-3194 | 18.6 | 19.4 | 18.0 | 18.8 |
| S20-13179 | 20.2 | 20.1 | 19.6 | 20.0 |
| S20-1435 | 18.8 | 18.8 | 18.2 | 18.9 |
| S20-1492 | 20.0 | 20.8 | 19.9 | 20.3 |
| S20-14936 | 19.8 | 19.5 | 18.9 | 19.2 |
| S20-4428 | 20.7 | 20.3 | 20.2 | 20.1 |
| TC19HMUPRO-21 | 20.7 | 20.1 | 19.6 | 19.8 |
| TN16-5024 | 19.3 | 19.1 | . | 18.8 |
| TN20-5043 | 18.5 | 19.5 | 18.0 | 18.6 |
| TN21-5707R1 | 20.5 | 20.5 | 20.2 | 20.1 |
| TN21-5708R1 | 20.6 | 20.6 | 19.8 | 20.1 |
| TN21-5710R1 | 19.5 | 19.6 | 18.8 | 18.9 |
| TN22-5060 | 20.8 | 20.8 | 19.4 | 20.3 |
| V18-2393 | 20.2 | 19.1 | 19.4 | 19.2 |
| V19-0300 | 19.7 | 19.6 | 19.2 | 19.3 |
| V19-0873 | 18.9 | 18.9 | 18.6 | 18.9 |
| V19-1625HO | . | 18.6 | 18.8 | 18.8 |
| V19-1626 | 18.5 | 19.1 | 18.8 | 19.0 |
| | | | | |
| Mean | 19.7 | 19.7 | 19.1 | 19.4 |
| LSD(0.05) | . | . | . | 0.4 |
| CV(%) | . | . | . | 2.0 |

***TABLE 74 - PROTEIN (%)†***
***PRELIMINARY GROUP V-EARLY 2023***

| STRAIN/ VARIETY | Jackson, TN | Knoxville, TN | Marianna, AR | Pittsburg, KS | Plymouth, NC | Portageville, MO(B) | Starkville, MS |
|---|---|---|---|---|---|---|---|
| S16-14869 | . | 33.7 | 35.2 | 34.0 | 31.6 | 34.1 | . |
| AG53XF2 | . | 32.3 | 33.0 | 33.3 | 35.1 | 33.5 | . |
| AG55XF0 | . | 33.0 | 35.8 | 35.0 | 35.1 | 35.2 | . |
| TN09-008 | . | 32.9 | 33.7 | 32.6 | 32.8 | 33.6 | . |
| DS1520-34 | . | 34.6 | 38.0 | 35.0 | 34.6 | 37.7 | . |
| JT22-5003 | . | 34.5 | 36.5 | 35.0 | 36.2 | 35.1 | . |
| JT22-5012 | . | 34.5 | 37.1 | 35.4 | 34.7 | 35.6 | . |
| JT22-5019 | . | 34.5 | 36.6 | 35.3 | 34.5 | 36.0 | . |
| JTN-5110 | . | 35.2 | 35.4 | 34.8 | 33.8 | 35.7 | . |
| N16-7526 | . | 35.8 | 36.4 | 34.9 | 31.2 | 35.8 | . |
| N19-0042 | . | 36.9 | 39.0 | 38.4 | 37.1 | 38.3 | . |
| N19-0238 | . | 35.4 | 37.1 | 35.4 | 34.4 | 36.1 | . |
| N19-0318 | . | 39.2 | 41.7 | 40.3 | 39.4 | 41.3 | . |
| N19-0573 | . | 36.4 | 37.7 | 36.3 | 35.9 | 37.1 | . |
| R19-410712 | . | 33.2 | 34.8 | 32.8 | 33.4 | 33.7 | . |
| R19-411424 | . | 34.4 | 36.6 | 35.0 | 35.5 | 36.3 | . |
| R19-42447b | . | 33.2 | 36.5 | 33.7 | 34.5 | 34.2 | . |
| R19-45980 | . | 34.8 | 37.7 | 35.2 | 36.2 | 35.8 | . |
| R19-46252 | . | 34.3 | 36.3 | 35.7 | 34.3 | 36.0 | . |
| R19C-3194 | . | 34.6 | 37.2 | 35.1 | 35.1 | 35.7 | . |
| S20-13179 | . | 34.4 | 37.2 | 35.5 | 29.3 | 35.3 | . |
| S20-1435 | . | 34.4 | 37.5 | 36.0 | 31.8 | 35.1 | . |
| S20-1492 | . | 32.4 | 35.3 | 33.5 | 29.0 | 33.3 | . |
| S20-14936 | . | 33.6 | 35.8 | 33.6 | 36.0 | 35.0 | . |
| S20-4428 | . | 31.9 | 35.2 | 33.6 | 34.1 | 33.9 | . |
| TC19HMUPRO-21 | . | 34.9 | 35.8 | 35.6 | 34.9 | 35.4 | . |
| TN16-5024 | . | 33.7 | 35.5 | 33.2 | 33.0 | 34.2 | . |
| TN20-5043 | . | 37.4 | 36.0 | 37.5 | 36.7 | 36.6 | . |
| TN21-5707R1 | . | 32.6 | 34.0 | 33.7 | 29.3 | 33.9 | . |
| TN21-5708R1 | . | 34.1 | 35.7 | 36.1 | 34.4 | 35.9 | . |
| TN21-5710R1 | . | 35.2 | 37.7 | 35.6 | 35.4 | 36.6 | . |
| TN22-5060 | . | 35.2 | 36.8 | 34.5 | 31.4 | 35.8 | . |
| V18-2393 | . | 34.9 | 36.9 | 35.9 | 35.4 | 36.4 | . |
| V19-0300 | . | 34.3 | 35.5 | 35.3 | 33.9 | 34.9 | . |
| V19-0873 | . | 35.1 | 38.0 | 35.5 | 32.4 | 35.2 | . |
| V19-1625HO | . | 38.0 | 40.1 | 37.9 | 39.5 | 38.4 | . |
| V19-1626 | . | 35.4 | 37.7 | 36.8 | 37.4 | 37.1 | . |
| | | | | | | | |
| Mean | . | 34.6 | 36.6 | 35.2 | 34.3 | 35.7 | . |
| LSD(0.05) | . | . | . | . | . | . | . |
| CV(%) | . | . | . | . | . | . | . |

† Protein percentage is reported on a 13% moisture basis beginning in 2015.

***TABLE 74 - PROTEIN (%)† (continued)***
***PRELIMINARY GROUP V-EARLY 2023***

| STRAIN/ VARIETY | Stoneville, MS | Stuttgart, AR | Warsaw, VA | Test Mean |
|---|---|---|---|---|
| S16-14869 | 34.9 | 35.0 | 33.8 | 34.0 |
| AG53XF2 | 32.6 | 33.6 | 33.5 | 33.3 |
| AG55XF0 | 36.0 | 35.9 | 36.0 | 35.2 |
| TN09-008 | 34.2 | 32.6 | 34.1 | 33.3 |
| DS1520-34 | 35.6 | 36.0 | 34.5 | 35.7 |
| JT22-5003 | 36.6 | 35.8 | 34.4 | 35.5 |
| JT22-5012 | 36.1 | 35.6 | 35.0 | 35.5 |
| JT22-5019 | 35.2 | 35.3 | 35.4 | 35.3 |
| JTN-5110 | 35.4 | 35.4 | 35.5 | 35.2 |
| N16-7526 | 34.9 | 36.2 | 35.8 | 35.1 |
| N19-0042 | 37.4 | 37.9 | 38.6 | 38.0 |
| N19-0238 | 34.8 | 36.6 | 37.1 | 35.9 |
| N19-0318 | 41.2 | 40.2 | 41.1 | 40.5 |
| N19-0573 | 36.6 | 37.3 | 37.1 | 36.8 |
| R19-410712 | 33.5 | 32.5 | 34.6 | 33.6 |
| R19-411424 | 33.9 | 35.5 | 34.9 | 35.2 |
| R19-42447b | 34.5 | 34.6 | 34.5 | 34.5 |
| R19-45980 | 35.7 | 36.0 | 35.6 | 35.9 |
| R19-46252 | 35.7 | 35.2 | 35.6 | 35.4 |
| R19C-3194 | 36.6 | 35.8 | 36.9 | 35.9 |
| S20-13179 | 36.7 | 35.4 | 35.8 | 34.9 |
| S20-1435 | 37.1 | 36.2 | 36.0 | 35.5 |
| S20-1492 | 35.0 | 33.2 | 33.7 | 33.2 |
| S20-14936 | 34.4 | 35.1 | 34.5 | 34.7 |
| S20-4428 | 34.4 | 34.1 | 33.4 | 33.8 |
| TC19HMUPRO-21 | 34.5 | 35.9 | 35.6 | 35.3 |
| TN16-5024 | 34.2 | 34.6 | . | 34.1 |
| TN20-5043 | 36.9 | 36.8 | 37.6 | 36.9 |
| TN21-5707R1 | 33.6 | 33.8 | 33.2 | 33.0 |
| TN21-5708R1 | 36.2 | 35.4 | 35.3 | 35.4 |
| TN21-5710R1 | 35.4 | 35.3 | 36.0 | 35.9 |
| TN22-5060 | 34.4 | 34.1 | 35.9 | 34.7 |
| V18-2393 | 35.5 | 36.5 | 35.8 | 35.9 |
| V19-0300 | 34.0 | 34.5 | 34.7 | 34.6 |
| V19-0873 | 35.4 | 36.3 | 36.3 | 35.5 |
| V19-1625HO | . | 40.3 | 39.6 | 39.1 |
| V19-1626 | 38.9 | 38.3 | 35.8 | 37.2 |
| | | | | |
| Mean | 35.5 | 35.6 | 35.6 | 35.4 |
| LSD(0.05) | . | . | . | 0.9 |
| CV(%) | . | . | . | 2.5 |

## *TABLE 75 - ESTIMATED MEAL PROTEIN (%)†*
## *PRELIMINARY GROUP V-EARLY 2023*

| STRAIN/ VARIETY | Jackson, TN | Knoxville, TN | Marianna, AR | Pittsburg, KS | Plymouth, NC | Portageville, MO(B) | Starkville, MS |
|---|---|---|---|---|---|---|---|
| S16-14869 | . | 46.1 | 47.5 | 45.8 | 43.3 | 46.0 | . |
| AG53XF2 | . | 44.5 | 44.9 | 45.1 | 47.0 | 45.3 | . |
| AG55XF0 | . | 44.8 | 47.7 | 46.6 | 47.0 | 47.0 | . |
| TN09-008 | . | 44.7 | 45.4 | 44.1 | 44.1 | 45.2 | . |
| DS1520-34 | . | 48.1 | 51.4 | 47.6 | 47.6 | 50.8 | . |
| JT22-5003 | . | 47.0 | 49.0 | 47.3 | 48.5 | 47.3 | . |
| JT22-5012 | . | 46.9 | 49.4 | 46.9 | 46.5 | 47.6 | . |
| JT22-5019 | . | 46.8 | 49.2 | 47.3 | 46.6 | 48.0 | . |
| JTN-5110 | . | 47.9 | 48.1 | 47.0 | 46.0 | 48.1 | . |
| N16-7526 | . | 48.3 | 48.8 | 46.9 | 42.8 | 47.8 | . |
| N19-0042 | . | 50.2 | 52.1 | 51.5 | 49.8 | 51.3 | . |
| N19-0238 | . | 47.8 | 49.5 | 47.4 | 46.6 | 48.2 | . |
| N19-0318 | . | 52.4 | 54.9 | 52.7 | 51.8 | 54.1 | . |
| N19-0573 | . | 49.5 | 50.7 | 48.8 | 48.4 | 49.7 | . |
| R19-410712 | . | 45.0 | 46.4 | 44.1 | 44.9 | 45.1 | . |
| R19-411424 | . | 46.9 | 49.1 | 47.1 | 47.8 | 48.5 | . |
| R19-42447b | . | 45.4 | 48.8 | 45.6 | 46.9 | 46.1 | . |
| R19-45980 | . | 47.0 | 50.2 | 47.1 | 48.0 | 47.4 | . |
| R19-46252 | . | 46.4 | 48.5 | 47.7 | 46.0 | 48.1 | . |
| R19C-3194 | . | 47.2 | 49.4 | 47.0 | 47.0 | 47.7 | . |
| S20-13179 | . | 47.1 | 50.0 | 47.9 | 40.4 | 47.6 | . |
| S20-1435 | . | 46.8 | 49.9 | 48.4 | 43.0 | 46.8 | . |
| S20-1492 | . | 44.4 | 47.6 | 45.4 | 40.2 | 45.2 | . |
| S20-14936 | . | 45.8 | 47.9 | 45.5 | 48.0 | 46.7 | . |
| S20-4428 | . | 43.8 | 47.5 | 45.5 | 46.2 | 45.6 | . |
| TC19HMUPRO-21 | . | 47.4 | 48.4 | 48.0 | 47.3 | 47.6 | . |
| TN16-5024 | . | 45.4 | 47.3 | 44.6 | 44.2 | 45.4 | . |
| TN20-5043 | . | 50.3 | 48.0 | 49.9 | 48.9 | 49.0 | . |
| TN21-5707R1 | . | 44.5 | 45.8 | 45.7 | 40.2 | 45.6 | . |
| TN21-5708R1 | . | 46.8 | 48.4 | 48.7 | 46.9 | 48.3 | . |
| TN21-5710R1 | . | 47.6 | 50.2 | 47.6 | 47.2 | 48.6 | . |
| TN22-5060 | . | 48.4 | 49.9 | 46.8 | 43.2 | 48.4 | . |
| V18-2393 | . | 47.4 | 49.4 | 47.9 | 47.6 | 48.6 | . |
| V19-0300 | . | 46.4 | 47.6 | 47.3 | 45.6 | 46.7 | . |
| V19-0873 | . | 47.0 | 51.1 | 47.4 | 43.8 | 46.9 | . |
| V19-1625HO | . | 51.3 | 53.5 | 50.7 | 52.5 | 51.4 | . |
| V19-1626 | | 48.1 | 50.3 | 49.3 | 50.2 | 49.7 | . |
| | | | | | | | |
| Mean | . | 47.1 | 49.0 | 47.3 | 46.3 | 47.8 | . |
| LSD(0.05) | . | . | . | . | . | . | . |
| CV(%) | . | . | . | . | . | . | . |

† Estimated meal protein percentage is reported on a 13% moisture basis.

## *TABLE 75 - ESTIMATED MEAL PROTEIN (%)† (continued)*
## *PRELIMINARY GROUP V-EARLY 2023*

| *STRAIN/ VARIETY* | *Stoneville, MS* | *Stuttgart, AR* | *Warsaw, VA* | *Test Mean* |
|---|---|---|---|---|
| S16-14869 | 47.4 | 47.5 | 45.7 | 46.2 |
| AG53XF2 | 44.9 | 45.9 | 45.5 | 45.4 |
| AG55XF0 | 48.6 | 48.3 | 47.9 | 47.3 |
| TN09-008 | 46.4 | 44.5 | 45.8 | 45.0 |
| DS1520-34 | 49.1 | 49.5 | 47.0 | 48.9 |
| JT22-5003 | 49.1 | 48.5 | 46.6 | 47.9 |
| JT22-5012 | 48.8 | 48.1 | 46.9 | 47.6 |
| JT22-5019 | 48.1 | 48.0 | 47.6 | 47.7 |
| JTN-5110 | 47.9 | 47.9 | 47.9 | 47.6 |
| N16-7526 | 47.2 | 48.8 | 48.3 | 47.4 |
| N19-0042 | 50.0 | 51.2 | 51.4 | 50.9 |
| N19-0238 | 47.2 | 49.4 | 49.5 | 48.2 |
| N19-0318 | 54.7 | 53.6 | 53.4 | 53.5 |
| N19-0573 | 49.2 | 50.3 | 49.6 | 49.5 |
| R19-410712 | 45.3 | 44.2 | 46.4 | 45.2 |
| R19-411424 | 46.3 | 48.1 | 47.3 | 47.6 |
| R19-42447b | 46.9 | 47.0 | 46.9 | 46.7 |
| R19-45980 | 48.0 | 48.3 | 47.7 | 47.9 |
| R19-46252 | 48.1 | 47.6 | 47.8 | 47.5 |
| R19C-3194 | 48.9 | 48.3 | 48.9 | 48.0 |
| S20-13179 | 50.0 | 48.2 | 48.4 | 47.5 |
| S20-1435 | 49.7 | 48.5 | 47.9 | 47.6 |
| S20-1492 | 47.5 | 45.5 | 45.7 | 45.2 |
| S20-14936 | 46.7 | 47.3 | 46.2 | 46.8 |
| S20-4428 | 47.1 | 46.4 | 45.5 | 46.0 |
| TC19HMUPRO-21 | 47.3 | 48.8 | 48.1 | 47.9 |
| TN16-5024 | 46.1 | 46.5 | . | 45.7 |
| TN20-5043 | 49.2 | 49.7 | 49.9 | 49.4 |
| TN21-5707R1 | 45.9 | 46.1 | 45.2 | 44.9 |
| TN21-5708R1 | 49.5 | 48.5 | 47.9 | 48.1 |
| TN21-5710R1 | 47.7 | 47.7 | 48.2 | 48.1 |
| TN22-5060 | 47.1 | 46.8 | 48.4 | 47.4 |
| V18-2393 | 48.4 | 49.0 | 48.3 | 48.3 |
| V19-0300 | 46.0 | 46.7 | 46.6 | 46.6 |
| V19-0873 | 47.4 | 48.7 | 48.4 | 47.6 |
| V19-1625HO | . | 53.8 | 52.9 | 52.4 |
| V19-1626 | 51.9 | 51.5 | 47.9 | 49.9 |
| | | | | |
| Mean | 48.0 | 48.2 | 47.9 | 47.7 |
| LSD(0.05) | . | . | . | 1.0 |
| CV(%) | . | . | . | 2.2 |

## *SUMMARY OF SEED FATTY ACIDS (%)*
## *PRELIMINARY TEST V-EARLY 2023 †*

| STRAIN/ VARIETY | Palmitic Acid | Stearic Acid | Oleic Acid | Linoleic Acid | Linolenic Acid |
|---|---|---|---|---|---|
| S16-14869 | 11.4 | 3.1 | 23.8 | 55.4 | 6.3 |
| AG53XF2 | 10.3 | 3.9 | 22.2 | 56.1 | 7.4 |
| TN21-5708R1 | 7.1 | 2.6 | 81.3 | 6.1 | 2.9 |
| TN22-5060 | 7.2 | 3.3 | 84.5 | 2.6 | 2.5 |
| | | | | | |
| Mean | 9.0 | 3.2 | 52.9 | 30.0 | 4.8 |
| LSD(0.05) | 0.5 | 0.2 | 3.4 | 2.8 | 0.4 |
| CV(%) | 5.8 | 6.7 | 6.3 | 9.2 | 8.3 |

† Fatty acid percentage in seed oil reported beginning in 2017.

## *SEED PALMITIC ACID (%)*
## *PRELIMINARY GROUP V-EARLY 2023*

| STRAIN/ VARIETY | Jackson Springs, NC | Knoxville, TN | Marianna, AR | Pittsburg, KS | Plymouth, NC | Portageville, MO(B) | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| S16-14869 | 11.5 | 11.9 | 11.1 | 11.4 | 11.3 | 11.8 | 11.6 | 10.9 | 11.4 |
| AG53XF2 | 10.6 | 12.4 | 10.3 | 9.6 | 9.8 | 10.0 | 10.3 | 9.7 | 10.3 |
| TN21-5708R1 | 6.9 | 7.1 | 6.7 | 6.9 | 7.9 | 7.3 | 6.3 | 7.6 | 7.1 |
| TN22-5060 | 7.2 | 7.6 | 7.3 | 6.9 | 6.9 | 7.4 | 7.2 | 7.4 | 7.2 |
| | | | | | | | | | |
| Mean | 9.0 | 9.7 | 8.8 | 8.7 | 9.0 | 9.1 | 8.9 | 8.9 | 9.0 |
| LSD(0.05) | . | . | . | . | . | . | . | . | 0.5 |
| CV(%) | . | . | . | . | . | . | . | . | 5.8 |

## *SEED STEARIC ACID (%)*
## *PRELIMINARY GROUP V-EARLY 2023*

| STRAIN/ VARIETY | Jackson Springs, NC | Knoxville, TN | Marianna, AR | Pittsburg, KS | Plymouth, NC | Portageville, MO(B) | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| S16-14869 | 3.3 | 3.4 | 3.0 | 3.7 | 2.9 | 3.2 | 2.5 | 2.7 | 3.1 |
| AG53XF2 | 3.9 | 3.5 | 3.9 | 4.6 | 3.9 | 4.1 | 3.5 | 3.8 | 3.9 |
| TN21-5708R1 | 2.7 | 2.5 | 2.5 | 2.9 | 2.6 | 2.8 | 2.6 | 2.6 | 2.6 |
| TN22-5060 | 3.2 | 3.5 | 3.5 | 3.3 | 3.1 | 3.3 | 3.0 | 3.2 | 3.3 |
| | | | | | | | | | |
| Mean | 3.3 | 3.2 | 3.2 | 3.6 | 3.1 | 3.3 | 2.9 | 3.1 | 3.2 |
| LSD(0.05) | . | . | . | . | . | . | . | . | 0.2 |
| CV(%) | . | . | . | . | . | . | . | . | 6.7 |

## SEED OLEIC ACID (%)
## PRELIMINARY GROUP V-EARLY 2023

| STRAIN/ VARIETY | Jackson Springs, NC | Knoxville, TN | Marianna, AR | Pittsburg, KS | Plymouth, NC | Portageville, MO(B) | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| S16-14869 | 21.3 | 23.4 | 23.3 | 25.3 | 22.7 | 21.5 | 25.0 | 27.7 | 23.8 |
| AG53XF2 | 22.7 | 19.8 | 20.0 | 24.5 | 25.0 | 21.4 | 23.9 | 20.6 | 22.2 |
| TN21-5708R1 | 83.5 | 85.1 | 84.3 | 84.7 | 70.0 | 80.8 | 87.2 | 74.9 | 81.3 |
| TN22-5060 | 85.1 | 82.5 | 84.6 | 84.5 | 85.0 | 82.8 | 86.3 | 84.7 | 84.5 |
| Mean | 53.2 | 52.7 | 53.1 | 54.8 | 50.7 | 51.7 | 55.6 | 52.0 | 52.9 |
| LSD(0.05) | . | . | . | . | . | . | . | . | 3.4 |
| CV(%) | . | . | . | . | . | . | . | . | 6.3 |

## SEED LINOLEIC ACID (%)
## PRELIMINARY GROUP V-EARLY 2023

| STRAIN/ VARIETY | Jackson Springs, NC | Knoxville, TN | Marianna, AR | Pittsburg, KS | Plymouth, NC | Portageville, MO(B) | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| S16-14869 | 57.4 | 55.0 | 56.2 | 53.4 | 56.2 | 56.3 | 55.5 | 53.3 | 55.4 |
| AG53XF2 | 55.6 | 56.1 | 58.0 | 53.8 | 54.3 | 56.3 | 56.3 | 58.6 | 56.1 |
| TN21-5708R1 | 3.4 | 2.7 | 3.9 | 3.3 | 16.1 | 5.6 | 2.2 | 11.7 | 6.1 |
| TN22-5060 | 2.0 | 3.7 | 2.0 | 2.8 | 2.5 | 3.5 | 1.6 | 2.4 | 2.6 |
| Mean | 29.6 | 29.4 | 30.0 | 28.3 | 32.3 | 30.4 | 28.9 | 31.5 | 30.0 |
| LSD(0.05) | . | . | . | . | . | . | . | . | 2.8 |
| CV(%) | . | . | . | . | . | . | . | . | 9.2 |

## SEED LINOLENIC ACID (%)
## PRELIMINARY GROUP V-EARLY 2023

| STRAIN/ VARIETY | Jackson Springs, NC | Knoxville, TN | Marianna, AR | Pittsburg, KS | Plymouth, NC | Portageville, MO(B) | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| S16-14869 | 6.6 | 6.4 | 6.5 | 6.3 | 7.0 | 7.1 | 5.4 | 5.4 | 6.3 |
| AG53XF2 | 7.3 | 8.2 | 7.7 | 7.5 | 7.0 | 8.2 | 5.9 | 7.3 | 7.4 |
| TN21-5708R1 | 3.5 | 2.7 | 2.6 | 2.2 | 3.5 | 3.5 | 1.7 | 3.2 | 2.9 |
| TN22-5060 | 2.4 | 2.8 | 2.5 | 2.5 | 2.5 | 3.1 | 1.8 | 2.3 | 2.5 |
| Mean | 5.0 | 5.0 | 4.8 | 4.6 | 5.0 | 5.5 | 3.7 | 4.5 | 4.8 |
| LSD(0.05) | . | . | . | . | . | . | . | . | 0.4 |
| CV(%) | . | . | . | . | . | . | . | . | 8.3 |

INTENTIONALLY BLANK

## *TABLE 76 - PARENTAGE OF ENTRIES*
## *PRELIMINARY GROUP V-LATE 2023*

| Ent | Strain/Variety | Parentage | Source | Fn | Trans-genic† | Special Traits‡ |
|---|---|---|---|---|---|---|
| 1 | AG55XF0 | Commercial check | check | | RR2, LL, DIC | |
| 2 | TN11-5140 | Commercial check | check | | | |
| 3 | AG56XF2 | Commercial check | check | | RR2, LL, DIC | |
| 4 | JT22-5005 | DC2864 x DC7816 | Smallwood | F10 | | SCN, charcoal rot, 16% exotic |
| 5 | JT22-5010 | DC2864 x DC7816 | Smallwood | F10 | | SCN, charcoal rot, 16% exotic |
| 6 | N19-0004 | G00-3213 x N11-9298 | Mian | | | 12.5% G. soja |
| 7 | N19-0117 | G00-3213 x HR10-2-559 | Mian | | | High meal protein |
| 8 | N19-5004 | R10-2436 x S11-20967 | Fallen | | | |
| 9 | TN22-5028 | Ellis-HOLL x K15-1310 | Pantalone | | | low LN |
| 10 | TN22-5030 | TN14-5035-HO x TN14-5035-LL | Pantalone | | | low LN |
| 11 | TN22-5035 | TN14-5035-HO x TN14-5035-LL | Pantalone | | | Higher protein |
| 12 | TN22-5075 | TN14-5035-HO x TN14-5035-LL | Pantalone | | | |
| 13 | TN22-5091 | TN14-5035-HO x TN14-5035-LL | Pantalone | | | low LN |
| 14 | V18-0120DI | S09-13185 x V08-1924 | B. Zhang | | | |
| 15 | V19-0496HP | S12-11916 x R11-8346 | B. Zhang | | | High protein |

† Conv= Conventional(non-transgenic), E3= Enlist E3®, LL= Liberty Link®, RR1= Roundup Ready®, RR2=Roundup Ready 2 Yield®, and RRX= Roundup Ready 2 Xtend®

‡ AA= modified amino acids, DNC= Do not cross with this, FLS= Frogeye leaf spot resistance, LJ= Long juvenile, LN= low linolenic acid, LP= low phytate, HO= high oleic acid, HOLN= high oleic acid/low linolenic acid, SC= Southern stem canker, SCN= Soybean cyst nematode resistance, SR= Soybean rust resistance, and STS= sulfonylurea tolerant

## *TABLE 77 - GENERAL SUMMARY OF PERFORMANCE*
## *PRELIMINARY TEST V-LATE 2023*

| STRAIN/ VARIETY | SEED YIELD† | RANK | AVG. RANK | MAT. INDEX | LOD | HT | SCN Cyst Score (1-5)‡ Race 2 | Race 3 | Race 5 | SC RATING | SC SCORE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AG55XF0 | 68.3 | 2 | 5 | 0 | 1.4 | 33 | 4 | . | 1 | | . |
| TN11-5140 | 69.0 | 1 | 3 | 6 | 1.7 | 31 | 3 | . | 2 | | . |
| AG56XF2 | 67.8 | 3 | 4 | 0 | 1.3 | 32 | 3 | . | 1 | | . |
| JT22-5005 | 59.3 | 8 | 8 | 2 | 1.7 | 30 | 1 | . | 1 | | . |
| JT22-5010 | 59.4 | 7 | 8 | 3 | 1.6 | 31 | 1 | . | 1 | | . |
| N19-0004 | 59.6 | 6 | 7 | 6 | 1.6 | 31 | 5 | . | 2 | | . |
| N19-0117 | 59.2 | 9 | 7 | -2 | 1.3 | 27 | 4 | . | 3 | | . |
| N19-5004 | 43.9 | 15 | 14 | 5 | 2.5 | 39 | 3 | . | 2 | | . |
| TN22-5028 | 62.1 | 5 | 5 | 2 | 1.9 | 39 | 4 | . | 2 | | . |
| TN22-5030 | 51.4 | 11 | 11 | 2 | 1.6 | 28 | 1 | . | 1 | | . |
| TN22-5035 | 49.3 | 13 | 12 | 0 | 1.6 | 27 | 1 | . | 1 | | . |
| TN22-5075 | 48.6 | 14 | 13 | -1 | 1.5 | 27 | 1 | . | 1 | | . |
| TN22-5091 | 49.5 | 12 | 13 | 2 | 1.7 | 26 | 1 | . | 1 | | . |
| V18-0120DI | 57.7 | 10 | 7 | 3 | 1.5 | 29 | 2 | . | 1 | | . |
| V19-0496HP | 63.8 | 4 | 5 | -1 | 1.5 | 27 | 4 | . | 2 | | . |
| | | | | | | | | | | | |
| Mean | 57.9 | . | . | 2 | 1.6 | 30 | . | . | . | | . |
| LSD(0.05) | 11.1 | . | . | 4 | 0.6 | 4 | . | . | . | | . |
| LSD(0.10) | 9.3 | . | . | . | . | . | . | . | . | | . |
| CV(%) | 15.5 | . | . | 200 | 34.1 | 13 | . | . | . | | . |

†Data not included in the mean due to CV >15%: Kinston, Knoxville, Starkville, Stuttgart, Warsaw.

‡The race 2 and 5 SCN populations used in these tests were typed as HG (Heterodera glycines) Type 1.2.5.7 and HG Type 2.5.7, respectively.

***TABLE 78 - GENERAL SUMMARY OF PERFORMANCE (continued)***
***PRELIMINARY TEST V-LATE 2023***

| STRAIN/ VARIETY | SEED QUALITY | SEED SIZE | PROTEIN§ % | OIL§ % | MEAL PRO% | FL COLOR | PUB. COLOR | POD COLOR |
|---|---|---|---|---|---|---|---|---|
| AG55XF0 | 1.5 | 15.2 | 36.2 | 18.4 | 48.2 | W | | |
| TN11-5140 | 1.8 | 14.1 | 36.1 | 18.9 | 48.4 | W | | |
| AG56XF2 | 1.9 | 15.0 | 35.8 | 18.6 | 47.8 | W | | |
| JT22-5005 | 1.8 | 13.8 | 35.1 | 18.2 | 46.6 | P | G | |
| JT22-5010 | 1.6 | 13.8 | 34.1 | 19.0 | 45.7 | P | G | |
| N19-0004 | 2.0 | 15.5 | 35.9 | 20.2 | 48.9 | W | T | |
| N19-0117 | 1.5 | 15.9 | 36.9 | 19.4 | 49.8 | S | T | |
| N19-5004 | 1.6 | 14.8 | 36.9 | 19.4 | 49.7 | P | T | |
| TN22-5028 | 1.7 | 11.6 | 35.7 | 18.8 | 47.8 | W | G | |
| TN22-5030 | 1.7 | 12.6 | 34.8 | 19.4 | 47.0 | W | G | |
| TN22-5035 | 1.7 | 12.3 | 35.5 | 19.1 | 47.6 | W | G | |
| TN22-5075 | 1.9 | 12.2 | 35.6 | 19.1 | 47.9 | W | | |
| TN22-5091 | 1.7 | 12.0 | 36.2 | 20.0 | 49.2 | W | | |
| V18-0120DI | 1.6 | 15.1 | 36.9 | 19.0 | 49.5 | W | T | |
| V19-0496HP | 1.7 | 14.7 | 39.9 | 17.4 | 52.5 | P | T | |
| | | | | | | | | |
| Mean | 1.7 | 13.9 | 36.1 | 19.0 | 48.4 | | | |
| LSD(0.05) | 0.5 | 1.1 | 0.8 | 0.5 | 0.9 | | | |
| LSD(0.10) | . | . | . | . | . | | | |
| CV(%) | 27.7 | 6.9 | 2.0 | 2.4 | 1.7 | | | |

§ Protein percentage and oil percentage are reported on a 13% moisture basis beginning in 2015.

## *TABLE 79 - SEED YIELD (BUSHELS PER ACRE)*
## *PRELIMINARY GROUP V-LATE 2023 †*

| STRAIN/ VARIETY | Jackson, TN | Kinston, NC | Knoxville, TN | Marianna, AR | Starkville, MS | Stoneville, MS | Stuttgart, AR | Warsaw, VA | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| AG55XF0 | 58.6 | 43.3 | 46.2 | 54.3 | 82.2 | 89.3 | 60.8 | 71.2 | 68.3 |
| TN11-5140 | 70.5 | 43.6 | 51.5 | 53.5 | 98.3 | 69.3 | 72.6 | 82.6 | 69.0 |
| AG56XF2 | 66.5 | 37.0 | 45.9 | 57.7 | 80.9 | 87.1 | 78.4 | 60.1 | 67.8 |
| JT22-5005 | 67.8 | 15.4 | 47.8 | 45.2 | 73.9 | 63.6 | 71.1 | 60.6 | 59.3 |
| JT22-5010 | 59.6 | 40.9 | 50.3 | 49.2 | 68.3 | 62.4 | 74.3 | 66.5 | 59.4 |
| N19-0004 | 60.2 | 41.8 | 41.0 | 50.4 | 65.3 | 63.6 | 72.9 | 64.1 | 59.6 |
| N19-0117 | 59.8 | 58.1 | 45.9 | 48.0 | 61.3 | 65.0 | 42.5 | 63.9 | 59.2 |
| N19-5004 | 35.7 | 49.7 | 31.6 | 42.1 | 78.3 | 40.2 | 58.7 | 57.5 | 43.9 |
| TN22-5028 | 66.5 | 31.7 | 57.6 | 54.6 | 70.9 | 64.6 | 46.2 | 62.6 | 62.1 |
| TN22-5030 | 59.9 | 24.2 | 49.6 | 42.4 | 59.0 | 51.2 | 64.3 | 52.1 | 51.4 |
| TN22-5035 | 59.6 | 19.5 | 53.8 | 42.8 | 87.6 | 45.3 | 54.1 | 47.2 | 49.3 |
| TN22-5075 | 55.3 | 13.1 | 40.1 | 47.2 | 85.2 | 48.8 | 39.2 | 42.8 | 48.6 |
| TN22-5091 | 57.1 | 23.6 | 46.7 | 40.8 | 77.3 | 41.0 | 57.6 | 59.2 | 49.5 |
| V18-0120DI | 65.0 | 21.6 | 49.0 | 55.3 | 98.0 | 66.6 | 74.0 | 43.7 | 57.7 |
| V19-0496HP | 70.9 | 24.8 | 54.8 | 50.7 | 83.2 | 62.3 | 59.0 | 71.4 | 63.8 |
| | | | | | | | | | |
| Mean | 60.9 | 32.6 | 47.5 | 48.9 | 78.0 | 61.3 | 61.7 | 60.4 | 57.9 |
| LSD(0.05) | 11.7 | 29.4 | 24.7 | 5.9 | 28.8 | 14.0 | 21.0 | 19.7 | 11.1 |
| LSD(0.10) | 9.6 | 24.0 | 20.3 | 4.8 | 23.6 | 11.5 | 17.2 | 16.1 | 9.3 |
| CV(%) | 9.0 | 37.2 | 24.3 | 5.6 | 16.5 | 10.0 | 15.8 | 15.2 | 15.5 |

† Data not included in the test mean due to CV > 15%: Kinston, Knoxville, Starkville, Stuttgart, Warsaw.

*Locations with obvious damage consistent with exposure to the herbicide Dicamba, The Dicamba resistant checks (all the AG lines) may have had a yield advantage.

## *TABLE 80 - RELATIVE MATURITY (DAYS EARLIER (-) OR LATER (+) THAN ENTRY 1)*
## *PRELIMINARY GROUP V-LATE 2023*

| STRAIN/ VARIETY | Jackson, TN | Kinston, NC | Knoxville, TN | Marianna, AR | Starkville, MS | Stoneville, MS | Stuttgart, AR | Warsaw, VA | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| AG55XF0 | . | 10/26 | 10/10 | 10/3 | . | 9/28 | 10/13 | 10/14 | 10/11 |
| TN11-5140 | . | 11 | 2 | 3 | . | 4 | 5 | 12 | 6 |
| AG56XF2 | . | 1 | -2 | 0 | . | 0 | -1 | 0 | 0 |
| JT22-5005 | . | 11 | 0 | 1 | . | 0 | 0 | 3 | 2 |
| JT22-5010 | . | 6 | 1 | 1 | . | 1 | 1 | 6 | 3 |
| N19-0004 | . | 6 | 2 | 3 | . |  | 6 | 13 | 6 |
| N19-0117 | . | -1 | -1 | -2 | . | -4 | -2 | -1 | -2 |
| N19-5004 | . | -1 | 2 | 2 | . | 12 | 1 | 12 | 5 |
| TN22-5028 | . | 11 | -1 | 1 | . | 5 | -1 | -5 | 2 |
| TN22-5030 | . | 11 | 0 | 1 | . | 1 | -1 | 3 | 2 |
| TN22-5035 | . | 11 | -1 | 0 | . | 1 | -5 | -5 | 0 |
| TN22-5075 | . | 11 | -2 | -2 | . | -2 | -7 | -4 | -1 |
| TN22-5091 | . | 6 | 1 | 1 | . | 1 | -1 | 7 | 2 |
| V18-0120DI | . | 11 | 0 | 1 | . | -1 | 4 | 1 | 3 |
| V19-0496HP | . | 6 | -1 | -1 | . | -2 | -2 | -5 | -1 |
| Mean | . | 6 | 0 | 1 | . | 1 | 0 | 2 | 2 |
| LSD(0.05) | . | 7 | 2 | 2 | . | 2 | 2 | 6 | 4 |
| CV(%) | . | 54 | . | 118 | . | 70 | 1643 | 118 | 200 |

## *TABLE 81 - PLANT HEIGHT (INCHES)*
## *PRELIMINARY GROUP V-LATE 2023*

| *STRAIN/ VARIETY* | *Jackson, TN* | *Kinston, NC* | *Knoxville, TN* | *Marianna, AR* | *Starkville, MS* | *Stoneville, MS* | *Stuttgart, AR* | *Warsaw, VA* | *Test Mean* |
|---|---|---|---|---|---|---|---|---|---|
| AG55XF0 | . | 39 | 28 | 35 | . | 34 | 25 | 38 | 33 |
| TN11-5140 | . | 39 | 25 | 30 | . | 22 | 31 | 40 | 31 |
| AG56XF2 | . | 35 | 26 | 35 | . | 33 | 26 | 36 | 32 |
| JT22-5005 | . | 41 | 22 | 31 | . | 22 | 28 | 37 | 30 |
| JT22-5010 | . | 40 | 24 | 30 | . | 25 | 28 | 42 | 31 |
| N19-0004 | . | 40 | 24 | 31 | . | 22 | 27 | 41 | 31 |
| N19-0117 | . | 36 | 20 | 25 | . | 19 | 24 | 37 | 27 |
| N19-5004 | . | 41 | 31 | 44 | . | 43 | 33 | 44 | 39 |
| TN22-5028 | . | 40 | 39 | 41 | . | 39 | 31 | 43 | 39 |
| TN22-5030 | . | 34 | 25 | 28 | . | 17 | 29 | 36 | 28 |
| TN22-5035 | . | 35 | 24 | 27 | . | 19 | 26 | 35 | 27 |
| TN22-5075 | . | 35 | 25 | 28 | . | 17 | 22 | 34 | 27 |
| TN22-5091 | . | 32 | 24 | 24 | . | 14 | 26 | 40 | 26 |
| V18-0120DI | . | 39 | 25 | 29 | . | 17 | 27 | 40 | 29 |
| V19-0496HP | . | 30 | 27 | 27 | . | 17 | 25 | 34 | 27 |
| | | | | | | | | | |
| Mean | . | 37 | 26 | 31 | . | 24 | 27 | 38 | 30 |
| LSD(0.05) | . | 6 | 6 | 3 | . | 3 | 5 | 7 | 4 |
| CV(%) | . | 8 | 11 | 4 | . | 6 | 8 | 8 | 13 |

## *TABLE 82 - PLANT LODGING (1-5)*
## *PRELIMINARY GROUP V-LATE 2023*

| *STRAIN/ VARIETY* | *Jackson, TN* | *Kinston, NC* | *Knoxville, TN* | *Marianna, AR* | *Starkville, MS* | *Stoneville, MS* | *Stuttgart, AR* | *Warsaw, VA* | *Test Mean* |
|---|---|---|---|---|---|---|---|---|---|
| AG55XF0 | . | 2.3 | 2.3 | 1.0 | . | 1.0 | 1.0 | 1.0 | 1.4 |
| TN11-5140 | . | 2.8 | 2.5 | 1.0 | . | 1.0 | 1.0 | 2.0 | 1.7 |
| AG56XF2 | . | 2.0 | 2.0 | 1.0 | . | 1.0 | 1.0 | 1.0 | 1.3 |
| JT22-5005 | . | 2.5 | 3.0 | 1.0 | . | 1.0 | 1.0 | 1.5 | 1.7 |
| JT22-5010 | . | 2.5 | 2.3 | 1.0 | . | 1.0 | 1.0 | 2.0 | 1.6 |
| N19-0004 | . | 2.3 | 2.3 | 1.0 | . | 1.0 | 1.0 | 2.0 | 1.6 |
| N19-0117 | . | 2.0 | 2.0 | 1.0 | . | 1.0 | 1.0 | 1.0 | 1.3 |
| N19-5004 | . | 2.8 | 2.0 | 3.5 | . | 4.0 | 1.0 | 2.0 | 2.5 |
| TN22-5028 | . | 2.3 | 2.5 | 1.5 | . | 2.5 | 1.0 | 1.5 | 1.9 |
| TN22-5030 | . | 2.3 | 3.0 | 1.0 | . | 1.0 | 1.0 | 1.5 | 1.6 |
| TN22-5035 | . | 1.8 | 3.5 | 1.0 | . | 1.0 | 1.0 | 1.5 | 1.6 |
| TN22-5075 | . | 2.3 | 2.5 | 1.0 | . | 1.0 | 1.0 | 1.0 | 1.5 |
| TN22-5091 | . | 2.0 | 2.5 | 1.0 | . | 1.0 | 1.0 | 2.5 | 1.7 |
| V18-0120DI | . | 2.8 | 2.3 | 1.0 | . | 1.0 | 1.0 | 1.0 | 1.5 |
| V19-0496HP | . | 2.0 | 3.3 | 1.0 | . | 1.0 | 1.0 | 1.0 | 1.5 |
| | | | | | | | | | |
| Mean | . | 2.3 | 2.5 | 1.2 | . | 1.3 | 1.0 | 1.5 | 1.6 |
| LSD(0.05) | . | 0.7 | 0.8 | 0.6 | . | 0.4 | . | 1.5 | 0.6 |
| CV(%) | . | 14.1 | 15.0 | 21.5 | . | 14.0 | 0.0 | 47.1 | 34.1 |

***TABLE 83 - SEED QUALITY (1-5)***
***PRELIMINARY GROUP V-LATE 2023***

| STRAIN/ VARIETY | Jackson, TN | Kinston, NC | Knoxville, TN | Marianna, AR | Starkville, MS | Stoneville, MS | Stuttgart, AR | Warsaw, VA | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| AG55XF0 | . | 2.0 | 1.5 | 1.5 | . | . | 1.0 | . | 1.5 |
| TN11-5140 | . | 2.0 | 1.8 | 2.0 | . | . | 1.5 | . | 1.8 |
| AG56XF2 | . | 3.0 | 1.5 | 1.5 | . | . | 1.5 | . | 1.9 |
| JT22-5005 | . | 3.0 | 1.5 | 1.0 | . | . | 1.5 | . | 1.8 |
| JT22-5010 | . | 2.0 | 1.8 | 1.0 | . | . | 1.5 | . | 1.6 |
| N19-0004 | . | 2.0 | 2.0 | 2.0 | . | . | 2.0 | . | 2.0 |
| N19-0117 | . | 2.0 | 1.5 | 1.0 | . | . | 1.5 | . | 1.5 |
| N19-5004 | . | 1.5 | 1.8 | 2.0 | . | . | 1.0 | . | 1.6 |
| TN22-5028 | . | 2.0 | 1.8 | 2.0 | . | . | 1.0 | . | 1.7 |
| TN22-5030 | . | 2.0 | 1.5 | 2.0 | . | . | 1.5 | . | 1.7 |
| TN22-5035 | . | 3.0 | 1.8 | 1.5 | . | . | 1.0 | . | 1.7 |
| TN22-5075 | . | 2.5 | 1.5 | 1.5 | . | . | 2.0 | . | 1.9 |
| TN22-5091 | . | 2.5 | 1.8 | 1.5 | . | . | 1.0 | . | 1.7 |
| V18-0120DI | . | 2.0 | 1.5 | 2.0 | . | . | 1.0 | . | 1.6 |
| V19-0496HP | . | 2.0 | 1.8 | 1.5 | . | . | 1.5 | . | 1.7 |
| Mean | . | 2.2 | 1.7 | 1.6 | . | . | 1.4 | . | 1.7 |
| LSD(0.05) | . | 0.8 | 0.5 | 1.4 | . | . | 1.0 | . | 0.5 |
| CV(%) | . | 15.8 | 14.5 | 38.8 | . | . | 35.3 | . | 27.7 |

## TABLE 84 - SEED SIZE (GRAMS PER 100 SEED)
## PRELIMINARY GROUP V-LATE 2023

| STRAIN/ VARIETY | Jackson, TN | Kinston, NC | Knoxville, TN | Marianna, AR | Starkville, MS | Stoneville, MS | Stuttgart, AR | Warsaw, VA | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| AG55XF0 | . | 17.0 | 12.9 | 14.5 | . | . | 17.2 | 14.5 | 15.2 |
| TN11-5140 | . | 15.9 | 11.5 | 12.4 | . | . | 16.4 | 14.5 | 14.1 |
| AG56XF2 | . | 17.2 | 12.0 | 14.8 | . | . | 17.1 | 14.0 | 15.0 |
| JT22-5005 | . | 15.2 | 12.1 | 12.4 | . | . | 15.4 | 14.0 | 13.8 |
| JT22-5010 | . | 15.3 | 12.1 | 12.3 | . | . | 15.0 | 14.5 | 13.8 |
| N19-0004 | . | 17.1 | 12.6 | 13.5 | . | . | 18.3 | 16.0 | 15.5 |
| N19-0117 | . | 17.5 | 13.1 | 14.3 | . | . | 18.4 | 16.5 | 15.9 |
| N19-5004 | . | 16.4 | 13.5 | 12.7 | . | . | 16.2 | 15.5 | 14.8 |
| TN22-5028 | . | 12.7 | 10.4 | 11.1 | . | . | 11.9 | 11.5 | 11.6 |
| TN22-5030 | . | 15.6 | 11.0 | 12.0 | . | . | 12.6 | 12.0 | 12.6 |
| TN22-5035 | . | 16.3 | 10.4 | 11.5 | . | . | 12.5 | 11.5 | 12.3 |
| TN22-5075 | . | 15.3 | 10.2 | 11.5 | . | . | 12.7 | 11.5 | 12.2 |
| TN22-5091 | . | 14.5 | 10.6 | 11.0 | . | . | 12.2 | 12.0 | 12.0 |
| V18-0120DI | . | 17.3 | 12.0 | 14.6 | . | . | 18.2 | 13.5 | 15.1 |
| V19-0496HP | . | 16.0 | 12.5 | 14.7 | . | . | 16.7 | 13.5 | 14.7 |
| Mean | . | 15.9 | 11.8 | 12.9 | . | . | 15.4 | 13.7 | 13.9 |
| LSD(0.05) | . | 1.9 | 1.1 | 0.7 | . | . | 1.1 | 1.5 | 1.1 |
| CV(%) | . | 5.0 | 4.2 | 2.4 | . | . | 3.5 | 5.0 | 6.9 |

***TABLE 85 - OIL (%)†***
***PRELIMINARY GROUP V-LATE 2023***

| STRAIN/ VARIETY | Jackson, TN | Kinston, NC | Knoxville, TN | Marianna, AR | Starkville, MS | Stoneville, MS | Stuttgart, AR | Warsaw, VA | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| AG55XF0 | . | 16.2 | 19.1 | 18.5 | . | 19.5 | 19.4 | 18.0 | 18.4 |
| TN11-5140 | . | 16.2 | 19.6 | 19.4 | . | 19.9 | 19.4 | 19.2 | 18.9 |
| AG56XF2 | . | 16.4 | 18.9 | 18.3 | . | 19.2 | 19.2 | 19.2 | 18.6 |
| JT22-5005 | . | 15.0 | 18.7 | 18.6 | . | 19.7 | 18.9 | 18.3 | 18.2 |
| JT22-5010 | . | 17.7 | 19.5 | 19.2 | . | 20.1 | 19.5 | 18.4 | 19.0 |
| N19-0004 | . | 17.9 | 20.8 | 20.3 | . | 21.3 | 20.4 | 20.3 | 20.2 |
| N19-0117 | . | 17.5 | 20.0 | 19.6 | . | 20.8 | 20.0 | 18.9 | 19.4 |
| N19-5004 | . | 17.7 | 20.0 | 19.4 | . | 20.2 | 20.7 | 18.7 | 19.4 |
| TN22-5028 | . | 16.1 | 19.6 | 18.5 | . | 19.3 | 20.0 | 19.5 | 18.8 |
| TN22-5030 | . | 16.8 | 19.5 | 20.1 | . | 20.7 | 19.6 | 19.8 | 19.4 |
| TN22-5035 | . | 16.6 | . | 19.3 | . | 20.0 | 19.5 | 19.5 | 19.1 |
| TN22-5075 | . | 17.3 | 19.2 | 19.2 | . | 19.7 | 19.8 | 19.5 | 19.1 |
| TN22-5091 | . | 18.0 | 20.1 | 20.4 | . | 20.9 | 20.1 | 20.5 | 20.0 |
| V18-0120DI | . | 17.3 | 20.2 | 19.0 | . | 20.1 | 19.2 | 18.5 | 19.0 |
| V19-0496HP | . | 15.6 | 18.5 | 17.4 | . | 17.1 | 18.2 | 17.8 | 17.4 |
| Mean | . | 16.8 | 19.6 | 19.1 | . | 19.9 | 19.6 | 19.1 | 19.0 |
| LSD(0.05) | . | . | . | . | . | . | . | . | 0.5 |
| CV(%) | . | . | . | . | . | . | . | . | 2.4 |

† Oil percentage is reported on a 13% moisture basis beginning in 2015.

***TABLE 86 - PROTEIN (%)†***
***PRELIMINARY GROUP V-LATE 2023***

| STRAIN/ VARIETY | Jackson, TN | Kinston, NC | Knoxville, TN | Marianna, AR | Starkville, MS | Stoneville, MS | Stuttgart, AR | Warsaw, VA | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| AG55XF0 | . | 38.9 | 35.1 | 36.9 | . | 34.9 | 35.3 | 36.0 | 36.2 |
| TN11-5140 | . | 38.5 | 35.6 | 36.0 | . | 35.6 | 35.6 | 35.4 | 36.1 |
| AG56XF2 | . | 38.0 | 34.4 | 36.9 | . | 35.8 | 35.2 | 34.6 | 35.8 |
| JT22-5005 | . | 38.3 | 34.6 | 34.6 | . | 33.5 | 34.8 | 34.5 | 35.1 |
| JT22-5010 | . | 35.5 | 33.6 | 33.7 | . | 32.7 | 34.0 | 35.0 | 34.1 |
| N19-0004 | . | 38.1 | 36.3 | 35.6 | . | 34.3 | 36.4 | 34.8 | 35.9 |
| N19-0117 | . | 38.8 | 37.4 | 36.6 | . | 35.2 | 36.1 | 37.2 | 36.9 |
| N19-5004 | . | 39.8 | 36.7 | 36.9 | . | 36.1 | 35.0 | 36.7 | 36.9 |
| TN22-5028 | . | 38.1 | 34.8 | 36.0 | . | 36.1 | 34.4 | 34.9 | 35.7 |
| TN22-5030 | . | 38.0 | 34.8 | 34.7 | . | 32.5 | 34.5 | 34.4 | 34.8 |
| TN22-5035 | . | 38.6 | . | 35.3 | . | 34.1 | 35.1 | 34.8 | 35.5 |
| TN22-5075 | . | 38.1 | 35.3 | 35.3 | . | 35.3 | 35.3 | 34.6 | 35.6 |
| TN22-5091 | . | 38.9 | 36.1 | 35.7 | . | 35.2 | 35.8 | 35.5 | 36.2 |
| V18-0120DI | . | 37.9 | 35.9 | 38.1 | . | 35.5 | 37.2 | 36.9 | 36.9 |
| V19-0496HP | . | 41.3 | 39.1 | 40.4 | . | 40.0 | 40.5 | 37.9 | 39.9 |
| Mean | . | 38.5 | 35.7 | 36.2 | . | 35.1 | 35.7 | 35.5 | 36.1 |
| LSD(0.05) | . | . | . | . | . | . | . | . | 0.8 |
| CV(%) | . | . | . | . | . | . | . | . | 2.0 |

† Protein percentage is reported on a 13% moisture basis beginning in 2015.

***TABLE 87 - ESTIMATED MEAL PROTEIN (%)†***
***PRELIMINARY GROUP V-LATE 2023***

| STRAIN/ VARIETY | Jackson, TN | Kinston, NC | Knoxville, TN | Marianna, AR | Starkville, MS | Stoneville, MS | Stuttgart, AR | Warsaw, VA | Test Mean |
|---|---|---|---|---|---|---|---|---|---|
| AG55XF0 | . | 50.4 | 47.1 | 49.2 | . | 47.1 | 47.6 | 47.7 | 48.2 |
| TN11-5140 | . | 49.9 | 48.1 | 48.6 | . | 48.3 | 48.0 | 47.6 | 48.4 |
| AG56XF2 | . | 49.5 | 46.2 | 49.2 | . | 48.2 | 47.4 | 46.6 | 47.8 |
| JT22-5005 | . | 49.0 | 46.3 | 46.2 | . | 45.4 | 46.7 | 45.9 | 46.6 |
| JT22-5010 | . | 46.8 | 45.4 | 45.3 | . | 44.4 | 45.9 | 46.6 | 45.7 |
| N19-0004 | . | 50.4 | 49.8 | 48.6 | . | 47.3 | 49.7 | 47.4 | 48.9 |
| N19-0117 | . | 51.1 | 50.8 | 49.5 | . | 48.3 | 49.1 | 49.8 | 49.8 |
| N19-5004 | . | 52.5 | 49.8 | 49.8 | . | 49.2 | 48.0 | 49.1 | 49.7 |
| TN22-5028 | . | 49.4 | 47.0 | 48.0 | . | 48.6 | 46.7 | 47.1 | 47.8 |
| TN22-5030 | . | 49.7 | 47.0 | 47.2 | . | 44.6 | 46.7 | 46.6 | 47.0 |
| TN22-5035 | . | 50.3 | . | 47.6 | . | 46.3 | 47.4 | 46.9 | 47.6 |
| TN22-5075 | . | 50.1 | 47.5 | 47.5 | . | 47.7 | 47.8 | 46.8 | 47.9 |
| TN22-5091 | . | 51.6 | 49.1 | 48.7 | . | 48.4 | 48.7 | 48.5 | 49.2 |
| V18-0120DI | . | 49.8 | 49.0 | 51.1 | . | 48.2 | 50.0 | 49.2 | 49.5 |
| V19-0496HP | . | 53.3 | 52.1 | 53.1 | . | 52.4 | 53.8 | 50.1 | 52.5 |
| Mean | . | 50.2 | 48.2 | 48.6 | . | 47.6 | 48.2 | 47.7 | 48.4 |
| LSD(0.05) | . | . | . | . | . | . | . | . | 0.9 |
| CV(%) | . | . | . | . | . | . | . | . | 1.7 |

† Estimated meal protein percentage is reported on a 13% moisture basis.

## SUMMARY OF SEED FATTY ACIDS (%)
## PRELIMINARY TEST V-LATE 2023 †

| STRAIN/ VARIETY | Palmitic Acid | Stearic Acid | Oleic Acid | Linoleic Acid | Linolenic Acid |
|---|---|---|---|---|---|
| AG55XF0 | 11.3 | 3.7 | 24.2 | 53.9 | 6.8 |
| TN11-5140 | 11.5 | 3.5 | 20.2 | 57.5 | 7.3 |
| TN22-5028 | 9.7 | 3.4 | 47.6 | 35.6 | 3.6 |
| TN22-5030 | 11.6 | 3.4 | 31.4 | 49.9 | 3.7 |
| TN22-5091 | 7.8 | 2.9 | 83.0 | 3.6 | 2.6 |
| | | | | | |
| Mean | 10.4 | 3.4 | 41.3 | 40.1 | 4.8 |
| LSD(0.05) | 0.5 | 0.2 | 5.8 | 5.5 | 0.4 |
| CV(%) | 3.6 | 6.0 | 11.7 | 11.3 | 7.5 |

† Fatty acid percentage in seed oil reported beginning in 2017.

## SEED PALMITIC ACID (%)
## PRELIMINARY GROUP V-LATE 2023

| STRAIN/ VARIETY | Jackson Springs, NC | Kinston, NC | Knoxville, TN | Marianna, AR | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|
| AG55XF0 | 11.3 | 10.9 | 11.7 | 11.2 | 11.3 | 11.5 | 11.3 |
| TN11-5140 | 11.5 | 10.8 | 12.2 | 11.4 | 11.8 | 11.3 | 11.5 |
| TN22-5028 | 10.5 | 9.9 | 10.4 | 9.5 | 8.7 | 9.4 | 9.7 |
| TN22-5030 | 12.0 | 11.3 | 12.0 | 11.5 | 11.7 | 11.5 | 11.6 |
| TN22-5091 | 7.4 | 7.9 | 8.1 | 7.5 | 7.9 | 8.0 | 7.8 |
| | | | | | | | |
| Mean | 10.5 | 10.2 | 10.9 | 10.2 | 10.3 | 10.3 | 10.4 |
| LSD(0.05) | . | . | . | . | . | . | 0.5 |
| CV(%) | . | . | . | . | . | . | 3.6 |

## SEED STEARIC ACID (%)
## PRELIMINARY GROUP V-LATE 2023

| STRAIN/ VARIETY | Jackson Springs, NC | Kinston, NC | Knoxville, TN | Marianna, AR | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|
| AG55XF0 | 3.6 | 3.3 | 4.1 | 3.7 | 3.2 | 4.3 | 3.7 |
| TN11-5140 | 3.2 | 3.3 | 3.7 | 4.0 | 3.2 | 3.5 | 3.5 |
| TN22-5028 | 3.6 | 3.2 | 3.6 | 3.4 | 3.2 | 3.7 | 3.4 |
| TN22-5030 | 3.5 | 3.2 | 3.3 | 4.0 | 3.0 | 3.5 | 3.4 |
| TN22-5091 | 2.8 | 2.7 | 3.0 | 3.2 | 2.7 | 3.0 | 2.9 |
| | | | | | | | |
| Mean | 3.3 | 3.2 | 3.5 | 3.7 | 3.1 | 3.6 | 3.4 |
| LSD(0.05) | . | . | . | . | . | . | 0.2 |
| CV(%) | . | . | . | . | . | . | 6.0 |

***SEED OLEIC ACID (%)***
***PRELIMINARY GROUP V-LATE 2023***

| STRAIN/ VARIETY | Jackson Springs, NC | Kinston, NC | Knoxville, TN | Marianna, AR | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|
| AG55XF0 | 21.7 | 30.3 | 20.5 | 23.7 | 24.8 | 24.4 | 24.2 |
| TN11-5140 | 17.0 | 24.6 | 17.6 | 20.9 | 21.1 | 20.1 | 20.2 |
| TN22-5028 | 32.9 | 45.0 | 39.4 | 50.3 | 65.8 | 51.9 | 47.6 |
| TN22-5030 | 26.5 | 36.3 | 24.4 | 31.3 | 39.2 | 30.5 | 31.4 |
| TN22-5091 | 83.8 | 82.6 | 80.6 | 83.0 | 85.0 | 83.1 | 83.0 |
| Mean | 36.4 | 43.8 | 36.5 | 41.8 | 47.2 | 42.0 | 41.3 |
| LSD(0.05) | . | . | . | . | . | . | 5.8 |
| CV(%) | . | . | . | . | . | . | 11.7 |

***SEED LINOLEIC ACID (%)***
***PRELIMINARY GROUP V-LATE 2023***

| STRAIN/ VARIETY | Jackson Springs, NC | Kinston, NC | Knoxville, TN | Marianna, AR | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|
| AG55XF0 | 55.8 | 48.5 | 56.3 | 54.9 | 55.0 | 53.1 | 53.9 |
| TN11-5140 | 60.1 | 53.2 | 59.2 | 56.9 | 57.7 | 58.0 | 57.5 |
| TN22-5028 | 48.5 | 38.3 | 42.6 | 33.4 | 19.6 | 31.3 | 35.6 |
| TN22-5030 | 53.9 | 45.3 | 56.4 | 48.7 | 43.2 | 51.6 | 49.9 |
| TN22-5091 | 3.3 | 3.6 | 5.1 | 3.9 | 2.5 | 3.4 | 3.6 |
| Mean | 44.3 | 37.8 | 43.9 | 39.6 | 35.6 | 39.5 | 40.1 |
| LSD(0.05) | . | . | . | . | . | . | 5.5 |
| CV(%) | . | . | . | . | . | . | 11.3 |

***SEED LINOLENIC ACID (%)***
***PRELIMINARY GROUP V-LATE 2023***

| STRAIN/ VARIETY | Jackson Springs, NC | Kinston, NC | Knoxville, TN | Marianna, AR | Stoneville, MS | Stuttgart, AR | Test Mean |
|---|---|---|---|---|---|---|---|
| AG55XF0 | 7.6 | 7.0 | 7.3 | 6.6 | 5.7 | 6.8 | 6.8 |
| TN11-5140 | 8.2 | 8.1 | 7.2 | 6.8 | 6.3 | 7.1 | 7.3 |
| TN22-5028 | 4.5 | 3.5 | 4.0 | 3.3 | 2.7 | 3.6 | 3.6 |
| TN22-5030 | 4.2 | 3.9 | 3.9 | 4.4 | 2.9 | 3.0 | 3.7 |
| TN22-5091 | 2.6 | 3.1 | 3.1 | 2.4 | 2.0 | 2.5 | 2.6 |
| Mean | 5.4 | 5.1 | 5.1 | 4.7 | 3.9 | 4.6 | 4.8 |
| LSD(0.05) | . | . | . | . | . | . | 0.4 |
| CV(%) | . | . | . | . | . | . | 7.5 |

***TABLE 88 - PARENTAGE OF ENTRIES***
***UNIFORM GROUP VI 2023***

| Ent | Strain/Variety | Parentage | Source | Fn | Trans-genic† | Special Traits‡ |
|---|---|---|---|---|---|---|
| 1 | AG64X8 RR2X | Commercial check | check | | RR2, DIC | |
| 2 | USDA-N6005 | Commercial check | check | | | |
| 3 | NC-Dunphy | Commercial check | check | | | |
| 4 | NC-Dilday | Commercial check | check | | | |
| 5 | P68A07SX | Commercial check | check | | | |
| 6 | G16-8779 | LG06-5920 x G00-3880 | Zenglu Li | | | |
| 7 | G18-11901 | Woodruff x N09-13128 | Zenglu Li | | | |
| 8 | G18-3051R2 | G10PR-224R2 x NCC07-8138 | Zenglu Li | | RR2 | |
| 9 | G18-3118R2 | G10PR-224R2 x NCC06-1090 | Zenglu Li | | RR2 | |
| 10 | G19-11535 | N11-7046 x Benning HP | Zenglu Li | | | |
| 11 | G19-11782 | R12-514 x Benning HP | Zenglu Li | | | |
| 12 | G19-12361 | N10-1031 x G14-8109 | Zenglu Li | | | |
| 13 | G19-13615 | G11-7013 x N10-764 | Zenglu Li | | | |
| 14 | N10-7412 | NTCPR94-5157 x 93705-50 | Fallen | | | Drought Tol. |
| 15 | N11-10295 | N01-11298 x N04-9646 | Fallen | | | 12.5% exotic |
| 16 | N14-7254 | G00-3213 x TCHM06-Morph-204 | Fallen | | | 12.5% exotic |
| 17 | N16-10756 | NMS4-44-329 x N7103 | Fallen | | | 25% exotic |
| 18 | N18-960 | UA5814HP x N09-9 | Mian | | | High oil |
| 19 | N19-0115 | G00-3213 x HR10-2-559 | Mian | | | High meal, High yield |
| 20 | N19-0756 | S13-1805 x N08-174 | Mian | | | High meal, High yield |
| 21 | N19-0806 | G00-3213 x R11-7999 | Mian | | | High meal, High yield |
| 22 | N19-0818 | G00-3213 x R11-7999 | Mian | | | High meal, High yield |
| 23 | N19-1253 | TN08-100 x NC-Dunphy | Mian | | | High meal, High yield |
| 24 | N19-1468 | G11-7013 x NC-Dunphy | Mian | | | High meal, High yield |
| 25 | N-STPR14-549 | N6001 x Young | Fallen | | | 25% exotic |

† Conv= Conventional(non-transgenic),DIC - Dicamba resistance Xtend®, E3= Enlist E3®, LL=Liberty Link®, RR1=Roundup Ready®, RR2=Roundup Ready 2 Yield®,

‡ AA= modified amino acids, DNC= Do not cross with this, FLS= Frogeye leaf spot resistance, LJ= Long juvenile, LN= low linolenic acid, LP= low phytate, HO= high olelic acid, HOLN= high oleic acid/low linolenic acid, SC= Southern stem canker, SCN= Soybean cyst nematode resistance, SR= Soybean rust resistance, and STS= sulfonylurea tolerant

***TABLE 89 - GENERAL SUMMARY OF PERFORMANCE***
***UNIFORM TEST VI 2023***

| STRAIN/ | | AVG. | YIELD† | | | PROTEIN‡ | | | OIL‡ | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| VARIETY | RANK | RANK | 2023 | 22-23 | 21-23 | 2023 | 22-23 | 21-23 | 2023 | 22-23 | 21-23 |
| AG64X8 RR2X | 5 | 8 | 55.7 | 54.6 | 57.7 | 35.9 | 35.8 | 35.4 | 18.4 | 18.5 | 18.8 |
| USDA-N6005 | 10 | 11 | 52.7 | 53.9 | 56.8 | 37.2 | 36.9 | 37.0 | 17.6 | 17.8 | 17.7 |
| NC-Dunphy | 20 | 14 | 49.8 | 49.7 | 56.1 | 35.9 | 35.1 | 35.0 | 18.6 | 19.3 | 19.4 |
| NC-Dilday | 8 | 12 | 53.0 | 50.2 | 55.2 | 34.7 | 34.4 | 34.0 | 19.5 | 19.9 | 20.0 |
| P68A07SX | 1 | 3 | 60.2 | . | . | 35.6 | . | . | 18.3 | . | . |
| G16-8779 | 11 | 13 | 52.7 | 52.4 | 56.5 | 35.5 | 35.0 | 35.0 | 18.5 | 18.7 | 18.8 |
| G18-11901 | 21 | 17 | 49.1 | 50.2 | . | 35.7 | 35.1 | . | 18.7 | 18.9 | . |
| G18-3051R2 | 2 | 5 | 57.7 | 56.3 | . | 34.6 | 34.3 | . | 19.2 | 19.3 | . |
| G18-3118R2 | 4 | 8 | 55.8 | 53.9 | . | 36.1 | 35.8 | . | 17.8 | 17.9 | . |
| G19-11535 | 17 | 15 | 51.0 | . | . | 38.5 | . | . | 17.8 | . | . |
| G19-11782 | 23 | 20 | 47.9 | . | . | 37.6 | . | . | 18.2 | . | . |
| G19-12361 | 14 | 14 | 51.4 | . | . | 35.5 | . | . | 18.6 | . | . |
| G19-13615 | 18 | 15 | 50.7 | . | . | 36.4 | . | . | 19.1 | . | . |
| N10-7412 | 19 | 15 | 50.6 | . | 56.1 | 36.1 | . | 35.3 | 18.9 | . | 19.2 |
| N11-10295 | 24 | 20 | 47.3 | . | . | 37.7 | . | . | 17.5 | . | . |
| N14-7254 | 22 | 17 | 48.6 | 50.1 | 54.3 | 36.5 | 36.2 | 35.9 | 18.5 | 18.6 | 18.9 |
| N16-10756 | 16 | 14 | 51.3 | . | . | 37.8 | . | . | 17.7 | . | . |
| N18-960 | 12 | 14 | 51.9 | 52.5 | . | 38.0 | 37.5 | . | 19.5 | 19.8 | . |
| N19-0115 | 15 | 14 | 51.3 | . | . | 38.3 | . | . | 18.8 | . | . |
| N19-0756 | 7 | 11 | 53.2 | . | . | 35.2 | . | . | 19.6 | . | . |
| N19-0806 | 9 | 12 | 52.9 | . | . | 38.3 | . | . | 18.0 | . | . |
| N19-0818 | 13 | 15 | 51.8 | . | . | 39.3 | . | . | 17.6 | . | . |
| N19-1253 | 6 | 9 | 54.6 | . | . | 36.4 | . | . | 19.0 | . | . |
| N19-1468 | 3 | 8 | 56.3 | . | . | 36.2 | . | . | 19.4 | . | . |
| N-STPR14-549 | 25 | 21 | 44.0 | 46.6 | . | 38.2 | 37.7 | . | 18.2 | 18.6 | . |
| | | | | | | | | | | | |
| Mean | . | . | 52.1 | . | . | 36.7 | . | . | 18.5 | . | . |
| LSD(0.05) | . | . | 6.9 | . | . | 0.8 | . | . | 0.5 | . | . |
| LSD(0.10) | . | . | 5.7 | . | . | . | . | . | . | . | . |
| CV(%) | . | . | 13.8 | . | . | 1.8 | . | . | 2.5 | . | . |

† Data not included in yield mean: 2022 Tallassee.

‡ Protein percentage and oil percentage reported on a 13% moisture basis beginning in 2015.

***TABLE 90 - GENERAL SUMMARY OF PERFORMANCE -Part 2***
***UNIFORM TEST VI 2023***

| STRAIN/ VARIETY | MEAL† PRO % | MAT INDEX | LOD | HT | SEED QUALITY | SEED SIZE | FL. COLOR | PUB. COLOR | POD COLOR |
|---|---|---|---|---|---|---|---|---|---|
| AG64X8 RR2X | 47.8 | 0 | 1.8 | 35 | 1.4 | 13.8 | | | |
| USDA-N6005 | 48.9 | 0 | 1.5 | 32 | 1.5 | 12.7 | | | |
| NC-Dunphy | 47.9 | 2 | 1.6 | 29 | 1.9 | 17.6 | | | |
| NC-Dilday | 46.9 | 2 | 2.1 | 34 | 1.9 | 17.8 | | | |
| P68A07SX | 47.4 | 2 | 1.7 | 37 | 2.0 | 14.5 | | | |
| G16-8779 | 47.4 | 3 | 1.6 | 34 | 1.9 | 14.8 | P | T | BR |
| G18-11901 | 47.7 | 2 | 1.9 | 34 | 1.9 | 16.9 | P | T | T |
| G18-3051R2 | 46.6 | 2 | 1.7 | 32 | 1.6 | 12.9 | W | T | T |
| G18-3118R2 | 47.6 | 4 | 1.7 | 39 | 1.5 | 14.4 | P | T | T |
| G19-11535 | 50.9 | 5 | 1.6 | 38 | 1.5 | 15.0 | W | G | BR |
| G19-11782 | 49.9 | 5 | 2.0 | 36 | 1.9 | 14.5 | P | T | BR |
| G19-12361 | 47.4 | 5 | 1.4 | 35 | 1.8 | 13.6 | W | T | T |
| G19-13615 | 48.9 | 2 | 1.7 | 35 | 1.6 | 14.0 | W | T | T |
| N10-7412 | 48.3 | 0 | 2.1 | 34 | 1.6 | 14.2 | P | T | |
| N11-10295 | 49.6 | 5 | 2.4 | 41 | 1.7 | 13.0 | W | G | |
| N14-7254 | 48.7 | 4 | 2.1 | 33 | 1.8 | 13.6 | W | T | |
| N16-10756 | 49.9 | 0 | 2.5 | 34 | 1.9 | 13.1 | W | G | |
| N18-960 | 51.3 | 0 | 2.1 | 35 | 2.0 | 15.9 | W | T | |
| N19-0115 | 51.3 | 5 | 2.1 | 33 | 1.9 | 16.6 | W | T | |
| N19-0756 | 47.6 | 0 | 1.7 | 31 | 2.1 | 15.3 | W | T | |
| N19-0806 | 50.8 | 5 | 1.8 | 34 | 1.6 | 15.2 | W | T | |
| N19-0818 | 51.8 | 5 | 1.7 | 37 | 1.9 | 14.0 | P | T | |
| N19-1253 | 48.9 | 2 | 1.2 | 30 | 1.7 | 16.7 | P | G | |
| N19-1468 | 48.8 | 3 | 2.1 | 35 | 1.9 | 14.4 | P | T | |
| N-STPR14-549 | 50.7 | 0 | 2.5 | 36 | 2.2 | 16.2 | P | G | |
| | | | | | | | | | |
| Mean | 48.9 | 2 | 1.9 | 35 | 1.8 | 14.8 | | | |
| LSD(0.05) | 0.8 | 4 | 0.4 | 2 | 0.5 | 1.0 | | | |
| CV(%) | 1.4 | 127 | 27.0 | 7 | 26.0 | 7.7 | | | |

† Estimated meal protein content was added to the annual report in 2018.

***TABLE 91 - GENERAL SUMMARY OF PEST REACTION***
***UNIFORM TEST VI 2023***

| STRAIN/ | SCN Cyst Score (1-5 Scale)† | | | RKN Gall Score (1-5 Scale)‡ | | | SC | SC |
|---|---|---|---|---|---|---|---|---|
| VARIETY | Race 2 | Race 3 | Race 5 | PRK | SRK | JRK | RATING | SCORE |
| AG64X8 RR2X | 1 | . | 4 | 4.8 | 3.0 | 4.5 | | . |
| USDA-N6005 | 3 | . | 2 | 5.0 | 3.3 | 5.0 | | . |
| NC-Dunphy | 2 | . | 2 | 5.0 | 4.8 | 5.0 | | . |
| NC-Dilday | 1 | . | 2 | 5.0 | 4.5 | 5.0 | | . |
| P68A07SX | 2 | . | 2 | 3.3 | 2.3 | 4.5 | | . |
| G16-8779 | 2 | . | 2 | 1.5 | 4.5 | 4.3 | | . |
| G18-11901 | 2 | . | 2 | 3.3 | 1.0 | 4.5 | | . |
| G18-3051R2 | 2 | . | 3 | 4.0 | 1.8 | 4.8 | | . |
| G18-3118R2 | 2 | . | 1 | 3.8 | 1.8 | 3.0 | | . |
| G19-11535 | 4 | . | 2 | 4.5 | 1.0 | 4.0 | | . |
| G19-11782 | 3 | . | 2 | 4.3 | 1.0 | 4.8 | | . |
| G19-12361 | 3 | . | 3 | 2.3 | 1.0 | 3.8 | | . |
| G19-13615 | 3 | . | 2 | 1.8 | 1.5 | 1.3 | | . |
| N10-7412 | 3 | . | 2 | 5.0 | 5.0 | 5.0 | | . |
| N11-10295 | 3 | . | 4 | 5.0 | 5.0 | 5.0 | | . |
| N14-7254 | 3 | . | 3 | 4.8 | 5.0 | 4.8 | | . |
| N16-10756 | 4 | . | 3 | 5.0 | 4.3 | 4.8 | | . |
| N18-960 | 1 | . | 4 | 5.0 | 4.5 | 5.0 | | . |
| N19-0115 | 3 | . | 2 | 4.5 | 2.3 | 5.0 | | . |
| N19-0756 | 3 | . | 1 | 5.0 | 4.3 | 5.0 | | . |
| N19-0806 | 3 | . | 3 | 5.0 | 4.3 | 4.8 | | . |
| N19-0818 | 3 | . | 4 | 5.0 | 5.0 | 5.0 | | . |
| N19-1253 | 3 | . | 2 | 4.8 | 3.0 | 5.0 | | . |
| N19-1468 | 3 | . | 2 | 5.0 | 1.3 | 4.8 | | . |
| N-STPR14-549 | 4 | . | 3 | 5.0 | 4.8 | 5.0 | | . |

†The race 2 and 5 SCN populations used in these tests were typed as HG (Heterodera glycines) Type 1.2.5.7 and HG Type 2.5.7, respectively. Results for race 3 were omitted.

‡The root-knot nematode (RKN) species used in these tests were Meloidogyne incognita (southern root knot = SRK), M. arenaria (peanut root knot = PRK), and M. javanica (Javanese root-knot = JRK;)

MR = mixed reaction.

***TABLE 92 - SEED YIELD (BUSHELS PER ACRE)***
***UNIFORM TEST VI 2023 †***

| STRAIN/ VARIETY | Athens, GA(A) | Bossier City, LA | Kinston, NC | Plains, GA | Plymouth, NC | Tallassee, AL | Test Mean |
|---|---|---|---|---|---|---|---|
| AG64X8 RR2X | 66.3 | 60.1 | 53.0 | 50.3 | 39.9 | 68.9 | 55.7 |
| USDA-N6005 | 72.4 | 64.7 | 38.9 | 51.4 | 36.4 | 64.6 | 52.7 |
| NC-Dunphy | 68.4 | 53.4 | 28.9 | 49.0 | 34.5 | 68.5 | 49.8 |
| NC-Dilday | 65.7 | 51.2 | 37.8 | 56.6 | 30.8 | 74.0 | 53.0 |
| P68A07SX | 79.3 | 76.6 | 51.8 | 55.1 | 39.5 | 75.2 | 60.2 |
| G16-8779 | 64.8 | 54.4 | 56.8 | 49.6 | 35.1 | 57.3 | 52.7 |
| G18-11901 | 67.2 | 67.3 | 35.1 | 45.3 | 29.4 | 68.3 | 49.1 |
| G18-3051R2 | 72.4 | 42.5 | 51.7 | 57.5 | 38.5 | 68.5 | 57.7 |
| G18-3118R2 | 60.9 | 57.3 | 58.7 | 52.9 | 34.6 | 71.9 | 55.8 |
| G19-11535 | 64.9 | 59.8 | 43.9 | 49.1 | 33.8 | 63.6 | 51.0 |
| G19-11782 | 60.0 | 57.6 | 49.9 | 42.7 | 30.1 | 56.8 | 47.9 |
| G19-12361 | 68.4 | 55.5 | 41.6 | 44.4 | 34.8 | 67.7 | 51.4 |
| G19-13615 | 56.4 | 69.2 | 51.2 | 54.0 | 30.5 | 61.5 | 50.7 |
| N10-7412 | 62.0 | 56.5 | 45.6 | 52.6 | 33.9 | 59.2 | 50.6 |
| N11-10295 | 53.4 | 60.3 | 46.0 | 47.8 | 33.0 | 56.1 | 47.3 |
| N14-7254 | 52.7 | 64.0 | 43.8 | 49.9 | 35.8 | 60.9 | 48.6 |
| N16-10756 | 63.9 | 65.1 | 40.9 | 54.3 | 31.9 | 65.2 | 51.3 |
| N18-960 | 66.5 | 59.5 | 46.5 | 51.6 | 31.5 | 62.5 | 51.9 |
| N19-0115 | 60.1 | 71.8 | 50.1 | 43.8 | 38.3 | 64.5 | 51.3 |
| N19-0756 | 69.7 | 67.7 | 48.1 | 50.3 | 36.7 | 61.4 | 53.2 |
| N19-0806 | 60.9 | 59.3 | 57.7 | 51.8 | 37.4 | 56.8 | 52.9 |
| N19-0818 | 68.0 | 57.6 | 54.8 | 46.1 | 33.4 | 56.8 | 51.8 |
| N19-1253 | 72.5 | 54.3 | 39.4 | 49.1 | 39.2 | 72.5 | 54.6 |
| N19-1468 | 67.9 | 68.4 | 56.9 | 55.6 | 33.0 | 68.0 | 56.3 |
| N-STPR14-549 | 56.0 | 49.7 | 26.6 | 39.8 | 28.9 | 68.9 | 44.0 |
| | | | | | | | |
| Mean | 64.8 | 60.1 | 46.2 | 50.0 | 34.4 | 64.8 | 52.1 |
| LSD(0.05) | 10.2 | 17.7 | 10.1 | 7.9 | 7.5 | 10.9 | 6.9 |
| LSD(0.10) | 8.5 | 14.7 | 8.4 | 6.6 | 6.2 | 9.1 | 5.7 |
| CV(%) | 9.6 | 17.9 | 13.3 | 9.6 | 12.9 | 10.3 | 13.8 |

†Location data not included in Test Mean due to CV > 15%: Bossier City.

## *TABLE 93 - RELATIVE MATURITY (DAYS EARLIER (-) OR LATER (+) THAN ENTRY 1) UNIFORM GROUP VI 2023*

| *STRAIN/ VARIETY* | *Athens, GA(A)* | *Bossier City, LA* | *Kinston, NC* | *Plymouth, NC* | *Tallassee, AL* | *Test Mean* |
|---|---|---|---|---|---|---|
| AG64X8 RR2X | 10/22 | 10/26 | 10/27 | 10/27 | 10/2 | 10/21 |
| USDA-N6005 | -3 | -1 | 0 | 0 | 4 | 0 |
| NC-Dunphy | 0 | -1 | 10 | -2 | 1 | 2 |
| NC-Dilday | 4 | -2 | 5 | -2 | 4 | 2 |
| P68A07SX | -3 | -2 | 7 | -1 | 6 | 2 |
| G16-8779 | -3 | 0 | 10 | 1 | 9 | 3 |
| G18-11901 | 0 | -2 | 10 | 4 | 1 | 2 |
| G18-3051R2 | 1 | 1 | 1 | 1 | 7 | 2 |
| G18-3118R2 | 1 | 1 | 10 | 4 | 4 | 4 |
| G19-11535 | 1 | 1 | 10 | 5 | 8 | 5 |
| G19-11782 | 2 | 1 | 10 | 5 | 7 | 5 |
| G19-12361 | 1 | -1 | 10 | 4 | 12 | 5 |
| G19-13615 | 1 | 0 | 0 | 1 | 7 | 2 |
| N10-7412 | -4 | -1 | 0 | -6 | 10 | 0 |
| N11-10295 | 4 | 1 | 10 | 5 | 7 | 5 |
| N14-7254 | 3 | 1 | 2 | 0 | 12 | 4 |
| N16-10756 | -3 | 1 | 0 | 0 | 4 | 0 |
| N18-960 | 0 | -4 | 10 | -6 | 3 | 0 |
| N19-0115 | 3 | 1 | 10 | 3 | 9 | 5 |
| N19-0756 | -1 | -4 | 6 | -6 | 6 | 0 |
| N19-0806 | 1 | 0 | 10 | 3 | 11 | 5 |
| N19-0818 | 4 | 2 | 10 | 5 | 3 | 5 |
| N19-1253 | -4 | -3 | 10 | 1 | 5 | 2 |
| N19-1468 | 2 | 2 | 5 | 4 | 2 | 3 |
| N-STPR14-549 | -1 | -5 | 10 | -4 | 3 | 0 |
| | | | | | | |
| Mean | 0 | -1 | 7 | 1 | 6 | 2 |
| LSD(0.05) | 4 | 2 | 5 | 3 | 2 | 4 |
| CV(%) | 1466 | 211 | 39 | 218 | 26 | 127 |

***TABLE 94 - PLANT HEIGHT (INCHES)***
***UNIFORM GROUP VI 2023***

| STRAIN/ VARIETY | Athens, GA(A) | Bossier City, LA | Kinston, NC | Plains, GA | Plymouth, NC | Tallassee, AL | Test Mean |
|---|---|---|---|---|---|---|---|
| AG64X8 RR2X | 42 | 31 | 39 | 29 | 37 | 32 | 35 |
| USDA-N6005 | 36 | 26 | 35 | 30 | 33 | 33 | 32 |
| NC-Dunphy | 34 | 24 | 30 | 30 | 26 | 30 | 29 |
| NC-Dilday | 43 | 30 | 35 | 33 | 30 | 36 | 35 |
| P68A07SX | 44 | 33 | 36 | 38 | 38 | 36 | 37 |
| G16-8779 | 37 | 29 | 39 | 34 | 33 | 34 | 34 |
| G18-11901 | 38 | 34 | 37 | 33 | 32 | 32 | 34 |
| G18-3051R2 | 36 | 26 | 36 | 29 | 34 | 32 | 32 |
| G18-3118R2 | 44 | 35 | 41 | 38 | 39 | 35 | 39 |
| G19-11535 | 45 | 33 | 39 | 35 | 39 | 36 | 38 |
| G19-11782 | 40 | 32 | 40 | 36 | 37 | 35 | 36 |
| G19-12361 | 41 | 28 | 38 | 35 | 34 | 36 | 35 |
| G19-13615 | 40 | 31 | 38 | 33 | 35 | 32 | 35 |
| N10-7412 | 38 | 28 | 37 | 34 | 34 | 33 | 34 |
| N11-10295 | 52 | 38 | 42 | 38 | 41 | 36 | 41 |
| N14-7254 | 36 | 30 | 38 | 33 | 32 | 32 | 33 |
| N16-10756 | 35 | 33 | 39 | 32 | 35 | 30 | 34 |
| N18-960 | 42 | 32 | 38 | 32 | 34 | 35 | 36 |
| N19-0115 | 34 | 31 | 35 | 34 | 31 | 32 | 33 |
| N19-0756 | 37 | 27 | 33 | 32 | 29 | 31 | 31 |
| N19-0806 | 38 | 29 | 39 | 32 | 35 | 31 | 34 |
| N19-0818 | 47 | 33 | 38 | 36 | 36 | 36 | 37 |
| N19-1253 | 37 | 24 | 31 | 30 | 30 | 31 | 30 |
| N19-1468 | 40 | 31 | 37 | 34 | 35 | 33 | 35 |
| N-STPR14-549 | 37 | 35 | 38 | 36 | 37 | 35 | 36 |
| Mean | 40 | 31 | 37 | 33 | 34 | 33 | 35 |
| LSD(0.05) | 5 | 3 | 4 | 4 | 6 | 3 | 2 |
| CV(%) | 6 | 7 | 6 | 6 | 9 | 5 | 7 |

***TABLE 95 - PLANT LODGING (1-5)***
***UNIFORM GROUP VI 2023***

| STRAIN/ VARIETY | Athens, GA(A) | Bossier City, LA | Kinston, NC | Plains, GA | Plymouth, NC | Tallassee, AL | Test Mean |
|---|---|---|---|---|---|---|---|
| AG64X8 RR2X | 3.3 | 1.3 | 2.0 | 1.0 | 2.3 | 1.0 | 1.8 |
| USDA-N6005 | 2.3 | 1.0 | 1.5 | 1.0 | 2.0 | 1.0 | 1.5 |
| NC-Dunphy | 3.0 | 1.0 | 1.3 | 1.0 | 2.3 | 1.0 | 1.6 |
| NC-Dilday | 3.7 | 2.0 | 1.8 | 1.0 | 2.8 | 1.7 | 2.1 |
| P68A07SX | 3.0 | 1.3 | 1.8 | 1.0 | 2.3 | 1.0 | 1.7 |
| G16-8779 | 1.7 | 1.3 | 2.0 | 1.0 | 2.0 | 1.7 | 1.6 |
| G18-11901 | 3.0 | 1.7 | 2.0 | 1.0 | 2.5 | 1.0 | 1.9 |
| G18-3051R2 | 2.7 | 1.0 | 1.8 | 1.0 | 3.0 | 1.0 | 1.7 |
| G18-3118R2 | 2.7 | 1.3 | 2.3 | 1.0 | 2.3 | 1.0 | 1.7 |
| G19-11535 | 3.0 | 1.0 | 1.8 | 1.0 | 1.8 | 1.0 | 1.6 |
| G19-11782 | 3.3 | 1.7 | 2.3 | 1.0 | 2.8 | 1.0 | 2.0 |
| G19-12361 | 2.0 | 1.0 | 1.5 | 1.0 | 1.3 | 1.3 | 1.4 |
| G19-13615 | 2.7 | 1.3 | 1.8 | 1.0 | 2.3 | 1.3 | 1.7 |
| N10-7412 | 3.0 | 2.0 | 2.3 | 1.0 | 2.8 | 1.7 | 2.1 |
| N11-10295 | 3.7 | 2.3 | 2.5 | 1.0 | 3.5 | 1.7 | 2.4 |
| N14-7254 | 4.0 | 1.3 | 1.8 | 1.0 | 2.5 | 1.7 | 2.1 |
| N16-10756 | 3.7 | 3.0 | 2.3 | 1.0 | 2.5 | 2.7 | 2.5 |
| N18-960 | 3.0 | 2.0 | 2.0 | 1.0 | 2.8 | 2.0 | 2.1 |
| N19-0115 | 3.0 | 2.3 | 1.5 | 1.0 | 2.8 | 1.7 | 2.1 |
| N19-0756 | 2.7 | 1.0 | 1.8 | 1.0 | 2.8 | 1.3 | 1.7 |
| N19-0806 | 3.3 | 1.3 | 1.8 | 1.0 | 2.3 | 1.0 | 1.8 |
| N19-0818 | 3.0 | 1.0 | 1.8 | 1.0 | 2.3 | 1.0 | 1.7 |
| N19-1253 | 1.3 | 1.0 | 1.5 | 1.0 | 1.5 | 1.0 | 1.2 |
| N19-1468 | 3.0 | 2.0 | 2.0 | 1.0 | 2.5 | 2.0 | 2.1 |
| N-STPR14-549 | 4.0 | 2.0 | 1.8 | 1.3 | 3.0 | 3.0 | 2.5 |
| | | | | | | | |
| Mean | 3.0 | 1.5 | 1.9 | 1.0 | 2.4 | 1.4 | 1.9 |
| LSD(0.05) | 1.2 | 0.6 | 0.6 | 0.2 | 1.0 | 0.6 | 0.4 |
| CV(%) | 24.7 | 25.0 | 16.5 | 11.4 | 19.2 | 26.2 | 27.5 |

***TABLE 96 - SEED QUALITY (1-5)***
***UNIFORM GROUP VI 2023***

| STRAIN/ VARIETY | Athens, GA(A) | Bossier City, LA | Kinston, NC | Plains, GA | Plymouth, NC | Tallassee, AL | Test Mean |
|---|---|---|---|---|---|---|---|
| AG64X8 RR2X | 1.8 | 1.0 | 1.0 | 1.5 | 2.0 | 1.0 | 1.4 |
| USDA-N6005 | 1.8 | 1.0 | 1.0 | 2.2 | 2.3 | 1.0 | 1.5 |
| NC-Dunphy | 1.3 | 2.0 | 2.0 | 3.0 | 2.3 | 1.0 | 1.9 |
| NC-Dilday | 1.5 | 2.0 | 2.0 | 2.7 | 2.0 | 1.0 | 1.9 |
| P68A07SX | 2.0 | 3.0 | 1.5 | 2.3 | 2.0 | 1.0 | 2.0 |
| G16-8779 | 1.8 | 2.0 | 2.0 | 2.8 | 2.0 | 1.0 | 1.9 |
| G18-11901 | 1.7 | 2.0 | 2.0 | 2.8 | 2.0 | 1.0 | 1.9 |
| G18-3051R2 | 1.8 | 1.0 | 1.5 | 1.8 | 2.3 | 1.0 | 1.6 |
| G18-3118R2 | 1.5 | 2.0 | 1.0 | 1.5 | 2.0 | 1.0 | 1.5 |
| G19-11535 | 1.5 | 1.0 | 1.5 | 1.7 | 2.3 | 1.0 | 1.5 |
| G19-11782 | 2.2 | 3.0 | 1.0 | 2.0 | 2.5 | 1.0 | 1.9 |
| G19-12361 | 1.5 | 3.0 | 1.5 | 2.0 | 2.0 | 1.0 | 1.8 |
| G19-13615 | 1.8 | 2.0 | 1.0 | 1.5 | 2.0 | 1.0 | 1.6 |
| N10-7412 | 1.3 | 2.0 | 1.0 | 2.0 | 2.0 | 1.0 | 1.6 |
| N11-10295 | 1.3 | 3.0 | 1.0 | 1.5 | 2.3 | 1.0 | 1.7 |
| N14-7254 | 1.8 | 3.0 | 1.0 | 1.8 | 2.0 | 1.0 | 1.8 |
| N16-10756 | 1.8 | 3.0 | 1.5 | 1.7 | 2.3 | 1.0 | 1.9 |
| N18-960 | 1.3 | 3.0 | 2.0 | 2.5 | 2.0 | 1.0 | 2.0 |
| N19-0115 | 2.2 | 2.0 | 1.5 | 2.7 | 2.3 | 1.0 | 1.9 |
| N19-0756 | 2.0 | 3.0 | 2.0 | 2.7 | 2.0 | 1.0 | 2.1 |
| N19-0806 | 1.2 | 2.0 | 1.5 | 1.7 | 2.3 | 1.0 | 1.6 |
| N19-0818 | 1.8 | 3.0 | 1.0 | 1.8 | 2.5 | 1.0 | 1.9 |
| N19-1253 | 1.3 | 2.0 | 1.0 | 2.7 | 2.0 | 1.0 | 1.7 |
| N19-1468 | 1.7 | 3.0 | 1.5 | 2.0 | 2.5 | 1.0 | 1.9 |
| N-STPR14-549 | 1.5 | 3.0 | 2.0 | 3.2 | 2.3 | 1.0 | 2.2 |
| | | | | | | | |
| Mean | 1.7 | 2.3 | 1.4 | 2.2 | 2.1 | 1.0 | 1.8 |
| LSD(0.05) | 0.5 | . | 0.8 | 0.5 | 0.4 | . | 0.5 |
| CV(%) | 19.9 | 0.0 | 27.8 | 15.1 | 9.7 | 0.0 | 25.7 |

***TABLE 97 - SEED SIZE (GRAMS PER 100 SEED)***
***UNIFORM GROUP VI 2023***

| STRAIN/ VARIETY | Athens, GA(A) | Bossier City, LA | Kinston, NC | Plains, GA | Plymouth, NC | Tallassee, AL | Test Mean |
|---|---|---|---|---|---|---|---|
| AG64X8 RR2X | 14.4 | 15.5 | 13.5 | 12.4 | 12.5 | 14.6 | 13.8 |
| USDA-N6005 | 13.5 | 13.5 | 11.9 | 12.5 | 10.6 | 14.2 | 12.7 |
| NC-Dunphy | 18.1 | 18.0 | 16.5 | 17.8 | 16.1 | 19.4 | 17.6 |
| NC-Dilday | 19.2 | 18.0 | 16.7 | 17.1 | 16.0 | 19.6 | 17.8 |
| P68A07SX | 15.0 | 13.5 | 15.6 | 13.6 | 13.2 | 16.1 | 14.5 |
| G16-8779 | 15.4 | 13.2 | 14.8 | 15.3 | 13.8 | 16.4 | 14.8 |
| G18-11901 | 17.8 | 13.5 | 17.5 | 16.5 | 16.7 | 19.3 | 16.9 |
| G18-3051R2 | 14.2 | 13.5 | 13.1 | 11.9 | 11.9 | 12.5 | 12.9 |
| G18-3118R2 | 15.4 | 12.5 | 15.6 | 13.0 | 13.6 | 16.2 | 14.4 |
| G19-11535 | 16.2 | 15.5 | 14.5 | 14.4 | 13.3 | 16.1 | 15.0 |
| G19-11782 | 16.6 | 15.0 | 14.9 | 12.2 | 13.5 | 14.9 | 14.5 |
| G19-12361 | 15.1 | 11.5 | 14.1 | 12.2 | 12.5 | 16.1 | 13.6 |
| G19-13615 | 15.6 | 14.5 | 13.8 | 12.5 | 12.1 | 15.8 | 14.0 |
| N10-7412 | 15.3 | 14.0 | 14.2 | 14.5 | 12.4 | 14.7 | 14.2 |
| N11-10295 | 13.8 | 12.0 | 13.3 | 13.5 | 11.7 | 13.9 | 13.0 |
| N14-7254 | 15.6 | 13.5 | 13.2 | 13.2 | 12.3 | 14.2 | 13.6 |
| N16-10756 | 13.8 | 13.0 | 13.0 | 13.5 | 11.7 | 13.5 | 13.1 |
| N18-960 | 17.2 | 13.5 | 16.3 | 15.9 | 14.9 | 17.5 | 15.9 |
| N19-0115 | 17.4 | 15.5 | 16.6 | 17.2 | 15.3 | 17.6 | 16.6 |
| N19-0756 | 15.4 | 14.0 | 16.6 | 15.6 | 13.2 | 17.2 | 15.3 |
| N19-0806 | 16.5 | 16.3 | 15.6 | 14.7 | 13.2 | 14.8 | 15.2 |
| N19-0818 | 16.6 | 12.0 | 14.1 | 14.2 | 13.1 | 14.1 | 14.0 |
| N19-1253 | 17.7 | 16.0 | 16.0 | 17.4 | 15.0 | 17.9 | 16.7 |
| N19-1468 | 14.8 | 14.0 | 15.9 | 13.3 | 13.2 | 15.1 | 14.4 |
| N-STPR14-549 | 16.0 | 15.0 | 17.0 | 17.5 | 14.2 | 17.2 | 16.2 |
| | | | | | | | |
| Mean | 15.9 | 14.3 | 15.0 | 14.5 | 13.4 | 16.0 | 14.8 |
| LSD(0.05) | 1.3 | . | 1.2 | 1.3 | 1.1 | 2.6 | 1.0 |
| CV(%) | 5.2 | 0.0 | 4.8 | 5.5 | 4.7 | 9.8 | 7.7 |

***TABLE 98 - OIL (%)†***
***UNIFORM GROUP VI 2023***

| STRAIN/ VARIETY | Athens, GA(A) | Bossier City, LA | Kinston, NC | Plains, GA | Plymouth, NC | Tallassee, AL | Test Mean |
|---|---|---|---|---|---|---|---|
| AG64X8 RR2X | 19.1 | 18.6 | 17.2 | 18.5 | 17.4 | 19.5 | 18.4 |
| USDA-N6005 | . | 18.7 | 16.6 | 17.9 | 16.8 | 18.3 | 17.8 |
| NC-Dunphy | 19.8 | 18.4 | 15.7 | 19.3 | 18.3 | 19.8 | 18.6 |
| NC-Dilday | 20.2 | 19.6 | 17.3 | 20.5 | 19.6 | 20.0 | 19.5 |
| P68A07SX | 18.8 | 19.6 | 16.3 | 18.1 | 18.2 | 19.0 | 18.3 |
| G16-8779 | 18.9 | 19.8 | 16.5 | 18.4 | 17.7 | 19.6 | 18.5 |
| G18-11901 | 19.3 | 19.9 | 16.2 | 19.8 | 17.5 | 19.6 | 18.7 |
| G18-3051R2 | 19.8 | 20.5 | 17.5 | 19.4 | 17.9 | 20.1 | 19.2 |
| G18-3118R2 | 17.9 | 18.7 | 15.8 | 18.5 | 16.5 | 19.3 | 17.8 |
| G19-11535 | 18.2 | 18.7 | 16.1 | 17.9 | 16.7 | 19.0 | 17.8 |
| G19-11782 | 19.1 | 19.6 | 17.0 | 17.3 | 17.3 | 18.8 | 18.2 |
| G19-12361 | 18.8 | 19.9 | 16.8 | 19.1 | 17.5 | 19.7 | 18.6 |
| G19-13615 | 19.3 | 19.7 | 18.5 | 19.2 | 17.9 | 20.2 | 19.1 |
| N10-7412 | 19.6 | 19.3 | 17.3 | 19.3 | 17.7 | 20.0 | 18.9 |
| N11-10295 | 18.5 | 18.1 | 15.8 | 18.2 | 16.0 | 18.4 | 17.5 |
| N14-7254 | 19.6 | 19.2 | 17.1 | 18.9 | 17.3 | 19.1 | 18.5 |
| N16-10756 | 18.4 | 17.7 | 16.1 | 18.7 | 16.7 | 18.5 | 17.7 |
| N18-960 | 20.4 | 20.6 | 17.2 | 20.4 | 18.5 | 20.0 | 19.5 |
| N19-0115 | 19.2 | 19.5 | 17.4 | 19.5 | 17.8 | 19.7 | 18.8 |
| N19-0756 | 20.1 | 20.0 | 18.2 | 20.0 | 19.2 | 20.1 | 19.6 |
| N19-0806 | 18.4 | 18.8 | 16.6 | 18.6 | 17.0 | 18.4 | 18.0 |
| N19-0818 | 17.6 | 18.2 | 16.0 | 18.2 | 16.8 | 19.0 | 17.6 |
| N19-1253 | 19.5 | 19.0 | 17.9 | 19.7 | 17.9 | 20.2 | 19.0 |
| N19-1468 | 20.1 | 19.8 | 18.0 | 19.6 | 18.3 | 20.5 | 19.4 |
| N-STPR14-549 | 19.7 | 18.6 | 15.2 | 18.7 | 17.2 | 19.8 | 18.2 |
| | | | | | | | |
| Mean | 19.2 | 19.2 | 16.8 | 18.9 | 17.6 | 19.5 | 18.5 |
| LSD(0.05) | . | . | . | . | . | . | 0.5 |
| CV(%) | . | . | . | . | . | . | 2.5 |

†Oil percentage is reported on a 13% moisture basis beginning in 2015.

***TABLE 99 - PROTEIN (%)†***
***UNIFORM GROUP VI 2023***

| STRAIN/ VARIETY | Athens, GA(A) | Bossier City, LA | Kinston, NC | Plains, GA | Plymouth, NC | Tallassee, AL | Test Mean |
|---|---|---|---|---|---|---|---|
| AG64X8 RR2X | 35.3 | 36.7 | 36.4 | 36.1 | 36.3 | 34.9 | 35.9 |
| USDA-N6005 | . | 36.8 | 37.8 | 37.8 | 37.3 | 36.5 | 37.0 |
| NC-Dunphy | 33.5 | 37.5 | 38.2 | 35.8 | 35.2 | 35.4 | 35.9 |
| NC-Dilday | 33.8 | 35.8 | 36.3 | 33.8 | 33.8 | 34.8 | 34.7 |
| P68A07SX | 34.2 | 35.0 | 37.6 | 36.3 | 34.8 | 35.8 | 35.6 |
| G16-8779 | 34.4 | 34.9 | 36.9 | 36.0 | 36.1 | 35.0 | 35.5 |
| G18-11901 | 34.0 | 35.5 | 37.1 | 35.1 | 36.8 | 35.7 | 35.7 |
| G18-3051R2 | 34.0 | 33.6 | 36.3 | 35.0 | 35.3 | 33.6 | 34.6 |
| G18-3118R2 | 35.3 | 35.7 | 38.2 | 35.4 | 37.0 | 34.8 | 36.1 |
| G19-11535 | 37.6 | 38.2 | 39.5 | 38.9 | 39.0 | 37.8 | 38.5 |
| G19-11782 | 36.3 | 38.0 | 37.8 | 38.3 | 37.6 | 37.5 | 37.6 |
| G19-12361 | 34.5 | 35.5 | 37.6 | 35.3 | 35.8 | 34.5 | 35.5 |
| G19-13615 | 36.2 | 36.5 | 35.7 | 37.0 | 36.8 | 36.2 | 36.4 |
| N10-7412 | 34.9 | 36.6 | 37.4 | 35.3 | 36.2 | 35.9 | 36.1 |
| N11-10295 | 36.3 | 37.7 | 38.3 | 37.1 | 38.6 | 38.2 | 37.7 |
| N14-7254 | 34.7 | 37.4 | 37.4 | 36.1 | 37.1 | 36.5 | 36.5 |
| N16-10756 | 36.1 | 38.5 | 39.5 | 37.0 | 38.4 | 37.1 | 37.8 |
| N18-960 | 36.8 | 37.8 | 39.7 | 37.3 | 38.2 | 38.2 | 38.0 |
| N19-0115 | 37.3 | 38.0 | 39.8 | 38.1 | 38.8 | 38.0 | 38.3 |
| N19-0756 | 33.5 | 35.2 | 36.5 | 35.6 | 35.2 | 35.2 | 35.2 |
| N19-0806 | 38.1 | 37.8 | 39.2 | 38.9 | 38.3 | 37.7 | 38.3 |
| N19-0818 | 39.2 | 39.5 | 40.1 | 39.5 | 39.0 | 38.2 | 39.3 |
| N19-1253 | 35.4 | 37.3 | 36.3 | 36.1 | 37.3 | 36.3 | 36.4 |
| N19-1468 | 35.0 | 36.7 | 37.9 | 35.7 | 36.8 | 35.1 | 36.2 |
| N-STPR14-549 | 35.7 | 38.7 | 40.7 | 38.1 | 38.7 | 37.1 | 38.2 |
| | | | | | | | |
| Mean | 35.5 | 36.8 | 37.9 | 36.6 | 37.0 | 36.2 | 36.7 |
| LSD(0.05) | . | . | . | . | . | . | 0.8 |
| CV(%) | . | . | . | . | . | . | 1.8 |

†Protein percentage reported on a 13% moisture basis beginning in 2015.

***TABLE 100 - ESTIMATED MEAL PROTEIN (%)†***
***UNIFORM GROUP VI 2023***

| STRAIN/ VARIETY | Athens, GA(A) | Bossier City, LA | Kinston, NC | Plains, GA | Plymouth, NC | Tallassee, AL | Test Mean |
|---|---|---|---|---|---|---|---|
| AG64X8 RR2X | 47.4 | 49.0 | 47.7 | 48.1 | 47.8 | 47.1 | 47.8 |
| USDA-N6005 | . | 49.1 | 49.3 | 50.0 | 48.8 | 48.5 | 48.9 |
| NC-Dunphy | 45.4 | 49.9 | 49.3 | 48.2 | 46.9 | 48.0 | 47.9 |
| NC-Dilday | 46.1 | 48.4 | 47.7 | 46.2 | 45.7 | 47.2 | 46.9 |
| P68A07SX | 45.8 | 47.3 | 48.9 | 48.1 | 46.3 | 48.1 | 47.4 |
| G16-8779 | 46.1 | 47.3 | 48.0 | 47.9 | 47.7 | 47.3 | 47.4 |
| G18-11901 | 45.8 | 48.2 | 48.0 | 47.6 | 48.5 | 48.3 | 47.7 |
| G18-3051R2 | 46.1 | 45.9 | 47.8 | 47.2 | 46.7 | 45.7 | 46.6 |
| G18-3118R2 | 46.7 | 47.7 | 49.3 | 47.2 | 48.1 | 46.9 | 47.6 |
| G19-11535 | 50.0 | 51.1 | 51.1 | 51.5 | 50.8 | 50.7 | 50.9 |
| G19-11782 | 48.8 | 51.3 | 49.5 | 50.3 | 49.4 | 50.2 | 49.9 |
| G19-12361 | 46.2 | 48.2 | 49.1 | 47.4 | 47.1 | 46.7 | 47.4 |
| G19-13615 | 48.7 | 49.3 | 47.5 | 49.7 | 48.7 | 49.3 | 48.9 |
| N10-7412 | 47.2 | 49.2 | 49.2 | 47.5 | 47.9 | 48.8 | 48.3 |
| N11-10295 | 48.3 | 50.1 | 49.4 | 49.3 | 49.9 | 50.8 | 49.6 |
| N14-7254 | 46.9 | 50.2 | 49.0 | 48.3 | 48.7 | 49.1 | 48.7 |
| N16-10756 | 48.1 | 50.9 | 51.1 | 49.5 | 50.1 | 49.4 | 49.9 |
| N18-960 | 50.3 | 51.7 | 52.1 | 50.9 | 50.9 | 51.9 | 51.3 |
| N19-0115 | 50.1 | 51.4 | 52.3 | 51.4 | 51.3 | 51.5 | 51.3 |
| N19-0756 | 45.5 | 47.9 | 48.6 | 48.3 | 47.3 | 47.9 | 47.6 |
| N19-0806 | 50.8 | 50.5 | 51.0 | 51.9 | 50.2 | 50.2 | 50.8 |
| N19-0818 | 51.7 | 52.5 | 51.9 | 52.4 | 51.0 | 51.2 | 51.8 |
| N19-1253 | 47.8 | 50.0 | 48.0 | 48.9 | 49.4 | 49.4 | 48.9 |
| N19-1468 | 47.5 | 49.7 | 50.2 | 48.2 | 49.0 | 48.0 | 48.8 |
| N-STPR14-549 | 48.3 | 51.6 | 52.2 | 51.0 | 50.8 | 50.2 | 50.7 |
| Mean | 47.7 | 49.5 | 49.5 | 49.1 | 48.8 | 48.9 | 48.9 |
| LSD(0.05) | . | . | . | . | . | . | 0.8 |
| CV(%) | . | . | . | . | . | . | 1.4 |

INTENTIONALLY BLANK

***TABLE 101 - PARENTAGE OF ENTRIES***
***PRELIMINARY GROUP VI 2023***

| Ent | Strain/Variety | Parentage | Source | Fn | Trans-genic† | Special Traits‡ |
|---|---|---|---|---|---|---|
| 1 | AG64X8 RR2X | Commercial check | check | | RR2, DIC | |
| 2 | USDA-N6005 | Commercial check | check | | | |
| 3 | NC-Dunphy | Commercial check | check | | | |
| 4 | NC-Dilday | Commercial check | check | | | |
| 5 | P68A07SX | Commercial check | check | | LL | |
| 6 | G19-13740 | G13-6470 x N06-19 | Zenglu Li | | | |
| 7 | G20-10050 | G13-6299 x R12-4786 | Zenglu Li | | | |
| 8 | G20-6094R2 | G13-2114R2(4) x G00-3880HOXG13-2114R2(4) x G00-3880LLn-B3 | Zenglu Li | | RR2 | HOLN |
| 9 | G20-9640 | G13-6299 x G11-7013 | Zenglu Li | | | |
| 10 | G20-9740 | G14-6102 x S09-13185 | Zenglu Li | | | |
| 11 | G20-9840 | G14-6102 x S09-13185 | Zenglu Li | | | |
| 12 | G20-9892 | G14-6102 x S09-13185 | Zenglu Li | | | |
| 13 | G20-9920 | G14-6102 x S09-13185 | Zenglu Li | | | |
| 14 | N05-7364 | N7002 x N98-7265 | Fallen | | | 25% exotic |
| 15 | N11-7620 | NC Roy x PI 587563B | Fallen | | | Drought Tol., 50% exotic |
| 16 | N17-30803 | NC-Raleigh x PI 597461B | Fallen | | | Increased protein, 50% exotic |
| 17 | N17-30898 | NC-Raleigh x PI 597461B | Fallen | | | Increased protein, 50% exotic |
| 18 | N17-30904 | NC-Raleigh x PI 597461B | Fallen | | | Increased protein, 50% exotic |
| 19 | N19-0768 | G00-3213 x N11-9298 | Mian | | | Diversity/High meal protein |
| 20 | N19-0820 | G00-3213 x R11-7999 | Mian | | | High meal protein |
| 21 | N19-0829 | G00-3213 x R11-7999 | Mian | | | High meal protein |
| 22 | N19-1090 | N06-06-1 x R11-8346 | Mian | | | High meal protein |

† Conv= Conventional(non-transgenic), E3= Enlist E3®, LL= Liberty Link®, RR1= Roundup Ready®, RR2=Roundup Ready 2 Yield®, and RRX= Roundup Ready 2 Xtend®
‡ AA= modified amino acids, DNC= Do not cross with this, FLS= Frogeye leaf spot resistance, LJ= Long juvenile, LN= low linolenic acid, LP= low phytate, HO= high oleic acid, HOLN= high oleic acid/low linolenic acid, SC= Southern stem canker, SCN= Soybean cyst nematode resistance, SR= Soybean rust resistance, and STS= sulfonylurea tolerant

## *TABLE 102 - GENERAL SUMMARY OF PERFORMANCE*
## *PRELIMINARY TEST VI 2023*

| STRAIN/ VARIETY | SEED YIELD† | RANK | AVG. RANK | MAT. INDEX | LOD | HT | SCN Cyst Score (1-5)‡ Race 2 | Race 3 | Race 5 | SC RATING | SC SCORE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AG64X8 RR2X | 59.8 | 7 | 10 | 0 | 1.8 | 35 | 4 | . | 4 | | . |
| USDA-N6005 | 56.2 | 15 | 11 | 0 | 1.3 | 31 | 4 | . | 5 | | . |
| NC-Dunphy | 52.5 | 21 | 14 | 0 | 1.5 | 28 | 4 | . | 2 | | . |
| NC-Dilday | 58.8 | 9 | 9 | 2 | 2.4 | 36 | 4 | . | 4 | | . |
| P68A07SX | 61.8 | 1 | 9 | 1 | 1.5 | 38 | 5 | . | 2 | | . |
| G19-13740 | 57.4 | 12 | 11 | 3 | 2.3 | 36 | 5 | . | 3 | | . |
| G20-10050 | 54.4 | 17 | 14 | 1 | 2.0 | 34 | 4 | . | 3 | | . |
| G20-6094R2 | 60.1 | 6 | 8 | 3 | 2.3 | 36 | 5 | . | 3 | | . |
| G20-9640 | 55.6 | 16 | 13 | 3 | 2.2 | 39 | 5 | . | 2 | | . |
| G20-9740 | 60.4 | 5 | 10 | 0 | 2.1 | 35 | 3 | . | 2 | | . |
| G20-9840 | 61.3 | 2 | 7 | -1 | 1.4 | 34 | 3 | . | 1 | | . |
| G20-9892 | 61.0 | 3 | 8 | -1 | 2.0 | 37 | 4 | . | 3 | | . |
| G20-9920 | 56.8 | 14 | 11 | -2 | 2.3 | 37 | 4 | . | 2 | | . |
| N05-7364 | 57.8 | 11 | 14 | -1 | 2.0 | 32 | 4 | . | 4 | | . |
| N11-7620 | 49.7 | 22 | 19 | -3 | 2.4 | 40 | 5 | . | 3 | | . |
| N17-30803 | 53.7 | 18 | 14 | 1 | 2.5 | 36 | 4 | . | 3 | | . |
| N17-30898 | 53.2 | 20 | 14 | 3 | 2.1 | 30 | 5 | . | 4 | | . |
| N17-30904 | 53.3 | 19 | 15 | 0 | 2.8 | 32 | 3 | . | 4 | | . |
| N19-0768 | 56.8 | 13 | 12 | -1 | 1.8 | 36 | 5 | . | 5 | | . |
| N19-0820 | 59.3 | 8 | 9 | 3 | 1.8 | 35 | 3 | . | 4 | | . |
| N19-0829 | 60.4 | 4 | 7 | 5 | 2.6 | 38 | 4 | . | 5 | | . |
| N19-1090 | 58.0 | 10 | 12 | -3 | 2.0 | 28 | 4 | . | 4 | | . |
| | | | | | | | | | | | |
| Mean | 57.2 | . | . | 1 | 2.0 | 35 | . | . | . | | . |
| LSD(0.05) | 8.0 | . | . | 3 | 0.5 | 3 | . | . | . | | . |
| LSD(0.10) | 6.7 | . | . | . | . | . | . | . | . | | . |
| CV(%) | 14.7 | . | . | 467 | 32.0 | 8 | . | . | . | | . |

†Data not included in the mean due to CV >15%: Bossier City.

‡The race 2 and 5 SCN populations used in these tests were typed as HG (Heterodera glycines) Type 1.2.5.7 and HG Type 2.5.7, respectively.

***TABLE 103 - GENERAL SUMMARY OF PERFORMANCE (continued)***
***PRELIMINARY TEST VI 2023***

| STRAIN/ VARIETY | SEED QUALITY | SEED SIZE | PROTEIN§ % | OIL§ % | MEAL PRO% | FL COLOR | PUB. COLOR | POD COLOR |
|---|---|---|---|---|---|---|---|---|
| AG64X8 RR2X | 1.5 | 13.7 | 36.0 | 18.7 | 48.1 | | | |
| USDA-N6005 | 1.9 | 12.6 | 37.4 | 17.8 | 49.5 | | | |
| NC-Dunphy | 2.2 | 17.0 | 35.6 | 19.2 | 47.8 | | | |
| NC-Dilday | 2.1 | 17.9 | 34.6 | 19.8 | 46.9 | | | |
| P68A07SX | 1.6 | 14.6 | 35.5 | 18.2 | 47.1 | | | |
| G19-13740 | 1.7 | 15.7 | 35.5 | 19.1 | 47.7 | W | T | T |
| G20-10050 | 1.5 | 12.6 | 36.0 | 18.8 | 48.2 | W | G | T |
| G20-6094R2 | 1.7 | 14.9 | 37.2 | 18.5 | 49.7 | P | T | T |
| G20-9640 | 1.6 | 13.5 | 37.3 | 19.0 | 50.1 | W | T | T |
| G20-9740 | 1.6 | 16.6 | 35.9 | 19.5 | 48.5 | W | T | T |
| G20-9840 | 1.6 | 15.1 | 35.7 | 19.8 | 48.4 | W | T | T |
| G20-9892 | 2.0 | 15.3 | 38.0 | 18.7 | 50.8 | W | T | BR |
| G20-9920 | 1.7 | 15.9 | 37.0 | 19.8 | 50.1 | W | T | T |
| N05-7364 | 1.7 | 17.9 | 34.6 | 20.3 | 47.2 | P | G | |
| N11-7620 | 2.5 | 15.0 | 37.3 | 17.8 | 49.3 | W | T | |
| N17-30803 | 1.9 | 13.7 | 37.6 | 17.8 | 49.7 | P | G | |
| N17-30898 | 2.3 | 12.1 | 35.0 | 18.7 | 46.8 | P | T | |
| N17-30904 | 2.5 | 12.5 | 34.6 | 19.1 | 46.4 | P | T | |
| N19-0768 | 2.3 | 16.4 | 37.1 | 19.9 | 50.4 | W | T | |
| N19-0820 | 1.8 | 14.4 | 38.5 | 17.7 | 50.9 | S | T | |
| N19-0829 | 1.9 | 15.6 | 37.8 | 18.4 | 50.3 | P | T | |
| N19-1090 | 1.6 | 12.5 | 39.2 | 18.4 | 52.3 | W | T | |
| | | | | | | | | |
| Mean | 1.9 | 14.8 | 36.5 | 18.9 | 48.9 | | | |
| LSD(0.05) | 0.6 | 1.1 | 0.9 | 0.6 | 1.0 | | | |
| LSD(0.10) | . | . | . | . | . | | | |
| CV(%) | 28.9 | 7.2 | 2.2 | 2.7 | 1.8 | | | |

§ Protein percentage and oil percentage are reported on a 13% moisture basis beginning in 2015.

***TABLE 104 - SEED YIELD (BUSHELS PER ACRE)***
***PRELIMINARY GROUP VI 2023 †***

| STRAIN/ VARIETY | Athens, GA(A) | Bossier City, LA | Kinston, NC | Plains, GA | Plymouth, NC | Tallassee, AL | Test Mean |
|---|---|---|---|---|---|---|---|
| AG64X8 RR2X | 70.4 | 72.0 | 70.3 | 50.0 | 29.5 | 78.7 | 59.8 |
| USDA-N6005 | 72.2 | 75.8 | 55.7 | 50.5 | 33.2 | 69.5 | 56.2 |
| NC-Dunphy | 75.9 | 66.1 | 39.6 | 44.3 | 31.3 | 71.6 | 52.5 |
| NC-Dilday | 70.7 | 74.9 | 61.2 | 53.8 | 28.8 | 79.3 | 58.8 |
| P68A07SX | 67.0 | 65.6 | 79.0 | 49.0 | 35.7 | 78.4 | 61.8 |
| G19-13740 | 72.0 | 66.4 | 60.6 | 47.8 | 35.7 | 70.7 | 57.4 |
| G20-10050 | 63.6 | 58.9 | 57.4 | 49.5 | 38.0 | 63.3 | 54.4 |
| G20-6094R2 | 65.5 | 64.5 | 60.4 | 50.1 | 39.4 | 85.0 | 60.1 |
| G20-9640 | 64.2 | 70.4 | 56.8 | 51.9 | 31.2 | 74.1 | 55.6 |
| G20-9740 | 56.6 | 79.7 | 79.6 | 48.0 | 39.9 | 77.7 | 60.4 |
| G20-9840 | 73.8 | 66.1 | 66.4 | 49.3 | 37.0 | 79.8 | 61.3 |
| G20-9892 | 69.3 | 70.4 | 71.2 | 49.7 | 34.2 | 80.4 | 61.0 |
| G20-9920 | 53.2 | 71.7 | 70.5 | 50.3 | 35.8 | 73.9 | 56.8 |
| N05-7364 | 62.8 | 61.5 | 69.5 | 46.1 | 33.0 | 77.5 | 57.8 |
| N11-7620 | 66.8 | 51.2 | 50.7 | 43.0 | 25.2 | 62.9 | 49.7 |
| N17-30803 | 68.0 | 56.7 | 47.1 | 54.3 | 30.3 | 68.6 | 53.7 |
| N17-30898 | 64.0 | 71.0 | 49.5 | 51.4 | 37.2 | 64.1 | 53.2 |
| N17-30904 | 64.5 | 67.1 | 55.0 | 54.4 | 29.5 | 63.0 | 53.3 |
| N19-0768 | 62.7 | 56.4 | 56.8 | 53.8 | 32.1 | 78.5 | 56.8 |
| N19-0820 | 65.5 | 42.1 | 71.1 | 54.5 | 44.6 | 60.9 | 59.3 |
| N19-0829 | 69.1 | 56.0 | 73.4 | 54.8 | 36.2 | 68.5 | 60.4 |
| N19-1090 | 70.5 | 73.6 | 66.8 | 47.5 | 35.2 | 69.9 | 58.0 |
| | | | | | | | |
| Mean | 66.7 | 65.4 | 62.2 | 50.2 | 34.2 | 72.6 | 57.2 |
| LSD(0.05) | 9.7 | 17.8 | 15.0 | 8.8 | 7.5 | 12.3 | 8.0 |
| LSD(0.10) | 8.1 | 14.8 | 12.5 | 7.3 | 6.2 | 10.3 | 6.7 |
| CV(%) | 8.8 | 16.5 | 14.6 | 10.6 | 13.3 | 10.3 | 14.7 |

† Data not included in the test mean due to CV > 15%: Bossier City.

## *TABLE 105 - RELATIVE MATURITY (DAYS EARLIER (-) OR LATER (+) THAN ENTRY 1)*
## *PRELIMINARY GROUP VI 2023*

| STRAIN/ VARIETY | Athens, GA(A) | Bossier City, LA | Kinston, NC | Plains, GA | Plymouth, NC | Tallassee, AL | Test Mean |
|---|---|---|---|---|---|---|---|
| AG64X8 RR2X | 10/20 | 10/24 | 10/31 | . | 10/28 | 10/5 | 10/21 |
| USDA-N6005 | -1 | -1 | 2 | . | 1 | 2 | 0 |
| NC-Dunphy | -1 | 0 | 5 | . | -5 | -1 | 0 |
| NC-Dilday | 2 | 1 | 5 | . | -7 | 7 | 2 |
| P68A07SX | -3 | 1 | 5 | . | 0 | 2 | 1 |
| G19-13740 | 1 | 2 | 4 | . | 4 | 5 | 3 |
| G20-10050 | -2 | 0 | 5 | . | -1 | 0 | 1 |
| G20-6094R2 | 2 | 4 | 5 | . | 6 | -1 | 3 |
| G20-9640 | 2 | 4 | 7 | . | 4 | 2 | 3 |
| G20-9740 | 0 | -2 | -5 | . | -1 | 9 | 0 |
| G20-9840 | -6 | -1 | 1 | . | -3 | 4 | -1 |
| G20-9892 | 1 | -1 | -6 | . | -6 | 4 | -1 |
| G20-9920 | -3 | -1 | 0 | . | -6 | 0 | -2 |
| N05-7364 | -1 | -3 | 1 | . | -3 | 3 | -1 |
| N11-7620 | -5 | 0 | -3 | . | -7 | 1 | -3 |
| N17-30803 | 0 | 0 | 0 | . | -1 | 4 | 1 |
| N17-30898 | 1 | 3 | 5 | . | 1 | 6 | 3 |
| N17-30904 | 0 | 2 | 1 | . | 0 | -2 | 0 |
| N19-0768 | 0 | -1 | 1 | . | -6 | 0 | -1 |
| N19-0820 | 3 | 3 | 5 | . | 8 | -1 | 3 |
| N19-0829 | 3 | 5 | 6 | . | 8 | 5 | 5 |
| N19-1090 | -4 | -1 | -6 | . | -6 | 1 | -3 |
| | | | | | | | |
| Mean | -1 | 1 | 2 | . | -1 | 2 | 1 |
| LSD(0.05) | 3 | 2 | 8 | . | 3 | 3 | 3 |
| CV(%) | 329 | 244 | 187 | . | 174 | 74 | 467 |

***TABLE 106 - PLANT HEIGHT (INCHES)***
***PRELIMINARY GROUP VI 2023***

| STRAIN/ VARIETY | Athens, GA(A) | Bossier City, LA | Kinston, NC | Plains, GA | Plymouth, NC | Tallassee, AL | Test Mean |
|---|---|---|---|---|---|---|---|
| AG64X8 RR2X | 37 | 34 | 41 | 31 | 33 | 35 | 35 |
| USDA-N6005 | 34 | 28 | 38 | 25 | 35 | 29 | 31 |
| NC-Dunphy | 34 | 25 | 31 | 27 | 25 | 27 | 28 |
| NC-Dilday | 40 | 35 | 38 | 32 | 35 | 35 | 36 |
| P68A07SX | 43 | 37 | 44 | 38 | 35 | 35 | 38 |
| G19-13740 | 41 | 36 | 38 | 35 | 35 | 33 | 36 |
| G20-10050 | 41 | 34 | 40 | 30 | 32 | 30 | 34 |
| G20-6094R2 | 44 | 34 | 40 | 32 | 36 | 33 | 36 |
| G20-9640 | 41 | 41 | 43 | 38 | 40 | 34 | 39 |
| G20-9740 | 42 | 32 | 39 | 31 | 35 | 31 | 35 |
| G20-9840 | 40 | 33 | 39 | 31 | 32 | 30 | 34 |
| G20-9892 | 42 | 35 | 40 | 33 | 34 | 36 | 37 |
| G20-9920 | 41 | 34 | 43 | 31 | 38 | 35 | 37 |
| N05-7364 | 37 | 30 | 36 | 28 | 33 | 32 | 32 |
| N11-7620 | 41 | 41 | 44 | 39 | 40 | 36 | 40 |
| N17-30803 | 38 | 38 | 41 | 32 | 33 | 34 | 36 |
| N17-30898 | 34 | 28 | 37 | 21 | 33 | 29 | 30 |
| N17-30904 | 35 | 35 | 35 | 24 | 35 | 27 | 32 |
| N19-0768 | 43 | 31 | 40 | 34 | 34 | 33 | 36 |
| N19-0820 | 37 | 32 | 40 | 34 | 33 | 35 | 35 |
| N19-0829 | 45 | 33 | 44 | 36 | 39 | 32 | 38 |
| N19-1090 | 32 | 26 | 31 | 26 | 28 | 28 | 28 |
| Mean | 39 | 33 | 39 | 31 | 34 | 32 | 35 |
| LSD(0.05) | 7 | 3 | 6 | 5 | 5 | 3 | 3 |
| CV(%) | 8 | 6 | 7 | 7 | 8 | 6 | 8 |

***TABLE 107 - PLANT LODGING (1-5)***
***PRELIMINARY GROUP VI 2023***

| STRAIN/ VARIETY | Athens, GA(A) | Bossier City, LA | Kinston, NC | Plains, GA | Plymouth, NC | Tallassee, AL | Test Mean |
|---|---|---|---|---|---|---|---|
| AG64X8 RR2X | 2.7 | 1.7 | 1.8 | 1.0 | 2.2 | 1.3 | 1.8 |
| USDA-N6005 | 1.3 | 1.3 | 1.8 | 1.0 | 1.7 | 1.0 | 1.3 |
| NC-Dunphy | 3.0 | 1.0 | 1.3 | 1.0 | 1.7 | 1.0 | 1.5 |
| NC-Dilday | 3.7 | 3.0 | 3.0 | 1.0 | 2.2 | 1.7 | 2.4 |
| P68A07SX | 2.0 | 1.0 | 2.5 | 1.0 | 1.7 | 1.0 | 1.5 |
| G19-13740 | 3.7 | 3.3 | 1.8 | 1.0 | 2.2 | 1.7 | 2.3 |
| G20-10050 | 2.3 | 3.0 | 2.0 | 1.0 | 2.5 | 1.0 | 2.0 |
| G20-6094R2 | 3.0 | 2.3 | 2.8 | 1.0 | 3.0 | 1.7 | 2.3 |
| G20-9640 | 3.0 | 3.0 | 2.3 | 1.0 | 2.5 | 1.7 | 2.2 |
| G20-9740 | 3.7 | 2.0 | 2.0 | 1.0 | 2.0 | 1.7 | 2.1 |
| G20-9840 | 1.7 | 1.3 | 2.0 | 1.0 | 1.7 | 1.0 | 1.4 |
| G20-9892 | 3.7 | 2.3 | 1.3 | 1.0 | 2.5 | 1.0 | 2.0 |
| G20-9920 | 3.0 | 3.3 | 2.5 | 1.0 | 2.0 | 1.7 | 2.3 |
| N05-7364 | 3.3 | 2.3 | 1.8 | 1.0 | 2.2 | 1.0 | 2.0 |
| N11-7620 | 2.3 | 2.3 | 3.0 | 1.7 | 3.0 | 2.0 | 2.4 |
| N17-30803 | 3.0 | 3.3 | 2.8 | 1.3 | 2.5 | 2.0 | 2.5 |
| N17-30898 | 3.7 | 1.7 | 3.3 | 1.0 | 2.3 | 1.0 | 2.1 |
| N17-30904 | 3.7 | 3.7 | 3.0 | 1.3 | 2.5 | 2.7 | 2.8 |
| N19-0768 | 3.0 | 1.3 | 1.8 | 1.0 | 2.5 | 1.3 | 1.8 |
| N19-0820 | 3.0 | 1.7 | 2.3 | 1.0 | 2.2 | 1.0 | 1.8 |
| N19-0829 | 3.7 | 3.7 | 2.5 | 1.0 | 3.2 | 1.3 | 2.6 |
| N19-1090 | 3.0 | 2.7 | 1.5 | 1.0 | 2.2 | 1.3 | 2.0 |
| | | | | | | | |
| Mean | 3.0 | 2.3 | 2.2 | 1.1 | 2.3 | 1.4 | 2.0 |
| LSD(0.05) | 1.4 | 1.1 | 0.8 | 0.3 | 0.7 | 0.9 | 0.5 |
| CV(%) | 28.4 | 29.7 | 17.3 | 19.5 | 13.8 | 38.7 | 32.0 |

***TABLE 108 - SEED QUALITY (1-5)***
***PRELIMINARY GROUP VI 2023***

| STRAIN/ VARIETY | Athens, GA(A) | Bossier City, LA | Kinston, NC | Plains, GA | Plymouth, NC | Tallassee, AL | Test Mean |
|---|---|---|---|---|---|---|---|
| AG64X8 RR2X | 1.7 | 2.0 | 1.5 | 2.0 | 1.0 | 1.0 | 1.5 |
| USDA-N6005 | 1.7 | 2.0 | 2.0 | 3.2 | 1.5 | 1.0 | 1.9 |
| NC-Dunphy | 2.0 | 1.0 | 3.0 | 4.0 | 2.0 | 1.0 | 2.2 |
| NC-Dilday | 2.0 | 2.0 | 3.0 | 2.8 | 2.0 | 1.0 | 2.1 |
| P68A07SX | 2.3 | 1.0 | 1.5 | 2.3 | 1.5 | 1.0 | 1.6 |
| G19-13740 | 1.8 | 1.0 | 2.0 | 2.3 | 2.0 | 1.0 | 1.7 |
| G20-10050 | 1.5 | 1.0 | 2.0 | 1.8 | 1.5 | 1.0 | 1.5 |
| G20-6094R2 | 1.3 | 2.0 | 2.0 | 1.8 | 2.0 | 1.0 | 1.7 |
| G20-9640 | 1.3 | 1.0 | 3.0 | 2.0 | 1.5 | 1.0 | 1.6 |
| G20-9740 | 2.3 | 1.0 | 2.0 | 2.5 | 1.0 | 1.0 | 1.6 |
| G20-9840 | 1.5 | 1.0 | 2.0 | 2.2 | 2.0 | 1.0 | 1.6 |
| G20-9892 | 2.3 | 2.0 | 2.0 | 2.8 | 2.0 | 1.0 | 2.0 |
| G20-9920 | 2.2 | 1.0 | 2.5 | 2.3 | 1.5 | 1.0 | 1.7 |
| N05-7364 | 1.8 | 2.0 | 1.5 | 3.0 | 1.0 | 1.0 | 1.7 |
| N11-7620 | 2.3 | 3.0 | 3.0 | 3.2 | 2.0 | 1.3 | 2.5 |
| N17-30803 | 2.2 | 3.0 | 2.5 | 2.0 | 1.0 | 1.0 | 1.9 |
| N17-30898 | 2.3 | 3.0 | 2.5 | 2.7 | 2.0 | 1.0 | 2.3 |
| N17-30904 | 2.8 | 3.0 | 2.5 | 3.5 | 2.0 | 1.0 | 2.5 |
| N19-0768 | 3.0 | 3.0 | 2.5 | 3.5 | 1.0 | 1.0 | 2.3 |
| N19-0820 | 1.8 | 3.0 | 2.0 | 1.5 | 1.5 | 1.0 | 1.8 |
| N19-0829 | 1.5 | 3.0 | 2.0 | 2.5 | 1.5 | 1.0 | 1.9 |
| N19-1090 | 1.7 | 1.0 | 2.0 | 2.5 | 1.5 | 1.0 | 1.6 |
| | | | | | | | |
| Mean | 2.0 | 1.9 | 2.2 | 2.6 | 1.6 | 1.0 | 1.9 |
| LSD(0.05) | 0.5 | . | 0.8 | 0.7 | 1.0 | 0.2 | 0.6 |
| CV(%) | 14.2 | 0.0 | 17.5 | 15.9 | 29.2 | 12.1 | 28.9 |

***TABLE 109 - SEED SIZE (GRAMS PER 100 SEED)***
***PRELIMINARY GROUP VI 2023***

| STRAIN/ VARIETY | Athens, GA(A) | Bossier City, LA | Kinston, NC | Plains, GA | Plymouth, NC | Tallassee, AL | Test Mean |
|---|---|---|---|---|---|---|---|
| AG64X8 RR2X | 14.1 | 14.0 | 14.2 | 12.7 | 12.8 | 14.5 | 13.7 |
| USDA-N6005 | 12.9 | 12.0 | 13.6 | 12.2 | 11.5 | 13.7 | 12.6 |
| NC-Dunphy | 18.6 | 16.5 | 16.2 | 16.6 | 15.2 | 18.5 | 17.0 |
| NC-Dilday | 19.7 | 17.0 | 16.5 | 16.8 | 16.4 | 20.8 | 17.9 |
| P68A07SX | 13.2 | 15.0 | 15.6 | 13.6 | 13.8 | 16.3 | 14.6 |
| G19-13740 | 15.6 | 15.0 | 16.0 | 14.1 | 15.5 | 18.1 | 15.7 |
| G20-10050 | 11.9 | 13.0 | 14.0 | 13.2 | 11.8 | 11.8 | 12.6 |
| G20-6094R2 | 15.0 | 15.0 | 15.9 | 13.5 | 14.4 | 15.8 | 14.9 |
| G20-9640 | 12.9 | 13.3 | 14.5 | 12.5 | 12.4 | 15.5 | 13.5 |
| G20-9740 | 19.2 | 16.0 | 16.5 | 15.6 | 14.6 | 17.5 | 16.6 |
| G20-9840 | 15.9 | 15.0 | 15.4 | 14.7 | 13.1 | 16.6 | 15.1 |
| G20-9892 | 16.9 | 14.2 | 15.8 | 13.3 | 14.0 | 17.6 | 15.3 |
| G20-9920 | 16.9 | 15.0 | 15.5 | 15.0 | 15.3 | 17.8 | 15.9 |
| N05-7364 | 18.4 | 16.0 | 18.2 | 18.0 | 15.7 | 21.2 | 17.9 |
| N11-7620 | 16.2 | 14.0 | 15.4 | 16.3 | 12.6 | 15.5 | 15.0 |
| N17-30803 | 13.6 | 14.0 | 13.6 | 13.6 | 12.3 | 14.7 | 13.7 |
| N17-30898 | 12.9 | 12.0 | 12.3 | 11.8 | 10.9 | 12.5 | 12.1 |
| N17-30904 | 13.0 | 12.5 | 12.4 | 12.1 | 11.5 | 13.1 | 12.5 |
| N19-0768 | 19.2 | 15.0 | 17.1 | 13.8 | 14.6 | 18.8 | 16.4 |
| N19-0820 | 15.7 | 12.5 | 15.6 | 13.2 | 14.6 | 14.8 | 14.4 |
| N19-0829 | 16.5 | 16.0 | 16.6 | 14.5 | 14.5 | 15.4 | 15.6 |
| N19-1090 | 13.5 | 12.0 | 12.5 | 11.8 | 11.3 | 14.0 | 12.5 |
| | | | | | | | |
| Mean | 15.5 | 14.3 | 15.2 | 14.0 | 13.6 | 16.1 | 14.8 |
| LSD(0.05) | 1.1 | . | 1.1 | 1.3 | 1.4 | 1.4 | 1.1 |
| CV(%) | 4.1 | 0.0 | 3.6 | 5.8 | 5.0 | 5.5 | 7.2 |

***TABLE 110 - OIL (%)†***
***PRELIMINARY GROUP VI 2023***

| STRAIN/ VARIETY | Athens, GA(A) | Bossier City, LA | Kinston, NC | Plains, GA | Plymouth, NC | Tallassee, AL | Test Mean |
|---|---|---|---|---|---|---|---|
| AG64X8 RR2X | 19.0 | 19.5 | 17.3 | 18.4 | 17.8 | 20.0 | 18.7 |
| USDA-N6005 | 18.1 | 18.6 | 16.8 | 17.9 | 17.6 | 18.0 | 17.8 |
| NC-Dunphy | 20.1 | 19.3 | 17.5 | 19.5 | 19.0 | 19.9 | 19.2 |
| NC-Dilday | 20.4 | 19.7 | 19.2 | 19.9 | 19.2 | 20.7 | 19.8 |
| P68A07SX | 18.7 | 19.5 | 15.6 | 18.4 | 17.7 | 19.3 | 18.2 |
| G19-13740 | 20.0 | 20.4 | 16.0 | 19.6 | 17.9 | 20.6 | 19.1 |
| G20-10050 | 19.5 | 19.8 | 16.3 | 19.3 | 18.3 | 19.5 | 18.8 |
| G20-6094R2 | 18.5 | 19.4 | 16.1 | 19.2 | 18.0 | 19.7 | 18.5 |
| G20-9640 | 19.5 | 19.5 | 17.2 | 19.3 | 18.2 | 20.1 | 19.0 |
| G20-9740 | 19.8 | 20.5 | 18.7 | 19.8 | 18.9 | 19.2 | 19.5 |
| G20-9840 | 20.7 | 19.9 | 18.9 | 20.2 | 19.0 | 20.2 | 19.8 |
| G20-9892 | 19.0 | 18.8 | 17.6 | 19.2 | 18.1 | 19.3 | 18.7 |
| G20-9920 | 20.8 | 19.7 | 18.8 | 20.6 | 18.6 | 20.0 | 19.8 |
| N05-7364 | 21.0 | 21.1 | 17.9 | 20.1 | 20.0 | 21.3 | 20.3 |
| N11-7620 | 18.8 | 18.5 | 15.4 | 18.4 | 17.0 | 18.8 | 17.8 |
| N17-30803 | 19.2 | 17.7 | 15.7 | 18.9 | 16.9 | 18.7 | 17.8 |
| N17-30898 | 19.8 | 19.0 | 17.1 | 18.8 | 18.2 | 19.4 | 18.7 |
| N17-30904 | 19.8 | 19.5 | 17.2 | 19.7 | 18.3 | 19.8 | 19.1 |
| N19-0768 | 20.4 | 21.5 | 16.6 | 20.4 | 19.9 | 20.8 | 19.9 |
| N19-0820 | 18.2 | 18.4 | 16.1 | 18.4 | 16.8 | 18.6 | 17.7 |
| N19-0829 | 18.8 | 18.9 | 17.1 | 18.6 | 17.9 | 18.8 | 18.4 |
| N19-1090 | 18.3 | 18.9 | 17.4 | 18.9 | 18.1 | 18.9 | 18.4 |
| Mean | 19.5 | 19.5 | 17.1 | 19.2 | 18.2 | 19.6 | 18.9 |
| LSD(0.05) | . | . | . | . | . | . | 0.6 |
| CV(%) | . | . | . | . | . | . | 2.7 |

† Oil percentage is reported on a 13% moisture basis beginning in 2015.

***TABLE 111 - PROTEIN (%)†***
***PRELIMINARY GROUP VI 2023***

| STRAIN/ VARIETY | Athens, GA(A) | Bossier City, LA | Kinston, NC | Plains, GA | Plymouth, NC | Tallassee, AL | Test Mean |
|---|---|---|---|---|---|---|---|
| AG64X8 RR2X | 35.5 | 35.1 | 36.8 | 36.2 | 36.7 | 35.7 | 36.0 |
| USDA-N6005 | 37.0 | 36.8 | 37.8 | 38.5 | 36.8 | 37.5 | 37.4 |
| NC-Dunphy | 33.7 | 36.8 | 36.8 | 36.2 | 34.8 | 35.3 | 35.6 |
| NC-Dilday | 33.7 | 35.7 | 34.3 | 34.8 | 34.4 | 34.7 | 34.6 |
| P68A07SX | 34.5 | 34.7 | 38.2 | 36.8 | 35.5 | 33.2 | 35.5 |
| G19-13740 | 33.5 | 35.0 | 37.9 | 35.5 | 36.9 | 34.4 | 35.5 |
| G20-10050 | 35.0 | 35.4 | 37.9 | 36.4 | 35.9 | 35.4 | 36.0 |
| G20-6094R2 | 36.8 | 36.4 | 39.5 | 36.8 | 37.2 | 36.8 | 37.2 |
| G20-9640 | 35.5 | 37.1 | 39.4 | 37.6 | 37.4 | 37.1 | 37.3 |
| G20-9740 | 35.3 | 35.9 | 37.1 | 36.0 | 36.0 | 35.2 | 35.9 |
| G20-9840 | 34.3 | 36.1 | 36.1 | 36.0 | 35.7 | 35.9 | 35.7 |
| G20-9892 | 36.7 | 38.6 | 39.1 | 37.9 | 38.1 | 37.9 | 38.0 |
| G20-9920 | 34.3 | 36.5 | 37.7 | 37.1 | 38.4 | 38.1 | 37.0 |
| N05-7364 | 33.1 | 34.2 | 37.1 | 35.7 | 33.4 | 34.3 | 34.6 |
| N11-7620 | 35.0 | 37.8 | 39.6 | 36.9 | 37.0 | 37.3 | 37.3 |
| N17-30803 | 35.7 | 38.4 | 39.7 | 36.4 | 38.1 | 37.3 | 37.6 |
| N17-30898 | 33.4 | 35.5 | 36.4 | 35.2 | 35.0 | 34.7 | 35.0 |
| N17-30904 | 33.3 | 34.7 | 36.3 | 34.7 | 34.3 | 34.3 | 34.6 |
| N19-0768 | 36.3 | 35.4 | 40.7 | 37.4 | 35.8 | 37.4 | 37.1 |
| N19-0820 | 38.1 | 38.6 | 39.4 | 38.0 | 38.5 | 38.5 | 38.5 |
| N19-0829 | 37.5 | 37.6 | 38.4 | 38.0 | 37.2 | 38.1 | 37.8 |
| N19-1090 | 37.5 | 40.0 | 39.4 | 39.2 | 39.5 | 39.9 | 39.2 |
| Mean | 35.2 | 36.5 | 38.0 | 36.7 | 36.5 | 36.3 | 36.5 |
| LSD(0.05) | . | . | . | . | . | . | 0.9 |
| CV(%) | . | . | . | . | . | . | 2.2 |

† Protein percentage is reported on a 13% moisture basis beginning in 2015.

***TABLE 112 - ESTIMATED MEAL PROTEIN (%)†***
***PRELIMINARY GROUP VI 2023***

| STRAIN/ VARIETY | Athens, GA(A) | Bossier City, LA | Kinston, NC | Plains, GA | Plymouth, NC | Tallassee, AL | Test Mean |
|---|---|---|---|---|---|---|---|
| AG64X8 RR2X | 47.6 | 47.4 | 48.4 | 48.2 | 48.5 | 48.6 | 48.1 |
| USDA-N6005 | 49.1 | 49.1 | 49.4 | 50.9 | 48.6 | 49.7 | 49.5 |
| NC-Dunphy | 45.8 | 49.5 | 48.5 | 48.9 | 46.6 | 47.8 | 47.8 |
| NC-Dilday | 45.9 | 48.4 | 46.1 | 47.2 | 46.3 | 47.6 | 46.9 |
| P68A07SX | 46.1 | 46.8 | 49.2 | 49.1 | 46.9 | 44.7 | 47.1 |
| G19-13740 | 45.6 | 47.8 | 49.1 | 48.0 | 48.9 | 47.0 | 47.7 |
| G20-10050 | 47.3 | 48.0 | 49.2 | 49.1 | 47.8 | 47.8 | 48.2 |
| G20-6094R2 | 49.1 | 49.0 | 51.2 | 49.4 | 49.4 | 49.8 | 49.7 |
| G20-9640 | 47.9 | 50.1 | 51.7 | 50.6 | 49.7 | 50.4 | 50.1 |
| G20-9740 | 47.9 | 49.0 | 49.5 | 48.7 | 48.3 | 47.3 | 48.5 |
| G20-9840 | 47.0 | 49.0 | 48.3 | 49.1 | 47.9 | 48.9 | 48.4 |
| G20-9892 | 49.2 | 51.7 | 51.5 | 51.0 | 50.5 | 51.0 | 50.8 |
| G20-9920 | 47.1 | 49.4 | 50.5 | 50.8 | 51.2 | 51.7 | 50.1 |
| N05-7364 | 45.5 | 47.1 | 49.1 | 48.6 | 45.4 | 47.3 | 47.2 |
| N11-7620 | 46.9 | 50.5 | 50.9 | 49.1 | 48.4 | 49.9 | 49.3 |
| N17-30803 | 48.0 | 50.7 | 51.2 | 48.8 | 49.8 | 49.8 | 49.7 |
| N17-30898 | 45.3 | 47.6 | 47.7 | 47.2 | 46.6 | 46.8 | 46.8 |
| N17-30904 | 45.1 | 46.9 | 47.6 | 46.9 | 45.6 | 46.6 | 46.4 |
| N19-0768 | 49.6 | 49.0 | 53.0 | 51.0 | 48.5 | 51.3 | 50.4 |
| N19-0820 | 50.6 | 51.4 | 51.0 | 50.6 | 50.2 | 51.5 | 50.9 |
| N19-0829 | 50.2 | 50.4 | 50.3 | 50.7 | 49.2 | 51.0 | 50.3 |
| N19-1090 | 49.8 | 53.6 | 51.8 | 52.6 | 52.4 | 53.5 | 52.3 |
| Mean | 47.6 | 49.2 | 49.8 | 49.4 | 48.5 | 49.1 | 48.9 |
| LSD(0.05) | . | . | . | . | . | . | 1.0 |
| CV(%) | . | . | . | . | . | . | 1.8 |

† Estimated meal protein percentage is reported on a 13% moisture basis.

## *SUMMARY OF SEED FATTY ACIDS (%)*
## *PRELIMINARY TEST VI 2023 †*

| STRAIN/ VARIETY | Palmitic Acid | Stearic Acid | Oleic Acid | Linoleic Acid | Linolenic Acid |
|---|---|---|---|---|---|
| AG64X8 RR2X | 12.4 | 4.0 | 19.4 | 56.3 | 7.9 |
| USDA-N6005 | 12.9 | 4.0 | 19.9 | 55.1 | 8.1 |
| G20-6094R2 | 8.6 | 3.1 | 74.8 | 10.9 | 2.7 |
| | | | | | |
| Mean | 11.3 | 3.7 | 38.0 | 40.8 | 6.2 |
| LSD(0.05) | 0.3 | 0.2 | 2.3 | 2.0 | 0.6 |
| CV(%) | 2.0 | 4.2 | 4.8 | 3.9 | 6.9 |

† Fatty acid percentage in seed oil reported beginning in 2017.

## *SEED PALMITIC ACID (%)*
## *PRELIMINARY GROUP VI 2023*

| STRAIN/ VARIETY | Athens, GA(A) | Bossier City, LA | Kinston, NC | Plains, GA | Plymouth, NC | Tallassee, AL | Test Mean |
|---|---|---|---|---|---|---|---|
| AG64X8 RR2X | 12.1 | 12.7 | 12.0 | 12.4 | 12.5 | 12.7 | 12.4 |
| USDA-N6005 | 12.4 | 13.7 | 12.7 | 12.9 | 12.6 | 13.1 | 12.9 |
| G20-6094R2 | 8.2 | 8.9 | 8.7 | 8.1 | 8.7 | 8.7 | 8.6 |
| | | | | | | | |
| Mean | 10.9 | 11.8 | 11.1 | 11.2 | 11.3 | 11.5 | 11.3 |
| LSD(0.05) | . | . | . | . | . | . | 0.3 |
| CV(%) | . | . | . | . | . | . | 2.0 |

## *SEED STEARIC ACID (%)*
## *PRELIMINARY GROUP VI 2023*

| STRAIN/ VARIETY | Athens, GA(A) | Bossier City, LA | Kinston, NC | Plains, GA | Plymouth, NC | Tallassee, AL | Test Mean |
|---|---|---|---|---|---|---|---|
| AG64X8 RR2X | 4.6 | 3.8 | 3.8 | 4.3 | 3.6 | 3.9 | 4.0 |
| USDA-N6005 | 4.5 | 3.7 | 3.8 | 4.4 | 3.7 | 4.0 | 4.0 |
| G20-6094R2 | 3.4 | 3.2 | 2.6 | 3.4 | 2.9 | 2.9 | 3.1 |
| | | | | | | | |
| Mean | 4.2 | 3.6 | 3.4 | 4.0 | 3.4 | 3.6 | 3.7 |
| LSD(0.05) | . | . | . | . | . | . | 0.2 |
| CV(%) | . | . | . | . | . | . | 4.2 |

***SEED OLEIC ACID (%)***
***PRELIMINARY GROUP VI 2023***

| STRAIN/ VARIETY | Athens, GA(A) | Bossier City, LA | Kinston, NC | Plains, GA | Plymouth, NC | Tallassee, AL | Test Mean |
|---|---|---|---|---|---|---|---|
| AG64X8 RR2X | 19.7 | 19.5 | 18.9 | 20.9 | 18.2 | 19.4 | 19.4 |
| USDA-N6005 | 19.6 | 18.0 | 19.5 | 22.7 | 19.0 | 20.3 | 19.9 |
| G20-6094R2 | 76.6 | 68.1 | 74.8 | 77.7 | 74.2 | 77.5 | 74.8 |
| Mean | 38.7 | 35.2 | 37.7 | 40.4 | 37.1 | 39.0 | 38.0 |
| LSD(0.05) | . | . | . | . | . | . | 2.3 |
| CV(%) | . | . | . | . | . | . | 4.8 |

***SEED LINOLEIC ACID (%)***
***PRELIMINARY GROUP VI 2023***

| STRAIN/ VARIETY | Athens, GA(A) | Bossier City, LA | Kinston, NC | Plains, GA | Plymouth, NC | Tallassee, AL | Test Mean |
|---|---|---|---|---|---|---|---|
| AG64X8 RR2X | 55.7 | 56.5 | 56.0 | 55.4 | 57.2 | 56.8 | 56.3 |
| USDA-N6005 | 55.2 | 56.8 | 55.2 | 52.7 | 55.6 | 55.1 | 55.1 |
| G20-6094R2 | 9.3 | 16.8 | 10.9 | 8.4 | 11.3 | 8.5 | 10.9 |
| Mean | 40.1 | 43.4 | 40.7 | 38.8 | 41.4 | 40.1 | 40.8 |
| LSD(0.05) | . | . | . | . | . | . | 2.0 |
| CV(%) | . | . | . | . | . | . | 3.9 |

***SEED LINOLENIC ACID (%)***
***PRELIMINARY GROUP VI 2023***

| STRAIN/ VARIETY | Athens, GA(A) | Bossier City, LA | Kinston, NC | Plains, GA | Plymouth, NC | Tallassee, AL | Test Mean |
|---|---|---|---|---|---|---|---|
| AG64X8 RR2X | 7.9 | 7.4 | 9.3 | 6.9 | 8.6 | 7.2 | 7.9 |
| USDA-N6005 | 8.3 | 7.8 | 8.8 | 7.3 | 9.1 | 7.6 | 8.1 |
| G20-6094R2 | 2.4 | 3.0 | 2.9 | 2.4 | 2.8 | 2.4 | 2.7 |
| Mean | 6.2 | 6.1 | 7.0 | 5.5 | 6.8 | 5.7 | 6.2 |
| LSD(0.05) | . | . | . | . | . | . | 0.6 |
| CV(%) | . | . | . | . | . | . | 6.9 |

***TABLE 113 - PARENTAGE OF ENTRIES***
***UNIFORM GROUP VII-VIII 2023***

| Ent | Strain/Variety | Parentage | Source | Fn | Trans-genic† | Special Traits‡ |
|---|---|---|---|---|---|---|
| 1 | SH 7418LL | Commercial check | check | | RR2 | |
| 2 | AG72XF0 | Commercial check | check | | RR2, LL, DIC | |
| 3 | AGS-738RR | Commercial check | check | | RR1 | |
| 4 | NC-Wilder | Commercial check | check | | | |
| 5 | AG79X9RR2X/SR | Commercial check | check | | RR2, DIC | |
| 6 | N8002 | Commercial check | check | | | |
| 7 | G17-11274 | G08PR-394 x G00-3213 | Zenglu Li | | | |
| 8 | G17-11315 | G08PR-394 x G00-3213 | Zenglu Li | | | |
| 9 | G17-5173R2 | G11PR-56238R2 x (G00-3880R2 x Benning EMGH) | Zenglu Li | | RR2 | |
| 10 | G17-7222HOLNR2 | G10PR-56264R2-HOLL | Zenglu Li | | RR2 | HOLN |
| 11 | G17PR-1071HOLNR1 | G06-3182RR-HOLL-B4 | Zenglu Li | | RR1 | HOLN |
| 12 | G18-3311R2 | G10PR-224R2 x NCC06-899 | Zenglu Li | | RR2 | |
| 13 | G18-6624HOLNR2 | [G11-1614R2(4) x TN10-5002LL] x {G11-1614R2(4) x [G00-3213 (4) x (17D x S08-14788)HO]} | Zenglu Li | | RR2 | HOLN |
| 14 | G18-6669HOLNR2 | [G11-1614R2(4) x TN10-5002LL] x {G11-1614R2(4) x [G00-3213 (4) x (17D x S08-14788)HO]} | Zenglu Li | | RR2 | HOLN |
| 15 | G18-8335LL | Henderson x G13LL-7 | Zenglu Li | | LL | |
| 16 | G19-11257 | N10-711 x Benning HP | Zenglu Li | | | |
| 17 | G19-12402 | N10-792 x G14-8109 | Zenglu Li | | | |
| 18 | G19-13040 | Woodruff x G12-7186 | Zenglu Li | | | |
| 19 | G19-13438 | G13-6299 x N10-711 | Zenglu Li | | | |
| 20 | G19-13506 | G13-6299 x N10-711 | Zenglu Li | | | |
| 21 | G19-2805R2 | N09-9 x G11PR-56151R2 | Zenglu Li | | RR1 | |
| 22 | G19-3423R2 | N08-521 x G11-1614R2 | Zenglu Li | | RR1 | |
| 23 | G19-5469R2 | G11-1614R2 x G12-2103R2 | Zenglu Li | | RR1 | |
| 24 | G19-8253LL | N09-13128 x G13LL-44 | Zenglu Li | | RR2 | |
| 25 | G21-209E3 | G17-11315 (4) x Enlist CTV-DVR 1002 | Zenglu Li | | E3 | |
| 26 | G21-230R2X | G12-2062R2 (4) x Dicamba RR2X | Zenglu Li | | RR1, DIC | |
| 27 | G21-245R2X | G13-2114R2 (4) x Dicamba RR2X | Zenglu Li | | RR1, DIC | |
| 28 | N14-7142 | G00-3213 x TCHM-Morph-204 | Fallen | | | Increased protein, 12.5% exotic |
| 29 | N16-10927 | NC-Roy x N01-11771 | Fallen | | | Drought Tol. |
| 30 | N16-10962 | NC-Roy x N01-11771 | Fallen | | | Drought Tol. |
| 31 | N17-31531 | NC-Raleigh x PI 407042 | Fallen | | | 50% exotic |

† Conv= Conventional(non-transgenic),DIC - Dicamba resistance Xtend®, E3= Enlist E3®, LL=Liberty Link®, RR1=Roundup Ready®, RR2=Roundup Ready 2 Yield®,
‡ AA= modified amino acids, DNC= Do not cross with this, FLS= Frogeye leaf spot resistance, LJ= Long juvenile, LN= low linolenic acid, LP= low phytate, HO= high olelic acid, HOLN= high oleic acid/low linolenic acid, SC= Southern stem canker, SCN= Soybean cyst nematode resistance, SR= Soybean rust resistance, and STS= sulfonylurea tolerant

## *TABLE 114 - GENERAL SUMMARY OF PERFORMANCE*
## *UNIFORM TEST VII-VIII 2023*

| *STRAIN/* | | *AVG.* | *YIELD†* | | | *PROTEIN‡* | | | *OIL‡* | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *VARIETY* | *RANK* | *RANK* | *2023* | *22-23* | *21-23* | *2023* | *22-23* | *21-23* | *2023* | *22-23* | *21-23* |
| SH 7418LL | 5 | 10 | 53.5 | . | . | 36.1 | . | . | 18.4 | . | . |
| AG72XF0 | 1 | 7 | 55.0 | . | . | 35.8 | . | . | 18.2 | . | . |
| AGS-738RR | 8 | 14 | 52.7 | . | . | 34.9 | . | . | 18.7 | . | . |
| NC-Wilder | 14 | 13 | 51.3 | . | . | 34.9 | . | . | 19.0 | . | . |
| AG79X9RR2X/SR | 12 | 13 | 51.7 | . | . | 35.5 | . | . | 18.1 | . | . |
| N8002 | 26 | 20 | 48.3 | . | . | 36.2 | . | . | 17.7 | . | . |
| G17-11274 | 22 | 19 | 49.6 | . | . | 34.9 | . | . | 19.0 | . | . |
| G17-11315 | 24 | 20 | 49.1 | . | . | 36.2 | . | . | 19.1 | . | . |
| G17-5173R2 | 9 | 11 | 52.3 | . | . | 35.0 | . | . | 18.7 | . | . |
| G17-7222HOLNR2 | 17 | 15 | 50.6 | . | . | 37.6 | . | . | 18.4 | . | . |
| G17PR-1071HOLNR1 | 2 | 7 | 54.3 | . | . | 36.2 | . | . | 19.0 | . | . |
| G18-3311R2 | 4 | 13 | 53.6 | . | . | 35.0 | . | . | 18.6 | . | . |
| G18-6624HOLNR2 | 21 | 20 | 49.6 | . | . | 36.4 | . | . | 18.9 | . | . |
| G18-6669HOLNR2 | 10 | 15 | 51.8 | . | . | 36.5 | . | . | 19.3 | . | . |
| G18-8335LL | 18 | 20 | 50.1 | . | . | 34.6 | . | . | 18.8 | . | . |
| G19-11257 | 31 | 25 | 44.4 | . | . | 37.7 | . | . | 17.5 | . | . |
| G19-12402 | 29 | 25 | 46.6 | . | . | 35.2 | . | . | 19.3 | . | . |
| G19-13040 | 27 | 24 | 47.5 | . | . | 39.9 | . | . | 17.9 | . | . |
| G19-13438 | 15 | 16 | 50.8 | . | . | 37.4 | . | . | 18.3 | . | . |
| G19-13506 | 23 | 17 | 49.2 | . | . | 35.5 | . | . | 18.3 | . | . |
| G19-2805R2 | 13 | 10 | 51.6 | . | . | 35.6 | . | . | 18.3 | . | . |
| G19-3423R2 | 16 | 16 | 50.6 | . | . | 35.3 | . | . | 18.7 | . | . |
| G19-5469R2 | 7 | 14 | 52.7 | . | . | 36.2 | . | . | 18.1 | . | . |
| G19-8253LL | 19 | 17 | 50.0 | . | . | 34.1 | . | . | 19.1 | . | . |
| G21-209E3 | 30 | 24 | 46.5 | . | . | 36.7 | . | . | 18.5 | . | . |
| G21-230R2X | 6 | 11 | 53.0 | . | . | 37.3 | . | . | 17.7 | . | . |
| G21-245R2X | 11 | 15 | 51.7 | . | . | 36.0 | . | . | 17.6 | . | . |
| N14-7142 | 3 | 12 | 53.6 | . | . | 36.9 | . | . | 18.0 | . | . |
| N16-10927 | 25 | 19 | 48.9 | . | . | 35.9 | . | . | 18.0 | . | . |
| N16-10962 | 20 | 15 | 49.9 | . | . | 36.1 | . | . | 18.5 | . | . |
| N17-31531 | 28 | 20 | 47.2 | . | . | 33.6 | . | . | 20.3 | . | . |
| | | | | | | | | | | | |
| Mean | . | . | 50.6 | . | . | 36.0 | . | . | 18.5 | . | . |
| LSD(0.05) | . | . | 5.9 | . | . | 0.8 | . | . | 0.5 | . | . |
| LSD(0.10) | . | . | 4.9 | . | . | . | . | . | . | . | . |
| CV(%) | . | . | 14.1 | . | . | 1.9 | . | . | 2.3 | . | . |

† Data not included in yield mean: 2021 Calhoun.

‡ Protein percentage and oil percentage reported on a 13% moisture basis beginning in 2015.

***TABLE 115 - GENERAL SUMMARY OF PERFORMANCE -Part 2***
***UNIFORM TEST VII-VIII 2023***

| STRAIN/ VARIETY | MEAL† PRO % | MAT INDEX | LOD | HT | SEED QUALITY | SEED SIZE | FL. COLOR | PUB. COLOR | POD COLOR |
|---|---|---|---|---|---|---|---|---|---|
| SH 7418LL | 48.0 | 0 | 1.6 | 34 | 1.6 | 14.9 | | | |
| AG72XF0 | 47.6 | 0 | 1.6 | 35 | 1.8 | 13.2 | | | |
| AGS-738RR | 46.7 | 0 | 1.8 | 34 | 1.6 | 13.7 | | | |
| NC-Wilder | 46.8 | 1 | 1.8 | 35 | 1.6 | 15.6 | | | |
| AG79X9RR2X/SR | 47.1 | 1 | 1.8 | 36 | 1.6 | 15.8 | | | |
| N8002 | 47.8 | 1 | 2.0 | 35 | 1.7 | 13.9 | | | |
| G17-11274 | 46.9 | 2 | 1.8 | 38 | 1.7 | 14.7 | W | T | T |
| G17-11315 | 48.7 | 1 | 1.6 | 34 | 1.5 | 16.1 | W | G | T |
| G17-5173R2 | 46.8 | 0 | 1.8 | 33 | 1.6 | 14.0 | P | T | T |
| G17-7222HOLNR2 | 50.1 | 0 | 1.9 | 35 | 1.7 | 13.4 | W | T | T |
| G17PR-1071HOLNR1 | 48.6 | -1 | 1.9 | 36 | 1.7 | 13.7 | P | T | T |
| G18-3311R2 | 46.7 | 2 | 1.9 | 39 | 1.6 | 14.7 | W | T | T |
| G18-6624HOLNR2 | 48.8 | 0 | 1.9 | 37 | 1.8 | 13.2 | P | T | T |
| G18-6669HOLNR2 | 49.2 | 0 | 1.7 | 38 | 1.7 | 13.2 | P | T | T |
| G18-8335LL | 46.3 | 3 | 1.9 | 36 | 1.7 | 14.1 | W | T | T |
| G19-11257 | 49.7 | 1 | 1.7 | 35 | 1.7 | 14.6 | P | T | T |
| G19-12402 | 47.4 | 2 | 1.9 | 36 | 1.6 | 16.4 | W | T | T |
| G19-13040 | 52.8 | 1 | 1.9 | 36 | 1.6 | 15.2 | P | G | T |
| G19-13438 | 49.8 | 2 | 1.6 | 35 | 1.7 | 14.5 | P | T | BR |
| G19-13506 | 47.2 | 0 | 1.8 | 34 | 1.8 | 13.0 | P | T | BR |
| G19-2805R2 | 47.3 | 1 | 1.9 | 36 | 1.7 | 14.5 | W | T | T |
| G19-3423R2 | 47.2 | 0 | 1.7 | 35 | 1.7 | 13.9 | P | T | T |
| G19-5469R2 | 48.0 | 1 | 1.9 | 35 | 1.7 | 14.2 | P | T | T |
| G19-8253LL | 45.8 | 0 | 1.9 | 35 | 1.6 | 15.6 | W | T | T |
| G21-209E3 | 48.9 | 0 | 1.7 | 35 | 1.9 | 14.0 | W | G | T |
| G21-230R2X | 49.2 | 1 | 1.9 | 34 | 1.6 | 15.0 | P | T | T |
| G21-245R2X | 47.5 | 1 | 1.8 | 35 | 1.6 | 15.3 | P | T | T |
| N14-7142 | 49.0 | 1 | 1.9 | 35 | 1.7 | 14.5 | P | G | |
| N16-10927 | 47.6 | -1 | 1.9 | 36 | 1.7 | 13.2 | P | G | |
| N16-10962 | 48.2 | 0 | 1.9 | 37 | 1.7 | 13.9 | W | G | |
| N17-31531 | 45.8 | 1 | 2.0 | 35 | 1.5 | 13.8 | W | T | |
| | | | | | | | | | |
| Mean | 48.0 | 1 | 1.8 | 35 | 1.7 | 14.4 | | | |
| LSD(0.05) | 0.9 | 2 | 0.3 | 3 | 0.3 | 1.4 | | | |
| CV(%) | 1.6 | 359 | 24.0 | 9 | 21.0 | 11.8 | | | |

† Estimated meal protein content was added to the annual report in 2018.

## TABLE 116 - GENERAL SUMMARY OF PEST REACTION
## UNIFORM TEST VII-VIII 2023

| STRAIN/ | SCN Cyst Score (1-5 Scale)† | | | RKN Gall Score (1-5 Scale)‡ | | | SC | SC |
|---|---|---|---|---|---|---|---|---|
| VARIETY | Race 2 | Race 3 | Race 5 | PRK | SRK | JRK | RATING | SCORE |
| SH 7418LL | 5 | . | 4 | 1.5 | 1.5 | 2.3 | | . |
| AG72XF0 | 1 | . | 1 | 1.8 | 1.3 | 2.8 | | . |
| AGS-738RR | 3 | . | 2 | 4.5 | 1.8 | 3.5 | | . |
| NC-Wilder | 4 | . | 4 | 2.5 | 1.5 | 2.5 | | . |
| AG79X9RR2X/SR | 4 | . | 4 | 5.0 | 2.0 | 4.8 | | . |
| N8002 | 2 | . | 4 | 5.0 | 5.0 | 5.0 | | . |
| G17-11274 | 2 | . | 2 | 3.5 | 3.3 | 4.0 | | . |
| G17-11315 | 3 | . | 3 | 3.0 | 2.5 | 3.5 | | . |
| G17-5173R2 | 4 | . | 4 | 5.0 | 1.3 | 4.5 | | . |
| G17-7222HOLNR2 | 3 | . | 3 | 1.3 | 1.5 | 1.8 | | . |
| G17PR-1071HOLNR1 | 2 | . | 2 | 4.8 | 1.0 | 5.0 | | . |
| G18-3311R2 | 4 | . | 4 | 2.0 | 1.3 | 2.3 | | . |
| G18-6624HOLNR2 | 4 | . | 3 | 5.0 | 1.3 | 5.0 | | . |
| G18-6669HOLNR2 | 4 | . | 3 | 5.0 | 1.8 | 5.0 | | . |
| G18-8335LL | 2 | . | 4 | 2.0 | 2.0 | 4.3 | | . |
| G19-11257 | 5 | . | 4 | 5.0 | 4.5 | 5.0 | | . |
| G19-12402 | 3 | . | 4 | 2.3 | 3.3 | 1.8 | | . |
| G19-13040 | 5 | . | 4 | 4.5 | 1.3 | 3.0 | | . |
| G19-13438 | 2 | . | 1 | 4.5 | 2.3 | 3.3 | | . |
| G19-13506 | 4 | . | 5 | 4.8 | 1.5 | 4.0 | | . |
| G19-2805R2 | 3 | . | 5 | 5.0 | 1.0 | 5.0 | | . |
| G19-3423R2 | 4 | . | 4 | 4.3 | 1.0 | 5.0 | | . |
| G19-5469R2 | 4 | . | 3 | 4.0 | 1.0 | 5.0 | | . |
| G19-8253LL | 3 | . | 4 | 3.0 | 1.0 | 3.3 | | . |
| G21-209E3 | 3 | . | 4 | 3.3 | 1.0 | 3.0 | | . |
| G21-230R2X | 4 | . | 4 | 2.0 | 1.3 | 1.3 | | . |
| G21-245R2X | 2 | . | 4 | 3.8 | 1.3 | 2.0 | | . |
| N14-7142 | 3 | . | 3 | 4.5 | 4.5 | 4.3 | | . |
| N16-10927 | 4 | . | 4 | 5.0 | 4.0 | 5.0 | | . |
| N16-10962 | 4 | . | 4 | 5.0 | 3.0 | 4.8 | | . |
| N17-31531 | 4 | . | 4 | 4.8 | 4.8 | 4.8 | | . |

†The race 2 and 5 SCN populations used in these tests were typed as HG (Heterodera glycines) Type 1.2.5.7 and HG Type 2.5.7, respectively. Results for race 3 were omitted.

‡The root-knot nematode (RKN) species used in these tests were Meloidogyne incognita (southern root knot = SRK), M. arenaria (peanut root knot = PRK), and M. javanica (Javanese root-knot = JRK;)MR = mixed reaction.

## *TABLE 117 - SEED YIELD (BUSHELS PER ACRE)*
## *UNIFORM TEST VII-VIII 2023 †*

| STRAIN/ VARIETY | Athens, GA(A) | Athens, GA(B) | Jackson Springs, NC | Kinston, NC | Plains, GA | Plymouth, NC | Test Mean |
|---|---|---|---|---|---|---|---|
| SH 7418LL | 66.6 | 71.7 | 27.3 | 55.8 | 37.4 | 35.9 | 53.5 |
| AG72XF0 | 70.4 | 81.4 | 27.2 | 55.8 | 34.5 | 32.6 | 55.0 |
| AGS-738RR | 69.0 | 77.6 | 34.2 | 55.6 | 31.1 | 30.1 | 52.7 |
| NC-Wilder | 67.6 | 76.6 | 30.2 | 45.5 | 34.0 | 32.8 | 51.3 |
| AG79X9RR2X/SR | 68.0 | 72.9 | 22.0 | 50.6 | 36.5 | 30.6 | 51.7 |
| N8002 | 65.3 | 67.3 | 17.6 | 44.5 | 36.3 | 28.4 | 48.3 |
| G17-11274 | 66.0 | 68.2 | 23.2 | 50.5 | 33.4 | 29.7 | 49.6 |
| G17-11315 | 62.1 | 78.8 | 32.3 | 41.7 | 34.3 | 28.3 | 49.1 |
| G17-5173R2 | 69.4 | 71.6 | 22.3 | 48.3 | 38.5 | 33.6 | 52.3 |
| G17-7222HOLNR2 | 70.1 | 76.1 | 21.7 | 40.7 | 41.4 | 24.6 | 50.6 |
| G17PR-1071HOLNR1 | 70.4 | 77.7 | 29.0 | 55.4 | 36.6 | 31.4 | 54.3 |
| G18-3311R2 | 63.0 | 79.5 | 26.0 | 55.1 | 33.3 | 36.9 | 53.6 |
| G18-6624HOLNR2 | 72.7 | 63.4 | 28.9 | 55.1 | 29.6 | 27.2 | 49.6 |
| G18-6669HOLNR2 | 63.8 | 74.3 | 26.7 | 58.3 | 33.6 | 30.5 | 51.8 |
| G18-8335LL | 65.3 | 74.1 | 22.3 | 49.9 | 33.4 | 27.9 | 50.1 |
| G19-11257 | 65.3 | 60.9 | 21.0 | 37.3 | 33.9 | 24.4 | 44.4 |
| G19-12402 | 62.2 | 63.5 | 28.3 | 49.6 | 31.3 | 26.6 | 46.6 |
| G19-13040 | 61.6 | 76.2 | 22.1 | 43.7 | 32.2 | 23.6 | 47.5 |
| G19-13438 | 70.0 | 71.1 | 28.5 | 48.6 | 33.7 | 30.4 | 50.8 |
| G19-13506 | 62.3 | 66.1 | 27.1 | 46.6 | 36.4 | 34.7 | 49.2 |
| G19-2805R2 | 66.3 | 53.6 | 35.5 | 61.2 | 38.5 | 38.6 | 51.6 |
| G19-3423R2 | 61.5 | 64.2 | 30.3 | 55.2 | 38.5 | 33.6 | 50.6 |
| G19-5469R2 | 67.0 | 77.0 | 22.5 | 58.3 | 31.9 | 29.5 | 52.7 |
| G19-8253LL | 61.6 | 76.1 | 28.4 | 41.6 | 36.5 | 34.3 | 50.0 |
| G21-209E3 | 63.9 | 60.4 | 29.6 | 46.0 | 32.9 | 29.4 | 46.5 |
| G21-230R2X | 64.0 | 73.4 | 35.1 | 56.7 | 40.0 | 30.9 | 53.0 |
| G21-245R2X | 62.7 | 72.4 | 28.4 | 53.3 | 35.1 | 35.2 | 51.7 |
| N14-7142 | 60.8 | 78.3 | 27.0 | 58.5 | 33.8 | 36.8 | 53.6 |
| N16-10927 | 67.9 | 70.2 | 19.2 | 42.6 | 33.9 | 29.9 | 48.9 |
| N16-10962 | 65.4 | 74.4 | 29.4 | 41.8 | 37.1 | 30.8 | 49.9 |
| N17-31531 | 66.1 | 64.9 | 32.5 | 44.2 | 38.2 | 22.7 | 47.2 |
| | | | | | | | |
| Mean | 65.8 | 71.4 | 27.0 | 49.9 | 35.1 | 30.7 | 50.6 |
| LSD(0.05) | 9.3 | 17.7 | 13.4 | 9.2 | 7.4 | 6.3 | 5.9 |
| LSD(0.10) | 7.7 | 14.8 | 11.2 | 7.7 | 6.2 | 5.3 | 4.9 |
| CV(%) | 8.6 | 15.2 | 28.0 | 11.2 | 12.9 | 12.6 | 14.1 |

†Location data not included in Test Mean due to CV > 15%: Athens(B) and Jackson Springs.

## *TABLE 118 - RELATIVE MATURITY (DAYS EARLIER (-) OR LATER (+) THAN ENTRY 1)*
## *UNIFORM GROUP VII-VIII 2023*

| *STRAIN/ VARIETY* | *Athens, GA(A)* | *Athens, GA(B)* | *Kinston, NC* | *Plymouth, NC* | *Test Mean* |
|---|---|---|---|---|---|
| SH 7418LL | 10/25 | 10/23 | 10/29 | 10/30 | 10/27 |
| AG72XF0 | -1 | 2 | -1 | 0 | 0 |
| AGS-738RR | 1 | 3 | -3 | -2 | 0 |
| NC-Wilder | 0 | 3 | -3 | 2 | 1 |
| AG79X9RR2X/SR | -1 | 3 | . | 4 | 1 |
| N8002 | 1 | 2 | . | 3 | 1 |
| G17-11274 | 2 | 1 | . | 4 | 2 |
| G17-11315 | 0 | 5 | -3 | -2 | 1 |
| G17-5173R2 | -1 | 4 | -2 | -4 | 0 |
| G17-7222HOLNR2 | -1 | 2 | . | 3 | 0 |
| G17PR-1071HOLNR1 | -1 | 2 | -2 | -2 | -1 |
| G18-3311R2 | 0 | 4 | . | 4 | 2 |
| G18-6624HOLNR2 | 0 | 1 | . | -1 | 0 |
| G18-6669HOLNR2 | 0 | 4 | -2 | -2 | 0 |
| G18-8335LL | 1 | 4 | . | 6 | 3 |
| G19-11257 | -1 | 2 | 0 | 3 | 1 |
| G19-12402 | 0 | 5 | . | 4 | 2 |
| G19-13040 | 0 | 3 | . | 4 | 1 |
| G19-13438 | 0 | 4 | . | 4 | 2 |
| G19-13506 | -1 | 2 | -1 | 1 | 0 |
| G19-2805R2 | -2 | 4 | 0 | 1 | 1 |
| G19-3423R2 | -1 | 1 | . | 1 | 0 |
| G19-5469R2 | 0 | 4 | . | 1 | 1 |
| G19-8253LL | -1 | 5 | -2 | -2 | 0 |
| G21-209E3 | -1 | 3 | . | 0 | 0 |
| G21-230R2X | -1 | 4 | 1 | 0 | 1 |
| G21-245R2X | -1 | 4 | . | 1 | 1 |
| N14-7142 | -1 | 3 | . | 3 | 1 |
| N16-10927 | -2 | 2 | -2 | 0 | -1 |
| N16-10962 | 0 | 2 | -2 | -1 | 0 |
| N17-31531 | 0 | 4 | -1 | 1 | 1 |
| | | | | | |
| Mean | 0 | 3 | -1 | 1 | 1 |
| LSD(0.05) | 4 | 4 | 2 | 3 | 2 |
| CV(%) | 680 | 86 | 44 | 192 | 359 |

## *TABLE 119 - PLANT HEIGHT (INCHES)*
## *UNIFORM GROUP VII-VIII 2023*

| *STRAIN/ VARIETY* | *Athens, GA(A)* | *Athens, GA(B)* | *Jackson Springs, NC* | *Kinston, NC* | *Plains, GA* | *Plymouth, NC* | *Test Mean* |
|---|---|---|---|---|---|---|---|
| SH 7418LL | 45 | 32 | 22 | 36 | 37 | 34 | 34 |
| AG72XF0 | 51 | 30 | 24 | 34 | 33 | 38 | 35 |
| AGS-738RR | 46 | 31 | 26 | 35 | 33 | 33 | 34 |
| NC-Wilder | 44 | 37 | 23 | 38 | 32 | 35 | 35 |
| AG79X9RR2X/SR | 48 | 31 | 26 | 41 | 31 | 39 | 36 |
| N8002 | 44 | 35 | 22 | 36 | 37 | 37 | 35 |
| G17-11274 | 47 | 36 | 26 | 37 | 40 | 41 | 38 |
| G17-11315 | 43 | 37 | 21 | 32 | 34 | 37 | 34 |
| G17-5173R2 | 39 | 36 | 22 | 38 | 31 | 35 | 33 |
| G17-7222HOLNR2 | 41 | 35 | 24 | 36 | 38 | 36 | 35 |
| G17PR-1071HOLNR1 | 47 | 37 | 24 | 39 | 33 | 37 | 36 |
| G18-3311R2 | 42 | 34 | 30 | 43 | 43 | 40 | 39 |
| G18-6624HOLNR2 | 46 | 35 | 27 | 39 | 38 | 38 | 37 |
| G18-6669HOLNR2 | 49 | 38 | 25 | 37 | 38 | 40 | 38 |
| G18-8335LL | 45 | 34 | 26 | 34 | 37 | 40 | 36 |
| G19-11257 | 41 | 36 | 25 | 34 | 33 | 39 | 35 |
| G19-12402 | 46 | 32 | 24 | 39 | 38 | 39 | 36 |
| G19-13040 | 45 | 34 | 28 | 36 | 37 | 39 | 36 |
| G19-13438 | 47 | 37 | 25 | 34 | 31 | 38 | 35 |
| G19-13506 | 47 | 35 | 24 | 34 | 32 | 35 | 34 |
| G19-2805R2 | 42 | 36 | 24 | 38 | 37 | 38 | 36 |
| G19-3423R2 | 42 | 36 | 27 | 32 | 35 | 40 | 35 |
| G19-5469R2 | 41 | 32 | 26 | 38 | 38 | 35 | 35 |
| G19-8253LL | 41 | 33 | 26 | 35 | 37 | 41 | 35 |
| G21-209E3 | 47 | 39 | 24 | 33 | 33 | 33 | 35 |
| G21-230R2X | 40 | 30 | 25 | 36 | 38 | 37 | 34 |
| G21-245R2X | 47 | 36 | 25 | 34 | 33 | 33 | 35 |
| N14-7142 | 40 | 36 | 25 | 37 | 39 | 37 | 35 |
| N16-10927 | 45 | 34 | 21 | 38 | 37 | 39 | 36 |
| N16-10962 | 46 | 34 | 24 | 40 | 37 | 42 | 37 |
| N17-31531 | 49 | 35 | 26 | 36 | 32 | 34 | 35 |
| | | | | | | | |
| Mean | 44 | 34 | 25 | 36 | 35 | 37 | 35 |
| LSD(0.05) | 9 | 7 | 5 | 5 | 5 | 6 | 3 |
| CV(%) | 10 | 10 | 10 | 6 | 7 | 8 | 9 |

***TABLE 120 - PLANT LODGING (1-5)***
***UNIFORM GROUP VII-VIII 2023***

| STRAIN/ VARIETY | Athens, GA(A) | Athens, GA(B) | Jackson Springs, NC | Kinston, NC | Plains, GA | Plymouth, NC | Test Mean |
|---|---|---|---|---|---|---|---|
| SH 7418LL | 2.3 | 1.0 | 2.0 | 1.2 | 1.0 | 2.2 | 1.6 |
| AG72XF0 | 2.3 | 1.3 | 1.5 | 1.2 | 1.0 | 2.0 | 1.6 |
| AGS-738RR | 3.0 | 1.3 | 2.0 | 1.2 | 1.0 | 2.3 | 1.8 |
| NC-Wilder | 3.0 | 1.0 | 1.8 | 1.5 | 1.0 | 2.8 | 1.8 |
| AG79X9RR2X/SR | 3.0 | 1.0 | 2.0 | 1.5 | 1.0 | 2.0 | 1.8 |
| N8002 | 3.0 | 1.7 | 1.8 | 2.2 | 1.0 | 2.5 | 2.0 |
| G17-11274 | 3.0 | 1.0 | 1.8 | 1.2 | 1.0 | 2.5 | 1.8 |
| G17-11315 | 2.3 | 1.3 | 1.3 | 1.0 | 1.0 | 2.3 | 1.6 |
| G17-5173R2 | 2.7 | 1.7 | 2.0 | 1.5 | 1.0 | 2.0 | 1.8 |
| G17-7222HOLNR2 | 3.3 | 1.7 | 2.0 | 1.2 | 1.0 | 2.0 | 1.9 |
| G17PR-1071HOLNR1 | 3.0 | 1.0 | 2.0 | 1.7 | 1.0 | 2.5 | 1.9 |
| G18-3311R2 | 2.3 | 1.3 | 1.8 | 2.0 | 1.0 | 3.0 | 1.9 |
| G18-6624HOLNR2 | 3.7 | 1.3 | 1.8 | 1.0 | 1.0 | 2.3 | 1.9 |
| G18-6669HOLNR2 | 2.7 | 1.0 | 2.0 | 1.2 | 1.0 | 2.5 | 1.7 |
| G18-8335LL | 3.0 | 1.3 | 2.0 | 1.5 | 1.0 | 2.3 | 1.9 |
| G19-11257 | 3.0 | 1.0 | 1.8 | 1.2 | 1.0 | 2.0 | 1.7 |
| G19-12402 | 3.3 | 1.0 | 1.8 | 1.5 | 1.0 | 2.8 | 1.9 |
| G19-13040 | 3.3 | 1.0 | 2.0 | 1.5 | 1.0 | 2.5 | 1.9 |
| G19-13438 | 2.7 | 1.0 | 1.8 | 1.2 | 1.0 | 1.7 | 1.6 |
| G19-13506 | 3.3 | 1.0 | 2.0 | 1.2 | 1.0 | 2.3 | 1.8 |
| G19-2805R2 | 2.7 | 1.7 | 1.8 | 1.7 | 1.0 | 2.3 | 1.9 |
| G19-3423R2 | 2.7 | 1.0 | 1.8 | 1.5 | 1.0 | 2.3 | 1.7 |
| G19-5469R2 | 3.3 | 1.0 | 2.0 | 1.7 | 1.0 | 2.0 | 1.9 |
| G19-8253LL | 3.3 | 1.7 | 1.5 | 1.5 | 1.0 | 2.3 | 1.9 |
| G21-209E3 | 2.7 | 1.3 | 1.8 | 1.5 | 1.0 | 2.0 | 1.7 |
| G21-230R2X | 3.0 | 1.0 | 2.0 | 2.0 | 1.0 | 2.3 | 1.9 |
| G21-245R2X | 3.3 | 1.0 | 1.8 | 1.5 | 1.0 | 2.0 | 1.8 |
| N14-7142 | 2.7 | 1.0 | 2.0 | 2.2 | 1.0 | 2.8 | 1.9 |
| N16-10927 | 3.3 | 1.0 | 2.0 | 1.7 | 1.0 | 2.3 | 1.9 |
| N16-10962 | 3.0 | 1.0 | 2.0 | 2.0 | 1.0 | 2.8 | 1.9 |
| N17-31531 | 3.0 | 1.0 | 2.0 | 1.7 | 1.3 | 2.8 | 2.0 |
| Mean | 2.9 | 1.2 | 1.8 | 1.5 | 1.0 | 2.3 | 1.8 |
| LSD(0.05) | 1.2 | 0.8 | 0.4 | 0.5 | 0.2 | 0.6 | 0.3 |
| CV(%) | 25.1 | 42.4 | 11.8 | 16.5 | 10.3 | 13.7 | 24.3 |

***TABLE 121 - SEED QUALITY (1-5)***
***UNIFORM GROUP VII-VIII 2023***

| STRAIN/ VARIETY | Athens, GA(A) | Athens, GA(B) | Jackson Springs, NC | Kinston, NC | Plains, GA | Plymouth, NC | Test Mean |
|---|---|---|---|---|---|---|---|
| SH 7418LL | 2.0 | 1.7 | 2.0 | 1.0 | 1.3 | 1.5 | 1.6 |
| AG72XF0 | 1.8 | 2.0 | 2.0 | 1.0 | 1.8 | 2.0 | 1.8 |
| AGS-738RR | 1.8 | 1.2 | 1.8 | 1.5 | 1.5 | 2.0 | 1.6 |
| NC-Wilder | 1.7 | 1.7 | 1.8 | 1.0 | 1.5 | 2.0 | 1.6 |
| AG79X9RR2X/SR | 1.3 | 1.7 | 2.0 | 1.0 | 1.8 | 2.0 | 1.6 |
| N8002 | 1.8 | 1.2 | 2.0 | 1.5 | 1.7 | 2.0 | 1.7 |
| G17-11274 | 2.0 | 1.5 | 1.8 | 1.0 | 1.7 | 2.3 | 1.7 |
| G17-11315 | 1.5 | 1.3 | 1.5 | 1.0 | 1.3 | 2.3 | 1.5 |
| G17-5173R2 | 1.7 | 1.5 | 1.8 | 1.0 | 1.7 | 2.0 | 1.6 |
| G17-7222HOLNR2 | 1.7 | 1.8 | 2.0 | 1.5 | 1.5 | 2.0 | 1.7 |
| G17PR-1071HOLNR1 | 1.7 | 1.5 | 2.0 | 1.5 | 1.2 | 2.5 | 1.7 |
| G18-3311R2 | 1.5 | 1.7 | 2.0 | 1.0 | 1.3 | 2.0 | 1.6 |
| G18-6624HOLNR2 | 1.7 | 1.5 | 2.5 | 1.0 | 1.8 | 2.5 | 1.8 |
| G18-6669HOLNR2 | 1.5 | 1.5 | 2.3 | 1.0 | 2.0 | 2.3 | 1.7 |
| G18-8335LL | 1.8 | 1.3 | 2.3 | 1.0 | 1.3 | 2.5 | 1.7 |
| G19-11257 | 1.7 | 1.3 | 2.0 | 1.5 | 1.7 | 2.0 | 1.7 |
| G19-12402 | 1.5 | 1.5 | 2.0 | 1.0 | 1.5 | 2.5 | 1.6 |
| G19-13040 | 2.2 | 1.2 | 2.0 | 1.5 | 1.3 | 1.8 | 1.6 |
| G19-13438 | 2.0 | 1.5 | 2.0 | 1.0 | 1.5 | 2.0 | 1.7 |
| G19-13506 | 1.8 | 1.5 | 2.3 | 1.0 | 2.0 | 2.0 | 1.8 |
| G19-2805R2 | 1.8 | 1.3 | 2.3 | 1.0 | 1.8 | 2.0 | 1.7 |
| G19-3423R2 | 1.3 | 1.8 | 2.3 | 1.0 | 1.8 | 2.0 | 1.7 |
| G19-5469R2 | 1.8 | 1.3 | 2.5 | 1.0 | 1.7 | 2.0 | 1.7 |
| G19-8253LL | 1.8 | 1.5 | 1.8 | 1.0 | 1.3 | 2.0 | 1.6 |
| G21-209E3 | 1.7 | 1.3 | 2.8 | 1.5 | 1.7 | 2.5 | 1.9 |
| G21-230R2X | 2.0 | 1.2 | 1.8 | 1.0 | 1.3 | 2.3 | 1.6 |
| G21-245R2X | 1.7 | 1.5 | 2.0 | 1.0 | 1.3 | 2.0 | 1.6 |
| N14-7142 | 2.2 | 1.5 | 1.8 | 1.0 | 1.8 | 2.0 | 1.7 |
| N16-10927 | 1.8 | 1.7 | 2.0 | 1.0 | 1.8 | 2.0 | 1.7 |
| N16-10962 | 1.7 | 1.3 | 2.0 | 1.0 | 1.7 | 2.5 | 1.7 |
| N17-31531 | 1.5 | 1.5 | 1.8 | 1.0 | 1.3 | 2.3 | 1.5 |
| | | | | | | | |
| Mean | 1.7 | 1.5 | 2.0 | 1.1 | 1.6 | 2.1 | 1.7 |
| LSD(0.05) | 0.9 | 0.5 | 0.5 | 0.7 | 0.5 | 0.3 | 0.3 |
| CV(%) | 30.2 | 19.7 | 11.8 | 30.0 | 19.4 | 7.2 | 21.3 |

## *TABLE 122 - SEED SIZE (GRAMS PER 100 SEED)*
## *UNIFORM GROUP VII-VIII 2023*

| *STRAIN/ VARIETY* | *Athens, GA(A)* | *Athens, GA(B)* | *Jackson Springs, NC* | *Kinston, NC* | *Plains, GA* | *Plymouth, NC* | *Test Mean* |
|---|---|---|---|---|---|---|---|
| SH 7418LL | 15.3 | 13.2 | 16.2 | 16.5 | 12.5 | 15.8 | 14.9 |
| AG72XF0 | 15.0 | 12.5 | 14.5 | 14.1 | 10.2 | 13.1 | 13.2 |
| AGS-738RR | 15.3 | 13.3 | 13.6 | 13.8 | 12.5 | 13.4 | 13.7 |
| NC-Wilder | 15.1 | 13.0 | 15.7 | 14.7 | 20.1 | 14.6 | 15.6 |
| AG79X9RR2X/SR | 15.7 | 12.1 | 18.9 | 17.9 | 13.9 | 17.0 | 15.8 |
| N8002 | 15.7 | 14.5 | 15.9 | 13.7 | 11.3 | 12.6 | 13.9 |
| G17-11274 | 16.3 | 15.1 | 16.4 | 15.1 | 11.5 | 13.9 | 14.7 |
| G17-11315 | 15.9 | 13.5 | 16.6 | 18.4 | 15.3 | 17.2 | 16.1 |
| G17-5173R2 | 14.8 | 13.5 | 15.3 | 15.3 | 11.9 | 13.7 | 14.0 |
| G17-7222HOLNR2 | 16.3 | 12.6 | 14.8 | 12.8 | 10.8 | 12.9 | 13.4 |
| G17PR-1071HOLNR1 | 15.6 | 14.0 | 14.5 | 13.8 | 11.5 | 12.7 | 13.7 |
| G18-3311R2 | 14.8 | 14.7 | 15.6 | 16.1 | 12.7 | 14.4 | 14.7 |
| G18-6624HOLNR2 | 15.9 | 12.9 | 13.7 | 13.3 | 10.1 | 13.2 | 13.2 |
| G18-6669HOLNR2 | 14.8 | 13.9 | 13.8 | 12.5 | 10.9 | 13.2 | 13.2 |
| G18-8335LL | 14.8 | 14.1 | 15.0 | 14.9 | 11.6 | 14.4 | 14.1 |
| G19-11257 | 15.0 | 15.0 | 15.1 | 15.0 | 12.7 | 14.5 | 14.6 |
| G19-12402 | 16.9 | 13.0 | 19.6 | 18.8 | 13.9 | 16.5 | 16.4 |
| G19-13040 | 15.3 | 13.7 | 16.5 | 16.7 | 14.1 | 15.3 | 15.2 |
| G19-13438 | 14.5 | 13.9 | 15.9 | 15.2 | 12.5 | 14.8 | 14.5 |
| G19-13506 | 15.6 | 12.9 | 14.9 | 12.3 | 9.8 | 12.7 | 13.0 |
| G19-2805R2 | 15.4 | 13.9 | 15.2 | 15.6 | 12.2 | 14.5 | 14.5 |
| G19-3423R2 | 16.0 | 13.5 | 14.0 | 14.5 | 11.0 | 14.1 | 13.9 |
| G19-5469R2 | 15.9 | 13.9 | 15.1 | 15.6 | 10.9 | 13.9 | 14.2 |
| G19-8253LL | 14.7 | 13.3 | 17.9 | 16.5 | 14.4 | 17.0 | 15.6 |
| G21-209E3 | 17.7 | 15.0 | 14.0 | 12.9 | 11.2 | 12.6 | 14.0 |
| G21-230R2X | 14.8 | 14.0 | 17.2 | 15.3 | 13.5 | 15.2 | 15.0 |
| G21-245R2X | 14.4 | 14.0 | 17.3 | 17.8 | 12.7 | 16.3 | 15.3 |
| N14-7142 | 14.8 | 12.6 | 18.6 | 15.2 | 11.9 | 14.6 | 14.5 |
| N16-10927 | 15.6 | 14.4 | 14.0 | 11.8 | 11.3 | 11.7 | 13.2 |
| N16-10962 | 16.5 | 13.3 | 14.5 | 13.2 | 12.8 | 13.0 | 13.9 |
| N17-31531 | 16.6 | 13.5 | 15.1 | 13.3 | 11.8 | 12.4 | 13.8 |
| | | | | | | | |
| Mean | 15.5 | 13.6 | 15.7 | 14.9 | 12.4 | 14.2 | 14.4 |
| LSD(0.05) | 2.4 | 1.9 | 1.2 | 1.1 | 4.2 | 0.9 | 1.4 |
| CV(%) | 9.5 | 8.6 | 3.9 | 3.6 | 20.7 | 4.0 | 11.8 |

***TABLE 123 - OIL (%)†***
***UNIFORM GROUP VII-VIII 2023***

| STRAIN/ VARIETY | Athens, GA(A) | Athens, GA(B) | Jackson Springs, NC | Kinston, NC | Plains, GA | Plymouth, NC | Test Mean |
|---|---|---|---|---|---|---|---|
| SH 7418LL | 19.2 | 18.0 | 19.8 | 16.9 | 18.4 | 18.2 | 18.4 |
| AG72XF0 | 18.6 | 18.5 | 19.0 | 17.9 | 17.6 | 17.8 | 18.2 |
| AGS-738RR | 19.8 | 18.9 | 19.3 | 17.3 | 19.0 | 17.8 | 18.7 |
| NC-Wilder | 19.7 | 18.6 | 19.7 | 18.5 | 19.2 | 18.0 | 19.0 |
| AG79X9RR2X/SR | 18.4 | 18.6 | 19.4 | 17.2 | 18.0 | 17.0 | 18.1 |
| N8002 | 18.6 | 17.4 | 18.4 | 17.7 | 16.8 | 17.1 | 17.7 |
| G17-11274 | 19.3 | 19.4 | 19.2 | 18.6 | 18.6 | 18.7 | 19.0 |
| G17-11315 | 19.9 | 19.0 | 19.6 | 18.1 | 19.2 | 18.7 | 19.1 |
| G17-5173R2 | 20.4 | 18.7 | 19.2 | 17.6 | 18.3 | 18.3 | 18.7 |
| G17-7222HOLNR2 | 19.0 | 18.4 | 18.9 | 18.0 | 18.4 | 18.0 | 18.4 |
| G17PR-1071HOLNR1 | 19.9 | 19.5 | 19.3 | 18.1 | 19.1 | 18.4 | 19.0 |
| G18-3311R2 | 18.9 | 18.5 | 19.4 | 18.3 | 18.5 | 18.3 | 18.6 |
| G18-6624HOLNR2 | 19.2 | 18.7 | 19.6 | 18.6 | 19.1 | 18.3 | 18.9 |
| G18-6669HOLNR2 | 19.7 | 19.0 | 20.0 | 19.2 | 19.1 | 18.7 | 19.3 |
| G18-8335LL | 19.3 | 18.8 | 19.5 | 17.9 | 19.3 | 18.3 | 18.8 |
| G19-11257 | 18.7 | 17.9 | 18.4 | 16.3 | 16.6 | 16.9 | 17.5 |
| G19-12402 | 20.6 | 19.6 | 20.0 | 18.7 | 18.5 | 18.8 | 19.3 |
| G19-13040 | 18.6 | 18.0 | 18.9 | 17.2 | 17.5 | 17.4 | 17.9 |
| G19-13438 | 20.1 | 18.1 | 19.0 | 18.1 | 17.7 | 17.0 | 18.3 |
| G19-13506 | 19.1 | 18.9 | 19.1 | 17.8 | 17.1 | 17.8 | 18.3 |
| G19-2805R2 | 18.7 | 18.4 | 19.3 | 17.9 | 17.9 | 17.8 | 18.3 |
| G19-3423R2 | 19.0 | 18.7 | 19.2 | 18.9 | 18.3 | 18.1 | 18.7 |
| G19-5469R2 | 19.2 | 18.1 | 18.6 | 17.5 | 17.3 | 17.7 | 18.1 |
| G19-8253LL | 19.9 | 19.0 | 19.3 | 18.6 | 19.5 | 18.4 | 19.1 |
| G21-209E3 | 19.2 | 18.4 | 19.1 | 18.6 | 17.3 | 18.0 | 18.5 |
| G21-230R2X | 18.4 | 17.3 | 18.4 | 17.4 | 17.3 | 17.3 | 17.7 |
| G21-245R2X | 18.5 | 18.1 | 18.4 | 16.6 | 17.6 | 16.4 | 17.6 |
| N14-7142 | 17.8 | 18.0 | 18.4 | 17.9 | 17.8 | 18.3 | 18.0 |
| N16-10927 | 18.7 | 18.4 | 18.5 | 17.2 | 18.1 | 16.9 | 18.0 |
| N16-10962 | 19.7 | 18.3 | 18.9 | 17.4 | 19.1 | 17.9 | 18.5 |
| N17-31531 | 21.0 | 19.7 | 20.4 | 20.0 | 20.7 | 19.7 | 20.3 |
| Mean | 19.3 | 18.5 | 19.2 | 17.9 | 18.3 | 17.9 | 18.5 |
| LSD(0.05) | . | . | . | . | . | . | 0.5 |
| CV(%) | . | . | . | . | . | . | 2.3 |

†Oil percentage is reported on a 13% moisture basis beginning in 2015.

***TABLE 124 - PROTEIN (%)†***
***UNIFORM GROUP VII-VIII 2023***

| STRAIN/ VARIETY | Athens, GA(A) | Athens, GA(B) | Jackson Springs, NC | Kinston, NC | Plains, GA | Plymouth, NC | Test Mean |
|---|---|---|---|---|---|---|---|
| SH 7418LL | 36.0 | 36.9 | 32.6 | 36.7 | 38.2 | 36.1 | 36.1 |
| AG72XF0 | 34.9 | 35.0 | 35.1 | 36.7 | 36.5 | 36.7 | 35.8 |
| AGS-738RR | 33.7 | 35.0 | 33.1 | 35.8 | 36.3 | 35.7 | 34.9 |
| NC-Wilder | 34.4 | 35.5 | 33.2 | 34.8 | 35.7 | 36.1 | 34.9 |
| AG79X9RR2X/SR | 35.3 | 34.8 | 33.2 | 36.4 | 36.6 | 36.7 | 35.5 |
| N8002 | 35.8 | 36.3 | 35.3 | 35.9 | 38.2 | 35.8 | 36.2 |
| G17-11274 | 35.0 | 34.2 | 35.1 | 34.8 | 36.8 | 33.8 | 34.9 |
| G17-11315 | 35.1 | 35.8 | 34.5 | 37.7 | 37.4 | 37.0 | 36.2 |
| G17-5173R2 | 31.9 | 35.9 | 34.3 | 35.9 | 36.9 | 35.3 | 35.0 |
| G17-7222HOLNR2 | 37.3 | 37.9 | 37.1 | 37.6 | 38.2 | 37.5 | 37.6 |
| G17PR-1071HOLNR1 | 35.5 | 35.5 | 34.9 | 36.6 | 37.5 | 37.3 | 36.2 |
| G18-3311R2 | 35.3 | 34.7 | 33.5 | 34.9 | 36.2 | 35.1 | 35.0 |
| G18-6624HOLNR2 | 36.3 | 37.3 | 34.7 | 36.4 | 37.2 | 36.8 | 36.4 |
| G18-6669HOLNR2 | 35.8 | 37.3 | 35.1 | 36.1 | 37.6 | 37.5 | 36.5 |
| G18-8335LL | 34.0 | 34.8 | 33.6 | 35.0 | 34.7 | 35.6 | 34.6 |
| G19-11257 | 36.6 | 37.2 | 36.2 | 38.3 | 39.9 | 38.2 | 37.7 |
| G19-12402 | 33.7 | 34.4 | 33.7 | 36.1 | 37.3 | 36.0 | 35.2 |
| G19-13040 | 39.9 | 39.5 | 38.4 | 40.7 | 40.6 | 40.2 | 39.9 |
| G19-13438 | 36.5 | 37.8 | 35.6 | 37.0 | 39.2 | 38.4 | 37.4 |
| G19-13506 | 34.8 | 34.6 | 34.5 | 35.6 | 37.2 | 36.1 | 35.5 |
| G19-2805R2 | 34.8 | 35.8 | 33.8 | 36.2 | 36.9 | 35.6 | 35.6 |
| G19-3423R2 | 34.4 | 35.5 | 33.9 | 34.9 | 36.5 | 36.7 | 35.3 |
| G19-5469R2 | 34.8 | 36.2 | 35.4 | 36.6 | 38.2 | 35.9 | 36.2 |
| G19-8253LL | 33.2 | 34.3 | 33.2 | 33.5 | 34.9 | 35.3 | 34.1 |
| G21-209E3 | 36.1 | 37.5 | 36.4 | 36.1 | 38.3 | 35.9 | 36.7 |
| G21-230R2X | 36.2 | 37.9 | 35.8 | 37.6 | 38.6 | 37.5 | 37.3 |
| G21-245R2X | 35.0 | 34.5 | 34.5 | 36.9 | 37.5 | 37.6 | 36.0 |
| N14-7142 | 37.4 | 36.6 | 36.2 | 36.5 | 37.8 | 36.9 | 36.9 |
| N16-10927 | 35.2 | 34.7 | 35.5 | 35.9 | 37.4 | 36.8 | 35.9 |
| N16-10962 | 35.5 | 36.9 | 35.0 | 36.2 | 36.7 | 36.5 | 36.1 |
| N17-31531 | 33.0 | 34.2 | 33.2 | 33.8 | 33.6 | 33.6 | 33.6 |
| Mean | 35.3 | 36.0 | 34.7 | 36.2 | 37.2 | 36.5 | 36.0 |
| LSD(0.05) | . | . | . | . | . | . | 0.8 |
| CV(%) | . | . | . | . | . | . | 1.9 |

†Protein percentage reported on a 13% moisture basis beginning in 2015.

## *TABLE 125 - ESTIMATED MEAL PROTEIN (%)†*
## *UNIFORM GROUP VII-VIII 2023*

| *STRAIN/ VARIETY* | *Athens, GA(A)* | *Athens, GA(B)* | *Jackson Springs, NC* | *Kinston, NC* | *Plains, GA* | *Plymouth, NC* | *Test Mean* |
|---|---|---|---|---|---|---|---|
| SH 7418LL | 48.4 | 48.9 | 44.2 | 48.0 | 50.8 | 47.9 | 48.0 |
| AG72XF0 | 46.6 | 46.7 | 47.1 | 48.6 | 48.1 | 48.6 | 47.6 |
| AGS-738RR | 45.7 | 46.9 | 44.6 | 47.0 | 48.7 | 47.2 | 46.7 |
| NC-Wilder | 46.5 | 47.4 | 44.9 | 46.4 | 47.9 | 47.9 | 46.8 |
| AG79X9RR2X/SR | 47.1 | 46.4 | 44.7 | 47.8 | 48.4 | 48.0 | 47.1 |
| N8002 | 47.8 | 47.8 | 47.0 | 47.3 | 49.9 | 47.0 | 47.8 |
| G17-11274 | 47.1 | 46.1 | 47.3 | 46.5 | 49.1 | 45.2 | 46.9 |
| G17-11315 | 47.6 | 48.1 | 46.6 | 50.1 | 50.3 | 49.5 | 48.7 |
| G17-5173R2 | 43.5 | 47.9 | 46.1 | 47.3 | 49.0 | 47.0 | 46.8 |
| G17-7222HOLNR2 | 50.0 | 50.5 | 49.7 | 49.8 | 50.9 | 49.6 | 50.1 |
| G17PR-1071HOLNR1 | 48.2 | 48.0 | 47.0 | 48.5 | 50.4 | 49.6 | 48.6 |
| G18-3311R2 | 47.3 | 46.3 | 45.2 | 46.5 | 48.3 | 46.6 | 46.7 |
| G18-6624HOLNR2 | 48.8 | 49.8 | 46.9 | 48.6 | 50.0 | 49.0 | 48.8 |
| G18-6669HOLNR2 | 48.4 | 50.0 | 47.7 | 48.5 | 50.4 | 50.2 | 49.2 |
| G18-8335LL | 45.8 | 46.6 | 45.3 | 46.3 | 46.7 | 47.3 | 46.3 |
| G19-11257 | 49.0 | 49.3 | 48.2 | 49.7 | 51.9 | 50.0 | 49.7 |
| G19-12402 | 46.1 | 46.5 | 45.8 | 48.3 | 49.7 | 48.1 | 47.4 |
| G19-13040 | 53.3 | 52.4 | 51.5 | 53.4 | 53.5 | 52.9 | 52.8 |
| G19-13438 | 49.6 | 50.1 | 47.8 | 49.1 | 51.8 | 50.3 | 49.8 |
| G19-13506 | 46.8 | 46.3 | 46.4 | 47.1 | 48.8 | 47.7 | 47.2 |
| G19-2805R2 | 46.6 | 47.8 | 45.6 | 48.0 | 48.9 | 47.1 | 47.3 |
| G19-3423R2 | 46.1 | 47.5 | 45.6 | 46.8 | 48.5 | 48.7 | 47.2 |
| G19-5469R2 | 46.8 | 48.0 | 47.3 | 48.2 | 50.2 | 47.4 | 48.0 |
| G19-8253LL | 45.0 | 46.1 | 44.7 | 44.7 | 47.1 | 47.0 | 45.8 |
| G21-209E3 | 48.6 | 50.0 | 48.9 | 48.2 | 50.4 | 47.5 | 48.9 |
| G21-230R2X | 48.2 | 49.8 | 47.6 | 49.5 | 50.8 | 49.4 | 49.2 |
| G21-245R2X | 46.7 | 45.8 | 46.0 | 48.1 | 49.5 | 49.0 | 47.5 |
| N14-7142 | 49.5 | 48.6 | 48.3 | 48.3 | 50.0 | 49.1 | 49.0 |
| N16-10927 | 47.1 | 46.2 | 47.4 | 47.1 | 49.6 | 48.1 | 47.6 |
| N16-10962 | 48.0 | 49.0 | 46.9 | 47.7 | 49.3 | 48.4 | 48.2 |
| N17-31531 | 45.5 | 46.3 | 45.3 | 45.9 | 46.1 | 45.5 | 45.8 |
| | | | | | | | |
| Mean | 47.5 | 48.0 | 46.7 | 48.0 | 49.5 | 48.3 | 48.0 |
| LSD(0.05) | . | . | . | . | . | . | 0.9 |
| CV(%) | . | . | . | . | . | . | 1.6 |

## *SUMMARY OF SEED FATTY ACIDS (%)*
## *UNIFORM TEST VII-VIII 2023 †*

| STRAIN/ VARIETY | Palmitic Acid | Stearic Acid | Oleic Acid | Linoleic Acid | Linolenic Acid |
|---|---|---|---|---|---|
| SH 7418LL | 11.3 | 3.5 | 21.7 | 55.1 | 8.5 |
| AG72XF0 | 11.7 | 3.8 | 20.1 | 56.0 | 8.5 |
| G17-7222HOLNR2 | 7.9 | 3.0 | 75.0 | 11.5 | 2.7 |
| G17PR-1071HOLN | 8.0 | 3.3 | 76.7 | 8.5 | 3.6 |
| G18-6624HOLNR2 | 7.9 | 3.3 | 75.4 | 10.7 | 2.7 |
| G18-6669HOLNR2 | 8.4 | 4.1 | 71.6 | 12.9 | 3.1 |
| Mean | 9.2 | 3.5 | 56.8 | 25.8 | 4.8 |
| LSD(0.05) | 0.3 | 0.3 | 3.3 | 2.9 | 0.6 |
| CV(%) | 2.4 | 6.5 | 5.0 | 9.5 | 10.3 |

†Fatty acid percentage in seed oil reported beginning in 2017.

## *SEED PALMITIC ACID (%)*
## *UNIFORM GROUP VII-VIII 2023*

| STRAIN/ VARIETY | Athens, GA(A) | Athens, GA(B) | Fairhope, AL | Jackson Springs, NC | Kinston, NC | Plains, GA | Plymouth, NC | Test Mean |
|---|---|---|---|---|---|---|---|---|
| SH 7418LL | 11.1 | 10.9 | . | 11.4 | 11.3 | 11.5 | 11.4 | 11.3 |
| AG72XF0 | 11.5 | 11.5 | . | 11.6 | 11.5 | 12.0 | 11.8 | 11.7 |
| G17-7222HOLNR2 | 7.8 | 8.0 | . | 7.9 | 7.9 | 7.9 | 7.8 | 7.9 |
| G17PR-1071HOLN | 8.3 | 7.8 | . | 8.0 | 8.0 | 7.9 | 7.9 | 8.0 |
| G18-6624HOLNR2 | 7.7 | 8.0 | . | 7.8 | 8.1 | 7.8 | 8.0 | 7.9 |
| G18-6669HOLNR2 | 8.2 | 8.0 | . | 8.0 | 8.3 | 8.9 | 8.9 | 8.4 |
| Mean | 9.1 | 9.0 | . | 9.1 | 9.2 | 9.3 | 9.3 | 9.2 |
| LSD(0.05) | . | . | . | . | . | . | . | 0.3 |
| CV(%) | . | . | . | . | . | . | . | 2.4 |

## *SEED STEARIC ACID (%)*
## *UNIFORM GROUP VII-VIII 2023*

| STRAIN/ VARIETY | Athens, GA(A) | Athens, GA(B) | Fairhope, AL | Jackson Springs, NC | Kinston, NC | Plains, GA | Plymouth, NC | Test Mean |
|---|---|---|---|---|---|---|---|---|
| SH 7418LL | 3.7 | 3.6 | . | 3.2 | 3.2 | 4.1 | 2.9 | 3.5 |
| AG72XF0 | 3.9 | 4.5 | . | 3.7 | 3.4 | 3.9 | 3.4 | 3.8 |
| G17-7222HOLNR2 | 3.1 | 3.0 | . | 2.9 | 2.8 | 3.2 | 2.8 | 3.0 |
| G17PR-1071HOLN | 3.3 | 3.6 | . | 3.6 | 3.2 | 3.3 | 2.9 | 3.3 |
| G18-6624HOLNR2 | 3.5 | 3.5 | . | 3.2 | 3.2 | 3.3 | 3.1 | 3.3 |
| G18-6669HOLNR2 | 4.8 | 4.3 | . | 4.0 | 3.6 | 4.2 | 3.7 | 4.1 |
| Mean | 3.7 | 3.8 | . | 3.4 | 3.2 | 3.7 | 3.1 | 3.5 |
| LSD(0.05) | . | . | . | . | . | . | . | 0.3 |
| CV(%) | . | . | . | . | . | . | . | 6.5 |

## SEED OLEIC ACID (%)
## UNIFORM GROUP VII-VIII 2023

| STRAIN/ VARIETY | Athens, GA(A) | Athens, GA(B) | Fairhope, AL | Jackson Springs, NC | Kinston, NC | Plains, GA | Plymouth, NC | Test Mean |
|---|---|---|---|---|---|---|---|---|
| SH 7418LL | 22.2 | 22.6 | . | 18.6 | 21.0 | 24.9 | 20.9 | 21.7 |
| AG72XF0 | 21.1 | 20.9 | . | 19.2 | 19.5 | 21.3 | 18.8 | 20.1 |
| G17-7222HOLNR2 | 75.7 | 74.1 | . | 74.3 | 75.1 | 76.2 | 74.6 | 75.0 |
| G17PR-1071HOLN | 66.6 | 78.3 | . | 77.6 | 77.8 | 79.9 | 79.9 | 76.7 |
| G18-6624HOLNR2 | 75.7 | 74.0 | . | 74.8 | 74.2 | 78.6 | 75.3 | 75.4 |
| G18-6669HOLNR2 | 74.4 | 73.2 | . | 73.9 | 73.9 | 68.2 | 65.8 | 71.6 |
| Mean | 56.0 | 57.2 | . | 56.4 | 56.9 | 58.2 | 55.9 | 56.8 |
| LSD(0.05) | . | . | . | . | . | . | . | 3.3 |
| CV(%) | . | . | . | . | . | . | . | 5.0 |

## SEED LINOLEIC ACID (%)
## UNIFORM GROUP VII-VIII 2023

| STRAIN/ VARIETY | Athens, GA(A) | Athens, GA(B) | Fairhope, AL | Jackson Springs, NC | Kinston, NC | Plains, GA | Plymouth, NC | Test Mean |
|---|---|---|---|---|---|---|---|---|
| SH 7418LL | 55.5 | 54.5 | . | 57.5 | 54.8 | 52.3 | 56.1 | 55.1 |
| AG72XF0 | 55.2 | 55.2 | . | 56.5 | 56.2 | 55.3 | 57.3 | 56.0 |
| G17-7222HOLNR2 | 10.9 | 12.2 | . | 12.1 | 11.5 | 10.2 | 12.0 | 11.5 |
| G17PR-1071HOLN | 17.7 | 6.9 | . | 7.4 | 7.1 | 6.0 | 5.9 | 8.5 |
| G18-6624HOLNR2 | 10.6 | 11.7 | . | 11.4 | 11.6 | 7.9 | 11.1 | 10.7 |
| G18-6669HOLNR2 | 10.1 | 11.5 | . | 11.3 | 11.3 | 15.5 | 17.6 | 12.9 |
| Mean | 26.7 | 25.3 | . | 26.0 | 25.4 | 24.5 | 26.7 | 25.8 |
| LSD(0.05) | . | . | . | . | . | . | . | 2.9 |
| CV(%) | . | . | . | . | . | . | . | 9.5 |

## SEED LINOLENIC ACID (%)
## UNIFORM GROUP VII-VIII 2023

| STRAIN/ VARIETY | Athens, GA(A) | Athens, GA(B) | Fairhope, AL | Jackson Springs, NC | Kinston, NC | Plains, GA | Plymouth, NC | Test Mean |
|---|---|---|---|---|---|---|---|---|
| SH 7418LL | 7.5 | 8.4 | . | 9.3 | 9.8 | 7.2 | 8.8 | 8.5 |
| AG72XF0 | 8.3 | 7.9 | . | 8.9 | 9.4 | 7.5 | 8.8 | 8.5 |
| G17-7222HOLNR2 | 2.5 | 2.8 | . | 2.8 | 2.8 | 2.5 | 2.8 | 2.7 |
| G17PR-1071HOLN | 4.2 | 3.4 | . | 3.5 | 3.9 | 2.9 | 3.4 | 3.6 |
| G18-6624HOLNR2 | 2.6 | 2.8 | . | 2.8 | 2.9 | 2.4 | 2.6 | 2.7 |
| G18-6669HOLNR2 | 2.6 | 2.9 | . | 2.9 | 2.9 | 3.2 | 4.1 | 3.1 |
| Mean | 4.6 | 4.7 | . | 5.0 | 5.3 | 4.3 | 5.1 | 4.8 |
| LSD(0.05) | . | . | . | . | . | . | . | 0.6 |
| CV(%) | . | . | . | . | . | . | . | 10.3 |

INTENTIONALLY BLANK

## *TABLE 126 - PARENTAGE OF ENTRIES*
## *PRELIMINARY GROUP VII-VIII 2023*

| *Ent* | *Strain/Variety* | *Parentage* | *Source* | *Fn* | *Trans-genic†* | *Special Traits‡* |
|---|---|---|---|---|---|---|
| 1 | SH 7418LL | Commercial check | check | | LL | |
| 2 | AG72XF0 | Commercial check | check | | RR2, LL, DIC | |
| 3 | AGS-738RR | Commercial check | check | | RR1 | |
| 4 | NC-Wilder | Commercial check | check | | | |
| 5 | AG79X9RR2X/SR | Commercial check | check | | RR2, DIC | |
| 6 | N8002 | Commercial check | check | | | |
| 7 | G19-12278 | N10-1031 x G14-8109 | Zenglu Li | | | |
| 8 | G20-10017 | G13-6299 x R12-4786 | Zenglu Li | | | |
| 9 | G20-10022 | G13-6299 x R12-4786 | Zenglu Li | | | |
| 10 | G20-12085LL | G13LL-44 x G15PRLL-953 | Zenglu Li | | LL | |
| 11 | G20-12320LL | G13LL-7 x G15PRLL-953 | Zenglu Li | | LL | |
| 12 | G20-12745LL | G15PRLL-953 x A5885 | Zenglu Li | | LL | |
| 13 | G20-13046LL | G13LL-44 x G13LL-7 | Zenglu Li | | LL | |
| 14 | G20-13228LL | G17PR-1349HOLL x G13LL-7 HO | Zenglu Li | | LL | HOLN |
| 15 | G20-2091R1 | G00-3880-HOLL-B3 x G10PR-56264R2-HOLL | Zenglu Li | | RR1 | HOLN |
| 16 | G20-2822R2 | G13-3461R2 x G13-2454R2 | Zenglu Li | | RR2 | |
| 17 | G20-3375R2 | G12-2103R2 x G14-4515R2 | Zenglu Li | | RR2 | |
| 18 | G20-3630R2 | G13-2454R2 x G14-3268R2 | Zenglu Li | | RR2 | |
| 19 | G20-4820R2 | N08-174 x G12-2103R2 | Zenglu Li | | RR2 | |
| 20 | G20-5669R2 | G12-2062R2 x S11-16653 | Zenglu Li | | RR2 | |
| 21 | G20-6072R2 | G12-3698R2 LLn x G12-3698R2 HO | Zenglu Li | | RR2 | HOLN |
| 22 | G20-8200 | G00-3213-HOLL-B3 x G00-3880-HOLL-B3 | Zenglu Li | | | HOLN |
| 23 | G20-8317 | G00-3213-HOLL-B3 x G00-3880-HOLL-B3 | Zenglu Li | | | HOLN |
| 24 | G20-9154 | G12-6543 x G14-7860 | Zenglu Li | | | |
| 25 | G20-9503 | G13-6299 x G11-7013 | Zenglu Li | | | |
| 26 | G20-9576 | G13-6299 x G11-7013 | Zenglu Li | | | |
| 27 | G20-9685 | G13-6299 x G11-7013 | Zenglu Li | | | |
| 28 | N11-7414 | NC-Roy x PI 587696 | Fallen | | | 50% exotic |
| 29 | N11-7433 | NC-Roy x PI 587696 | Fallen | | | 50% exotic |
| 30 | N11-7559 | NC-Roy x PI 587696 | Fallen | | | 50% exotic |
| 31 | N16-10518 | N7103 x NMS4-1-45 | Fallen | | | 25% exotic |
| 32 | N17-30715 | NC-Raleigh x PI 407042 | Fallen | | | 50% exotic |
| 33 | N17-7028 | N8002 x S11-21092 | Fallen | | | Drought Tol. |
| 34 | N18-8005 | N8002 x S11-21092 | Fallen | | | HOLN |
| 35 | N18-8006 | N8002 x S11-21092 | Fallen | | | HOLN |
| 36 | NC17-6025 | R00-1194F x PI 200487 | Fallen | | | 50% exotic |

† Conv= Conventional(non-transgenic), E3= Enlist E3®, LL= Liberty Link®, RR1= Roundup Ready®, RR2=Roundup Ready 2 Yield®, and RRX= Roundup Ready 2 Xtend®

‡ AA= modified amino acids, DNC= Do not cross with this, FLS= Frogeye leaf spot resistance, LJ= Long juvenile, LN= low linolenic acid, LP= low phytate, HO= high oleic acid, HOLN= high oleic acid/low linolenic acid, SC= Southern stem canker, SCN= Soybean cyst nematode resistance, SR= Soybean rust resistance, and STS= sulfonylurea tolerant

## *TABLE 127 - GENERAL SUMMARY OF PERFORMANCE*
## *PRELIMINARY TEST VII-VIII 2023*

| STRAIN/ VARIETY | SEED YIELD† | RANK | AVG. RANK | MAT. INDEX | LOD | HT | SCN Cyst Score (1-5)‡ Race 2 | Race 3 | Race 5 | SC RATING | SC SCORE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SH 7418LL | 55.1 | 15 | 15 | 0 | 1.8 | 33 | 4 | . | 5 | | . |
| AG72XF0 | 53.1 | 23 | 23 | 1 | 1.7 | 35 | 2 | . | 1 | | . |
| AGS-738RR | 57.5 | 6 | 10 | -1 | 1.6 | 31 | 5 | . | 3 | | . |
| NC-Wilder | 54.8 | 18 | 17 | 1 | 2.3 | 33 | 5 | . | 4 | | . |
| AG79X9RR2X/SR | 53.0 | 25 | 21 | 3 | 1.3 | 36 | 4 | . | 5 | | . |
| N8002 | 51.6 | 27 | 24 | 3 | 2.5 | 34 | 5 | . | 5 | | . |
| G19-12278 | 54.5 | 20 | 15 | 0 | 1.5 | 30 | 5 | . | 4 | | . |
| G20-10017 | 56.7 | 8 | 12 | -3 | 1.5 | 32 | 4 | . | 4 | | . |
| G20-10022 | 58.2 | 3 | 8 | 1 | 2.4 | 34 | 5 | . | 4 | | . |
| G20-12085LL | 59.6 | 1 | 6 | 2 | 1.6 | 33 | 4 | . | 4 | | . |
| G20-12320LL | 59.2 | 2 | 9 | 2 | 1.4 | 33 | 4 | . | 4 | | . |
| G20-12745LL | 52.2 | 26 | 23 | -1 | 2.0 | 38 | 5 | . | 5 | | . |
| G20-13046LL | 55.8 | 11 | 15 | 3 | 1.8 | 35 | 5 | . | 4 | | . |
| G20-13228LL | 53.0 | 24 | 20 | 1 | 1.7 | 36 | 5 | . | 4 | | . |
| G20-2091R1 | 50.9 | 28 | 27 | -1 | 1.6 | 35 | 5 | . | 4 | | . |
| G20-2822R2 | 54.2 | 21 | 19 | 3 | 2.2 | 38 | 5 | . | 3 | | . |
| G20-3375R2 | 56.2 | 10 | 15 | 3 | 1.6 | 37 | 5 | . | 3 | | . |
| G20-3630R2 | 55.7 | 12 | 13 | 2 | 1.8 | 34 | 5 | . | 3 | | . |
| G20-4820R2 | 57.4 | 7 | 10 | 1 | 1.7 | 35 | 4 | . | 4 | | . |
| G20-5669R2 | 57.7 | 4 | 9 | 1 | 1.8 | 34 | 4 | . | 5 | | . |
| G20-6072R2 | 53.7 | 22 | 19 | -1 | 1.9 | 36 | 2 | . | 1 | | . |
| G20-8200 | 54.8 | 17 | 14 | -1 | 1.7 | 35 | 4 | . | 4 | | . |
| G20-8317 | 55.1 | 16 | 15 | 2 | 1.8 | 32 | 5 | . | 5 | | . |
| G20-9154 | 55.7 | 13 | 15 | 5 | 1.8 | 36 | 4 | . | 3 | | . |
| G20-9503 | 57.7 | 5 | 10 | 0 | 1.9 | 33 | 4 | . | 1 | | . |
| G20-9576 | 56.5 | 9 | 16 | 4 | 1.8 | 35 | 4 | . | 3 | | . |
| G20-9685 | 55.5 | 14 | 14 | 2 | 2.1 | 33 | 4 | . | 2 | | . |
| N11-7414 | 45.6 | 34 | 30 | 4 | 2.0 | 34 | 4 | . | 3 | | . |
| N11-7433 | 47.0 | 33 | 30 | 0 | 2.0 | 35 | 5 | . | 5 | | . |
| N11-7559 | 48.7 | 31 | 28 | -2 | 2.1 | 34 | 5 | . | 4 | | . |
| N16-10518 | 48.4 | 32 | 29 | 1 | 1.9 | 31 | 5 | . | 5 | | . |
| N17-30715 | 54.7 | 19 | 17 | 1 | 2.2 | 33 | 5 | . | 5 | | . |
| N17-7028 | 50.0 | 30 | 25 | 0 | 2.1 | 31 | 4 | . | 1 | | . |
| N18-8005 | 39.6 | 35 | 34 | 5 | 3.2 | 50 | 4 | . | 5 | | . |
| N18-8006 | 39.2 | 36 | 35 | 2 | 3.0 | 51 | 5 | . | 4 | | . |
| NC17-6025 | 50.5 | 29 | 25 | 0 | 2.2 | 33 | 4 | . | 5 | | . |
| | | | | | | | | | | | |
| Mean | 53.3 | . | . | 1 | 1.9 | 35 | . | . | . | | . |
| LSD(0.05) | 7.3 | . | . | 3 | 0.4 | 4 | . | . | . | | . |
| LSD(0.10) | 6.1 | . | . | . | . | . | . | . | . | | . |
| CV(%) | 11.6 | . | . | 191 | 25.6 | 10 | . | . | . | | . |

†Data not included in the mean due to CV >15%: Jackson Springs and Plymouth.
‡The race 2 and 5 SCN populations used in these tests were typed as HG (Heterodera glycines) Type 1.2.5.7 and HG Type 2.5.7, respectively.

*TABLE 128 - GENERAL SUMMARY OF PERFORMANCE (continued)*
*PRELIMINARY TEST VII-VIII 2023*

| STRAIN/ VARIETY | SEED QUALITY | SEED SIZE | PROTEIN§ % | OIL§ % | MEAL PRO% | FL COLOR | PUB. COLOR | POD COLOR |
|---|---|---|---|---|---|---|---|---|
| SH 7418LL | 1.6 | 16.0 | 36.3 | 18.5 | 48.4 | | | |
| AG72XF0 | 1.8 | 13.2 | 35.3 | 18.6 | 47.1 | | | |
| AGS-738RR | 1.6 | 13.6 | 35.0 | 18.6 | 46.8 | | | |
| NC-Wilder | 1.5 | 14.6 | 35.0 | 19.1 | 47.1 | | | |
| AG79X9RR2X/SR | 2.1 | 16.7 | 35.8 | 18.0 | 47.4 | | | |
| N8002 | 2.1 | 13.8 | 36.5 | 17.6 | 48.1 | | | |
| G19-12278 | 1.6 | 12.6 | 34.3 | 19.2 | 46.1 | P | T | T |
| G20-10017 | 1.5 | 12.6 | 35.5 | 18.8 | 47.5 | W | T | T |
| G20-10022 | 2.0 | 14.4 | 36.2 | 17.8 | 47.8 | W | T | T |
| G20-12085LL | 1.8 | 16.9 | 35.6 | 18.4 | 47.4 | W | T | T |
| G20-12320LL | 1.5 | 13.0 | 33.8 | 18.5 | 45.0 | P | T | T |
| G20-12745LL | 1.9 | 14.0 | 34.9 | 19.0 | 46.9 | W | T | T |
| G20-13046LL | 1.9 | 15.2 | 36.3 | 17.8 | 48.1 | W | T | T |
| G20-13228LL | 1.9 | 13.9 | 36.0 | 18.8 | 48.1 | P | T | T |
| G20-2091R1 | 1.7 | 12.4 | 37.0 | 18.1 | 49.0 | P | T | T |
| G20-2822R2 | 1.8 | 15.8 | 35.7 | 17.6 | 47.0 | P | T | T |
| G20-3375R2 | 1.6 | 15.0 | 37.4 | 16.8 | 48.9 | W | T | T |
| G20-3630R2 | 1.8 | 15.2 | 35.2 | 18.3 | 46.8 | W | T | T |
| G20-4820R2 | 1.9 | 15.4 | 34.4 | 18.7 | 46.0 | P | T | T |
| G20-5669R2 | 1.8 | 14.3 | 37.5 | 17.7 | 49.5 | P | T | T |
| G20-6072R2 | 1.5 | 13.4 | 35.9 | 18.5 | 47.9 | P | T | T |
| G20-8200 | 1.7 | 13.9 | 36.5 | 18.7 | 48.8 | W | T | T |
| G20-8317 | 1.8 | 14.1 | 36.9 | 19.1 | 49.5 | P | T | T |
| G20-9154 | 1.6 | 14.7 | 36.0 | 19.3 | 48.5 | P | T | T |
| G20-9503 | 1.9 | 13.0 | 35.6 | 18.2 | 47.3 | W | T | T |
| G20-9576 | 1.7 | 12.9 | 36.2 | 18.4 | 48.2 | W | T | T |
| G20-9685 | 1.9 | 12.3 | 36.2 | 18.6 | 48.3 | W | T | T |
| N11-7414 | 1.6 | 21.1 | 36.8 | 17.6 | 48.5 | P | G | |
| N11-7433 | 1.8 | 13.7 | 37.3 | 17.0 | 48.8 | W | G | |
| N11-7559 | 1.7 | 13.1 | 36.9 | 17.4 | 48.6 | W | G | |
| N16-10518 | 1.5 | 9.6 | 35.7 | 18.2 | 47.4 | W | G | |
| N17-30715 | 2.0 | 13.1 | 34.0 | 20.1 | 46.2 | W | T | |
| N17-7028 | 1.6 | 12.4 | 36.4 | 18.3 | 48.4 | W | T | |
| N18-8005 | 2.3 | 14.2 | 36.3 | 18.0 | 48.1 | P | T | |
| N18-8006 | 2.0 | 12.5 | 36.3 | 18.1 | 48.2 | P | T | |
| NC17-6025 | 2.1 | 15.3 | 36.1 | 18.5 | 48.1 | P | T | |
| | | | | | | | | |
| Mean | 1.8 | 14.1 | 35.9 | 18.3 | 47.8 | | | |
| LSD(0.05) | 0.4 | 0.9 | 1.0 | 0.5 | 1.1 | | | |
| LSD(0.10) | . | . | . | . | . | | | |
| CV(%) | 19.8 | 6.8 | 2.2 | 2.2 | 1.8 | | | |

§ Protein percentage and oil percentage are reported on a 13% moisture basis beginning in 2015.

## *TABLE 129 - SEED YIELD (BUSHELS PER ACRE)*
## *PRELIMINARY GROUP VII-VIII 2023 †*

| *STRAIN/ VARIETY* | *Athens, GA(A)* | *Jackson Springs, NC* | *Kinston, NC* | *Plains, GA* | *Plymouth, NC* | *Test Mean* |
|---|---|---|---|---|---|---|
| SH 7418LL | 58.4 | 24.4 | 57.3 | 49.6 | 28.5 | 55.1 |
| AG72XF0 | 62.2 | 23.4 | 55.3 | 41.7 | 36.7 | 53.1 |
| AGS-738RR | 68.3 | 33.3 | 56.7 | 47.5 | 28.2 | 57.5 |
| NC-Wilder | 62.4 | 29.2 | 52.3 | 49.5 | 34.4 | 54.8 |
| AG79X9RR2X/SR | 66.1 | 14.5 | 48.4 | 44.3 | 25.0 | 53.0 |
| N8002 | 64.0 | 15.7 | 45.0 | 45.9 | 30.5 | 51.6 |
| G19-12278 | 66.1 | 25.4 | 45.7 | 51.6 | 24.9 | 54.5 |
| G20-10017 | 69.1 | 16.2 | 51.8 | 49.3 | 34.3 | 56.7 |
| G20-10022 | 63.9 | 30.5 | 59.5 | 51.1 | 30.5 | 58.2 |
| G20-12085LL | 68.2 | 28.7 | 56.2 | 54.4 | 36.5 | 59.6 |
| G20-12320LL | 71.9 | 36.0 | 56.4 | 49.2 | 31.6 | 59.2 |
| G20-12745LL | 60.8 | 27.0 | 46.9 | 49.0 | 33.0 | 52.2 |
| G20-13046LL | 62.4 | 25.0 | 57.5 | 47.4 | 35.8 | 55.8 |
| G20-13228LL | 66.1 | 20.5 | 45.6 | 47.3 | 26.5 | 53.0 |
| G20-2091R1 | 60.5 | 24.4 | 46.5 | 45.8 | 30.7 | 50.9 |
| G20-2822R2 | 64.8 | 25.7 | 56.7 | 40.9 | 24.5 | 54.2 |
| G20-3375R2 | 63.5 | 22.3 | 58.5 | 46.4 | 33.9 | 56.2 |
| G20-3630R2 | 70.0 | 21.6 | 47.7 | 49.5 | 31.2 | 55.7 |
| G20-4820R2 | 66.0 | 35.5 | 56.6 | 49.7 | 38.9 | 57.4 |
| G20-5669R2 | 63.5 | 26.5 | 56.8 | 52.7 | 24.8 | 57.7 |
| G20-6072R2 | 56.4 | 32.5 | 55.5 | 49.2 | 31.5 | 53.7 |
| G20-8200 | 69.5 | 17.1 | 44.9 | 49.9 | 35.6 | 54.8 |
| G20-8317 | 61.7 | 17.3 | 53.5 | 50.1 | 30.9 | 55.1 |
| G20-9154 | 67.2 | 15.8 | 52.9 | 46.9 | 27.4 | 55.7 |
| G20-9503 | 66.0 | 23.1 | 54.6 | 52.4 | 25.5 | 57.7 |
| G20-9576 | 65.0 | 30.5 | 62.9 | 41.4 | 38.3 | 56.5 |
| G20-9685 | 59.3 | 24.7 | 57.1 | 50.0 | 25.3 | 55.5 |
| N11-7414 | 52.7 | 25.4 | 48.5 | 35.7 | 26.9 | 45.6 |
| N11-7433 | 60.3 | 26.8 | 35.1 | 45.7 | 22.8 | 47.0 |
| N11-7559 | 62.4 | 12.4 | 37.9 | 45.6 | 28.5 | 48.7 |
| N16-10518 | 52.8 | 24.0 | 47.5 | 45.1 | 33.1 | 48.4 |
| N17-30715 | 67.1 | 24.5 | 50.0 | 46.9 | 34.4 | 54.7 |
| N17-7028 | 54.1 | 34.0 | 48.3 | 47.5 | 32.9 | 50.0 |
| N18-8005 | 46.5 | 21.0 | 40.4 | 32.1 | 18.9 | 39.6 |
| N18-8006 | 46.4 | 26.9 | 40.3 | 30.9 | 24.3 | 39.2 |
| NC17-6025 | 54.9 | 17.1 | 50.3 | 46.2 | 19.5 | 50.5 |
| | | | | | | |
| Mean | 62.2 | 24.4 | 51.0 | 46.6 | 29.9 | 53.3 |
| LSD(0.05) | 9.9 | 13.2 | 6.9 | 8.4 | 10.4 | 7.3 |
| LSD(0.10) | 8.3 | 11.0 | 5.8 | 7.0 | 8.7 | 6.1 |
| CV(%) | 9.8 | 29.7 | 8.3 | 11.0 | 21.4 | 11.6 |

† Data not included in the test mean due to CV > 15%: Jackson Springs and Plymouth.

## *TABLE 130 - RELATIVE MATURITY (DAYS EARLIER (-) OR LATER (+) THAN ENTRY 1)*
## *PRELIMINARY GROUP VII-VIII 2023*

| *STRAIN/ VARIETY* | *Athens, GA(A)* | *Jackson Springs, NC* | *Kinston, NC* | *Plains, GA* | *Plymouth, NC* | *Test Mean* |
|---|---|---|---|---|---|---|
| SH 7418LL | 10/20 | . | 10/28 | . | 10/30 | 10/26 |
| AG72XF0 | 3 | . | 0 | . | 0 | 1 |
| AGS-738RR | -2 | . | -2 | . | 1 | -1 |
| NC-Wilder | 1 | . | 1 | . | 1 | 1 |
| AG79X9RR2X/SR | 4 | . | . | . | 3 | 3 |
| N8002 | 6 | . | . | . | 2 | 3 |
| G19-12278 | 2 | . | -1 | . | 0 | 0 |
| G20-10017 | -4 | . | 0 | . | -4 | -3 |
| G20-10022 | 1 | . | -1 | . | 2 | 1 |
| G20-12085LL | 2 | . | 0 | . | 2 | 2 |
| G20-12320LL | 3 | . | 0 | . | 2 | 2 |
| G20-12745LL | 2 | . | -2 | . | -3 | -1 |
| G20-13046LL | 4 | . | . | . | 3 | 3 |
| G20-13228LL | 2 | . | . | . | 2 | 1 |
| G20-2091R1 | 1 | . | -1 | . | -1 | -1 |
| G20-2822R2 | 5 | . | 1 | . | 3 | 3 |
| G20-3375R2 | 3 | . | . | . | 4 | 3 |
| G20-3630R2 | 3 | . | 0 | . | 4 | 2 |
| G20-4820R2 | 2 | . | 0 | . | 2 | 1 |
| G20-5669R2 | 3 | . | 1 | . | 0 | 1 |
| G20-6072R2 | 0 | . | -2 | . | -1 | -1 |
| G20-8200 | 0 | . | -1 | . | -2 | -1 |
| G20-8317 | 3 | . | -1 | . | 2 | 2 |
| G20-9154 | 6 | . | . | . | 5 | 5 |
| G20-9503 | 0 | . | -3 | . | 3 | 0 |
| G20-9576 | 5 | . | . | . | 3 | 4 |
| G20-9685 | 4 | . | -2 | . | 3 | 2 |
| N11-7414 | 5 | . | . | . | 3 | 4 |
| N11-7433 | 2 | . | -4 | . | 1 | 0 |
| N11-7559 | -2 | . | -2 | . | -2 | -2 |
| N16-10518 | 4 | . | -1 | . | -1 | 1 |
| N17-30715 | 3 | . | -3 | . | 0 | 1 |
| N17-7028 | 4 | . | -2 | . | -3 | 0 |
| N18-8005 | 8 | . | . | . | 2 | 5 |
| N18-8006 | 4 | . | -1 | . | 2 | 2 |
| NC17-6025 | 0 | . | 0 | . | 1 | 0 |
| | | | | | | |
| Mean | 2 | . | -1 | . | 1 | 1 |
| LSD(0.05) | 4 | . | 2 | . | 3 | 3 |
| CV(%) | 103 | . | 82 | . | 139 | 191 |

## *TABLE 131 - PLANT HEIGHT (INCHES)*
## *PRELIMINARY GROUP VII-VIII 2023*

| *STRAIN/ VARIETY* | *Athens, GA(A)* | *Jackson Springs, NC* | *Kinston, NC* | *Plains, GA* | *Plymouth, NC* | *Test Mean* |
|---|---|---|---|---|---|---|
| SH 7418LL | 41 | 19 | 36 | 36 | 35 | 33 |
| AG72XF0 | 42 | 18 | 40 | 32 | 42 | 35 |
| AGS-738RR | 35 | 23 | 36 | 30 | 30 | 31 |
| NC-Wilder | 42 | 23 | 39 | 31 | 31 | 33 |
| AG79X9RR2X/SR | 45 | 19 | 38 | 36 | 40 | 36 |
| N8002 | 41 | 24 | 38 | 34 | 35 | 34 |
| G19-12278 | 39 | 21 | 33 | 28 | 29 | 30 |
| G20-10017 | 33 | 20 | 33 | 37 | 37 | 32 |
| G20-10022 | 39 | 24 | 40 | 33 | 35 | 34 |
| G20-12085LL | 41 | 22 | 37 | 29 | 35 | 33 |
| G20-12320LL | 39 | 19 | 38 | 36 | 32 | 33 |
| G20-12745LL | 46 | 25 | 42 | 36 | 41 | 38 |
| G20-13046LL | 44 | 22 | 40 | 37 | 34 | 35 |
| G20-13228LL | 43 | 24 | 40 | 35 | 40 | 36 |
| G20-2091R1 | 40 | 21 | 40 | 37 | 37 | 35 |
| G20-2822R2 | 45 | 24 | 42 | 37 | 42 | 38 |
| G20-3375R2 | 43 | 25 | 43 | 36 | 38 | 37 |
| G20-3630R2 | 43 | 20 | 36 | 36 | 38 | 34 |
| G20-4820R2 | 40 | 24 | 35 | 37 | 39 | 35 |
| G20-5669R2 | 45 | 21 | 36 | 33 | 36 | 34 |
| G20-6072R2 | 40 | 27 | 39 | 33 | 40 | 36 |
| G20-8200 | 44 | 23 | 37 | 38 | 35 | 35 |
| G20-8317 | 39 | 19 | 37 | 30 | 35 | 32 |
| G20-9154 | 44 | 21 | 41 | 38 | 37 | 36 |
| G20-9503 | 40 | 22 | 38 | 31 | 35 | 33 |
| G20-9576 | 39 | 25 | 40 | 31 | 38 | 35 |
| G20-9685 | 36 | 24 | 39 | 30 | 38 | 33 |
| N11-7414 | 43 | 24 | 39 | 32 | 31 | 34 |
| N11-7433 | 40 | 22 | 39 | 39 | 38 | 35 |
| N11-7559 | 40 | 21 | 40 | 31 | 40 | 34 |
| N16-10518 | 35 | 25 | 32 | 29 | 36 | 31 |
| N17-30715 | 43 | 22 | 39 | 28 | 35 | 33 |
| N17-7028 | 36 | 23 | 33 | 30 | 36 | 31 |
| N18-8005 | 58 | 34 | 50 | 54 | 53 | 50 |
| N18-8006 | 63 | 31 | 50 | 58 | 52 | 51 |
| NC17-6025 | 43 | 25 | 35 | 31 | 33 | 33 |
| | | | | | | |
| Mean | 42 | 23 | 38 | 34 | 37 | 35 |
| LSD(0.05) | 7 | 4 | 4 | 6 | 6 | 4 |
| CV(%) | 8 | 9 | 5 | 9 | 9 | 10 |

***TABLE 132 - PLANT LODGING (1-5)***
***PRELIMINARY GROUP VII-VIII 2023***

| STRAIN/ VARIETY | Athens, GA(A) | Jackson Springs, NC | Kinston, NC | Plains, GA | Plymouth, NC | Test Mean |
|---|---|---|---|---|---|---|
| SH 7418LL | 2.0 | 1.5 | 1.5 | 1.0 | 3.0 | 1.8 |
| AG72XF0 | 2.3 | 1.5 | 1.5 | 1.0 | 2.0 | 1.7 |
| AGS-738RR | 1.7 | 1.5 | 1.5 | 1.0 | 2.5 | 1.6 |
| NC-Wilder | 3.0 | 1.8 | 2.3 | 1.3 | 3.3 | 2.3 |
| AG79X9RR2X/SR | 1.3 | 1.5 | 1.3 | 1.0 | 1.8 | 1.3 |
| N8002 | 3.3 | 2.0 | 2.3 | 1.7 | 3.5 | 2.5 |
| G19-12278 | 2.0 | 1.5 | 1.3 | 1.0 | 1.5 | 1.5 |
| G20-10017 | 1.3 | 1.5 | 1.3 | 1.0 | 2.5 | 1.5 |
| G20-10022 | 3.3 | 2.0 | 2.0 | 1.3 | 3.5 | 2.4 |
| G20-12085LL | 2.0 | 1.8 | 1.0 | 1.0 | 2.3 | 1.6 |
| G20-12320LL | 2.0 | 1.5 | 1.0 | 1.0 | 1.5 | 1.4 |
| G20-12745LL | 2.7 | 2.0 | 1.5 | 1.0 | 3.0 | 2.0 |
| G20-13046LL | 2.3 | 1.5 | 2.0 | 1.0 | 2.5 | 1.8 |
| G20-13228LL | 1.7 | 2.0 | 1.3 | 1.3 | 2.5 | 1.7 |
| G20-2091R1 | 2.0 | 1.5 | 1.3 | 1.0 | 2.3 | 1.6 |
| G20-2822R2 | 2.7 | 1.8 | 1.8 | 2.0 | 2.8 | 2.2 |
| G20-3375R2 | 1.3 | 2.0 | 1.3 | 1.0 | 2.8 | 1.6 |
| G20-3630R2 | 2.0 | 1.5 | 1.3 | 1.3 | 2.8 | 1.8 |
| G20-4820R2 | 2.0 | 1.8 | 1.3 | 1.0 | 2.8 | 1.7 |
| G20-5669R2 | 2.3 | 1.8 | 1.5 | 1.0 | 2.3 | 1.8 |
| G20-6072R2 | 2.3 | 1.8 | 1.5 | 1.7 | 2.3 | 1.9 |
| G20-8200 | 2.0 | 1.8 | 1.8 | 1.0 | 2.3 | 1.7 |
| G20-8317 | 3.0 | 1.8 | 1.5 | 1.0 | 1.8 | 1.8 |
| G20-9154 | 2.3 | 1.5 | 1.3 | 1.0 | 2.8 | 1.8 |
| G20-9503 | 2.3 | 1.8 | 1.5 | 1.0 | 3.0 | 1.9 |
| G20-9576 | 2.3 | 2.0 | 1.5 | 1.0 | 2.5 | 1.8 |
| G20-9685 | 2.7 | 1.8 | 2.0 | 1.3 | 3.0 | 2.1 |
| N11-7414 | 2.7 | 1.8 | 1.5 | 1.3 | 2.5 | 2.0 |
| N11-7433 | 2.3 | 1.5 | 1.5 | 2.0 | 2.3 | 2.0 |
| N11-7559 | 2.7 | 1.8 | 2.0 | 1.7 | 2.3 | 2.1 |
| N16-10518 | 3.0 | 1.8 | 1.3 | 1.0 | 2.5 | 1.9 |
| N17-30715 | 3.0 | 1.5 | 2.0 | 1.7 | 2.5 | 2.2 |
| N17-7028 | 3.0 | 1.8 | 1.3 | 1.0 | 3.8 | 2.1 |
| N18-8005 | 3.7 | 2.3 | 2.5 | 3.0 | 4.3 | 3.2 |
| N18-8006 | 3.0 | 2.0 | 2.8 | 3.0 | 4.0 | 3.0 |
| NC17-6025 | 3.0 | 1.8 | 2.3 | 1.3 | 2.8 | 2.2 |
| | | | | | | |
| Mean | 2.4 | 2 | 1.6 | 1.3 | 2.6 | 1.9 |
| LSD(0.05) | 1.1 | 0.4 | 0.5 | 0.6 | 0.8 | 0.4 |
| CV(%) | 28.8 | 12.6 | 15.1 | 27.6 | 14.5 | 25.6 |

***TABLE 133 - SEED QUALITY (1-5)***
***PRELIMINARY GROUP VII-VIII 2023***

| STRAIN/ VARIETY | Athens, GA(A) | Jackson Springs, NC | Kinston, NC | Plains, GA | Plymouth, NC | Test Mean |
|---|---|---|---|---|---|---|
| SH 7418LL | 1.3 | 2.0 | 1.0 | 2 | 2.0 | 1.6 |
| AG72XF0 | 2.0 | 2.3 | 1.0 | 2 | 2.0 | 1.8 |
| AGS-738RR | 1.3 | 1.8 | 1.0 | 2 | 2.0 | 1.6 |
| NC-Wilder | 1.3 | 1.5 | 1.0 | 2 | 1.7 | 1.5 |
| AG79X9RR2X/SR | 2.2 | 2.0 | 2.0 | 2 | 2.2 | 2.1 |
| N8002 | 2.3 | 2.0 | 2.0 | 2 | 2.0 | 2.1 |
| G19-12278 | 1.5 | 2.0 | 1.0 | 2 | 1.7 | 1.6 |
| G20-10017 | 1.2 | 1.8 | 1.0 | 2 | 2.0 | 1.5 |
| G20-10022 | 2.2 | 3.0 | 1.0 | 2 | 2.0 | 2.0 |
| G20-12085LL | 1.8 | 2.3 | 1.0 | 2 | 2.0 | 1.8 |
| G20-12320LL | 1.5 | 2.0 | 1.0 | 2 | 1.7 | 1.5 |
| G20-12745LL | 1.8 | 1.8 | 2.0 | 2 | 2.0 | 1.9 |
| G20-13046LL | 1.7 | 2.0 | 2.0 | 2 | 2.0 | 1.9 |
| G20-13228LL | 1.5 | 2.0 | 2.0 | 2 | 2.0 | 1.9 |
| G20-2091R1 | 1.8 | 2.0 | 1.0 | 2 | 2.0 | 1.7 |
| G20-2822R2 | 1.8 | 1.8 | 1.0 | 2 | 2.2 | 1.8 |
| G20-3375R2 | 1.3 | 1.8 | 1.0 | 2 | 2.2 | 1.6 |
| G20-3630R2 | 1.8 | 2.0 | 1.0 | 2 | 2.5 | 1.8 |
| G20-4820R2 | 1.7 | 2.3 | 2.0 | 2 | 2.0 | 1.9 |
| G20-5669R2 | 2.2 | 2.3 | 1.0 | 1 | 2.2 | 1.8 |
| G20-6072R2 | 1.5 | 1.5 | 1.0 | 2 | 2.0 | 1.5 |
| G20-8200 | 1.0 | 2.0 | 1.5 | 2 | 2.0 | 1.7 |
| G20-8317 | 1.5 | 1.8 | 2.0 | 2 | 2.0 | 1.8 |
| G20-9154 | 1.5 | 2.0 | 1.0 | 2 | 2.0 | 1.6 |
| G20-9503 | 1.8 | 2.0 | 1.0 | 2 | 2.2 | 1.9 |
| G20-9576 | 1.8 | 1.8 | 1.0 | 2 | 2.0 | 1.7 |
| G20-9685 | 2.2 | 1.8 | 1.0 | 2 | 2.0 | 1.9 |
| N11-7414 | 1.3 | 2.3 | 1.0 | 2 | 1.7 | 1.6 |
| N11-7433 | 1.7 | 2.0 | 1.0 | 2 | 2.0 | 1.8 |
| N11-7559 | 1.8 | 2.0 | 1.0 | 2 | 2.0 | 1.7 |
| N16-10518 | 1.3 | 2.5 | 1.0 | 1 | 1.5 | 1.5 |
| N17-30715 | 2.3 | 2.0 | 1.0 | 3 | 2.0 | 2.0 |
| N17-7028 | 1.5 | 2.3 | 1.0 | 2 | 1.7 | 1.6 |
| N18-8005 | 2.3 | 2.5 | 2.0 | 3 | 2.0 | 2.3 |
| N18-8006 | 1.7 | 2.0 | 2.0 | 2 | 2.5 | 2.0 |
| NC17-6025 | 1.7 | 2.3 | 2.0 | 2.2 | 2.5 | 2.1 |
| | | | | | | |
| Mean | 2 | 2.0 | 1 | 2 | 2.0 | 1.8 |
| LSD(0.05) | 1 | 0.5 | 0.2 | 1 | 0.4 | 0.4 |
| CV(%) | 17.5 | 13.0 | 9.1 | 15.7 | 9.2 | 19.8 |

## *TABLE 134 - SEED SIZE (GRAMS PER 100 SEED)*
## *PRELIMINARY GROUP VII-VIII 2023*

| *STRAIN/ VARIETY* | *Athens, GA(A)* | *Jackson Springs, NC* | *Kinston, NC* | *Plains, GA* | *Plymouth, NC* | *Test Mean* |
|---|---|---|---|---|---|---|
| SH 7418LL | 16.2 | 17.4 | 16.3 | 16 | 14.8 | 16.0 |
| AG72XF0 | 13.3 | 14.8 | 14.6 | 11 | 12.3 | 13.2 |
| AGS-738RR | 12.7 | 14.2 | 14.4 | 14 | 12.7 | 13.6 |
| NC-Wilder | 14.5 | 15.5 | 15.7 | 14 | 13.4 | 14.6 |
| AG79X9RR2X/SR | 17.1 | 18.2 | 18.0 | 15 | 15.5 | 16.7 |
| N8002 | 14.5 | 15.5 | 14.0 | 12 | 12.8 | 13.8 |
| G19-12278 | 12.5 | 14.5 | 12.8 | 12 | 11.6 | 12.6 |
| G20-10017 | 11.8 | 13.6 | 13.6 | 12 | 12.3 | 12.6 |
| G20-10022 | 14.1 | 14.7 | 15.0 | 15 | 13.6 | 14.4 |
| G20-12085LL | 16.9 | 17.6 | 17.9 | 16 | 15.7 | 16.9 |
| G20-12320LL | 13.5 | 14.4 | 13.5 | 12 | 12.5 | 13.0 |
| G20-12745LL | 14.2 | 15.8 | 14.3 | 14 | 12.3 | 14.0 |
| G20-13046LL | 15.0 | 17.3 | 15.9 | 14 | 14.1 | 15.2 |
| G20-13228LL | 13.8 | 14.6 | 15.1 | 13 | 13.1 | 13.9 |
| G20-2091R1 | 13.0 | 13.2 | 12.4 | 12 | 10.9 | 12.4 |
| G20-2822R2 | 16.8 | 17.0 | 16.9 | 15 | 14.1 | 15.8 |
| G20-3375R2 | 14.7 | 17.8 | 16.4 | 13 | 13.5 | 15.0 |
| G20-3630R2 | 16.3 | 14.9 | 15.4 | 15 | 13.5 | 15.2 |
| G20-4820R2 | 14.7 | 16.9 | 16.7 | 14 | 15.4 | 15.4 |
| G20-5669R2 | 14.4 | 15.6 | 14.8 | 14 | 12.6 | 14.3 |
| G20-6072R2 | 14.1 | 14.4 | 13.3 | 13 | 12.1 | 13.4 |
| G20-8200 | 14.2 | 15.1 | 13.8 | 14 | 12.8 | 13.9 |
| G20-8317 | 15.6 | 14.0 | 14.4 | 13 | 13.1 | 14.1 |
| G20-9154 | 15.3 | 16.9 | 15.0 | 13 | 13.4 | 14.7 |
| G20-9503 | 13.3 | 13.8 | 13.5 | 12 | 12.3 | 13.0 |
| G20-9576 | 12.7 | 15.1 | 14.1 | 11 | 12.1 | 12.9 |
| G20-9685 | 12.9 | 14.3 | 12.5 | 11 | 11.0 | 12.3 |
| N11-7414 | 23.1 | 22.9 | 22.8 | 18 | 19.6 | 21.1 |
| N11-7433 | 14.5 | 14.7 | 13.4 | 14 | 12.1 | 13.7 |
| N11-7559 | 12.5 | 15.3 | 12.6 | 14 | 11.5 | 13.1 |
| N16-10518 | 10.3 | 10.1 | 10.1 | 10 | 7.8 | 9.6 |
| N17-30715 | 13.5 | 15.1 | 13.6 | 12 | 11.1 | 13.1 |
| N17-7028 | 13.0 | 13.6 | 13.9 | 11 | 10.8 | 12.4 |
| N18-8005 | 15.1 | 15.4 | 15.6 | 12 | 12.7 | 14.2 |
| N18-8006 | 12.9 | 14.0 | 13.5 | 11 | 11.5 | 12.5 |
| NC17-6025 | 15.9 | 15.5 | 17.2 | 13.8 | 14.4 | 15.3 |
| | | | | | | |
| Mean | 14 | 15.4 | 15 | 13 | 12.9 | 14.1 |
| LSD(0.05) | 2 | 1.0 | 1.0 | 1 | 1.3 | 0.9 |
| CV(%) | 7.3 | 3.1 | 3.2 | 4.7 | 6.3 | 6.8 |

***TABLE 135 - OIL (%)†***
***PRELIMINARY GROUP VII-VIII 2023***

| STRAIN/ VARIETY | Athens, GA(A) | Jackson Springs, NC | Kinston, NC | Plains, GA | Plymouth, NC | Test Mean |
|---|---|---|---|---|---|---|
| SH 7418LL | 19.0 | 19.5 | 17.5 | 18.9 | 17.5 | 18.5 |
| AG72XF0 | 19.3 | 19.6 | 17.7 | 18.2 | 18.5 | 18.6 |
| AGS-738RR | 19.4 | 19.3 | 18.3 | 19.0 | 17.0 | 18.6 |
| NC-Wilder | 19.7 | 19.6 | 18.4 | 19.9 | 18.2 | 19.1 |
| AG79X9RR2X/SR | 18.7 | 19.4 | 17.7 | 18.0 | 16.5 | 18.0 |
| N8002 | 18.1 | 18.4 | 17.6 | 17.4 | 16.4 | 17.6 |
| G19-12278 | 19.6 | 19.7 | 18.1 | 19.1 | 19.3 | 19.2 |
| G20-10017 | 20.1 | 19.0 | 18.1 | 18.8 | 18.0 | 18.8 |
| G20-10022 | 18.6 | 18.5 | 17.0 | 18.5 | 16.4 | 17.8 |
| G20-12085LL | 18.8 | 19.2 | 17.8 | 19.2 | 17.3 | 18.4 |
| G20-12320LL | 19.2 | 19.2 | 18.0 | 19.3 | 16.9 | 18.5 |
| G20-12745LL | 19.6 | 19.3 | 18.4 | 19.9 | 17.9 | 19.0 |
| G20-13046LL | 18.4 | 18.2 | 17.1 | 18.5 | 16.9 | 17.8 |
| G20-13228LL | 19.8 | 19.7 | 17.6 | 19.2 | 17.7 | 18.8 |
| G20-2091R1 | 18.8 | 18.9 | 17.3 | 18.4 | 17.0 | 18.1 |
| G20-2822R2 | 17.9 | 18.4 | 17.1 | 18.4 | 16.2 | 17.6 |
| G20-3375R2 | 17.4 | 17.3 | 16.5 | 17.5 | 15.4 | 16.8 |
| G20-3630R2 | 18.5 | 19.3 | 17.6 | 18.7 | 17.4 | 18.3 |
| G20-4820R2 | 19.2 | 19.2 | 18.6 | 19.0 | 17.5 | 18.7 |
| G20-5669R2 | 17.9 | 18.9 | 16.9 | 18.2 | 16.4 | 17.7 |
| G20-6072R2 | 19.3 | 19.4 | 18.1 | 18.7 | 17.1 | 18.5 |
| G20-8200 | 19.0 | 19.2 | 17.7 | 19.3 | 18.1 | 18.7 |
| G20-8317 | 19.8 | 19.8 | 18.0 | 19.9 | 18.2 | 19.1 |
| G20-9154 | 20.2 | 20.0 | 19.2 | 19.3 | 18.1 | 19.3 |
| G20-9503 | 18.8 | 18.6 | 17.5 | 18.9 | 17.1 | 18.2 |
| G20-9576 | 19.2 | 19.3 | 18.0 | 18.3 | 17.3 | 18.4 |
| G20-9685 | 19.6 | 19.5 | 17.9 | 18.9 | 17.1 | 18.6 |
| N11-7414 | 17.9 | 17.3 | 17.5 | 18.3 | 17.0 | 17.6 |
| N11-7433 | 18.3 | 18.0 | 15.6 | 17.7 | 15.4 | 17.0 |
| N11-7559 | 18.3 | 18.4 | 16.2 | 18.0 | 16.2 | 17.4 |
| N16-10518 | 18.2 | 18.5 | 18.5 | 18.4 | 17.4 | 18.2 |
| N17-30715 | 20.8 | 20.3 | 19.1 | 20.6 | 19.8 | 20.1 |
| N17-7028 | 19.1 | 18.6 | 18.1 | 18.2 | 17.3 | 18.3 |
| N18-8005 | 17.9 | 18.4 | 18.0 | 18.1 | 17.8 | 18.0 |
| N18-8006 | 18.7 | 18.4 | 18.1 | 18.1 | 17.3 | 18.1 |
| NC17-6025 | 19.4 | 19.1 | 17.6 | 19.2 | 17.1 | 18.5 |
| | | | | | | |
| Mean | 18.9 | 19.0 | 17.7 | 18.7 | 17.3 | 18.3 |
| LSD(0.05) | . | . | . | . | . | 0.5 |
| CV(%) | . | . | . | . | . | 2.2 |

† Oil percentage is reported on a 13% moisture basis beginning in 2015.

***TABLE 136 - PROTEIN (%)†***
***PRELIMINARY GROUP VII-VIII 2023***

| STRAIN/ VARIETY | Athens, GA(A) | Jackson Springs, NC | Kinston, NC | Plains, GA | Plymouth, NC | Test Mean |
|---|---|---|---|---|---|---|
| SH 7418LL | 35.9 | 33.2 | 37.1 | 37.3 | 38.3 | 36.3 |
| AG72XF0 | 34.3 | 34.0 | 36.9 | 36.1 | 35.0 | 35.3 |
| AGS-738RR | 34.2 | 33.3 | 35.2 | 36.0 | 36.3 | 35.0 |
| NC-Wilder | 35.0 | 33.7 | 35.5 | 34.9 | 36.1 | 35.0 |
| AG79X9RR2X/SR | 34.8 | 33.8 | 36.1 | 36.9 | 37.3 | 35.8 |
| N8002 | 36.7 | 35.1 | 35.4 | 37.2 | 37.9 | 36.5 |
| G19-12278 | 34.1 | 33.9 | 36.2 | 35.3 | 31.9 | 34.3 |
| G20-10017 | 33.7 | 34.8 | 36.0 | 36.9 | 36.3 | 35.5 |
| G20-10022 | 36.2 | 34.9 | 36.5 | 35.3 | 38.0 | 36.2 |
| G20-12085LL | 34.6 | 33.2 | 36.5 | 36.0 | 37.7 | 35.6 |
| G20-12320LL | 33.6 | 32.1 | 33.8 | 34.0 | 35.5 | 33.8 |
| G20-12745LL | 34.0 | 33.9 | 35.7 | 34.9 | 36.2 | 34.9 |
| G20-13046LL | 35.7 | 35.1 | 37.0 | 36.7 | 37.3 | 36.3 |
| G20-13228LL | 34.7 | 34.3 | 37.3 | 36.6 | 36.9 | 36.0 |
| G20-2091R1 | 36.6 | 35.6 | 37.2 | 37.9 | 37.6 | 37.0 |
| G20-2822R2 | 35.6 | 34.8 | 35.3 | 35.9 | 36.7 | 35.7 |
| G20-3375R2 | 37.4 | 35.9 | 37.9 | 37.7 | 38.4 | 37.4 |
| G20-3630R2 | 35.5 | 33.2 | 35.2 | 36.4 | 35.4 | 35.2 |
| G20-4820R2 | 33.3 | 32.7 | 34.0 | 35.7 | 36.4 | 34.4 |
| G20-5669R2 | 38.3 | 34.6 | 38.0 | 37.6 | 39.1 | 37.5 |
| G20-6072R2 | 35.9 | 34.4 | 35.8 | 36.8 | 36.6 | 35.9 |
| G20-8200 | 36.0 | 35.5 | 37.4 | 36.7 | 37.2 | 36.5 |
| G20-8317 | 36.8 | 34.3 | 37.8 | 37.1 | 38.3 | 36.9 |
| G20-9154 | 35.3 | 35.2 | 35.5 | 36.9 | 37.0 | 36.0 |
| G20-9503 | 35.0 | 33.9 | 35.5 | 36.5 | 37.2 | 35.6 |
| G20-9576 | 35.2 | 35.1 | 36.6 | 36.7 | 37.3 | 36.2 |
| G20-9685 | 35.0 | 34.5 | 37.0 | 37.0 | 37.5 | 36.2 |
| N11-7414 | 36.7 | 36.4 | 36.2 | 37.3 | 37.2 | 36.8 |
| N11-7433 | 35.9 | 36.1 | 38.3 | 37.3 | 38.9 | 37.3 |
| N11-7559 | 35.9 | 35.2 | 38.5 | 37.0 | 38.0 | 36.9 |
| N16-10518 | 36.4 | 34.6 | 34.4 | 37.0 | 36.0 | 35.7 |
| N17-30715 | 33.8 | 33.8 | 34.7 | 34.2 | 33.4 | 34.0 |
| N17-7028 | 35.4 | 35.3 | 35.9 | 37.8 | 37.5 | 36.4 |
| N18-8005 | 36.3 | 35.8 | 36.7 | 36.8 | 35.9 | 36.3 |
| N18-8006 | 36.2 | 36.4 | 35.9 | 35.9 | 37.3 | 36.3 |
| NC17-6025 | 35.9 | 34.6 | 37.2 | 35.7 | 37.1 | 36.1 |
| | | | | | | |
| Mean | 35.4 | 34.5 | 36.3 | 36.4 | 36.8 | 35.9 |
| LSD(0.05) | . | . | . | . | . | 1.0 |
| CV(%) | . | . | . | . | . | 2.2 |

† Protein percentage is reported on a 13% moisture basis beginning in 2015.

## *TABLE 137 - ESTIMATED MEAL PROTEIN (%)†*
## *PRELIMINARY GROUP VII-VIII 2023*

| *STRAIN/ VARIETY* | *Athens, GA(A)* | *Jackson Springs, NC* | *Kinston, NC* | *Plains, GA* | *Plymouth, NC* | *Test Mean* |
|---|---|---|---|---|---|---|
| SH 7418LL | 48.1 | 44.8 | 48.8 | 50.0 | 50.4 | 48.4 |
| AG72XF0 | 46.2 | 45.9 | 48.7 | 48.0 | 46.7 | 47.1 |
| AGS-738RR | 46.2 | 44.9 | 46.9 | 48.3 | 47.5 | 46.8 |
| NC-Wilder | 47.3 | 45.6 | 47.3 | 47.3 | 47.9 | 47.1 |
| AG79X9RR2X/SR | 46.5 | 45.6 | 47.6 | 48.9 | 48.5 | 47.4 |
| N8002 | 48.6 | 46.8 | 46.7 | 49.0 | 49.3 | 48.1 |
| G19-12278 | 46.2 | 45.9 | 48.1 | 47.4 | 43.0 | 46.1 |
| G20-10017 | 45.8 | 46.6 | 47.8 | 49.3 | 48.1 | 47.5 |
| G20-10022 | 48.3 | 46.5 | 47.8 | 47.1 | 49.4 | 47.8 |
| G20-12085LL | 46.3 | 44.6 | 48.3 | 48.4 | 49.5 | 47.4 |
| G20-12320LL | 45.1 | 43.1 | 44.9 | 45.7 | 46.4 | 45.0 |
| G20-12745LL | 45.9 | 45.7 | 47.5 | 47.3 | 47.9 | 46.9 |
| G20-13046LL | 47.6 | 46.6 | 48.5 | 48.9 | 48.8 | 48.1 |
| G20-13228LL | 47.0 | 46.5 | 49.2 | 49.3 | 48.7 | 48.1 |
| G20-2091R1 | 49.0 | 47.7 | 48.9 | 50.4 | 49.2 | 49.0 |
| G20-2822R2 | 47.2 | 46.3 | 46.2 | 47.8 | 47.6 | 47.0 |
| G20-3375R2 | 49.2 | 47.1 | 49.4 | 49.6 | 49.3 | 48.9 |
| G20-3630R2 | 47.4 | 44.7 | 46.5 | 48.7 | 46.6 | 46.8 |
| G20-4820R2 | 44.8 | 44.0 | 45.3 | 47.9 | 47.9 | 46.0 |
| G20-5669R2 | 50.7 | 46.4 | 49.7 | 50.0 | 50.8 | 49.5 |
| G20-6072R2 | 48.3 | 46.4 | 47.5 | 49.2 | 47.9 | 47.9 |
| G20-8200 | 48.3 | 47.7 | 49.4 | 49.4 | 49.3 | 48.8 |
| G20-8317 | 49.9 | 46.4 | 50.2 | 50.3 | 50.8 | 49.5 |
| G20-9154 | 48.1 | 47.9 | 47.7 | 49.6 | 49.1 | 48.5 |
| G20-9503 | 46.8 | 45.3 | 46.7 | 49.0 | 48.7 | 47.3 |
| G20-9576 | 47.3 | 47.2 | 48.5 | 48.8 | 49.0 | 48.2 |
| G20-9685 | 47.2 | 46.6 | 49.0 | 49.6 | 49.1 | 48.3 |
| N11-7414 | 48.6 | 47.8 | 47.7 | 49.6 | 48.7 | 48.5 |
| N11-7433 | 47.7 | 47.8 | 49.3 | 49.2 | 50.0 | 48.8 |
| N11-7559 | 47.8 | 46.8 | 50.0 | 49.1 | 49.3 | 48.6 |
| N16-10518 | 48.3 | 46.2 | 45.9 | 49.3 | 47.3 | 47.4 |
| N17-30715 | 46.4 | 46.1 | 46.6 | 46.8 | 45.2 | 46.2 |
| N17-7028 | 47.5 | 47.2 | 47.6 | 50.3 | 49.3 | 48.4 |
| N18-8005 | 48.0 | 47.7 | 48.6 | 48.9 | 47.5 | 48.1 |
| N18-8006 | 48.3 | 48.5 | 47.7 | 47.6 | 49.0 | 48.2 |
| NC17-6025 | 48.4 | 46.5 | 49.1 | 48.0 | 48.6 | 48.1 |
| Mean | 47.5 | 46.3 | 47.9 | 48.7 | 48.4 | 47.8 |
| LSD(0.05) | . | . | . | . | . | 1.1 |
| CV(%) | . | . | . | . | . | 1.8 |

† Estimated meal protein percentage is reported on a 13% moisture basis.

***SUMMARY OF SEED FATTY ACIDS (%)***
***PRELIMINARY TEST VII-VIII 2023 †***

| STRAIN/ VARIETY | Palmitic Acid | Stearic Acid | Oleic Acid | Linoleic Acid | Linolenic Acid |
|---|---|---|---|---|---|
| SH 7418LL | 11.4 | 3.3 | 22.0 | 54.8 | 8.5 |
| AG72XF0 | 11.6 | 3.5 | 20.3 | 56.3 | 8.3 |
| G20-13228LL | 8.5 | 3.1 | 63.1 | 21.5 | 3.8 |
| G20-2091R1 | 8.2 | 2.8 | 74.2 | 12.1 | 2.7 |
| G20-6072R2 | 8.3 | 2.9 | 76.2 | 9.9 | 2.7 |
| G20-8200 | 7.7 | 2.6 | 79.0 | 8.3 | 2.4 |
| G20-8317 | 7.4 | 2.9 | 78.1 | 9.3 | 2.3 |
| N18-8005 | 6.8 | 3.3 | 77.3 | 6.5 | 6.1 |
| N18-8006 | 7.5 | 3.0 | 73.6 | 9.9 | 6.0 |
| | | | | | |
| Mean | 8.6 | 3.0 | 62.6 | 21.0 | 4.8 |
| LSD(0.05) | 0.5 | 0.2 | 5.3 | 4.6 | 0.7 |
| CV(%) | 4.6 | 5.4 | 6.5 | 16.9 | 11.1 |

† Fatty acid percentage in seed oil reported beginning in 2017.

***SEED PALMITIC ACID (%)***
***PRELIMINARY GROUP VII-VIII 2023***

| STRAIN/ VARIETY | Athens, GA(A) | Fairhope, AL | Jackson Springs, NC | Kinston, NC | Plains, GA | Plymouth, NC | Test Mean |
|---|---|---|---|---|---|---|---|
| SH 7418LL | 10.9 | . | 11.3 | 11.7 | 11.9 | 11.4 | 11.4 |
| AG72XF0 | 11.4 | . | 11.9 | 11.5 | 11.6 | 11.4 | 11.6 |
| G20-13228LL | 7.7 | . | 8.5 | 9.1 | 9.1 | 8.0 | 8.5 |
| G20-2091R1 | 7.9 | . | 8.0 | 8.2 | 8.0 | 8.9 | 8.2 |
| G20-6072R2 | 7.6 | . | 8.3 | 8.4 | 9.4 | 8.0 | 8.3 |
| G20-8200 | 7.6 | . | 8.0 | 7.5 | 7.4 | 7.8 | 7.7 |
| G20-8317 | 7.2 | . | 7.9 | 7.7 | 7.0 | 7.3 | 7.4 |
| N18-8005 | 6.7 | . | 7.2 | 6.6 | 6.8 | 6.7 | 6.8 |
| N18-8006 | 6.7 | . | 7.3 | 7.5 | 8.5 | 7.8 | 7.5 |
| | | | | | | | |
| Mean | 8.2 | . | 8.7 | 8.7 | 8.9 | 8.6 | 8.6 |
| LSD(0.05) | . | . | . | . | . | . | 0.5 |
| CV(%) | . | . | . | . | . | . | 4.6 |

***SEED STEARIC ACID (%)***
***PRELIMINARY GROUP VII-VIII 2023***

| STRAIN/ VARIETY | Athens, GA(A) | Fairhope, AL | Jackson Springs, NC | Kinston, NC | Plains, GA | Plymouth, NC | Test Mean |
|---|---|---|---|---|---|---|---|
| SH 7418LL | 3.7 | . | 3.3 | 3.0 | 3.5 | 3.0 | 3.3 |
| AG72XF0 | 3.7 | . | 3.5 | 3.3 | 3.7 | 3.4 | 3.5 |
| G20-13228LL | 3.5 | . | 2.8 | 2.9 | 3.6 | 2.7 | 3.1 |
| G20-2091R1 | 3.2 | . | 2.9 | 2.6 | 2.7 | 2.8 | 2.8 |
| G20-6072R2 | 3.2 | . | 2.7 | 2.7 | 3.0 | 2.8 | 2.9 |
| G20-8200 | 2.8 | . | 2.7 | 2.5 | 2.7 | 2.5 | 2.6 |
| G20-8317 | 2.8 | . | 2.9 | 2.9 | 3.0 | 2.7 | 2.9 |
| N18-8005 | 3.7 | . | 3.2 | 2.9 | 3.2 | 3.3 | 3.3 |
| N18-8006 | 3.3 | . | 2.8 | 2.8 | 3.2 | 2.9 | 3.0 |
| | | | | | | | |
| Mean | 3.3 | . | 3.0 | 2.8 | 3.2 | 2.9 | 3.0 |
| LSD(0.05) | . | . | . | . | . | . | 0.2 |
| CV(%) | . | . | . | . | . | . | 5.4 |

***SEED OLEIC ACID (%)***
***PRELIMINARY GROUP VII-VIII 2023***

| STRAIN/ VARIETY | Athens, GA(A) | Fairhope, AL | Jackson Springs, NC | Kinston, NC | Plains, GA | Plymouth, NC | Test Mean |
|---|---|---|---|---|---|---|---|
| SH 7418LL | 24.8 | . | 19.3 | 19.9 | 24.1 | 21.9 | 22.0 |
| AG72XF0 | 21.2 | . | 19.5 | 19.6 | 21.0 | 20.1 | 20.3 |
| G20-13228LL | 69.2 | . | 65.2 | 56.9 | 59.3 | 64.9 | 63.1 |
| G20-2091R1 | 77.4 | . | 75.3 | 74.7 | 79.0 | 64.5 | 74.2 |
| G20-6072R2 | 79.0 | . | 76.9 | 77.4 | 70.1 | 77.3 | 76.2 |
| G20-8200 | 81.3 | . | 72.9 | 78.6 | 82.2 | 80.0 | 79.0 |
| G20-8317 | 80.8 | . | 71.1 | 76.6 | 82.7 | 79.2 | 78.1 |
| N18-8005 | 75.7 | . | 74.7 | 78.5 | 79.1 | 78.3 | 77.3 |
| N18-8006 | 80.2 | . | 77.6 | 77.8 | 66.1 | 66.1 | 73.6 |
| Mean | 65.5 | . | 61.4 | 62.2 | 62.6 | 61.4 | 62.6 |
| LSD(0.05) | . | . | . | . | . | . | 5.3 |
| CV(%) | . | . | . | . | . | . | 6.5 |

***SEED LINOLEIC ACID (%)***
***PRELIMINARY GROUP VII-VIII 2023***

| STRAIN/ VARIETY | Athens, GA(A) | Fairhope, AL | Jackson Springs, NC | Kinston, NC | Plains, GA | Plymouth, NC | Test Mean |
|---|---|---|---|---|---|---|---|
| SH 7418LL | 53.3 | . | 57.0 | 54.8 | 53.2 | 55.5 | 54.8 |
| AG72XF0 | 56.0 | . | 56.1 | 56.8 | 56.0 | 56.7 | 56.3 |
| G20-13228LL | 16.1 | . | 19.7 | 27.2 | 24.2 | 20.4 | 21.5 |
| G20-2091R1 | 9.3 | . | 11.1 | 11.8 | 7.9 | 20.4 | 12.1 |
| G20-6072R2 | 8.2 | . | 9.7 | 8.9 | 14.3 | 8.7 | 9.9 |
| G20-8200 | 6.3 | . | 13.3 | 8.7 | 5.7 | 7.4 | 8.3 |
| G20-8317 | 7.1 | . | 15.5 | 10.1 | 5.4 | 8.6 | 9.3 |
| N18-8005 | 7.7 | . | 8.0 | 5.7 | 5.5 | 5.8 | 6.5 |
| N18-8006 | 4.5 | . | 6.0 | 5.2 | 17.3 | 16.5 | 9.9 |
| Mean | 18.7 | . | 21.8 | 21.0 | 21.1 | 22.2 | 21.0 |
| LSD(0.05) | . | . | . | . | . | . | 4.6 |
| CV(%) | . | . | . | . | . | . | 16.9 |

***SEED LINOLENIC ACID (%)***
***PRELIMINARY GROUP VII-VIII 2023***

| STRAIN/ VARIETY | Athens, GA(A) | Fairhope, AL | Jackson Springs, NC | Kinston, NC | Plains, GA | Plymouth, NC | Test Mean |
|---|---|---|---|---|---|---|---|
| SH 7418LL | 7.2 | . | 9.1 | 10.6 | 7.2 | 8.3 | 8.5 |
| AG72XF0 | 7.7 | . | 8.9 | 8.7 | 7.7 | 8.5 | 8.3 |
| G20-13228LL | 3.4 | . | 3.8 | 4.0 | 3.8 | 4.0 | 3.8 |
| G20-2091R1 | 2.3 | . | 2.7 | 2.8 | 2.3 | 3.4 | 2.7 |
| G20-6072R2 | 2.1 | . | 2.3 | 2.6 | 3.2 | 3.1 | 2.7 |
| G20-8200 | 2.0 | . | 3.1 | 2.7 | 2.0 | 2.4 | 2.4 |
| G20-8317 | 2.1 | . | 2.6 | 2.7 | 1.9 | 2.2 | 2.3 |
| N18-8005 | 6.1 | . | 6.8 | 6.3 | 5.4 | 5.9 | 6.1 |
| N18-8006 | 5.2 | . | 6.3 | 6.7 | 4.9 | 6.8 | 6.0 |
| Mean | 4.2 | . | 5.1 | 5.2 | 4.3 | 5.0 | 4.8 |
| LSD(0.05) | . | . | . | . | . | . | 0.7 |
| CV(%) | . | . | . | . | . | . | 11.1 |