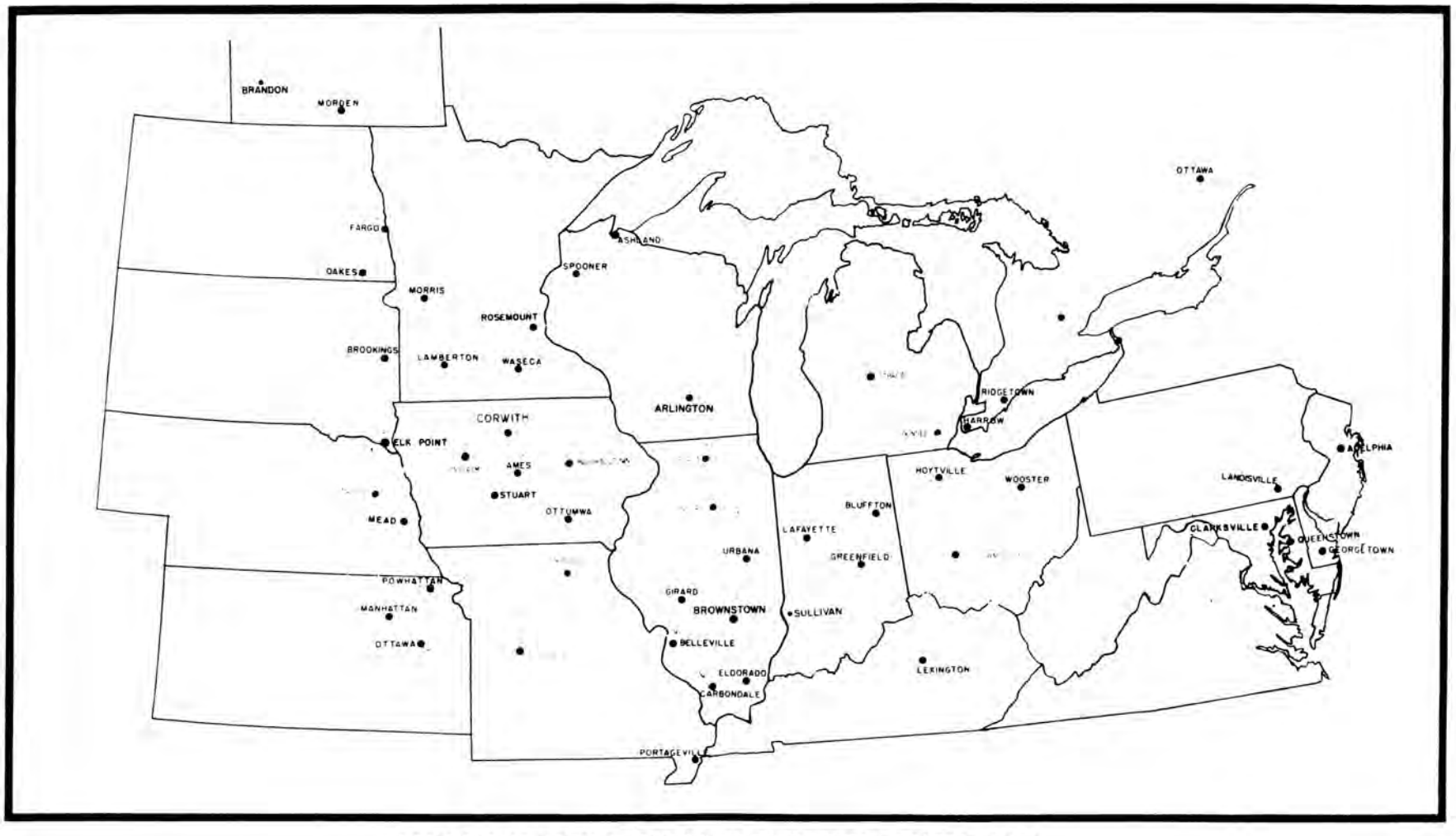

LOCATIONS OF UNIFORM SOYBEAN TESTS, NORTHERN STATES, 1980

THE UNIFORM SOYBEAN TESTS

NORTHERN STATES

1980

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Acknowledgements

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INTRODUCTION

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

A test is established for each of ten maturity groups. Uniform Test 00 includes maturity Group 00 strains for the northern fringe of the present area of soybean production. Uniform Tests 0 through IV include later strains adapted to locations progressively further south in the North Central States and areas of similar latitude. Each year new selections are added and others that have been sufficiently tested are dropped. The summary of performance of strains in Uniform Tests 00 through IV in the northern states is included in this report. The report on Uniform Tests IVS through VIII in the southern states is issued separately.

Data from the Uniform Tests form the basis for decisions on the regional release of soybean varieties. Preliminary Tests are grown at a limited number of locations throughout the region to screen the experimental strains for maturity and general agronomic performance for one year before they are entered in the Uniform Tests.

Experimental lines entered in the uniform tests should be labelled "Experimental Line" and not identified by code numbers when grown in demonstration plots or when the uniform tests are shown on field days or farm tours.

Seed of experimental lines entered in the uniform tests should not be sent to non participants. Requests for seed of unreleased lines or experimental strains should be referred to the breeder or agency originating the strain listed on page 6.

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 Statements or data in the report, therefore, should not be published unless permission has been obtained previously by those concerned.

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STRAIN DESIGNATION

Experimental (i.e., unreleased) strains are identified by a number with a code letter prefix. The code letters have been agreed upon in meetings of experiment station agronomists cooperating with the U.S. Department of Agriculture.

A	Iowa A.E.S.
Ar	Arizona A.E.S.
Au	Alabama A.E.S.
B	California
C	Purdue (Indiana) A.E.S.
CM	Canada Dept. of Agriculture, Morden, Manitoba
D	Mississippi A.E.S.
E	Michigan A.E.S.
F	Florida A.E.S.
FC	Forage and Range Research Branch, U.S.D.A.
Ga	Georgia A.E.S.
H	Ohio A.R.D.C. (HC - R. L. Cooper, HW - AK Walker)
K	Kansas A.E.S.
Ky	Kentucky A.E.S.
L	Illinois A.E.S.
La	Louisiana A.E.S.
LN	Illinois - C. D. Nickell
M	Minnesota A.E.S.
Md	Maryland A.E.S.
Me	Maine A.E.S.
N	North Carolina A.E.S.
ND	North Dakota A.E.S.
O	Central Experiment Farm, Ottawa, Ontario
OX	Research Station, Harrow, Ontario
OAC	University of Guelph, Guelph, Ontario
Ok	Oklahoma A.E.S.
PI	Plant Introduction, Germplasm Resources Laboratory, Beltsville, Md.
R	Arkansas A.E.S.
S	Missouri A.E.A.
SC	South Carolina A.E.S.
SD	South Dakota A.E.S.
SL	Two or more states cooperatively
Ts	Texas A.E.S.
T	Soybean Genetic Type Collection, U.S.R.L.
U	Nebraska A.E.S.
UD	Delaware A.E.S.
UM	University of Manitoba, Winnipeg, Manitoba
UT	Tennessee A.E.S.
V	Virginia A.E.S.
W	Wisconsin A.E.S.

METHODS - 1980

Uniform Tests are planted in multiple row plots with three or four replications and the center rows are harvested. Preliminary Tests are multiple row plots (the center rows harvested) with two replications. Usually 15 to 20 feet of row are planted and 12 to 16 feet harvested, to eliminate end-of-row effects. At the Soybean Workers Conference in Memphis, Tennessee on February 24 and 25, 1976, the Northern breeders discussed and made the following recommendation: Only data from bordered row plots will be included in the regional means. Yield means will not be included in regional means if they do not have a CV value. Discretion will be used when including values that have a high CV. If the CV value is high (greater than 15), participants should include the reason, such as disease or environmental conditions. Lines will be allowed to be heterogeneous the first year in the Uniform tests but must be a pure line the second year of testing. It is up to the breeder to clean up heterogeneous lines. If the breeder plans on purifying the line, please so indicate, and the line will be marked so when test participants vote on it for further testing they will know it will be purified.

Generation Composited is the generation after the final single-plant selection in which the line is composited.

Previous Testing. The number of previous years in the same Uniform Test is given, or, in the case of new entries, a reference to last year's test abbreviated UT 0 for Uniform Test 0, PT III for Preliminary Test III, etc.

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

Maturity is the date when 95% of the pods have ripened. Delayed leaf drop and green stems are not considered in assigning maturity. Maturity is expressed as days earlier (-) or later (+) than the average date of the reference variety. To aid in maturity group classification, one earlier and one later "tie" variety are given on the maturity table for each test. Current reference and tie varieties and the maturity group limits relative to the reference varieties are:

Group	Reference	Range	Early Tie	Late Tie
00	Portage	-2 to +6		Clay (0)
0	Evans	-5 to +3	McCall (00)	Hodgson 78 (I)
I	Hodgson 78	-3 to +5	Evans (0)	Corsoy 79 (II)
II	Corsoy 79	-3 to +5	Hardin (I)	Pella (III)
III	Cumberland	-5 to +3	Century (II)	Union (IV)
IV	Union	-3 to +8	Williams 79 (III)	

These maturity group ranges are based on long-time means over many locations. When using data from other environments, the interval between reference varieties may vary, and the division between maturity groups should be estimated in proportion to the above figures.

Lodging is rated at maturity according to the following scores:

1 Almost all plants erect
2 All plants leaning slightly or a few plants down
3 All plants leaning moderately (45°), or 25% to 50% of the plants down
4 All plants leaning considerably, or 50% to 80% of the plants down
5 Almost all plants down

Height is the average length in inches of plants from the ground to the tip of the main stem at the time of maturity. (To convert to centimeters, multiply by 2.54.)

Seed Quality is rated according to the following scores considering the amount and degree of wrinkling, defective seed coat (growth cracks), greenishness, and moldy or rotten seeds. (Threshing or handling damage is not considered, nor is mottling or other pigment.)

1 Very Good 2 Good 3 Fair 4 Poor 5 Very Poor

Seed Size (i.e. weight per seed) in grams per 100 based on a 100 or 200 seed sample. (To convert to seeds per pound divide this into 45,359.2).

Seed Composition is measured on sample submitted to the Laboratory. A 60 to 70-gram sample of clean seeds is prepared by taking an equal volume or weight of seeds from each replication. Protein and oil percentages are measured using Infrared reflectance.

Descriptive Code: 1 2 3 4 5 6, abbreviated as underlined below:

1 = Flower Color: Purple, White
2 = Pubescence Color: Tawny, Gray, Light tawny
3 = Pod Color: Brown, Tan
4 = Seed Coat Luster: Dull, Shiny, Intermediate
5 = Seed Cost Color: Yellow, Gray, Light gray, Green
6 = Hilum Color: Black, Imperfect black, Brown, Buff, Gray, Tan, Yellow; prefixes indicate Light or Dark shades, e.g., Lbf = light buff, Dib = dark imperfect black.

7 = Stem Termination: Determinate, Indeterminate

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

1 No shattering
2 1% to 10% shattered
3 10% to 25% shattered
4 25% to 50% shattered
5 Over 50% shattered

Iron Chlorosis is rated from 1, no chlorosis, to 5, severe chlorosis.

Emergence Score is related to Hypocotyl elongation and was measured at Ames, Iowa by germination at 25° c. (a critical temperature for differentiating strains). Four replications of 25 seeds/entry are planted in a 5-inch plastic pot, at a 4 1/2 - inch depth in sand. Only the seedlings which have emerged by 12 days after planting are counted. Emergence score in relation to % of seeds which germinate and emerge are as follows:

1 $\geq$ 85%
2 + 70 - 84%
3 = 45 - 69%
4 = 20 - 44%
5 = 0 - 19%

DISEASE

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

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

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

Abbreviation	Disease	Pathogen
BB	Bacterial blight	Pseudomonas glycines
BBV	Bud blight	Tobacco ringspot virus
BP	Bacterial pustule	Xanthomonas phaseoli var. sojensis
BS	Brown spot	Septoria glycines
BSR	Brown stem rot	Phialophora gregatum
CN	Cyst nematode	Heterodera glycines
CR	Charcoal rot	Macrophomina phaseolina
DM	Downy mildew	Peronospora manshurica
FE_1, FE_2	Frogeye race 1, 2	Cercospora sojina
PM	Powdery mildew	Microsphaera diffusa
PR	Phytophthora rot	Phytophthora megasperma f. sp. glycinea
PS	Purple stain	Cercospora kikuchii
PSB	Pod & stem blight	Diaporthe phaseolorum var. sojae
Pyd	Pythium root rot	Pythium debaryanum
Pyu	Pythium root rot	Pythium ultimum
RK	Root knot nematode	Meloidogyne spp.
RP	Rhizoctonia root rot	Rhizoctonia solani
SB	Sclerotial blight	Sclerotium rolfsii
SC	Stem canker	Disporthe phaseolorum var. caulivora
SMV	Soybean mosaic	Soja virus 1
TS	Target spot	Corynespora cassilicola
WF	Wildfire	Pseudomonas tabaci
YMV	Yellow masaic	Phaseolus virus 2

Ratings for BB, BP, DM, FE_2, and PM were based on leaf symptoms; those for BSR on percent of plants with stem browning, or percent of stem length browned, and those for PR on seedling rotting and/or stunting. Tolerance ratings with PR races 1 and 3 present are: 1=none-trace dead plants; 2=up to 2% dead plants, no stunting or chlorosis; 3=up to 10% dead plants, slight stunting or chlorosis; 4=up to 50% dead plants, moderate stunting and chlorosis; 5=over 50% dead plants, severe stunting and chlorosis.

POLICY ON TESTING AND RELEASE OF STRAINS

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

Development and release of soybean strains is carried out by many public institutions. The programs at these institutions operate independently until strains are available for advanced testing in the Uniform Soybean Tests. The Uniform Soybean Tests are coordinated by Agricultural Research, Science and Education Administration, U.S. Department of Agriculture. The tests are divided into those in the Northern States, for strains in maturity groups 00 to IV and those in the Southern States for strains in maturity groups V to VIII. Group IV maturity strains are divided into a IV N test for the northern states and a IV S test for the southern states.

Public soybean breeders are encouraged to enter superior strains they develop into the Uniform Soybean Tests. Strains entered in these tests must have been evaluated by the breeder in a minimum of four environments of replicated yield tests. Strains developed by four or more backcrosses to a released cultivar may be entered without prior yield evaluations.

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

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

Strains may be considered for release after they have been evaluated for two years in the UT. Exceptions to this are special purpose strains or strains derived from four or more backcrosses to a released cultivar; these may be considered for release after one year in the UT. Consideration for release of any strains in the UT

may be requested by any institution or breeder participating in the Uniform Soybean Tests, however it is generally initiated by the institution that developed the strain.

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

Where a decision has been made to multiply a strain for release, the originating institution will inform other UT participants of the decision by February 15. This will give each UT participant the opportunity to participate in the multiplication and release of the strains. By March 15 all institutions intending to participate in the multiplication of the strain must notify the originating institution of their intent. A final decision to participate in the release of the strain may be delayed until an additional year's data are available for review. By April 1 the originating institution should notify all UT participants what states will be participating in the multiplication and are considering participating in the release of the strain. Breeders seed is distributed to foundation seed organizations in participating states for production during the summer. At this time, if a final decision to release has been made, a sample of seed may be distributed to non-participants in the UT, including private soybean breeders, in accordance with a states experiment station policy, for use in making crosses. This distribution is made only by the originating institution.

A release notice to soybean seed producers listing all institutions participating in the release of the cultivar is prepared by the originating institutions. This notice is circulated for signature by all participating institutions. Assistance in the preparation and circulation of this release notice may be obtained from R. C. Leffel, Oilseed Specialist, National Program Staff, Room 304, Bldg. 005, Beltsville Agricultural Research Center West, Beltsville, Maryland, 20705. The date for simultaneous publicity release on the new cultivar by participating states usually is August 1, but the date may be delayed until April 1 of the following year if additional UT data are being reviewed and a final decision to release has not been made.

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

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

UNIFORM TEST STRAINS RELEASED IN 1980

Variety	Experimental Designation	Uniform Test Evaluations	Release Date	Releasing States	Foundation Seed Production
BSR 302	A76-304019	PT III 1977; UT III 1978-1979	Aug. 15, 1980	Ia.	1980
Douglas	K1033	PT IV 1977; UT IV 1978-1980	Aug. 15, 1980	Kan., Ky., Tex.	1980
Hardin	A76-102009	PT I 1977; UT I 1978-1980	Aug. 15, 1980	Ind., Ill., Ia., Mich., S.D., Wis.	1980
Pixie	L74D-609	PT IV 1976; UT IV 1977-1980	Sept. 1, 1980	Ind., Ill., Ky., Mo., Ohio	1980
Sprite	HW74-3384	PT III 1977; UT III 1978-1980	Sept. 1, 1980	Ill., Ia., Kan., Mo., Ohio, S.D.	1980

UNIFORM TEST LOCATIONS - 1980

Location		Tests Conducted by	Uniform Tests						Preliminary Tests			
			00	0	I	II	III	IV	I	II	III	IV
Del.	Georgetown	E. L. Wisk						x				x
Ill.	Belleville	R. L. Bernard					x	x				x
	Brownstown	C. D. Nickell					x	x				
	Carbondale	O. Myers, Jr.						x				
	Dekalb	C. D. Nickell			x	x				x		
	Eldorado	R. L. Bernard					x	x				x
	Girard	R. L. Bernard				x	x				x	
	Pontiac	C. D. Nickell				x	x					
	Urbana	R. L. Bernard & C. D. Nickell				x	x			x	x	
Ind.	Bluffton	J. R. Wilcox				x						
	Greenfield	"				x	x					
	Lafayette	"			x	x	x	x		x	x	
	Sullivan	"					x	x				x
Ia.	Ames	W. R. Fehr				x				x		
	Corwith	"			x				x			
	Knierim	"			x				x			
	Marshalltown	"				x				x		
	Ottumwa	"					x				x	
	Stuart	"					x				x	
Kan.	Manhattan	W. T. Schapaugh, Jr.					x	x			x	x
	Ottawa	"						x				
	Powhattan	"					x	x				
Ken.	Lexington	J. H. Orf					x	x			x	x
Man.	Brandon	R. I. Hamilton	x									
	Morden	F. Kiehn	x									
Md.	Clarksville	W. J. Kenworthy & P. B. Gregan					x					
	Queenstown											x
Mich.	Dundee	T. J. Johnston			x	x		x	x	x		
	Ithaca	"		x	x	x			x	x		
Minn.	Lamberton	J. W. Lambert			x	x			x	x		
	Morris	"	x	x								
	Rosemount	"	x	x								
	Waseca	"			x	x			x			

UNIFORM TEST LOCATIONS - 1980

Location		Tests Conducted by	Uniform Tests 00	0	I	II	III	IV	Preliminary Tests I	II	III	IV
Mo.	Clinton	V. D. Luedders						x				
	Novelty	"					x	x				
	Portageville	S. Anand										
	Clay	"						x				x
	Loam	"						x				x
Neb.	Lincoln	J. H. Williams						x				
	Mead	"			x	x	x			x	x	
N.J.	Adelphia	J. R. Justin				x	x	x		x		
N.D.	Fargo	D. A. Whited	x	x								
	Oakes	"			x							
Ohio	Hoytville	A. K. Walker				x	x			x		
	S.Charleston	R. L. Cooper					x	x			x	x
	Wooster	A. K. Walker				x	x					
Ont.	Elora	W. D. Beversdorf	x	x								
	Harrow	R. I. Buzzell				x						
	Ottawa	H. D. Voldeng	x	x								
	Ridgetown	G. R. Ablett		x	x	x			x			
Penn.	Landisville	J. O. Yocum				x	x	x				
S.D.	Brookings	J. J. Bonneman			x	x			x			
	Elk Point	"					x				x	
Tex.	Lubbock	R. D. Brigham						x				
Wis.	Arlington	E. T. Gritton			x	x			x	x		
	Ashland	"	x									
	Spooner	"		x								
No. locations with agronomic data (x,x)			8	8	13	22	23	21	9	12	10	10
No. with seed composition data (x)			5	5	5	5	5	5	5	5	5	5

1980 Disease and Shattering Tests

Location		Tests Conducted by	Test	U.T.	P.T.
Ind.	Lafayette	K. L. Athow and F. A. Laviolette	PR_1, BSR	00-IV	I-IV
		T. S. Abney and T. L. Richards	Germ, PSB, PS, SMV	00-IV	I-IV
Ia.	Ames	W. R. Fehr	Chlorosis	00-IV	I-IV
			Hypocotyl	00-IV	
		H. Tachibana	PR_1, BSR	I-IV	I-IV
Kan.	Manhattan	W. T. Schapaugh, Jr.	Shattering	00-IV	I-IV
Minn.	St. Paul	J. W. Lambert	Chlorosis	00-IV	
Ohio	Vickery	A. F. Schmitthenner	PR Tolerance	II-IV	II-IV
Tex.	Lubbock	R. D. Brigham	Shattering	III-IV	

IDENTIFICATION OF PARENT STRAINS

Strain	Parentage or Source
A72-507	Amsoy x Wayne
A72-512	Amsoy x Wayne
A73-19084	IVR Ex 5003 x Wells
A74-102011	M62-263 x IVR Ex4426
A74-104030	[Provar x (AX56P64-1 x PI9110-1)] x Wells
A74-204034	[Grant x (Lincoln x Hawkeye)] x [Amsoy^{8} x (Blackhawk x Harosoy)]
Agripro 25	Beeson x Calland
AP68-1016	Clark^{5} x PI84946-2
AP68-1022	Clark^{5} x PI84946-2
Asgrow A3300	Beeson x Calland
AX56P64-1	Amsoy (Adams x Harosoy)
AX900-4-3	CX407BC$_{7}$-255 x AP68-1022
AX901-40-2	Beeson x AP68-1022
C1070	Lincoln x Ogden
C1317-71	C1223^{8} x Mukden
C1223	C1070 x Adams
C1253	Blackhawk x Harosoy
C1421	Adelphia^{8} x Mukden
C1426	(Blackhawk x Harosoy) x Kent
C1477	Amsoy 71 (Amsoy^{8} x C1253)
C1520	Bonus x Cutler
D49-2573	Roanoke x N45-745
C1523	Beeson x L63-1397
C1528	Calland x L63-1397
CX407BC$_{7}$-255	Amsoy^{8} x C1253
CX456-90	Amsoy x PI219782
Dortchsoy 110	Ogden x Wabash
D49-2510	S100 x CNS
D60-9647	FC31745 x D49-2510
D61-5141	Dorman^{5} x PI181537
D68-18	Dyer x Bragg
IVR Ex4426	Amsoy x Wayne

IDENTIFICATION OF PARENT STRAINS

Strain	Parentage or Source
IVR Ex5003	Provar x (AX56P64-1 x PI19110-1)
J74-5	Forrest x (D68-18 x PI88788)
K1001	Wayne x C1317-17
K1028	Williams x Calland
L12	[(Clark^{8} x CNS) x (Clark^{8} x Blackhawk)] x [(Clark^{6} x T201) x (Clark^{6} x T145)] I r Rps_1 rxp_1
L15	Wayne^{6} x Clark 63 (Rps_1)
L57-0034	Clark x Adams
L60-347-1-60-2B	Harosoy x Higan
L61-344	Harosoy^{6} x T117 (Dt_2)
L62-535	Harosoy^{6} x T145 (dt_1)
L63-3297	Clark^{6} x T141 (dt_1)
L63-1397	Harosoy^{6} x T207 (Dt_2)
L63-3534	(Clark^{6} x T201) x (Clark^{6} x T145) (I_1 P_1 r)
L66-531	(Clark^{6} x T245) dt_1 e_2 x (Clark^{6} x T175) E_1 t
L66-1359	Wayne x L57-0034
L66L-137	Wayne x L57-0034
L66-154	Wayne x L57-0034
L66L-177	Wayne x L57-9819
L68-4096	(L15^{5} x L63-3534) x (Wayne^{10} x Kanrich) r Rpm Rps
L69-5343	L12^{6} x Hawkeye (I r Im)
L69U40-19-1	Calland x Amsoy
L70-2283	Chippewa 64 x Custer
L72-844c-1	Williams^{5} x L68-4096
L72D-549	L62-3929 x Rampage
L72U-547	L62-535 x SRF300
L72U-640	L66-531 x C1426
L72U-2567	Williams x Ransom
L73-6626	R62-659 x L66-531
L75-8020	Williams x L70-2283
LL4102	[Wayne x (Clark x Adams)] x Cutler
M10	Lincoln^{2} x Richland
M53-117	M10 x PI 180501
M54-139	Renville x Capital

IDENTIFICATION OF PARENT STRAINS

Strain	Parentage or Source
M54-240	(Lincoln[2] x Richland) x Korean
M61-224	Merit x Harosoy
M62-263	Grant x M319W
M62-275	Norchief x Harosoy
M61-345	M319W x Harosoy
M63-194	Corsoy x PI 132207
M63-2174	Corsoy x M53-117
M64-157	Merit x Amsoy
M64-185	Chippewa 64 x Amsoy
M65-69	M384 x Corsoy
M65-115	Anoka x Amsoy
M66-18	Clay x Altona
M67-141	Corsoy x Wayne
M68-48	Evans x M54-240 x M54-139)
M319W	Lincoln X Hawkeye
M384	Capital x Renville
Mitchell	Amsoy x Wayne
ML7293-4	Merit x Lee
NKS 1492	Corsoy x Wayne
N45-745	Ogden x CNS
N45-1497	Ralsoy x Ogden
Pride B216	Corsoy x Wayne
R62-659	(R54-168 x Hill) x Lee x Dortchsoy 110)
R54-168	D49-2573 x N45-1497
SL12	Wayne[10] x Kanrich (I r Rpm Rps)
SRF300	Wayne[7] x D61-5141
SRF350	Wayne[3] x D61-5141
V68-1034	York x PI71506
V68-1053	York x PI71506

UNIFORM OO, 1980

Strain	Parentage	Previous Testing*	Generation Composited
Clay (O)	Capital x Renville	3	F_5
Maple Arrow	Harosoy 63 x 840-7-3	3	F_5
Maple Presto	(Amsoy x Portage) x 840-7-3	2	F_5
McCall	(Acme x Chippewa) x Hark	7	F_5
Portage (OO)	Acme x Comet	20	F_5
M71-148	Clay x Evans	-	F_5
OT80-1	840-7-3 x (Harosoy 63 x Altona)	-	F_6
OT80-2	Maple Presto x Evans	-	F_5
OT80-3	(Amsoy x Portage) x 840-7-3	-	F_6

*Number of years in test or name of 1979 test

The regional data for 1980 and the three-year mean show that McCall is the highest yielding Group OO variety in the test. M71-148 was the highest yielding entry in the test, had excellent shattering resistance, and is resistant to races 1 and 2 of phytophthora root rot. This strain is probably too late for the OO test and should be considered a Group O strain.

UNIFORM TEST 00, 1980

Descriptive and Other Data

Strain	Descriptive Code		Chlorosis Score Ames	Chlorosis Score Lamberton	Hypocotyl Score Ames	Shattering Manhattan 2 Weeks
Clay (0)	PGBr	SYY	3.3	2.5	1	3
Maple Arrow	PTBr	SYBr	2.3	3.0	2	3
Maple Presto	PTBr	DYG	3.3	3.5	1	2
McCall	PGBr	DYY	3.0	2.0	1	2
Portage (00)	PGBr	SYY	2.3	4.0	1	4
M71-148	WGBr	SYY	2.7	4.0	1	1
OT80-1	PTBr	DYBr	3.5	4.0	1	2
OT80-2	PGBr	DYY	3.3	4.0	1	2
OT80-3	PTBr	DYBr	2.2	4.0	1	-

Disease Data

Strain	BSR Laf. Ind.	GERM * Lafayette, Indiana	SMV Lafayette, Indiana	PSB Lafayette, Indiana	PS Lafayette, Indiana	PR Laf. Ind.
	n	d	a	d	a	a
	%	%	score	%	score	-Reaction - - - - - - - - -
Clay (0)	100	67	3M	10	5S	S
Maple Arrow	40	70	3M	3	3E	R
Maple Presto	0	37	3E	34	3E	R
McCall	0	69	3M	20	5S	S
Portage (00)	0	80	4M	7	5S	S
M71-148	40	78	1	9	5S	R
OT80-1	60	63	3E	18	5S	R
OT80-2	60	81	4E	7	3E	S
OT80-3	20	62	4E	23	3E	S

*Petri dish germination on potato dextrose agar

UNIFORM TEST 00, 1980

Regional Summary

Strain	Yield	Rank	Maturity	Lodging	Height	Seed Quality	Seed Size	Composition Protein	Composition Oil
No. of Tests	7	7	7	7	7	6	7	5	5
	bu/a	No.	Date	Score	In.	Score	g/100	%	%
Clay (0)	38.6	3	+9	2.5	29	2.5	16.9	41.8	19.9
Maple Arrow	37.1	4	+9	2.1	31	2.2	18.5	40.3	20.1
Maple Presto	25.0	9	-7	1.3	23	3.4	15.7	39.2	20.7
McCall	39.0	2	+6	2.1	30	2.3	15.6	40.8	19.0
Portage (00)	32.4	6	9-5*	1.9	27	2.6	18.2	39.7	19.3
M71-148	39.1	1	+9	2.3	30	2.3	14.7	41.2	20.1
OT80-1	34.1	5	-1	2.1	28	2.2	16.5	41.5	20.6
OT80-2	31.4	7	-6	1.5	24	1.9	14.7	40.1	20.6
OT80-3	29.9	8	-7	2.5	27	2.7	18.0	42.0	19.6

*112 days after planting

1978-1980, 3-year mean

No. of Tests	24	24	24	24	24	22	24	15	15
Clay (0)	38.3	1	+11.5	1.9	28	2.3	16.5	40.7	20.0
Maple Arrow	34.9	3	+8.0	1.8	30	1.9	17.9	40.4	20.0
Maple Presto	25.9	5	-8.3	1.2	24	3.0	15.4	39.1	20.2
McCall	38.2	2	+4.5	1.7	29	2.1	15.2	39.9	19.2
Portage (00)	31.8	4	9/6*	1.6	28	2.3	17.0	39.6	19.3

*108 days after planting

UNIFORM TEST 00, 1980

Strain	Mean 7 Tests	Ont. Ottawa	Ont. Elora	Wisc. Ashland	N.D. Fargo
			YIELD (bu/a)		
Clay (0)	38.6	53.9	44.5	28.9	32.1
Maple Arrow	37.1	53.5	47.3	30.0	25.3
Maple Presto	25.0	38.6	25.2	24.8	19.4
McCall	39.0	56.4	44.8	27.5	31.4
Portage (00)	32.4	46.0	38.0	27.2	24.8
M71-148	39.1	55.4	38.0	29.4	32.0
OT80-1	34.1	44.4	40.6	28.9	25.7
OT80-2	31.4	49.4	23.6	26.5	28.1
OT80-3	29.9	39.3	32.9	24.7	23.6
C.V. (%)		10.2	12.7	7.12	7.8
L.S.D. (5%)		7.2	6.9	3.4	3.6
Row sp (in.)		10	7	24	18
Rows/plot		4	8	4	4
Reps		4	4	3	3

	7 Tests		YIELD RANK		
Clay (0)	3	3	3	4	1
Maple Arrow	4	4	1	1	6
Maple Presto	9	9	8	8	9
McCall	2	1	2	5	3
Portage (00)	6	6	5	6	7
M71-148	1	2	6	2	2
OT80-1	5	7	4	3	5
OT80-2	7	5	9	7	4
OT80-3	8	8	7	9	8

UNIFORM TEST 00, 1980

Man.		Minn.	
Morden	Brandon*	Rosemount	Morris
	YIELD (bu/a)		
38.7	1.8	31.5	40.6
39.0	3.7	26.6	37.9
36.8	8.9	13.7	16.7
49.6	3.8	29.0	34.2
41.5	3.4	19.4	30.2
43.0	1.8	32.3	43.5
47.1	6.1	23.4	28.8
46.6	6.9	18.1	27.2
43.2	11.1	18.7	27.2
12.4	13.3	8.1	9.3
7.8	1.3	3.3	5.1
12	9	30	30
4	4	4	4
4	3	3	3
	YIELD RANK		
8	9*	2	2
7	6	4	3
9	2	9	9
1	5	3	4
5	7	6	5
4	8	1	1
2	4	5	6
3	3	8	7
6	1	7	7

*Not included in mean

UNIFORM TEST 00, 1980

Strain	Mean 7 Tests	Ont. Ottawa	Ont. Elora	Wisc. Ashland	N.D. Fargo
			MATURITY (date)		
Clay (0)	+9	+5	+5	+6	+12
Maple Arrow	+9	+4	+3	+8	+12
Maple Presto	-7	-15	-5	+11	-6
McCall	+6	+4	+4	+4	+9
Portage (00)*	9/5	9/20	9/9	9/14	8/28
M71-148	+9	+5	+5	+5	+13
OT80-1	-1	-2	-5	-5	0
OT80-2	-6	-14	-3	-3	-3
OT80-3	-7	-13	-5	-7	-4
Date planted	5/16	5/21	5/21	5/21	5/20
*Days to maturity	112	122	111	116	100

	7 Tests		LODGING (score)		
Clay (0)	2.5	3.8	1.6	2.7	1.0
Maple Arrow	2.1	4.0	1.4	1.7	1.0
Maple Presto	1.3	2.0	1.0	1.3	1.0
McCall	2.1	4.2	1.4	2.3	1.0
Portage (00)	1.9	3.0	1.4	2.3	1.0
M71-148	2.3	3.0	1.6	2.3	2.0
OT80-1	2.1	4.2	1.3	2.0	1.0
OT80-2	1.5	3.2	1.0	1.0	1.0
OT80-3	2.5	5.0	1.9	3.0	1.0

UNIFORM TEST 00, 1980

Man.		Minn.	
Morden	Brandon*	Rosemount	Morris
	YIELD (bu/a)		
+17		+11	+9
+15		+10	+14
-10		-10	-11
+12		+6	+1
9/11		8/24	8/22
+17		+8	+8
-2		+3	+3
-4		-7	-7
-6		-5	-9
5/8	6/5	5/15	5/8
126	-	101	106
	LODGING (score)		
4.0	1.0*	3.0	1.7
3.5	1.0	2.3	1.0
1.0	1.0	2.0	1.0
2.8	1.0	2.3	1.0
2.2	1.0	2.3	1.0
4.0	1.0	2.3	1.0
2.8	1.0	2.3	1.0
1.2	1.0	2.0	1.0
2.5	1.0	3.3	1.0

*Not included in mean

UNIFORM TEST 00, 1980

Strain	Mean 7 Tests	Ont. Ottawa	Ont. Elora	Wisc. Ashland
		HEIGHT (inches)		
Clay (0)	29	36	29	30
Maple Arrow	31	40	30	34
Maple Presto	23	29	24	28
McCall	30	40	33	32
Portage (00)	27	35	28	34
M71-148	30	39	32	31
OT80-1	28	34	29	34
OT80-2	24	33	26	24
OT80-3	27	34	28	31

	Mean 6 Tests	QUALITY (score)		
Clay (0)	2.5	2.5	3.0	2.0
Maple Arrow	2.2	2.0	1.5	3.0
Maple Presto	3.4	4.0	3.5	2.7
McCall	2.3	3.0	3.0	2.0
Portage (00)	2.6	3.0	3.0	2.3
M71-148	2.3	2.0	3.0	2.0
OT80-1	2.2	1.5	3.0	1.0
OT80-2	1.9	2.0	2.5	1.3
OT80-3	2.7	3.0	4.0	1.7

UNIFORM TEST 00, 1980

Man.		N.D.	Minn.	
Morden	Brandon*	Fargo	Rosemount	Morris
		HEIGHT (inches)		
26	20	26	29	25
28	22	28	29	26
22	21	23	20	17
27	23	27	30	21
24	21	27	23	20
26	24	28	31	25
24	23	26	25	23
23	22	23	18	18
24	22	25	24	22
		QUALITY (score)		
	5.0*	1.5	3.0	3.0
	5.0	1.5	2.3	3.0
	2.0	4.0	3.0	3.0
	5.0	1.0	2.7	2.3
	3.0	1.0	3.0	3.0
	5.0	1.0	3.0	2.7
	2.0	2.0	3.0	2.7
	3.0	1.0	2.3	2.3
	2.0	1.5	2.7	3.0

*Not included in mean

UNIFORM TEST 00, 1980

Strain	Mean 7 Tests	Ont.		Wisc.
		Ottawa	Elora	Ashland
		SEED SIZE (g/100)		
Clay (0)	16.9	20.8	17.0	19.0
Maple Arrow	18.5	21.8	18.7	19.7
Maple Presto	15.7	18.8	17.8	16.2
McCall	15.6	20.0	15.7	16.2
Portage (00)	18.2	23.0	19.5	19.1
M71-148	14.7	18.5	14.5	15.6
OT80-1	16.5	19.8	16.8	18.3
OT80-2	14.7	17.0	15.8	15.2
OT80-3	18.0	22.2	19.6	18.5

Strain	Mean 5 Tests	Ont.		Wisc.	Man.	Minn.
		Ottawa	Elora	Ashland	Morden	Rosemount
		% PROTEIN				
Clay (0)	41.8	41.4	41.6	42.7	41.4	42.1
Maple Arrow	40.3	41.8	39.9	40.1	38.8	41.0
Maple Presto	39.2	37.6	38.9	40.1	38.4	41.0
McCall	40.8	42.5	41.6	41.7	38.5	39.9
Portage (00)	39.7	39.9	39.8	42.0	37.8	39.2
M71-148	41.2	41.3	40.6	41.3	38.7	41.6
OT80-1	41.5	41.3	41.3	41.5	41.2	42.1
OT80-2	40.1	41.4	38.7	39.5	39.0	42.1
OT80-3	42.0	42.9	41.1	42.1	39.8	44.0

UNIFORM TEST 00, 1980

Man.		N.D.	Minn.	
Morden	Brandon*	Fargo	Rosemount	Morris
		SEED SIZE (g/100)		
17.0	13.1	14.0	15.1	14.6
18.6	10.4	16.7	14.8	19.2
16.1	10.0	14.2	13.3	13.6
17.0	8.5	12.5	14.1	13.5
18.1	8.9	15.2	16.6	15.9
14.0	9.5	12.5	14.0	13.7
17.2	11.0	14.5	13.8	14.8
14.9	10.1	12.5	14.3	13.0
19.1	11.8	14.5	17.2	15.2

*Not included in mean

		Ont.		Wisc.	Man.	Minn.
Strain	Mean 5 Tests	Ottawa	Elora	Ashland	Morden	Rosemount
			% OIL			
Clay (0)	19.9	20.3	20.0	19.8	19.9	19.6
Maple Arrow	20.1	20.5	20.8	20.5	19.1	19.6
Maple Presto	20.7	21.0	21.1	20.4	21.2	19.6
McCall	19.0	19.1	18.9	17.8	20.0	19.4
Portage (00)	19.3	20.1	19.4	17.7	20.1	19.0
M71-148	20.1	18.8	20.6	20.8	20.1	20.3
OT80-1	20.6	20.3	20.8	20.1	21.2	20.4
OT80-2	20.6	21.6	21.5	20.9	19.3	19.8
OT80-3	19.6	20.8	19.5	18.4	20.5	19.0

UNIFORM TEST O, 1980

Strain	Parentage	Previous Testing*	Generation Composited
Clay	Capital x Renville	13	F_5
Evans (O)	Merit x Harosoy	10	F_5
Hodgson 78 (I)	Hodgson x Merit	3	F_5
McCall (OO)	(Acme x Chippewa) x Hark	-	F_5
M70-153	Steele x Hodgson	2	F_5
M71-25	Clay x Evans	UT OO	F_5
M71-38	Wilkin x M62-263	UT OO	F_5
M71-39	Wilkin x M62-275	UT OO	F_5
M71-43	Wilkin x M63-217Y	1	F_5
M71-52	Evans x M62-345	1	F_5
M71-65	Steele x M63-194	1	F_5
M72-24	Evans x Wells	-	F_5
M72-37	Wilkin x M65-115	-	F_5
M72-51	Evans x M64-185	-	F_5
M72-52	Evans x M65-115	-	F_5
M72-107	Wilkin x M63-194	-	F_5
M73-37	Evans x XK505	-	F_5
M73-62	M61-224 x Nag. Feher	-	F_5
M73-93	M65-69 x M66-18	-	F_5

*Number of years in test or name of 1979 test

Several strains in this test were higher in yield than the check variety Evans. M70-153 has been equal to Hodgson 78 in yield, but matures 5 days earlier than Hodgson 78. M71-25, evaluated in UTOO in 1978, was 2 bushels higher in yield, 1 day earlier in maturity, and had better lodging resistance than Evans. M71-43, also evaluated in UTOO in 1979, was 2 bushels higher in yield, matured 3 days earlier, and had much better lodging resistance than Evans. All three of the above strains are resistant to races 1 and 2 of phytophthora root rot and have excellent shattering resistance in the Kansas evaluations.

UNIFORM TEST 0, 1980

Descriptive and Other Data

Strain	Descriptive Code	Chlorosis Score		Hypocotyl Score	Shattering Manhattan
		Ames	Lamberton	Ames	2 Weeks
Clay	PGBr SYY	3.3	2.5	1	2
Evans (0)	WGBr DYY	3.2	3.0	1	1
Hodgson 78 (I)	PGBr DYBf	2.5	3.0	5	1
McCall (00)	PGBr DYY	3.0	2.0	1	1
M70-153	PGBr DYBf	2.2	4.5	2	1
M71-25	WGBr DYY	2.7	4.0	1	1
M71-38	WGBr SYBf	2.3	2.5	1	2
M71-39	P+WGBr DYY	2.2	3.5	1	1
M71-43	PGBr DYY	2.7	2.5	5	1
M71-52	WGBr SYY	2.8	4.5	3	1
M71-65	PGBr DYY	2.7	4.5	3	1
M72-24	WGBr DYBf	2.5	2.0	1	1
M72-37	PGTn DYIb	2.0	1.5	1	1
M72-51	P+WGBr DYY	3.3	5.0	1	1
M72-52	PGBr DYGr	3.0	3.0	1	2
M72-107	PGBr DYY	2.5	4.0	1	1
M73-37	PGBr DYGr	2.3	3.5	1	1
M73-62	WGTn DYY	2.0	2.0	2	1
M73-93	PGBr DYBf	2.8	3.0	2	-

UNIFORM TEST 0, 1980

Disease Data

Strain	BSR Laf. Ind. n	GERM * Lafayette, d	SMV a	PSB Indiana d	PS a	PR Laf. Ind. a
	%	%	score	%	score	Reaction
Clay	100	64	3E	18	5S	S
Evans (0)	0	86	1	2	5S	R
Hodgson 78 (I)	20	87	2E	18	3M	R
McCall (00)	0	65	2M	20	5S	S
M70-153	20	81	1	8	3E	R
M71-25	20	82	1	5	4S	R
M71-38	0	78	1	8	5S	R
M71-39	40	61	1	25	5S	R
M71-43	0	88	1	8	5S	R
M71-52	20	85	1	6	4E	R
M71-65	0	68	2M	16	5S	R
M72-24	60	82	1	5	5E	R
M72-37	0	72	1	15	5S	S
M72-51	0	85	1	5	5E	R
M72-52	0	76	2E	8	5E	R
M72-107	0	90	1	2	5S	R
M73-37	0	88	3M	2	5S	R
M73-62	20	63	2E	8	4S	S
M73-93	0	99	3M	1	3E	R

*Petri dish germination on potato dextrose agar

UNIFORM TEST 0, 1980

Regional Summary

Strain	Yield	Rank	Maturity	Lodging	Height	Seed Quality	Seed Size	Composition Protein	Composition Oil
No. of Tests	8	8	7	8	8	7	7	5	5
	bu/a	No.	Date	Score	In.	Score	g/100	%	%
Clay	37.4	16	-9	1.7	30	2.3	16.9	42.6	19.9
Evans (0)	41.7	11	9-19*	2.5	38	2.0	16.4	41.8	19.8
Hodgson 78 (I)	43.0	5	+8	2.9	40	2.3	17.6	40.7	19.1
McCall (00)	36.0	18	-11	2.0	31	2.0	14.9	40.0	19.4
M70-153	43.4	3	+4	2.3	35	2.0	16.8	42.7	19.3
M71-25	43.9	1	-1	2.1	33	2.3	18.0	41.1	20.3
M71-38	36.9	17	-6	1.8	32	2.1	16.2	40.8	20.0
M71-39	35.5	19	-7	1.8	31	2.1	16.6	41.0	19.1
M71-43	43.6	2	-3	1.5	33	2.1	16.7	42.2	19.3
M71-52	43.1	4	+6	2.8	34	2.2	20.6	41.9	19.1
M71-65	41.9	9	+1	2.5	36	2.4	19.8	41.6	19.7
M71-24	40.5	13	+3	1.6	35	2.2	18.5	42.4	19.2
M72-37	39.5	14	-4	1.9	30	2.2	17.1	41.7	19.9
M72-51	42.2	8	+3	2.7	36	2.3	18.0	42.2	18.9
M72-52	40.9	12	+6	3.0	37	2.6	17.6	41.5	20.5
M72-107	42.8	6	+2	1.9	36	2.3	18.1	41.1	19.6
M73-37	41.9	9	+3	2.4	36	2.3	17.0	42.0	19.1
M73-62	42.5	7	+2	2.0	30	2.0	17.1	42.4	19.3
M73-93	39.3	15	+9	2.2	32	2.6	16.7	42.9	18.2

*124 days after planting

1979-1980 2-year mean

No. of Tests	15	15	14	15	14	13	14	9	9
Clay	37.4	7	-7.0	1.8	30	2.2	16.8	41.5	19.5
Evans (0)	41.0	6	9-21*	2.1	37	2.1	16.4	41.0	19.4
Hodgson 78 (I)	43.0	1	+8.2	2.5	39	2.2	17.3	40.5	19.0
M70-153	43.0	1	+3.4	2.5	34	2.0	16.4	41.6	19.3
M71-43	41.9	5	-2.2	1.5	33	2.0	17.2	41.7	19.1
M71-52	42.4	3	+5.8	2.5	34	2.2	20.6	41.4	18.9
M71-65	42.0	4	+0.6	2.4	35	2.3	19.9	41.1	19.4

*122 days after planting

UNIFORM TEST 0, 1980

Strain	Mean 8 Tests	Ont.			Wisc.
		Ridge-town	Elora	Ottawa	Spooner
		YIELD (bu/a)			
Clay	37.4	45.7	42.7	42.4	31.3
Evans (0)	41.7	43.9	44.9	47.0	33.6
Hodgson 78 (I)	43.0	56.5	41.4	37.7	33.4
McCall (00)	36.0	35.4	43.9	45.4	36.7
M70-153	43.4	46.0	46.7	42.2	34.0
M71-25	43.9	51.4	43.0	58.8	35.7
M71-38	36.9	31.9	41.2	48.9	31.7
M71-39	35.5	39.4	36.7	48.2	30.6
M71-43	43.6	45.7	48.3	57.4	37.8
M71-52	43.1	53.9	49.2	42.0	29.6
M71-65	41.9	49.5	47.7	43.0	34.9
M72-24	40.5	39.8	45.5	43.4	35.5
M72-37	39.5	49.7	40.4	49.2	28.7
M72-51	42.2	47.1	46.7	45.4	35.0
M72-52	40.9	45.0	45.7	41.4	34.5
M72-107	42.8	47.5	50.4	47.4	35.0
M73-37	41.9	46.1	49.4	42.4	32.3
M73-62	42.5	45.9	49.6	51.3	35.2
M73-93	39.3	46.8	37.6	32.3	27.7
C.V. (%)		9.0	8.5	12.5	10.3
L.S.D. (5%)		5.8	5.3	8.1	5.5
Row sp (in.)		24	7	10	36
Rows/plot		4	8	4	4
Reps.		4	4	4	3

UNIFORM TEST 0, 1980

Mich.	Minn.		N.D.
Ithaca	Rosemount	Morris	Fargo
	YIELD (bu/a)		
42.7	32.6	37.8	24.2
52.3	38.3	48.9	24.4
58.5	37.4	49.0	29.9
42.4	28.3	36.0	20.2
52.8	38.6	58.3	28.8
50.1	35.7	49.5	26.7
41.5	31.3	46.3	22.4
42.0	29.9	39.6	17.3
47.2	35.1	51.1	26.1
49.3	42.9	54.3	23.3
49.8	37.6	50.3	22.4
50.1	38.8	49.0	22.2
45.8	33.4	45.0	23.9
53.9	36.6	51.0	21.6
51.0	36.7	48.6	23.9
50.3	35.9	50.2	25.4
51.6	37.9	53.5	21.6
47.7	37.9	47.7	24.3
55.2	34.7	52.7	27.1
8.3	7.3	8.2	22.3
6.8	4.4	6.5	8.9
28	30	30	18
4	4	4	4
3	3	3	3

UNIFORM TEST 0, 1980

Strain	Mean 8 Tests	Ont.			Wisc.
		Ridge-town	Elora	Ottawa	Spooner
		YIELD RANK			
Clay	16	12	14	13	15
Evans (0)	11	15	11	8	11
Hodgson 78 (I)	5	1	15	18	12
McCall (00)	18	18	12	9	2
M70-153	3	10	8	15	10
M71-25	1	3	13	1	3
M71-38	17	19	16	5	14
M71-39	19	17	19	6	16
M71-43	2	12	5	2	1
M71-52	4	2	4	16	17
M71-65	9	5	6	12	8
M72-24	13	16	10	11	4
M72-37	14	4	17	4	18
M72-51	8	7	7	10	7
M72-52	12	14	9	17	9
M72-107	6	6	1	7	6
M73-37	9	9	3	14	13
M73-62	7	11	2	3	5
M73-93	15	8	18	19	19

UNIFORM TEST 0, 1980

Mich.	Minn.		N.D.
Ithaca	Rosemount	Morris	Fargo
	YIELD RANK		
16	16	18	9
5	4	12	7
1	8	10	1
17	19	19	18
4	3	1	2
9	12	9	4
19	17	15	13
18	18	17	19
14	13	5	5
12	1	2	12
11	7	7	13
9	2	10	15
15	15	16	10
3	10	6	16
7	9	13	10
8	11	8	6
6	5	3	16
13	5	14	8
2	14	4	3

UNIFORM TEST O, 1980

Strain	Mean 7 Tests	Ont. Ridge-town	Ont. Elora	Ont. Ottawa
		MATURITY (date)		
Clay	-9	-12	-7	-10
Evans (O)*	9/19	9/21	9/19	10/1
Hodgson 78 (I)	+8	+3	+10	+8
McCall (00)	-11	-14	-9	-11
M70-153	+4	0	+4	+4
M71-25	-1	0	0	-1
M71-38	-6	-4	-4	-5
M71-39	-7	-5	-4	-10
M71-43	-3	-6	-3	-2
M71-52	+6	+10	+8	+5
M71-65	+1	0	+2	+2
M72-24	+3	-3	+3	+2
M72-37	-4	-4	-5	-4
M72-51	+3	+2	+6	+2
M72-52	+6	0	+10	+5
M72-107	+2	0	+3	+4
M73-37	+3	-1	+6	+4
M73-62	+2	+3	+4	0
M73-93	+9	+4	+8	+11
Date planted	5/18	5/22	5/21	5/21
*Days to maturity	124	122	121	133

UNIFORM TEST O, 1980

Wisc.	Mich.	Minn.		N.D.
Spooner	Ithaca	Rosemount	Morris	Fargo*
		MATURITY (date)		
-10	-7	-6	-9	-9
9/29	9/15	9/8	9/9	9/22
+7	+5	+6	+15	frost
-11	-8	-9	-13	-16
+6	+7	+1	+7	frost
-3	-2	-3	-1	0
-11	-5	-6	-4	-13
-10	-6	-7	-10	-13
-4	-2	-1	0	-4
+7	+6	+2	+3	frost
+3	+1	0	-1	-6
+2	+5	+1	+9	0
-2	-5	-5	-4	-3
+3	+6	+3	+1	frost
+6	+8	+2	+9	0
+2	+4	+2	0	-1
+3	+3	+1	+7	frost
+2	+5	0	-1	frost
+3	+8	+15	+13	frost
5/19	5/22	5/15	5/8	5/20
133	116	116	124	125

*Not included in the mean

UNIFORM TEST 0, 1980

Strain	Mean 8 Tests	Ont.			Wisc.	Mich.	Minn.		N.D.
		Ridge-town	Elora	Ottawa	Spooner	Ithaca	Rose-mount	Morris	Fargo
				LODGING (score)					
Clay	1.7	1.2	2.4	3.2	1.0	1.0	2.7	1.3	1.0
Evans (0)	2.5	1.0	3.2	5.0	2.7	1.8	3.7	1.0	1.5
Hodgson 78 (I)	2.9	1.8	3.7	5.0	2.7	3.0	3.3	2.3	1.5
McCall (00)	2.0	1.0	2.5	4.8	2.0	1.2	2.3	1.0	1.0
M70-153	2.3	1.0	3.0	4.8	2.3	2.0	2.7	1.7	1.0
M71-25	2.1	1.0	3.0	4.8	2.3	1.0	2.0	1.3	1.0
M71-38	1.8	1.0	1.5	4.2	1.7	1.0	2.3	1.0	1.5
M71-39	1.8	1.0	1.8	4.5	1.7	1.0	2.3	1.0	1.0
M71-43	1.5	1.0	1.3	3.0	1.0	1.0	2.3	1.3	1.0
M71-52	2.8	1.0	3.5	5.0	3.7	1.8	3.7	2.0	2.0
M71-65	2.5	1.0	3.3	4.8	2.7	1.5	3.3	2.0	1.5
M72-24	1.6	1.0	1.8	3.0	1.8	1.2	2.0	1.0	1.0
M72-37	1.9	1.0	3.7	3.5	2.0	1.0	2.3	1.0	1.0
M72-51	2.7	1.2	3.8	5.0	2.7	2.2	4.0	1.7	1.0
M72-52	3.0	1.0	4.0	5.0	3.3	2.8	3.3	2.3	2.0
M72-107	1.9	1.0	2.0	4.5	1.7	1.3	2.7	1.0	1.0
M73-37	2.4	1.0	2.8	4.5	2.3	1.0	3.7	2.0	2.0
M73-62	2.0	1.0	3.5	3.8	2.0	1.0	2.7	1.0	1.0
M73-93	2.2	1.2	3.3	4.2	1.5	1.5	3.3	1.3	1.0

UNIFORM TEST 0, 1980

Strain	Mean 8 Tests	Ont. Ridge-town	Ont. Elora	Ont. Ottawa	Wisc. Spooner	Mich. Ithaca	Minn. Rose-mount	Minn. Morris	N.D. Fargo
				HEIGHT (inches)					
Clay	30	26	32	37	34	29	29	25	25
Evans (0)	38	32	40	55	47	38	36	36	28
Hodgson 78 (I)	40	36	43	56	44	40	37	35	29
McCall (00)	31	24	33	45	38	31	30	23	24
M70-153	35	30	35	49	39	38	34	29	26
M71-25	33	28	35	47	36	32	30	28	29
M71-38	32	25	33	47	36	29	30	27	28
M71-39	31	28	30	43	37	29	31	25	23
M71-43	33	29	35	46	39	33	33	28	24
M71-52	34	31	40	42	39	34	32	33	24
M71-65	36	30	38	50	43	34	35	31	30
M72-24	35	28	35	45	39	37	35	31	27
M72-37	30	30	31	38	33	31	30	25	21
M72-51	36	35	38	43	42	39	35	30	24
M72-52	37	30	42	47	44	38	36	34	28
M72-107	36	32	38	50	40	35	35	30	30
M73-37	36	33	38	46	42	36	35	32	27
M73-62	30	26	31	38	36	32	29	24	21
M73-93	32	28	34	42	36	34	32	29	23

UNIFORM TEST 0, 1980

Strain	Mean 7 Tests	Ont. Ridge-town	Ont. Elora	Ont. Ottawa	Wisc. Spooner	Minn. Rose-mount	Minn. Morris	N.D. Fargo
				QUALITY (score)				
Clay	2.3	3.0	3.0	2.0	2.3	2.3	2.3	1.5
Evans (0)	2.0	2.0	2.5	2.0	2.0	2.3	2.0	1.0
Hodgson 78 (I)	2.3	3.0	3.0	2.0	2.7	2.0	2.5	1.0
McCall (00)	2.0	2.0	2.5	2.0	2.3	2.0	2.5	1.0
M70-153	2.0	2.0	3.5	2.0	2.0	1.3	2.5	1.0
M71-25	2.3	3.0	3.0	2.0	2.3	2.3	2.3	1.0
M71-38	2.1	3.0	2.5	1.5	1.3	2.3	2.7	1.5
M71-39	2.1	2.0	2.0	2.0	2.3	1.7	3.0	1.5
M71-43	2.1	3.0	1.5	2.0	2.3	2.0	2.7	1.0
M71-52	2.2	2.0	3.0	2.5	2.3	2.0	2.0	1.5
M71-65	2.4	2.0	3.5	3.0	2.3	2.0	3.3	1.0
M72-24	2.2	3.0	3.0	2.0	2.0	1.7	2.3	1.5
M72-37	2.2	3.0	2.5	2.0	2.0	2.3	2.3	1.5
M72-51	2.3	2.0	3.5	2.0	3.0	2.7	2.0	1.0
M72-52	2.6	3.0	3.5	2.5	3.7	2.3	2.0	1.0
M72-107	2.3	3.0	2.5	2.0	2.7	2.3	2.7	1.0
M73-37	2.3	2.0	3.0	2.5	3.0	2.0	2.5	1.0
M73-62	2.0	2.0	2.0	2.0	2.0	2.3	2.5	1.0
M73-93	2.6	2.0	3.5	3.0	3.7	3.0	2.0	1.0

UNIFORM TEST 0, 1980

Mean 7 Tests	Ont. Ridge-town	Ont. Elora	Ont. Ottawa	Wisc. Spooner	Minn. Rose-mount	Minn. Morris	N.D. Fargo
			SIZE (g/100)				
16.9	17.7	16.8	19.2	19.6	14.8	15.0	15.5
16.4	16.5	15.8	19.5	19.7	13.9	17.5	11.7
17.6	18.3	17.2	19.5	19.9	14.6	16.8	16.6
14.9	15.2	13.7	17.0	18.6	13.3	14.0	12.2
16.8	16.9	15.7	20.2	18.8	14.3	17.8	13.8
18.0	18.3	16.3	20.8	21.7	14.3	18.0	16.3
16.2	16.9	16.0	19.2	18.9	13.7	15.9	12.5
16.6	17.8	16.0	19.0	19.8	14.5	16.1	12.8
16.7	17.8	16.4	19.5	19.6	14.4	17.4	12.0
20.6	21.3	23.0	24.2	23.3	18.3	20.7	13.4
19.8	21.0	19.7	21.8	23.0	16.5	19.4	17.2
18.5	18.7	16.7	21.8	20.9	16.3	17.9	17.4
17.1	18.1	14.8	20.5	19.9	14.6	17.4	14.1
18.0	17.3	19.1	21.2	21.1	15.2	17.4	14.4
17.6	18.3	19.0	21.2	19.6	15.6	18.1	11.7
18.1	18.3	18.5	21.2	21.3	15.3	17.1	14.9
17.0	16.1	15.7	20.8	19.6	15.5	18.2	13.2
17.1	16.9	17.2	20.8	19.3	13.5	17.8	13.9
16.7	16.9	15.4	20.8	16.7	14.8	17.0	15.3

UNIFORM TEST 0, 1980

Strain	Mean 5 Tests	Ont. Elora	Ont. Ottawa	Wisc. Spooner	Minn. Rose-mount	Minn. Morris
			% PROTEIN			
Clay	42.6	42.1	42.3	42.7	43.4	42.6
Evans (0)	41.8	41.2	42.0	43.6	40.7	41.6
Hodgson 78 (I)	40.7	42.0	39.6	42.3	39.0	40.6
McCall (00)	40.0	40.5	40.5	39.9	39.2	40.1
M70-153	42.7	42.2	41.6	45.1	42.7	42.0
M71-25	41.1	40.2	40.2	43.3	42.1	39.9
M71-38	40.8	41.8	40.0	42.0	40.2	40.1
M71-39	41.0	41.0	41.3	41.6	40.5	40.5
M71-43	42.2	41.5	42.0	43.7	41.5	42.2
M71-52	41.9	42.7	42.1	41.6	42.6	40.6
M71-65	41.6	42.0	41.8	42.5	40.8	40.7
M72-24	42.4	42.1	43.2	42.2	42.2	42.2
M72-37	41.7	41.8	42.8	42.8	42.7	38.5
M72-51	42.2	42.0	43.6	42.5	42.9	39.8
M72-52	41.5	41.4	40.8	42.0	42.4	40.7
M72- 107	41.1	41.3	41.7	43.4	40.0	39.1
M73-37	42.0	41.2	42.9	42.2	41.6	42.2
M73-62	42.4	41.8	42.6	43.6	42.5	41.6
M73-93	42.9	43.2	44.7	42.2	43.2	41.0

UNIFORM TEST 0, 1980

Mean 5 Tests	Ont.		Wisc.	Minn.	
	Elora	Ottawa	Spooner	Rose-mount	Morris
			% OIL		
19.9	20.5	20.0	19.8	19.5	19.7
19.8	20.1	20.1	18.8	19.7	20.1
19.1	19.5	18.4	18.6	19.7	19.5
19.4	19.9	19.8	19.0	19.5	18.6
19.3	19.5	19.2	19.8	18.7	19.4
20.3	20.2	21.0	20.8	19.3	20.4
20.0	19.8	21.0	20.1	19.6	19.5
19.1	19.6	19.4	17.8	19.4	19.3
19.3	20.3	18.8	19.7	18.6	19.0
19.1	19.5	18.9	19.1	19.3	18.6
19.7	20.4	20.3	19.6	18.5	19.6
19.2	18.2	19.6	19.4	19.5	19.5
19.9	20.3	19.9	19.7	19.7	19.8
18.9	19.4	19.3	18.0	18.8	19.1
20.5	21.1	20.6	19.9	20.0	20.7
19.6	20.0	19.4	19.5	20.1	19.1
19.1	20.0	19.2	18.7	18.6	19.2
19.3	18.8	19.8	19.4	18.9	19.7
18.2	18.0	18.6	17.7	18.2	18.7

UNIFORM TEST I, 1980

Strain	Parentage	Previous Testing*	Generation Composited
Corsoy 79 (II)	Corsoy[6] x Lee 68	UTII	F_3
Evans (O)	Merit x Harosoy	3	F_5
Hardin (A76-102009)	Corsoy[3] x Cutler 71	2	F_3
Hodgson 78 (I)	Hodgson[7] x Merit	6	F_5
A77-112023	AP6M(SI)C1	1	F_4
A78-121014	Pride B-216 x Hodgson	PI	F_4
A78-123018	Pride B-216 x Hodgson	PI	F_4
M71-80	Merit x M62-263	PI	F_5
M72-3	Evans x Hodgson	UTO	F_5
M75-2	Hodgson[4] x [M67-141 x (Chippewa x Higan)]	PI	F_5

*Number of years in this test or name of 1979 test

Descriptive and Other Data

Strain	Descriptive Code	Chlorosis Score Ames	Chlorosis Score Lamberton	Hypocotyl Score Ames	Shattering Manhattan 2 Weeks
Corsoy 79 (II)	PGBr DYY	4.0	4.0	1	3
Evans (O)	WGBr DYY	3.2	3.0	1	1
Hardin	PGBr DYY	3.3	4.5	1	1
Hodgson 78 (I)	PGBr DYBf	2.5	3.0	5	3
A77-112023	PTTn DYB1	2.0	1.2	2	1
A78-121014	PGBr DYBf	4.0	5.0	2	1
A78-123018	PGBr DYBf	3.7	4.5	1	1
M71-80	WG+TBr DYB1	2.2	1.2	1	1
M72-3	WGBr DYBf	2.5	1.2	2	1
M75-2	PGBr DYBf	2.0	1.5	5	4

UNIFORM TEST I, 1980

Disease Data

Strain	Laf. Ind. n	Ames Ia. n	GERM * Lafayette, IN d	SMV a	PSB d	PS a	PR Laf. Ind. a	Race 1 Ames Ia. a
	%	Reac.	%	Score	%	Score	---Reaction--	
Corsoy 79 (II)	0	S	89	5E	5	4E	R	R
Evans (O)	0	S	81	1	7	3S	R	R
Hardin	0	I	88	4E	8	3E	R	R
Hodgson 78 (I)	20	S	71	2M	25	3E	R	R
A77-112023	20	S	88	4M	10	3E	R	R
A78-121014	60	S	82	1	17	2E	S	S
A78-123018	40	S	95	1	4	2M	S	S
M71-80	0	S	92	1	5	2M	R	R
M72-3	0	S	94	1	2	2E	H	H
M75-2	0	S	96	1	3	2E	R	R

*Petri dish germination on potato dextrose agar

UNIFORM TEST I, 1980

Regional Summary

Strain	Yield	Rank	Maturity	Lodging	Height	Seed Quality	Size	Protein	Oil
No. of Tests	13	13	11	12	13	10	10	5	5
	bu/a	No.	Date	Score	In.	Score	g/100	%	%
Corsoy 79 (II)	43.2	6	+8	2.9	41	2.2	15.2	42.6	19.7
Evans (O)	37.8	10	-8	1.9	31	2.2	15.6	41.2	21.4
Hardin	44.8	4	+5	2.5	38	2.1	15.1	41.0	20.0
Hodgson 78 (I)	42.0	8	9-17*	2.1	34	2.0	16.3	41.7	20.8
A77-112023 Lakota	47.7	3	+2	2.9	42	2.3	16.8	44.1	19.7
A78-121014	48.7	1	+2	2.2	34	2.1	18.3	43.4	20.1
A78-123018	48.5	2	+4	2.3	33	2.0	15.6	42.0	20.0
M71-80	42.1	7	0	1.9	32	1.8	16.7	42.1	20.9
M72-3	43.6	5	-2	2.1	32	1.9	16.3	40.6	20.8
M75-2	41.4	9	+1	2.2	33	2.1	16.9	42.2	20.8

*123 days after planting

1979-1980, 2-year mean

No. of Tests	27	27	23	25	26	21	22	10	10
Evans (O)	38.9	4	-6.4	1.9	32	2.0	16.0	40.7	20.8
Hardin	46.3	2	+4.1	2.5	38	1.9	15.7	40.5	19.8
Hodgson 78 (I)	42.9	3	9-21*	2.2	36	2.0	16.9	41.1	20.5
A77-112023 Lakota	47.1	1	+1.4	3.0	42	2.4	16.4	43.3	19.1

*125 days after planting

Yields of the three Iowa strains exceeded the yield of Hardin by 3 to 4 bushels per acre in 1980. A77-112023 averaged 1 bushel per acre higher in yield than Hardin in the two year summary, averaged 3 days earlier in maturity, but was more prone to lodging than Hardin. The strains A78-121014 and A78-123018 have slightly better lodging resistance than Hardin but both strains are susceptible to phytophthora root rot.

UNIFORM TEST I, 1980

Strain	Mean 13 Tests	Ont. Ridge-town	S.D. Brookings	Iowa Corwith	Iowa Knierim	Wisc. Arlington
			YIELD (bu/a)			
Corsoy 79 (II)	43.2	53.8	25.1	50.7	55.2	22.4
Evans (O)	37.8	44.0	18.3	47.9	39.3	31.8
Hardin	44.8	52.6	19.9	49.3	53.6	31.6
Hodgson 78 (I)	42.0	50.4	18.4	51.1	46.6	31.6
A77-112023	47.7	47.8	36.9	54.1	58.2	33.9
A78-121014	48.7	51.2	35.0	54.1	55.2	36.7
A78-123018	48.5	53.0	39.3	54.6	56.8	38.2
M71-80	42.1	43.1	26.6	45.8	46.7	36.2
M72-3	43.6	47.3	31.6	51.2	46.4	34.7
M75-2	41.4	50.4	16.4	51.0	45.6	32.6
C.V. (%)		5.6	12.4	4.3	5.1	7.9
L.S.D. (5%)		3.9	5.5	3.2	3.7	4.4
Row sp. (in.)		24	30	27	27	30
Rows/plot		4	4	4	4	4
Reps.		4	3	4	4	3
			YIELD RANK			
	Mean 13 Tests					
Corsoy 79 (II)	6	1	6	7	3	10
Evans (O)	10	9	9	9	10	7
Hardin	4	3	7	8	5	8
Hodgson 78 (I)	8	5	8	5	7	9
A77-112023	3	7	2	2	1	5
A78-121014	1	4	3	2	3	2
A78-123018	2	2	1	1	2	1
M71-80	7	10	5	10	6	3
M72-3	5	8	4	4	8	4
M75-2	9	5	10	6	9	6

UNIFORM TEST I, 1980

Mich.		Minn.		Ill.	N.D.	Ind.	Neb.
Dundee	Ithaca	Waseca	Lamber-ton	Dekalb	Oakes	Lafayette	Mead
			YIELD (bu/a)				
42.3	48.7	47.1	45.2	37.2	34.1	46.8	52.4
43.8	44.9	37.3	38.6	33.3	39.9	27.2	45.7
48.4	48.5	50.5	44.9	42.6	41.6	41.1	57.4
48.9	53.5	46.2	41.6	39.0	25.9	40.7	52.6
53.9	54.8	46.8	43.1	45.7	40.3	50.1	54.6
49.3	52.1	51.2	49.6	40.0	43.2	54.9	60.5
50.6	52.4	51.1	47.2	43.4	31.8	49.5	63.0
44.1	45.2	43.0	44.8	36.8	43.9	39.7	51.6
49.4	51.5	46.2	44.4	36.4	34.2	39.2	54.4
45.5	41.4	48.9	42.1	35.9	36.7	42.5	49.7*
8.1	13.4	7.4	8.7	9.4	25.7	7.2	5.8
6.6	N.S.	5.9	6.6	6.3	16.4	5.1	5.4
30	23	30	30	30	12	24	30
4	4	4	4	4	4	4	4
3	3	3	3	3	3	3	3
			YIELD RANK				
10	6	5	3	6	8	4	7
9	9	10	10	10	5	10	10
6	7	3	4	3	3	6	3
5	2	7	9	5	10	7	6
1	1	6	7	1	4	2	4
4	4	1	1	4	2	1	2
2	3	2	2	2	9	3	1
8	8	9	5	7	1	8	8
3	5	7	6	8	7	9	5
7	10	4	8	9	6	5	9*

*Herbicide injury

UNIFORM TEST I, 1980

Strain	Mean 11 Tests	Ont. Ridge-town	S.D. Brookings	Iowa Corwith	Iowa Knierim	Wisc. Arling-ton
			MATURITY (date)			
Corsoy 79 (II)	+8	+6	+10		+9	+16
Evans (0)	-8	-6	-13		-8	-15
Hardin (I)	+5	+2	+5		+6	+10
Hodgson 78 (II)*	9/17	9/25	9/25		9/8	9/20
A77-112023	+2	-3	+7		+4	+5
A78-121014	+2	0	+6		+2	+5
A78-123018	+4	+2	+9		+4	+6
M71-80	0	0	+1		+1	0
M72-3	-2	-2	-1		-2	0
M75-2	+1	-1	0		-1	+3
Date planted	5/16	5/22	5/20	5/15	5/14	5/20
*Days to maturity	123	126	128	-	117	123
			LODGING (score)			
	12 Tests					
Corsoy 79 (II)	2.9	2.0		4.5	3.2	2.7
Evans (0)	1.9	1.0		4.2	1.6	1.2
Hardin	2.5	1.2		4.7	2.9	2.3
Hodgson 78 (I)	2.1	1.0		4.3	1.9	1.5
A77-112023	2.9	1.8		5.0	3.2	2.7
A78-121014	2.2	1.0		4.2	2.3	1.7
A78-123018	2.3	1.8		3.9	2.4	1.8
M71-80	1.9	1.0		4.0	1.6	1.5
M72-3	2.1	1.2		4.6	1.4	1.8
M75-2	2.2	1.2		4.4	1.7	1.7

UNIFORM TEST I, 1980

Mich.		Minn.		Ill.	N.D.	Ind.	Neb.
Dundee	Ithaca	Waseca	Lamberton	Dekalb	Oakes	Lafayette	Mead
				MATURITY (date)			
+11	+6	+6	+2	+3		+10	+7
-5	-5	-10	-8	-7		-6	-8
+8	+3	+4	+2	0		+6	+8
9/14	9/23	9/22	9/18	9/16		8/31	9/14
+5	+2	0	-2	0		+4	+5
+1	+1	0	0	0		+7	+4
+5	+2	+2	+2	0		+5	+4
+2	-2	-1	-2	0		+1	+4
-1	+1	0	-1	-2		-3	-6
+1	+3	-1	0	0		+1	+5*
5/14	5/22	5/20	5/14	5/2	5/6	5/7	5/27
123	124	125	127	137	-	116	110
				LODGING (score)			
3.7	2.7	2.7	2.3	3.5	2.0	2.0	3.0
1.8	1.6	1.3	1.0	4.5	2.0	1.0	1.8
3.0	2.6	2.3	2.0	3.5	1.5	1.5	2.7
1.9	2.3	2.0	1.3	3.3	1.5	1.5	2.7
4.0	3.0	2.0	2.0	3.8	3.0	1.8	3.0
2.2	2.1	2.0	1.7	3.7	2.5	1.3	2.0
2.5	2.2	2.0	1.3	3.7	2.5	1.5	2.2
2.3	1.7	1.7	1.0	3.3	2.0	1.0	1.5
2.6	2.1	1.7	1.0	3.8	1.5	1.5	2.2
2.2	2.3	2.0	1.3	3.5	2.0	1.5	2.5*

*Herbicide injury

UNIFORM TEST I, 1980

Strain	Mean 13 Tests	Ont. Ridge-town	S.D. Brook-ings	Iowa Corwith	Iowa Knierim	Wisc. Arling-ton
			HEIGHT (inches)			
Corsoy 79 (II)	41	42	27	48	44	35
Evans (0)	31	32	29	36	24	28
Hardin	38	37	21	46	41	34
Hodgson 78 (I)	34	36	26	40	30	30
A77-112023	42	41	32	56	43	34
A78-121014	34	32	29	38	33	32
A78-123018	33	33	31	38	34	30
M71-80	32	32	28	38	32	27
M72-3	32	36	29	40	27	29
M75-2	33	34	23	40	30	29
			QUALITY (score)			
	10 Tests					
Corsoy 79 (II)	2.2	3.0	2.0	1.4		4.0
Evans (0)	2.2	2.0	3.0	2.2		3.7
Hardin	2.1	2.0	2.0	1.3		3.7
Hodgson 78 (I)	2.0	2.0	2.0	1.3		4.3
A77-112023	2.3	3.0	4.0	1.4		3.7
A78-121014	2.1	2.0	3.0	1.5		3.7
A78-123018	2.0	2.0	2.0	1.4		3.0
M71-80	1.8	2.0	2.0	1.8		2.0
M72-3	1.9	2.0	2.0	1.8		2.7
M75-2	2.1	3.0	2.0	1.6		4.3

UNIFORM TEST I, 1980

Mich.		Minn.		Ill.	N.D.	Ind.	Neb.
Dundee	Ithaca	Waseca	Lamber-ton	Dekalb	Oakes	Lafayette	Mead
				HEIGHT (inches)			
44	40	36	36	43	53	37	42
31	36	29	28	31	43	24	28
41	42	33	36	40	52	35	37
35	38	30	34	35	48	28	30
47	41	35	39	44	48	39	42
35	37	29	33	34	49	29	29
32	37	30	32	30	47	29	30
36	36	27	30	35	39	27	31
35	37	27	31	32	37	26	30
36	38	30	33	34	42	28	29*
				QUALITY (score)			
		2.0	2.3	1.3	1.0	1.5	3.3
		2.7	2.0	1.3	1.0	2.5	2.0
		2.3	2.7	1.3	1.0	2.0	3.0
		1.7	2.3	1.3	1.0	1.5	2.2
		2.0	1.7	1.2	2.0	1.5	2.3
		1.7	1.7	2.0	1.0	1.5	2.5
		2.3	2.3	2.0	1.0	1.5	2.8
		1.7	2.0	1.2	1.5	1.5	2.5
		2.3	2.3	1.4	1.0	1.5	2.3
		2.0	2.0	1.2	1.0	1.5	2.5*

*Herbicide injury

UNIFORM TEST I, 1980

Strain	Mean 10 Tests	Ont. Ridge-town	S.D. Brook-ings	Iowa Corwith	Iowa Knierim	Wisc. Arling-ton
			SIZE (g/100)			
Corsoy 79 (II)	15.2	16.0	15.4	14.2		15.7
Evans (0)	15.6	16.7	15.7	14.6		15.5
Hardin	15.1	15.3	14.9	12.6		15.3
Hodgson 78 (I)	16.3	17.3	16.9	15.2		16.7
A77-112023	16.8	15.9	15.8	15.6		17.6
A78-121014	18.3	17.5	17.7	16.8		19.6
A78-123018	15.6	15.6	16.2	14.8		16.3
M71-80	16.7	16.4	17.8	15.9		18.6
M72-3	16.3	15.7	16.2	15.4		17.0
M75-2	16.9	18.4	16.6	15.8		17.6

Strain	Mean 5 Tests	Ont. Ridge-town	S.D. Brook-ings	Iowa Corwith	Wisc. Arlington	Minn. Waseca
			% PROTEIN			
Corsoy 79 (II)	42.6	42.2	43.2	40.4	44.3	43.0
Evans (0)	41.2	42.6	41.7	39.5	41.2	40.9
Hardin	41.0	41.7	42.4	37.4	41.2	42.4
Hodgson 78 (I)	41.7	41.7	41.3	40.0	43.3	42.4
A77-112023	44.1	45.3	43.6	42.2	45.9	43.3
A78-121014	43.4	42.7	43.0	42.5	44.6	44.3
A78-123018	42.0	42.1	43.0	40.7	41.1	43.0
M71-80	42.1	42.7	42.6	41.5	42.5	41.1
M72-3	40.6	41.2	41.4	38.4	40.9	41.3
M75-2	42.2	41.8	42.0	40.6	44.3	42.3

UNIFORM TEST I, 1980

Minn.		Ill.	N.D.	Ind.	Neb.
Waseca	Lamberton	Dekalb	Oakes	Lafayette	Mead
		SIZE (g/100)			
16.2	16.7	13.3	14.9	14.5	14.8
17.8	16.6	13.5	14.9	15.2	15.4
17.1	17.3	13.6	16.1	14.0	15.2
17.7	17.8	13.9	16.8	15.3	15.2
18.4	18.0	16.0	16.8	16.4	17.4
19.6	19.4	16.9	19.6	17.6	18.2
15.6	16.9	14.4	15.6	15.0	15.3
18.8	18.2	15.2	16.9	13.6	16.0
19.1	17.8	13.8	16.5	15.2	16.7
18.3	18.8	14.1	17.6	15.7	15.8*

*Herbicide injury

Mean 5 Tests	Ont. Ridgetown	S.D. Brookings	Iowa Corwith	Wisc. Arlington	Minn. Waseca
		% OIL			
19.7	20.0	20.1	20.7	19.3	18.6
21.4	20.1	22.2	22.5	21.9	20.4
20.0	20.2	21.7	20.2	19.6	18.2
20.8	20.1	21.8	22.1	21.0	19.1
19.7	18.9	20.9	20.6	19.5	18.7
20.1	19.7	21.0	21.0	20.1	18.6
20.0	19.9	20.2	21.6	19.5	18.8
20.9	20.0	21.5	21.9	21.2	19.7
20.8	20.8	22.4	20.6	21.3	18.8
20.8	20.4	21.5	21.8	21.2	18.9

PRELIMINARY TEST I, 1980

Strain	Parentage	Generation Composited
Corsoy 79 (II)	Corsoy[6] x Lee 68	F_3
Evans (0)	Merit x Harosoy	F_5
Hardin	Corsoy[3] x Cutler 71	F_3
Hodgson 78 (I)	Hodgson[7] x Merit	F_5
A79-131010	L69U40-19-1 x [AP68-1016 x (C1426 x AP68-1016)]	F_4
A79-133019	AP6 (ZYT)(F_4)C1	F_4
A79-134008	AP6 (1YT)(F_4)C2	F_4
A79-134018	Pellax A73-19084	F_4
A79-134026	Pride B216 x LL4102	F_4
A79-134034	C1520 x L69U40-19-1	F_4
A79-135010	Pride B216 x Cumberland	F_4
A79-135012	Pride B216 x LL4102	F_4
A79-136010	Oakland x L69U40-19-1	F_4
A79-136012	Pride B216 x LL4102	F_4
A79-136030	AP6 (1YT)(F_4)C2	F_4
A79-138014	NKS1492 x Asgrow A3300	F_4
A79-138015	NKS1492 x Asgrow A3300	F_4
A79-138024	A74-102011 x C1523	F_4
A79-287041	AP6 (1YT)(F_4)C2	F_4
M70-620	Hill x Steele	F_5
M72-38	Wilkin x M65-115	F_5
M72-79	M62-263 x Wells	F_5
M72-95	Evans x Wells	F_5
M72-124	ML7293-4 x Wells	F_5
M73-32	Evans x XK505	F_5
M73-80	M64-157 x M63-217Y	F_5
M73-92	M65-69 x M66-18	F_5
W417	[Merit x (Hawkeye x Wis. Manchu 3)] x Wells	F_4
W442	Evans x Steele	F_4

PRELIMINARY TEST I, 1980

Descriptive and Other Data

Strain	Descriptive Code	Chlorosis Score Ames	Shattering Manhattan 2 Weeks
Corsoy 79 (II)	PGBr DYY	4.0	2
Evans (0)	WGBr DYY	3.2	1
Hardin	PGBr DYY	3.3	2
Hodgson 78 (I)	PGBr DYBf	2.5	3
A79-131010	PGBr DYGr	3.2	1
A79-133019	PTBr DYBl	3.7	1
A79-134008	WG+TBr DYBf+Bl	1.8	2
A79-134018	PGBr DYIb	3.2	2
A79-134026	PGBr DYIb	3.3	3
A79-134034	WGBr DYY	2.5	4
A79-135010	WTT DYBl	4.0	3
A79-135012	WTBr SYGr	3.7	2
A79-136010	PTTn DYGr	3.7	1
A79-136012	WTBr DYBr	4.5	2
A79-136030	PGBr DYIb	3.2	1
A79-138014	PTBr SYBr	4.7	2
A79-138015	PTBr DYBl	4.2	1
A79-138024	PGBr DYGr	3.0	1
A79-287041	WTBr SYBl	2.7	4
M70-620	WGTn DYBf	2.7	4
M72-38	PGTn DYGr+Y	1.7	4
M72-79	WGBr SYBf	2.7	1
M72-95	WGBr DYY	2.8	3
M72-124	PGBr SYIb	2.8	2
M73-32	P+WGBr DYGr+Y	3.0	2
M73-80	PGBr DYGr+Ib+Y	2.5	3
M73-92	PGBr DYY	2.7	2
W417	PGBr DYIb	2.0	2
W442	WGBr DYY	2.5	1

PRELIMINARY TEST I, 1980

Disease Data

Strain	BSR Laf. Ind. n	BSR Ames Ia. n	GERM * Lafayette, IN d	SMV a	PSB d	PS a	PR Laf. Ind. a	Race 1 Ames Ia. a
	%	Reac.	%	Score	%	Score	--Reaction--	
Corsoy 79 (II)	0	S	89	5E	6	3E	R	R
Evans (0)	0	S	75	1	9	5S	R	R
Hardin	0	S	81	5M	7	3E	R	R
Hodgson 78 (I)	20	S	85	2E	11	3E	R	R
A79-131010	20	I	93	4M	6	2E	H	H
A79-133019	0	S	93	5E	7	4S	S	S
A79-134008	20	S	97	2M	8	4E	S	S
A79-134018	0	S	83	3M	16	3E	S	S
A79-134026	40	S	85	4E	8	4S	S	S
A79-134034	80	S	83	2M	12	4E	S	S
A79-135010	40	S	85	5E	10	3E	S	S
A79-135012	80	S	85	5E	10	3E	S	S
A79-136010	0	S	87	5E	2	3E	H	S
A79-136012	100	S	77	5E	15	4E	H	S
A79-136030	80	S	92	3M	7	4E	R	R
A79-138014	20	S	84	5E	9	3E	S	S
A79-138015	100	S	87	4E	9	4E	S	S
A79-138024	20	S	92	4E	6	4S	H	S
A79-287014	100	S	85	3M	12	3S	S	S
M70-620	60	S	73	1	24	4E	R	R
M72-38	20	S	68	2M	31	3S	R	R
M72-79	20	S	72	3M	20	3E	R	R
M72-95	20	S	88	3M	10	4S	R	R
M72-124	0	S	89	2M	8	4E	H	S
M73-32	0	S	79	3M	15	2E	R	R
M73-80	0	S	70	2M	25	2E	H	S
M73-92	0	S	87	4M	12	5E	R	R
W417	60	S	77	1	18	4S	R	R
W442	0	S	82	1	5	3E	R	R

*Petri dish germination on potato dextrose agar

PRELIMINARY TEST I, 1980

Regional Summary

Strain	No. of Tests	Yield	Rank	Maturity	Lodging	Height	Seed Quality	Seed Size	Composition Protein	Composition Oil
	9	9	8	8	9	6	6	5		
		bu/a	No.	Date	Score	In.	Score	g/100	%	%
Corsoy 79 (II)		45.3	20	+8	3.0	40	2.1	15.7	42.5	20.1
Evans (0)		39.1	29	-8	1.8	31	2.4	16.3	41.8	20.8
Hardin		46.1	17	+3	2.7	36	2.1	16.1	41.1	20.3
Hodgson 78 (I)		42.0	28	9-20*	2.2	33	2.3	17.3	42.1	20.9
A79-131010		46.3	15	+5	2.0	37	2.5	17.5	41.1	20.2
A79-133019		50.0	2	+7	2.7	34	2.3	18.2	41.7	20.0
A79-134008		46.8	11	0	2.2	38	2.7	17.3	41.7	20.6
A79-134018		45.4	19	+6	2.5	39	2.1	16.0	43.0	20.1
A79-134026		47.4	8	+3	2.4	33	2.4	17.6	42.8	19.4
A79-134034		46.9	10	+4	2.7	38	2.0	19.3	42.2	20.5
A79-135010		49.5	5	+4	2.3	36	2.2	18.2	42.5	20.1
A79-135012		46.7	12	+4	1.9	34	2.8	18.6	44.6	19.7
A79-136010		48.6	6	+5	2.1	33	2.0	21.2	42.5	20.2
A79-136012		50.3	1	+3	2.2	36	2.2	18.1	43.7	19.6
A79-136030		45.7	18	+5	2.0	37	2.1	17.2	41.8	20.0
A79-138014		49.8	4	+6	2.2	34	1.7	20.0	43.8	19.8
A79-138015		48.5	7	+7	2.2	36	1.6	20.5	41.7	19.9
A79-138024		49.9	3	+8	2.3	36	2.4	20.1	42.0	19.6
A79-287041		46.7	12	+1	2.0	28	2.5	18.2	41.1	19.9
M70-620		44.6	23	+2	2.4	34	2.5	17.2	41.1	21.1
M72-38		42.3	27	-1	1.9	31	2.5	18.4	42.3	20.3
M72-79		47.1	9	+2	2.0	34	3.1	18.3	41.8	20.8
M72-95		46.4	14	+4	1.9	37	2.4	16.9	40.8	21.0
M72-124		44.0	24	+1	1.6	35	2.1	16.3	44.6	19.8
M73-32		45.1	22	+2	2.0	34	2.0	18.5	42.3	20.9
M73-80		46.3	15	-3	1.7	31	2.6	18.8	41.7	20.7
M73-92		44.0	24	+5	2.3	35	2.6	18.8	42.6	19.8
W417		45.2	21	+1	1.6	33	2.0	17.7	41.1	20.4
W442		43.3	26	+2	2.2	36	2.1	18.4	41.4	20.2

*125 days after planting

Several strains in this test averaged higher than the check varieties Hardin and Hodgson 78. The strains A79-135010, A79-136010, and A79-136012 all averaged at least 2 bushels higher in yield than Hardin but all were susceptible or heterogeneous in reaction to phytophthora root rot. The strains A79-133019, A79-138014, A79-138015, and A79-138024 all yielded well but averaged 1 to 3 days late in maturity for continued testing in the Group I tests.

PRELIMINARY TEST I, 1980

Strain	Mean 9 Tests	Ont. Ridge-town	S.D. Brook-ings	Iowa Corwith	Iowa Knierim
			YIELD (bu/a)		
Corsoy 79 (I1)	45.3	59.3	37.8	51.3	55.1
Evans (0)	39.1	47.9	20.5	49.7	36.0
Hardin	46.1	54.5	20.0	49.8	53.6
Hodgson 78 (I)	42.0	53.4	22.8	48.4	44.0
A79-131010	46.3	50.8	29.4	49.3	49.8
A79-133019	50.0	57.1	32.0	55.6	54.4
A79-134008	46.8	49.6	27.6	53.7	51.8
A79-134018	45.4	47.8	31.2	52.7	51.9
A79-134026	47.4	54.4	26.3	51.6	55.2
A79-134034	46.9	52.6	34.5	48.9	51.5
A79-135010	49.5	47.3	37.0	53.2	58.4
A79-135012	46.7	53.0	33.4	50.7	52.7
A79-136010	48.6	51.2	39.1	47.5	57.1
A79-136012	50.3	53.4	29.7	56.4	55.2
A79-136030	45.7	48.4	37.8	42.8	54.1
A79-138014	49.8	51.1	46.0	49.7	53.1
A79-138015	48.5	49.3	43.7	50.5	56.3
A79-138024	49.9	57.3	34.2	59.3	56.0
A79-287041	46.7	53.8	33.7	54.4	50.7
M70-620	44.6	53.3	19.6	49.5	48.8
M72-38	42.3	49.9	23.2	53.1	46.5
M72-79	47.1	51.7	30.3	48.0	53.6
M72-95	46.4	47.4	27.7	49.6	51.5
M72-124	44.0	50.8	26.0	47.5	44.7
M73-32	45.1	53.3	26.1	45.2	52.2
M73-80	46.3	53.7	22.2	54.4	45.9
M73-92	44.0	48.0	29.5	51.3	49.0
W417	45.2	53.4	33.6	50.1	46.3
W442	43.3	51.3	14.1	45.5	51.9
C.V. (%)		4.0	11.6	5.4	3.9
L.S.D. (5%)		4.3	7.0	5.6	4.1
Row sp. (in.)		24	30	27	27
Rows/plot		4	4	4	4
Reps		2	2	2	2

PRELIMINARY TEST I, 1980

Wisc.	Mich.		Minn.	
Arlington	Dundee	Ithaca	Waseca	Lamberton
		YIELD (bu/a)		
23.8	43.5	43.0	48.9	44.6
27.5	40.8	50.2	44.8	34.8
32.1	47.1	59.7	49.8	48.4
33.0	44.4	44.5	47.4	40.2
35.7	59.4	48.5	45.9	48.2
39.4	55.5	52.3	54.8	48.6
34.7	57.3	48.9	47.0	50.7
33.3	50.3	46.1	48.4	46.7
36.1	52.6	52.7	49.0	49.0
37.7	52.3	54.3	46.8	43.4
37.7	54.0	57.7	53.3	46.8
37.5	49.1	51.7	49.8	42.2
39.5	49.8	59.9	50.8	42.1
38.9	54.0	64.4	52.4	48.4
39.5	43.5	56.3	44.3	44.2
37.1	51.0	64.2	51.4	44.8
37.7	46.1	50.1	49.8	53.0
37.3	50.8	51.5	51.6	51.4
35.9	46.9	54.5	47.6	42.4
33.3	48.7	54.9	50.0	43.2
30.0	42.3	52.9	43.0	39.4
35.8	51.8	53.3	48.6	50.7
30.7	54.9	58.2	47.9	49.7
38.0	48.9	51.4	45.2	43.6
37.8	48.0	53.3	47.8	42.3
34.5	49.7	58.8	50.1	47.4
34.8	45.4	44.1	49.5	44.4
34.0	47.8	54.6	43.4	43.3
37.7	45.0	57.4	43.8	43.1
7.5	9.0	12.1	6.1	9.0
5.4	9.1	13.1	6.0	8.4
30	30	28	30	30
4	4	4	2	2
2	2	2	2	2

PRELIMINARY TEST I, 1980

Strain	Mean 9 Tests	Ont. Ridge-town	S.D. Brook-ings	Iowa Corwith	Iowa Knierim
			YIELD RANK		
Corsoy 79 (II)	20	1	4	11	7
Evans (O)	29	26	26	17	29
Hardin	17	4	27	16	10
Hodgson 78 (I)	28	8	24	23	28
A79-131010	15	19	17	21	21
A79-133019	2	3	12	3	8
A79-134008	11	22	19	6	17
A79-134018	19	27	13	9	15
A79-134026	8	5	20	10	5
A79-134034	10	14	7	22	18
A79-135010	5	29	6	7	1
A79-135012	12	13	11	13	13
A79-136010	6	17	3	25	2
A79-136012	1	8	15	2	5
A79-136030	18	24	5	29	9
A79-138014	4	18	1	17	12
A79-138015	7	23	2	14	3
A79-138024	3	2	8	1	4
A79-287041	12	6	9	5	20
M70-620	23	11	28	20	23
M72-38	27	21	23	8	24
M72-79	9	15	14	24	10
M72-95	14	28	18	19	18
M72-124	24	19	22	25	27
M73-32	22	11	21	28	14
M73-80	15	7	25	4	26
M73-92	24	25	16	11	22
W417	21	8	10	15	25
W442	26	16	29	27	15

PRELIMINARY TEST I, 1980

Wisc.	Mich.		Minn.	
Arlington	Dundee	Ithaca	Waseca	Lamberton
		YIELD RANK		
29	26	29	14	15
28	29	22	25	29
25	20	4	9	8
24	25	27	20	27
17	1	25	23	10
3	3	18	1	7
19	2	24	21	3
23	12	26	16	13
14	7	17	13	6
8	8	13	22	19
7	5	7	2	12
11	15	19	10	25
1	13	3	6	26
4	5	1	3	8
2	26	9	26	17
13	10	2	5	14
10	22	23	10	1
12	11	20	4	2
15	21	12	19	23
22	17	10	8	21
27	28	16	29	28
16	9	14	15	3
26	4	6	17	5
5	16	21	24	18
6	18	14	18	24
20	14	5	7	11
18	23	28	12	16
21	19	11	28	20
9	24	8	27	22

PRELIMINARY TEST I, 1980

Strain	Mean 8 Tests	Ont. Ridge-town	S.D. Brook-ings	Iowa Corwith	Iowa Knierim
		MATURITY DATE			
Corsoy 79 (II)	+8	+6	+7		+8
Evans (0)	-8	-6	-13		-8
Hardin	+3	+2	+1		+6
Hodgson 78 (I)*	9/20	9/25	9/26		9/8
A79-131010	+5	0	+11		+4
A79-133019	+7	+7	+8		+8
A79-134008	0	-2	+4		+2
A79-134018	+6	+4	+8		+8
A79-134026	+3	0	+8		+6
A79-134034	+4	+4	+8		+2
A79-135010	+4	+2	+8		+5
A79-135012	+4	+2	+7		+6
A79-136010	+5	+1	+8		+6
A79-136012	+3	0	+8		+5
A79-136030	+5	+2	+8		+6
A79-138014	+6	+4	+10		+7
A79-138015	+7	+4	+13		+8
A79-138024	+8	+5	+9		+8
A79-287041	+1	-2	+5		+3
M70-620	+2	+2	+2		+2
M72-38	-1	-2	+1		0
M72-79	+2	+6	+4		+2
M72-95	+4	+2	+4		+2
M72-124	+1	-2	+2		+2
M73-32	+2	-2	+9		+2
M73-80	-3	-4	-9		-2
M73-92	+5	+7	+7		+6
W417	+1	0	+6		0
W442	+2	0	+7		+2
Date planted	5/18	5/22	5/20	5/15	5/14
*Days to maturity	125	126	129	-	117

PRELIMINARY TEST I, 1980

Wisc.	Mich.		Minn.	
Arlington	Dundee	Ithaca	Waseca	Lamberton
		MATURITY DATE		
+8	+8	+11	+7	+6
-8	-5	-6	-10	-6
-1	+5	+6	+4	+4
9/27	9/16	9/21	9/22	9/18
0	+4	+7	+7	+4
+2	+8	+9	+7	+5
-6	+1	+3	0	0
+1	+7	+8	+8	+3
-4	+2	+5	+4	+2
-1	+6	+9	+2	+2
0	+2	+7	+6	+2
+6	+2	+7	+3	+2
+5	+4	+8	+7	+4
+2	+3	+4	+6	-1
+1	+4	+8	+8	+1
+2	+8	+8	+7	+2
+2	+6	+7	+8	+4
+8	+6	+11	+8	+6
-7	-2	+5	+4	0
0	+4	+6	+2	-1
-1	-2	+2	-6	-2
0	+1	+4	-1	-1
+4	+5	+10	0	+1
0	+4	+6	-2	+1
0	0	+6	+1	0
-2	-3	0	0	-2
+2	+6	+8	+2	+3
-6	+4	+5	-2	-1
+3	+3	+4	-1	-2
5/20	5/14	5/22	5/20	5/14
130	125	122	125	127

PRELIMINARY TEST I, 1980

Strain	Mean 8 Tests	Ont. Ridge-town	S.D. Brook-ings	Iowa Corwith	Iowa Knierim
		LODGING (score)			
Corsoy 79 (II)	3.0	1.5		4.4	3.3
Evans (0)	1.8	1.0		4.2	1.7
Hardin	2.7	2.0		4.6	2.8
Hodgson 78 (I)	2.2	1.5		4.0	2.2
A79-131010	2.0	1.5		3.6	2.0
A79-133019	2.7	3.5		3.7	2.4
A79-134008	2.2	1.5		4.0	1.8
A79-134018	2.5	2.0		4.0	3.0
A79-134026	2.4	2.0		4.0	2.2
A79-134034	2.7	2.5		4.4	2.6
A79-135010	2.3	1.5		3.4	2.1
A79-135012	1.9	1.0		2.8	2.0
A79-136010	2.1	1.5		3.5	2.1
A79-136012	2.2	1.5		4.0	2.0
A79-136030	2.0	1.0		3.9	1.8
A79-138014	2.2	1.5		3.2	2.2
A79-138015	2.2	2.0		3.7	1.9
A79-138024	2.3	2.0		3.6	2.2
A79-287041	2.0	1.0		3.4	2.4
M70-620	2.4	2.0		4.2	1.8
M72-38	1.9	1.0		4.2	2.2
M72-79	2.0	1.0		3.8	2.4
M72-95	1.9	1.0		3.7	2.2
M72-124	1.6	1.0		3.6	1.3
M73-32	2.0	2.0		4.6	1.6
M73-80	1.7	1.0		4.2	1.8
M73-92	2.3	1.5		4.1	2.5
W417	1.6	1.0		3.2	1.7
W442	2.2	1.5		4.6	2.0

PRELIMINARY TEST I, 1980

Wisc.	Mich.		Minn.	
Arlington	Dundee	Ithaca	Waseca	Lamberton
		LODGING (score)		
2.8	3.5	3.3	2.5	2.5
1.5	2.3	2.0	1.0	1.0
2.2	3.0	2.8	2.0	2.0
1.5	2.3	2.4	1.5	2.0
1.5	2.3	2.4	1.0	2.0
1.8	3.5	2.4	2.0	2.0
1.2	2.8	2.5	1.5	2.0
1.5	3.3	2.8	2.0	1.0
1.5	2.5	2.3	1.5	3.0
2.0	4.3	2.8	1.0	2.0
1.5	2.5	2.5	2.0	2.5
1.5	2.3	2.5	1.5	1.5
1.5	2.5	2.8	1.5	1.0
2.0	2.5	2.4	2.0	1.0
1.5	2.0	2.4	2.0	1.0
1.5	3.0	2.3	2.0	1.5
1.2	2.5	2.8	2.0	1.5
2.0	2.8	2.8	2.0	1.0
1.5	2.0	2.3	2.0	1.5
2.0	3.0	2.9	1.5	2.0
1.2	2.0	1.8	1.5	1.0
1.5	2.8	1.9	1.5	1.0
1.2	2.3	2.4	1.0	1.5
1.0	2.0	2.0	1.0	1.0
1.2	2.0	2.4	1.0	1.5
1.2	2.0	1.5	1.0	1.0
1.8	2.8	2.2	2.0	1.5
1.0	2.5	1.6	1.0	1.0
1.5	2.8	2.3	1.5	1.5

PRELIMINARY TEST I, 1980

Strain	Mean 9 Tests	Ont. Ridge-town	S.D. Brook-ings	Iowa Corwith	Iowa Knierim
			HEIGHT (inches)		
Corsoy 79 (II)	40	44	31	45	39
Evans (0)	31	36	26	40	20
Hardin	36	42	24	46	35
Hodgson 78 (I)	33	36	28	41	27
A79-131010	37	38	31	42	36
A79-133019	34	38	31	38	32
A79-134008	38	44	30	45	36
A79-134018	39	45	33	40	38
A79-134026	33	36	27	38	30
A79-134034	38	39	29	44	36
A79-135010	36	34	33	42	35
A79-135012	34	36	28	40	33
A79-136010	33	32	32	40	32
A79-136012	36	40	28	44	34
A79-136030	37	38	36	41	32
A79-138014	34	38	35	40	32
A79-138015	36	36	35	42	34
A79-138024	36	39	29	41	34
A79-287041	28	32	25	34	26
M70-620	34	40	27	38	28
M72-38	31	32	26	35	28
M72-79	34	41	28	40	32
M72-95	37	38	35	44	34
M72-124	35	38	32	36	32
M73-32	35	35	31	40	30
M73-80	31	34	28	34	24
M73-92	35	40	31	38	31
W417	33	36	30	38	32
W442	36	40	30	42	34

PRELIMINARY TEST I, 1980

Wisc.	Mich.		Minn.	
Arlington	Dundee	Ithaca	Waseca	Lamberton
		HEIGHT (inches)		
36	44	43	40	35
30	32	37	28	28
30	39	38	34	34
31	34	38	32	32
34	41	42	36	34
28	35	36	36	34
36	37	40	40	38
33	43	44	40	37
28	34	34	34	38
32	42	43	36	38
28	36	40	36	38
30	34	37	32	34
30	35	35	34	30
34	39	37	40	28
31	33	39	42	38
28	37	36	32	32
32	37	39	36	34
33	37	38	40	35
24	28	33	28	26
31	37	36	32	36
29	32	35	30	28
28	32	34	34	33
34	38	40	38	34
32	35	41	34	36
30	35	41	36	33
30	29	35	34	30
32	36	39	36	30
27	34	39	31	30
33	38	39	35	35

PRELIMINARY TEST I, 1980

Strain	Mean 6 Tests	Ont. Ridge-town	S.D. Brook-ings	Iowa Corwith	Wisc. Arling-ton	Minn. Waseca	Minn. Lamber-ton
				QUALITY (score)			
Corsoy 79 (II)	2.1	2.0	2.0	1.3	3.5	1.5	2.0
Evans (0)	2.4	2.0	3.0	1.3	3.0	2.5	2.5
Hardin	2.1	2.0	2.0	1.3	2.5	2.5	2.5
Hodgson 78 (I)	2.3	2.0	3.0	1.5	3.0	2.0	2.0
A79-131010	2.5	2.0	4.0	1.7	3.0	2.0	2.0
A79-133019	2.3	2.0	5.0	1.4	2.0	2.0	1.5
A79-134008	2.7	2.0	3.0	1.8	2.5	3.0	4.0
A79-134018	2.1	2.0	2.0	1.9	3.0	1.5	2.0
A79-134026	2.4	2.0	4.0	1.9	3.0	1.5	2.0
A79-134034	2.0	2.0	2.5	1.4	2.5	1.5	2.0
A79-135010	2.2	2.0	5.0	1.3	2.0	1.0	2.0
A79-135012	2.8	3.0	5.0	1.8	3.5	1.5	2.0
A79-136010	2.0	2.0	4.0	1.3	2.0	1.0	1.5
A79-136012	2.2	3.0	3.0	1.4	2.0	1.5	2.0
A79-136030	2.1	2.0	2.0	1.5	3.0	2.0	2.0
A79-138014	1.7	2.0	1.0	1.3	3.0	1.5	1.5
A79-138015	1.6	1.0	1.0	1.6	2.0	1.5	2.5
A79-138024	2.4	2.0	2.0	1.6	3.5	2.5	3.0
A79-287041	2.5	2.0	3.0	1.7	3.5	2.5	2.0
M70-620	2.5	2.0	3.0	1.7	3.5	2.5	2.0
M72-38	2.5	2.0	2.0	1.7	4.5	2.0	2.5
M72-79	3.1	2.0	3.0	2.4	3.5	3.5	4.0
M72-95	2.4	2.0	2.0	1.8	4.0	2.5	2.0
M72-124	2.1	2.0	3.0	1.3	2.0	2.0	2.0
M73-32	2.0	3.0	2.0	1.7	1.5	2.0	2.0
M73-80	2.6	2.0	2.0	1.7	3.0	4.0	3.0
M73-92	2.6	2.0	3.0	1.5	2.5	3.5	3.0
W417	2.0	2.0	3.0	1.7	2.0	1.5	2.0
W442	2.1	2.0	2.0	1.8	3.0	1.5	2.0

PRELIMINARY TEST I, 1980

Strain	Mean 6 Tests	Ont. Ridge-town	S.D. Brook-ings	Iowa Corwith	Wisc. Arling-ton	Minn. Waseca	Minn. Lamber-ton
				SIZE (g/100)			
Corsoy 79 (II)	15.7	15.5	16.5	13.4	15.1	17.3	16.6
Evans (0)	16.3	17.0	15.3	14.4	15.6	18.2	17.3
Hardin	16.1	16.0	15.7	13.0	15.2	17.1	19.3
Hodgson 78 (I)	17.3	17.9	16.7	14.2	17.3	18.8	19.0
A79-131010	17.5	16.0	18.3	15.2	17.9	17.8	19.7
A79-133019	18.2	19.5	16.9	17.0	18.8	18.8	18.2
A79-134008	17.3	16.5	17.4	14.9	17.9	17.9	18.9
A79-134018	16.0	15.2	16.1	14.0	16.8	16.5	17.6
A79-134026	17.6	18.4	17.1	16.4	18.1	17.5	18.2
A790134034	19.3	19.8	17.0	17.6	20.8	20.3	20.4
A79-135010	18.2	16.1	17.4	18.2	19.2	19.8	18.7
A79-135012	18.6	18.8	16.3	18.1	21.2	19.1	18.3
A79-136010	21.2	20.2	19.9	18.6	22.7	23.3	22.4
A79-136012	18.1	16.8	16.1	16.7	19.4	18.9	20.7
A79-136030	17.2	17.9	16.9	14.8	18.6	17.4	17.4
A79-138014	20.0	20.2	20.3	18.5	20.6	20.1	20.5
A79-138015	20.5	18.9	20.3	17.6	23.2	21.2	21.7
A79-138024	20.1	20.6	19.3	17.2	21.2	21.4	20.9
A79-287041	18.2	18.5	19.1	16.8	17.8	18.1	18.9
M70-620	17.2	18.1	16.0	15.0	17.9	18.0	18.2
M72-38	18.4	17.3	18.7	15.4	20.8	18.8	19.3
M72-79	18.3	17.3	16.9	17.0	20.4	18.0	20.4
M72-95	16.9	17.4	16.4	14.8	18.6	17.0	17.2
M72-124	16.3	17.0	16.2	14.6	17.2	16.4	16.1
M73-32	18.5	18.2	18.2	15.8	19.7	20.0	18.8
M73-80	18.8	19.1	20.2	16.4	20.4	20.1	16.6
M73-92	18.8	17.5	18.6	15.6	19.2	20.5	21.4
W417	17.7	17.0	18.3	14.4	19.4	18.2	18.8
W442	18.4	17.4	18.1	15.4	20.2	19.0	20.1

PRELIMINARY TEST I, 1980

Strain	Mean 5 Tests	Ont. Ridge-town	S.D. Brook-ings	Iowa Corwith	Wisc. Arling-ton	Minn. Waseca
			% PROTEIN			
Corsoy 79 (II)	42.5	42.5	42.7	39.5	44.8	43.1
Evans (0)	41.8	41.8	41.6	37.2	47.0	41.2
Hardin	41.1	42.1	41.2	39.6	40.3	42.3
Hodgson 78 (I)	42.1	42.4	42.8	38.8	42.8	43.5
A79-131010	41.1	43.2	41.8	39.2	42.0	39.4
A79-133019	41.7	43.5	41.5	39.7	41.6	42.4
A79-134008	41.7	41.6	42.3	39.6	42.8	42.0
A79-134018	43.0	43.2	42.5	42.3	44.2	42.7
A79-134026	42.8	42.8	43.2	41.3	42.7	44.1
A79-134034	42.2	44.7	42.7	38.8	42.8	41.8
A79-135010	42.5	42.2	42.3	41.7	43.8	42.4
A79-135012	44.6	43.3	44.9	41.6	48.1	45.0
A79-136010	42.5	44.0	41.9	41.6	42.7	42.1
A79-136012	43.7	45.7	44.1	39.9	45.3	43.5
A79-136030	41.8	43.3	41.6	39.1	43.3	41.5
A79-138014	43.8	42.8	44.2	41.9	45.9	44.3
A79-138015	41.7	42.9	42.9	38.5	43.5	40.9
A79-138024	42.0	43.2	42.6	39.9	42.4	42.0
A79-287041	41.1	41.8	42.0	38.6	41.4	41.6
M70-620	41.1	40.8	40.7	39.4	43.5	40.9
M72-38	42.3	44.9	42.7	40.0	43.0	40.8
M72-79	41.8	41.4	41.1	41.9	42.7	41.8
M72-95	40.8	43.3	40.2	38.2	42.0	40.5
M72-124	44.6	42.0	45.3	43.6	46.1	46.1
M73-32	42.3	43.3	42.6	40.5	42.9	42.4
M73-80	41.7	41.0	43.7	39.3	42.4	42.2
M73-92	42.6	43.7	42.2	41.7	43.5	42.1
W417	41.1	42.3	41.9	37.4	42.0	41.8
W442	41.4	-	41.5	38.7	43.8	41.5

PRELIMINARY TEST I, 1980

Strain	Mean 5 Tests	Ont. Ridge-town	S.D. Brook-ings	Iowa Corwith	Wisc. Arling-ton	Minn. Waseca
			% OIL			
Corsoy 79 (II)	20.1	19.8	21.2	21.8	19.0	18.9
Evans (0)	20.8	20.6	22.7	21.3	19.6	20.0
Hardin	20.3	20.2	21.3	22.0	19.2	19.0
Hodgson 78 (I)	20.9	20.1	22.1	21.8	21.1	19.2
A79-131010	20.2	19.7	21.5	21.8	19.3	18.5
A79-133019	20.0	18.7	20.9	21.4	20.7	18.4
A79-134008	20.6	19.9	21.4	21.5	20.4	19.6
A79-134018	20.1	19.4	21.4	20.5	19.5	19.6
A79-134026	19.4	19.9	19.7	20.6	17.9	18.8
A79-134034	20.5	19.1	21.0	22.3	20.5	19.5
A79-135010	20.1	19.8	21.2	21.8	19.5	18.1
A79-135012	19.7	19.1	20.3	21.2	19.4	18.3
A79-136010	20.2	19.3	21.3	21.3	19.9	19.0
A79-136012	19.6	18.7	20.7	20.0	19.8	18.6
A79-136030	20.0	20.0	21.1	21.8	18.4	18.8
A79-138014	19.8	19.0	21.2	21.1	19.3	18.3
A79-138015	19.9	19.5	20.7	21.4	19.5	18.3
A79-138024	19.6	19.6	20.4	21.1	18.9	18.1
A79-287041	19.9	20.2	22.0	19.9	19.0	18.5
M70-620	21.1	20.6	23.1	21.3	20.8	19.8
M72-38	20.3	19.5	21.8	21.7	19.2	19.3
M72-79	20.8	20.8	21.5	21.6	20.8	19.4
M72-95	21.0	19.8	22.6	23.3	20.4	18.8
M72-124	19.8	19.9	21.0	20.7	19.7	17.5
M73-32	20.9	20.1	22.2	21.6	21.2	19.4
M73-80	20.7	20.3	21.6	21.3	20.9	19.4
M73-92	19.8	20.6	20.5	21.3	17.6	18.8
W417	20.4	21.1	21.3	21.5	19.8	18.4
W442	20.2	-	21.7	21.0	19.6	18.4

UNIFORM TEST II, 1980

Strain	Parentage	Previous Testing*	Generation Composited
Amcor	C1477 x Corsoy	4	F_6
Century	Calland x Bonus	3	F_6
Corsoy 79 (II)	Corsoy[6] x Lee 68	2	F_3
Hardin (I)	Corsoy[3] x Cutler 71	UTI	F_3
Pella (III)	L66L-137 x Calland	1	F_4
A77-211021	Beeson x A72-507	1	F_4
A78-122028	Hodgson x Sloan	PII	F_4
A78-122031	SRF 350 x Pride B-216	PI	F_4
A78-123002	C1520 x Coles	PI	F_4
A78-125029	Pride B-216 x AX900-4-3	PI	F_4
A78-227013	Pride B-216 x AX901-40-2	PII	F_4
A78-227015	Pride B-216 x AX901-40-2	PII	F_4
A78-227016	Pride B-216 x AX901-40-2	PII	F_4
L27	Corsoy[8] x Kingwa	-	F_3
L73-4673	Corsoy x L66L-154	1	F_5
U20325	C1317-71 x C1253	1	F_5
U56355	C1477 x C1421	PII	F_5

*Number of years in this test or name of 1979 test

Descriptive and Other Data

Strain	Descriptive Code	Chlorosis Score Ames	Chlorosis Score Lamberton	Hypocotyl Score Ames	Shattering Manhattan 2 Weeks
Amcor	PGBr SYY	3.7	4.0	1	2
Century	PTBr DYB1	3.0	3.5	5	3
Corsoy 79 (II)	PGBr DYY	4.0	4.0	1	2
Hardin (I)	PGBr DYY	3.3	4.5	1	2
Pella (III)	PTTn DYB1	3.2	4.0	1	2
A77-211021	WGBr DYBf	3.7	4.5	3	2
A78-122028	WGBr SYBf	2.5	3.0	5	2
A78-122031	WGBr DYBf	3.8	4.5	2	2
A78-123002	PTBr DYBr	2.5	3.0	2	2
A78-125029	WGBr DYBf	4.0	2.5	1	2
A78-227013	WGBr DYBf	4.2	4.0	4	2
A78-227015	WGTn DYBf	3.3	2.5	1	2
A78-227016	WGTn DYBf	4.3	3.5	2	2
L27	PGBr DYY	4.0	4.0	2	2
L73-4673	PGTn DYY	4.0	4.0	1	2
U20325	PGBr SYIb	2.7	3.0	2	2
U56355	PGBr SYY	2.7	5.0	5	2

UNIFORM TEST II, 1980

Strain	BSR Laf. Ind.	BSR Ames Ia.	GERM *	SMV	PSB	PS	PR Vickery	PR	Race 1
			Lafayette, IN				Ohio	Laf. Ind.	Ames Ia.
	n	n	d	a	d	a	a	a	a
	%	Reac.	%	Score	%	Score		--Reaction--	
Amcor	60	S	93	3M	3	5S	2.0	R	R
Century	60	S	92	4E	8	3S	2.3	R	R
Corsoy 79 (II)	0	S	82	5E	11	5E	2.1	R	R
Hardin (I)	0	S	80	4S	16	4E	2.9	R	R
Pella (III)	0	S	95	3E	1	3S	2.2	R	R
A77-211021	0	S	85	1	4	5E	3.1	R	R
A78-122028	20	S	88	1	2	3S	2.4	S	S
A78-122031	20	S	92	3E	4	3S	2.5	S	S
A78-123002	20	S	66	4E	30	2E	2.7	H	H
A78-125029	60	R	95	3M	3	4E	2.4	S	S
A78-227013	0	R	99	1	1	5E	2.2	R	R
A78-227015	60	R	95	1	5	5E	2.5	R	R
A78-227016	60	R	91	1	7	4E	3.2	S	S
L27	0	S	93	5E	5	3S	2.0	R	R
L73-4673	40	S	93	2M	5	4E	2.7	S	S
U20325	60	S	91	1	2	3E	2.8	R	R
U56355	20	S	97	3M	3	5E	2.4	R	R

*Petri dish germination on potato dextrose agar

Two strains, A78-227015 and A78-227016 averaged 1 bushel higher in yield than Century in the 1980 tests. Both strains have good lodging resistance, A78-227015 is resistant to races 1 and 2 of phytophthora, A78-227016 is susceptible to these races of the pathogen. The strain L27, which is resistant to all but races 12 and 16 of phytophthora, averaged about two bushels below Corsoy 79 in yield but was similar to Corsoy 79 in other characteristics.

The two-year mean yields of A77-211021, Amcor, and Century were essentially the same with A77-211021 maturing 3 to 4 days earlier than Amcor or Century.

UNIFORM TEST II, 1980

Regional Summary

Strain	Yield	Rank	Maturity	Lodging	Height	Seed Quality	Seed Size	Composition	
								Protein	Oil
No. of Tests	22	22	21	21	22	19	19	5	5
	bu/a	No.	Date	Score	In.	Score	g/100	%	%
Amcor	46.9	6	+4	2.8	42	2.3	16.6	40.5	22.0
Century	47.6	3	+3	1.7	36	2.1	18.5	42.9	21.0
Corsoy 79 (II)	46.5	8	9-22*	2.6	39	2.1	15.3	41.2	22.3
Hardin (I)	44.4	15	-4	2.5	35	2.4	14.8	40.8	23.2
Pella (III)	45.9	12	+6	1.8	38	2.0	19.4	39.3	22.1
A77-211021	47.5	4	-1	2.5	37	2.7	18.9	41.9	21.6
A78-122028	44.0	17	-2	3.0	37	2.1	14.8	39.5	23.5
A78-122031	46.1	11	-4	2.1	31	2.1	16.2	41.0	22.7
A78-123002	46.5	8	-4	2.3	36	2.2	17.1	41.4	21.8
A78-125029	46.5	8	-2	1.8	36	2.0	14.4	41.1	23.4
A78-227013	47.3	5	0	2.2	35	2.0	16.0	41.8	21.4
A78-227015	48.6	2	+2	2.0	32	2.0	17.8	43.2	21.1
A78-227016	48.7	1	+2	1.9	32	2.1	16.2	42.7	21.7
L27	44.6	14	-1	2.8	38	2.0	14.9	41.9	22.5
L73-4673	46.7	7	+5	2.0	38	1.9	16.8	42.7	20.8
U20325	44.4	15	+2	1.6	36	2.2	17.8	42.3	21.3
U56355	44.7	13	+2	1.5	35	2.2	15.9	42.2	21.7

*126 days after planting

1979-1980 2-year mean

No. of Tests	44	44	42	43	44	39	40	11	11
Amcor	48.0	2	+4.6	2.9	43	2.3	17.1	39.8	20.9
Century	48.0	2	+3.5	1.9	38	2.0	19.0	42.1	20.2
Corsoy 79 (II)	47.0	6	9-23*	2.5	40	2.0	15.8	40.5	21.3
Pella	47.6	5	+6.0	1.9	39	1.9	19.8	39.2	21.1
A77-211021	48.2	1	+0.5	2.6	39	2.6	19.3	40.8	20.7
L73-4673	47.7	4	+4.8	2.2	38	1.8	17.0	41.6	20.0
U20325	44.1	7	+2.9	1.9	38	2.1	18.1	41.3	20.4

*126 days after planting

Strain	Mean 22 Tests	N.J. Adel-phia	Penn. Landis-ville	Ont. Ridge-town	Ont. Harrow	Ohio Hoyt-ville	Ohio Wooster
			YIELD (bu/a)				
Amcor	46.9	44.9	39.7	52.9	55.3	55.3	46.8
Century	47.6	42.9	29.7	54.3	53.9	58.4	47.1
Corsoy 79 (II)	46.5	43.4	34.2	56.7	53.4	57.4	45.3
Hardin (I)	44.4	44.7	29.2	55.1	57.2	59.3	49.5
Pella (III)	45.9	41.7	32.2	51.4	55.9	51.6	48.5
A77-211021	47.5	43.2	31.8	55.8	60.4	55.4	48.4
A78-122028	44.0	41.4	31.2	52.8	50.4	44.7	42.8
A78-122031	46.1	41.0	16.8	52.7	54.5	60.4	50.1
A78-123002	46.5	45.2	28.4	55.7	61.6	55.5	52.2
A78-125029	46.5	44.7	22.1	50.3	51.1	56.5	47.1
A78-227013	47.3	44.4	27.5	56.9	57.1	52.9	46.1
A78-227015	48.6	43.2	31.2	52.6	57.2	58.2	46.1
A78-227016	48.7	45.7	29.8	54.9	58.0	62.9	50.3
L27	44.6	41.2	26.6	52.0	54.4	55.9	45.9
L73-4673	46.7	48.7	30.2	50.7	53.4	55.9	47.8
U20325	44.4	41.6	22.0	49.3	51.9	52.7	46.6
U56355	44.7	42.9	21.5	49.4	50.0	53.7	45.0
C.V. (%)		5.1	17.5	5.4	7.6	6.1	5.9
L.S.D. (5%)		4.5	8.3	4.0	5.9	5.5	4.6
Row sp. (in.)		30	30	24	24	30	30
Rows/plot		3	4	4	4	4	4
Reps		4	3	4	4	3	3
	22 Tests		YIELD RANK				
Amcor	6	4	1	8	8	12	10
Century	3	11	9	7	11	4	9
Corsoy 79 (II)	8	8	2	2	12	6	15
Hardin (I)	15	5	10	5	4	3	4
Pella (III)	12	13	3	13	7	16	5
A77-211021	4	9	4	3	2	11	6
A78-122028	17	15	5	9	16	17	17
A78-122031	11	17	17	10	9	2	3
A78-123002	8	3	11	4	1	10	1
A78-125029	8	5	14	15	15	7	8
A78-227013	5	7	12	1	6	14	12
A78-227015	2	9	5	11	4	5	12
A78-227016	1	2	8	6	3	1	2
L27	14	16	13	12	10	8	14
L73-4673	7	1	7	14	12	8	7
U20325	15	14	15	17	14	15	11
U56355	13	11	16	16	17	13	16

UNIFORM TEST II, 1980

Strain	Ind.			Mich.		Wisc.	S.D.
	Lafay-ette	Bluff-ton	Green-field	Dundee	Ithaca	Arling-ton	Brook-ings
			YIELD (bu/a)				
Amcor	59.9	53.8	47.3	50.6	54.0	27.1	33.0
Century	56.7	54.3	49.0	55.5	51.4	31.9	33.5
Corsoy 79 (II)	48.1	45.5	45.4	52.8	56.7	28.2	34.8
Hardin (I)	40.2	44.5	35.1	51.6	58.1	34.2	19.5
Pella (III)	49.8	-	47.1	50.8	53.5	34.7	20.1
A77-211021	52.0	51.6	36.7	57.2	62.2	39.6	38.5
A78-122028	55.5	42.9	37.3	44.6	51.5	35.3	38.2
A78-122031	52.9	45.6	42.1	54.2	52.0	37.4	41.3
A78-123002	49.5	52.8	37.2	57.1	57.1	34.4	34.8
A78-125029	56.9	46.1	44.4	51.9	51.6	37.1	40.9
A78-227013	60.2	49.5	46.9	56.1	54.3	31.6	36.0
A78-227015	61.8	53.4	51.0	56.1	52.4	38.6	35.5
A78-227016	58.9	53.0	41.6	56.5	50.8	38.8	36.1
L27	49.0	50.6	40.2	45.7	54.3	27.1	28.0
L73-4673	59.1	47.4	35.3	51.2	51.2	29.3	33.0
U2020325	46.7	49.2	37.9	51.9	52.0	35.4	34.4
U56355	52.2	50.1	36.9	51.4	54.5	35.8	33.9
C.V. (%)	7.9	10.8	21.5	7.8	8.5	6.6	12.3
L.S.D. (5%)	6.8	8.7	14.7	6.8	7.5	3.6	6.8
Row sp. (in.)	24	30	30	30	28	30	30
Rows/plot	4	3	3	4	4	4	4
Reps	3	3	3	3	3	3	3
			YIELD RANK				
Amcor	3	2	3	15	8	17	13
Century	7	1	2	6	15	12	12
Corsoy 79 (II)	15	14	6	8	4	15	8
Hardin (I)	17	16	17	11	2	11	17
Pella (III)	12	-	4	14	9	9	15
A77-211021	11	6	15	1	1	1	4
A78-122028	8	17	12	17	14	8	3
A78-122031	9	13	8	7	11	4	1
A78-123002	13	5	13	2	3	10	9
A78-125029	6	12	7	9	13	5	2
A78-227013	2	10	5	4	6	13	6
A78-227015	1	3	1	4	10	3	7
A78-227016	5	4	9	3	17	2	5
L27	14	7	10	16	6	16	16
L73-4673	4	11	16	13	16	14	14
U20325	16	10	11	9	11	7	10
U56355	10	8	14	12	5	6	11

UNIFORM TEST II, 1980

Ill.		Ill.		Minn.		Iowa		Neb.
Dekalb	Pontiac	Urbana	Girard	Waseca	Lamber-ton	Marshall-town	Ames	Mead
				YIELD (bu/a)				
45.7	38.8	45.7	37.4	41.6	42.8	47.2	56.5	54.9
43.8	37.7	48.3	38.2	51.5	50.3	48.7	58.5	51.4
44.0	37.0	40.8	35.4	48.6	50.0	50.8	58.6	56.9
42.6	33.5	40.8	26.6	52.5	46.5	48.4	56.8	51.2
41.8	37.8	52.8	37.8	49.0	50.1	50.9	55.5	50.7
43.8	34.6	44.1	25.8	51.7	48.8	48.5	60.1	55.3
41.9	32.7	42.4	29.1	50.9	44.7	47.0	56.8	53.4
48.1	28.9	45.3	24.0	54.8	46.5	51.5	61.1	53.9
44.4	29.6	42.7	28.4	49.4	49.2	52.2	55.3	49.4
45.4	28.1	47.6	28.7	53.4	53.8	51.5	57.2	56.4
46.4	31.6	47.5	30.2	47.0	49.1	52.5	59.6	56.3
49.5	31.1	48.8	30.9	54.0	51.1	52.3	62.5	51.4
48.7	31.7	47.4	29.1	53.0	51.5	52.7	65.7	55.0
44.3	30.8	43.7	32.5	52.2	49.0	48.2	60.5	48.7
50.6	35.6	46.9	38.5	49.0	48.1	50.0	59.6	55.7
44.3	32.8	45.6	32.2	44.4	47.9	47.5	55.7	54.3
42.6	28.3	48.9	28.6	49.5	48.6	47.4	54.4	58.5
5.7	10.3	5.7	10.3	5.9	6.9	3.5	5.2	9.7
4.2	5.6	4.3	5.4	4.9	5.6	2.5	4.3	8.4
30	30	30	30	30	30	27	27	30
4	4	4	4	4	4	4	4	4
3	3	3	3	3	3	4	4	3
				YIELD RANK				
6	1	9	4	17	17	16	13	7
12	3	4	2	8	4	10	9	11
11	4	16	5	14	6	8	8	1
14	7	16	15	5	14	12	11	13
17	2	1	3	12	5	7	15	14
12	6	12	16	7	10	11	5	5
16	9	15	10	9	16	17	11	10
4	15	11	17	1	14	5	3	9
8	14	14	14	11	7	4	16	15
7	17	5	12	3	1	5	10	2
5	11	6	9	15	8	2	6	3
2	12	3	8	2	3	3	2	11
3	10	7	10	4	2	1	1	6
9	13	13	6	6	9	13	4	16
1	5	8	1	12	12	9	6	4
9	8	10	7	16	13	14	14	8
14	16	2	13	10	11	15	17	17

UNIFORM TEST II, 1980

Strain	Mean 21 Tests	N.J. Adel-phia	Penn. Landis-ville	Ont. Ridge-town	Ont. Harrow	Ohio Hoyt-ville	Ohio Wooster
			MATURITY (date)				
Amcor	+4	+3	+3	+7	+3	+7	+4
Century	+3	+2	+3	+2	+2	+4	+1
Corsoy 79 (II)	9/22	9/15	9/19	10/1	9/30	9/19	9/20
Hardin (I)	-4	-3	-4	-5	-5	-4	-2
Pella (III)	+6	+7	+5	+7	+2	+8	+7
A77-211021	-1	-2	-7	0	-1	0	-1
A78-122028	-2	-1	-7	-1	-4	-4	-2
A78-122031	-4	-3	-9	-5	-5	-4	-4
A78-123002	-4	-4	-9	-4	-6	-4	-5
A78-125029	-2	-1	-7	-2	-3	-3	-1
A78-227013	0	+3	-4	-2	-2	+1	+1
A78-227015	+2	+3	-4	-1	+1	+4	+1
A78-227016	+2	+3	-7	+5	+3	+5	+2
L27	-1	-3	-7	0	-2	-1	-1
L73-4673	+5	+7	0	+8	+3	+4	+3
U20325	+2	0	-4	0	+1	+4	+3
U56355	+2	0	-4	-1	0	+4	+3
Date planted	5/19	5/28	6/5	5/22	5/27	5/6	5/16
*Days to maturity	126	110	106	132	126	136	127
			LODGING (score)				
	21 Tests						
Amcor	2.8	3.0	1.0	2.5	3.6	2.8	3.5
Century	1.7	1.0	1.0	1.2	2.1	2.1	2.4
Corsoy 79 (II)	2.6	3.0	1.0	1.8	3.1	3.4	3.6
Hardin (I)	2.5	3.0	1.0	2.0	2.6	2.8	3.4
Pella (III)	1.8	1.0	1.0	1.8	2.4	2.0	1.8
A77-211021	2.5	3.2	1.0	2.0	2.8	3.3	3.1
A78-122028	3.0	4.0	1.0	2.8	3.0	3.8	4.1
A78-122031	2.1	2.0	1.0	1.5	2.9	2.5	2.0
A78-123002	2.3	2.2	1.0	2.2	2.4	2.8	3.1
A78-125029	1.8	1.5	1.0	2.0	2.3	2.5	2.2
A78-227013	2.2	2.2	1.0	2.0	2.3	3.1	3.0
A78-227015	2.0	1.2	1.0	2.8	2.6	2.7	2.4
A78-227016	1.9	1.8	1.0	2.2	2.4	2.4	2.5
L27	2.8	3.0	1.0	2.5	2.9	3.8	3.5
L73-4673	2.0	2.2	1.0	1.5	2.0	2.2	2.8
U20325	1.6	1.5	1.0	1.0	1.8	1.5	1.8
U56355	1.5	1.2	1.0	1.5	1.6	1.7	2.4

UNIFORM TEST II, 1980

Ill.		Minn.		Iowa		Neb.	S.D.	Mich.	
Urbana	Girard	Waseca	Lamber-ton	Marshall-town	Ames	Mead	Brook-ings	Dundee	Ithaca
				MATURITY (date)					
+6	+5	+3	+6		+6	+4	+6	+6	+6
+7	+6	+3	+3		+3	-1	+6	+5	+6
9/12	8/30	9/30	9/23		9/18	9/23	10/6	9/24	10/5
0	-4	-1	-1		-6	-2	-6	-2	-6
+11	+11	+6	+6		+7	+6	+9	+5	+8
+1	-1	+1	0		+2	0	+2	0	+2
0	+2	-1	+1		-1	-1	+2	-2	-5
-3	-6	-2	-1		-7	-1	0	-4	-4
-2	-2	-2	-3		-5	-3	+1	-2	-5
0	-3	-1	0		-4	-1	+2	-2	-3
+4	+3	+2	+1		0	-1	+5	+1	+1
+7	+5	+2	+3		+3	+2	+4	+3	+4
+2	+3	+2	+4		+2	+2	+6	+4	+6
0	-1	0	+2		0	-1	+1	0	-1
+9	+7	+7	+6		+7	+4	+6	+6	+4
+8	+2	+5	+7		+4	+1	+6	+1	+8
+6	+3	+5	+6		+2	0	+7	+1	+4
5/7	5/6	5/20	5/14	5/16	5/13	5/27	5/20	5/14	5/22
128	116	133	132	--	128	119	139	133	136
				LODGING (score)					
2.6	2.8	2.0	3.3	3.4	3.2	1.8		3.4	4.0
1.3	1.5	1.7	1.3	2.1	1.9	1.0		2.5	3.3
2.4	3.2	2.0	2.7	3.3	3.0	1.2		3.2	3.3
2.8	2.9	2.0	2.3	3.5	3.1	1.3		3.2	2.5
1.4	1.4	1.7	1.7	2.0	2.0	1.2		2.2	3.8
2.2	2.3	2.0	2.3	3.6	3.3	1.5		3.5	2.8
2.8	3.4	2.3	3.3	3.8	3.2	1.8		3.7	3.9
2.0	2.5	1.7	2.0	2.9	2.4	1.3		3.0	2.7
1.9	1.9	2.0	2.0	3.3	2.7	1.3		2.9	3.3
1.2	1.8	1.7	1.3	2.6	2.0	1.2		2.5	2.3
1.6	2.0	2.0	1.7	2.8	2.2	1.5		2.8	3.8
1.3	1.5	1.0	1.7	2.2	2.1	1.0		2.8	3.8
1.2	1.6	1.0	2.0	2.2	2.8	1.2		2.8	3.3
2.8	2.9	2.0	2.7	3.6	3.1	1.5		3.2	3.5
2.1	1.9	2.0	2.0	3.0	2.8	1.2		2.7	2.8
1.4	1.6	1.7	2.0	1.9	1.8	1.2		2.1	3.3
1.2	1.3	1.7	2.0	1.9	1.9	1.2		1.9	2.3

UNIFORM TEST II, 1980

Strain	Ind. Lafay-ette	Ind. Bluff-ton	Ind. Green-field	Wisc. Arling-ton	Ill. Dekalb	Ill. Pontiac
			MATURITY (date)			
Amcor	+5	+3	+2	+1	-6	+2
Century	+2	+3	+1	+3	+1	+2
Corsoy 79 (II)	9/10	9/11	9/19	10/3	9/26	9/21
Hardin (I)	-3	-1	-6	-8	-4	-4
Pella (III)	+9	-	+3	+4	+4	+2
A77-211021	0	-1	-2	-4	-3	-2
A78-122028	0	-1	-3	-7	-4	-2
A78-122031	-2	-3	-3	-11	-3	-3
A78-123002	-2	-3	-3	-6	-4	-2
A78-125029	-1	-1	-3	-6	-3	-5
A78-227013	+2	+1	0	-5	-1	0
A78-227015	+4	+2	+1	0	+1	0
A78-227016	+2	+1	0	-1	+1	+1
L27	0	0	-2	0	-4	-2
L73-4673	+7	+3	+2	+3	+5	+1
U20325	+1	+1	-1	+1	-1	+2
U56355	+1	+2	-1	-2	0	0
Date planted	5/7	5/15	5/29	5/20	5/21	5/27
Days to maturity	126	119	113	136	128	117
			LODGING (score)			
Amcor	2.2	1.8	2.2	3.5	4.2	1.8
Century	1.0	1.5	1.0	1.5	2.8	1.0
Corsoy 79 (II)	2.0	2.2	2.3	2.5	4.0	1.8
Hardin (I)	2.2	1.8	2.3	2.2	4.0	1.7
Pella (III)	1.5	---	1.0	1.8	2.8	1.0
A77-211021	1.8	2.0	1.5	2.2	4.3	1.5
A78-122028	2.8	2.3	1.7	2.5	4.9	1.7
A78-122031	1.3	1.7	2.0	1.7	3.8	1.0
A78-123002	1.3	1.7	2.2	2.7	4.0	1.2
A78-125029	1.0	1.3	1.0	1.3	3.8	1.0
A78-227013	1.5	1.7	2.3	2.0	3.8	1.2
A78-227015	1.2	1.7	2.0	1.5	3.7	1.0
A78-227016	1.0	1.2	1.3	1.2	3.2	1.0
L27	2.2	2.2	3.3	3.0	4.3	1.7
L73-4673	1.2	1.5	1.0	2.0	4.0	1.0
U20325	1.0	1.0	1.0	1.5	2.2	1.0
U56355	1.0	1.0	1.0	1.2	2.3	1.0

UNIFORM TEST II, 1980

Strain	Mean 22 Tests	N.J. Adel-phia	Penn. Landis-ville	Ont. Ridge-town	Ont. Harrow	Ohio Hoyt-ville	Ohio Wooster
			HEIGHT (inches)				
Amcor	42	40	34	47	45	45	46
Century	36	32	24	42	42	41	36
Corsoy 79 (II)	39	36	28	46	41	43	40
Hardin (I)	35	33	26	40	38	35	41
Pella (III)	38	36	25	41	43	41	41
A77-211021	37	35	26	45	42	44	39
A78-122028	37	35	26	42	41	39	46
A78-122031	31	28	19	35	35	33	30
A78-123002	36	33	23	42	39	41	40
A78-125029	36	33	23	43	42	41	35
A78-227013	35	33	23	40	37	39	36
A78-227015	32	30	20	37	39	36	32
A78-227016	32	30	20	36	36	40	35
L27	38	36	22	45	42	43	44
L73-4673	38	34	22	44	40	37	40
U20325	36	36	20	38	42	39	40
U56355	35	34	19	40	40	40	35
	19 Tests		QUALITY (score)				
Amcor	2.3	1.2	2.0	2.0	2.0	2.2	2.5
Century	2.1	1.8	2.3	2.0	2.0	1.7	2.6
Corsoy 79 (II)	2.1	1.0	2.0	2.0	1.0	1.3	1.7
Hardin (I)	2.4	1.2	2.0	2.0	2.0	2.5	1.8
Pella (III)	2.0	1.0	2.0	2.0	1.0	2.3	2.1
A77-211021	2.7	2.5	2.2	2.0	4.0	1.7	2.7
A78-122028	2.1	1.2	2.0	2.0	2.0	1.8	1.7
A78-122031	2.1	1.5	2.2	1.0	3.0	2.5	2.0
A78-123002	2.2	1.8	2.0	2.0	3.0	2.1	2.3
A78-125029	2.0	1.0	2.0	2.0	2.0	2.4	2.4
A78-227013	2.0	1.0	2.0	2.0	2.0	1.7	2.3
A78-227015	2.0	1.5	2.0	2.0	2.0	2.0	2.6
A78-227016	2.1	1.8	2.0	2.0	2.0	2.7	2.3
L27	2.0	1.2	2.2	2.0	1.0	1.5	1.9
L73-4673	1.9	1.0	2.0	2.0	1.0	1.4	2.0
U20325	2.2	1.8	2.0	2.0	2.0	1.5	2.1
U56355	2.2	1.2	2.0	2.0	2.0	2.1	1.9

UNIFORM TEST II, 1980

Strain	Ind.			Mich.		Ill.	
	Lafay-ette	Bluff-ton	Green-field	Dundee	Ithaca	Dekalb	Pontiac
			HEIGHT (inches)				
Amcor	41	40	35	47	48	46	38
Century	35	35	31	45	43	40	29
Corsoy 79 (II)	39	32	34	43	45	46	34
Hardin (I)	34	31	34	41	43	42	31
Pella (III)	36	--	31	44	46	41	33
A77-211021	36	32	28	43	44	41	30
A78-122028	37	33	29	43	45	42	29
A78-122031	31	28	27	37	37	34	25
A78-123002	34	33	33	40	43	44	29
A78-125029	34	33	29	40	44	42	26
A78-227013	36	31	32	39	43	39	27
A78-227015	31	29	27	38	42	35	24
A78-227016	31	28	27	36	39	33	24
L27	36	33	33	46	43	44	30
L73-4673	40	35	33	43	42	44	34
U20325	34	32	28	43	45	43	30
U56355	34	33	27	40	44	38	30
			QUALITY (score)				
Amcor	2.0	1.0	2.0			1.5	2.1
Century	1.5	1.5	2.0			1.3	2.3
Corsoy 79 (II)	1.5	1.0	2.0			1.3	1.9
Hardin (I)	2.0	1.5	2.0			1.3	1.7
Pella (III)	1.5	---	1.5			1.5	1.9
A77-211021	2.5	2.0	1.5			1.5	2.1
A78-122028	1.5	1.5	1.5			1.7	1.8
A78-122031	1.5	1.5	1.5			2.0	1.7
A78-123002	1.5	1.5	1.5			1.5	1.9
A78-125029	1.5	1.5	1.5			1.9	1.7
A78-227013	1.5	1.5	1.5			1.5	1.9
A78-227015	1.0	1.0	2.0			1.3	1.9
A78-227016	1.0	1.0	1.5			1.6	1.6
L27	1.5	1.5	2.0			1.3	1.7
L73-4673	2.0	1.0	1.5			1.3	1.9
U20325	2.0	1.0	1.5			1.4	2.5
U56355	1.5	1.0	1.5			1.5	2.1

UNIFORM TEST II, 1980

Wisc.	Ill.		Minn.		Iowa		Neb.	S.D.
Arling-ton	Urbana	Girard	Waseca	Lamber-ton	Marshall-town	Ames	Mead	Brook-ings
			HEIGHT (inches)					
41	36	42	39	44	42	52	41	35
34	31	39	39	36	37	44	26	35
36	33	40	39	40	40	51	33	32
33	30	35	35	36	37	45	28	32
40	36	39	40	40	39	47	31	38
35	31	37	38	40	38	48	33	35
37	33	38	38	40	38	46	31	35
30	28	32	34	33	32	38	23	31
33	30	35	36	37	36	48	28	35
35	30	37	35	35	36	43	30	35
31	30	36	36	36	36	41	30	36
30	26	33	34	35	32	38	27	31
27	28	33	34	34	35	42	29	32
36	33	39	40	39	43	49	32	30
34	34	39	40	39	42	44	33	36
34	30	38	39	38	38	45	31	35
34	31	37	37	42	38	43	29	33
			QUALITY (score)					
3.0	4.0	3.2	2.0	2.7		2.7	2.2	3.0
2.0	4.2	3.0	1.3	2.0		2.1	1.7	2.0
3.7	3.0	3.3	2.3	2.7		1.6	2.7	3.0
4.0	3.8	4.0	3.0	3.0		1.8	2.2	3.0
2.0	3.3	2.8	2.0	2.7		1.5	2.0	2.0
3.3	3.7	4.7	2.7	3.7		3.0	3.2	3.0
2.7	2.7	3.7	2.3	2.7		2.0	2.3	2.0
4.3	2.7	4.3	2.0	1.7		1.4	2.0	2.0
3.3	3.2	3.3	2.3	2.0		1.7	2.2	2.0
2.7	2.7	3.2	1.7	1.7		1.3	2.3	3.0
3.7	2.5	3.2	1.3	1.7		1.6	2.3	2.0
3.0	2.7	3.3	2.0	2.7		1.5	2.3	2.0
4.0	2.3	3.3	2.0	2.3		1.6	2.7	2.0
3.0	3.0	3.2	2.7	2.3		2.0	2.0	2.0
3.7	2.8	2.2	1.0	2.3		1.9	2.2	2.0
2.0	3.0	3.2	1.3	3.0		3.6	2.7	3.0
2.3	3.7	3.5	2.3	2.7		2.3	2.7	3.0

UNIFORM TEST II, 1980

Strain	Mean 19 Tests	N.J. Adel-phia	Penn. Landis-ville	Ont. Ridge-town	Ont. Harrow	Ohio Hoyt-ville	Ohio Wooster
			SIZE (g/100)				
Amcor	16.6	12.0	14.9	17.2	17.7	17.2	15.3
Century	18.5	14.0	17.5	19.3	19.8	18.6	17.0
Corsoy 79 (II)	15.3	12.0	13.4	17.2	16.3	15.1	13.9
Hardin (I)	14.8	10.0	12.6	15.8	15.9	15.4	13.4
Pella (III)	19.4	16.0	16.6	20.8	21.1	19.3	18.2
A77-211021	18.9	15.0	16.1	19.4	20.6	18.5	16.2
A78-122028	14.8	12.0	14.3	15.0	15.7	14.6	14.0
A78-122031	16.2	12.0	14.3	16.1	17.4	16.4	14.4
A78-123002	17.1	14.0	15.9	18.7	18.5	16.8	17.2
A78-125029	14.4	13.0	13.1	13.4	14.9	14.3	12.3
A78-227013	16.0	14.0	13.6	15.9	17.7	16.3	15.4
A78-227015	17.8	16.0	17.0	18.2	20.4	18.6	15.9
A78-227016	16.2	15.0	14.3	17.2	18.4	17.7	15.4
L27	14.9	12.0	13.1	16.5	15.9	15.8	13.6
L73-4673	16.8	14.0	15.6	16.9	17.5	16.1	14.7
U20325	17.8	15.0	18.7	17.7	18.9	17.6	16.9
U56355	15.9	13.0	14.6	16.0	17.3	16.7	14.8

UNIFORM TEST II, 1980

Ind.			Wisc.	Ill.	
Lafayette	Bluffton	Greenfield	Arlington	Dekalb	Pontiac
		SIZE (g/100)			
15.9	17.1	18.2	14.3	16.1	17.4
19.7	19.4	19.8	18.5	18.2	18.8
15.8	14.7	19.5	14.1	14.3	15.2
14.1	14.5	14.9	14.4	14.5	14.1
19.9	--	20.6	20.1	19.5	19.2
19.6	18.9	19.5	19.5	18.9	17.6
15.3	13.5	15.0	14.3	13.7	14.4
16.6	16.3	16.6	16.3	16.1	15.7
17.2	17.0	16.9	17.8	17.3	16.1
15.1	13.9	14.9	14.7	14.6	13.7
17.0	15.9	16.6	15.4	16.6	15.3
17.7	17.3	19.2	18.5	19.0	17.6
16.6	15.5	16.5	16.5	17.4	16.1
14.4	14.9	15.2	13.7	13.8	15.1
17.8	16.3	18.0	16.6	17.1	17.7
18.9	16.1	17.8	18.1	16.9	19.4
16.7	16.4	16.5	16.5	16.1	15.5

UNIFORM TEST II, 1980

Strain	Ill.		Minn.		Iowa	Neb.	S.D.
	Urbana	Girard	Waseca	Lamber-ton	Ames	Mead	Brookings
			SIZE (g/100)				
Amcor	17.7	12.9	17.8	19.2	18.8	17.9	16.9
Century	19.7	15.4	20.1	18.9	20.6	19.8	16.9
Corsoy 79 (II)	14.2	11.3	17.0	17.1	16.2	17.1	16.3
Hardin (I)	15.1	11.8	17.0	17.2	16.2	18.6	16.6
Pella (III)	20.3	17.0	20.6	20.7	20.4	18.2	20.1
A77-211021	19.1	13.6	21.1	23.6	22.4	21.7	18.3
A78-122028	14.6	11.4	17.4	16.5	17.0	15.7	16.2
A78-122031	16.1	11.3	17.9	18.6	17.6	19.6	17.9
A78-123002	17.2	12.1	18.5	18.5	18.6	18.1	17.6
A78-125029	14.9	9.9	16.2	16.9	16.1	17.7	13.7
A78-227013	16.1	12.2	16.7	17.6	17.4	17.9	16.1
A78-227015	14.9	13.7	20.1	19.5	20.0	18.7	16.5
A78-227016	16.8	12.0	16.2	17.4	17.8	17.0	14.4
L27	15.0	10.4	17.2	16.9	17.0	16.6	16.0
L73-4673	18.1	13.2	18.0	17.5	19.1	19.3	15.0
U20325	19.3	13.3	18.2	18.6	20.0	19.9	17.1
U56355	17.0	10.9	18.1	17.3	17.2	16.4	15.9

UNIFORM TEST II, 1980

Strain	Mean 5 Tests	Ohio Hoytville	Ind. Lafayette	Ill. Urbana	Iowa Ames	Neb. Mead
			PROTEIN (%)			
Amcor	40.5	40.5	41.1	39.5	40.9	40.4
Century	42.9	44.6	42.9	41.8	42.6	42.6
Corsoy 79 (II)	41.2	41.1	42.5	40.9	39.7	41.9
Hardin (I)	40.8	41.2	41.4	42.0	38.3	41.3
Pella (III)	39.3	40.1	--	39.2	38.4	39.3
A77-211021	41.9	40.6	42.3	42.9	41.9	41.9
A78-122028	39.5	41.8	41.7	38.4	37.5	38.0
A78-122031	41.0	42.9	42.3	40.0	40.3	39.5
A78-123002	41.4	41.5	43.2	39.2	40.7	42.2
A78-125029	41.1	43.3	41.6	40.0	40.0	40.5
A78-227013	41.8	43.3	43.0	40.1	40.4	42.1
A78-227015	43.2	44.3	43.3	42.5	42.6	43.1
A78-227016	42.7	43.6	42.9	42.2	42.9	42.1
L27	41.9	43.1	42.5	41.7	41.0	41.4
L73-4673	42.7	42.7	44.2	41.2	42.0	43.2
U20325	42.3	42.2	42.5	41.6	42.0	43.4
U56355	42.2	41.9	42.4	42.7	42.1	41.8
			OIL (%)			
	5 Tests					
Amcor	22.0	23.6	22.1	21.5	21.6	21.3
Century	21.0	22.5	21.5	20.2	19.3	21.6
Corsoy 79 (II)	22.3	23.3	22.1	22.2	22.3	21.5
Hardin (I)	23.2	23.9	23.0	22.8	22.6	23.8
Pella (III)	22.1	23.2	--	22.2	20.6	22.3
A77-211021	21.6	22.9	20.8	21.0	21.0	22.1
A78-122028	23.5	24.7	22.7	23.1	23.0	24.2
A78-122031	22.7	23.2	22.5	22.7	22.5	22.6
A78-123002	21.8	22.4	21.5	21.4	22.0	21.6
A78-125029	23.4	23.6	23.2	24.4	22.8	23.1
A78-227013	21.4	22.7	21.4	21.3	20.2	21.3
A78-227015	21.1	22.4	20.8	21.9	19.9	20.7
A78-227016	21.7	23.7	21.2	21.1	21.2	21.2
L27	22.5	23.7	22.4	23.1	21.6	21.8
L73-4673	20.8	21.7	20.6	20.5	20.7	20.5
U20325	21.3	21.9	22.0	20.9	20.6	20.9
U56355	21.7	22.7	21.7	21.3	20.8	21.9

PRELIMINARY TEST II, 1980

Strain	Parentage	Generation Composited
Century	Calland x Bonus	F_6
Corsoy 79 (II)	Harosoy x Capital	F_9
Gnome	Williams x Ransom	F_5
Hardin (I)	Corsoy^3 x Cutler 71	F_3
Pella (III)	L66L-137 x Calland	F_4
A75D15	Amsoy x Harosoy Dt_2 (L61-344)	F_6
A75D29	Hark x Harosoy Dt_2 (L61-344)	F_6
A75D44	Corsoy x Harosoy Dt_2 (L61-344)	F_5
A79-138035	Pride B216 x Cumberland	F_4
A79-232005	AP6TW 2YTC (F_4) C1	F_4
A79-232026	AP6TW 2YTC (F_4) C1	F_4
A79-232027	AP6YW 2YTC (F_4) C1	F_4
A79-235002	Pride B216 x Cumberland	F_4
A79-236002	Pride B216 x Cumberland	F_4
A79-236003	Pride B216 x Cumberland	F_4
A79-237014	C1523 x Pride B216	F_4
A79-237034	C1523 x Pride B216	F_4
A79-238034	M68-48 x Pride B216	F_4
HC77-869	Woodworth x V68-1034	F_5
HC77-870	Woodworth x V68-1034	F_5
HC77-874	Wayne x Dare	F_5
HC77-876	Wayne x Dare	F_5
HC77-878	Woodworth x V68-1034	F_5
HC77-951	Woodworth x V68-1038	F_5
HC77-955	Calland x York	F_5
HC77-1489	Hodgson x L72U-547	F_5
HW79015	A72-512 x Oakland (AX-1733E-18)	F_5
HW79022	Woodworth x L60-347-1-60-2B (OX750-26)	F_4
HW79054	Cumberland x Pella (AX-176M-86)	F_5
U59218	Williams x Amsoy 71	F_4

PRELIMINARY TEST II, 1980

Descriptive and Other Data

Strain	Descriptive Code		Chlorosis Score Ames	Shattering Manhattan 2 Weeks
Century	PTBr	DYB1	3.0	1
Corsoy 79 (II)	PGBr	DYY	4.0	2
Gnome	PTTn	SYB1	3.2	1
Hardin (I)	PGBr	DYY	3.3	1
Pella (III)	PTTn	DYB1	3.2	2
A75D15	PGBr	SYY	2.2	1
A75D29	PGBr	DYY	3.3	1
A75D44	PGBr	DYY	2.8	1
A79-138035	WTTn	DYB1	4.0	1
A79-232005	PGBr	DYGr	3.0	2
A79-232026	WTBr	DYY	3.0	1
A79-232027	WTBr	DYBr	4.5	2
A79-235002	WTBr	DYGr	3.3	2
A79-236002	P+WTBr	DYGr	3.7	1
A79-236003	WTBr	DYBr	4.2	1
A79-237014	PGBr	DYGr	3.3	1
A79-237034	WGBr	DYY	4.0	1
A79-238034	WGBr	DYBf	4.2	1
HC77-869	WTTn	DYBr	3.8	1
HC77-870	WTTn	DYB1+Br	3.0	1
HC77-874	WTBr	DYB1	3.5	1
HC77-876	WTBr	DYB1	4.2	1
HC77-878	WTTn	DYB1	3.2	1
HC77-951	WTTn	DYB1	2.8	1
HC77-955	PTTn	SYB1	3.3	4
HC77-1489	PGBr	DYBr	3.3	1
HW79015	PGBr	DYIb	3.2	2
HW79022	PTTn	DYBr	2.5	1
HW79054	PTTn	DYB1	3.8	2
U59218	PGTn	SYY	3.3	–

PRELIMINARY TEST II, 1980

Disease Data

Strain	BSR Laf. Ind.	BSR Ames Ia.	GERM *	SMV	PSB	PS	PR Vickery	PR Laf.	Race 1 Ames Ia.
			Lafayette, Indiana				Ohio	Ind.	
	n	n	d	a	d	a	a	a	a
	%	Reac.	%	Score	%	Score	--------Reaction----------		
Century	60	S	91	4M	9	3E	2.2	R	R
Corsoy 79 (II)	0	S	96	5S	1	4E	2.2	R	R
Gnome	100	S	97	1	2	2E	3.0	S	S
Hardin (I)	0	S	84	4E	12	3S	3.0	R	R
Pella (III)	0	S	82	3M	11	4E	2.0	R	R
A75D15	0	S	92	4M	2	4E	3.1	S	S
A75D29	40	S	84	4E	16	2S	3.4	S	S
A75D44	20	S	78	4E	16	3E	3.4	S	S
A79-138035	80	S	82	4E	17	2E	2.1	R	R
A79-232005	60	S	91	1	5	5S	2.1	R	R
A79-232026	60	S	89	1	4	4S	3.5	S	S
A79-232027	0	S	84	3E	16	5S	2.3	S	S
A79-235002	0	S	85	5S	9	3S	2.2	R	R
A79-236002	40	S	93	5S	4	3E	2.3	R	R
A79-236003	80	S	70	4E	26	2E	2.5	R	S
A79-237014	40	S	80	5S	15	3E	2.3	R	R
A79-237034	20	S	80	3M	15	4E	2.5	R	S
A79-238034	60	S	86	1	10	5S	2.5	S	S
HC77-869	40	S	97	1	0	2E	3.1	S	S
HC77-870	40	S	93	1	5	2E	3.0	S	S
HC77-874	80	S	95	1	6	3S	3.2	R	R
HC77-876	80	S	89	1	11	3E	3.3	R	R
HC77-878	40	S	90	1	8	2E	3.1	H	H
HC77-951	20	S	96	1	2	2E	3.1	S	S
HC77-955	40	S	89	2M	7	1	3.8	S	H
HC77-1489	20	S	88	1	8	2M	4.4	S	S
HW79015	20	S	81	3E	10	3E	2.4	S	S
HW79022	40	S	74	1	15	3E	2.1	H	H
HW79054	0	S	78	4E	18	4S	2.3	R	R
U59218	40	S	61	3M	33	4E	2.6	H	H

*Petri dish germination on potato dextrose agar

PRELIMINARY TEST II, 1980

Regional Summary

Strain No.	Yield	Rank	Maturity	Lodging	Height	Seed Quality	Seed Size	Composition	
								Protein	Oil
of Tests	12	12	11	12	12	9	9	5	5
	bu/a	No.	Date	Score	In.	Score	g/100	%	%
Century	46.7	16	+3	1.9	37	2.1	18.2	43.4	21.5
Corsoy 79 (II)	46.9	15	9-21*	2.8	40	2.1	14.9	41.4	23.0
Gnome	42.7	24	+6	1.5	24	1.7	15.8	42.2	22.3
Hardin (I)	44.4	18	-3	2.6	37	2.3	14.8	40.8	22.9
Pella (III)	48.8	7	+7	2.0	41		19.1	39.7	22.1
A75D15	43.2	20	-4	2.1	34	2.5	16.9	40.6	22.7
A75-D29	44.0	19	-3	1.8	31	2.0	15.4	41.9	21.2
A75D44	45.6	17	0	3.0	41	2.2	16.7	41.0	21.9
A79-138035	47.4	13	+1	2.2	38	2.0	17.2	40.5	22.5
A79-232005	49.6	5	+5	2.8	36	2.2	15.9	41.7	22.2
A79-232026	50.5	2	+6	2.5	36	2.2	15.9	40.0	22.7
A79-232027	47.8	9	+6	2.5	39	2.4	17.4	39.7	23.3
A79-235002	47.6	11	+6	2.1	40	2.1	17.9	41.7	21.6
A79-236002	50.5	2	+6	2.3	40	2.3	17.9	40.4	22.5
A79-236003	48.5	8	+3	2.7	36	1.7	16.2	40.6	22.8
A79-237014	47.6	11	+3	2.0	37	2.1	19.9	43.1	21.2
A79-237034	47.7	10	+4	2.0	38	1.8	22.2	43.2	22.5
A79-238034	50.3	4	+7	2.5	37	2.0	14.8	40.9	22.5
HC77-869	42.9	23	+5	1.6	28	1.7	14.0	37.7	22.9
HC77-870	43.0	21	+4	1.4	27	1.7	14.3	38.0	23.2
HC77-874	41.3	28	+6	1.5	26	1.6	16.7	43.4	21.7
HC77-876	41.9	25	+6	1.5	26	1.7	14.9	43.7	21.2
HC77-878	41.7	26	+2	1.2	22	1.7	16.5	40.9	22.0
HC77-951	43.0	21	+3	1.3	26	1.8	14.7	37.7	23.2
HC77-955	38.0	30	+1	1.3	20	2.0	20.3	42.1	21.7
HC77-1489	40.5	29	0	1.7	24	2.0	15.4	41.6	21.5
HW79015	51.9	1	+6	1.9	40	2.0	18.0	40.5	22.2
HW79022	41.4	27	-3	2.0	39	2.0	20.9	43.0	20.1
HW79054	49.2	6	+6	1.6	37	2.1	19.4	41.1	22.8
U59218	47.0	14	-1	1.7	36	2.0	16.4	40.1	22.9

*128 days after planting

Strains in this test that matured 5 days or more later than Corsoy 79 should be evaluated in the Group III test if continued testing is warranted. Five strains within the maturity group, A79-138035, A79-236003, A79-237014, A79-237034, and U59218 averaged higher yields than the Group II checks. All of the A strains were resistant to phytophthora races 1 and 2 in the Indiana tests, but two were rated susceptible to phytophthora in Iowa tests. U59218 was heterogeneous in reaction to phytophthora, but had excellent lodging resistance, and was earlier in maturity than most Group II strains in the test. Two semideterminate strains A75D15 and A75D29 were early maturing, had good lodging resistance, but were not equal to the check varieties in yield. None of the determinate strains yielded well in these tests, but all of them had excellent lodging resistance and several of them were fairly tall compared to the determinate check Gnome.

PRELIMINARY TEST II, 1980

Strain	Mean 12 Tests	Iowa		Wisc.	Mich.	
		Marshall-town	Ames	Arling-ton	Dundee	Ithaca
			YIELD (bu/a)			
Century	46.7	51.3	57.7	26.5	47.4	43.4
Corsoy 79 (II)	46.9	50.2	55.8	22.1	45.2	59.8
Gnome	42.7	48.4	51.1	28.1	55.4	45.8
Hardin (I)	44.4	51.3	52.1	25.4	49.7	53.1
Pella (III)	48.8	50.9	57.1	26.6	51.2	50.1
A75D15	43.2	46.7	49.2	28.5	44.9	53.5
A73D29	44.0	47.6	50.5	25.6	48.2	58.4
A75D44	45.6	50.1	51.2	20.2	50.7	47.0
A79-138035	47.4	51.0	56.5	31.1	53.7	46.8
A79-232005	49.6	52.4	59.7	34.3	53.2	36.0
A79-232026	50.5	51.4	59.6	31.6	54.4	52.8
A79-232027	47.8	52.1	60.2	28.4	41.6	48.2
A79-235002	47.6	51.4	55.5	30.4	48.3	53.3
A79-236002	50.5	54.8	56.9	28.3	50.2	52.6
A79-236003	48.5	53.0	59.0	32.5	46.4	48.5
A79-237014	47.6	50.7	57.2	27.1	45.4	50.0
A79-237034	47.7	50.6	54.2	27.2	49.0	52.8
A79-238034	50.3	52.2	57.7	29.6	47.0	53.5
HC77-869	42.9	45.0	51.2	29.1	49.9	50.7
HC77-870	43.0	49.9	49.7	31.3	54.3	51.4
HC77-874	41.3	46.4	50.0	27.4	46.3	42.7
HC77-876	41.9	46.4	50.1	24.2	46.3	40.4
HC77-878	41.7	48.8	50.2	34.9	57.6	54.4
HC77-951	43.0	45.7	52.3	31.1	53.1	46.1
HC77-955	38.0	45.4	51.9	29.8	42.8	52.7
HC77-1489	40.5	42.6	56.5	29.2	40.4	44.8
HW79015	51.9	53.5	54.7	26.9	52.8	58.9
HW79022	41.4	44.5	42.8	29.5	43.1	49.3
HW79054	49.2	51.7	60.5	30.6	49.0	52.6
U59218	47.0	48.5	56.8	30.6	45.7	51.8
C.V. (%)		4.6	4.7	10.4	11.1	12.2
L.S.D. (5%)		4.6	5.2	6.1	11.0	12.5
Row sp. (in.)		27	27	30	30	28
Rows/plot		4	4	4	4	4
Reps		2	2	2	2	2

PRELIMINARY TEST II, 1980

N.J.	Minn.	Ill.		Ohio	Ind.	Neb.
Adelphia	Lamber-ton	Dekalb	Urbana	Hoyt-ville	Lafay-ette	Mead
		YIELD (bu/a)				
40.4	47.6	43.8	42.1	57.2	53.6	49.9
40.4	49.2	44.0	39.9	54.2	52.1	50.3
33.5	46.9	49.5	35.6	59.8	18.1	39.8
38.6	37.2	41.9	36.6	52.6	40.5	53.3
38.4	50.4	45.3	46.9	51.8	58.0	59.2
39.7	43.6	37.2	34.0	44.7	44.8	51.5
34.8	43.0	43.6	31.9	56.3	39.0	48.9
43.6	46.6	41.1	35.6	56.4	44.1	60.2
34.6	46.1	52.4	37.3	51.1	52.8	55.8
43.6	52.2	49.3	45.3	54.0	61.8	53.7
45.2	46.1	49.6	41.2	51.9	58.9	63.2
41.3	39.3	50.1	42.0	54.8	53.4	61.6
37.9	55.6	43.4	42.0	48.7	58.7	46.3
46.4	48.0	52.4	42.6	54.2	58.6	60.4
44.5	42.7	54.0	41.1	52.0	57.4	50.8
46.2	43.7	50.2	37.4	56.6	57.0	50.2
43.4	50.9	47.9	41.5	47.4	56.2	51.5
43.2	51.9	51.0	45.6	56.2	59.9	55.3
37.2	41.0	46.1	35.2	55.6	22.0	51.3
41.6	43.7	47.4	33.1	55.1	16.7	41.6
38.4	46.6	45.2	32.9	51.6	25.8	42.0
38.6	47.4	44.3	40.0	50.8	29.7	44.9
38.1	44.1	43.5	29.6	55.9	14.7	28.6
38.2	43.6	47.5	33.9	54.8	21.3	48.9
43.2	36.6	38.8	29.8	51.6	19.5	13.4
42.8	44.6	40.8	29.7	46.2	21.0	47.6
42.2	57.4	49.3	45.7	56.5	65.8	58.7
40.2	38.5	37.5	30.0	50.6	49.4	41.0
41.9	48.6	44.8	41.9	57.0	57.4	54.9
42.6	46.8	42.9	34.3	53.8	51.1	58.5
12.5	7.9	5.9	5.8	6.1	13.8	10.7
10.2	7.5	5.6	4.5	6.5	12.2	10.3
30	30	30	30	30	24	30
3	2	4	4	4	4	4
2	2	2	2	2	2	2

PRELIMINARY TEST II, 1980

Strain	Mean 12 Tests	Iowa		Wisc.	Mich.	
		Marshall-town	Ames	Arling-ton	Dundee	Ithaca
			YIELD RANK			
Century	16	10	6	25	18	27
Corsoy 79 (II)	15	16	14	29	25	1
Gnome	24	21	23	19	2	25
Hardin (I)	18	10	19	27	13	8
Pella (III)	7	13	9	24	9	17
A75D15	20	23	29	16	26	5
A75D29	19	22	24	26	17	3
A75D44	17	17	21	30	10	22
A79-138035	13	12	12	7	5	23
A79-232005	5	4	3	2	6	30
A79-232026	2	8	4	4	3	9
A79-232027	9	6	2	17	29	21
A79-235002	11	8	15	10	16	7
A79-236002	2	1	10	18	11	12
A79-236003	8	3	5	3	20	20
A79-237014	11	14	8	22	24	18
A79-237034	10	15	17	21	14	9
A79-238034	4	5	6	12	19	5
HC77-869	23	28	21	15	12	16
HC77-870	21	18	28	5	4	15
HC77-874	28	24	27	20	21	28
HC77-876	25	24	26	28	21	29
HC77-878	26	19	25	1	1	4
HC77-951	21	26	18	6	7	24
HC77-955	30	27	20	11	28	11
HC77-1489	29	30	12	14	30	26
HW79015	1	2	16	23	8	2
HW79022	27	29	30	13	27	19
HW79054	6	7	1	8	14	12
U59218	14	20	11	9	23	14

PRELIMINARY TEST II, 1980

N.J.	Minn.	Ill.		Ohio	Ind.	Neb.
Adelphia	Lamberton	Dekalb	Urbana	Hoytville	Lafayette	Mead
		YIELD RANK				
16	10	20	6	2	12	19
16	7	19	14	14	15	17
30	12	8	18	1	28	28
20	29	25	17	18	20	12
22	6	15	1	21	7	5
19	22	29	22	30	18	14
28	24	21	26	7	21	20
5	14	26	18	6	19	4
29	16	2	16	24	14	8
5	3	9	4	16	2	11
3	16	7	11	20	4	1
15	27	6	7	12	13	2
26	2	23	7	27	5	23
1	9	2	5	14	6	3
4	25	1	12	19	8	16
2	20	5	15	5	10	18
7	5	11	10	28	11	13
8	4	4	3	8	3	9
27	26	14	20	10	24	15
14	20	13	24	11	29	26
22	14	16	25	22	23	25
20	11	18	13	25	22	24
25	19	22	30	9	30	29
24	22	12	23	12	25	21
8	30	28	28	22	27	30
10	18	27	29	29	26	22
12	1	9	2	4	1	6
18	28	30	27	26	17	27
13	8	17	9	3	9	10
11	13	24	21	17	16	7

PRELIMINARY TEST II, 1980

Strain	Mean 11 Tests	Ia. Ames	Wisc. Arlington	Mich. Dundee	Mich. Ithaca	N.J. Adelphia
			MATURITY (date)			
Century	+3	+4	-2	+2	+4	+4
Corsoy 79 (II)*	9/21	9/14	10/7	9/24	10/7	9/13
Gnome	+6	+8	-4	+6	+4	+9
Hardin (I)	-3	-4	-10	-2	-8	-2
Pella (III)	+7	+8	0	+7	+6	+10
A75D15	-4	-4	-13	-5	-5	-4
A75D29	-3	-6	-5	-2	-6	-3
A75D44	0	0	-10	+3	-2	+5
A79-138035	+1	-1	0	+1	-1	+3
A79-232005	+5	+8	-4	+7	-1	+9
A79-232026	+6	+9	-2	+6	+3	+10
A79-232027	+6	+12	-1	+4	+5	+9
A79-235002	+6	+6	-2	+6	+4	+9
A79-236002	+6	+5	0	+6	+4	+9
A79-236003	+3	+4	-5	0	-1	+9
A79-237014	+3	+4	0	+4	+6	+4
A79-237034	+4	+4	-4	+6	+7	+8
A79-238034	+7	+8	0	+9	+7	+9
HC77-869	+5	+8	-2	+5	+3	+5
HC77-870	+4	+8	-6	+4	-1	+5
HC77-874	+6	+10	-4	+7	+3	+7
HC77-876	+6	+11	-2	+7	+4	+8
HC77-878	+2	+6	-8	+2	-4	+1
HC77-951	+3	+6	-6	+3	+1	+5
HC77-955	+1	+7	-8	-1	-2	+1
HC77-1489	0	+4	-10	-3	-2	-1
HW79015	+6	+8	+1	+4	+1	+9
HW79022	-3	-6	-11	-4	-5	0
HW79054	+6	+8	-1	+6	+5	+9
U59218	-1	+2	-10	0	-1	0
Date planted	5/16	5/13	5/20	5/14	5/22	5/29
Days to maturity*	128	124	140	133	138	107

PRELIMINARY TEST II, 1980

Minn.	Ill.		Ohio	Ind.	Neb.
Lamberton	Dekalb	Urbana	Hoytville	Lafayette	Mead
		MATURITY (date)			
+1	+3	+6	+3	+3	+2
9/24	9/24	9/12	9/20	9/10	9/21
+5	+7	+5	+6	+9	+8
-2	-2	-2	-4	0	0
+6	+6	+10	+7	+8	+9
-2	-3	-4	-5	0	+1
-2	-2	-4	-4	+1	0
-2	0	-1	+2	+1	+1
0	+4	0	+3	+3	+3
+6	+7	+8	+7	+9	+4
+6	+7	+7	+5	+9	+7
+6	+6	+5	+3	+7	+8
+6	+5	+6	+6	+8	+7
+6	+6	+7	+5	+6	+7
+2	+4	+3	+4	+5	+5
+6	+3	0	+4	+4	+2
+2	+3	+3	+5	+5	+3
+6	+8	+9	+5	+9	+5
+4	+7	+7	+5	+6	+4
+4	+6	+8	+3	+8	+5
+6	+8	+7	+4	+9	+4
+6	+8	+7	+3	+8	+1
+2	+5	+5	+4	+5	+5
+4	+5	+7	+4	+6	+3
+3	0	+6	0	+3	+5
+3	-1	+3	0	+1	+1
+4	+5	+9	+5	+10	+7
0	-2	-3	-1	+2	-4
+4	+1	+10	+6	+9	+10
0	-1	-1	-1	+2	+2
5/14	5/21	5/7	5/6	5/7	5/27
133	126	128	137	126	117

PRELIMINARY TEST II, 1980

Strain	Mean 12 Tests	Iowa		Wisc.	Mich.	
		Marshall-town	Ames	Arling-ton	Dundee	Ithaca
			LODGING (score)			
Century	1.9	1.8	1.9	1.5	2.8	3.8
Corsoy 79 (II)	2.8	3.2	3.0	2.5	3.0	3.3
Gnome	1.5	1.6	1.6	2.2	1.4	2.5
Hardin (I)	2.6	3.0	3.0	2.2	3.0	3.0
Pella (III)	2.0	2.0	1.6	1.8	2.6	4.0
A75D15	2.1	3.2	2.4	1.8	2.5	2.8
A75D29	1.8	2.5	1.6	1.8	2.3	2.0
A75D44	3.0	3.1	3.2	3.2	3.7	4.0
A79-138035	2.2	2.0	1.8	2.2	3.0	4.0
A79-232005	2.8	3.2	2.4	1.5	3.5	4.0
A79-232026	2.5	3.6	2.7	1.8	2.9	3.5
A79-232027	2.5	3.3	3.0	1.8	2.7	3.5
A79-235002	2.1	2.2	1.9	1.5	2.8	3.5
A79-236002	2.3	2.0	1.8	2.2	3.0	4.0
A79-236003	2.7	2.8	2.2	1.8	2.9	3.5
A79-237014	2.0	2.0	2.2	1.8	2.1	3.5
A79-237034	2.0	1.9	2.4	1.5	2.3	3.8
A79-238034	2.5	2.8	2.9	2.5	2.6	3.5
HC77-869	1.6	2.0	1.6	1.8	1.8	2.5
HC77-870	1.4	1.9	1.4	1.5	1.5	2.5
HC77-874	1.5	1.9	1.8	1.5	1.8	3.3
HC77-876	1.5	2.0	1.6	1.8	1.4	3.3
HC77-878	1.2	1.5	1.3	1.2	1.4	2.5
HC77-951	1.3	1.4	1.3	1.2	1.4	2.3
HC77-955	1.3	1.8	1.3	1.5	1.1	1.8
HC77-1489	1.7	1.6	2.1	2.8	1.6	2.5
HW79015	1.9	2.6	2.2	2.2	2.1	3.3
HW79022	2.0	2.0	1.8	2.5	2.4	3.3
HW79054	1.6	1.7	1.4	1.5	2.1	3.2
U59218	1.7	2.0	2.0	1.5	2.4	3.0

PRELIMINARY TEST II, 1980

N.J.	Minn.	Ill.		Ohio	Ind.	Neb.
Adelphia	Lamber-ton	Dekalb	Urbana	Hoytville	Lafayette	Mead
		LODGING (score)				
1.5	1.0	3.0	1.3	1.9	1.0	1.3
2.5	3.0	4.5	2.3	3.5	1.5	1.5
1.0	1.0	2.3	1.0	1.0	1.0	1.0
1.5	2.5	4.7	1.5	3.1	1.8	1.5
1.0	2.5	2.5	1.3	1.8	1.0	1.3
2.0	2.5	3.9	1.0	1.4	1.0	1.0
1.0	1.5	3.3	1.0	2.5	1.0	1.0
2.5	2.5	4.4	2.0	3.8	1.8	2.0
1.0	2.0	3.8	1.3	2.4	1.0	1.3
3.0	3.0	3.3	1.5	3.6	2.8	1.3
2.5	1.0	4.4	1.5	2.4	2.0	1.3
1.5	2.0	4.4	2.0	2.3	2.0	1.5
1.5	2.0	3.5	1.5	1.9	1.3	1.0
1.0	2.5	4.3	1.8	2.9	1.5	1.0
2.5	3.5	4.4	1.5	3.4	1.8	1.5
1.0	2.5	3.3	1.3	2.5	1.0	1.0
1.0	2.0	3.5	1.3	2.3	1.0	1.5
2.0	2.5	4.7	1.3	2.1	1.5	1.3
1.0	1.0	2.5	1.3	1.4	1.0	1.3
1.0	1.5	1.8	1.0	1.1	1.0	1.0
1.0	1.5	1.5	1.0	1.1	1.0	1.0
1.0	1.0	1.8	1.0	1.2	1.0	1.3
1.0	1.0	1.0	1.0	1.0	1.0	1.0
1.0	1.0	2.0	1.0	1.0	1.0	1.0
1.0	1.0	1.5	1.0	1.0	1.0	1.0
2.5	1.5	1.8	1.0	1.0	1.0	1.0
1.0	1.5	2.8	1.3	1.9	1.0	1.0
1.0	2.0	3.5	1.3	1.6	1.0	1.5
1.0	1.5	2.5	1.3	1.4	1.0	1.0
1.0	1.0	2.3	1.3	1.8	1.0	1.5

PRELIMINARY TEST II, 1980

Strain	Mean 12 Tests	Iowa		Wisc.	Mich.	
		Marshall-town	Ames	Arling-ton	Dundee	Ithaca
			HEIGHT (inches)			
Century	37	36	44	31	41	47
Corsoy 79 (II)	40	40	46	39	43	43
Gnome	24	26	26	25	23	29
Hardin (I)	37	38	39	35	39	46
Pella (III)	41	40	44	36	44	47
A75D15	34	34	36	30	33	42
A75D29	31	34	34	28	32	40
A75D44	41	41	46	34	43	46
A79-138035	38	36	44	36	41	45
A79-232005	36	38	38	32	38	40
A79-232026	36	38	40	36	39	40
A79-232027	39	43	46	34	37	45
A79-235002	40	40	44	34	44	44
A79-236002	40	40	43	36	44	47
A79-236003	36	36	40	29	38	40
A79-237014	37	36	45	32	38	42
A79-237034	38	40	44	32	42	44
A79-238034	37	38	40	36	37	41
HC77-869	28	31	35	27	29	33
HC77-870	27	30	28	28	30	35
HC77-874	26	30	34	26	27	33
HC77-876	26	30	32	26	24	34
HC77-878	22	26	26	25	26	30
HC77-951	26	28	28	27	28	33
HC77-955	20	24	22	24	19	31
HC77-1489	24	26	28	26	22	32
HW79015	40	42	47	37	41	45
HW79022	39	38	47	40	38	44
HW79054	37	36	42	36	39	42
U59218	36	36	41	28	37	43

PRELIMINARY TEST II, 1980

N.J.	Minn.	Ill.		Ohio	Ind.	Neb.
Adelphia	Lamberton	Dekalb	Urbana	Hoytville	Lafayette	Mead
		HEIGHT (inches)				
36	36	40	34	38	35	25
38	37	43	36	44	39	29
27	26	21	21	28	16	17
36	34	40	33	38	35	28
38	43	41	37	41	43	32
36	38	34	28	34	28	30
28	33	32	27	34	27	24
40	41	44	35	44	41	35
36	40	42	33	44	36	27
37	40	39	33	38	37	26
38	32	40	33	37	37	27
38	40	43	35	38	41	32
40	43	42	37	41	41	33
37	44	41	35	44	38	30
37	40	36	33	40	38	28
37	44	37	32	40	35	25
40	38	38	33	43	37	27
36	38	45	33	42	36	27
30	32	27	22	31	17	24
28	31	27	23	27	18	21
26	28	26	22	27	16	19
28	28	23	23	26	18	18
22	24	18	16	23	12	13
30	27	28	20	28	14	19
26	18	19	17	24	10	10
24	25	22	19	26	14	18
39	40	41	36	41	40	34
40	42	43	35	39	39	27
36	34	38	32	37	36	31
34	36	36	32	38	35	31

PRELIMINARY TEST II, 1980

Strain	Mean 9 Tests	Ia. Ames	Wisc. Arlington	N.J. Adelphia	Minn. Lamberton
			QUALITY (score)		
Century	2.1	2.0	2.5	1.0	2.0
Corsoy 79 (II)	2.1	2.2	3.5	1.0	2.0
Gnome	1.7	1.3	3.5	1.0	1.5
Hardin (I)	2.3	1.9	4.0	1.0	2.5
Pella (III)	2.1	1.3	3.5	1.0	3.0
A75D15	2.5	2.1	4.5	1.0	4.0
A75D29	2.0	1.9	4.0	1.0	2.5
A75D44	2.2	1.9	3.5	1.0	2.5
A79-138035	2.0	1.7	2.5	1.0	2.5
A79-232005	2.2	2.0	3.0	1.0	3.0
A79-232026	2.2	2.0	4.0	1.0	3.0
A79-232027	2.4	2.2	4.0	1.0	3.0
A79-235002	2.1	1.9	2.0	1.0	3.0
A79-236002	2.3	1.6	3.0	1.0	2.5
A79-236003	1.7	1.3	2.0	1.0	2.0
A79-237014	2.1	1.8	4.0	1.0	2.0
A79-237034	1.8	1.5	2.0	1.5	1.5
A79-238034	2.0	1.8	3.0	1.0	2.0
HC77-869	1.7	1.3	3.0	1.0	2.0
HC77-870	1.7	1.6	2.5	1.0	2.0
HC77-874	1.6	1.4	3.0	1.0	2.0
HC77-876	1.7	1.8	4.0	1.0	2.0
HC77-878	1.7	1.4	2.0	1.0	1.5
HC77-951	1.8	1.4	3.5	1.0	2.0
HC77-955	2.0	2.1	2.0	1.0	2.0
HC77-1489	2.0	1.4	3.0	1.0	1.5
HW79015	2.0	1.5	2.5	1.0	2.0
HW79022	2.0	1.6	2.5	1.0	2.5
HW79054	2.1	1.4	2.5	1.0	2.0
U59218	2.0	2.1	4.0	1.0	1.5

PRELIMINARY TEST II, 1980

Ill.		Ohio	Ind.	Neb.
Dekalb	Urbana	Hoytville	Lafayette	Mead
		QUALITY (score)		
1.2	3.6	2.1	1.5	2.8
1.3	2.5	2.2	1.5	2.5
1.6	1.5	1.5	1.5	2.0
1.4	3.5	2.5	1.5	2.0
1.4	2.7	2.0	1.5	2.5
1.8	2.8	2.3	1.5	2.8
1.6	2.0	1.9	1.5	2.0
2.0	2.3	1.7	2.0	2.5
2.0	2.0	2.5	1.5	2.3
2.0	2.5	1.6	1.5	2.8
2.7	2.0	1.4	1.5	2.5
2.7	2.4	2.8	1.5	2.0
1.7	2.3	2.4	1.5	2.8
1.9	2.7	3.1	1.5	3.0
1.6	2.0	2.5	1.5	1.8
1.7	2.3	1.8	1.5	2.8
1.4	2.4	2.1	1.5	2.5
2.2	1.9	2.5	1.5	2.3
1.3	1.5	1.7	2.0	1.8
1.4	1.8	1.6	1.5	1.8
1.3	1.4	1.5	1.0	1.8
1.6	1.5	1.3	1.0	1.5
1.4	1.9	2.5	1.5	2.3
1.4	1.6	1.8	1.5	1.8
1.5	2.3	1.3	3.5	2.5
1.2	2.2	2.4	3.0	2.0
1.3	2.9	2.6	1.5	2.8
1.7	2.0	2.7	1.5	2.3
1.3	4.0	1.6	2.0	3.0
1.4	2.9	1.3	1.5	2.3

PRELIMINARY TEST II, 1980

Strain	Mean 9 Tests	Ia. Ames	Wisc. Arlington	N.J. Adelphia	Minn. Lamberton
			SIZE (g/100)		
Century	18.2	20.0	15.7	11.0	19.9
Corsoy 79 (II)	14.9	17.0	13.3	10.0	17.1
Cnome	15.8	15.4	13.7	11.0	16.9
Hardin (I)	14.8	15.9	13.0	11.0	16.3
Pella (III)	19.1	21.0	16.9	16.0	20.0
A75D15	16.9	17.4	16.1	13.0	19.2
A75D29	15.4	16.4	16.1	11.0	16.4
A75D44	16.7	19.0	13.8	13.0	18.0
A79-138035	17.2	18.1	15.7	12.0	18.6
A79-232005	15.9	16.8	14.8	12.0	18.4
A79-232026	15.9	16.8	15.2	14.0	16.4
A79-232027	17.4	19.0	16.3	14.0	18.7
A79-235002	17.9	20.2	16.2	12.0	19.7
A79-236002	17.9	19.0	15.8	15.0	19.6
A79-236003	16.2	17.4	14.2	12.0	18.8
A79-237014	19.9	22.0	17.6	16.0	20.8
A79-237034	22.2	24.4	19.8	16.0	25.2
A79-238034	14.8	16.4	13.9	10.0	15.4
HC77-869	14.0	15.0	12.8	10.0	13.8
HC77-870	14.3	15.5	12.4	9.0	14.9
HC77-874	16.7	15.6	15.5	12.0	17.9
HC77-876	14.9	15.8	13.8	10.0	15.4
HC77-878	16.5	16.4	14.7	13.0	17.7
HC77-951	14.7	16.0	13.1	10.0	14.9
HC77-955	20.3	21.7	17.1	17.0	20.7
HC77-1489	15.4	16.0	13.2	11.0	16.8
HW79015	18.0	18.9	16.3	15.0	19.0
HW79022	20.9	21.4	19.5	17.0	23.9
HW79054	19.4	20.7	19.9	16.0	20.9
U59218	16.4	18.2	14.6	14.0	19.0

PRELIMINARY TEST II, 1980

Ill		Ohio	Ind.	Neb.
Dekalb	Urbana	Hoytville	Lafayette	Mead
		QUALITY (score)		
17.4	19.0	18.6	18.1	24.2
13.6	14.3	16.3	14.8	17.3
16.5	14.8	16.7	16.7	20.6
13.7	14.1	15.5	14.1	19.4
19.1	20.6	19.2	18.8	20.5
15.6	14.8	17.7	17.0	21.5
15.0	14.5	15.2	14.7	19.2
15.9	16.0	17.5	16.4	20.3
18.4	16.2	17.2	17.4	21.5
15.7	15.2	15.9	16.6	17.7
16.7	14.8	16.1	16.2	16.5
17.8	15.9	17.8	17.6	19.1
17.9	18.8	17.6	19.6	19.4
18.1	18.0	16.8	17.8	20.7
16.4	14.8	15.9	17.9	18.3
19.8	18.4	19.7	20.2	24.6
22.4	20.6	23.2	23.0	25.1
15.3	14.6	15.1	15.4	16.8
13.7	14.0	14.3	15.1	16.9
14.6	14.7	14.4	15.5	17.5
18.2	16.2	18.0	17.0	19.6
15.1	15.0	15.8	15.3	17.7
16.7	16.0	17.4	17.0	20.0
14.4	15.0	15.9	14.9	18.2
19.9	21.2	20.6	18.2	26.0
13.7	16.0	15.4	15.7	21.2
18.5	17.9	17.5	18.6	19.7
20.8	19.4	21.3	21.3	23.5
18.5	19.9	18.0	19.7	21.0
15.4	15.2	15.5	17.2	18.3

PRELIMINARY TEST II, 1980

Strain	Mean 5 Tests	Iowa Ames	Ill. Urbana	Ohio Hoyt-ville	Ind. Lafay-ette	Neb. Mead
				PROTEIN (%)		
Century	43.4	42.4	42.4	44.4	43.1	44.9
Corsoy 79 (II)	41.4	40.7	40.5	41.7	42.2	41.9
Gnome	42.2	41.7	40.2	43.2	43.2	42.7
Hardin (I)	40.8	38.7	41.6	40.7	41.4	41.5
Pella (III)	39.7	37.3	39.4	40.8	41.0	40.2
A75D15	40.6	40.5	39.2	40.4	41.8	41.3
A75D29	41.9	40.8	41.6	42.2	42.2	42.5
A75D44	41.0	38.7	41.8	41.6	42.3	40.6
A79-138035	40.5	38.6	38.8	40.9	42.3	41.8
A79-232005	41.7	40.7	41.3	43.8	42.3	40.4
A79-232026	40.0	39.1	38.2	41.9	40.0	40.9
A79-232027	39.7	40.1	37.0	41.2	41.1	39.0
A79-235002	41.7	40.3	40.6	43.5	42.3	41.7
A79-236002	40.4	38.6	39.1	42.1	41.2	41.1
A79-236003	40.6	39.7	39.3	42.8	41.5	39.6
A79-237014	43.1	42.7	42.2	42.7	43.4	44.7
A79-237034	43.2	42.0	43.4	44.1	42.8	43.5
A79-238034	40.9	41.8	37.8	42.3	41.9	40.9
HC77-869	37.7	37.5	37.1	37.6	38.8	37.7
HC77-870	38.0	36.8	37.0	38.7	39.8	37.5
HC77-874	43.4	42.7	42.2	44.2	44.2	43.5
HC77-876	43.7	43.8	43.6	43.6	44.3	43.0
HC77-878	40.9	41.1	40.2	41.8	40.4	40.9
HC77-951	37.7	36.2	36.7	39.2	37.9	38.6
HC77-955	42.1	40.2	41.5	42.4	42.2	44.1
HC77-1489	41.6	40.0	42.3	41.3	43.2	41.3
HW79015	40.5	38.3	40.4	41.7	42.3	39.9
HW79022	43.0	41.6	41.6	42.7	45.3	43.6
HW79054	41.1	40.3	42.1	40.1	41.2	41.8
U59218	40.1	38.9	38.5	41.3	41.4	40.5

PRELIMINARY TEST II, 1980

Mean 5 Tests	Ia. Ames	Ill. Urbana	Ohio Hoytville	Ind. Lafayette	Neb. Mead
			OIL (%)		
21.5	21.4	21.3	22.0	21.5	21.2
23.0	22.5	23.3	23.7	22.9	22.5
22.3	22.3	22.3	22.6	22.5	21.7
22.9	22.4	23.6	23.0	22.8	22.7
22.1	20.7	22.6	22.8	22.5	21.7
22.7	22.0	23.8	23.8	21.6	22.2
21.2	20.2	21.0	22.4	20.8	21.7
21.9	21.9	21.8	23.4	21.0	21.6
22.5	22.4	23.2	23.7	22.1	21.0
22.2	22.4	22.3	22.3	22.0	22.2
22.7	21.7	23.5	23.1	23.0	22.2
23.3	23.1	24.4	23.6	22.3	23.1
21.6	22.2	21.3	22.1	21.0	21.3
22.5	22.8	22.9	24.0	21.8	20.8
22.8	22.3	23.4	24.1	22.2	22.1
21.2	20.6	21.4	21.8	21.4	20.6
22.5	22.0	23.2	23.1	22.3	21.9
22.5	22.7	23.5	22.6	21.7	21.9
22.9	22.9	22.3	24.6	21.9	22.6
23.2	23.6	23.2	23.9	22.2	23.0
21.7	21.1	21.8	23.0	21.2	21.3
21.2	20.7	21.1	21.6	21.3	21.5
22.0	21.7	21.9	22.4	22.3	21.8
23.2	23.8	23.7	23.7	22.1	22.7
21.7	22.3	21.6	22.2	21.0	21.5
21.5	20.9	21.2	22.7	21.4	21.3
22.2	22.0	22.4	22.8	22.4	21.4
20.1	19.7	20.0	21.4	20.0	19.2
22.8	22.1	22.3	23.5	23.3	22.6
22.9	22.1	24.2	23.5	22.4	22.5

UNIFORM TEST III, 1980

Strain	Parentage	Previous Testing*	Generation Composited
BSR 302	(Beeson x AP68-1016) x L15 x Calland)	2	F_4
Century (II)	Calland x Bonus	1	F_6
Cumberland (III)	Corsoy x Williams	4	F_4
Pella	L66L-137 x Calland	4	F_4
Union (IV)	Williams[5] x SL12 (Wayne Rpm Rps)	2	F_3
Williams 79	Williams[6] x Lee 68	3	$10F_3$
A78-227012	Pride B-216 x Ax901-40-2	PII	F_4
A78-321011	Pride B-216 x Agripro 25	PII	F_4
A78-322024	Williams x Sloan	PIII	F_4
A78-324002	A72-512 x Pride B-216	PIII	F_4
A78-325028	A72-512 x Williams	PIV	F_4
A78-326032	BSR intermating of 9 parents	PIII	F_4
HC76-4030	L72U-2567 x Essex	PIII	F_5
HW74-3384 Sprite	Williams x Ransom	2	F_5
HW74-3385	Williams x Ransom	2	F_5
L24A	Williams[7] x Kingwa	--	$4F_3$
L25A	Williams[6] x PI 96.983	--	$4F_3$
L26	Williams[7] x Harrel	--	$2F_3$
L75-8121	Williams x L70-2283	PIII	F_4
L77-994	Williams[2] x PI 88.788	--	F_3
U36276	Bonus x Wayne	1	F_4
U57073	Wayne x Cutler	PIII	F_4

*Number of years in this test or name of 1979 test

UNIFORM TEST III, 1980

Descriptive and Other Data

Strain	Descriptive Code	Chlorosis Score		Hypocotyl Score	Shattering	
		Ames	Lamberton	Ames	Manhattan 2 Weeks	Texas Lubbock
BSR 302	PTBr DYB1	3.5	4.0	1	2	5
Century (II)	PTBr DYB1	3.0	3.5	5	1	3
Cumberland (III)	PGBr SYIb	3.7	5.0	5	2	3
Pella	PTTn DYB1	3.2	4.0	1	3	2
Union (IV)	WTTN SYB1	3.3	3.5	4	2	2
Williams 79	WTTn SYB1	3.5	2.5	4	2	2
A78-227012	P+WGBr DYIb	3.0	4.5	1	2	3
A78-321011	WGBr SYBf	4.0	5.0	1	2	3
A78-322024	WTTn SYBr	1.7	2.0	5	2	3
A78-324002	WGBr DYBf	4.2	4.5	5	3	5
A78-325028	WTBr SYBr	3.2	4.5	5	2	3
A78-326032	PGBr DYIb	3.3	4.0	5	2	3
HC76-4030	PTTn DYB1	2.2	1.5	1	1	2
HW74-3384 Sprite	WTTn DYB1	3.2	4.0	1	1	1
HW74-3385	WTTn DYB1	3.0	4.0	1	1	2
L24A	WTTn SYB1	3.0	3.5	3	2	2
L25A	WTTn SYB1	3.0	4.0	1	1	3
L26	WTTn SYB1	2.3	4.0	5	2	2
L75-8121	P+WGBr+Tn SYBf+Ib	3.5	5.0	1	1	2
L77-994	WTTn SYB1	3.8	4.0	2	3	5
U36276	PTBr DYB1	2.5	4.5	5	3	4
U57073	PTBr SYB1	3.5	4.5	5	2	3

UNIFORM TEST III, 1980

Disease Data

Strain	BSR Laf. Ind.	BSR Ames Ia.	GERM *	SMV	PSB	PS	PR	PR	Race 1
			Lafayette, Indiana				Vickery Ohio	Laf. Ind.	Ames Ia.
	n	n	d	a	d	a	a	a	a
	%	Reac.	%	Score	%	Score	------Reaction------		
BSR 302	40	R	75	3E	3	4S	1.8	R	R
Century (II)	60	S	68	4M	20	3E	2.5	R	R
Cumberland (III)	0	S	85	3M	10	3E	2.1	S	S
Pella	0	S	70	4M	24	3E	2.2	R	R
Union (IV)	100	S	77	3E	16	3E	1.8	R	R
Williams 79	80	S	76	2M	13	4E	1.6	R	R
A78-227012	0	R	69	3E	18	5E	2.3	S	S
A78-321011	20	S	64	3E	21	5E	2.8	S	S
A78-322024	60	S	71	5E	12	2E	2.2	-	S
A78-324002	100	S	85	3M	8	5E	1.9	H	S
A78-325028	100	S	96	4E	0	4E	1.9	S	R
A78-326032	40	R	79	2S	10	3E	2.1	S	S
HC76-4030	0	S	93	1	1	2M	3.0	S	S
HW74-3384 Sprite	60	S	89	1	9	2E	3.1	S	S
HW74-3385	80	S	89	1	6	2M	2.9	S	S
L24A	80	S	77	3M	14	3E	2.0	R	R
L25A	40	S	91	1	3	3E	1.8	S	S
L26	80	S	79	2M	12	4E	1.5	R	R
L76-8121	20	S	71	2M	17	4S	2.1	R	R
L77-994	20	S	80	3M	11	3E	1.8	S	S
U36276	20	S	72	3E	20	5S	2.4	H	S
U57073	40	S	77	3M	12	5S	2.3	S	S

*Petri dish germination on potato dextrose agar

UNIFORM TEST III, 1980

Regional Summary

Strain	Yield	Rank	Maturity	Lodging	Height	Seed Quality	Seed Size	Composition Protein	Composition Oil
No. of Tests	23	23	20	22	23	21	21	5	5
	bu/a	No.	Date	Score	In.	Score	g/100	%	%
BSR 302	41.1	15	+1	2.4	41	2.3	16.5	42.7	19.8
Century (II)	41.4	14	-6	1.6	33	2.4	17.4	42.7	20.8
Cumberland (III)	45.7	1	9-23*	1.9	36	2.1	17.5	41.2	22.3
Pella	42.8	9	-2	1.5	36	2.2	18.0	40.3	21.9
Union (IV)	40.8	18	+5	2.2	43	1.9	17.6	43.3	20.5
Williams 79	43.1	8	+1	1.8	40	1.9	16.6	41.7	20.6
A78-227012	41.1	15	-7	1.9	30	2.3	14.5	42.0	20.5
A78-321011	42.7	10	-5	1.6	33	2.0	15.1	41.6	20.5
A78-322024	45.4	3	-1	2.2	41	2.5	17.4	43.0	21.7
A78-324002	45.6	2	+2	2.2	42	1.9	14.1	42.4	20.3
A78-325028	44.5	4	+3	2.4	42	1.9	16.4	44.0	20.2
A78-326032	41.0	17	+3	2.5	37	2.3	15.3	42.3	20.1
HC76-4030	37.4	22	+3	1.3	20	1.8	15.3	43.9	20.5
HW74-3384 Sprite	39.9	19	+1	1.3	21	1.6	17.4	41.1	22.6
HW74-3385 Hobbit	41.7	13	+1	1.2	21	1.6	15.6	40.3	22.5
L24A Williams 82	43.3	5	+2	1.7	39	1.9	16.3	41.9	21.2
L25A	43.3	5	+2	2.0	38	~~2.4~~ 1.8	16.4	41.3	21.2
L26	43.2	7	+2	1.7	40	1.9	16.5	42.5	20.8
L75-8121	39.0	20	+3	1.9	40	1.9	15.2	40.4	20.8
L77-994	38.5	21	+1	1.9	39	2.0	15.0	42.9	20.3
U36276	42.1	11	-3	1.4	31	2.3	14.6	42.3	20.6
U57073	41.9	12	+4	1.8	39	2.1	16.5	43.5	19.8

*126 days after planting

Cumberland has had the highest mean yield in the 1-year, 2-year, and 3-year analyses of this test. L24A, resistant to races 1-9 of phytophthora rot, L25A with resistance to SMV, and L26 with resistance to races 1, 3, 4, 5, 6, 7, 8, and 9 of phytophthora rot are all backcross derivatives of Williams and were very similar to Williams 79 in performance. The cyst nematode races 3 and 4 resistant L77-994 was somewhat lower in yield than the check varieties. Two strains, A78-227012 and A78-321011, performed well in Preliminary II in 1979, but because of their late maturity, were moved to UT III for 1980 evaluation. These strains matured early for the Group III test in 1980, so a separate comparison was made of these strains with Century and Pella in a table at the bottom of page 116. Both strains were intermediate in yield between Century and Pella, had excellent lodging resistance but were susceptible to phytophthora rot.

UNIFORM TEST III, 1980

Regional Summary

Strain	Yield bu/a	Rank No.	Maturity Date	Lodging Score	Height In.	Seed Quality Score	Size Seed g/100	Composition Protein %	Oil %
1979-1980, 2-year mean									
No. of Tests	47	47	41	46	47	43	42	10	10
BSR 302	43.1	8	+2.3	2.8	42	2.4	17.0	41.8	19.8
Century (II)	42.5	9	-6.1	1.7	35	2.3	18.0	42.4	20.2
Cumberland (III)	47.4	1	9-24.5*	2.1	37	2.1	18.1	40.8	21.8
Pella	45.6	2	-2.4	1.7	38	2.3	19.0	39.8	21.4
Union (IV)	43.3	6	+5.1	2.4	44	1.9	18.0	42.4	20.2
Williams 79	44.6	4	+1.4	2.0	41	2.0	17.1	41.4	20.6
HW74-3384 Sprite	43.6	5	+0.3	1.4	22	1.7	17.8	40.5	22.0
HW74-3385 Hobbit	45.4	3	+0.8	1.3	23	1.8	16.0	40.4	21.6
U36276	43.2	7	-2.8	1.6	32	2.2	15.0	42.8	19.9

*127 days after planting

Strain	Yield bu/a	Rank No.	Maturity Date	Lodging Score	Height In.	Seed Quality Score	Size Seed g/100	Composition Protein %	Oil %
1978-1980, 3-year mean									
No. of Tests	73	73	64	69	73	68	62	25	25
BSR 302	42.3	7	+2.0	2.9	42	2.3	16.8	42.2	19.8
Cumberland (III)	45.6	1	9-23.8*	2.1	36	2.2	18.0	41.4	21.7
Pella	44.5	3	-2.1	1.8	37	2.2	19.0	40.3	21.3
Union (IV)	43.1	6	+4.9	2.4	43	1.8	18.1	42.5	20.4
Williams 79	43.9	4	+1.3	2.0	40	1.8	16.9	42.1	20.6
HW74-3384 Sprite	43.5	5	0.0	1.4	22	1.8	17.6	40.5	22.4
HW74-3385 Hobbit	45.3	2	+0.2	1.3	22	1.7	15.9	40.1	22.0

*125 days after planting

Strain	Yield bu/a	Rank No.	Maturity Date	Lodging Score	Height In.	Seed Quality Score	Size Seed g/100	Composition Protein %	Oil %
1979 PII and 1980 UTIII mean									
No. of Tests	34	34	30	33	34	31	31	10	10
Century	44.6	4	9-20.5	1.8	35	2.2	18.1	41.8	20.4
Pella	46.1	1	9-24.2	1.9	38	2.1	19.1	39.8	21.4
A78-227012	44.9	3	9-20.2	2.1	32	2.2	15.1	41.8	20.2
A78-321011	45.8	2	9-21.3	1.9	34	2.1	16.0	41.6	20.2

UNIFORM TEST III, 1980

Strain	Mean 23 Tests	N.J. Adel-phia	Penn. Landis-ville	Md. Clarks-ville	Ohio Hoyt-ville	Ohio Wooster	Ohio S. Charles-ton	Ky. Lexing-ton
				YIELD (bu/a)				
BSR 302	41.1	34.9	36.7	25.1	52.0	45.3	59.2	34.3
Century (II)	41.4	42.8	36.7	32.2	60.8	45.4	55.6	39.5
Cumberland (III)	45.7	40.1	39.1	35.3	57.2	50.1	62.5	39.8
Pella	42.8	41.4	33.1	32.1	57.0	49.7	61.7	37.0
Union (IV)	40.8	37.2	40.7	26.7	48.9	42.1	50.2	35.3
Williams 79	43.1	39.6	36.4	28.6	52.4	42.9	57.6	37.9
A78-227012	41.1	45.9	31.4	21.5	56.2	50.3	64.7	36.5
A78-321011	42.7	46.8	38.2	34.8	53.7	46.6	64.6	34.9
A78-322024	45.4	38.8	37.4	36.7	52.4	48.3	60.7	39.5
A78-324002	45.6	40.4	35.6	39.4	55.1	49.2	63.2	40.0
A78-325028	44.5	39.6	37.7	35.6	53.4	44.0	58.8	37.1
A78-326032	41.0	40.4	38.8	32.9	49.7	44.8	58.4	35.9
HC76-4030	37.4	47.4	34.9	33.2	59.8	52.6	60.1	33.2
HW74-3384 Sprite	39.9	45.2	47.0	30.6	58.4	53.2	58.2	40.1
HW74-3385	41.7	47.9	37.5	29.9	58.8	52.0	61.8	39.9
L24A	43.3	37.1	30.5	29.4	52.5	44.4	57.1	36.7
L25A	43.3	41.4	33.0	33.0	48.4	46.1	55.9	36.0
L26	43.2	35.8	35.5	30.8	48.4	47.3	57.9	35.9
L75-8121	39.0	36.4	33.0	28.8	45.6	40.2	49.7	34.5
L77-994	38.5	37.1	33.4	34.4	45.4	39.5	43.5	36.3
U36276	42.1	40.9	30.9	32.0	51.1	47.2	53.9	34.0
U57073	41.9	39.5	42.5	37.3	48.6	44.1	54.0	45.7
C.V. (%)		6.6	16.2	12.5	7.3	6.0	7.7	5.7
L.S.D. (5%)		5.4	NS	5.5	6.4	4.6	7.3	1.2
Row sp (in.)		30	30	30	30	30	30	30
Rows/plot		3	4	4	4	4	4	4
Reps		4	3	3	3	3	3	3

UNIFORM TEST III, 1980

Strain	Ind.			Illinois				
	Lafay-ette	Green-field	Sull-ivan	Ur-bana	Girard	Browns-town	Belle-ville	Eldorado
	YIELD (bu/a)							
BSR 302	56.6	48.1	49.5	50.9	38.1	28.0	37.4	46.5
Century (II)	53.3	38.0	52.3	48.3	38.2	32.8	35.9	45.1
Cumberland (III)	58.1	49.9	55.7	50.1	42.1	37.1	47.6	51.4
Pella	49.8	47.1	--	52.8	37.8	37.9	41.9	46.3
Union (IV)	58.1	46.7	45.6	50.6	38.7	35.6	47.7	49.2
Williams 79	58.5	48.6	51.7	50.3	42.6	38.3	45.1	46.9
A78-227012	59.2	39.0	39.2	49.2	28.5	34.5	40.5	46.6
A78-321011	52.0	47.0	44.0	50.8	36.8	35.0	38.6	48.6
A78-322024	60.4	53.4	46.9	52.1	43.9	38.3	47.9	52.2
A78-324002	58.5	50.1	48.8	52.5	47.3	40.9	44.8	51.9
A78-325028	62.2	49.0	58.2	54.0	42.5	44.1	42.0	53.1
A78-326032	56.2	46.4	40.3	51.9	34.4	31.0	35.2	44.5
HC76-4030	32.5	37.7	25.0	47.7	37.4	30.1	45.1	43.1
HW74-3384 Sprite	33.5	38.9	30.2	49.1	32.9	28.4	48.7	46.0
HW74-3385	36.3	39.6	44.5	52.8	38.6	22.0	42.9	48.7
L24A	64.7	51.6	52.0	52.4	41.1	40.5	45.8	47.6
L25A	63.7	45.0	48.2	56.6	39.1	37.7	46.9	47.5
L26	61.1	46.9	54.9	53.1	39.2	42.8	48.5	48.2
L75-8121	51.7	39.2	48.2	46.1	37.3	36.2	39.6	46.6
L77-994	46.4	40.3	40.6	48.9	37.9	35.4	42.9	45.4
U36276	53.6	48.2	48.4	52.2	37.5	35.4	42.2	50.0
U57073	56.7	45.8	38.5	48.8	40.1	36.9	48.8	48.8
C.V. (%)	7.6	13.5	17.5	4.5	7.5	9.2	6.6	5.1
L.S.D. (5%)	6.3	10.0	12.8	3.8	4.8	5.3	4.7	4.1
Row sp (in.)	24	30	30	30	30	30	30	30
Rows/plot	4	3	3	4	4	4	4	4
Reps	3	3	3	3	3	3	3	3

UNIFORM TEST III, 1980

Ill.	Iowa		Mo.	S.D.	Kansas		Neb.
Pontiac	Ottumwa	Stuart	Novelty	Elk Point	Manhattan	Powhattan	Mead
			YIELD (bu/a)				
30.9	51.0	56.8	36.5	30.6	26.9	20.3	49.2
37.7	48.4	53.5	32.3	36.1	18.9	17.6	51.4
35.3	57.2	57.5	32.1	40.8	32.2	20.0	59.0
31.4	53.7	54.6	32.0	37.4	30.5	24.4	52.2
32.5	50.5	49.4	30.4	31.7	29.3	19.1	42.7
33.0	53.0	54.5	38.3	33.5	29.4	23.0	49.2
28.1	49.1	57.2	36.0	30.8	23.7	19.0	58.0
32.0	48.7	54.0	38.6	38.3	26.6	18.3	52.9
33.5	54.8	58.8	37.7	37.5	31.3	25.0	57.0
33.3	57.9	55.0	35.9	34.8	29.9	26.2	58.6
33.2	50.3	51.7	36.3	36.7	33.8	25.2	44.3
33.4	54.4	56.7	35.7	29.0	22.9	21.8	47.2
28.3	42.4	44.9	16.4	32.0	15.8	15.4	45.7
34.4	48.5	50.8	24.6	27.6	21.9	19.2	49.4
35.8	47.1	54.2	28.6	29.9	32.9	21.8	55.1
34.6	53.6	53.9	34.5	34.3	29.1	22.4	49.5
35.1	50.1	53.3	37.4	32.2	31.9	23.4	53.5
30.8	52.2	54.0	--	35.6	31.4	21.9	38.4
30.8	50.7	51.9	26.7	28.2	27.6	22.3	46.1
30.4	47.2	47.4	31.1	32.8	27.5	20.9	40.3
30.0	52.0	55.8	37.0	34.6	24.5	21.3	55.9
30.7	51.8	50.4	32.9	26.4	30.7	22.0	43.7
8.3	5.4	4.4	18.1	14.4	12.2	21.4	12.1
4.4	4.0	3.4	8.5	7.8	5.6	8.4	9.9
30	27	27	30	30	30	30	30
4	4	4	2	4	4	4	4
3	4	4	4	3	3	3	3

UNIFORM TEST III, 1980

Strain	Mean 23 Tests	N.J. Adel-phia	Penn. Landis-ville	Md. Clarks-ville	Ohio Hoyt-ville	Ohio Wooster	Ohio S. Charles-ton	Ky. Lexing-ton
				YIELD RANK				
BSR 302	15	23	10	22	14	14	9	20
Century (II)	14	6	10	11	1	13	17	6
Cumberland (III)	1	12	4	5	5	5	4	5
Pella	9	7	17	12	6	6	6	10
Union (IV)	18	17	3	20	17	20	20	17
Williams 79	8	13	12	19	13	19	14	8
A78-227012	15	4	20	21	7	4	1	12
A78-321011	10	3	6	6	9	11	2	18
A78-322024	3	16	9	3	11	8	7	7
A78-324002	2	10	13	1	8	7	3	3
A78-325028	4	13	7	4	10	18	10	9
A78-326032	17	10	5	10	16	15	11	16
HC76-4030	22	2	15	8	2	2	8	22
HW74-3384 Sprite	19	5	1	15	4	1	12	2
HW74-3385	13	1	8	16	3	3	5	4
L24A	5	18	22	17	11	16	15	11
L25A	5	7	18	9	19	12	16	14
L26	7	21	14	14	19	9	13	15
L75-8121	20	20	18	18	21	21	21	19
L77-994	21	18	16	7	22	22	22	13
U36276	11	9	21	13	15	10	19	21
U57073	12	15	2	2	18	17	18	1

UNIFORM TEST III, 1980

Ind.			Illinois				
Lafay-ette	Green-field	Sullivan	Urbana	Girard	Browns-town	Belleville	Eldorado
			YIELD RANK				
12	8	7	11	13	21	20	16
15	21	4	20	12	17	21	20
9	4	2	15	5	9	6	4
18	9	-	4	15	7	16	17
9	12	13	13	10	12	5	6
7	6	6	14	3	5	9	13
6	19	19	16	22	16	17	14
16	10	16	12	19	15	19	9
5	1	12	9	2	5	4	2
8	3	7	6	1	3	11	3
3	5	1	2	4	1	15	1
13	13	18	10	20	18	22	21
22	22	22	21	17	19	9	22
21	20	21	17	21	20	2	18
20	18	14	4	11	22	12	8
1	2	5	7	6	4	8	11
2	15	10	1	9	8	7	12
4	11	3	3	8	2	3	10
17	17	10	22	18	11	18	14
19	16	17	18	14	13	12	19
14	7	8	8	16	13	14	5
11	14	20	19	7	10	1	7

UNIFORM TEST III, 1980

Strain	Ill.	Iowa		Mo.	S.D.	Kansas		Neb.
	Pontiac	Ottum-wa	Stuart	Novelty	Elk Point	Manhat-tan	Powhat-tan	Mead
				YIELD (RANK)				
BSR 302	15	11	4	6	17	15	15	14
Century (II)	1	19	14	13	6	21	21	10
Cumberland (III)	3	2	2	14	1	3	16	1
Pella	14	5	8	15	4	8	4	9
Union (IV)	12	13	20	17	15	11	18	20
Williams 79	11	7	9	2	11	10	6	13
A78-227012	22	16	3	8	16	18	19	3
A78-321011	13	17	11	1	2	16	20	8
A78-322024	7	3	1	3	3	6	3	4
A78-324002	9	1	7	9	8	9	1	2
A78-325028	10	14	17	7	5	1	2	18
A78-326032	8	4	5	10	19	19	11	15
HC76-4030	21	22	22	21	14	22	22	17
HW74-3384 Sprite	6	18	18	20	21	20	17	12
HW74-3385	2	21	10	18	18	2	11	6
L24A	5	6	13	11	10	12	7	11
L25A	4	15	15	4	13	4	5	7
L26	16	8	11	-	7	5	10	22
L75-8121	16	12	16	19	20	13	8	16
L77-994	19	20	21	16	12	14	14	21
U36276	20	9	6	5	9	17	13	5
U57073	18	10	19	12	22	7	9	19

UNIFORM TEST III, 1980

Strain	Mean 20 Tests	N.J. Adel-phia	Penn. Landis-ville	Md. Clarks-ville	Ohio Hoyt-ville	Ohio Wooster	Ohio S. Charles-ton	Ky. Lexing-ton
				MATURITY (date)				
BSR 320	+1	+3	+3	-1	+1	+4	0	+5
Century (II)	-6	-7	-3	-1	-4	-6	-10	-2
Cumberland (III)	*9/23	9/23	9/24	9/23	9/28	9/29	9/26	9/18
Pella	-2	-1	+1	-1	-3	-2	-7	0
Union (IV)	+5	+6	+8	-1	+4	+5	+1	+12
Williams 79	+1	+1	+2	-1	+1	+2	-1	+5
A78-227012	-7	-3	-5	-5	-4	-4	-10	-2
A78-321011	-5	0	-2	-2	-5	-3	-8	-2
A78-322024	-1	+1	-1	0	-3	-1	-5	+5
A78-324002	+2	+4	-1	+1	+1	+3	0	+5
A78-325028	+3	+5	+1	+1	+1	+3	-1	+9
A78-326032	+3	+9	+3	-1	+1	+5	+1	+9
HC76-4030	+3	+3	-1	-1	0	0	+2	+9
HW74-3384 Sprite	+1	0	-1	-1	-1	-1	0	0
HW74-3385	+1	+3	-1	0	-1	-3	0	-2
L24A	+2	+3	+2	-1	+1	+3	0	+5
L25A	+2	+4	+1	-1	0	+3	-1	+5
L26	+2	0	+2	0	0	+3	0	+9
L75-8121	+3	+4	+2	+6	+3	+5	+1	+9
L77-994	+1	+3	+3	-1	+1	+4	-1	+9
U36276	-3	-1	-1	-1	-3	-2	-3	0
U57073	+4	+6	+5	+6	0	+4	-2	+9
Date planted	5/18	5/28	6/5	6/11	5/6	5/16	4/30	6/8
*Days to maturity	126	118	111	104	145	136	149	102

UNIFORM TEST III, 1980

Strain	Ind.			Illinois				
	Lafay-ette	Green-field	Sull-ivan	Ur-bana	Girard	Browns-town	Belle-ville	Eldorado
	MATURITY (date)							
BSR 302	+2	0	-3	+2	0	+1	-2	-1
Century (II)	-10	-5	-14	-3	-11	0	-11	-11
Cumberland (III)	*9/22	9/25	9/20	9/22	9/16	9/14	9/18	9/14
Pella	-3	-3	--	+1	-6	+2	-4	-4
Union (IV)	+5	+2	+1	+7	+4	+8	+7	+4
Williams 79	+2	+1	-2	+1	+1	+1	-1	0
A78-227012	-8	-5	-14	-7	-12	-1	-12	-11
A78-321011	-6	-4	-13	-3	-9	-1	-10	-7
A78-322024	-2	-3	-4	0	-2	+2	-2	-1
A78-324002	+3	+1	0	+3	+1	+5	+1	+1
A78-325028	+4	+2	-2	+4	+4	+6	+2	+3
A78-326032	+2	+2	0	+3	+3	+3	+1	+2
HC76-4030	+4	-2	+3	+7	+5	+1	+3	+2
HW74-3384 Sprite	+3	-2	-2	+4	+3	+2	+3	0
HW74-3385	+2	-2	-1	+6	+1	0	0	-1
L24A	+5	+3	-3	+5	+3	+4	+1	+2
L25A	+3	+1	-1	+4	+2	+2	0	+1
L26	+3	0	+4	+2	+2	+4	+1	+2
L75-8121	+3	+2	-1	+5	+3	+2	+1	0
L77-994	+2	-1	-2	+1	+1	+4	0	+1
U36276	-5	-4	-9	+1	-5	+1	-6	-3
U57073	+3	+2	-1	+7	+3	+6	+3	+2
Date planted	5/7	5/29	5/5	5/7	5/6	5/15	5/27	5/21
Days to maturity*	138	119	138	138	133	122	114	116

UNIFORM TEST III, 1980

Ill.	Iowa		Mo.	S.D.	Kansas		Neb.
Pontiac	Ottumwa	Stuart	Novelty	Elk Point	Manhattan	Powhattan	Mead
			MATURITY (date)				
+1		-1		+1	0		+2
-1		-9		-5	-4		-7
9/21		9/29		10/1	9/21		9/30
+1		-5		-2	-3		-1
+4		+2		+6	+8		+4
+1		-1		+1	+3		+3
-4		-8		-9	-5		-5
-2		-8		-5	-2		-2
+1		-2		-3	+6		0
+1		+2		0	+9		+3
+2		+1		0	+7		+3
+2		+2		+1	+6		+1
+1		+1		+2	+11		+2
+1		+1		0	+12		0
+2		+1		0	+5		+3
+2		0		+2	+7		+3
+3		0		+3	+8		+3
+1		0		+2	+6		+3
+1		+1		0	+6		+3
+1		0		+1	+1		+2
0		-5		-2	-3		-1
+6		+1		+3	+5		+3
5/27	5/2	5/10	5/15	5/21	5/19	5/22	5/27
117	-	142	-	133	125	-	126

UNIFORM TEST III, 1980

Strain	Mean 22 Tests	N.J. Adel-phia	Penn. Landis-ville	Penn. Clarks-ville	Ohio Hoyt-ville	Ohio Wooster	Ohio S. Charles-ton	Ky. Lexing-ton
				LODGING (score)				
BSR 302	2.4	3.0	1.0	1.2	3.2	4.6	3.5	2.2
Century (II)	1.6	1.8	1.0	1.0	1.8	2.7	2.3	1.0
Cumberland (III)	1.9	3.0	1.0	1.0	2.0	2.8	2.3	1.0
Pella	1.5	1.0	1.0	1.0	1.9	2.5	1.7	1.0
Union (IV)	2.2	3.0	2.0	1.7	2.9	3.6	2.7	1.5
Williams 79	1.8	2.2	1.0	1.2	2.5	3.0	2.0	1.0
A78-227012	1.9	2.5	1.0	1.0	2.1	2.4	2.2	1.2
A78-321011	1.6	1.8	1.0	1.0	1.7	2.7	2.0	1.0
A78-322024	2.2	3.8	2.0	1.3	2.7	3.8	3.0	1.3
A78-324002	2.2	3.2	1.0	1.0	2.7	3.0	2.8	1.8
A78-325028	2.4	3.0	1.0	1.8	3.3	3.7	2.8	2.3
A78-326032	2.5	3.0	1.0	1.7	3.1	4.2	3.5	2.2
HC76-4030	1.3	1.0	1.0	1.2	1.0	1.7	1.7	1.0
HW74-3384 Sprite	1.3	2.2	1.0	1.3	1.1	2.0	1.7	1.0
HW74-3385	1.2	2.0	1.0	1.0	1.2	1.8	1.3	1.0
L24A	1.7	2.0	1.0	1.2	2.1	2.6	2.2	1.0
L25A	2.0	3.8	1.0	1.0	2.5	3.2	2.7	1.2
L26	1.7	2.5	1.0	1.0	2.4	2.6	2.2	1.0
L75-8121	1.9	3.2	1.0	1.2	2.6	3.9	2.2	2.2
L77-994	1.9	2.5	1.0	1.2	2.7	3.3	2.2	1.3
U36276	1.4	1.5	1.0	1.3	1.4	1.5	1.5	1.3
U57073	1.8	2.2	1.0	1.5	2.7	2.8	2.3	1.5

UNIFORM TEST III, 1980

Ind.			Illinois				
Lafay-ette	Green-field	Sullivan	Urbana	Girard	Browns-town	Belleville	Eldorado
			LODGING (score)				
2.2	1.5	3.3	2.1	2.2	1.3	3.4	3.1
1.7	1.0	2.7	1.3	1.5	1.0	1.4	3.2
1.8	1.0	2.8	1.5	2.1	1.0	2.6	3.9
1.5	1.0	-	1.4	1.4	1.2	1.2	1.8
1.8	1.2	3.2	1.7	1.9	1.7	2.4	2.6
1.5	1.0	2.8	1.3	1.8	1.0	1.7	2.2
2.3	1.0	3.3	1.4	1.8	1.0	1.8	4.2
1.5	1.0	2.2	1.4	1.7	1.0	1.2	2.8
2.2	1.7	3.0	1.7	2.3	1.3	2.7	3.1
2.3	1.2	2.7	1.9	2.2	1.7	2.4	3.5
2.0	1.5	3.2	1.9	2.3	1.7	2.7	3.2
2.2	1.5	3.3	2.2	2.4	1.8	3.2	3.3
1.5	1.0	1.0	1.7	1.2	1.0	1.2	2.2
1.5	1.0	1.0	1.7	1.3	1.0	1.2	1.8
1.5	1.0	1.0	1.5	1.1	1.0	1.1	1.7
1.7	1.0	2.3	1.4	1.8	1.2	1.7	2.2
1.8	1.0	3.0	1.6	2.0	1.2	2.0	3.6
1.8	1.0	2.7	1.5	1.5	1.0	1.7	2.4
1.7	1.0	2.5	1.5	1.8	1.0	1.5	1.9
1.8	1.0	2.7	1.6	2.0	1.2	1.9	1.9
1.3	1.0	2.3	1.2	1.3	1.0	1.1	1.2
1.7	1.0	2.3	1.5	1.6	1.0	1.9	1.8

UNIFORM TEST III, 1980

Strain	Ill.	Iowa		Mo.	S.D.	Kansas		Neb.
	Pontiac	Ottumwa	Stuart	Novelty	Elk Point	Manhattan	Powhattan	Mead
				LODGING (score)				
BSR 302	1.5	3.0	2.4	2.1		3.7	1.0	1.7
Century (II)	1.0	2.2	1.7	1.6		2.0	1.0	1.2
Cumberland (III)	1.0	2.8	1.7	1.8		2.7	1.0	1.0
Pella	1.0	2.3	1.5	1.5		3.0	1.0	1.0
Union (IV)	1.3	2.7	2.0	2.1		3.7	1.0	1.5
Williams 79	1.0	2.7	1.7	1.6		3.0	1.0	1.3
A78-227012	1.0	2.7	1.7	1.8		3.7	1.0	1.0
A78-321011	1.0	2.1	1.6	1.7		3.3	1.0	1.2
A78-322024	1.0	2.9	2.0	2.2		3.0	1.0	1.2
A78-324002	1.3	2.8	2.3	2.5		4.0	1.0	1.3
A78-325028	1.5	3.1	2.6	2.1		3.3	1.0	2.2
A78-326032	1.8	2.9	2.8	2.2		4.3	1.0	1.3
HC76-4030	1.2	1.6	1.4	1.0		1.0	1.0	1.0
HW74-3384 Sprite	1.0	1.6	1.3	1.0		1.0	1.0	1.0
HW74-3385	1.0	1.6	1.4	1.0		1.0	1.0	1.0
L24A	1.0	2.6	1.7	1.8		2.0	1.0	1.2
L25A	1.2	2.6	1.8	2.0		3.0	1.0	1.3
L26	1.0	2.6	1.7	-		2.7	1.0	1.2
L75-8121	1.2	2.5	1.8	2.0		3.0	1.0	1.2
L77-994	1.2	2.7	1.7	2.2		3.0	1.0	1.0
U36276	1.0	2.3	1.5	1.6		2.0	1.0	1.2
U57073	1.0	2.6	1.6	2.1		2.7	1.0	1.5

UNIFORM TEST III, 1980

Strain	Mean 23 Tests	N.J. Adel- phia	Penn. Landis- ville	Md. Clarks- ville	Ohio Hoyt- ville	Ohio Wooster	Ohio S. Charles- ton	Ky. Lexing- ton
				HEIGHT (inches)				
BSR 302	41	44	32	30	50	49	44	37
Century (II)	33	39	29	28	43	38	39	33
Cumberland (III)	36	37	30	30	39	37	38	34
Pella	36	34	31	29	39	43	41	36
Union (IV)	43	46	36	32	53	47	45	38
Williams 79	40	41	32	29	46	44	42	37
A78-227012	30	35	23	21	36	35	36	28
A78-321011	33	36	27	24	38	37	38	29
A78-322024	41	45	32	35	51	50	45	39
A78-324002	42	41	28	32	54	42	45	37
A78-325028	42	44	31	34	53	46	45	37
A78-326032	37	41	29	32	42	40	38	34
HC76-4030	20	24	21	24	28	28	24	21
HW74-3384 Sprite	21	23	25	22	28	28	25	26
HW74-3385	21	25	22	21	29	30	23	25
L24A	39	40	27	29	46	43	42	37
L25A	38	41	27	30	43	41	40	36
L26	40	40	30	30	44	41	42	39
L75-8121	40	44	30	34	43	46	41	38
L77-994	39	41	29	31	44	41	38	38
U36276	31	32	22	23	40	35	37	29
U57073	39	38	29	33	44	42	41	35

UNIFORM TEST III, 1980

Strain	Ind.			Ill.				
	Lafay-ette	Green-field	Sull-ivan	Ur-bana	Girard	Browns-town	Belle-ville	Eldorado
	HEIGHT (inches)							
BSR 302	41	37	51	35	46	40	48	48
Century (II)	33	27	38	31	39	32	32	38
Cumberland (III)	34	32	42	32	41	35	42	43
Pella	36	31	--	36	39	33	42	44
Union (IV)	44	36	52	42	47	47	53	51
Williams 79	41	34	47	39	44	38	45	50
A78-227012	29	23	39	29	33	29	34	35
A78-321011	32	27	38	32	37	34	36	41
A78-322024	43	36	47	41	45	39	47	50
A78-324002	41	33	51	43	48	41	49	50
A78-325028	43	39	50	44	47	44	48	51
A78-326032	39	32	41	37	39	36	44	45
HC76-4030	12	19	20	18	20	16	23	16
HW74-3384 Sprite	12	20	16	23	19	16	21	17
HW74-3385	17	19	19	20	20	18	22	17
L24A	40	33	49	40	43	40	42	47
L25A	39	31	42	38	42	37	41	46
L26	41	34	46	39	43	40	45	48
L75-8121	40	35	50	40	45	40	48	50
L77-994	43	33	46	38	43	36	43	48
U36276	31	28	38	32	36	31	34	39
U57073	37	36	46	40	47	38	46	47

UNIFORM TEST III, 1980

Ill.	Iowa		Mo.	S.D.	Kansas		Neb.
Pontiac	Ottumwa	Stuart	Novelty	Elk Point	Manhattan	Powhattan	Mead
			HEIGHT (inches)				
30	48	44	34	39	42	30	43
29	37	32	27	31	36	23	28
29	40	37	30	38	42	24	38
28	42	36	29	35	43	26	35
34	53	44	37	41	50	30	41
30	46	39	35	39	49	26	38
25	32	29	27	28	36	21	27
28	34	34	33	31	40	23	30
28	44	40	34	32	50	28	37
35	50	46	35	40	49	32	41
36	50	42	34	39	49	31	39
32	44	37	33	37	45	26	39
22	18	20	13	25	20	17	18
21	19	21	14	23	18	17	19
20	20	25	16	22	18	19	20
33	46	40	33	38	46	27	38
33	46	37	33	36	45	26	38
31	48	40	--	38	48	28	37
34	46	39	35	38	47	27	40
32	46	41	33	37	42	30	36
25	36	33	25	28	38	22	30
32	46	41	32	39	46	28	37

UNIFORM TEST III, 1980

Strain	Mean 21 Tests	N.J. Adel- phia	Penn. Landis- ville	Md. Clarks- ville	Ohio Hoyt- ville	Ohio Wooster	Ohio S. Charles- ton	Ky. Lexing- ton
				QUALITY (score)				
BSR 302	2.3	1.0	2.0	3.3	1.7	1.8	1.5	2.0
Century (II)	2.4	2.0	2.2	2.3	1.7	2.9	1.5	2.0
Cumberland (III)	2.1	1.2	2.0	2.0	1.7	2.0	1.0	1.0
Pella	2.2	1.2	2.2	2.5	1.5	2.0	1.5	2.0
Union (IV)	1.9	1.0	2.0	2.0	1.8	1.6	1.0	1.0
Williams 79	1.9	1.0	2.0	2.0	1.8	2.4	1.5	1.0
A78-227012	2.3	1.0	2.2	2.7	1.4	2.1	1.5	2.0
A78-321011	2.0	1.0	2.2	2.2	1.4	2.3	1.0	1.0
A78-322024	2.5	1.2	2.0	2.2	1.6	2.3	1.5	2.0
A78-324002	1.9	1.0	2.0	1.8	1.5	1.8	1.5	1.0
A78-325028	1.9	1.0	2.0	1.5	1.8	1.6	1.0	2.0
A78-326032	2.3	1.0	2.0	2.3	1.7	1.7	1.5	1.0
HC76-4030	1.8	1.0	1.7	1.5	1.7	1.2	1.0	1.0
HW74-3384 Sprite	1.6	1.0	1.8	2.2	1.4	1.3	1.0	1.0
HW74-3385	1.6	1.2	1.8	2.2	1.5	1.4	1.0	1.0
L24A	1.9	1.0	2.0	2.0	2.0	2.5	1.5	1.0
L25A	2.4	1.0	2.0	1.5	1.5	2.2	1.0	1.0
L26	1.9	1.0	2.0	2.0	1.6	2.1	1.0	2.0
L75-8121	1.9	1.0	2.0	2.0	1.6	2.0	1.0	2.0
L77-994	2.0	1.5	2.0	2.0	1.6	1.7	1.0	2.0
U36276	2.3	2.0	2.0	2.5	1.8	2.9	1.5	2.0
U57073	2.1	1.2	2.0	2.5	1.5	2.4	1.0	2.0

UNIFORM TEST III, 1980

Ind.			Illinois				
Lafay-ette	Green-field	Sullivan	Urbana	Girard	Browns-town	Belleville	Eldorado
			QUALITY (score)				
1.0	1.5	2.0	3.2	2.8	2.9	4.2	4.2
1.5	2.0	1.5	4.2	3.0	2.2	3.3	3.3
1.0	1.0	2.0	3.0	2.5	2.5	3.3	3.5
1.5	1.5	-	3.3	2.8	2.5	2.7	3.0
1.0	1.0	1.5	2.0	1.8	3.2	2.8	3.3
1.0	1.5	1.5	2.0	1.5	1.9	2.2	2.8
1.0	1.5	1.5	2.3	3.3	2.1	3.5	3.7
1.0	1.0	2.0	1.8	2.7	2.1	3.0	2.5
2.0	1.5	2.5	3.8	3.0	3.2	3.3	3.5
1.0	1.5	1.5	2.3	1.7	2.1	2.7	2.8
1.5	1.5	1.5	2.2	1.7	2.3	2.7	2.8
1.5	1.5	3.0	2.2	3.0	2.7	3.3	4.0
1.5	1.0	2.5	2.2	1.7	1.7	2.0	1.7
1.5	1.5	1.0	1.7	1.7	1.7	2.3	2.5
1.0	1.0	1.5	1.7	1.5	1.7	2.2	2.0
1.0	1.5	2.0	1.7	1.5	2.1	2.2	2.5
1.5	1.5	2.0	1.5	1.5	2.0	2.2	2.8
1.5	1.5	1.5	1.5	1.3	1.9	2.2	2.5
1.5	1.0	1.5	1.7	1.7	2.3	2.7	2.7
1.0	1.5	1.5	1.7	1.7	2.5	3.0	2.8
1.5	1.5	1.5	2.3	2.5	3.1	3.3	3.0
1.0	1.0	1.5	1.8	1.8	3.0	2.8	2.8

UNIFORM TEST III, 1980

Strain	Ill.	Iowa		Mo.	S.D.	Kansas		Neb.
	Pontiac	Ottum-wa	Stuart	Novelty	Elk Point	Manhat-tan	Powhat-tan	Mead
			QUALITY (score)					
BSR 302	1.8	1.8			2.0	3.0	3.5	2.0
Century (II)	2.3	1.7			3.0	3.0	3.0	2.2
Cumberland (III)	2.1	1.5			3.0	3.0	3.0	2.5
Pella	2.1	1.7			2.0	3.0	2.5	2.2
Union (IV)	1.9	1.5			3.0	2.0	1.5	2.2
Williams 79	1.7	2.0			3.0	3.0	2.0	2.0
A78-227012	1.6	2.0			3.0	4.5	3.5	1.7
A78-321011	1.7	1.7			3.0	3.0	3.0	2.3
A78-322024	2.7	2.2			4.0	3.0	2.5	2.2
A78-324002	1.7	1.6			4.0	3.0	1.5	1.8
A78-325028	1.9	1.3			4.0	3.0	1.5	2.0
A78-326032	1.7	1.3			4.0	3.0	3.0	2.0
HC76-4030	1.6	1.4			3.0	4.5	1.5	1.8
HW74-3384 Sprite	1.7	1.5			2.0	2.0	2.0	1.7
HW74-3385	1.5	1.3			2.0	2.5	2.0	1.5
L24A	1.9	1.4			3.0	3.0	2.0	2.0
L25A	1.5	1.8			3.0	2.0	1.5	2.0
L26	1.6	1.3			4.0	3.0	2.5	2.2
L75-8121	1.9	1.4			2.0	3.0	2.0	2.0
L77-994	1.8	1.8			3.0	4.0	1.5	2.0
U36276	1.7	1.4			3.0	3.5	3.0	2.3
U57073	1.9	1.5			4.0	4.0	3.0	2.2

UNIFORM TEST III, 1980

Strain	Mean 21 Tests	N.J. Adel-phia	Penn. Landis-ville	Md. Clarks-ville	Ohio Hoyt-ville	Ohio Wooster	Ohio S. Charles-ton	Ky. Lexing-ton
			SIZE (g/100)					
BSR 302	16.5	11.0	17.0	13.9	16.6	16.3	17.4	15.5
Century (II)	17.4	13.0	18.9	16.2	18.6	18.0	17.5	15.7
Cumberland (III)	17.5	15.0	16.8	15.4	18.2	18.9	19.2	14.1
Pella	18.0	15.0	18.6	15.8	18.5	19.1	18.7	14.4
Union (IV)	17.6	14.0	17.9	14.8	17.7	16.8	17.4	15.6
Williams 79	16.6	13.0	16.9	14.9	16.9	16.5	16.3	14.9
A78-227012	14.5	12.0	13.2	11.7	15.0	15.6	15.1	13.6
A78-321011	15.1	12.0	14.8	13.1	16.0	16.0	15.8	11.5
A78-322024	17.4	15.0	17.2	15.1	17.6	17.6	18.4	13.6
A78-324002	14.1	11.0	13.8	12.0	15.6	14.5	14.9	12.7
A78-325028	16.4	15.0	15.1	14.3	17.8	15.9	16.9	15.1
A78-326032	15.3	13.0	15.4	9.7	16.4	15.8	16.8	13.1
HC76-4030	15.3	12.0	12.7	12.7	14.6	14.7	16.1	11.9
HW74-3384 Sprite	17.4	14.0	16.7	14.4	18.7	17.8	19.2	13.4
HW74-3385	15.6	14.0	14.9	13.3	16.4	15.8	15.7	12.7
L24A	16.3	13.0	16.5	14.4	17.7	16.5	15.9	13.7
L25A	16.4	15.0	16.0	14.6	16.6	16.8	16.3	13.9
L26	16.5	16.0	15.3	15.1	16.2	16.9	15.8	14.1
L75-8121	15.2	14.0	15.2	14.0	15.5	15.0	15.4	14.1
L77-994	15.0	14.0	16.0	13.9	15.3	14.8	14.0	13.8
U36276	14.6	13.0	15.4	13.7	14.7	14.3	14.2	12.7
U57073	16.5	15.0	17.4	15.3	16.2	17.1	15.8	15.0

UNIFORM TEST III, 1980

Strain	Ind.			Illinois				
	Lafay-ette	Green-field	Sull-ivan	Ur-bana	Girard	Browns-town	Belle-ville	Eldorado
	SIZE (g/100)							
BSR 302	18.0	17.3	17.0	19.9	16.2	14.9	16.4	13.6
Century (II)	18.7	18.8	17.5	19.7	15.4	16.0	15.5	14.4
Cumberland (III)	18.6	19.0	17.9	21.0	16.8	15.1	16.7	14.8
Pella	19.9	20.6	--	20.3	17.0	16.5	16.1	15.4
Union (IV)	19.9	17.8	17.9	20.3	17.2	17.9	17.6	15.9
Williams 79	18.4	17.4	17.0	18.8	15.5	14.5	15.4	13.9
A78-227012	16.0	14.4	15.0	15.8	12.4	12.9	13.1	11.9
A78-321011	17.0	16.0	15.4	15.2	14.4	13.0	13.1	12.3
A78-322024	19.5	18.0	17.5	19.3	17.3	15.8	17.3	14.3
A78-324002	16.4	13.6	13.9	15.4	13.8	12.6	12.6	11.1
A78-325028	19.1	17.2	16.6	18.7	16.2	15.5	15.3	14.2
A78-326032	18.1	17.0	16.5	16.3	15.4	13.6	13.6	12.7
HC76-4030	18.2	15.2	18.9	15.6	15.4	15.6	14.5	13.3
HW74-3384 Sprite	20.7	16.2	18.5	19.5	16.0	15.6	17.3	15.2
HW74-3385	17.7	16.0	17.4	17.7	14.0	13.2	13.8	13.3
L24A	18.9	16.6	16.7	17.2	15.4	15.0	14.9	15.0
L25A	19.4	16.1	16.2	17.8	15.0	14.4	15.3	14.0
L26	18.1	16.4	15.9	17.9	15.9	16.1	15.5	14.8
L75-8121	16.8	15.5	15.2	16.3	15.0	13.4	14.4	12.8
L77-994	16.7	14.5	13.9	15.7	14.0	13.6	14.9	12.4
U36276	14.7	15.1	12.8	15.8	13.5	13.1	13.8	12.2
U57073	17.7	17.0	16.1	17.1	16.2	15.6	16.1	14.6

UNIFORM TEST III, 1980

Ill.	Iowa		Mo.	S.D.	Kansas		Neb.
Pontiac	Ottumwa	Stuart	Novelty	Elk Point	Manhattan	Powhattan	Mead
			SIZE (g/100)				
20.3	17.7			17.4	16.5	16.5	16.6
18.8	18.0			22.5	14.4	16.3	22.0
21.2	18.6			19.7	15.3	16.6	18.8
21.5	19.6			20.0	16.5	16.7	20.5
21.0	19.8			19.9	16.4	16.4	17.3
20.8	19.1			17.8	16.5	16.4	17.8
16.1	14.8			17.2	13.3	15.4	19.1
18.0	14.6			20.3	14.4	16.2	17.6
22.0	18.4			19.9	16.8	16.7	17.7
15.7	15.7			15.3	14.8	14.8	15.0
19.1	18.4			15.6	16.6	16.3	16.1
17.6	17.0			15.9	15.6	16.2	16.0
15.8	15.8			17.1	16.4	16.2	18.3
19.4	17.6			22.1	16.7	16.7	20.3
17.8	15.8			16.4	16.6	16.3	18.4
19.6	18.1			17.7	16.9	16.4	15.9
20.2	17.6			18.4	16.4	16.4	17.1
20.3	18.4			17.3	16.2	16.7	17.1
16.7	16.8			15.1	16.2	16.2	14.6
18.2	15.4			16.5	15.6	16.2	15.4
17.3	15.0			16.5	15.8	16.4	15.9
19.4	17.7			17.7	16.5	16.4	16.7

UNIFORM TEST III, 1980

Strain	Mean 5 Tests	Ohio S. Charleston	Ind. Lafayette	Ill. Urbana	Iowa Ottumwa	Kansas Ashland
			PROTEIN (%)			
BSR 302	42.7	41.4	42.1	41.8	42.1	46.3
Century (II)	42.7	42.8	43.2	41.8	40.6	45.2
Cumberland (III)	41.2	40.9	40.6	40.2	40.6	43.6
Pella	40.3	40.1	40.0	39.2	40.7	41.3
Union (IV)	43.3	44.4	42.1	44.3	42.2	43.7
Williams 79	41.7	41.9	41.6	39.5	41.1	44.5
A78-227012	42.0	41.9	42.8	40.7	41.0	43.7
A78-321011	41.6	42.8	42.5	39.4	40.7	42.7
A78-322024	43.0	43.2	42.3	42.4	41.1	46.0
A78-324002	42.4	42.7	42.2	41.3	43.4	42.5
A78-325028	44.0	43.7	42.9	44.1	44.5	44.9
A78-326032	42.3	43.3	41.8	40.8	42.3	43.3
HC76-4030	43.9	42.4	44.0	43.8	43.8	45.6
HW74-3384 Sprite	41.1	40.4	41.6	41.3	40.3	41.7
HW74-3385	40.3	41.6	40.8	39.5	39.3	40.4
L24A	41.9	41.2	41.2	41.3	42.8	42.8
L25A	41.3	40.8	41.8	40.2	40.8	42.8
L26	42.5	42.6	41.7	42.1	42.0	43.9
L75-8121	40.4	39.8	40.6	40.0	39.1	42.4
L77-994	42.9	42.5	43.4	40.9	43.0	44.7
U36276	42.3	42.3	41.6	42.2	39.5	45.8
U57073	43.5	43.4	43.0	43.4	43.4	44.2

UNIFORM TEST III, 1980

Strain	Mean 5 Tests	Ohio S. Charleston	Ind. Lafayette	Ill. Urbana	Iowa Ottumwa	Kansas Ashland
			OIL (%)			
BSR 302	19.8	18.4	21.4	20.7	20.4	18.2
Century (II)	20.8	21.1	21.5	20.2	22.0	19.1
Cumberland (III)	22.3	21.7	23.2	22.9	23.5	20.4
Pella	21.9	22.4	22.0	22.2	23.2	19.9
Union (IV)	20.5	20.4	21.0	20.7	20.8	19.4
Williams 79	20.6	20.7	21.5	20.9	20.8	19.3
A78-227012	20.5	19.1	21.5	22.3	21.5	18.3
A78-321011	20.5	19.9	21.2	21.7	20.7	19.2
A78-322024	21.7	21.1	22.7	21.8	22.4	20.3
A78-324002	20.3	19.9	20.7	20.7	21.0	19.2
A78-325028	20.2	20.7	21.1	19.9	20.6	18.7
A78-326032	20.1	21.2	20.9	20.0	19.4	18.8
HC76-4030	20.5	19.3	22.0	21.0	21.5	18.5
HW74-3384 Sprite	22.6	22.1	22.7	23.1	23.4	21.5
HW74-3385	22.5	21.6	22.9	22.6	22.9	22.5
L24A	21.2	20.6	21.3	22.1	22.8	19.1
L25A	21.2	21.3	21.0	21.5	22.0	20.0
L26	20.8	21.4	21.6	20.4	20.7	19.7
L75-8121	20.8	18.5	22.4	21.4	22.1	19.5
L77-994	20.3	19.7	21.2	20.3	21.1	19.3
U36276	20.6	19.9	22.0	21.7	21.1	18.1
U57073	19.8	19.9	20.3	19.8	21.2	18.0

PRELIMINARY TEST III, 1980

Strain	Parentage	Generation Composited
Century (II)	Calland x Bonus	F_6
Cumberland (III)	Corsoy x Williams	F_4
Union (IV)	Williams[5] x SL12 (Wayne Rpm Rps)	F_3
A79-237005	Pride B216 x Cumberland	F_4
A79-331022	(L15 x AP68-1016) x Oakland	F_4
A79-334010	Pride B216 x LL4102	F_4
A79-336014	Pride x Oakland	F_4
A79-337010	Pride B216 x LL4102	F_4
A79-338015	Pella x Oakland	F_4
A79-338021	A72-512 x A74-104030	F_4
HC76-3711	L72U-2567 x Williams	F_5
HC76-3863	L72U-2567 x Evans	F_5
HC76-4374	L72U-2567 x Ransom	F_5
HC76-4388	L72U-2567 x L72U-640	F_5
HC77-1418	L72U-640 x Essex	F_5
HC77-1419	L72U-640 x Essex	F_5
HC77-5421	L72U-2567 x Wells	F_5
HW79050	Cumberland x Pella (AX-1764M-23)	F_5
HW79116	Cumberland x Pella (AX-1764E-30)	F_5
HW79149	(A72-507[6] x A1) x (A72-507[5] x PI82.263-2)	F_3
K1055	Tracy x Williams	F_5
K1056	Tracy x Williams	F_5
K1057	Tracy x Columbus	F_5
K1058	Tracy x Bonus	F_5
K1059	Tracy x Columbus	F_5
K1060	Tracy x Pomona	F_5
L77-443	Union x L75-8020	F_4
L77-3014	L73-6626 x Williams	F_5
L78-709	Williams x L70-2283	F_7
L78-4883	L73-6626 x Williams	F_6
LN1060	Tracy x Williams	F_5
LN1062	Tracy x Williams	F_5
LN1063	Tracy x Bonus	F_5
LN78-246	Union x C1528	F_5
LN78-537	Union x K1028	F_5
LN78-575	Union x K1028	F_5

PRELIMINARY TEST III, 1980

Descriptive and Other Data

Strain	Description		Chlorosis Score Ames	Shattering Manhattan 2 Weeks
Century (II)	PTBr	DYB1	3.0	2
Cumberland (III)	PGBr	SYIb	3.7	2
Union (IV)	WTTn	SYB1	3.3	1
A79-237005	WTTn	DYB1+Br	4.2	2
A79-331022	PTTn	DYBr	3.7	2
A79-334010	PGBr	DYIb	4.3	2
A79-336014	PTBr	DYB1	3.7	2
A79-337010	WG+TBr	DYBf+B1	4.0	3
A79-338015	PGTn	DYIb	2.8	2
A79-338021	PGBr	SYBf	1.7	2
HC76-3711	PTTn	DYB1	2.3	2
HC76-3863	WTTn	DYGr	3.7	1
HC76-4374	PTTn	SYB1	3.3	1
HC76-4388	PTTn	SYIb	2.8	1
HC77-1418	PGTn	DYIb	3.3	1
HC77-1419	PGTn	DYIb	3.5	1
HC77-5421	PTTn	SYB1	2.5	1
HC79050	PTBr	SYB1	4.3	1
HW79116	PGTn	SYIb	3.8	1
HW79149	WGTn	DYBf	3.8	2
K1055	WTTn	SYB1	3.8	2
K1056	WTTn	SYB1	4.5	1
K1057	P+WTTn	DYB1	3.2	2
K1058	PGTn	DYIb	3.0	2
K1059	WGBr	DYBf	2.8	2
K1060	WTTn	DYB1	3.3	1
L77-443	WG+TTn	SYB1	2.8	2
L77-3014	PTBr	SYB1	2.0	1
L78-709	WGTn	DYBf	3.3	1
L78-4883	WTBr	DYB1	3.7	1
LN1060	WTTn	DYB1	3.0	2
LN1062	WTTn	DYB1	3.7	2
LN1063	WGTn	DYBf	2.3	1
LN78-246	PGBr	DYIb	2.2	1
LN78-537	PGBr	DYB1	4.2	1
LN78-575	PTTn	SYB1	3.0	1

PRELIMINARY TEST III, 1980

Disease Data

Strain	BSR Laf. Ind. n	BSR Ames Ia. n	GERM * Lafayette, Ind. d	SMV Lafayette, Ind. d	PSB Lafayette, Ind. a	PS Lafayette, Ind. a	PR Vick-ery Ohio n	PR Laf. Ind. a	Race 1 Ames Ia. a
	%	Reac.	%	Score	%	Score		-----Reaction------	
Century (II)	60	S	73	4E	21	3E	2.4	R	R
Cumberland (III)	0	S	96	2M	1	3E	2.4	S	S
Union (IV)	100	S	96	2M	2	4E	2.0	R	R
A79-237005	20	S	93	5E	5	4E	2.2	S	S
A79-331022	0	R	92	4E	2	3E	2.2	S	S
A79-334010	0	S	88	5E	1	4S	2.0	S	S
A79-336014	20	S	85	4E	7	2M	2.3	S	S
A79-337010	40	S	81	5E	9	4E	2.0	S	H
A79-338015	80	S	91	3M	5	2E	2.6	S	S
A79-338021	20	S	99	3M	1	5E	2.7	S	S
HC76-3711	60	S	88	3M	3	3E	3.6	S	S
HC76-3863	20	S	83	2M	11	2E	3.7	S	S
HC76-4374	60	S	94	2M	2	2E	3.5	S	S
HC76-4388	40	S	95	2M	3	2E	3.4	S	S
HC77-1418	100	S	97	2M	0	2E	3.2	S	S
HC77-1419	80	S	99	1	0	3E	3.9	S	S
HC77-5421	60	S	93	2M	0	2E	3.6	S	S
HW79050	60	S	92	2M	7	4E	2.4	S	S
HW79116	60	S	86	2M	4	5S	2.2	R	R
HW79149	60	S	83	5E	1	5S	1.8	R	R
K1055	40	S	91	3M	0	3E	1.5	R	R
K1056	60	S	85	2E	2	3E	1.6	R	R
K1057	60	S	91	3E	5	5S	1.7	R	R
K1058	80	S	84	3E	0	4E	2.3	H	H
K1059	20	S	96	3E	2	3E	2.4	R	R
K1060	60	S	95	2M	1	4E	1.7	H	H
L77-443	60	S	87	2M	3	4E	2.4	R	R
L77-3014	20	S	73	4E	17	3E	2.4	S	S
L78-709	100	S	77	1	19	5E	2.6	S	S
L78-4883	100	S	90	3E	6	3E	2.2	S	S
LN1060	20	S	94	4E	3	2M	2.2	R	R
LN1062	0	S	86	3M	7	3E	2.4	R	R
LN1063	0	S	92	2E	4	3E	2.1	R	R
LN78-246	60	S	90	2E	9	5S	2.4	R	R
LN78-537	-	S	89	2M	14	3E	3.0	R	R
LN78-575	20	S	91	3M	2	4S	2.2	R	R

*Petri dish germination on potato dextrose agar.

PRELIMINARY TEST III, 1980

Regional Summary

Strain	Yield	Rank	Maturity	Lodging	Height	Seed Quality	Seed Size	Protein	Oil
No. of Tests	10	10	9	9	10	9	9	5	5
	bu/a	No.	Date	Score	In.	Score	g/100	%	%
Century (II)	46.5	14	-7	1.6	33	2.4	18.3	42.3	21.8
Cumberland (III)	48.9	3	9/24*	1.8	36	2.0	17.8	41.8	21.7
Union (IV)	46.2	18	+5	2.2	44	1.7	18.0	42.2	21.9
A79-237005	47.4	10	-1	1.7	37	2.0	15.3	42.2	21.5
A79-331022	47.2	11	+2	1.7	38	2.3	18.2	42.5	21.3
A79-334010	50.6	1	-2	2.3	39	2.2	15.7	42.2	20.6
A79-336014	50.1	2	+1	1.5	35	2.0	18.6	41.8	21.7
A79-337010	48.7	5	+3	2.3	41	2.1	16.6	43.0	20.1
A79-338015	48.9	3	+3	1.6	37	2.0	15.1	39.2	22.5
A79-338021	48.7	5	+4	2.2	40	2.5	16.1	42.5	20.9
HC76-3711	31.5	35	-1	1.3	19	1.9	17.6	42.9	21.8
HC76-3863	35.0	34	-6	1.5	21	2.2	17.0	41.2	22.9
HC76-4374	35.9	33	+1	1.2	19	2.0	14.5	42.1	21.5
HC76-4388	28.2	36	+1	1.3	19	2.0	16.4	43.9	21.1
HC77-1418	45.1	20	-3	1.3	26	1.8	15.0	43.9	21.3
HC77-1419	42.5	29	-5	1.2	22	1.6	14.4	42.2	22.0
HC77-5421	38.7	32	+3	2.3	20	2.0	13.6	42.3	21.4
HW79050	47.2	11	-2	1.5	34	2.3	19.3	39.5	22.0
HW79116	46.3	17	+2	1.6	37	2.1	18.1	39.6	22.4
HW79149	48.5	7	+3	2.6	38	2.7	17.5	41.2	21.0
K1055	44.0	26	+4	2.0	39	1.9	16.7	42.5	20.7
K1056	44.2	24	+4	1.9	39	1.7	16.7	41.5	20.4
K1057	45.8	19	+3	1.9	39	1.6	14.6	41.3	20.4
K1058	47.8	8	+6	2.3	39	1.8	18.2	43.8	20.4
K1059	44.7	21	+1	1.5	30	1.9	16.8	44.4	20.4
K1060	44.6	22	+4	1.8	39	1.7	16.6	42.6	19.7
L77-443	43.7	27	-2	2.0	38	1.9	16.3	40.5	21.8
L77-3014	42.0	30	-5	1.6	34	1.9	17.3	42.5	21.8
L78-709	44.2	24	-3	1.6	36	1.9	16.5	40.8	22.3
L78-4883	40.6	31	-1	1.7	35	1.9	17.9	41.5	21.7
LN1060	44.3	23	0	1.6	26	1.7	16.1	42.0	20.9
LN1062	43.2	28	-2	1.8	27	1.5	14.7	42.4	20.8
LN1063	46.4	16	+3	1.7	31	1.7	15.3	45.5	20.3
LN78-246	46.5	14	-1	1.9	34	2.2	16.2	42.3	20.9
LN78-537	46.7	13	0	1.8	39	1.7	17.9	42.7	21.7
LN78-575	47.7	9	0	1.6	37	2.2	18.3	40.9	21.4

*132 days after planting

Two strains, A79-334010 and A79-336014, were higher in average yield than Cumberland. Both strains were susceptible to phytophthora rot, A79-336014 had excellent lodging resistance. In general, the determinant strains were among the lowest yielding entries in these tests. The cyst nematode race 3 resistant strain L77-443 was not competitive in yield with the check varieties. Four of the Kansas strains, K1055 to K1058, were all resistant to races 1, 3, 4, 5, and 6 of phytophthora rot. The strain HW79149 was resistant to races 1 through 9 of phytophthora rot.

PRELIMINARY TEST III, 1980

Strain	Mean 10 Tests	Ohio S. Charleston	Ind. Lafayette	Ill. Urbana	Ill. Girard
		YIELD (bu/a)			
Century (II)	46.5	59.9	52.8	52.3	39.0
Cumberland (III)	48.9	64.6	53.4	56.7	45.0
Union (IV)	46.2	52.3	59.8	52.0	44.2
A79-237005	47.4	60.3	54.7	50.3	34.2
A79-331022	47.2	63.1	55.4	52.3	43.8
A79-334010	50.6	62.6	60.5	56.3	41.8
A79-336014	50.1	60.4	53.3	57.0	47.4
A79-337010	48.7	61.5	53.1	55.5	40.7
A79-338015	48.9	60.1	54.2	52.5	44.3
A79-338021	48.7	58.0	62.7	51.0	44.3
HC76-3711	31.5	57.1	14.9	45.7	29.4
HC76-3863	35.0	58.6	20.5	45.0	32.0
HC76-4374	35.9	52.7	10.1	45.0	31.6
HC76-4388	28.2	52.9	14.4	39.4	28.6
HC77-1418	45.1	63.8	26.3	51.9	43.4
HC77-1419	42.3	63.7	21.7	41.6	38.0
HC77-5421	38.7	56.6	47.2	44.6	34.5
HW79050	47.2	63.7	49.7	52.5	41.5
HW79116	46.3	58.2	51.9	53.1	41.5
HW79149	48.5	65.3	48.6	49.5	42.6
K1055	44.0	54.3	58.9	48.4	42.3
K1056	44.2	54.6	49.8	48.6	44.8
K1057	45.8	50.7	49.5	47.9	45.4
K1058	47.8	53.8	57.8	50.7	46.0
K1059	44.7	53.4	43.2	48.8	46.0
K1060	44.6	55.7	52.6	47.4	40.9
L77-443	43.7	58.3	50.6	45.3	38.4
L77-3014	42.0	52.9	51.6	44.3	39.5
L78-709	44.2	55.3	49.4	52.3	39.3
L78-4883	40.6	48.1	49.1	42.9	38.0
LN1060	44.3	56.6	48.4	52.2	45.3
LN1062	43.2	52.9	44.1	49.2	40.8
LN1063	46.4	54.0	46.2	49.4	41.1
LN78-246	46.5	61.0	57.6	53.3	38.5
LN78-537	46.7	56.9	58.6	48.4	37.3
LN78-575	47.7	59.1	59.8	49.8	39.3
C.V. (%)		8.0	13.8	5.0	4.4
L.S.D. (5%)		9.4	13.1	5.1	3.6
Row sp (in.)		30"	24"	30"	30"
Rows/plot		4	4	4	4
Reps		2	2	2	2

PRELIMINARY TEST III, 1980

Iowa		S.D.	Neb.	Kans.	Ky.
Ottumwa	Stuart	Elk Point	Mead	Manhattan	Lexington
		YIELD (bu/a)			
49.1	53.8	43.4	46.0	29.2	39.9
54.6	56.9	44.3	45.2	32.2	33.8
52.0	50.0	37.0	42.6	33.0	39.2
51.4	58.0	46.5	49.4	29.4	39.7
57.9	54.6	38.6	37.1	29.4	39.6
55.2	54.7	45.6	58.6	34.8	35.8
54.1	57.9	42.2	53.3	38.0	37.3
54.9	56.4	41.1	55.1	31.2	37.5
51.4	60.8	41.8	53.3	34.2	36.3
53.2	57.7	40.8	49.2	35.1	35.4
38.6	41.4	17.3	21.4	10.1	38.6
42.1	47.8	29.4	26.5	9.4	39.1
35.8	41.5	40.5	45.9	17.7	38.2
38.7	38.2	5.9	19.5	8.6	36.0
49.4	52.0	40.4	47.2	33.9	42.9
46.7	51.8	39.4	46.3	33.5	40.5
40.0	45.7	25.1	39.3	19.2	35.1
52.3	52.0	47.6	43.8	27.1	42.1
55.5	54.6	40.4	43.7	29.5	34.9
57.3	53.6	41.5	46.5	40.5	39.8
51.2	44.9	31.2	43.0	30.9	34.5
50.5	47.2	32.3	44.9	29.3	39.5
48.7	51.2	41.2	49.8	36.0	37.2
54.7	56.3	35.9	46.0	36.0	40.3
50.2	47.6	42.6	45.2	35.6	34.2
49.3	48.2	38.0	38.5	30.7	44.9
50.8	48.8	40.7	39.9	28.0	35.7
44.4	45.7	34.6	41.5	33.1	32.6
47.7	53.7	34.5	43.5	30.1	36.0
46.7	46.7	33.8	46.5	20.8	33.3
49.8	48.4	37.8	31.2	38.8	34.1
45.9	50.0	37.8	40.3	39.0	32.4
55.2	49.9	42.1	49.3	40.8	36.3
50.7	48.9	41.4	43.4	31.2	39.2
51.7	50.3	41.1	53.2	34.5	35.3
55.0	53.1	41.5	40.6	38.2	40.1
5.6	4.5	11.6	16.2	10.0	8.0
5.6	4.6	8.7	14.4	6.1	2.0
27"	27"	30"	30"	30"	30"
4	4	4	4	4	4
2	2	2	3	2	2

PRELIMINARY TEST III, 1980

Strain	Mean 10 Tests	Ohio	Ind.	Ill.	
		S. Charleston	Lafayette	Urbana	Girard
		YIELD RANK			
Century (II)	14	13	15	9	25
Cumberland (III)	3	2	12	2	6
Union (IV)	18	34	3	13	10
A79-237005	10	11	10	7	32
A79-331022	11	6	9	9	11
A79-334010	1	7	2	3	15
A79-336014	2	10	13	1	1
A79-337010	5	8	14	4	21
A79-338015	3	12	11	7	8
A79-338021	5	18	1	15	8
HC76-3711	34	20	33	28	35
HC76-3863	33	15	32	30	33
HC76-4374	33	33	35	30	34
HC76-4388	35	19	34	36	36
HC77-1418	20	3	30	14	12
H77-1419	29	4	31	35	28
HC77-5421	32	22	27	32	31
HW79050	11	4	21	7	16
HW79116	17	17	17	6	16
HW79149	7	1	25	19	13
K1055	26	27	5	24	14
K1056	24	26	20	23	7
K1057	19	35	22	26	4
K1058	8	29	7	16	2
K1059	21	30	29	22	2
K1060	22	24	16	27	19
L77-443	27	16	19	29	27
L77-3014	30	31	18	33	22
L78-709	24	25	23	9	23
L78-4883	31	36	24	34	28
LN1060	23	22	26	12	5
LN1062	28	31	28	21	20
LN1063	16	28	27	20	18
LN78-246	14	9	8	5	26
LN78-537	13	21	6	24	30
LN78-575	9	14	3	18	23

PRELIMINARY TEST III, 1980

Iowa		S.D.	Neb.	Kans.	Ky.
Stuart	Ottumwa	Elk Point	Mead	Manhattan	Lexington
			YIELD RANK		
11	25	5	14	28	7
5	3	4	18	18	33
20	13	26	25	17	12
2	15	2	7	25	9
9	1	22	32	25	10
8	5	3	1	11	24
3	10	7	3	6	18
6	8	15	2	19	17
1	15	9	4	13	20
4	11	16	9	10	26
35	35	35	35	34	15
27	32	33	34	35	14
34	36	18	16	33	16
36	34	36	36	36	22
15	23	19	10	14	2
17	28	21	13	15	4
31	33	34	30	32	28
15	12	1	20	30	3
9	4	20	21	24	29
13	2	11	11	2	8
33	17	32	24	21	30
29	20	31	19	27	11
18	26	13	6	7	19
7	9	27	15	7	5
28	21	6	17	9	31
26	24	23	31	22	1
24	18	17	29	29	25
31	31	28	26	16	35
12	27	29	22	23	23
30	28	30	12	31	34
25	22	24	33	4	32
20	30	23	28	3	36
22	5	8	8	1	21
23	19	12	23	19	13
19	14	14	5	12	27
14	7	10	27	5	6

PRELIMINARY TEST III, 1980

Strain	Mean 9 Tests	Ohio	Ind.	Ill.	
		S. Charleston	Lafayette	Urbana	Girard
		MATURITY (date)			
Century (II)	-7	-8	-9	-6	-8
Cumberland (III)*	9/24	9/24	9/21	9/25	9/15
Union (IV)	+5	+2	+7	+5	+7
A79-237005	-1	-4	+1	-1	-3
A79-331022	+2	+2	+3	+1	+2
A79-334010	-2	0	0	-2	-1
A79-336014	+1	-3	+1	-3	+1
A79-337010	+3	+2	+2	+3	+1
A79-338015	+3	0	+2	+3	+3
A79-338021	+4	+2	+7	+3	+7
HC76-3711	-1	-3	+3	-3	-2
HC76-3863	-6	-4	-7	-9	-7
HC76-4374	+1	+4	+1	+2	0
HC76-4388	+1	+2	+4	0	+3
HC77-1418	-3	-3	-4	-4	-4
HC77-1419	-5	-4	-6	-4	-6
HC77-5421	+3	+4	+3	+3	+6
HW79050	-2	-4	-3	-2	-1
HW79116	+2	0	+3	0	+2
HW79149	+3	+3	+3	+4	+4
K1055	+4	+2	+6	+4	+7
K1056	+4	0	+5	+2	+6
K1057	+3	+2	+6	+1	+3
K1058	+6	+4	+8	+5	+10
K1059	+1	+4	+2	+1	+2
K1060	+4	+2	+6	+5	+5
L77-443	-2	-5	-1	-4	-4
L77-3014	-5	-6	-2	-7	-7
L78-709	-3	-6	-4	-3	-6
L78-4883	-1	-2	+2	-4	-5
LN1060	0	+1	+2	-1	+1
LN1062	-2	-3	0	-2	-1
LN1063	+3	+3	+4	+2	+2
LN78-246	-1	+2	+3	-1	-2
LN78-537	0	-1	+3	-1	0
LN78-575	0	-2	+2	+1	0
Date planted	5/15	4/30	5/7	5/7	5/6
*Days to maturity	132	147	137	141	132

PRELIMINARY TEST III, 1980

Iowa		S.D.	Neb.	Kans.	Ky.
Stuart	Ottumwa	Elk Point	Mead	Manhattan	Lexington
			MATURITY (date)		
-10		-7	-7	-5	-7
9/30		10/2	9/29	9/21	9/22
+1		+5	+5	+8	+7
-5		+1	+4	+1	0
0		+3	+4	+6	0
-5		-1	+1	+1	-7
0		+3	+2	+7	0
0		+1	+3	+7	+4
+1		+5	+4	+6	0
+2		+3	+5	+7	+4
-5		0	0	+5	0
-9		-6	-6	+1	-5
-4		-3	0	+6	0
-4		+3	0	+5	0
-6		+1	-1	-3	-5
-8		+1	-5	-3	-7
-1		+2	+2	+7	0
-5		-1	+4	-1	-7
0		+2	+5	+2	0
+1		+3	+4	+1	0
0		+5	+4	+8	+4
0		+2	+5	+9	+4
-1		+3	+3	+7	0
+2		+4	+4	+7	+7
-2		-2	-2	+4	+4
0		+3	+4	+7	+4
-6		+2	0	-2	0
-8		+1	-2	-5	-7
-6		-2	-1	-3	0
-5		+5	+2	-4	0
-3		+3	0	0	-7
-6		-2	-2	-1	-5
0		0	+1	+4	+11
-2		+1	+1	-2	-7
-5		0	+2	-2	+4
-4		+1	+2	0	0
5/10		5/21	5/27	5/19	6/8
143		134	125	125	106

PRELIMINARY TEST III, 1980

Strain	Mean 9 Tests	Ohio	Ind.	Ill.	
		S. Charleston	Lafayette	Urbana	Girard
			LODGING (score)		
Century (II)	1.6	2.0	1.5	1.1	1.4
Cumberland (III)	1.8	2.0	2.0	1.4	2.1
Union (IV)	2.2	2.8	2.0	1.6	2.1
A79-237005	1.7	2.0	2.0	1.2	1.6
A79-331022	1.7	1.8	1.5	1.2	1.9
A79-334010	2.3	2.8	2.3	2.1	2.2
A79-336014	1.5	1.5	1.5	1.2	1.5
A79-337010	2.3	2.8	2.3	2.2	2.0
A79-338015	1.6	1.5	1.5	1.3	1.6
A79-338021	2.2	2.5	2.3	2.0	2.2
HC76-3711	1.3	1.5	1.5	1.3	1.0
HC76-3863	1.5	1.5	1.5	1.8	1.3
HC76-4374	1.2	1.2	1.5	1.3	1.0
HC76-4388	1.3	1.8	1.5	1.3	1.1
HC77-1418	1.3	1.5	1.5	1.2	1.2
HC77-1419	1.2	1.2	1.5	1.2	1.1
HC77-5421	1.3	1.8	1.5	1.3	1.1
HW79050	1.5	1.5	1.5	1.2	1.4
HW79116	1.6	1.5	1.5	1.2	1.4
HW79149	2.6	2.2	3.0	1.8	2.7
K1055	2.0	2.0	2.0	1.4	2.1
K1056	1.9	1.8	1.8	1.3	2.2
K1057	1.9	2.0	2.0	1.4	2.0
K1058	2.3	2.5	2.0	1.7	2.2
K1059	1.5	1.8	1.5	1.3	1.6
K1060	1.8	2.2	1.5	1.3	1.9
L77-443	2.0	2.2	2.3	1.9	2.1
L77-3014	1.6	1.8	2.0	1.5	1.5
L78-709	1.6	1.5	2.0	1.3	1.7
L78-4883	1.7	2.2	2.3	1.4	1.9
LN1060	1.6	1.5	1.5	1.4	1.8
LN1062	1.8	2.0	1.5	2.0	2.0
LN1063	1.7	2.0	1.8	1.4	1.4
LN78-246	1.9	2.8	2.0	1.6	1.8
LN78-537	1.8	2.5	1.8	1.2	1.5
LN78-575	1.6	1.8	1.5	1.3	1.3

PRELIMINARY TEST III, 1980

Iowa		S.D.	Neb.	Kans.	Ky.
Stuart	Ottumwa	Elk Point	Mead	Manhattan	Lexington
		LODGING (score)			
1.8	2.4		1.3	1.8	1.0
1.8	2.5		1.0	2.3	1.0
1.8	2.8		1.5	3.5	1.8
1.6	2.6		1.0	2.0	1.3
1.8	2.4		1.3	2.5	1.0
2.0	3.2		1.3	2.8	2.0
1.7	2.2		1.0	2.0	1.3
2.4	2.8		1.5	3.3	1.8
1.6	2.3		1.0	2.5	1.3
1.8	2.7		1.3	4.0	1.0
1.4	1.6		1.0	1.0	1.0
1.6	2.0		1.0	1.0	2.0
1.4	1.6		1.0	1.0	1.0
1.4	1.7		1.3	1.0	1.0
1.5	1.8		1.0	1.0	1.3
1.4	1.7		1.0	1.0	1.0
1.4	1.7		1.0	1.0	1.3
1.7	2.3		1.3	1.8	1.0
1.4	2.4		1.3	2.3	1.0
2.3	4.4		1.3	4.3	1.5
1.8	2.6		1.5	3.0	1.5
1.6	2.6		1.3	2.5	1.8
1.9	2.6		1.5	2.5	1.5
2.4	3.0		1.5	3.3	1.8
1.6	2.2		1.0	1.3	1.5
1.8	2.6		1.3	2.0	1.5
1.8	2.8		1.0	2.0	1.8
1.8	2.1		1.3	1.3	1.5
1.8	2.3		1.0	1.3	1.8
1.4	2.3		1.5	1.3	1.3
2.0	2.2		1.0	1.0	2.3
1.9	2.3		1.3	1.0	2.0
1.8	2.3		1.0	2.0	1.8
1.8	2.3		1.0	1.8	1.8
1.6	2.4		1.3	2.0	1.5
1.6	2.6		1.0	2.3	1.0

PRELIMINARY TEST III, 1980

Strain	Mean 10 Tests	Ohio S. Charleston	Ind. Lafayette	Ill. Urbana	Ill. Girard
		HEIGHT (inches)			
Century (II)	33	38	31	33	35
Cumberland (III)	36	36	34	37	39
Union (IV)	44	44	44	46	46
A79-237005	37	38	34	37	37
A79-331022	38	40	34	38	41
A79-334010	39	39	36	41	40
A79-336014	35	37	31	35	37
A79-337010	41	43	39	43	43
A79-338015	37	38	34	37	39
A79-338021	40	41	39	41	42
HC76-3711	19	28	12	19	17
HC76-3863	21	24	12	22	20
HC76-4374	19	22	9	18	18
HC76-4388	19	24	10	19	18
HC77-1418	26	34	18	26	25
HC77-1419	22	30	11	20	21
HC77-5421	20	25	13	21	19
HW79050	34	38	31	32	35
HW79116	37	42	32	36	39
HW79149	38	38	31	36	40
K1055	39	38	39	40	41
K1056	39	39	36	37	40
K1057	39	38	37	41	41
K1058	39	40	36	39	43
K1059	30	33	33	30	29
K1060	39	38	37	38	42
L77-443	38	40	35	39	39
L77-3014	34	38	35	36	34
L77-709	36	39	32	36	39
L78-4883	35	38	31	35	36
LN1060	26	32	21	25	25
LN1062	27	32	24	26	26
LN1063	31	37	24	31	27
LN78-246	34	38	35	38	35
LN78-537	39	38	39	39	41
LN78-575	37	36	35	36	36

PRELIMINARY TEST III, 1980

Iowa		S.D.	Neb.	Kans.	Ky.
Stuart	Ottumwa	Elk Point	Mead	Manhattan	Lexington
		HEIGHT (inches)			
30	36	32	23	38	34
34	38	37	28	45	29
44	47	43	37	52	40
34	39	38	33	45	38
36	42	41	34	42	35
36	40	40	34	47	35
34	36	35	31	42	30
40	42	39	39	50	32
35	38	37	31	47	32
40	40	41	32	46	33
19	18	20	15	15	23
24	22	20	17	19	29
17	18	24	18	19	25
20	21	20	16	18	22
25	24	31	23	25	28
26	18	27	22	22	27
22	22	20	18	20	23
30	34	33	27	41	34
34	40	36	31	44	31
40	41	40	28	48	36
40	42	40	35	46	33
36	42	41	34	44	38
39	42	40	35	43	34
38	40	40	31	47	37
31	26	36	26	26	31
40	38	42	35	43	36
37	38	40	31	44	37
34	30	38	26	35	33
33	35	35	31	41	34
36	37	40	31	32	34
26	28	30	20	26	29
28	27	31	25	25	30
32	31	36	30	29	32
33	30	38	29	31	34
39	41	37	36	42	39
36	38	39	31	44	38

PRELIMINARY TEST III, 1980

Strain	Mean 9 Tests	Ohio	Ind.	Ill.	
		S. Charleston	Lafayette	Urbana	Girard
		QUALITY (score)			
Century (II)	2.4	1.5	1.5	3.0	3.5
Cumberland (III)	2.0	1.0	1.5	3.0	2.0
Union (IV)	1.7	1.0	1.5	2.3	1.5
A79-237005	2.0		1.5	1.8	2.0
A79-331022	2.3	2.0	1.5	2.3	2.5
A79-334010	2.2	1.5	1.5	2.5	2.5
A79-336014	2.0	1.0	2.0	2.3	2.0
A79-337010	2.1	1.5	1.5	2.5	2.3
A79-338015	2.0	1.0	1.5	2.0	2.0
A79-338021	2.5	2.0	2.0	2.8	3.3
HC76-3711	1.9	1.0	2.0	1.8	2.5
HC76-3863	2.2	1.0	1.5	2.0	2.5
HC76-4374	2.0	1.0	2.0	2.0	2.0
HC76-4388	2.0	1.0	1.5	3.0	2.3
HC77-1418	1.8	1.0	1.5	1.5	2.3
HC77-1419	1.6	1.0	1.5	1.8	2.0
HC77-5421	2.0	1.0	2.0	1.8	1.5
HW79050	2.3	1.0	1.5	2.8	2.5
HW79116	2.1	1.0	1.0	2.5	2.3
HW79149	2.7	2.0	1.5	2.5	3.3
K1055	1.9	1.0	1.0	1.8	1.5
K1056	1.7	1.0	1.0	1.8	2.0
K1057	1.6	1.5	1.0	2.3	1.5
K1058	1.8	1.5	1.0	2.5	1.8
K1059	1.9	1.5	1.0	2.3	1.8
K1060	1.7	1.0	1.5	2.0	1.5
L77-443	1.9	1.0	1.5	2.3	2.3
L77-3014	1.9	1.0	1.0	2.0	2.8
L78-709	1.9	1.0	1.5	2.0	2.3
L78-4883	1.9	1.5	1.5	1.5	2.5
LN1060	1.7	1.0	1.5	1.8	1.8
LN1062	1.5	1.0	1.5	1.8	1.8
LN1063	1.7	1.5	1.5	2.0	1.5
LN78-246	2.2	1.5	1.5	2.5	2.8
LN78-537	1.7	1.0	1.5	2.0	2.0
LN78-575	2.2	1.5	2.0	3.0	3.0

PRELIMINARY TEST III, 1980

Iowa		S.D.	Neb.	Kans.	Ky.
Stuart	Ottumwa	Elk Point	Mead	Manhattan	Lexington
		QUALITY (score)			
	2.0	3.0	2.0	3.5	2.0
	1.3	2.0	2.5	3.0	2.0
	1.4	1.0	2.0	3.0	2.0
	1.3	3.0	2.3	3.0	2.0
	1.5	2.0	2.8	4.0	2.0
	1.6	2.0	2.0	3.5	3.0
	1.5	3.0	2.3	3.0	1.0
	1.5	2.0	2.3	3.0	2.0
	1.8	3.0	2.3	3.0	1.0
	2.0	3.0	2.8	3.0	2.0
	1.5	2.0	1.8	3.5	1.0
	2.2	3.0	2.0	3.5	2.0
	1.3	2.0	1.8	4.0	2.0
	1.4	3.0	1.8	3.0	1.0
	1.4	2.0	2.0	2.5	2.0
	1.3	2.0	2.0	2.0	1.0
	1.4	4.0	2.0	3.0	1.0
	1.4	3.0	3.3	3.5	2.0
	1.3	3.0	3.0	4.0	1.0
	2.0	4.0	3.3	4.0	2.0
	1.9	4.0	2.0	2.5	1.0
	1.3	1.0	1.8	3.0	2.0
	1.3	1.0	2.0	3.0	1.0
	1.6	1.0	2.0	3.0	2.0
	1.4	2.0	1.8	3.0	2.0
	1.4	1.0	2.0	3.0	2.0
	1.9	2.0	2.5	3.0	1.0
	1.4	3.0	2.0	2.0	2.0
	1.4	2.0	2.0	3.0	2.0
	1.6	3.0	1.8	2.0	2.0
	1.3	2.0	1.8	3.0	1.0
	1.3	1.0	2.0	2.0	1.0
	1.3	2.0	1.8	2.0	2.0
	1.6	2.0	2.8	3.0	2.0
	1.7	2.0	1.8	2.5	1.0
	1.6	2.0	2.3	3.0	1.0

PRELIMINARY TEST III, 1980

Strain	Mean 9 Tests	Ohio S. Charleston	Ind. Lafayette	Ill. Urbana	Ill. Girard
		SIZE (g/100)			
Century (II)	18.3	18.2	18.9	19.2	16.3
Cumberland (III)	17.8	18.2	18.6	19.2	16.3
Union (IV)	18.0	17.7	19.5	19.4	17.1
A79-237005	15.3	15.5	16.9	15.9	13.4
A79-331022	18.2	18.7	20.0	19.2	18.8
A79-334010	15.7	14.8	17.0	16.3	14.7
A79-336014	18.6	18.3	20.2	19.1	18.3
A79-337010	16.6	15.6	18.3	17.5	15.3
A79-338015	15.1	14.7	15.8	14.9	15.4
A79-338021	16.1	16.5	18.1	15.7	16.0
HC76-3711	17.6	17.7	20.7	16.1	14.2
HC76-3863	17.0	18.8	16.4	16.5	15.7
HC76-4374	14.5	14.7	16.9	13.7	12.1
HC76-4388	16.4	16.5	19.0	15.0	14.9
HC77-1418	15.0	15.2	16.7	15.6	14.7
HC77-1419	14.4	15.4	16.3	15.1	14.0
HC77-5421	13.6	14.4	13.7	12.5	12.8
HW79050	19.3	19.8	19.8	20.5	18.4
HW79116	18.1	16.9	19.3	19.0	17.4
HW79149	17.5	17.7	18.3	18.5	17.1
K1055	16.7	16.6	17.7	16.9	16.6
K1056	16.7	17.1	17.1	17.2	16.6
K1057	14.6	14.6	15.4	14.4	13.8
K1058	18.2	16.8	19.2	18.6	19.4
K1059	16.8	17.2	17.8	17.4	15.9
K1060	16.6	16.8	17.2	16.5	16.6
L77-443	16.3	16.3	17.9	16.3	14.5
L77-3014	17.3	19.2	18.9	16.3	16.8
L78-709	16.5	17.2	16.7	17.5	14.2
L78-4883	17.9	19.0	20.0	17.9	17.6
LN1060	16.1	17.2	16.7	16.8	15.4
LN1062	14.7	14.9	15.1	15.4	13.6
LN1063	15.3	15.6	16.8	15.5	13.8
LN78-246	16.2	15.8	17.6	16.7	13.8
LN78-537	17.9	19.3	19.0	17.8	16.1
LN78-575	18.3	20.0	20.1	18.8	16.5

PRELIMINARY TEST III, 1980

Iowa		S.D.	Neb.	Kans.	Ky.
Stuart	Ottumwa	Elk Point	Mead	Manhattan	Lexington
			SIZE (g/100)		
	18.2	22.4	19.7	16.6	14.9
	17.9	19.8	18.4	16.4	15.8
	19.4	19.0	17.7	16.5	15.4
	15.0	17.3	16.9	15.5	11.5
	18.4	18.2	18.3	16.8	15.0
	16.4	17.0	17.1	16.6	11.5
	18.9	21.3	19.7	16.4	15.1
	17.4	17.4	17.2	16.4	14.1
	14.6	16.8	15.2	15.0	13.1
	15.9	17.2	15.1	16.4	13.8
	14.1	22.7	22.0	16.9	13.8
	15.1	20.5	20.5	16.4	13.4
	12.4	17.2	16.4	16.4	11.0
	14.5	17.0	19.7	16.7	14.2
	15.2	14.8	15.8	15.1	11.8
	13.2	15.0	15.3	14.0	11.2
	11.4	17.4	15.3	13.7	11.2
	18.4	23.2	20.4	16.5	16.6
	18.5	20.1	18.7	16.7	16.0
	20.0	19.7	16.6	16.7	12.9
	18.5	17.4	15.7	16.5	14.1
	18.1	16.3	17.1	16.5	14.0
	15.8	14.3	14.3	16.4	12.3
	20.2	19.1	17.6	16.6	16.3
	16.4	18.6	17.2	16.5	14.1
	18.2	16.6	15.8	16.4	15.1
	16.8	19.0	16.9	15.1	14.1
	17.8	18.2	18.2	16.4	14.1
	15.4	19.0	18.2	16.0	14.4
	19.2	17.9	18.1	16.6	15.2
	15.8	16.2	16.8	16.6	13.7
	15.4	15.2	15.4	15.3	12.0
	15.4	15.9	15.1	16.5	12.9
	16.1	19.0	18.3	15.6	13.0
	18.2	20.5	19.6	16.5	14.3
	18.8	19.2	19.3	16.6	15.0

PRELIMINARY TEST III, 1980

Strain	Mean 5 Tests	Ill.		Ohio	Iowa	Ind.
		Urbana	Girard	S. Charles-ton	Ottumwa	Lafay-ette
			PROTEIN (%)			
Century (II)	42.3	43.3	41.6	43.7	41.3	41.7
Cumberland (III)	41.8	41.5	40.9	42.9	39.6	43.9
Union (IV)	42.2	43.4	41.0	42.3	41.8	42.3
A79-237005	42.2	41.0	43.1	44.6	39.1	43.2
A79-331022	42.5	41.8	43.0	43.4	42.6	41.6
A79-334010	42.2	42.2	41.3	42.6	42.8	42.2
A79-336014	41.8	40.9	41.8	42.8	42.4	41.3
A79-337010	43.0	44.7	41.7	42.4	43.3	43.0
A79-338015	39.2	39.3	39.1	38.3	39.2	40.3
A79-338021	42.5	42.9	41.3	43.2	42.1	43.1
HC76-3711	42.9	41.9	42.7	44.0	41.3	44.7
HC76-3863	41.2	41.4	40.9	40.7	41.0	42.2
HC76-4374	42.1	42.0	40.6	43.0	41.8	43.3
HC76-4388	43.9	44.3	43.7	44.4	42.9	44.1
HC77-1418	43.9	44.8	42.2	45.2	43.0	44.5
HC77-1419	42.2	41.3	41.1	44.3	39.9	44.4
HC77-5421	42.3	43.0	42.5	43.1	41.1	42.0
HW79050	39.5	37.2	40.0	39.9	39.1	41.5
HW79116	39.6	38.8	38.9	40.1	39.7	40.6
HW79149	41.2	39.6	39.7	42.7	42.0	41.9
K1055	42.5	43.1	41.6	42.8	42.5	42.3
K1056	41.5	41.8	42.6	41.7	40.7	40.6
K1057	41.3	41.0	41.6	41.9	40.0	41.9
K1058	43.8	44.2	42.1	44.5	45.0	43.3
K1059	44.4	44.1	44.3	45.3	43.8	44.4
K1060	42.6	42.9	42.1	43.5	41.3	43.0
L77-443	40.5	41.6	37.8	41.4	39.3	42.6
L77-3014	42.5	42.6	40.8	44.1	42.2	42.6
L78-709	40.8	40.5	39.6	42.0	39.9	41.8
L78-4883	41.5	39.6	40.5	43.2	41.4	42.6
LN1060	42.0	41.7	43.2	42.3	39.7	43.2
LN1062	42.4	42.7	42.5	43.7	40.6	42.7
LN1063	45.5	46.5	44.6	47.0	43.7	45.7
LN78-246	42.3	43.2	40.3	43.9	41.5	42.5
LN78-537	42.7	42.0	42.5	43.4	42.4	43.2
LN78-575	40.9	42.1	39.5	41.7	39.2	42.0

Mean 5 Tests	Ill.		Ohio	Iowa	Ind.
	Urbana	Girard	S. Charleston	Ottumwa	Lafayette
			OIL (%)		
21.8	20.6	22.3	22.0	21.2	22.9
21.7	21.5	22.7	21.1	21.2	22.2
21.9	21.7	22.3	21.6	21.6	22.1
21.5	20.7	21.8	21.6	21.6	21.8
21.3	20.0	21.8	21.7	21.5	21.5
20.6	19.0	20.5	20.9	20.9	21.8
21.7	21.5	22.1	21.7	20.6	22.8
20.1	19.9	21.5	18.7	19.1	21.4
22.5	22.6	22.4	22.3	22.8	22.3
20.9	20.6	21.3	21.3	20.2	21.3
21.8	22.0	22.3	22.1	21.8	21.0
22.9	21.2	23.1	23.4	23.3	23.5
21.5	20.9	22.1	20.9	21.7	21.9
21.1	20.7	22.0	19.1	21.1	22.8
21.3	20.8	21.9	20.7	21.8	21.4
22.0	21.7	23.3	21.7	21.5	21.6
21.4	20.9	21.6	20.9	22.3	21.3
22.0	21.1	21.2	22.0	23.1	22.6
22.4	21.5	23.5	21.7	22.5	22.8
21.0	20.4	21.6	19.4	20.8	22.7
20.7	19.6	21.5	20.1	21.0	21.1
20.4	20.2	20.9	20.0	20.6	20.4
20.4	19.8	21.5	19.5	20.3	20.7
20.4	18.5	20.5	20.7	20.9	21.2
20.4	20.0	20.7	19.4	20.6	21.3
19.7	19.2	20.2	18.8	19.2	21.1
21.8	20.7	23.5	20.8	21.6	22.2
21.8	21.3	22.7	21.2	22.0	21.8
22.3	21.5	23.6	21.6	23.2	21.7
21.7	20.9	21.0	21.4	22.5	22.6
20.9	20.8	21.4	20.5	20.3	21.5
20.8	20.9	22.4	18.8	19.9	22.1
20.3	19.3	21.1	19.3	21.0	20.8
20.9	20.2	21.7	20.2	21.6	21.0
21.7	21.7	22.8	21.2	21.4	21.5
21.4	20.2	21.0	21.5	22.0	22.5

UNIFORM TEST IV, 1980

Strain	Parentage	Previous Testing*	Generation Composited
Franklin	L12 x Custer	1	F_3
Union (IV)	Williams[5] x SL12 (Wayne Rpm Rps)	4	F_3
William79 (III)	Williams[6] x Lee 68	1	$10F_3$
HC76-3840	L72D-2567 x Hodgson	PIV	F_5
K1033 Douglas	Williams x Calland	2	F_5
K1041	Williams x Calland	1	F_6
K1044	Tracy x Williams	PIV	F_5
K1045	Tracy x Williams	PIV	F_5
K1046	Tracy x Williams	PIV	F_5
Ky75-146-74	L66-1359 x Columbus	PIV	F_5
L73-318	Williams[2] x L69-5343(L6-Ir-Im)	PIV	F_3
L74D-609 Pixie	Williams x Ransom	3	F_5
L74L-125	Calland x Williams	2	F_6
L74L-358	L68-4096 - L66L-177	PIV	F_6

*Number of years in this test or name of 1979 test.

Descriptive and Other Data

Strain	Descriptive Code		Chlorosis Score Ames	Chlorosis Score Lamberton	Hypocotyl Score Ames	Shattering Texas Lubbock	Shattering Manhattan 2 Weeks
Franklin	PGBr	DYIb	2.2	3.4	2	2.5	2
Union (IV)	WTTn	SYBl	3.3	3.5	4	1.5	1
Williams79 (III)	WTTn	SYBl	3.5	2.5	4	1.8	1
HC76-3840	PTTn	SYBr	4.0	4.5	5	1.0	1
K1033 Douglas	WTBr	DYBl	2.8	2.3	5	1.0	2
K1041	WTTn	DYBl	3.0	2.5	5	2.0	3
K1044	WTTn	SYBl	4.7	5.0	1	2.0	2
K1045	WTTn	SYBl	3.0	5.0	1	2.2	2
K1046	WTTn	SYBl	4.3	4.0	1	2.5	3
Ky75-146-74	P+WTBr	DYBl	3.7	4.5	1	2.0	4
L73-318	WTBr	SYBr+Y	3.3	4.0	5	2.0	1
L74D-609 Pixie	PTTn	SYBl	3.2	4.0	1	1.0	4
L74L-125	PTTn	DYBl	1.8	1.2	5	1.5	2
L74L-358	WTTn	DYY	3.3	4.0	4	1.8	1

UNIFORM TEST IV, 1980

Disease Data

Strain	BSR Laf. Ind. n	BSR Ames Ia. n	GERM* Lafayette, Ind. d	SMV Lafayette, Ind. a	PSB Lafayette, Ind. d	PS Lafayette, Ind. a	PR Vickory Ohio n	PR Laf. Ind. a	Race 1 Ames Ia. a
	%	Reac.	%	Score	%	Score	------Reaction------		
Franklin	80	S	95	1	3	4S	2.5	R	R
Union (IV)	80	S	90	2M	2	4E	1.8	R	R
Williams79 (III)	100	S	95	3E	2	4E	1.6	R	R
HC76-3840	80	S	90	3M	2	3E	3.6	S	S
K1033 Douglas	100	S	84	1	8	4E	1.7	R	R
K1041	0	S	83	4E	12	3E	1.7	R	R
K1044	40	S	99	2M	0	2E	2.0	R	R
K1045	80	S	87	4M	3	2E	1.7	R	R
K1046	60	S	97	3E	0	4E	1.5	R	R
Ky75-146-74	80	S	89	2M	3	3E	1.5	S	S
L73-318	0	S	84	1	6	4E	1.6	R	R
L74D-609 Pixie	20	S	98	3E	1	2E	3.0	S	S
L74L-125	100	S	92	3E	5	4E	2.5	S	S
L74L-358	80	S	92	4E	5	5S	1.8	S	S

*Petri dish germination on potato dextrose agar.

The strain K1041 averaged 2 bushels per acre higher in the 1980 test and 1.5 bushels per acre higher in the 2-year average yield than Union. K1041 averaged 1 bushel per acre higher in yield than Douglas and averaged nearly five days earlier in maturity than Douglas. In other characteristics K1041 was very similar to Union. L74L-125 averaged about 1 bushel per acre higher in yield than Union, had excellent lodging resistance, and was very resistant to iron chlorosis in both the Iowa and Minnesota tests.

UNIFORM TEST IV, 1980

Regional Summary

Strain	Yield	Rank	Maturity	Lodging	Height	Seed Quality	Seed Size	Protein	Oil
No. of Tests	18	18	17	20	21	19	17	5	5
	bu/a	No.	Date	Score	In.	Score	g/100	%	%
Franklin	32.0	13	+3	1.8	42	2.2	14.1	39.6	19.9
Union (IV)	36.7	6	9/26*	1.9	39	2.0	16.8	43.1	19.1
Williams79 (III)	36.0	9	-4	1.7	36	2.0	15.7	42.9	19.2
HC76-3840	25.0	14	+1	1.1	16	2.6	16.5	42.2	19.1
K1033 Douglas	37.9	2	+6	1.7	35	2.7	17.1	42.3	19.1
K1041	38.8	1	+1	1.9	37	2.2	15.8	41.2	19.2
K1044	37.3	4	+10	1.6	37	1.9	14.7	43.7	17.7
K1045	35.1	10	+4	2.3	40	2.0	15.9	43.4	18.2
K1046	37.1	5	+5	2.1	40	1.8	16.1	44.2	18.2
Ky75-146-74	36.4	7	+2	1.8	37	2.2	14.9	42.8	19.3
L73-318	34.3	11	+2	1.8	41	2.3	16.0	42.9	19.2
L74D-609 Pixie	36.3	8	-1	1.3	19	1.8	15.8	41.8	19.2
L74L-125 Lawrence	37.9	2	0	1.4	36	2.4	16.6	42.4	18.9
L74L-358	34.0	12	+1	1.9	38	2.4	14.7	41.6	19.0

*126 days after planting

1979-1980, 2-year mean

No. of Tests	41	41	36	43	44	42	36	10	10
Franklin	35.3	7	+2.7	2.0	41	2.2	14.6	38.8	20.5
Union	40.3	4	9/27*	2.1	39	2.1	17.5	42.4	19.6
Williams79	39.9	6	-3.8	1.7	36	2.0	16.6	41.8	20.1
K1033 Douglas	40.5	3	+5.8	1.8	35	2.6	17.8	41.0	20.0
K1041	41.8	1	+1.2	2.1	38	2.3	16.6	40.2	20.0
L74D-609 Pixie	40.1	5	+0.5	1.4	20	1.9	16.3	41.6	19.8
L74L-125 Lawrence	41.1	2	+0.4	1.5	35	2.3	17.4	41.8	19.6

*128 days after planting

1978-1980, 3-year mean

No. of Tests	64	64	56	63	67	65	56	19	19
Union (IV)	40.8	3	9/25.9*	2.2	40	2.1	17.6	42.4	20.2
K1033 Douglas	41.4	1	+6.6	1.9	36	2.6	17.9	41.6	20.4
L74D-609 Pixie	40.6	4	+0.7	1.4	20	1.8	16.4	42.2	20.5
L74L-125 Lawrence	41.4	1	+0.3	1.5	36	2.3	17.3	42.0	20.2

*125 days after planting

UNIFORM TEST IV, 1980

Strain	Mean 18 Tests	Del. George-town	N.J. Adel-phia	Md. Queens-town	Penn. Landis-ville	Ohio S. Charles-ton	Neb. Lincoln
				YIELD (bu/a)			
Franklin	32.0	31.0	21.2	37.6	31.4	43.5	30.6
Union (IV)	36.7	32.2	33.0	36.5	31.0	54.0	40.0
Williams79 (III)	36.0	33.4	25.2	33.1	29.7	56.5	42.1
HC76-3840	25.0	27.6	22.8	26.3	31.7	61.6	26.4
K1033	37.9	33.1	26.8	41.1	30.7	60.3	41.2
K1041	38.8	35.2	29.5	35.8	37.3	63.6	44.0
K1044	37.3	32.6	23.4	42.0	29.2	48.1	42.4
K1045	35.1	33.0	29.0	41.6	29.0	52.4	38.0
K1046	37.1	36.3	24.4	37.9	32.2	59.9	39.0
Ky75-146-74	36.4	31.6	25.4	38.4	27.4	60.2	41.4
L73-318	34.3	33.9	25.2	33.8	25.9	52.8	36.2
L74D-609	36.3	30.1	32.0	41.6	34.8	63.2	42.2
L74L-125	37.9	35.2	29.6	41.0	33.8	54.0	36.1
L74L-358	34.0	33.4	25.4	34.3	31.6	52.4	38.2
C.V. (%)		11.7	17.2	9.6	13.4	7.3	9.3
L.S.D. (5%)		3.0	9.2	4.9	N.S.	6.9	6.0
Row sp (in.)		30"	30"	30"	30"	30"	30"
Rows/plot		4	3	4	4	4	4
Reps		3	4	3	3	3	3
	18 Tests			YIELD RANK			
Franklin	13	12	14	8	7	14	13
Union (IV)	6	10	1	9	8	8	7
Williams79 (III)	9	5	9	13	10	7	4
HC76-3840	14	14	13	14	5	3	14
K1033	2	7	6	4	9	4	6
K1041	1	2	4	10	1	1	1
K1044	4	9	12	1	11	13	2
K1045	10	8	5	2	12	11	10
K1046	5	1	11	7	4	6	8
Ky75-146-74	7	11	7	6	13	5	5
L73-318	11	4	9	12	14	10	11
L74D-609	8	13	2	2	2	2	3
L74L-125	2	3	3	5	3	8	12
L74L-358	12	6	7	11	6	11	9

*Not included in mean

UNIFORM TEST IV, 1980

Strain	Ky.	Ind.		Ill.			
	Lexington	Lafayette	Sullivan*	Belleville	Eldorado	Brownstown	Carbondale
				YIELD (bu/a)			
Franklin	37.6	55.4	43.9	36.6	43.6	29.2	22.3
Union (IV)	37.1	52.7	47.1	47.7	49.2	35.6	26.4
Williams79 (III)	38.5	52.0	55.9	45.1	46.9	38.0	32.0
HC76-3840	41.7	9.0	17.3	34.1	44.4	30.6	27.1
K1033	42.0	61.7	49.9	49.3	49.7	39.6	25.5
K1041	41.2	58.8	52.3	45.7	51.4	33.7	30.7
K1044	40.2	53.2	49.7	50.4	45.6	40.7	28.7
K1045	39.1	48.8	46.7	44.9	43.7	34.8	29.9
K1046	40.0	54.4	43.8	45.4	46.3	37.9	30.6
Ky75-146-74	37.5	64.7	57.1	40.5	44.4	36.4	26.0
L73-318	35.5	47.5	60.7	42.2	46.1	34.8	27.4
L74D-609	37.2	36.8	43.4	59.0	52.2	40.1	33.3
L74L-125	41.1	56.2	49.0	46.1	48.3	36.9	34.8
L74L-358	39.9	42.5	61.3	43.8	47.3	34.5	25.8
C.V. (%)	10.8	14.1	24.1	5.5	5.8	8.4	15.2
L.S.D. (5%)	2.4	11.3	19.0	4.1	4.6	5.3	7.2
Row sp (in.)	30"	24"	30"	30"	30"	30"	30"
Rows/plot	4	4	3	4	4	4	4
Reps	3	3	3	3	3	3	3
				YIELD RANK			
Franklin	13	5	12	13	14	14	14
Union (IV)	12	8	9	4	4	8	10
Williams79 (III)	9	9	4	8	7	4	3
HC76-3840	2	14	14	14	11	13	9
K1033	1	2	6	3	3	3	13
K1041	3	3	5	6	2	12	4
K1044	5	7	7	2	10	1	7
K1045	8	10	10	9	13	9	6
K1046	6	6	11	7	8	5	5
Ky75-146-74	10	1	3	12	11	7	11
L73-318	14	11	2	11	9	9	8
L74D-609	11	13	13	1	1	2	2
L74L-125	4	4	8	5	5	6	1
L74L-358	7	12	1	10	6	11	12

UNIFORM TEST IV, 1980

Mo.				Kan.			Texas
Novelty	Clinton*	Portageville Loam*	Portageville Clay	Manhattan	Powhattan	Ottawa	Lubbock
			YIELD(bu/a)				
34.3	8.7	22.4	20.1	19.9	21.0	19.4	41.8
38.0	13.7	19.5	23.1	31.4	21.4	23.1	48.0
36.8	12.1	29.5	23.0	34.7	16.4	22.5	41.2
14.0	6.1	1.4	1.1	12.6	11.1	7.0	20.6
36.5	17.4	15.2	21.3	32.7	18.8	24.7	47.3
39.1	11.2	19.8	24.9	35.4	18.5	21.1	53.2
36.6	15.5	23.0	35.6	31.9	24.9	22.3	42.9
25.4	14.6	29.9	28.1	31.1	19.3	23.2	41.3
37.8	13.1	25.8	26.4	30.5	18.9	23.9	46.1
38.0	12.9	26.7	25.8	28.3	19.6	21.9	47.3
35.2	12.9	28.3	25.4	27.0	21.7	19.6	47.9
26.7	11.4	19.4	16.2	38.7	17.8	16.1	34.7
40.8	13.6	27.7	27.3	27.4	23.5	20.3	50.3
33.4	12.1	28.2	18.8	25.2	19.4	18.1	47.4
13.4	20.5	24.8	18.3	15.8	13.5	11.9	9.2
6.5	3.7	9.4	6.9	7.5	4.3	3.9	6.7
30"	30"	30"	30"	30"	30"	30"	40"
2	2	4	4	4	4	4	4
4	4	3	3	3	3	3	3
			YIELD RANK				
10	13	9	11	13	5	11	10
3	4	11	8	6	4	4	3
6	9	2	9	3	13	5	12
14	14	14	14	14	14	14	14
8	1	13	10	4	10	1	7
2	12	10	7	2	11	8	1
7	2	8	1	5	1	6	9
13	3	1	2	7	8	3	11
5	6	7	4	8	9	2	8
3	7	6	5	9	6	7	6
9	7	3	6	11	3	10	4
12	11	12	13	1	12	13	13
1	5	5	3	10	2	9	2
11	9	4	12	12	7	12	5

UNIFORM TEST IV, 1980

Strain	Mean 17 Tests	Del. George-town	N.J. Adel-phia	Md. Queens-town	Penn. Landis-ville	Ohio S. Charles-ton	Neb. Lincoln
				MATURITY (date)			
Franklin	+3	+1	+1	+7	+3	+2	0
Union (IV)*	9/26	10/6	9/29	9/24	10/3	9/27	9/30
Williams79 (III)	-4	0	-6	-1	-4	-3	-2
HC76-3840	+1	+6	-7	+5	0	+1	-1
K1033	+6	+5	+4	+16	+6	+5	+5
K1041	+1	+1	-4	+1	0	-1	+2
K1044	+10	+6	+6	+18	+7	+10	+6
K1045	+4	0	+5	+10	+3	+4	+4
K1046	+5	0	+6	+10	+3	+6	+3
Ky75-146-74	+2	+3	-3	+5	0	+1	+1
L73-318	+2	0	-1	+7	+1	0	+2
L74D-609	-1	0	-2	+1	0	+3	-4
L74L-125	0	+5	-5	0	0	-1	0
L74L-358	+1	+1	-5	+3	0	-1	0
Date planted	5/23	6/7	5/29	5/30	6/5	4/30	5/21
*Days to maturity	126	121	123	117	120	150	132
	Mean 20 Tests			LODGING (score)			
Franklin	1.8	1.2	2.5	2.8	1.0	2.2	1.0
Union (IV)	1.9	1.0	2.5	3.2	1.0	2.0	1.7
Williams79 (III)	1.7	1.0	1.5	2.7	1.0	2.0	1.3
HC76-3840	1.1	1.0	1.0	1.0	1.0	1.0	1.0
K1033	1.7	1.0	1.8	3.0	1.0	2.0	1.0
K1041	1.9	1.0	2.5	2.8	1.0	2.7	1.7
K1044	1.6	1.0	1.2	2.0	1.0	2.2	1.0
K1045	2.3	1.3	2.8	3.7	1.0	2.8	2.2
K1046	2.1	1.2	2.2	3.2	1.0	2.3	2.0
Ky75-146-74	1.8	1.0	2.0	2.8	1.0	2.2	1.5
L73-318	1.8	1.0	2.2	3.2	1.0	1.5	1.3
L74D-609	1.3	1.0	2.2	1.3	1.0	1.5	1.0
L74L-125	1.4	1.0	1.0	2.2	1.0	1.3	1.0
L74L-358	1.9	1.0	1.8	3.0	1.0	2.0	1.3

UNIFORM TEST IV, 1980

Ky.	Ind.		Ill.			
Lexington	Lafayette	Sullivan	Belleville	Eldorado	Brownstown	Carbondale
			MATURITY (date)			
+4	+2	+3	+5	+3	+8	0
9/29	9/28	9/21	9/25	9/18	9/23	9/24
-7	-4	-3	-8	0	-1	-8
0	+2	+7	+1	0	+4	-12
+4	+5	+7	+7	+6	+12	0
+4	-1	-1	-1	+1	+1	+1
+4	+5	+10	+15	+13	+14	+13
+4	+2	+6	+4	+6	+3	+8
+4	+3	+6	+6	+10	+7	+8
+4	+1	+2	+3	+2	+3	0
+4	+2	+1	+4	+4	+10	+1
0	+1	+3	-3	+1	+1	-3
-3	-2	0	-3	-1	+2	0
+4	0	+1	+2	+2	+8	-1
6/8	5/7	5/5	5/27	5/27	5/15	5/27
113	144	139	121	114	131	120
			LODGING (score)			
2.2	2.7	2.5	2.2	2.0	1.3	1.4
1.8	2.5	2.8	2.4	2.6	1.7	1.7
1.3	1.8	2.5	1.7	2.6	1.2	1.4
1.2	1.5	1.7	1.3	2.0	1.0	1.0
1.7	2.3	2.7	1.8	1.9	1.7	1.2
1.8	2.2	3.0	2.2	3.2	1.5	1.0
1.3	2.2	3.2	1.9	1.9	1.7	1.4
2.2	2.3	3.7	3.3	3.6	2.2	1.8
2.0	2.3	3.4	2.9	2.7	2.0	1.7
1.3	2.3	2.5	2.2	2.0	1.5	1.5
1.8	2.8	2.8	1.9	3.2	2.0	1.5
1.5	1.2	1.2	1.6	2.9	1.7	1.0
1.2	1.5	2.2	1.6	1.9	1.0	1.4
1.5	2.3	3.3	2.4	3.0	2.0	1.5

UNIFORM TEST IV, 1980

Strain	Mo.				Kan.			Texas
	Novelty	Clinton	Portageville Loam	Portageville Clay	Manhattan	Powhattan	Ottawa	Lubbock
			MATURITY (date)					
Franklin			+1	-1	+3			+3
Union (IV)			9/19	9/26	9/29			9/18
Williams79 (III)			-7	-3	-2			-1
HC76-3840			-7	-2	+8			+17
K1033			+1	+7	+8			+9
K1041			-4	+7	0			+9
K1044			+12	+15	+9			+5
K1045			+1	+7	+6			0
K1046			+2	+7	+7			+1
K775-146-74			0	-1	+6			+4
L73-318			+1	-2	+4			+4
L74D-609			-5	-4	-3			+2
L74L-125			-2	-2	+10			+3
L74L-358			-2	-2	+7			+3
Date planted	5/15	5/28	5/9	5/28	5/19	5/22	5/29	5/24
Days to maturity	-	-	133	121	133	-	-	117
			LODGING (score)					
Franklin	2.0		2.0	2.0	2.0	1.0	1.0	1.8
Union (IV)	2.0		2.0	1.5	2.0	1.0	1.0	2.0
Williams79 (III)	1.9		1.5	1.5	2.0	1.0	1.0	2.2
HC76-3840	1.0		1.0	1.0	1.0	1.0	1.0	1.0
K1033	1.7		1.5	1.5	2.0	1.0	1.0	1.2
K1041	2.0		1.5	1.5	2.0	1.0	1.0	2.0
K1044	1.9		1.5	1.5	2.0	1.0	1.0	1.5
K1045	2.4		2.0	2.5	2.7	1.0	1.0	2.0
K1046	2.3		2.0	2.5	3.0	1.0	1.0	1.8
K675-146-74	2.2		2.0	2.0	2.3	1.0	1.0	2.0
L73-318	2.0		1.5	1.5	2.0	1.0	1.0	1.5
L74D-609	1.1		1.0	1.0	1.0	1.0	1.0	1.0
L74L-125	1.5		1.5	1.5	2.0	1.0	1.0	1.2
L74L-358	2.0		2.0	2.0	2.7	1.0	1.0	2.0

UNIFORM TEST IV, 1980

Mean 21 Tests	Del. George-town	N.J. Adel-phia	Md. Queens-town	Penn. Landis-ville	Ohio S. Charles-ton	Neb. Lincoln
			HEIGHT (inches)			
42	26	47	42	30	41	40
39	23	44	42	30	43	37
36	23	40	39	26	41	32
16	14	25	17	21	24	20
35	21	35	36	24	40	34
37	23	44	38	30	43	33
37	25	38	36	25	41	35
40	28	44	43	32	43	37
40	30	44	41	32	41	38
37	23	38	38	22	40	35
41	28	44	42	27	43	38
19	17	25	21	23	25	23
36	23	38	37	27	37	30
38	24	37	38	26	40	35

Mean 19 Tests			QUALITY (score)			
2.2	3.0	1.2	2.2	2.3	1.5	2.3
2.0	2.0	1.0	2.3	2.0	1.0	2.7
2.0	2.0	1.0	2.2	2.2	1.5	2.5
2.6	3.3	1.0	3.2	2.0	1.0	2.7
2.7	2.8	1.2	3.7	2.3	2.0	2.7
2.2	2.7	1.0	2.7	2.3	1.5	2.7
1.9	1.8	1.0	1.7	2.0	1.0	2.0
2.0	1.8	1.0	1.8	2.0	1.0	2.0
1.8	2.2	1.0	1.8	2.0	1.0	2.0
2.2	2.7	1.0	2.3	2.0	1.0	2.7
2.3	2.2	1.0	2.7	2.2	1.0	2.8
1.8	1.8	1.2	2.0	2.0	1.0	1.7
2.4	3.2	1.2	2.3	2.5	1.5	3.0
2.4	2.8	1.0	2.2	2.3	1.0	3.0

UNIFORM TEST IV, 1980

Strain	Ky.	Ind.		Ill.			
	Lexington	Lafayette	Sullivan	Belleville	Eldorado	Brownstown	Carbondale
				HEIGHT (inches)			
Franklin	45	45	54	56	53	47	49
Union (IV)	42	42	54	53	51	47	43
Williams79 (III)	37	40	48	45	50	43	41
HC76-3840	26	10	19	20	18	17	16
K1033	40	39	43	46	50	43	36
K1041	42	40	46	49	51	44	40
K1044	39	42	46	44	49	41	38
K1045	43	43	49	54	51	46	47
K1046	43	44	49	52	50	44	46
Ky75-146-74	43	40	51	48	47	47	39
L73-318	44	44	57	53	51	52	47
L74D-609	25	14	20	25	17	22	22
L74L-125	39	39	47	43	49	43	41
L74L-358	41	38	49	52	53	47	45
				QUALITY (score)			
Franklin	1.0	1.0	2.0	3.5	3.5	3.0	1.0
Union (IV)	1.0	1.0	2.5	2.8	3.3	3.2	1.0
Williams79 (III)	2.0	1.0	2.0	2.2	2.8	2.8	1.5
HC76-3840	2.0	1.0	3.0	2.7	2.8	3.3	1.5
K1033	3.0	3.0	2.0	3.5	3.7	3.7	1.5
K1041	2.0	1.0	1.5	2.8	3.0	3.1	1.0
K1044	1.0	1.0	1.5	2.3	2.0	3.0	1.5
K1045	2.0	1.0	1.0	2.7	2.2	3.1	1.5
K1046	1.0	1.0	1.0	2.2	2.2	3.0	1.5
Ky75-146-74	1.0	1.0	2.0	3.5	3.5	3.3	2.5
L73-318	2.0	2.0	1.5	2.7	3.3	3.5	1.5
L74D-609	2.0	1.0	1.5	1.2	2.3	2.3	1.0
L74L-125	2.0	1.0	2.0	3.2	3.2	3.3	1.5
L74L-358	2.0	1.0	2.0	3.3	3.7	3.9	2.5

UNIFORM TEST IV, 1980

Mo.				Kan.			Texas
		Portageville					
Novelty	Clinton	Loam	Clay	Manhattan	Powhattan	Ottawa	Lubbock
				HEIGHT (inches)			
42	35	41	38	51	33	35	27
39	28	35	34	55	30	33	24
32	24	29	33	51	24	31	24
13	11	9	12	16	16	11	9
33	29	15	34	47	26	32	25
37	30	25	30	48	28	30	26
34	31	37	34	48	30	34	32
38	33	31	38	49	32	38	31
39	33	30	45	44	33	38	32
34	28	34	33	51	26	31	26
40	29	33	38	55	31	34	32
18	21	14	12	21	17	15	10
33	25	34	33	48	26	26	28
38	28	41	31	52	29	33	30
				QUALITY (score)			
		2.5	3.0	3.0	1.5	2.5	2.7
		2.5	2.5	2.0	1.5	1.5	3.0
		2.5	2.5	2.0	1.5	2.0	2.7
		2.5	3.0	2.5	2.5	4.0	5.0
		3.0	2.5	2.5	3.0	2.0	4.0
		2.5	3.0	2.0	2.5	1.5	3.7
		2.5	2.0	2.0	3.0	3.0	2.5
		2.5	2.5	2.0	2.0	2.0	3.0
		2.0	2.5	2.0	1.5	1.5	2.7
		2.5	2.5	2.0	2.0	2.0	2.7
		2.5	2.5	2.5	2.0	2.0	3.0
		2.5	2.5	2.5	1.0	1.5	2.5
		2.5	2.5	2.5	2.5	2.5	3.5
		3.0	3.0	3.0	1.5	2.0	2.5

UNIFORM TEST IV, 1980

Strain	Mean 17 Tests	Del. George-town	N.J. Adel-phia	Md. Queens-town	Penn. Landis-ville	Ohio S. Charles-ton	Neb. Lincoln
				SIZE (g/100)			
Franklin	14.1		11.0	15.3	14.3	13.9	14.1
Union (IV)	16.8		14.0	16.3	17.7	18.6	18.4
Williams79 (III)	15.7		13.0	14.0	17.2	16.6	18.5
HC76-3840	16.5		10.0	17.0	15.4	19.4	19.6
K1033	17.1		12.0	18.4	19.0	18.1	19.0
K1041	15.8		11.0	14.5	17.4	17.2	19.4
K1044	14.7		11.0	17.1	17.2	13.3	16.1
K1045	15.9		11.0	16.1	18.0	16.3	17.6
K1046	16.1		13.0	16.3	17.4	17.0	17.1
Ky75-146-74	14.9		12.0	14.4	14.6	16.2	16.6
L73-318	16.0		14.0	15.8	17.3	17.3	17.4
L74D-609	15.8		12.0	17.7	15.8	17.0	17.7
L74L-125	16.6		12.0	16.8	19.1	17.2	19.6
L74L-358	14.7		9.0	14.6	14.8	15.8	16.0

Strain	Mean 5 Tests	Md. Queens-town	Ind. Lafay-ette	Ill. Eldo-rado	Mo. Portageville Loam	Kan. Man-hattan
			PROTEIN (%)			
Franklin	39.6	40.8	39.3	39.0	38.6	40.3
Union (IV)	43.1	44.1	42.2	43.3	42.0	44.0
Williams79 (III)	42.9	44.1	42.0	42.7	42.3	43.6
H76-3840	42.2	44.3	42.5	39.8	41.7	42.8
K1033	42.3	42.1	42.2	42.1	42.8	—
K1041	41.2	43.6	40.2	40.2	41.7	40.2
K1044	43.7	44.2	42.3	44.7	42.5	44.7
K1045	43.4	43.8	42.6	43.0	43.9	43.5
K1046	44.2	44.1	43.3	44.4	44.9	44.2
Ky75-146-74	42.8	43.3	42.3	43.3	41.7	43.4
L73-318	42.9	43.6	42.0	42.4	42.8	43.8
L74D-609	41.8	41.9	42.2	41.3	41.3	42.5
L74L-125	42.4	42.5	42.5	42.2	41.5	42.5
L74L-358	41.6	41.6	41.8	41.7	40.3	42.5

UNIFORM TEST IV, 1980

Ky.	Ind.		Ill.			
Lexington	Lafayette	Sullivan	Belleville	Eldorado	Brownstown	Carbondale
			SIZE (g/100)			
14.2	16.2	14.8	13.7	12.0	14.6	12.2
15.0	19.3	18.0	17.6	15.9	17.9	13.7
14.3	18.2	15.9	15.4	13.9	15.4	13.7
13.0	20.2	19.3	16.0	14.2	16.1	11.1
16.0	19.0	19.5	15.9	15.6	18.5	11.3
15.5	17.2	17.2	15.0	14.3	16.1	11.5
13.5	15.5	15.4	13.8	12.0	15.9	12.0
15.2	17.2	15.5	15.8	13.7	17.5	13.8
16.2	18.4	17.0	15.8	13.7	17.4	13.0
12.9	16.4	16.1	14.3	13.3	15.5	12.0
14.2	18.6	16.8	15.7	14.5	17.7	11.9
14.8	17.3	18.8	15.3	14.2	15.1	11.4
15.1	19.4	16.7	16.0	15.3	16.5	14.1
13.8	16.6	16.8	14.5	13.3	15.4	12.3

Mean	Md.	Ind.	Ill.	Mo.	Kan.
5 Tests	Queenstown	Lafayette	Eldorado	Portageville Loam	Ashland
			OIL (%)		
19.9	16.2	21.8	22.2	17.2	22.2
19.1	14.9	21.6	21.9	16.0	21.2
19.2	14.5	22.3	22.4	15.9	21.0
19.1	14.3	21.7	22.5	15.7	21.5
19.1	16.7	21.7	21.6	16.2	—
19.2	15.9	21.3	21.3	15.4	22.0
17.7	14.0	20.8	19.2	15.3	19.3
18.2	14.9	20.8	20.7	15.1	19.3
18.2	15.0	21.0	20.6	14.9	19.7
19.3	15.3	22.3	21.7	16.0	21.0
19.2	15.3	21.8	21.7	16.0	21.4
19.2	15.6	21.9	21.2	16.3	21.2
18.9	14.8	21.0	22.2	15.7	20.8
19.0	15.8	21.8	20.8	16.5	20.2

UNIFORM TEST IV, 1980

Strain	Mo. Portageville Loam	Mo. Portageville Clay	Kan. Manhattan	Kan. Powhattan	Kan. Ottawa	Texas Lubbock
			SIZE (g/100)			
Franklin		12.3	14.2	15.6	13.6	17.8
Union (IV)		14.6	16.6	16.6	14.8	20.8
Williams79 (III)		13.8	16.7	16.5	13.5	19.5
HC76-3840		13.8	16.8	16.7	16.6	24.6
K1033		16.7	16.6	16.5	16.4	22.2
K1041		14.4	16.6	16.3	13.6	21.0
K1044		14.9	14.7	14.3	15.0	18.7
K1045		15.1	16.3	16.4	15.3	18.8
K1046		14.0	16.7	16.4	15.1	19.5
Ky75-146-74		13.4	14.7	16.3	14.7	19.2
L73-318		14.8	16.2	16.5	13.5	19.6
L74D-609		13.3	16.5	16.4	15.1	20.2
L74L-125		15.3	16.5	16.7	14.5	21.9
L74L-358		13.2	16.5	15.9	12.9	19.3

PRELIMINARY TEST IV, 1980

Strain	Parentage	Generation Composited
Union (IV)	Williams[5] x SL11 (Wayne Rpm Rps)	F_3
Williams79 (III)	Williams[6] x Lee68	$10F_3$
A79-331020	(L15 x AP68-1016) x Cumberland	F_4
A79-335034	A72-512 x Pride B216	F_4
A79-336007	NKS1492 x A72-512	F_4
A79-337020	A72-512 x A74-20434	F_4
C1585	Wells x UFV-1	F_5
C1586	L72-844c-1 x CX456-90	F_5
C1587	L72-844c-1 x Wells	F_5
C1588	L72-844c-1 x Wells	F_5
C1589	L72-844c-1 x Wells	F_5
HC76-4449	L72U2567 x Essex	F_5
HC77-982	Williams x Ransom	F_7
HC77-1165	Wells x V68-1034	F_5
HC77-5481	Evans x L72U-2567	F_5
HC77-5686	L72U2567 x L72D-549	F_5
K1033 Douglas	Williams x Calland	F_5
K1061	Tracy x Columbus	F_5
K1062	Tracy x Williams	F_5
K1063	Tracy x Williams	F_5
K1066	Tracy x Pomona	F_5
K1067	K1001 x Bonus	F_6
Ky78-405	EMS treated Williams	F_3
Ky78-1214	EMS treated Williams	F_3
L77-515	Union x L75-8020	F_4
L77-546	Union x L75-8020	F_4
L77-8043	Williams x Mitchell	F_5
L77-8079	Williams x Mitchell	F_5
L77-8209	Williams x Mitchell	F_5
LN1053	Tracy x Pomona	F_5
LN1057	Williams x D60-9647	F_5
LN1058	Tracy x Columbus	F_5
LN1059	Williams x D60-9647	F_5
LS78-229	L71L-436 x J74-5	F_4
LS78-335	L71L-436 x J74-5	F_4
LS78-344	L71L-436 x J74-5	F_4

PRELIMINARY TEST IV, 1980

Descriptive and Other Data

Strain	Descriptive Code		Chlorosis Score Ames	Shattering Manhattan 2 Weeks
Union (IV)	WTTn	SYB1	3.3	1
Williams79 (III)	WTTn	SYB1	3.5	1
A79-331020	PTBr	SYB1	4.2	2
A79-335034	WGBr	DYY	2.0	2
A79-336007	WGBr	DYBf	3.8	3
A79-337020	PGBr	DYIb	3.2	3
C1585	WTBr	DYB1	3.8	2
C1586	PTTn	SYB1	3.0	1
C1587	WGBr	SYBf	3.7	3
C1588	P+WGBr	SYBf	3.5	4
C1589	P+WGBr	DYBf+Ib	2.2	3
HC76-4449	PTTn	DYB1	2.2	1
HC77-982	WTTn	DYB1	3.5	1
HC77-1165	PGTn	DYIb	3.3	2
HC77-5481	WTBr	SYB1	2.8	2
HC77-5686	PTBr	DYB1	3.0	1
K1033 Douglas	WTBr	DYB1	3.5	1
K1061	WTTn	SYB1	2.7	2
K1062	WTTn	DYB1	2.3	2
K1063	WTTn	DYB1	3.2	2
K1066	WTTn	DYB1	3.5	1
K1067	PGBr	DYIb	3.3	1
Ky78-405	WTTn	DYB1	4.0	2
Ky78-1214	WTTn	DYB1	4.0	2
L77-515	WGTn	SYBf	3.8	2
L77-546	WTTn	SYB1	3.0	1
L77-8043	P+WTTn	DYBr	3.8	1
L77-8079	WTTn	SYB1	3.7	1
L77-8209	WTTn	SYB1	4.0	3
LN1053	WTBr	DYB1	2.7	2
LN1057	WTTn	DYB1	3.0	3
LN1058	PGBr+Tn	DYIb	2.3	2
LN1059	WTBr	DYB1	2.7	4
LS78-229	P+WTBr	DYB1	2.5	3
LS78-335	PTBr	SYB1	4.3	2
LS78-344	PTBr	DYB1	3.3	2

PRELIMINARY TEST IV, 1980

Disease Data

Strain	BSR Laf. Ind.	BSR Ames Ia.	GERM*	SMV	PSB	PS	PR	Race 1	PR
			Lafayette, Ind.				Laf. Ind.	Ames Ia.	Vickery Ohio
	n	n	d	a	d	a	a	a	n
	%	Reac.	%	Score	%	Reac.	-------Reac.---------		
Union (IV)	80	S	88	2E	3	5S	R	R	1.8
Williams79 (III)	100	S	94	2E	3	4E	R	R	1.8
A79-331020	40	R	97	4M	1	3E	R	R	1.8
A79-335034	0	S	79	3E	11	5E	H	S	1.8
A79-336007	20	S	93	4E	0	5E	S	S	1.8
A79-337020	60	S	92	1	1	5E	R	R	1.9
C1585	80	S	91	4E	6	4E	R	R	2.0
C1586	0	S	97	4E	0	2E	R	R	2.5
C1587	80	S	92	2M	4	5S	R	S	1.8
C1588	100	S	85	2M	4	5S	R	R	2.2
C1589	60	S	92	2M	3	4E	R	R	2.2
HC76-4449	20	S	97	3M	0	2E	S	S	2.7
HC77-982	20	S	80	2M	5	3E	S	S	2.6
HC77-1165	60	S	97	1	0	3E	H	R	2.1
HC77-5481	40	S	94	1	3	2M	R	R	3.5
HC77-5686	0	S	98	3E	1	3E	S	S	3.9
K1033 Douglas	-	S	88	1	3	3E	R	R	2.4
K1061	60	S	94	3M	2	4E	R	R	2.2
K1062	80	S	97	2M	0	2E	R	R	1.9
K1063	100	S	-	-	-	-	R	R	2.2
K1066	80	S	93	4E	2	3E	R	R	2.1
K1067	100	S	81	1	2	5E	R	R	1.7
Ky78-405	-	S	93	2M	6	4E	S	S	2.9
Ky78-1214	80	S	87	3M	4	3E	S	S	2.2
L77-515	80	S	86	2M	6	5S	S	S	2.2
L77-546	60	S	89	4E	3	4S	H	S	1.6
L77-8043	60	S	94	4E	7	3E	S	S	1.6
L77-8079	20	S	78	4M	14	4E	S	S	2.0
L77-8209	60	S	98	3E	2	3E	S	S	1.7
LN1053	40	S	96	4M	0	2E	R	R	2.0
LN1057	40	S	87	5S	10	3E	R	R	1.5
LN1058	40	S	94	3M	2	5E	R	R	1.6
LN1059	100	S	96	5S	0	2M	R	R	2.3
LS78-229	40	S	95	3M	1	2E	H	S	1.5
LS78-335	80	S	96	5S	1	1	R	H	1.5
LS78-344	0	S	99	3M	0	2E	H	S	1.5

*Petri dish germination on potato dextrose agar.

PRELIMINARY TEST IV, 1980

Regional Summary

Strain	Yield	Rank	Maturity	Lodging	Height	Seed Quality	Seed Size	Composition Protein	Composition Oil
No. of Tests	10	10	9	10	10	10	8	5	5
	bu/a	No.	Date	Score	In.	Score	g/100	%	%
Union (IV)	38.6	17	9/25*	2.2	42	2.4	16.5	44.5	19.5
Williams79 (III)	40.0	9	-3	1.8	39	2.1	16.3	42.6	20.3
A79-331020	37.9	23	+4	2.3	45	2.8	16.6	43.1	18.4
A79-335034	39.3	12	-2	2.5	43	2.7	14.3	44.5	18.3
A79-336007	38.6	17	-2	2.8	41	2.3	12.9	43.2	19.1
A79-337020	38.2	20	0	2.3	40	2.5	15.0	42.3	19.2
C1585	36.7	28	0	2.0	42	3.1	16.6	45.2	18.7
C1586	37.0	26	-1	1.2	22	2.1	15.8	42.9	19.2
C1587	37.5	24	+1	1.8	41	2.3	14.8	44.2	19.4
C1588	37.2	25	+1	2.4	43	3.0	16.0	43.5	19.2
C1589	35.3	30	-1	2.1	40	2.8	15.5	43.6	19.0
HC76-4449	28.2	20	+4	1.1	23	2.0	14.5	44.4	19.3
HC77-982	36.8	27	-3	1.5	26	2.4	16.2	43.9	20.1
HC77-1165	36.7	28	-3	1.2	27	2.3	14.2	42.4	20.4
HC77-5481	26.3	36	-4	1.3	17	2.6	14.8	43.8	19.3
HC77-5686	26.8	35	-5	1.3	19	2.6	15.7	44.6	19.0
K1033 Douglas	41.2	4	+7	1.9	37	3.1	17.0	42.8	19.3
K1061	41.7	2	+7	2.2	37	2.0	15.0	45.0	17.9
K1062	41.9	1	+2	2.0	40	1.9	15.6	41.6	19.6
K1063	38.5	19	+8	1.6	25	2.2	15.7	43.6	18.4
K1066	38.0	22	+6	1.2	25	1.9	15.1	41.4	19.1
K1067	38.7	16	+3	1.8	44	3.3	14.1	42.4	19.6
Ky78-405	34.8	31	+6	2.3	39	2.6	15.4	43.8	18.6
Ky78-1214	41.2	4	+7	1.9	42	2.3	15.0	42.3	19.6
L77-515	39.4	11	-1	2.0	39	2.0	14.0	42.1	20.1
L77-546	38.8	14	-2	2.1	39	2.5	15.7	42.5	20.1
L77-8043	41.4	3	+2	2.1	40	2.4	14.0	41.6	19.8
L77-8079	39.6	10	+1	1.9	37	2.7	14.3	42.0	20.5
L77-8209	41.0	7	+6	1.9	40	2.3	15.0	41.7	20.5
LN1053	40.1	8	+3	1.4	24	2.0	15.1	43.6	20.0
LN1057	39.1	13	+8	1.9	35	2.8	18.6	45.0	19.9
LN1058	38.8	14	0	2.5	35	2.6	16.3	43.6	19.7
LN1059	41.2	4	+7	2.1	34	2.4	17.4	43.6	19.6
LS78-229	34.5	32	+23	2.1	39	2.2	12.0	39.1	20.4
LS78-335	32.7	33	+22	2.2	39	2.2	11.4	39.1	20.4
LS78-344	32.4	34	+17	2.5	43	2.2	11.7	39.2	21.0

*128 days after planting

Several strains in this test were resistant to specific pathogens. The strains K1061 through K1066 were resistant to races 1, 3, 4, 5, and 6 of phytophthora root rot. The strains L77-515 and L77-516 were resistant to race 3 of the soybean cyst nematode. The strains LN1053 through LN1059 were resistant to races 1 and 3 through 9 of phytophthora root rot. The three LS strains from Carbondale, Illinois, were all resistant to race 3 of the soybean cyst nematode.

PRELIMINARY TEST IV, 1980

Strain	Mean 10 Tests	Mo. Portageville Loam	Mo. Portageville Clay	Ill. Belle-ville	Ill. Eldo-rado	Md. Queens-town	Ky. Lexing-ton
				YIELD (bu/a)			
Union (IV)	38.6	32.9	22.4	46.7	48.3	35.6	37.3
Williams79 (III)	40.0	29.1	23.2	46.5	51.6	34.7	38.2
A79-331020	37.9	35.3	26.3	40.7	42.5	42.5	39.2
A79-335034	39.3	32.0	25.8	46.2	47.3	36.4	38.2
A79-336007	38.6	29.0	15.5	45.8	44.9	37.3	37.5
A79-337020	38.2	40.5	22.3	39.5	46.9	39.0	38.5
C1585	36.7	36.6	25.7	40.5	43.8	36.9	35.3
C1586	37.0	11.4	17.5	51.3	51.8	40.9	37.0
C1587	37.5	28.4	27.0	48.7	47.4	40.0	37.6
C1588	37.2	31.7	25.2	40.5	44.9	38.8	42.7
C1589	35.3	23.2	23.5	44.6	45.4	36.3	43.7
HC76-4449	38.2	19.1	22.9	54.8	48.3	43.9	38.3
HC77-982	36.8	21.2	23.7	50.7	49.5	38.5	38.3
HC77-1165	36.7	17.3	18.1	49.4	50.9	39.2	40.8
HC77-5481	26.3	7.3	8.4	33.6	31.5	32.1	36.7
HC77-5686	26.8	5.7	4.6	40.6	32.1	31.8	36.0
K1033 Douglas	41.2	32.5	28.1	51.6	50.0	48.6	40.3
K1061	41.7	34.5	30.3	47.2	46.9	38.0	38.1
K1062	41.9	37.5	27.5	50.0	50.4	39.1	40.3
K1063	38.5	22.9	31.9	52.2	52.1	44.5	39.8
K1066	38.0	19.9	17.9	54.6	45.7	40.8	41.5
K1067	38.7	33.4	28.0	43.8	47.5	36.7	38.9
Ky78-405	34.8	33.8	18.0	37.9	41.8	34.5	38.3
Ky78-1214	41.2	38.7	29.2	48.1	45.1	37.1	38.8
L77-515	39.4	28.7	24.1	44.5	43.8	33.8	37.1
L77-546	38.8	31.3	22.5	46.3	46.7	35.8	38.7
L77-8043	41.4	37.6	26.9	51.5	49.7	40.6	35.4
L77-8079	39.6	31.1	25.5	49.9	47.5	37.7	36.9
L77-8209	41.0	31.0	29.1	48.4	48.5	40.6	36.3
LN1053	40.1	12.1	26.7	55.2	50.5	36.6	37.7
LN1057	39.1	24.5	33.3	47.0	46.9	40.6	36.8
LN1058	38.8	24.0	26.7	47.7	49.4	37.8	34.8
LN1059	41.2	28.8	29.7	51.3	49.3	42.4	40.1
LS78-229	34.5	29.3	29.8	36.3	41.3	50.1	27.3
LS78-335	32.7	29.4	29.4	31.8	42.7	49.7	26.5
LS78-344	32.4	31.1	23.7	26.5	39.5	44.3	30.0
C.V. (%)		16.4	13.7	6.7	4.0	12.1	9.2
L.S.D. (5%)		9.2	6.8	6.2	3.8	NS	2.3
Row sp. (in.)		30"	30"	30"	30"	30"	30"
Rows/plot		4	4	4	4	4	4
Reps		2	2	2	2	2	2

PRELIMINARY TEST IV, 1980

	Kan.	Ohio	Ind.	Del.
Strain	Manhattan	S. Charleston	Sullivan	Georgetown
		YIELD (bu/a)		
Union (IV)	23.8	55.1	55.7	28.1
Williams79 (III)	33.7	57.8	59.2	26.3
A79-331020	25.0	51.5	46.1	29.4
A79-335034	27.2	62.3	50.0	27.9
A79-336007	34.1	61.0	49.9	30.6
A79-337020	23.4	55.5	47.3	29.3
C1585	21.4	53.8	46.3	26.5
C1586	34.2	54.2	44.7	26.8
C1587	25.6	49.8	42.7	27.5
C1588	27.1	52.2	42.2	26.8
C1589	20.1	50.3	39.7	25.8
HC76-4449	23.9	54.3	44.7	31.6
HC77-982	19.2	59.6	40.9	26.8
HC77-1165	28.3	51.5	46.3	25.5
HC77-5481	7.0	52.7	29.7	23.5
HC77-5686	8.2	56.2	26.4	26.2
K1033 Douglas	31.5	57.2	45.2	26.7
K1061	25.9	54.2	75.5	26.0
K1062	25.5	59.3	59.1	30.4
K1063	34.4	57.4	19.9	30.0
K1066	33.4	59.6	35.8	30.7
K1067	29.8	47.3	49.3	32.4
Ky78-405	12.9	51.2	51.0	28.7
Ky78-1214	31.2	56.7	51.2	36.3
L77-515	29.7	62.8	56.4	33.3
L77-546	34.8	51.6	49.1	30.9
L77-8043	30.3	59.3	53.2	29.4
L77-8079	27.0	61.0	52.6	26.9
L77-8209	28.4	57.9	57.9	31.9
LN1053	29.5	64.5	59.6	28.6
LN1057	27.6	57.3	47.1	29.7
LN1058	36.0	45.1	58.1	28.5
LN1059	28.4	55.8	61.4	25.2
LS78-229	25.8	36.4	38.7	30.4
LS78-335	22.1	31.9	30.6	32.5
LS78-344	22.5	40.0	41.8	24.9
C.V. (%)	21.2	6.4	19.1	11.1
L.S.D. (5%)	11.1	7.1	17.9	5.2
Row sp. (in.)	30"	30"	30"	30"
Rows/plot	4	4	3	4
Reps	2	2	2	3

PRELIMINARY TEST IV, 1980

Mean 10 Tests	Mo. Portageville Loam	Mo. Portageville Clay	Ill. Belleville	Ill. Eldorado	Md. Queenstown	Ky. Lexington
			YIELD RANK			
17	10	28	19	13	31	23
9	20	25	20	3	32	17
23	6	16	27	31	7	9
12	12	17	22	18	28	18
17	21	34	23	26	23	22
20	1	29	31	19	17	13
28	5	18	30	28	25	32
26	34	33	7	2	9	25
24	24	12	13	17	14	21
25	13	20	29	26	18	2
30	27	24	24	24	29	1
20	31	26	2	13	6	15
27	29	23	9	9	19	14
28	32	30	12	4	15	4
36	35	35	34	36	35	28
35	36	36	28	35	36	30
4	11	9	5	7	3	6
2	7	3	17	19	20	19
1	4	11	10	6	16	5
19	28	2	4	1	4	8
22	30	32	3	23	10	3
16	9	10	26	15	26	10
31	8	31	32	32	33	16
4	2	7	15	25	24	11
11	23	21	25	28	34	24
14	14	27	21	22	30	12
3	3	13	6	8	12	31
10	15	19	11	15	22	26
7	17	8	14	12	12	29
8	33	15	1	5	27	20
13	25	1	18	19	12	27
14	26	14	16	10	21	33
4	22	5	7	11	8	7
32	19	4	33	33	1	34
33	18	6	35	30	2	35
34	15	22	36	34	5	36

PRELIMINARY TEST IV, 1980

	Kan.	Ohio	Ind.	Del.
Strain	Manhattan	S. Charleston	Sullivan	Georgetown
		YIELD RANK		
Union (IV)	27	18	9	20
Williams79 (III)	6	11	4	29
A79-331020	25	27	22	14
A79-335034	18	3	14	21
A79-336007	5	4	15	9
A79-337020	28	17	18	16
C1585	31	22	20	28
C1586	4	20	24	24
C1587	23	31	26	22
C1588	19	25	27	24
C1589	32	30	30	32
HC76-4449	26	19	24	6
HC77-982	33	6	29	24
HC77-1165	16	27	20	33
HC77-5481	36	24	34	36
HC77-5686	35	15	35	30
K1033 Douglas	8	13	23	27
K1061	21	20	1	31
K1062	24	8	5	10
K1063	3	12	36	12
K1066	7	6	32	8
K1067	17	32	16	4
Ky78-405	34	29	13	17
Ky78-1214	9	14	12	1
L77-515	12	2	8	2
L77-546	2	26	17	7
L77-8043	10	8	10	14
L77-8079	20	4	11	23
L77-8209	14	10	7	5
LN1053	13	1	3	18
LN1057	17	23	19	13
LN1058	1	33	6	19
LN1059	14	16	2	34
LS78-229	22	35	31	10
LS78-335	30	36	33	3
LS78-344	29	34	28	35

PRELIMINARY TEST IV, 1980

Strain	Mean 10 Tests	Mo. Portageville Loam	Mo. Portageville Clay	Ill. Belle-ville	Ill. Eldo-rado	Md. Queens-town	Ky. Lexing-ton**
				MATURITY (date)			
Union (IV)*	9/25	9/15	9/24	9/27	9/18	9/25	9/29
Williams79 (III)	-3	-5	-1	-5	-3	-3	-3
A79-331020	+4	+4	+1	+10	+4	+8	Frost Kill
A79-335034	-2	-6	0	-2	-1	-5	-7
A79-336007	-2	-1	-1	-3	-1	-4	-1
A79-337020	0	-1	-1	-2	0	-4	-3
C1585	0	+3	0	+1	-1	0	-3
C1586	-1	-1	-1	-4	+1	-2	0
C1587	+1	0	0	+3	+2	-1	0
C1588	+1	+4	-2	0	0	0	+4
C1589	-1	+3	-4	-1	0	-4	-3
HC76-4449	+4	+7	0	+4	+3	+8	+4
HC77-982	-3	-4	-2	-5	-3	-5	-3
HC77-1165	-3	-4	-3	-6	-5	-3	-3
HC77-5481	-4	-4	-3	-8	-4	-4	-11
HC77-5686	-5	-4	-4	-14	-5	-3	-11
K1033 Douglas	+7	+8	+2	+7	+7	+12	+4
K1061	+7	+9	+8	+9	+9	+9	+4
K1062	+2	-4	0	+1	+5	+12	+4
K1063	+8	+10	+15	+7	+10	+12	+4
K1066	+6	+6	+7	+2	+9	+9	+4
K1067	+3	+3	+1	+2	+3	0	+4
Ky78-405	+6	+9	+2	+12	+7	+8	+4
Ky78-1214	+7	+9	+7	+7	+8	+11	+4
L77-515	-1	-3	-2	-3	0	+2	-3
L77-546	-2	-3	-2	-3	-2	0	-3
L77-8043	+2	+3	-1	+2	+3	+5	+4
L77-8079	+1	+3	0	-2	+1	-2	+4
L77-8209	+6	+10	+1	+6	+8	+11	+4
LN1053	+3	+6	0	0	0	+10	+4
LN1057	+7	+8	+8	+6	+9	+13	+4
LN1058	0	0	-2	-3	+1	-1	-3
LN1059	+3	+7	-1	0	+1	+12	0
LS78-229	+20	+23	+17	+21	+23	+23	Frost Kill
LS78-335	+20	+22	+15	+21	+23	+25	Frost Kill
LS78-344	+17	+17	+9	+19	+16	+20	Frost Kill
Date planted	5/24	5/9	5/28	5/27	5/21	5/29	6/8
*Days to maturity	128	129	119	123	120	119	113

** Not included in the mean.

PRELIMINARY TEST IV, 1980

	Kan.	Ohio	Ind.	Del.
Strain	Manhattan	S. Charleston	Sullivan	Georgetown
		MATURITY (date)		
Union (IV)	10/4	9/26	9/21	9/30
Williams79 (III)	-6	-2	-2	0
A79-331020	0	+4	+3	+6
A79-335034	-3	0	-1	+1
A79-336007	0	+2	0	0
A79-337020	-3	+2	+1	+7
C1585	+1	0	0	+1
C1586	-6	0	+1	+2
C1587	0	+1	+2	+1
C1588	0	0	+1	0
C1589	-3	0	0	-1
HC76-4449	-2	+4	+5	+5
HC77-982	-15	0	-2	+8
HC77-1165	-9	0	0	+8
HC77-5481	-12	0	-2	+7
HC77-5686	-10	-2	-1	+3
K1033 Douglas	+4	+6	+9	+6
K1061	+2	+8	+6	+9
K1062	-2	+4	+2	0
K1063	+4	+3	+6	+12
K1066	+2	+4	+3	+9
K1067	+1	+2	+6	+7
Ky78-405	+2	+5	+7	+6
Ky78-1214	+4	+5	+7	+11
L77-515	-4	0	-1	+2
L77-546	-5	-2	-2	-1
L77-8043	+1	+2	+1	-1
L77-8079	0	+4	+4	-1
L77-8209	+2	+5	+5	+4
LN1053	-6	+6	+2	+7
LN1057	+4	+6	+6	+7
LN1058	0	+2	+2	+7
LN1059	+2	+2	+1	+5
LS78-229	+7	+25	+12	+29
LS78-335	+10	+25	+14	+29
LS78-344	+7	+25	+13	+29
Date planted	5/19	4/30	5/5	6/7
*Days to maturity	138	149	139	115

PRELIMINARY TEST IV, 1980

Mean 10 Tests	Mo. Portageville Loam	Mo. Portageville Clay	Ill. Belleville	Ill. Eldorado	Md. Queenstown	Ky. Lexington
			LODGING (score)			
2.2	2.0	1.5	2.7	2.7	3.3	1.5
1.8	1.5	1.0	2.3	2.4	2.0	1.5
2.3	2.5	1.5	2.9	2.4	3.3	2.0
2.5	2.0	1.0	3.4	4.4	3.5	1.5
2.8	2.5	1.0	2.8	4.8	3.5	2.0
2.3	2.0	1.5	2.4	3.5	3.3	1.5
2.0	2.0	1.5	2.2	2.9	2.5	1.3
1.2	1.0	1.0	1.3	1.3	1.5	1.0
1.8	2.0	1.5	2.1	1.9	3.0	1.3
2.4	2.0	1.5	2.4	3.7	3.5	1.5
2.1	2.0	1.5	2.5	3.5	2.8	1.8
1.1	1.0	1.0	1.3	1.5	1.0	1.0
1.5	1.5	1.5	1.8	1.8	1.8	1.3
1.2	1.0	1.0	1.5	1.8	1.5	1.0
1.3	1.0	1.0	1.5	2.2	1.0	1.0
1.3	1.0	1.0	1.4	2.3	1.3	1.0
1.9	1.5	2.0	1.9	1.7	2.0	1.3
2.2	1.5	2.0	2.9	3.0	3.5	2.0
2.0	1.5	2.0	2.4	2.0	2.8	1.8
1.6	1.5	1.0	2.0	2.3	2.0	1.8
1.2	1.0	1.0	1.5	1.4	1.5	1.0
1.8	1.5	2.0	1.9	1.8	2.5	1.3
2.3	2.0	1.5	2.6	3.9	3.5	1.8
1.9	1.5	1.5	2.1	2.9	2.0	1.0
2.0	2.0	1.5	2.5	3.1	2.5	1.5
2.1	2.0	1.5	2.2	2.4	3.3	1.3
2.1	2.0	1.5	2.9	2.3	3.0	1.5
1.9	2.0	2.0	2.3	1.9	2.5	1.0
1.9	1.5	1.5	2.0	2.3	3.3	1.3
1.4	1.0	1.0	2.3	1.9	1.5	1.5
1.9	1.0	2.5	2.2	2.3	2.0	1.3
2.5	1.5	2.0	2.7	3.9	3.3	1.5
2.1	1.5	2.0	2.5	3.2	3.0	1.0
2.1	1.0	2.0	2.3	1.9	3.5	3.3
2.2	1.0	2.0	2.4	2.1	3.3	2.5
2.5	2.0	2.0	2.3	2.4	3.8	2.5

PRELIMINARY TEST IV, 1980

	Kan.	Ohio	Ind.	Del.
Strain	Manhattan	S. Charleston	Sullivan	Georgetown
		LODGING (score)		
Union (IV)	2.5	2.2	2.5	1.0
Williams79 (III)	2.5	1.8	2.3	1.0
A79-331020	2.3	2.5	2.8	1.0
A79-335034	2.8	2.5	2.8	1.0
A79-336007	3.0	3.5	3.5	1.0
A79-337020	2.3	2.2	3.0	1.0
C1585	2.0	2.2	2.8	1.0
C1586	1.0	1.5	1.3	1.0
C1587	2.0	1.5	2.0	1.0
C1588	2.8	2.5	2.8	1.2
C1589	2.0	1.8	2.3	1.0
HC76-4449	1.0	1.2	1.3	1.0
HC77-982	1.0	2.2	1.5	1.0
HC77-1165	1.0	1.5	1.0	1.0
HC77-5481	1.0	1.8	1.3	1.0
HC77-5686	1.0	1.8	1.3	1.0
K1033 Douglas	2.5	2.0	3.0	1.0
K1061	2.0	2.0	2.3	1.0
K1062	2.0	2.2	2.3	1.0
K1063	1.0	1.8	1.5	1.0
K1066	1.0	1.2	1.3	1.0
K1067	2.3	1.5	1.8	1.0
Ky78-405	2.0	2.0	2.3	1.0
Ky78-1214	2.5	1.8	3.0	1.0
L77-515	2.3	1.2	2.3	1.0
L77-546	2.5	1.5	2.8	1.0
L77-8043	2.8	1.8	2.5	1.0
L77-8079	2.0	1.5	2.5	1.0
L77-8209	2.3	1.5	2.5	1.0
LN1053	1.0	1.5	1.5	1.0
LN1057	2.3	1.8	2.8	1.0
LN1058	3.8	2.2	3.0	1.0
LN1059	2.3	2.0	2.5	1.0
LS78-229	2.3	1.8	1.5	1.8
LS78-335	3.0	2.5	1.5	1.7
LS78-344	2.8	2.0	3.0	1.8

PRELIMINARY TEST IV, 1980

Mean 10 Tests	Mo. Portageville Loam	Mo. Portageville Clay	Ill. Belleville	Ill. Eldorado	Md. Queenstown	Ky. Lexington
			HEIGHT (inches)			
42	37	38	56	50	37	38
39	28	30	50	48	35	39
45	45	39	57	52	45	43
43	45	33	54	48	41	41
41	35	31	53	51	37	38
40	32	36	52	49	40	39
42	41	36	53	49	41	36
22	14	17	25	22	24	30
41	34	36	54	52	40	41
43	28	43	57	51	42	38
40	28	38	51	49	38	38
23	17	16	28	20	27	26
26	17	19	33	28	28	33
27	16	15	36	29	33	34
17	12	10	21	16	20	24
19	12	14	23	17	23	23
37	23	35	48	48	33	40
37	34	36	44	43	36	34
40	28	36	51	47	39	44
25	23	20	30	28	25	33
25	16	17	32	26	26	36
44	34	30	64	58	37	45
39	34	29	51	45	41	39
42	35	37	50	52	43	39
39	35	34	47	48	36	36
39	28	35	52	49	37	36
40	35	33	48	49	37	39
37	34	34	44	49	36	34
40	28	38	53	50	40	37
24	15	22	30	27	25	29
35	20	40	45	42	33	34
35	22	31	45	43	35	38
34	18	35	45	43	37	34
39	24	36	45	42	44	38
39	24	36	49	44	39	41
43	27	38	49	46	49	45

PRELIMINARY TEST IV, 1980

	Kan.	Ohio	Ind.	Del.
Strain	Manhattan	S. Charleston	Sullivan	Georgetown
		HEIGHT (inches)		
Union (IV)	48	44	49	25
Williams79 (III)	47	40	51	19
A79-331020	49	42	55	25
A79-335034	52	46	50	20
A79-336007	50	44	48	21
A79-337020	45	40	48	19
C1585	48	41	55	20
C1586	21	31	22	16
C1587	45	42	48	21
C1588	53	44	51	22
C1589	48	38	49	20
HC76-4449	20	28	23	20
HC77-982	29	34	24	18
HC77-1165	25	37	30	19
HC77-5481	11	24	19	12
HC77-5686	17	23	20	14
K1033 Douglas	42	40	44	19
K1061	40	38	42	22
K1062	41	42	51	23
K1063	27	28	21	19
K1066	25	33	20	19
K1067	53	41	52	23
Ky78-405	45	41	43	23
Ky78-1214	49	40	53	24
L77-515	53	40	44	20
L77-546	47	42	41	20
L77-8043	46	40	51	22
L77-8079	43	37	41	18
L77-8209	36	46	53	21
LN1053	22	32	18	17
LN1057	36	40	39	21
LN1058	45	34	39	18
LN1059	36	37	40	19
LS78-229	42	40	48	28
LS78-335	41	39	45	30
LS78-344	44	41	56	34

PRELIMINARY TEST IV, 1980

Mean 10 Tests	Mo. Portageville Loam	Mo. Portageville Clay	Ill. Belleville	Ill. Eldorado	Md. Queenstown	Ky. Lexington
			QUALITY (score)			
2.4	2.5	2.5	3.0	3.3	3.0	1.0
2.1	2.5	2.5	2.3	3.0	1.8	1.0
2.8	2.5	2.5	3.5	3.8	3.5	2.0
2.7	3.0	3.0	3.5	3.5	3.0	1.0
2.3	2.5	3.5	2.3	3.3	2.0	1.0
2.5	2.0	3.0	2.8	3.3	2.5	2.0
3.1	2.5	3.0	3.8	4.3	3.5	3.0
2.1	2.5	2.5	2.0	2.3	1.5	2.0
2.3	2.5	2.5	2.8	3.8	2.3	1.0
3.0	2.5	3.0	3.8	4.3	3.3	1.0
2.8	2.5	2.5	3.8	4.3	2.8	1.0
2.0	2.5	2.5	2.3	1.5	2.3	1.0
2.4	2.5	3.0	3.0	2.8	3.0	2.0
2.3	3.0	2.5	2.8	2.5	2.8	2.0
2.6	3.5	2.5	2.8	2.8	3.3	2.0
2.6	3.0	3.0	2.5	2.5	2.5	2.0
3.1	2.5	2.5	3.5	3.0	3.8	4.0
2.0	2.5	2.5	2.5	2.0	1.5	1.0
1.9	2.5	2.5	2.5	1.8	2.0	1.0
2.2	2.5	2.5	2.5	1.8	3.3	2.0
1.9	2.5	2.5	2.0	1.8	2.3	1.0
3.3	2.5	2.5	4.0	3.5	3.5	3.0
2.6	2.5	2.5	3.3	2.5	1.8	2.0
2.3	2.0	2.5	3.5	2.0	1.0	1.0
2.0	2.5	2.5	2.3	2.5	1.8	1.0
2.5	3.0	2.5	3.0	3.0	3.0	3.0
2.4	2.5	2.5	2.8	2.3	1.5	2.0
2.7	2.5	2.5	2.8	3.0	3.3	2.0
2.3	2.5	2.5	2.8	2.8	2.3	1.0
2.0	2.5	2.5	2.5	2.8	2.5	1.0
2.8	3.0	2.5	2.8	3.5	2.5	2.0
2.6	3.0	2.5	3.3	3.3	2.8	1.0
2.4	2.5	2.5	2.8	3.0	2.0	2.0
2.2	3.0	2.5	3.0	2.5	2.5	1.0
2.2	2.5	2.5	3.0	2.5	1.0	1.0
2.2	2.5	2.5	3.0	2.3	1.5	2.0

PRELIMINARY TEST IV, 1980

	Kan.	Ohio	Ind.	Del.
Strain	Manhattan	S. Charleston	Sullivan	Georgetown
		QUALITY (score)		
Union (IV)	3.0	1.0	2.0	2.3
Williams79 (III)	2.0	1.5	2.0	2.7
A79-331020	4.0	1.5	2.5	2.2
A79-335034	3.5	1.0	2.0	3.2
A79-336007	3.0	1.0	2.0	2.0
A79-337020	3.0	1.5	2.0	2.8
C1585	4.0	1.5	3.0	2.5
C1586	3.0	1.0	1.5	2.3
C1587	2.5	1.0	2.0	2.7
C1588	3.5	1.5	4.0	2.8
C1589	4.0	1.5	3.5	2.3
HC76-4449	3.0	1.0	1.5	2.2
HC77-982	2.0	1.0	1.5	2.8
HC77-1165	2.0	1.0	2.0	2.7
HC77-5481	3.0	1.5	1.5	2.8
HC77-5686	4.5	1.0	3.0	2.3
K1033 Douglas	4.0	2.5	3.0	2.5
K1061	3.0	1.0	1.5	2.3
K1062	2.5	1.0	1.5	2.0
K1063	2.0	1.0	1.5	2.5
K1066	2.0	1.0	1.5	2.3
K1067	4.5	1.5	4.5	3.0
Ky78-405	3.5	2.0	3.5	2.8
Ky78-1214	3.0	1.5	3.0	3.0
L77-515	2.0	1.0	2.5	2.3
L77-546	2.0	1.0	2.0	2.5
L77-8043	4.0	1.5	2.5	2.5
L77-8079	3.0	1.5	4.0	2.5
L77-8209	3.0	1.0	2.5	2.5
LN1053	2.0	1.0	1.5	2.0
LN1057	3.5	1.5	4.0	3.0
LN1058	3.0	1.0	3.0	3.0
LN1059	2.5	1.0	2.5	2.8
LS78-229	2.0	1.0	1.5	2.5
LS78-335	3.0	1.5	2.0	2.5
LS78-344	3.0	1.0	1.5	2.5

PRELIMINARY TEST IV, 1980

Mean 8 Tests	Mo. Portageville Clay	Ill. Belleville	Ill. Eldorado	Md. Queenstown	Ky. Lexington
		SIZE (g/100)			
16.5	15.5	18.2	15.7	17.3	16.0
16.3	14.5	16.3	21.6	14.9	14.7
16.6	15.6	16.6	14.1	18.0	16.5
14.3	12.6	15.1	12.6	14.1	14.0
12.9	14.6	13.2	11.4	12.3	11.1
15.0	14.1	14.9	14.0	14.4	12.8
16.6	16.5	15.8	15.2	16.9	15.2
15.8	14.6	15.1	14.8	17.5	13.6
14.8	14.2	15.0	14.4	14.8	14.3
16.0	14.8	16.1	14.0	15.9	15.8
15.5	14.6	16.0	14.4	15.3	15.8
14.5	12.7	14.4	13.3	15.7	12.8
16.2	14.7	16.3	15.4	16.9	14.4
14.2	12.0	15.0	13.5	14.8	13.2
14.8	11.5	16.4	13.4	14.9	12.3
15.7	11.9	15.1	16.2	15.5	13.1
17.0	15.5	16.8	17.8	18.6	16.0
15.0	14.7	15.4	14.0	15.7	14.5
15.6	13.0	16.4	14.0	16.5	15.0
15.7	15.8	16.0	12.9	18.6	13.9
15.1	14.8	15.0	12.5	15.3	14.1
14.1	13.6	13.5	13.6	14.6	13.8
15.4	14.7	16.4	13.5	17.1	15.9
15.0	13.7	14.5	13.8	16.0	14.4
14.0	11.8	14.2	12.9	14.6	13.3
15.7	13.1	17.1	14.6	15.3	14.8
14.0	13.8	14.9	13.1	14.4	12.0
14.3	12.8	14.4	13.0	14.9	13.5
15.0	13.2	15.8	13.2	16.2	13.4
15.1	13.0	16.0	12.8	17.4	12.7
18.6	17.5	18.0	17.8	20.1	18.6
16.3	14.8	16.0	15.5	16.2	14.3
17.4	17.0	17.3	16.3	18.3	16.6
12.0	11.7	11.7	10.9	15.0	12.2
11.4	12.1	11.2	10.7	14.5	11.6
11.7	11.1	12.5	10.2	15.0	12.0

PRELIMINARY TEST IV, 1980

	Kan.	Ohio	Ind.
Strain	Manhattan	S. Charleston	Sullivan
		SIZE (g/100)	
Union (IV)	14.7	17.7	17.2
Williams79 (III)	15.8	16.6	16.0
A79-331020	16.3	17.4	18.3
A79-335034	14.9	15.8	15.3
A79-336007	13.7	13.5	13.1
A79-337020	16.2	17.1	16.1
C1585	16.6	18.3	18.3
C1586	14.1	19.1	17.5
C1587	15.3	15.0	15.5
C1588	16.3	16.7	18.0
C1589	14.6	16.7	16.6
HC76-4449	15.3	15.3	16.1
HC77-982	16.3	17.7	17.5
HC77-1165	14.2	15.7	14.9
HC77-5481	16.1	17.6	16.4
HC77-5686	16.5	18.2	19.2
K1033 Douglas	16.4	17.6	17.4
K1061	14.1	15.7	16.2
K1062	15.8	17.8	15.9
K1063	14.3	16.8	17.1
K1066	16.6	15.8	16.4
K1067	14.3	14.6	14.7
Ky78-405	15.2	14.9	15.5
Ky78-1214	16.2	15.4	16.1
L77-515	14.8	15.6	14.8
L77-546	16.4	17.4	16.9
L77-8043	14.5	15.2	14.4
L77-8079	15.0	15.1	15.6
L77-8209	16.1	15.7	16.7
LN1053	15.5	16.8	16.6
LN1057	16.4	20.8	19.8
LN1058	16.4	18.3	18.6
LN1059	16.2	19.2	18.6
LS78-229	11.4	10.9	11.9
LS78-335	10.5	9.6	10.8
LS78-344	11.2	9.4	12.1

PRELIMINARY TEST IV, 1980

Mean 5 Tests	Mo. Portageville Loam	Ill. Eldorado	Ky. Lexington	Kan. Manhattan	Ind. Sullivan
			PROTEIN (%)		
44.5	44.3	43.6	44.3	46.2	44.2
42.6	42.2	41.8	43.6	41.7	43.6
43.1	40.2	42.1	42.4	45.6	45.2
44.5	-	42.0	44.2	44.7	47.1
43.2	40.7	45.1	43.4	41.5	45.5
42.3	39.5	41.9	42.1	44.0	44.1
45.2	45.1	44.4	44.2	46.4	45.9
42.9	42.3	41.0	43.9	43.0	44.2
44.2	43.7	43.9	44.3	44.1	45.2
43.5	40.5	44.0	42.4	44.7	45.7
43.6	42.1	43.2	43.1	44.4	45.4
44.4	42.7	43.4	44.5	45.6	45.6
43.9	42.8	42.8	44.1	45.8	43.8
42.4	42.0	40.2	42.4	43.7	43.6
43.8	42.2	41.3	44.3	45.3	45.7
44.6	43.6	44.1	46.0	45.9	43.6
42.8	41.8	41.6	42.5	43.8	44.4
45.0	44.3	44.1	45.2	45.7	45.7
41.6	40.7	40.7	41.9	41.6	43.0
43.6	45.0	42.2	43.2	44.4	43.2
41.4	43.1	39.4	42.0	41.5	40.8
42.4	39.6	41.3	43.1	43.9	44.3
43.8	43.1	41.9	43.8	44.9	45.5
42.3	38.2	42.2	42.4	44.8	43.8
42.1	40.5	41.3	42.7	43.2	42.9
42.5	39.2	42.5	44.2	44.2	42.4
41.6	40.7	40.6	43.7	40.8	42.1
42.0	41.3	40.5	42.3	42.3	43.6
41.7	40.3	41.4	41.3	42.0	43.4
43.6	41.2	44.1	44.9	47.1	43.4
45.0	43.3	46.5	44.2	44.8	46.3
43.6	41.7	42.9	42.6	44.7	46.2
43.6	44.0	44.0	43.3	42.2	44.4
39.1	37.4	39.0	37.9	40.0	41.3
39.1	35.5	38.9	38.7	40.6	41.6
39.2	34.9	39.2	37.6	42.6	41.5

PRELIMINARY TEST IV, 1980

Strain	Mean 5 Tests	Mo. Portageville Loam	Ill. Eldo-rado	Ky. Lexing-ton	Kan. Man-hattan	Ind. Sulli-van
			OIL (%)			
Union (IV)	19.5	15.8	20.9	18.5	19.7	22.5
Williams79 (III)	20.3	16.3	22.3	18.9	20.8	23.0
A79-331020	18.4	15.9	22.6	18.2	19.3	16.1
A79-335034	18.3	-	20.1	18.7	18.0	15.6
A79-336007	19.1	16.4	21.5	17.5	19.0	21.0
A79-337020	19.2	15.7	21.8	18.6	18.1	21.8
C1585	18.7	15.5	19.9	17.7	18.7	21.9
C1586	19.2	15.7	20.9	17.9	19.3	22.0
C1587	19.4	16.4	21.6	18.1	19.8	21.2
C1588	19.2	15.8	19.6	19.1	19.4	21.9
C1589	19.0	16.1	20.5	18.8	17.9	21.6
HC76-4449	19.3	15.7	21.4	18.2	18.9	22.5
HC77-982	20.1	16.3	23.0	17.8	20.2	23.3
HC77-1165	20.4	16.1	23.5	18.6	20.5	23.2
HC77-5481	19.3	16.0	22.2	17.4	19.1	22.0
HC77-5686	19.0	15.5	20.0	17.4	18.8	23.1
K1033 Douglas	19.3	16.5	20.9	18.0	18.7	22.2
K1061	17.9	14.2	19.6	17.0	17.8	20.9
K1062	19.6	16.3	21.4	17.9	20.4	22.2
K1063	18.4	14.2	20.3	17.8	18.2	21.6
K1066	19.1	15.6	21.4	17.9	19.4	21.4
K1067	19.6	16.7	20.3	18.8	19.8	22.2
Ky78-405	18.6	15.7	21.1	17.1	17.5	21.5
Ky78-1214	19.6	16.7	21.3	18.9	18.5	22.4
L77-515	20.1	17.2	22.0	18.8	19.9	22.7
L77-546	20.1	16.8	22.2	18.3	20.2	23.2
L77-8043	19.8	16.5	22.5	18.2	20.2	21.6
L77-8079	20.5	16.3	21.0	22.6	20.0	22.7
L77-8209	20.5	17.6	21.7	22.1	19.3	21.9
LN1053	20.0	15.9	21.6	20.8	16.8	22.4
LN1057	19.9	16.1	21.6	21.7	18.6	21.4
LN1058	19.7	15.8	21.1	21.9	18.9	20.7
LN1059	19.6	15.6	21.0	21.4	19.2	20.8
LS78-229	20.4	17.2	21.1	23.5	19.1	21.0
LS78-335	20.4	18.0	22.2	21.5	18.4	21.8
LS78-344	21.0	17.7	22.0	23.5	19.7	22.2