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The Uniform Soybean Tests: Northern Region 2020

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THE UNIFORM SOYBEAN TESTS

NORTHERN REGION

2020



Guohong Cai and Adam Brock

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

COOPERATING WITH
STATE AGRICULTURAL EXPERIMENT STATIONS NORTHERN STATES



UNIFORM SOYBEAN TESTS

NORTHERN REGION

2020

COORDINATED BY:
Guohong Cai and Adam Brock

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2020 UNIFORM SOYBEAN TESTS NORTHERN REGION

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The Uniform Soybean Tests are conducted and managed as a component of a CRIS project on Enhancing Resistance to Root Rot Pathogens of Soybeans in the USDA-ARS Crop Production and Pest Control Unit at West Lafayette, Indiana.

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Introduction

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

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

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

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 Statements or data in the report, therefore, should not be published unless those concerned have obtained permission previously.

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

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

Introduction

NORTHERN REGION UT – POLICY ON EVALUATION AND RELEASE OF STRAINS

Qualifications for inclusion in the Uniform Tests:

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

Use of Uniform Test entries in soybean breeding and research:

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

Release of Uniform Test entries:

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

Strain Designations

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

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

Methods

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

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

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

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

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

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

Group	Reference:	Range	Early check	Late check
00	MN0083			MN0095
0	ND Dickey		MN0095	MN1410
I	MN1410		ND Dickey	U11-917032 (SCN)
II	IA2102		U11-917032 (SCN)	U14-910097 (SCN)
III	LD11-2170		U14-910097 (SCN)	LD07-3395bf (SCN)
IV	LD06-7620		LD07-3395bf (SCN)	LD00-2817
00TM	MN0083		AG005X8	ND17009GT
0TM	ND Dickey		AG05X9	MN1410
ITM	MN1410		AG11X8	U11-917032 (SCN)
IITM	IA2102		AG17X8	U14-910097 (SCN)
IIITM	LD11-2170		AG25X8	AG38X8
IVTM	LD06-7620		LD07-3395bf (SCN)	AG41X8

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

Lodging is rated at maturity according to the following scores:

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

Methods

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

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

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

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

1 = Flower color: Purple, White

2 = Pubescence color: Tawny, Gray, Light tawny

3 = Pod color: Brown, Tan

4 = Seed coat luster: Dull, Shiny, Intermediate

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

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

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

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

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

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

2 = 1 - 10% plants with green stems

3 = 11 - 25% plants with green stems

4 = 26 - 50% plants with green stems

5 = > - 50% plants with green stems

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

1 = No shattering

2 = 1 - 10% shattered

3 = 10 - 25% shattered

4 = 25 - 50% shattered

5 = > - 50% shattered

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

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

1 > 95%

2 = 91 - 95%

3 = 85 - 90%

4 = 76 - 84%

5 < 76%

Methods

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

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

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

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

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

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

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

Disease Methods

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

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

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

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

Disease Methods

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

Illinois Sudden Death Syndrome rating: Plots were scored by Southern Illinois University. All disease scores were interpolated to the R 6.2 growth stage.

Frogeye Leaf Spot:

SEVERITY 0-9 = linear severity rating scale 0–9; 0 = no symptoms, 1 = 10% of leaf area covered with lesion, 9 = 90% of leaf area covered and/or defoliation occurring.

SDS:

%INCID = % of plot showing leaf symptoms.

SEVERITY 0-9 = severity of the leaf symptoms; 1 = 0-10% leaf chlorotic (LC), 2 = 10-20% LC, 3 = 20-40% LC, 4 = 40-60% LC, 5 > 60% LC, 6 = premature leaf drop up to 1/3 defoliation, 7 = premature leaf drop up to 2/3 defoliation, 8 = premature leaf drop greater than 2/3 defoliation, 9 = premature death.

DX = SDS Disease index (DI x DS/9)

Minnesota Iron Chlorosis Scores (IDC):

Scores are the combined values from all disease nurseries, with 2 replications for each entry and 2 observation dates at a location.

Data was collected from 2 locations in 2020 (Danvers and Graceville, Minnesota). Planting dates were May 19th and May 21st for Danvers and Graceville, respectively. Flash scores were taken on July 2nd and recovery scores were taken on July 16th.

Procedure for Testing and Release of Strains

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

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

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

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

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

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

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

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

Procedure for Testing and Release of Strains

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

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

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

Disease, Shattering, and Descriptive Data, 2020

State/ Province	Location	Tests Conducted By:	Tests	UT	PT	UTTM	PTTM
IL	Urbana	B. Diers/T. Cary	SCN	00-IV	I-IV	00-IV	0, II, III
IN	West Lafayette	G. Cai / T. Fleury	PR Evaluations	00-IV	I-IV	00-IV	0, II, III
MN	Danvers / Graceville	A. Lorenz	Fe Chlorosis (IDC)	00-I	I	00-I	0
ONT	Elora/Woodstock	I. Rajcan	Leaf Shape	00-I	I		
ONT	St Mathieu-de-Beloeil	L. O'Donoghue	Green Stem	00-0			

Uniform Test Strains Released or Licensed, 2020

Variety	Experimental Designation	Uniform Test Evaluations	
E13268 (yet to be named)	E13268	2015 Preliminary Test IIA, 2016-2017 Uniform Test II	
E15079 (yet to be named)	E15079 / E15079T	2017 Uniform Test II RR	
IAS19C3	A14011-77	2020 Preliminary Test I	
IAS25C1	A14004-126	2020 Preliminary Test IIB	
IAS31C1	A14004-58	2020 Preliminary Test IIIB	
Illini 3317N	LD15-6762	2018 Preliminary Test IIIA, 2019-2020 Uniform Test II	
Illini 4300N	LD16-2955	2020 Uniform Test IV	
LD16-4471a	LD16-4471a	2018 Preliminary Test IIB, 2019-2020 Uniform Test II	
LD16-4766a	LD16-4766a	2020 Uniform Test II	
KS4120NSGT	K4117NSGT	2019 Uniform Test IV Trait Material	
KS4520NS	K15-1283	2017 Preliminary Test IV, 2018-2019 Uniform Test IV	
ND21008GT20	ND14-6120(GT)	2017 UT 00 RR, 2018 Uniform Test 0 Trait Material	
ND2108GT73	ND15-22873(GT)	2018 Preliminary Test 0 Trait Material	
SA13-2699	SA13-2699	2016 Preliminary Test IIIA, 2017-2018 Uniform Test II	
SA14-9653	SA14-9653	2017 Preliminary Test IIIB, 2018-2020 Uniform Test II	
SA17-2742	SA17-2742	2019-2020 Uniform Test II Trait Material	
SA17-8882	SA17-8882	2019-2020 Uniform Test IV Trait Material	
Variety	Release Date	Releasing States	Foundation Seed Production
E13268 (yet to be named)	2020	Michigan	2020
E15079 (yet to be named)	2020	Michigan	2020
IAS19C3	2021	IA	2020
IAS25C1	2021	IA	2020
IAS31C1	2021	IA	2020
Illini 3317N	2020	Illinois	
Illini 4300N	2020	Illinois	
LD16-4471a	2019	Illinois	
LD16-4766a	2020	Illinois	
KS4120NSGT	2020	Kansas	
KS4520NS	2020	Kansas	
ND21008GT20	2021	North Dakota	2018
ND2108GT73	2021	North Dakota	2019
SA13-2699	2020	Missouri	2022
SA14-9653	2019	Missouri	2020
SA17-2742	2020	Missouri	2020
SA17-8882	2020	Missouri	2020
Variety	Licensed Trait	Licensing Entity	
E13268 (yet to be named)	High Yield, Early Maturing (MG I)	nonclusive to multiple seed companies	
E15079 (yet to be named)	High Protein	nonclusive to multiple seed companies	
IAS19C3		ISURF	
IAS25C1		ISURF	
IAS31C1		ISURF	
Illini 3317N		Baird Seed Company	
Illini 4300N		Baird Seed Company	
LD16-4471a	Aphid Rag 1+2	Branded	
LD16-4766a	Aphid Rag 1	Branded	
KS4120NSGT	SCN, STS, GT	Kansas State University Research Foundation	
KS4520NS	SCN, STS	Kansas State University Research Foundation	
ND21008GT20	Glyphosate resistance	ND Foundation Seedstocks	
ND2108GT73	Glyphosate resistance	ND Foundation Seedstocks	
SA13-2699			
SA14-9653			
SA17-2742			
SA17-8882			

The following 29 lines from the University of Nebraska were licensed between 2016-2020, were tested in the Northern Region Uniform Soybean Trials, and were previously not reported:

U09-118017	U11-614119	U11-932025	U14-605217	U15-606207
U11-374036	U11-616086	U13-603120	U14-903100	U15-927115
U11-377007	U11-622148	U14-111010	U14-910097	U16-609052
U11-444079	U11-911079	U14-211226	U14-919098	U16-914101
U11-494100	U11-917032	U14-212231	U14-924158	U16-932015
U11-614093	U11-920017	U14-219257	U14-925152	

2020 UT Regional entries for SCN screening

2000 eggs	HG Type 0				2000 eggs	HG Type 2.5.7			
	initial		retest			initial		retest	
	mean	FI	mean	FI		mean	FI	mean	FI
4 reps					4 reps				
Lee	149		117		Lee	148		209	
Macon	142		111		Macon	144		208	
PI548402 Peking	0	0	0	0	PI548402 Peking	0	0	0	0
PI88788	4	3	4	3	PI88788	51	34	87	41
PI90763	0	0	0	0	PI90763	0	0	0	0
PI437654	0	0	0	0	PI437654	0	0	0	0
PI209332	6	4	6	5	PI209332	54	36	79	38
PI89772	0	0	0	0	PI89772	0	0	0	0
PI548316 Cloud	9	6	9	7	PI548316 Cloud	72	48	121	58
PI438489B					PI438489B	6	4		
Pickett	5	4	1	1	Pickett	5	4	23	11

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

Test	Entry	Strain	HG Type 0							HG Type 2.5.7						
			rep1	rep2	rep3	mean	cv	FI	rating	rep1	rep2	rep3	mean	cv	FI	rating
UT 00	1	MN0083	117	87	121	108	17	73	NR	159	151	127	146	11	98	NR
UT 00, 0	2	MN0095	113	122	109	115	6	77	NR	110	99	123	111	11	75	NR
UT 00	3	ND Rolette	89	2*	1*	89	.	60	redo	121	*47	107	114	9	77	NR
UT 00	3	ND Rolette	60	16*	50	55	13	47	LR							
UT 00	6	ND16-7896	14	19	20	18		12	R	117	129	124	123	5	83	NR
UT 00	7	ND16-8305	52	48	41	47	12	32	MR	53	62	79	65	20	44	LR
UT 00	8	ND17-20727	72	81	68	74	9	50	LR	158	173	143	158	9	107	NR
UT 00	9	ND17-21410	69	58	60	62	9	42	LR	120	101	101	107	10	72	NR
UT 0,I	1	ND Dickey (0)	227	149	8*	188	29	126	redo	116	109	128	118	8	79	NR
UT 0,I	1	ND Dickey (0)	83	62	49	65	27	55	LR							
UT 0	3	MN0404CN (SCN)	5	13	18	12		8	HR	76	81	78	78	3	53	LR
UT 0,I	4	MN1410	37	29	44	37		25	MR	149	135	122	135	10	91	NR
UT 0	11	M13-250051	35	19	28	27		18	R	164	123	126	138	17	93	NR
UT 0	27	ND16-8821	80	87	83	83	4	56	LR	115	109	101	108	6	73	NR
UT 0	28	ND17-20565	45	54	52	50	9	34	MR	141	121	133	132	8	89	NR
UT 0	29	ND17-20728	34	47	39	40	16	27	MR	99	104	108	104	4	70	NR
UT 0	30	ND17-20754	30	44	51	42	26	28	MR	104	91	112	102	10	69	NR
UT 0	31	ND17-21922	104	89	93	95	8	64	NR	21	35	48	35		23	R
UT 0	32	ND17-21929	67	64	74	68	8	46	LR	*25	106	89	98	12	66	redo
UT 0	32	ND17-21929								213	202	217	211	4	101	NR
UT 0	33	ND17-22117	62	53	51	55	11	37	MR	103	110	89	101	11	68	NR
UT 0	34	ND17-22120	70	78	70	73	6	49	LR	117	87	106	103	15	70	NR
UT 0	35	ND17-22388	2	9	11	7	64	5	HR	84	73	83	80	8	54	LR
UT I,II	3	U11-917032 (SCN)	.	21	19*	21	.	14	redo	101	104	118	108	8	73	NR
UT I,II	3	U11-917032 (SCN)	16	12	9	12	28	11	R							
UT I	4	U14-103015	81	95	106	94	13	63	NR	*63	41	105	73	62	49	redo
UT I	4	U14-103015								67	43	72	61	26	29	MR
UT I	5	E15338	35	24	49	36		24	R	54	88	71	71	24	48	LR
UT I	7	E16346	54	66	65	62	11	41	LR	112	125	127	121	7	82	NR
UT I	14	M13-104022	176	128	123	142	21	96	NR	119	89	108	105	14	71	NR

2020 UT Regional entries for SCN screening

Test	Entry	Strain	HG Type 0							HG Type 2.5.7						
			rep1	rep2	rep3	mean	cv	FI	rating	rep1	rep2	rep3	mean	cv	FI	rating
PT I	21	LD17-5399a	87	96	107	97	10	65	NR	126	144	133	134	7	91	NR
PT I	33	ORC 3119N	52	44	51	49	9	33	MR	46	39	73	53	34	36	MR
UT II	1	IA2102	55	48	42	48	13	33	MR	*48	49*	54	54		36	redo
UT II	1	IA2102								152	146	159	152	4	73	NR
UT II	2	LD02-4485 (SCN)	12	16	12	13		9	HR	142	97	81	107	30	72	NR
UT II,III	4	U14-910097 (SCN)	4	1	4	3		2	HR	3	6	2	4		2	HR
UT II	5	CR16-0008	15	29	19	21	34	14	LR	72	84	81	79	8	53	LR
UT II	8	E15345	46	44	41	44	6	29	MR	106	173	184	154	27	104	NR
UT II	9	E15351	50	38	55	48	18	32	MR	162	149	154	155	4	105	NR
UT II	11	E16380	17	12	23	17		12	R	52	71	61	61	15	41	LR
UT II	14	E17040	37	26	29	31		21	R	98	103	91	97	6	66	NR
UT II	15	E17054	29	34	24	29		20	R	108	93	124	108	14	73	NR
UT II	18	E17184	18	19	21	19		13	R	174	108	98	127	33	85	NR
UT II	19	E17203	6	16	10	11		7	HR	62	55	57	58	6	39	MR
UT II	20	E17283	40	13	17	23		16	R	171	91	159	140	31	95	NR
UT II	21	LD15-5170a	18	2*	23	21	17	14	redo	72	63	66	67	7	45	LR
UT II	21	LD15-5170a	14	16	13	14	11	12	R							
UT II	22	LD15-544	131	125	108	121	10	82	NR	97	113	106	105	8	71	NR
UT II	23	LD15-6268	34	39	25	33		22	R	176	98	151	142	28	96	NR
UT II	24	LD15-6280	24	28	30	27		18	R	111	96	96	101	9	68	NR
UT II	26	LD16-4471a	25	18	36	26		18	R	81	93	76	83	10	56	LR
UT II	27	LD16-4766a	19	15	14	16		11	R	79	68	99	82	19	55	LR
UT II	28	LD16-4852	15	10	16	14		9	HR	91	104	78	91	14	61	LR
UT II	29	LD16-6557	28	23	21	24		16	R	57	71	69	66	12	44	LR
UT II	32	U16-129612	134	125	140	133	6	89	NR	103	112	116	110	6	74	NR
UT II	35	U16-909058	66	108	116	97	28	65	NR	126	115	109	117	7	79	NR
PT IIA	13	LD17-1884	13	28	21	21		14	R	120	111	125	119	6	80	NR
PT IIA	14	LD17-1887	11	7	8	9	24	6	HR	98	75	105	93	17	63	NR
PT IIA	15	LD17-1900	34	26	26	29		19	R	47	43	56	49	14	33	MR
PT IIA	16	LD17-1902	52	46	46	48	7	32	MR	83	87	76	82	7	55	LR
PT IIA	17	LD17-3855	3	6	10	6	55	4	HR	101	90	90	94	7	63	NR
PT IIA	18	LD17-4947a	84	95	58	79	24	53	LR	137	144	125	135	7	91	NR
PT IIA	19	LD17-5713a	88	101	93	94	7	63	NR	70	89	64	74	18	50	LR
PT IIA	20	LD17-7152a	105	114	89	103	12	69	NR	137	117	112	122	11	82	NR
PT IIA	21	LD18-1827	8	11	11	10		7	HR	73	66	78	72	8	49	LR
PT IIA	22	LD18-1866	11	8	19	13		9	HR	125	106	113	115	8	77	NR
PT IIA	23	U16-207253	174	155	89	139	32	94	NR	77	68	83	76	10	51	LR
PT IIB	24	E16915	28	74	63	55	44	37	MR	69	73	66	69	5	47	LR
PT IIB	25	E18012	129	111	97	112	14	76	NR	120	133	137	130	7	88	NR
PT IIB	26	E18015	42	36	33	37		25	MR	106	125	92	108	15	73	NR
PT IIB	27	E18024T	13	10	5	9		6	HR	71	87	86	81	11	55	LR
PT IIB	28	E18073	91	77	86	85	8	57	LR	134	119	116	123	8	83	NR
PT IIB	29	E18433	45	88	92	75	35	50	LR	67	149	73	96	47	65	NR
PT IIB	30	E18638T	48	55	43	49	12	33	MR	72	81	64	72	12	49	LR
PT IIB	36	ORC 4019N	58	31	38	42	33	28	MR	71	89	74	78	12	53	LR
PT IIB	37	ORC 4219N	30	22	37	30		20	R	54	51	57	54	6	36	MR

2020 UT Regional entries for SCN screening

Test	Entry	Strain	HG Type 0						HG Type 2.5.7							
			rep1	rep2	rep3	mean	cv	FI	rating	rep1	rep2	rep3	mean	cv	FI	rating
UT III	1	LD11-2170 (SCN)	40	51	29	40		27	MR	125	101	129	118	13	80	NR
UT III	2	U15-606207	10	6	8	8		5	HR	2	2	1	2		1	HR
UT III, IV	3	LD07-3395bf (SCN)	22	17	35	25		17	R	11	26	16	18		12	R
UT III	5	CR15-1385	14	20	8	14		9	HR	72	69	77	73	6	49	LR
UT III	7	CR16-0035	18	28	26	24		16	R	133	142	112	129	12	87	NR
UT III	10	LD15-1477	8	5	13	9		6	HR	13*	88*	75	75		51	redo
UT III	10	LD15-1477								133	127	123	128	4	61	NR
UT III	11	LD15-6762	46	36	36	39	15	26	MR	127	134	138	133	4	90	NR
UT III	12	LD16-2751	35	27	28	30		20	R	73	79	85	79	8	53	LR
UT III	13	LD16-6787	2	5	9	5		4	HR	70	69	74	71	4	48	LR
UT III	14	LD16-6886	15	18	28	20		14	R	25	60	29	38	50	26	redo
UT III	14	LD16-6886								9	28	31	23		11	R
UT III	15	LD16-7669	39	17	26	27		18	R	22	48	25	32		21	R
UT III	22	SA16-12014	68	23	13*	46	70	31	redo	30	107	36	58	74	39	redo
UT III	22	SA16-12014	39	14*	24	32	34	27	MR	146	155	166	156	6	74	NR
UT III	24	SA16-2194	18	10	11	13		9	HR	94	82	119	98	19	66	NR
UT III	32	U16-324137	20	38	29	29		20	R	129	142	116	129	10	87	NR
UT III	34	U16-325193	96	86	91	91	5	61	NR	93	76	104	91	16	61	NR
UT III	35	U16-902058	64	69	79	71	11	48	LR	129	123	141	131	7	88	NR
PT IIIA	5	CR17-2874	36	28	45	36		24	R	100	118	113	110	8	74	NR
PT IIIA	19	LD17-10157	43	37	47	42	12	28	MR	130	74	144	116	32	78	NR
PT IIIA	20	LD17-10174	56	53	46	52	10	35	MR	124	115	148	129	13	87	NR
PT IIIA	21	LD17-10199	77	83	63	74	14	50	LR	58	106	118	94	34	63	NR
PT IIIA	22	LD17-2522	44	56	59	53	15	36	MR	45	57	53	52	12	35	MR
PT IIIA	24	LD17-872	28	22	33	28		19	R	186	109	132	142	28	96	NR
PT IIIA	25	LD17-894	26	21	31	26		17	R	85	106	81	91	15	61	NR
PT IIIA	26	LD18-01855	16	21	24	20		14	R	73	101	68	81	22	54	LR
PT IIIA	27	LD18-01867	13	15	5	11		7	HR	31	86	58	58	47	39	redo
PT IIIA	27	LD18-01867								25	27	30	27	9	13	R
PT IIIB	27	U17-337087	25	18	19	21		14	R	42	55	45	47	14	32	MR
PT IIIB	28	U17-342096	97	86	85	89	7	60	NR	136	122	116	125	8	84	NR
UT IV	1	LD06-7620 (SCN)	23	17	21	20		14	R	136	122	124	127	6	86	NR
UT IV	2	LD00-2817P (SCN)	2	1	1	1		1	HR	0	3	0	1		1	HR
UT IV	4	CR15-0616	7	7	2	5	54	4	HR	49	67	42	53	24	36	MR
UT IV	5	CR15-1369	33	26	27	29		19	R	115	107	96	106	9	72	NR
UT IV	6	CR15-1382	45	39	36	40	11	27	MR	116	109	107	111	4	75	NR
UT IV	10	K16-1222	34	30	41	35		24	R	110	117	123	117	6	79	NR
UT IV	11	K16-1229	28	33	36	32		22	R	100	120	148	123	20	83	NR
UT IV	12	LD15-3818	42	35	38	38		26	MR	58	71	77	69	14	46	LR
UT IV	13	LD16-2955	17	22	10	16		11	R	150	158	163	157	4	106	NR
UT IV	17	S13-2743C	28	21	27	25		17	R	40	49	68	52	27	35	MR
UT IV	18	S15-10879C	102	93	87	94	8	63	NR	*4	*13	11	11		7	redo
UT IV	18	S15-10879C								47	42	34	41		20	R
PT IV	5	CR17-4046	43	31	51	42	24	28	MR	115	79	109	101	19	68	NR

2020 UT Regional entries for SCN screening

Test	Entry	Strain	HG Type 0							HG Type 2.5.7						
			rep1	rep2	rep3	mean	cv	FI	rating	rep1	rep2	rep3	mean	cv	FI	rating
UT 00 TM	4	ND16-11454GT	34	114	126	91	55	61	redo	91	58	116	88	33	60	NR
UT 00 TM	4	ND16-11454GT	70	20	42	44	57	38	MR							
UT 0 TM	10	M13-276034	18	25	14	19		13	R	135	146	117	133	11	90	NR
UT 0 TM	12	M13-278078	106	88	91	95	10	64	NR	85	73	78	79	8	53	LR
UT I TM	11	E15165T	105	85	97	96	11	64	NR	286	76	18*	181	82	122	redo
UT I TM	11	E15165T								214	221	225	220	3	105	NR
UT II TM	5	E11128T	139	107	122	123	13	83	NR	66	54	81	67	20	45	LR
UT II TM	10	SA17-13168-1	38	30	44	37		25	MR	82	169	141	131	34	88	NR
PT II TM	20	E18450GT	44	58	37	46	23	31	MR	46	54	67	56	19	38	MR
PT II TM	21	E18610T	52	41	60	51	19	34	MR	141	86	120	116	24	78	NR
PT II TM	25	LD18-12212	43	46	39	43	8	29	MR	97	99	101	99	2	67	NR
PT II TM	35	LD18-GH324-1-4	7*	6*	12*	.	.	.	redo	161	157	143	154	6	104	NR
PT II TM	35	LD18-GH324-1-4	17*	14	42	28	71	24	R							
PT II TM	36	LD18-GH324-1-5	*1	21	16*	21	.	14	redo	44	51	36	44	17	29	MR
PT II TM	36	LD18-GH324-1-5	11	18	17	15	25	13	R							
UT III TM	7	CR16-0033	72	81	89	81	11	54	LR	129	118	117	121	5	82	NR
UT III TM	10	LD16-10183	17	23	9	16		11	R	126	143	117	129	10	87	NR
UT III TM	14	SA17-6259	47	41	54	47	14	32	MR	35	23	39	32		22	R
UT III TM	15	SA17-8035	34	25	38	32		22	R	145	198	117	153	27	103	NR
PT III TM	10	CR17-2856	12	6	9	9		6	HR	40	33	51	41		28	R
PT III TM	11	CR17-3029	19	15	12	15		10	R	95	78	88	87	10	59	LR
PT III TM	24	LD18-15377R1a	50	41	61	51	20	34	MR	49	39	57	48	19	33	MR
PT III TM	25	LD11-14102R2	22	18	18	19		13	R	75	93	87	85	11	57	LR
PT III TM	26	LD18-15869R1a	20	17	17	18		12	R	78	89	66	78	15	52	LR
PT III TM	27	LD18-15909R1a	12	19	18	16		11	R	35	114	46	65	66	44	redo
PT III TM	27	LD18-15909R1a								80	74	71	75	6	36	MR
UT IV TM	7	CR16-0037	26	31	32	30		20	R	30	85	51	55	50	37	redo
UT IV TM	7	CR16-0037								101	121	117	113	9	54	LR
UT IV TM	8	CR16-0106	73	104	113	97	22	65	NR	116	126	95	112	14	76	NR
UT IV TM	9	CR16-0110	81	23*	95	88	11	59	redo	88	81	81	83	5	56	LR
UT IV TM	9	CR16-0110	74	55	*7	65	21	55	LR							
UT IV TM	10	CR16-0112	52	60	43	52	16	35	MR	74	82	86	81	8	54	LR
UT IV TM	11	CR16-0113	55	63	42	53	20	36	MR	146	131	132	136	6	92	NR
UT IV TM	12	CR16-0116	37	41	49	42	14	28	MR	107	124	92	108	15	73	NR
UT IV TM	13	CR16-0124	8*	5*	7*				redo	131	116	109	119	9	80	NR
UT IV TM	13	CR16-0124	14	15	7	12	36	10	R							
UT IV TM	14	CR16-0125	61	57	70	63	11	42	LR	85	64	88	79	17	53	LR
UT IV TM	15	CR16-1398	41	48	38	42	12	28	MR	133	153	138	141	7	95	NR

2020 Phytophthora Screening Results - ISA 124 C-1 Race 1 (7)

Test	Entry	Strain	% Dead	# D/T	Test Group
UT00	1	MN0083 (00)	0%	0/12	1
UT00	2	MN0095 (0)	0%	0/12	1
UT00	3	ND Rolette	0%	0/11	1
UT00	4	M14-330015	0%	0/12	1
UT00	5	ND16-7274	0%	0/12	1
UT00	6	ND16-7896	8%	1/12	1
UT00	7	ND16-8305	0%	0/12	1
UT00	8	ND17-20727	0%	0/12	1
UT00	9	ND17-21410	0%	0/12	1
UT0	1	ND Dickey (0)	0%	0/12	1
UT0	2	MN0095 (E)	0%	0/12	1
UT0	3	MN0404CN (SCN)	0%	0/11	1
UT0	4	MN1410 (L)	67%	8/12	1
UT0	5	M07-296048HOLL-1	0%	0/12	1
UT0	6	M07-296048HOLL-3	0%	0/12	1
UT0	7	M12-416003	0%	0/10	1
UT0	8	M13-106018	8%	1/12	1
UT0	9	M13-236028	0%	0/10	1
UT0	10	M13-236029	0%	0/11	1
UT0	11	M13-250051	0%	0/10	1
UT0	12	M14-137078	92%	11/12	1
UT0	13	M14-140012	75%	9/12	1
UT0	14	M14-262034	8%	1/12	1
UT0	15	M14-271013	0%	0/12	1
UT0	16	M14-271042	0%	0/11	1
UT0	17	M14-323003	0%	0/12	1
UT0	18	ND13-4810	83%	10/12	1
UT0	19	ND13-7510	100%	12/12	1
UT0	20	ND16-6745	0%	0/12	1
UT0	21	ND16-6769	0%	0/12	1
UT0	22	ND16-7108	0%	0/12	1
UT0	23	ND16-7155	0%	0/12	1
UT0	24	ND16-7175	0%	0/12	1
UT0	25	ND16-7176	0%	0/11	1
UT0	26	ND16-8257	8%	1/12	1
UT0	27	ND16-8821	0%	0/12	1
UT0	28	ND17-20565	0%	0/12	1
UT0	29	ND17-20728	8%	1/12	1
UT0	30	ND17-20754	0%	0/12	1
UT0	31	ND17-21922	0%	0/12	1
UT0	32	ND17-21929	0%	0/11	1
UT0	33	ND17-22117	25%	3/12	1
UT0	34	ND17-22120	33%	4/12	1

2020 Phytophthora Screening Results - ISA 124 C-1 Race 1 (7)

Test	Entry	Strain	% Dead	# D/T	Test Group
UT0	35	ND17-22388	64%	7/11	1
UT0	36	OAC 18-75C	27%	3/11	1
UTI	1	MN1410 (I)	58%	7/12	2
UTI	2	ND Dickey (0)	0%	0/12	2
UTI	3	U11-917032 (SCN) (L)	100%	12/12	2
UTI	4	U14-103015	100%	12/12	2
UTI	5	E15338	0%	0/12	2
UTI	6	E16099	100%	12/12	2
UTI	7	E16346	75%	9/12	2
UTI	8	LD17-4967a	100%	12/12	2
UTI	9	M07-297007HOLL-1	100%	12/12	2
UTI	10	M07-297007HOLL-3	92%	11/12	2
UTI	11	M07-297007HOLL-4	92%	11/12	2
UTI	12	M10-238-2036	0%	0/12	2
UTI	13	M11-314101	0%	0/11	2
UTI	14	M13-104022	27%	3/11	2
UTI	15	M13-106007	0%	0/12	2
UTI	16	M13-106015	0%	0/12	2
UTI	17	M13-106022	100%	12/12	2
UTI	18	M13-264055	0%	0/11	2
UTI	19	U16-126608	0%	0/12	2
PTI	1	MN1410 (I)	58%	7/12	2
PTI	2	ND Dickey (0)	0%	0/12	2
PTI	3	U11-917032 (SCN) (L)	100%	12/12	2
PTI	4	U14-103015	100%	12/12	2
PTI	5	A14004-13	83%	10/12	2
PTI	6	A14011-30	0%	0/12	2
PTI	7	A14011-55	92%	11/12	2
PTI	8	A14011-77	100%	12/12	2
PTI	9	A14011-90	67%	8/12	2
PTI	10	A14011-116	92%	11/12	2
PTI	11	A14035-80	75%	9/12	2
PTI	12	A14038-53	8%	1/12	2
PTI	13	A14039-55	0%	0/12	2
PTI	14	A14041-44	0%	0/12	2
PTI	15	A14041-58	0%	0/12	2
PTI	16	A14042-50	42%	5/12	2
PTI	17	A14046-66	92%	11/12	2
PTI	18	A14068-20	50%	6/12	2
PTI	19	A15704-2	36%	4/11	2
PTI	20	E18074	0%	0/10	2
PTI	21	LD17-5399a	100%	11/11	2

2020 Phytophthora Screening Results - ISA 124 C-1 Race 1 (7)

Test	Entry	Strain	% Dead	# D/T	Test Group
PTI	22	M14-151039	50%	6/12	2
PTI	23	M14-151094	0%	0/12	2
PTI	24	M14-152051	42%	5/12	2
PTI	25	M14-152074	25%	3/12	2
PTI	26	M14-157011	91%	10/11	2
PTI	27	M14-157032	100%	12/12	2
PTI	28	M14-256061	58%	7/12	2
PTI	29	M14-260009	75%	9/12	2
PTI	30	M14-260012	33%	4/12	2
PTI	31	OAC 18-110C	33%	4/12	2
PTI	32	OAC 18-111C-SCN	9%	1/11	2
PTI	33	ORC 3119N	0%	0/12	2
PTI	34	ORC 3419	0%	0/12	2
PTI	35	U17-107198	0%	0/12	2
PTI	36	U17-226201	92%	11/12	2
PTI	37	U17-311242	8%	1/12	2
PTI	38	U17-326222	58%	7/12	2
UTII	1	IA2102 (II)	73%	8/11	3
UTII	2	LD02-4485 (SCN)	33%	4/12	3
UTII	3	U11-917032 (SCN) (E)	75%	9/12	3
UTII	4	U14-910097 (SCN) (L)	33%	4/12	3
UTII	5	CR16-0008	0%	0/11	3
UTII	6	CR16-0058	92%	11/12	3
UTII	7	CR16-0070	0%	0/11	3
UTII	8	E15345	83%	10/12	3
UTII	9	E15351	0%	0/12	3
UTII	10	E16030	100%	12/12	3
UTII	11	E16380	0%	0/12	3
UTII	12	E16410	75%	9/12	3
UTII	13	E17004	8%	1/12	3
UTII	14	E17040	0%	0/10	3
UTII	15	E17054	0%	0/12	3
UTII	16	E17062	92%	11/12	3
UTII	17	E17069	9%	1/11	3
UTII	18	E17184	70%	7/10	3
UTII	19	E17203	10%	1/10	3
UTII	20	E17283	0%	0/11	3
UTII	21	LD15-5170a	0%	0/12	3
UTII	22	LD15-544	42%	5/12	3
UTII	23	LD15-6268	60%	6/10	3
UTII	24	LD15-6280	55%	6/11	3
UTII	25	LD16-4385a	0%	0/12	3
UTII	26	LD16-4471a	58%	7/12	3

2020 Phytophthora Screening Results - ISA 124 C-1 Race 1 (7)

Test	Entry	Strain	% Dead	# D/T	Test Group
UTII	27	LD16-4766a	67%	8/12	3
UTII	28	LD16-4852	50%	6/12	3
UTII	29	LD16-6557	83%	10/12	3
UTII	30	U16-125610	27%	3/11	3
UTII	31	U16-127621	0%	0/12	3
UTII	32	U16-129612	92%	11/12	3
UTII	33	U16-129646	100%	12/12	3
UTII	34	U16-609059	58%	7/12	3
UTII	35	U16-909058	0%	0/11	3
UTII	36	U16-932015	0%	0/11	3
UTII	37	U17-618174	0%	0/12	3
UTII	38	U17-920124	36%	4/11	3
UTII	39	U17-924011	92%	11/12	3
PTIIA	1	IA2102 (II)	73%	8/11	3
PTIIA	2	LD02-4485 (SCN)	33%	4/12	3
PTIIA	3	U11-917032 (SCN) (E)	75%	9/12	3
PTIIA	4	U14-910097 (SCN) (L)	33%	4/12	3
PTIIA	5	CR17-3780	0%	0/12	3
PTIIA	6	CR17-3841	25%	3/12	3
PTIIA	7	CR17-3842	45%	5/11	3
PTIIA	8	CR17-3913	0%	0/12	3
PTIIA	9	CR17-4959	100%	12/12	3
PTIIA	10	CR17-4971	100%	12/12	3
PTIIA	11	LD17- 247	0%	0/12	3
PTIIA	12	LD17- 822	0%	0/12	3
PTIIA	13	LD17-1884	0%	0/12	3
PTIIA	14	LD17-1887	83%	10/12	3
PTIIA	15	LD17-1900	58%	7/12	3
PTIIA	16	LD17-1902	0%	0/12	3
PTIIA	17	LD17-3855	83%	10/12	3
PTIIA	18	LD17-4947a	67%	8/12	3
PTIIA	19	LD17-5713a	0%	0/10	3
PTIIA	20	LD17-7152a	83%	10/12	3
PTIIA	21	LD18-1827	0%	0/12	3
PTIIA	22	LD18-1866	73%	8/11	3
PTIIA	23	U16-207253	8%	1/12	3
PTIIA	24	U17-217211	0%	0/11	3
PTIIA	25	U17-221057	0%	0/11	3
PTIIA	26	U17-221061	50%	5/10	3
PTIIA	27	U17-238027	0%	0/11	3
PTIIA	28	U17-238045	8%	1/12	3
PTIIA	29	U17-244210	100%	12/12	3
PTIIA	30	U17-333174	75%	9/12	3

2020 Phytophthora Screening Results - ISA 124 C-1 Race 1 (7)

Test	Entry	Strain	% Dead	# D/T	Test Group
PTIIA	31	U18-607283	70%	7/10	3
PTIIA	32	U18-610140	33%	4/12	3
PTIIA	33	U18-903050	42%	5/12	3
PTIIA	34	U18-929246	33%	4/12	3
PTIIA	35	U18-930197	8%	1/12	3
PTIIA	36	U18-930208	0%	0/12	3
PTIIA	37	U18-932147	0%	0/12	3
PTIIB	1	IA2102 (II)	73%	8/11	3
PTIIB	2	LD02-4485 (SCN)	33%	4/12	3
PTIIB	3	U11-917032 (SCN) (E)	75%	9/12	3
PTIIB	4	U14-910097 (SCN) (L)	33%	4/12	3
PTIIB	5	A14004-126	83%	10/12	3
PTIIB	6	A14035-53	83%	10/12	3
PTIIB	7	A14037-61	91%	10/11	3
PTIIB	8	A14037-69	75%	9/12	3
PTIIB	9	A14037-134	100%	12/12	3
PTIIB	10	A14037-143	100%	12/12	3
PTIIB	11	A14039-47	0%	0/11	3
PTIIB	12	A14039-58	92%	11/12	3
PTIIB	13	A14039-72	58%	7/12	3
PTIIB	14	A14039-100	91%	10/11	3
PTIIB	15	A14039-114	0%	0/12	3
PTIIB	16	A14039-126	0%	0/11	3
PTIIB	17	A14040-99	0%	0/7	3
PTIIB	18	A14042-68	8%	1/12	3
PTIIB	19	A14044-136	67%	8/12	3
PTIIB	20	A14044-161	83%	10/12	3
PTIIB	21	A14044-188	75%	9/12	3
PTIIB	22	A14046-68	92%	11/12	3
PTIIB	23	A14047-145	100%	12/12	3
PTIIB	24	E16915	0%	0/11	3
PTIIB	25	E18012	0%	0/12	3
PTIIB	26	E18015	100%	10/10	3
PTIIB	27	E18024T	83%	10/12	3
PTIIB	28	E18073	92%	11/12	3
PTIIB	29	E18433	0%	0/11	3
PTIIB	30	E18638T	100%	12/12	3
PTIIB	31	HM17-08202	0%	0/12	3
PTIIB	32	HM17-08203	0%	0/12	3
PTIIB	33	HM17-09043	0%	0/12	3
PTIIB	34	HM17-10253	0%	0/12	3
PTIIB	35	HM17-12161	0%	0/12	3
PTIIB	36	ORC 4019N	33%	4/12	3
PTIIB	37	ORC 4219N	75%	9/12	3

2020 Phytophthora Screening Results - ISA 124 C-1 Race 1 (7)

Test	Entry	Strain	% Dead	# D/T	Test Group
UTIII	1	LD11-2170 (III)	0%	0/9	4
UTIII	2	U15-606207 (SCN)	0%	0/11	4
UTIII	3	LD07-3395bf (SCN) (L)	92%	11/12	4
UTIII	4	U14-910097 (SCN) (E)	33%	4/12	4
UTIII	5	CR15-1385	83%	10/12	4
UTIII	6	CR15-2775	58%	7/12	4
UTIII	7	CR16-0035	0%	0/12	4
UTIII	8	CR16-0042	0%	0/12	4
UTIII	9	CR16-0067	0%	0/12	4
UTIII	10	LD15-1477	0%	0/10	4
UTIII	11	LD15-6762	0%	0/12	4
UTIII	12	LD16-2751	9%	1/11	4
UTIII	13	LD16-6787	75%	9/12	4
UTIII	14	LD16-6886	70%	7/10	4
UTIII	15	LD16-7669	100%	12/12	4
UTIII	16	LG15-4491	83%	10/12	4
UTIII	17	LG16-2547	82%	9/11	4
UTIII	18	LG16-3733	92%	11/12	4
UTIII	19	LG17-5674	0%	0/11	4
UTIII	20	SA14-9653	0%	0/9	4
UTIII	21	SA16-11831	83%	10/12	4
UTIII	22	SA16-12014	50%	6/12	4
UTIII	23	SA16-12472	100%	12/12	4
UTIII	24	SA16-2194	45%	5/11	4
UTIII	25	SA16-30116	0%	0/11	4
UTIII	26	U15-322139	0%	0/11	4
UTIII	27	U15-322140	0%	0/12	4
UTIII	28	U16-322148	100%	12/12	4
UTIII	29	U16-322178	100%	11/11	4
UTIII	30	U16-323153	92%	11/12	4
UTIII	31	U16-323177	50%	6/12	4
UTIII	32	U16-324137	17%	2/12	4
UTIII	33	U16-324189	100%	12/12	4
UTIII	34	U16-325193	0%	0/12	4
UTIII	35	U16-902058	100%	11/11	4
UTIII	36	U16-928123	8%	1/12	4
UTIII	37	U17-603165	0%	0/12	4
UTIII	38	U17-606129	91%	10/11	4
UTIII	39	U17-608196	18%	2/11	4

2020 Phytophthora Screening Results - ISA 124 C-1 Race 1 (7)

Test	Entry	Strain	% Dead	# D/T	Test Group
PTIII A	1	LD11-2170 (III)	0%	0/9	4
PTIII A	2	U15-606207 (SCN)	0%	0/11	4
PTIII A	3	LD07-3395bf (SCN) (L)	92%	11/12	4
PTIII A	4	U14-910097 (SCN) (E)	33%	4/12	4
PTIII A	5	CR17-2874	92%	11/12	4
PTIII A	6	CR17-3693	0%	0/12	4
PTIII A	7	CR17-3701	0%	0/11	4
PTIII A	8	CR17-3964	27%	3/11	4
PTIII A	9	CR17-4112	100%	12/12	4
PTIII A	10	CR17-4545	92%	11/12	4
PTIII A	11	CR17-5284	42%	5/12	4
PTIII A	12	HM17-01057	9%	1/11	4
PTIII A	13	HM17-02244	0%	0/12	4
PTIII A	14	HM17-02293	0%	0/11	4
PTIII A	15	HM17-02297	0%	0/11	4
PTIII A	16	HM17-06107	0%	0/12	4
PTIII A	17	HM17-07029	0%	0/12	4
PTIII A	18	HM17-12086	0%	0/12	4
PTIII A	19	LD17-10157	0%	0/12	4
PTIII A	20	LD17-10174	92%	11/12	4
PTIII A	21	LD17-10199	17%	2/12	4
PTIII A	22	LD17-2522	0%	0/12	4
PTIII A	23	LD17-833	0%	0/12	4
PTIII A	24	LD17-872	0%	0/12	4
PTIII A	25	LD17-894	0%	0/12	4
PTIII A	26	LD18-01855	0%	0/12	4
PTIII A	27	LD18-01867	8%	1/12	4
PTIII A	28	SA17-17782	67%	8/12	4
PTIII A	29	SA17-18138	75%	9/12	4
PTIII A	30	SA17-18148	92%	11/12	4
PTIII A	31	SA17-19056	83%	10/12	4
PTIII A	32	SA17-19715	40%	4/10	4
PTIII A	33	SA17-19973	0%	0/12	4
PTIII A	34	SA17-20063	10%	1/10	4
PTIII B	1	LD11-2170 (III)	0%	0/9	4
PTIII B	2	U15-606207 (SCN)	0%	0/11	4
PTIII B	3	LD07-3395bf (SCN) (L)	92%	11/12	4
PTIII B	4	U14-910097 (SCN) (E)	33%	4/12	4
PTIII B	5	A14004-58	0%	0/12	4
PTIII B	6	A14010-168	0%	0/12	4
PTIII B	7	A14037-159	83%	10/12	4
PTIII B	8	A14039-188	67%	8/12	4
PTIII B	9	A14041-189	0%	0/12	4

2020 Phytophthora Screening Results - ISA 124 C-1 Race 1 (7)

Test	Entry	Strain	% Dead	# D/T	Test Group
PTIII B	10	A14043-52	0%	0/11	4
PTIII B	11	A14044-167	83%	10/12	4
PTIII B	12	A14066-156	100%	11/11	4
PTIII B	13	A14068-102	17%	2/12	4
PTIII B	14	A14068-146	0%	0/12	4
PTIII B	15	LG15-8010	83%	10/12	4
PTIII B	16	LG17-5763	50%	6/12	4
PTIII B	17	LG17-7150	83%	10/12	4
PTIII B	18	LG18-2636	83%	10/12	4
PTIII B	19	U16-317096	8%	1/12	4
PTIII B	20	U17-311090	0%	0/12	4
PTIII B	21	U17-313161	83%	10/12	4
PTIII B	22	U17-322103	0%	0/12	4
PTIII B	23	U17-323182	82%	9/11	4
PTIII B	24	U17-326153	8%	1/12	4
PTIII B	25	U17-335221	58%	7/12	4
PTIII B	26	U17-336167	50%	6/12	4
PTIII B	27	U17-337087	75%	9/12	4
PTIII B	28	U17-342096	0%	0/11	4
PTIII B	29	U18-609101	0%	0/11	4
PTIII B	30	U18-612127	10%	1/10	4
PTIII B	31	U18-613282	0%	0/12	4
PTIII B	32	U18-615191	33%	4/12	4
PTIII B	33	U18-902015	58%	7/12	4
UTIV	1	LD06-7620 (IV)	8%	1/12	6
UTIV	2	LD00-2817 (L)	75%	9/12	6
UTIV	3	LD07-3395bf (SCN) (E)	50%	6/12	6
UTIV	4	CR15-0616	8%	1/12	6
UTIV	5	CR15-1369	67%	8/12	6
UTIV	6	CR15-1382	73%	8/11	6
UTIV	7	CR16-0130	42%	5/12	6
UTIV	8	CR16-0153	0%	0/12	6
UTIV	9	CR16-0154	30%	3/10	6
UTIV	10	K16-1222	56%	5/9	6
UTIV	11	K16-1229	55%	6/11	6
UTIV	12	LD15-3818	8%	1/12	6
UTIV	13	LD16-2955	29%	2/7	6
UTIV	14	LG17-8880	0%	0/11	6
UTIV	15	LG17-8885	0%	0/12	6
UTIV	16	LG17-8888	0%	0/12	6
UTIV	17	S13-2743C	0%	0/11	6
UTIV	18	S15-10879C	80%	8/10	6
UTIV	19	S16-9784C	no data treated seed		6
UTIV	20	SA16-10735	0%	0/10	6

2020 Phytophthora Screening Results - ISA 124 C-1 Race 1 (7)

Test	Entry	Strain	% Dead	# D/T	Test Group
PTIV	1	LD06-7620 (IV)	8%	1/12	6
PTIV	2	LD00-2817 (L)	75%	9/12	6
PTIV	3	LD07-3395bf (SCN) (E)	50%	6/12	6
PTIV	4	CR17-3734	0%	0%	6
PTIV	5	CR17-4046	45%	5/11	6
PTIV	6	CR17-4386	50%	6/12	6
PTIV	7	CR17-4388	25%	3/12	6
PTIV	8	K17-1441	92%	11/12	6
PTIV	9	K17-1712	50%	5/10	6
PTIV	10	K17-1835	8%	1/12	6
PTIV	11	K17-6185	55%	6/11	6
PTIV	12	K17-6254	0%	0/11	6
PTIV	13	K17-6326	50%	6/12	6
PTIV	14	K17-6436	33%	4/12	6
PTIV	15	K17-6472	83%	10/12	6
PTIV	16	LG17-7290	9%	1/11	6
PTIV	17	LG17-7434	0%	0/12	6
PTIV	18	LG17-8856	92%	11/12	6
PTIV	19	LG17-8858	58%	7/12	6
PTIV	20	LG17-8882	36%	4/11	6
PTIV	21	LG17-8898	0%	0/12	6
PTIV	22	LG17-8900	0%	0/12	6
PTIV	23	SA17-15682	33%	4/12	6
PTIV	24	SA17-19304	33%	4/12	6
PTIV	25	SA17-21156	90%	9/10	6
PTIV	26	SA17-29905	0%	0/11	6
UT00TM	1	MN0083 (00)	0%	0/12	1
UT00TM	2	ND17009GT	100%	12/12	1
UT00TM	3	AG005X8	0%	0/12	1
UT00TM	4	AG009X0	no data		1
UT00TM	5	ND16-11454GT	0%	0/12	1
UT00TM	6	ND16-9796GT	0%	0/12	1
UT00TM	7	ND17-17290(GT)	100%	12/12	1
UT00TM	8	ND17-18763(GT)	100%	12/12	1
UT00TM	9	ND17-19739(GT)	100%	12/12	1
UT00TM	10	ND17-20264(GT)	100%	12/12	1
UT00TM	11	ND17-24101(GT)	8%	1/12	1
UT00TM	12	ND17-24158(GT)	0%	0/12	1
UT00TM	13	ND17-25371(GT)	0%	0/12	1
UT00TM	14	ND17-25996(GT)	0%	0/11	1
UT00TM	15	ND17-26003(GT)	0%	0/12	1

2020 Phytophthora Screening Results - ISA 124 C-1 Race 1 (7)

Test	Entry	Strain	% Dead	# D/T	Test Group
UT0TM	1	ND Dickey (0)	0%	0/12	1
UT0TM	2	MN1410 (L)	67%	8/12	1
UT0TM	3	AG05X9 (E)	0%	0/10	1
UT0TM	4	AG11X8	0%	0/11	1
UT0TM	5	M06R-614008	0%	0/12	1
UT0TM	6	M14HO-1326-1002	0%	0/12	1
UT0TM	7	M13-209007	0%	0/12	1
UT0TM	8	M13-268035	0%	0/10	1
UT0TM	9	M13-270022	8%	1/12	1
UT0TM	10	M13-276034	0%	0/10	1
UT0TM	11	M13-277057	70%	7/10	1
UT0TM	12	M13-278078	20%	2/10	1
UT0TM	13	M13-280012	13%	1/8	1
UT0TM	14	M13R-309006	0%	0/12	1
UT0TM	15	M13R-309009	8%	1/12	1
UT0TM	16	M13R-309021	0%	0/10	1
UT0TM	17	M13R-309024	0%	0/12	1
UT0TM	18	M13R-309033	25%	3/12	1
UT0TM	19	M13R-309035	0%	0/12	1
UT0TM	20	M14HO-1329-1001	0%	0/12	1
UT0TM	21	M14HO-1329-4008	0%	0/11	1
UT0TM	22	M14HO-1330-14001	0%	0/11	1
UT0TM	23	M14HO-1330-3006	0%	0/11	1
UT0TM	24	MCH13R-117072	0%	0/9	1
PT0TM	1	ND Dickey (0)	0%	0/12	1
PT0TM	2	MN1410 (L)	67%	8/12	1
PT0TM	3	AG05X9 (E)	0%	0/10	1
PT0TM	4	AG11X8	0%	0/11	1
PT0TM	5	M06-160019HOLL-1	0%	0/11	1
PT0TM	6	M07-296048HOLL-10	0%	0/12	1
PT0TM	7	M07-296048HOLL-12	0%	0/11	1
PT0TM	8	M07-296048HOLL-13	0%	0/11	1
PT0TM	9	M07-296048HOLL-15	0%	0/11	1
PT0TM	10	M07-296048HOLL-6	0%	0/11	1
PT0TM	11	M08-359176HOLL-1	67%	8/12	1
PT0TM	12	M14-191-2014	0%	0/12	1
PT0TM	13	M14-194017	0%	0/12	1
PT0TM	14	M14-194018	0%	0/12	1
PT0TM	15	M14-502-6008	0%	0/12	1
PT0TM	16	M14-502-6012	0%	0/10	1
PT0TM	17	M14-512016	25%	3/12	1
PT0TM	18	ND17-19726(GT)	8%	1/12	1
PT0TM	19	ND17-20229(GT)	100%	12/12	1

2020 Phytophthora Screening Results - ISA 124 C-1 Race 1 (7)

Test	Entry	Strain	% Dead	# D/T	Test Group
PT0TM	20	ND17-24362(GT)	0%	0/12	1
PT0TM	21	ND17-25230(GT)	25%	3/12	1
UTITM	1	MN1410 (I)	58%	7/12	2
UTITM	2	U11-917032 (SCN) (L)	100%	12/12	2
UTITM	3	AG11X8 (E)	0%	0/12	2
UTITM	4	AG17X8	0%	0/12	2
UTITM	5	A14015-21	42%	5/12	2
UTITM	6	A14017-33	17%	2/12	2
UTITM	7	A14019-1	100%	12/12	2
UTITM	8	A14019-35	100%	12/12	2
UTITM	9	A14058-20	100%	12/12	2
UTITM	10	A14058-33	100%	12/12	2
UTITM	11	E15165T	0%	0/12	2
UTITM	12	E17808-1	18%	2/11	2
UTITM	13	M12R-803016	0%	0/12	2
UTITM	14	M13-246073	9%	1/11	2
UTITM	15	M13R-323077	0%	0/12	2
UTITM	16	M13R-323141	42%	5/12	2
UTITM	17	M14-190005	0%	0/11	2
UTITM	18	M14-190158	0%	0/12	2
UTITM	19	M14-190162	42%	5/12	2
UTITM	20	M14-194030	0%	0/12	2
UTITM	21	M14-245013	0%	0/12	2
UTITM	22	M14-245021	0%	0/12	2
UTITM	23	M14-245055	0%	0/12	2
UTITM	24	M14-245086	8%	1/12	2
UTITM	25	M14-250018	45%	5/11	2
UTITM	26	M14-250027	0%	0/12	2
UTITM	27	M14-508017	0%	0/12	2
UTITM	28	M14-508041	0%	0/12	2
UTITM	29	M14-508084	0%	0/12	2
UTITM	30	M14-508100	0%	0/11	2
UTITM	31	M14-510B013	9%	1/11	2
UTITM	32	M14-511045	92%	11/12	2
UTITM	33	M14-516011	0%	0/12	2
UTITM	34	MCH13R-117054	100%	12/12	2
UTIITM	1	IA2102 (II)	100%	12/12	5
UTIITM	2	U14-910097 (SCN) (L)	100%	12/12	5
UTIITM	3	AG17X8 (E)	8%	1/12	5
UTIITM	4	AG25X8	0%	0/11	5
UTIITM	5	E11128T	82%	9/11	5
UTIITM	6	E17143	0%	0/12	5

2020 Phytophthora Screening Results - ISA 124 C-1 Race 1 (7)

Test	Entry	Strain	% Dead	# D/T	Test Group
UTIITM	7	E17804-01	100%	11/11	5
UTIITM	8	HM16-M015	0%	0/12	5
UTIITM	9	HM16-W150	0%	0/11	5
UTIITM	10	SA17-13168-1	92%	11/12	5
UTIITM	11	SA17-2742	67%	8/12	5
PTIITM	1	IA2102 (II)	100%	12/12	5
PTIITM	2	U14-910097 (SCN) (L)	100%	12/12	5
PTIITM	3	AG17X8 (E)	8%	1/12	5
PTIITM	4	AG25X8	0%	0/11	5
PTIITM	5	A14017-111	50%	6/12	5
PTIITM	6	A14017-166	92%	11/12	5
PTIITM	7	A14017-66	42%	5/12	5
PTIITM	8	A14019-28	100%	12/12	5
PTIITM	9	A14039-95	67%	8/12	5
PTIITM	10	A14040-184	0%	0/12	5
PTIITM	11	A14041-27	0%	0/11	5
PTIITM	12	A14056-186	83%	10/12	5
PTIITM	13	A14056-75	100%	12/12	5
PTIITM	14	A14056-77	100%	12/12	5
PTIITM	15	A14058-96	100%	12/12	5
PTIITM	16	A14061-177	67%	8/12	5
PTIITM	17	A14062-101	83%	10/12	5
PTIITM	18	A14062-182	83%	10/12	5
PTIITM	19	A14069-28	92%	11/12	5
PTIITM	20	E18450GT	0%	0/12	5
PTIITM	21	E18610T	50%	6/12	5
PTIITM	22	HM17-06108	0%	0/12	5
PTIITM	23	HM17-06255	8%	1/12	5
PTIITM	24	HM17-06285	0%	0/12	5
PTIITM	25	LD18-12212	92%	11/12	5
PTIITM	26	LD18-12216	92%	11/12	5
PTIITM	27	LD18-12217	100%	12/12	5
PTIITM	28	LD18-12218	92%	11/12	5
PTIITM	29	LD18-12335	100%	12/12	5
PTIITM	30	LD18-12370	100%	12/12	5
PTIITM	31	LD18-14008	100%	11/11	5
PTIITM	32	LD18-14024	100%	12/12	5
PTIITM	33	LD18-14040	100%	12/12	5
PTIITM	34	LD18-14052	100%	12/12	5
PTIITM	35	LD18-GH324-1-4	92%	11/12	5
PTIITM	36	LD18-GH324-1-5	92%	11/12	5

2020 Phytophthora Screening Results - ISA 124 C-1 Race 1 (7)

Test	Entry	Strain	% Dead	# D/T	Test Group
UTHITM	1	LD11-2170 (III)	0%	0/12	5
UTHITM	2	U15-606207 (SCN)	8%	1/12	5
UTHITM	3	AG25X8 (E)	0%	0/11	5
UTHITM	4	AG38X8 (L)	0%	0/11	5
UTHITM	5	CR16-0020	100%	12/12	5
UTHITM	6	CR16-0027	45%	5/11	5
UTHITM	7	CR16-0033	0%	0/12	5
UTHITM	8	HM16-M016	8%	1/12	5
UTHITM	9	HM16-M019	0%	0/12	5
UTHITM	10	LD16-10183	92%	11/12	5
UTHITM	11	LD16-10310	0%	0/12	5
UTHITM	12	LD16-10319	25%	3/12	5
UTHITM	13	LD17-12679	100%	12/12	5
UTHITM	14	SA17-6259	92%	11/12	5
UTHITM	15	SA17-8035	100%	11/11	5
PTHITM	1	LD11-2170 (III)	0%	0/12	5
PTHITM	2	U15-606207 (SCN)	8%	1/12	5
PTHITM	3	AG25X8 (E)	0%	0/11	5
PTHITM	4	AG38X8 (L)	0%	0/11	5
PTHITM	5	A14019-141	67%	8/12	5
PTHITM	6	CR16-1124	100%	12/12	5
PTHITM	7	CR17-0594	9%	1/11	5
PTHITM	8	CR17-0765	100%	12/12	5
PTHITM	9	CR17-0969	64%	7/11	5
PTHITM	10	CR17-2856	92%	11/12	5
PTHITM	11	CR17-3029	67%	8/12	5
PTHITM	12	HM16-W192	0%	0/12	5
PTHITM	13	HM17-02165	0%	0/12	5
PTHITM	14	HM17-02346	0%	0/12	5
PTHITM	15	HM17-03278	0%	0/12	5
PTHITM	16	LD18-12395	100%	12/12	5
PTHITM	17	LD18-12596	0%	0/11	5
PTHITM	18	LD18-12605	42%	5/12	5
PTHITM	19	LD18-12609	0%	0/9	5
PTHITM	20	LD18-12776	0%	0/12	5
PTHITM	21	LD18-12779	0%	0/11	5
PTHITM	22	LD18-14065	100%	12/12	5
PTHITM	23	LD18-14296	0%	0/11	5
PTHITM	24	LD18-15377R1a	0%	0/12	5
PTHITM	25	LD18-15438R1a	100%	12/12	5
PTHITM	26	LD18-15869R1a	0%	0/12	5
PTHITM	27	LD18-15909R1a	0%	0/12	5
PTHITM	28	SA17-11753	100%	12/12	5

2020 Phytophthora Screening Results - ISA 124 C-1 Race 1 (7)

Test	Entry	Strain	% Dead	# D/T	Test Group
PTIIITM	29	SA17-1852	83%	10/12	5
PTIIITM	30	SA17-5559	33%	4/12	5
PTIIITM	31	SA18-262PR	100%	11/11	5
PTIIITM	32	SA18-268PR	100%	11/11	5
PTIIITM	33	SA18-350PR	100%	12/12	5
UTIVTM	1	LD06-7620 (IV)	8%	1/12	6
UTIVTM	2	LD07-3395bf (SCN) (E)	50%	6/12	6
UTIVTM	3	AG38X8	0%	0/12	6
UTIVTM	4	AG41X8 (L)	0%	0/12	6
UTIVTM	5	CR16-0011	0%	0/12	6
UTIVTM	6	CR16-0016	36%	4/11	6
UTIVTM	7	CR16-0037	25%	3/12	6
UTIVTM	8	CR16-0106	8%	1/12	6
UTIVTM	9	CR16-0110	50%	6/12	6
UTIVTM	10	CR16-0112	75%	9/12	6
UTIVTM	11	CR16-0113	0%	0/11	6
UTIVTM	12	CR16-0116	92%	11/12	6
UTIVTM	13	CR16-0124	27%	3/11	6
UTIVTM	14	CR16-0125	42%	5/12	6
UTIVTM	15	CR16-1398	0%	0/11	6
UTIVTM	16	CR17-0824	0%	0/11	6
UTIVTM	17	CR17-3001	45%	5/11	6
UTIVTM	18	LD17-12352	45%	5/11	6
UTIVTM	19	LD18-12659	45%	5/11	6
UTIVTM	20	LD18-12663	9%	1/11	6
UTIVTM	21	LD18-12674	18%	2/11	6
UTIVTM	22	LD18-14537	0%	0/12	6
UTIVTM	23	S17-20605C	no data treated seed		6
UTIVTM	24	S17PR-499	0%	0/11	6
UTIVTM	25	SA17-5569	25%	3/12	6
UTIVTM	26	SA17-8882	43%	3/7	6

2020 Phytophthora Screening Results - All Races

Test	Entry	Strain	Isolate:		ISA 124 C-1 Race 1 (7)		Dorrance Race 3 (1a, 7)		P1754 Race 4 (1a, 1c, 7)	
			% Dead	# D/T	% Dead	# D/T	% Dead	# D/T		
UT0	1	ND Dickey (0)	0%	0/12	0%	0/11	55%	6/11		
UT0	2	MN0095 (E)	0%	0/12	92%	11/12	36%	4/11		
UT0	3	MN0404CN (SCN)	0%	0/11	0%	0/12	0%	0/9		
UT0	4	MN1410 (L)	67%	8/12	100%	12/12	64%	7/11		
UT0	20	ND16-6745	0%	0/12	0%	0/12	0%	0/12		
UT0	22	ND16-7108	0%	0/12	0%	0/12	0%	0/11		
UTI	1	MN1410 (I)	58%	7/12	100%	12/12	64%	7/11		
UTI	2	ND Dickey (0)	0%	0/12	0%	0/11	55%	6/11		
UTI	3	U11-917032 (SCN) (L)	100%	12/12	91%	10/11	100%	10/10		
UTI	4	U14-103015	100%	12/12	100%	12/12	91%	10/11		
UTI	19	U16-126608	0%	0/12	17%	2/12	0%	0/11		
PTI	1	MN1410 (I)	58%	7/12	100%	12/12	64%	7/11		
PTI	2	ND Dickey (0)	0%	0/12	0%	0/11	55%	6/11		
PTI	3	U11-917032 (SCN) (L)	100%	12/12	91%	10/11	100%	10/10		
PTI	4	U14-103015	100%	12/12	100%	12/12	91%	10/11		
PTI	35	U17-107198	0%	0/12	0%	0/12	82%	9/11		
PTI	36	U17-226201	92%	11/12	83%	10/12	75%	9/12		
PTI	37	U17-311242	8%	1/12	0%	0/12	100%	12/12		
PTI	38	U17-326222	58%	7/12	71%	5/7	58%	7/12		
UTHI	1	IA2102 (II)	73%	8/11	83%	10/12	92%	11/12		
UTHI	2	LD02-4485 (SCN)	33%	4/12	8%	1/12	67%	8/12		
UTHI	3	U11-917032 (SCN) (E)	75%	9/12	91%	10/11	100%	10/10		
UTHI	4	U14-910097 (SCN) (L)	33%	4/12	42%	5/12	33%	4/12		
UTHI	11	E16380	0%	0/12	0%	0/11	0%	0/12		
UTHI	13	E17004	8%	1/12	17%	2/12	0%	0/12		
UTHI	14	E17040	0%	0/10	0%	0/12	10%	1/10		
UTHI	15	E17054	0%	0/12	0%	0/10	0%	0/7		
UTHI	20	E17283	0%	0/11	33%	3/9	0%	0/10		
UTHI	21	LD15-5170a	0%	0/12	0%	0/12	27%	3/11		
UTHI	30	U16-125610	27%	3/11	50%	6/12	27%	3/11		
UTHI	31	U16-127621	0%	0/12	0%	0/11	0%	0/11		
UTHI	32	U16-129612	92%	11/12	100%	12/12	33%	4/12		
UTHI	33	U16-129646	100%	12/12	100%	12/12	92%	11/12		
UTHI	34	U16-609059	58%	7/12	33%	4/12	20%	2/10		
UTHI	35	U16-909058	0%	0/11	0%	0/12	0%	0/12		
UTHI	36	U16-932015	0%	0/11	17%	2/12	0%	0/12		
UTHI	39	U17-924011	92%	11/12	83%	10/12	83%	10/12		

2020 Phytophthora Screening Results - All Races

Test	Entry	Strain	Isolate:	Dorrance Race 7 (1a, 3a, 6,7)		Dorrance Race 17 (1b,1d, 3a, 6, 7)		Dorrance Race 25 (1a, 1b, 1c, 1k, 7)	
				% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
UT0	1	ND Dickey (0)		0%	0/11	0%	0/12	75%	9/12
UT0	2	MN0095 (E)		27%	3/11	82%	9/11	75%	9/12
UT0	3	MN0404CN (SCN)		0%	0/12	0%	0/12	0%	0/12
UT0	4	MN1410 (L)		63%	5/8	44%	4/9	75%	9/12
UT0	20	ND16-6745		92%	11/12	100%	12/12	0%	0/12
UT0	22	ND16-7108		92%	11/12	92%	11/12	0%	0/11
UTI	1	MN1410 (I)		63%	5/8	44%	4/9	75%	9/12
UTI	2	ND Dickey (0)		0%	0/11	0%	0/12	75%	9/12
UTI	3	U11-917032 (SCN) (L)		83%	10/12	100%	12/12	100%	11/11
UTI	4	U14-103015		67%	8/12	91%	10/11	100%	12/12
UTI	19	U16-126608		50%	6/12	0%	0/11	0%	0/12
PTI	1	MN1410 (I)		63%	5/8	44%	4/9	75%	9/12
PTI	2	ND Dickey (0)		0%	0/11	0%	0/12	75%	9/12
PTI	3	U11-917032 (SCN) (L)		83%	10/12	100%	12/12	100%	11/11
PTI	4	U14-103015		67%	8/12	91%	10/11	100%	12/12
PTI	35	U17-107198		0%	0/12	0%	0/11	92%	11/12
PTI	36	U17-226201		67%	8/12	73%	8/11	75%	9/12
PTI	37	U17-311242		8%	1/12	0%	0/12	92%	11/12
PTI	38	U17-326222		80%	8/10	45%	5/11	100%	10/10
UTHI	1	IA2102 (II)		45%	5/11	100%	12/12	82%	9/11
UTHI	2	LD02-4485 (SCN)		50%	6/12	27%	3/11	100%	11/11
UTHI	3	U11-917032 (SCN) (E)		83%	10/12	100%	12/12	100%	11/11
UTHI	4	U14-910097 (SCN) (L)		42%	5/12	27%	3/11	67%	8/12
UTHI	11	E16380		0%	0/12	0%	0/9	92%	11/12
UTHI	13	E17004		0%	0/12	0%	0/12	91%	10/11
UTHI	14	E17040		0%	0/12	0%	0/11	82%	9/11
UTHI	15	E17054		8%	1/12	0%	0/12	82%	9/11
UTHI	20	E17283		0%	0/11	0%	0/9	91%	10/11
UTHI	21	LD15-5170a		0%	0/11	0%	0/12	73%	8/11
UTHI	30	U16-125610		91%	10/11	42%	5/12	33%	4/12
UTHI	31	U16-127621		27%	3/11	0%	0/12	0%	0/11
UTHI	32	U16-129612		83%	10/12	92%	11/12	82%	9/11
UTHI	33	U16-129646		92%	11/12	100%	11/11	67%	8/12
UTHI	34	U16-609059		73%	8/11	64%	7/11	25%	3/12
UTHI	35	U16-909058		36%	4/11	0%	0/12	100%	12/12
UTHI	36	U16-932015		83%	10/12	100%	12/12	9%	1/11
UTHI	39	U17-924011		100%	12/12	75%	9/12	67%	8/12

2020 Phytophthora Screening Results - All Races

Test	Entry	Strain	Isolate:		ISA 124 C-1 Race 1 (7)		Dorrance Race 3 (1a, 7)		P1754 Race 4 (1a, 1c, 7)	
			% Dead	# D/T	% Dead	# D/T	% Dead	# D/T		
PTIIA	1	IA2102 (II)	73%	8/11	83%	10/12	92%	11/12		
PTIIA	2	LD02-4485 (SCN)	33%	4/12	8%	1/12	67%	8/12		
PTIIA	3	U11-917032 (SCN) (E)	75%	9/12	91%	10/11	100%	10/10		
PTIIA	4	U14-910097 (SCN) (L)	33%	4/12	42%	5/12	33%	4/12		
PTIIA	23	U16-207253	8%	1/12	0%	0/12	0%	0/10		
PTIIA	24	U17-217211	0%	0/11	0%	0/12	90%	9/10		
PTIIA	26	U17-221061	50%	5/10	50%	6/12	42%	5/12		
PTIIA	27	U17-238027	0%	0/11	25%	3/12	0%	0/12		
PTIIA	28	U17-238045	8%	1/12	9%	1/11	8%	1/12		
PTIIA	29	U17-244210	100%	12/12	92%	11/12	78%	7/9		
PTIIA	33	U18-903050	42%	5/12	100%	11/11	17%	2/12		
PTIIA	34	U18-929246	33%	4/12	33%	4/12	25%	3/12		
PTIIA	37	U18-932147	0%	0/12	11%	1/9	0%	0/12		
PTIIB	1	IA2102 (II)	73%	8/11	83%	10/12	92%	11/12		
PTIIB	2	LD02-4485 (SCN)	33%	4/12	8%	1/12	67%	8/12		
PTIIB	3	U11-917032 (SCN) (E)	75%	9/12	91%	10/11	100%	10/10		
PTIIB	4	U14-910097 (SCN) (L)	33%	4/12	42%	5/12	33%	4/12		
PTIIB	24	E16915	0%	0/11	0%	0/10	0%	0/10		
PTIIB	25	E18012	0%	0/12	22%	2/9	0%	0/9		
PTIIB	26	E18015	100%	10/10	100%	12/12	63%	5/8		
PTIIB	27	E18024T	83%	10/12	100%	11/11	55%	6/11		
PTIIB	28	E18073	92%	11/12	100%	11/11	8%	1/12		
PTIIB	29	E18433	0%	0/11	0%	0/11	0%	0/11		
PTIIB	30	E18638T	100%	12/12	100%	11/11	60%	6/10		
UTIII	1	LD11-2170 (III)	0%	0/9	0%	0/11	0%	0/11		
UTIII	2	U15-606207 (SCN)	0%	0/11	9%	1/11	0%	0/12		
UTIII	3	LD07-3395bf (SCN) (L)	92%	11/12	92%	11/12	83%	10/12		
UTIII	4	U14-910097 (SCN) (E)	33%	4/12	42%	5/12	33%	4/12		
UTIII	10	LD15-1477	0%	0/10	0%	0/12	75%	9/12		
UTIII	26	U15-322139	0%	0/11	8%	1/12	0%	0/12		
UTIII	27	U15-322140	0%	0/12	0%	0/11	0%	0/12		
UTIII	28	U16-322148	100%	12/12	100%	12/12	100%	12/12		
UTIII	29	U16-322178	100%	11/11	100%	12/12	92%	11/12		
UTIII	30	U16-323153	92%	11/12	83%	10/12	83%	10/12		
UTIII	31	U16-323177	50%	6/12	27%	3/11	17%	2/12		
UTIII	32	U16-324137	17%	2/12	0%	0/12	0%	0/12		
UTIII	33	U16-324189	100%	12/12	92%	11/12	55%	6/11		
UTIII	34	U16-325193	0%	0/12	18%	2/11	8%	1/12		
UTIII	35	U16-902058	100%	11/11	100%	12/12	92%	11/12		
UTIII	36	U16-928123	8%	1/12	0%	0/11	60%	6/10		

2020 Phytophthora Screening Results - All Races

Test	Entry	Strain	Isolate:		Dorrance Race 7 (1a, 3a, 6,7)		Dorrance Race 17 (1b,1d, 3a, 6, 7)		Dorrance Race 25 (1a, 1b, 1c, 1k, 7)	
			% Dead	# D/T	% Dead	# D/T	% Dead	# D/T		
PTIIA	1	IA2102 (II)	45%	5/11	100%	12/12	82%	9/11		
PTIIA	2	LD02-4485 (SCN)	50%	6/12	27%	3/11	100%	11/11		
PTIIA	3	U11-917032 (SCN) (E)	83%	10/12	100%	12/12	100%	11/11		
PTIIA	4	U14-910097 (SCN) (L)	42%	5/12	27%	3/11	67%	8/12		
PTIIA	23	U16-207253	0%	0/8	0%	0/12	91%	10/11		
PTIIA	24	U17-217211	73%	8/11	0%	0/10	100%	11/11		
PTIIA	26	U17-221061	100%	11/11	83%	10/12	25%	3/12		
PTIIA	27	U17-238027	92%	11/12	92%	11/12	9%	1/11		
PTIIA	28	U17-238045	22%	2/9	67%	8/12	0%	0/12		
PTIIA	29	U17-244210	67%	8/12	90%	9/10	67%	8/12		
PTIIA	33	U18-903050	91%	10/11	60%	6/10	0%	0/12		
PTIIA	34	U18-929246	50%	5/10	64%	7/11	86%	6/7		
PTIIA	37	U18-932147	60%	6/10	75%	9/12	0%	0/11		
PTIIB	1	IA2102 (II)	45%	5/11	100%	12/12	82%	9/11		
PTIIB	2	LD02-4485 (SCN)	50%	6/12	27%	3/11	100%	11/11		
PTIIB	3	U11-917032 (SCN) (E)	83%	10/12	100%	12/12	100%	11/11		
PTIIB	4	U14-910097 (SCN) (L)	42%	5/12	27%	3/11	67%	8/12		
PTIIB	24	E16915	0%	0/11	0%	0/10	0%	0/9		
PTIIB	25	E18012	0%	0/11	0%	0/10	58%	7/12		
PTIIB	26	E18015	91%	10/11	100%	10/10	67%	8/12		
PTIIB	27	E18024T	50%	6/12	100%	12/12	90%	9/10		
PTIIB	28	E18073	58%	7/12	75%	9/12	70%	7/10		
PTIIB	29	E18433	0%	0/12	0%	0/8	91%	10/11		
PTIIB	30	E18638T	88%	7/8	100%	9/9	100%	8/8		
UTIII	1	LD11-2170 (III)	0%	0/11	0%	0/11	92%	11/12		
UTIII	2	U15-606207 (SCN)	73%	8/11	80%	8/10	0%	0/7		
UTIII	3	LD07-3395bf (SCN) (L)	92%	11/12	8%	1/12	36%	4/11		
UTIII	4	U14-910097 (SCN) (E)	42%	5/12	27%	3/11	67%	8/12		
UTIII	10	LD15-1477	0%	0/12	0%	0/11	25%	2/8		
UTIII	26	U15-322139	0%	0/10	0%	0/11	75%	9/12		
UTIII	27	U15-322140	0%	0/10	0%	0/11	64%	7/11		
UTIII	28	U16-322148	83%	10/12	58%	7/12	91%	10/11		
UTIII	29	U16-322178	92%	11/12	100%	11/11	92%	11/12		
UTIII	30	U16-323153	100%	10/10	100%	12/12	75%	9/12		
UTIII	31	U16-323177	42%	5/12	42%	5/12	18%	2/11		
UTIII	32	U16-324137	18%	2/11	8%	1/12	100%	11/11		
UTIII	33	U16-324189	92%	11/12	92%	11/12	82%	9/11		
UTIII	34	U16-325193	9%	1/11	8%	1/12	100%	11/11		
UTIII	35	U16-902058	91%	10/11	90%	9/10	90%	9/10		
UTIII	36	U16-928123	0%	0/11	0%	0/10	69%	9/13		

2020 Phytophthora Screening Results - All Races

Test	Entry	Strain	Isolate:	ISA 124 C-1 Race 1 (7)		Dorrance Race 3 (1a, 7)		P1754 Race 4 (1a, 1c, 7)	
				% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
UTIII	37	U17-603165	0%	0/12	50%	6/12	0%	0/12	
UTIII	38	U17-606129	91%	10/11	100%	12/12	45%	5/11	
UTIII	39	U17-608196	18%	2/11	36%	4/11	8%	1/12	
PTIIB	1	LD11-2170 (III)	0%	0/9	0%	0/11	0%	0/11	
PTIIB	2	U15-606207 (SCN)	0%	0/11	9%	1/11	0%	0/12	
PTIIB	3	LD07-3395bf (SCN) (L)	92%	11/12	92%	11/12	83%	10/12	
PTIIB	4	U14-910097 (SCN) (E)	33%	4/12	42%	5/12	33%	4/12	
PTIIB	19	U16-317096	8%	1/12	0%	0/12	64%	7/11	
PTIIB	20	U17-311090	0%	0/12	100%	11/11	92%	11/12	
PTIIB	21	U17-313161	83%	10/12	90%	9/10	75%	9/12	
PTIIB	23	U17-323182	82%	9/11	100%	12/12	75%	9/12	
PTIIB	25	U17-335221	58%	7/12	100%	12/12	73%	8/11	
PTIIB	27	U17-337087	75%	9/12	82%	9/11	18%	2/11	
PTIIB	28	U17-342096	0%	0/11	9%	1/11	83%	10/12	
PTIIB	29	U18-609101	0%	0/11	0%	0/12	0%	0/11	
PTIIB	30	U18-612127	10%	1/10	0%	0/11	100%	12/12	
PTIIB	31	U18-613282	0%	0/12	0%	0/11	0%	0/12	
PTIIB	32	U18-615191	33%	4/12	45%	5/11	75%	9/12	
PTIIB	33	U18-902015	58%	7/12	100%	12/12	82%	9/11	
PTIITM	1	IA2102 (II)	100%	12/12	83%	10/12	92%	11/12	
PTIITM	2	U14-910097 (SCN) (L)	100%	12/12	42%	5/12	33%	4/12	
PTIITM	3	AG17X8 (E)	8%	1/12	0%	0/12	27%	3/11	
PTIITM	4	AG25X8	0%	0/11	0%	0/11	0%	0/12	
PTIITM	20	E18450GT	0%	0/12	18%	2/11	0%	0/10	
PTIITM	21	E18610T	50%	6/12	92%	11/12	55%	6/11	

2020 Phytophthora Screening Results - All Races

Test	Entry	Strain	Isolate:	Dorrance Race 7 (1a, 3a, 6,7)		Dorrance Race 17 (1b,1d, 3a, 6, 7)		Dorrance Race 25 (1a, 1b, 1c, 1k, 7)	
				% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
UTIII	37	U17-603165		60%	6/10	91%	10/11	0%	0/12
UTIII	38	U17-606129		36%	4/11	73%	8/11	33%	4/12
UTIII	39	U17-608196		67%	8/12	92%	11/12	0%	0/12
PTIIB	1	LD11-2170 (III)		0%	0/11	0%	0/11	92%	11/12
PTIIB	2	U15-606207 (SCN)		73%	8/11	80%	8/10	0%	0/7
PTIIB	3	LD07-3395bf (SCN) (L)		92%	11/12	8%	1/12	36%	4/11
PTIIB	4	U14-910097 (SCN) (E)		42%	5/12	27%	3/11	67%	8/12
PTIIB	19	U16-317096		0%	0/12	0%	0/12	50%	5/10
PTIIB	20	U17-311090		100%	12/12	0%	0/12	73%	8/11
PTIIB	21	U17-313161		60%	6/10	83%	10/12	89%	8/9
PTIIB	23	U17-323182		56%	5/9	92%	11/12	64%	7/11
PTIIB	25	U17-335221		56%	5/9	83%	10/12	70%	7/10
PTIIB	27	U17-337087		17%	2/12	100%	11/11	50%	5/10
PTIIB	28	U17-342096		0%	0/10	8%	1/12	75%	9/12
PTIIB	29	U18-609101		0%	0/10	0%	0/12	90%	9/10
PTIIB	30	U18-612127		0%	0/12	0%	0/11	100%	12/12
PTIIB	31	U18-613282		0%	0/12	0%	0/10	92%	11/12
PTIIB	32	U18-615191		36%	4/11	42%	5/12	70%	7/10
PTIIB	33	U18-902015		25%	2/8	90%	9/10	25%	2/8
PTIITM	1	IA2102 (II)		45%	5/11	100%	12/12	82%	9/11
PTIITM	2	U14-910097 (SCN) (L)		42%	5/12	27%	3/11	67%	8/12
PTIITM	3	AG17X8 (E)		0%	0/8	0%	0/11	25%	3/12
PTIITM	4	AG25X8		0%	0/12	0%	0/12	27%	3/11
PTIITM	20	E18450GT		0%	0/10	0%	0/11	0%	0/12
PTIITM	21	E18610T		82%	9/11	100%	12/12	75%	9/12

2020 Phytophthora Screening - Differential Scores

Differential Name	Isolate:	ISA 124 C-1 Race 1 (7)					
	Date rated:	Group 1 - 7/21/20		Group 2 - 7/23/20		Group 3 - 7/28/20	
	Rps gene	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	rps	82%	9/11	100%	12/12	80%	8/10
Union	1a	0%	0/11	0%	0/11	0%	0/12
L77-1863	1b	0%	0/12	20%	2/10	67%	8/12
L75-3735	1c	0%	0/12	0%	0/12	0%	0/11
PI 103091	1d	0%	0/11	8%	1/12	9%	1/11
Williams 82	1k	0%	0/12	0%	0/12	0%	0/12
L76-1449	2	8%	1/12	36%	4/11	0%	0/12
PI 171442	3a	0%	0/12	0%	0/12	0%	0/12
L91-8347	3b	0%	0/12	0%	0/10	0%	0/11
PRX 145-48	3c	0%	0/12	17%	2/12	0%	0/11
L85-2352	4	0%	0/11	0%	0/10	0%	0/12
L85-3059	5	0%	0/12	0%	0/12	8%	1/12
L89-1581	6	0%	0/12	0%	0/12	0%	0/11
L93-3258	7	100%	12/12	92%	11/12	100%	11/11
PI 399073	8	0%	0/11	0%	0/11	0%	0/11

Differential Name	Isolate:	Dorrance Race 3 (1a, 7)		P1754 Race 4 (1a, 1c, 7)		Dorrance Race 7 (1a, 3a, 6,7)	
	Date rated:	8/11/2020		8/13/2020		9/9/2020	
	Rps gene	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	rps	100%	12/12	80%	8/10	90%	9/10
Union	1a	100%	12/12	92%	11/12	82%	9/11
L77-1863	1b	17%	2/12	0%	0/12	0%	0/11
L75-3735	1c	9%	1/11	75%	9/12	0%	0/12
PI 103091	1d	0%	0/11	0%	0/10	0%	0/12
Williams 82	1k	0%	0/11	0%	0/11	0%	0/11
L76-1449	2	18%	2/11	0%	0/12	70%	7/10
PI 171442	3a	0%	0/12	0%	0/12	100%	9/9
L91-8347	3b	0%	0/11	17%	2/12	18%	2/11
PRX 145-48	3c	0%	0/11	0%	0/12	73%	8/11
L85-2352	4	0%	0/10	0%	0/9	33%	4/12
L85-3059	5	0%	0/9	0%	0/11	55%	6/11
L89-1581	6	0%	0/11	0%	0/11	82%	9/11
L93-3258	7	100%	11/11	100%	11/11	92%	11/12
PI 399073	8	0%	0/10	0%	0/7	30%	3/10

2020 Phytophthora Screening - Differential Scores

Differential Name	Isolate:	ISA 124 C-1 Race 1 (7)					
	Date rated:	Group 4 - 7/30/20		Group 5 - 8/5/20		Group 6 - 8/3/20	
	Rps gene	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	rps	91%	10/11	92%	11/12	58%	7/12
Union	1a	0%	0/12	0%	0/12	0%	0/12
L77-1863	1b	17%	2/12	58%	7/12	0%	0/12
L75-3735	1c	8%	1/12	0%	0/12	0%	0/12
PI 103091	1d	8%	1/12	17%	2/12	0%	0/11
Williams 82	1k	0%	0/12	0%	0/11	0%	0/12
L76-1449	2	0%	0/12	0%	0/12	8%	1/12
PI 171442	3a	0%	0/11	0%	0/9	0%	0/11
L91-8347	3b	9%	1/11	0%	0/12	11%	1/9
PRX 145-48	3c	17%	2/12	0%	0/12	0%	0/12
L85-2352	4	0%	0/12	9%	1/11	0%	0/11
L85-3059	5	0%	0/12	0%	0/12	0%	0/12
L89-1581	6	0%	0/12	0%	0/12	0%	0/12
L93-3258	7	100%	12/12	92%	11/12	75%	9/12
PI 399073	8	0%	0/10	0%	0/10	0%	0/7

Differential Name	Isolate:	Dorrance Race 17 (1b,1d, 3a, 6, 7)		Dorrance Race 25 (1a, 1b, 1c, 1k, 7)	
	Date rated:	8/20/2020		8/28/2020	
	Rps gene	% Dead	# D/T	% Dead	# D/T
Williams	rps	100%	12/12	73%	8/11
Union	1a	0%	0/8	73%	8/11
L77-1863	1b	92%	11/12	91%	10/11
L75-3735	1c	0%	0/12	82%	9/11
PI 103091	1d	73%	8/11	0%	0/12
Williams 82	1k	0%	0/12	75%	9/12
L76-1449	2	80%	8/10	0%	0/10
PI 171442	3a	100%	12/12	0%	0/9
L91-8347	3b	92%	11/12	9%	1/11
PRX 145-48	3c	83%	10/12	0%	0/12
L85-2352	4	91%	10/11	0%	0/12
L85-3059	5	100%	12/12	0%	0/12
L89-1581	6	100%	12/12	0%	0/11
L93-3258	7	100%	11/11	92%	11/12
PI 399073	8	0%	0/8	0%	0/12

Uniform and Preliminary Test Locations, 2020

Non-Traited Tests

Location	Tests Conducted By:	UT				PT							
		00	0	I	II	III	IV	I	II	III	IV		
IA	Boone				<u>X</u>								
IL	Arthur						<u>X</u>						
	Flora							<u>X</u>					
	Pontiac				<u>X</u>								
	Savoy							<u>X</u>					<u>X</u>
	Urbana				<u>X</u>	<u>X</u>	<u>X</u>		<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
IN	Romney						<u>X</u>	<u>X</u>					<u>X</u>
	Wanatah			<u>X</u>	<u>X</u>	<u>X</u>							
	West Lafayette			<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>
KS	Manhattan						<u>X</u>				<u>X</u>	<u>X</u>	
	Ottawa							<u>X</u>					<u>X</u>
MI	Britton				<u>X</u>								
	Saginaw			<u>X</u>									
	Williamston			<u>X</u>	<u>X</u>				<u>X</u>	<u>X</u>			
MN	Crookston		<u>X</u>										
	Glyndon												
	Morehead												
	Rosemount			<u>X</u>					<u>X</u>				
	Roseau												
	Shelly		<u>X</u>										
	Waseca			<u>X</u>					<u>X</u>				
MO	Columbia						<u>X</u>				<u>X</u>	<u>X</u>	
	Portageville (Clay)							<u>X</u>					
	Portageville (Loam)							<u>X</u>					
NE	Holdrege						<u>X</u>				<u>X</u>		
	Mead			<u>X</u>	<u>X</u>				<u>X</u>	<u>X</u>			
	Steven's Creek			<u>X</u>	<u>X</u>	<u>X</u>			<u>X</u>	<u>X</u>	<u>X</u>		
OH	Wooster												
ONT	Chatham				<u>X</u>					<u>X</u>			
	Elora	<u>X</u>	<u>X</u>										
	Palmyra			<u>X</u>					<u>X</u>				
	Woodstock		<u>X</u>	<u>X</u>					<u>X</u>				
QUE	Saint Hyacinthe			<u>X</u>					<u>X</u>				
	St. Mathieu de Beloeil	<u>X</u>	<u>X</u>										
	<u>X</u> Locations With Agronomic Data:	2	5	11	10	9	8	9	6	6	7		
	<u>X</u> Locations With Protein and Oil Data:	2	5	10	9	8	5	9	6	6	5		
	<u>X</u> ¹ Locations With Fatty Acid Data:	--	--	--	--	--	--	--	--	--	--		
	<u>X</u> Locations With Sugar Data:	--	--	--	--	--	--	--	--	--	--		

Uniform and Preliminary Test Locations, 2020

Traited Materials Tests

Location	Tests Conducted By:	UT-TM						PT-TM		
		00	0	I	II	III	IV	0	II	III
IA	Boone									
IL	Arthur					<u>X¹</u>				
	Flora						<u>X¹</u>			
	Pontiac				<u>X¹</u>					
	Savoy									
	Urbana				<u>X¹</u>	<u>X¹</u>			<u>X¹</u>	
	Romney	K. Rainey/D. Schlueter					<u>X¹</u>	<u>X¹</u>		<u>X¹</u>
IN	Wanatah			<u>X¹</u>	<u>X¹</u>	<u>X¹</u>				
	West Lafayette			<u>X¹</u>	<u>X¹</u>	<u>X¹</u>	<u>X¹</u>		<u>X¹</u>	<u>X¹</u>
	Manhattan	W. Schapaugh Jr.								
KS	Ottawa	W. Schapaugh Jr.								
	MI	Britton				X				
MI	Saginaw	D. Wang/R. Laurenz			X					
	Williamston	D. Wang/R. Laurenz			<u>X¹</u>	<u>X¹</u>			<u>X¹</u>	
	MN	Crookston	A. Lorenz/D. Weston		<u>X¹</u>				<u>X¹</u>	
MN	Glyndon	A. Lorenz/D. Weston		X					X	
	Morehead	A. Lorenz/D. Weston		<u>X¹</u>					<u>X¹</u>	
	Rosemount	A. Lorenz/D. Weston			<u>X¹</u>					
	Roseau	A. Lorenz/D. Weston	<u>X</u>							
	Shelly	A. Lorenz/D. Weston		<u>X¹</u>					<u>X¹</u>	
	Waseca	A. Lorenz/D. Weston			<u>X¹</u>					
	MO	Columbia	A. Scaboo/X. Niu					<u>X¹</u>	<u>X¹</u>	
MO	Portageville (Clay)	P. Chen/M. Clubb						<u>X¹</u>		
	Portageville (Loam)	P. Chen/M. Clubb						<u>X¹</u>		
NE	Holdrege	G. Graef/T. Frederick								
	Mead	G. Graef/T. Frederick								
	Steven's Creek	G. Graef/T. Frederick								
OH	Wooster	L. McHale/McIntyre				<u>X¹</u>	<u>X¹</u>		<u>X¹</u>	<u>X¹</u>
ONT	Chatham	M. Eskandari/R. Brandt								
	Elora	I. Rajcan/C. Templeton								
	Palmyra	M. Eskandari/R. Brandt								
	Woodstock	I. Rajcan/C. Templeton								
QUE	Saint Hyacinthe	J. Auclair/M. Claude			<u>X</u>					
	St. Mathieu de Beloeil	L. O'Donoughue								
	<u>X</u> Locations With Agronomic Data:	1	4	7	7	7	6	4	4	4
	<u>X</u> Locations With Protein and Oil Data:	1	3	6	6	7	5	3	4	4
	<u>X¹</u> Locations With Fatty Acid Data:	--	3	5	6	7	6	3	4	4
	<u>X</u> Locations With Sugar Data:	--	--	5	--	7	6	3	4	4

Uniform and Preliminary Test Locations Monthly Rainfall Data, 2020

Location		Monthly Rainfall (inches)						
		May	June	July	August	September	October	
IA	Boone	5.4	1.8	3.4	2.7	3.1	1.5	
IL	Arthur	6.4	3.7	5.9	2.1	1.5	3.4	
	Flora	5.2	3.0	8.4	4.5	0.8	5.5	
	Pontiac	7.7	4.0	6.9	0.9	4.8	2.2	
	Savoy	4.9	8.5	5.9	1.5	2.7	2.3	
	Urbana	5.0	5.7	4.7	1.3	2.4	1.9	
	IN	Romney	3.3	3.9	4.5	3.1	1.9	2.7
KS	Wanatah	6.8	4.2	3.7	1.8	2.2	2.6	
	West Lafayette	3.3	2.3	3.0	2.4	2.1	2.8	
	Manhattan	6.4	3.1	9.5	2.3	2.1	0.6	
MI	Ottawa	5.3	5.4	4.2	1.3	1.8	1.4	
	Britton	4.3	2.2	2.7	1.6	2.25	2.69	
	Williamston	5.8	2.2	2.5	3.12	3.2	3.5	
MN	Saginaw	6.3	2.3	3.4	3.4	2.82	3.0	
	Crookston	1.1	4.5	7.8	3.4	0.5	0.7	
	Glyndon	1.2	4.8	5.8	5.51	0.9	1.3	
	Morehead	1.5	3.6	5.2	5.5	0.9	1.2	
	Rosemount	6.3	7.6	3.9	4.3	1.3	3.0	
	Roseau	1.4	4.9	4.81	2.44	1.3	0.87	
	Shelly	1.6	2.7	4.6	7.1	1.3	0.7	
	Waseca	4.3	5.8	5.4	7.0	2.2	2.6	
	MO	Columbia	3.5	7.3	4.7	4.0	3.9	2.7
		Portageville (Clay)	5.6	4.5	3.7	7.7	4.8	7.7
Portageville (Loam)		5.6	4.5	3.7	7.7	4.8	7.7	
NE	Holdrege	5.9	2.1	4.6	0.5	1.0	0.3	
	Mead	2.9	2.2	2.5	1.7	1.9	0.7	
	Steven's Creek	4.6	4.6	6.8	0.8	3.3	0.5	
OH	Wooster	3.6	4.8	1.2	4.0	3.4	3.0	
ONT	Chatham	3.1	2.3	2.7	3.7	2.3	3.2	
	Elora	1.5	1.3	1.6	1.1	1.0	1.0	
	Palmyra	3.1	2.3	2.7	3.7	2.3	3.2	
	Woodstock	0.8	1.4	1.0	1.0	0.6	0.5	
QUE	Saint Hyacinthe	1.2	1.0	1.7	1.5	1.0	1.6	
	St. Mathieu de Beloeil	1.3	0.8	1.5	1.0	1.3	1.6	

<http://theweathercollector.com/>

<https://www.worldweatheronline.com/canada-weather.aspx>

Location GPS Coordinates by Test for Reported Data in 2020

Test	State/Province	Location	Latitude (deg)	Longitude (deg)
UT00	ONT	Elora	43.64207	-80.40376
UT00	QUE	Saint-Mathieu-de-Beloeil	45.58683	-73.24816
UT0	MN	Crookston	47.81996	-96.62196
UT0	MN	Shelly	47.44458	-96.79930
UT0	ONT	Elora	43.64207	-80.40376
UT0	ONT	Woodstock	43.14432	-80.78583
UT0	QUE	Saint-Mathieu-de-Beloeil	45.58683	-73.24816
UTI	IN	Wanatah	41.45364	-86.94172
UTI	IN	West Lafayette	40.48067	-87.00501
UTI	MI	Saginaw	42.67800	-85.71900
UTI	MI	Williamston	42.65200	-84.32600
UTI	MN	Rosemount	44.70756	-93.07586
UTI	MN	Waseca	44.07799	-93.53380
UTI	NE	Mead	41.15932	-96.41987
UTI	NE	Steven's Creek	40.86306	-96.59556
UTI	ONT	Palmyra	42.42430	-81.77809
UTI	ONT	Woodstock	43.14432	-80.78583
UTI	QUE	St-Hyacinthe	45.59000	-72.93417
PTI	IN	West Lafayette	40.48067	-87.00501
PTI	MI	Williamston	42.65200	-84.32600
PTI	MN	Rosemount	44.70756	-93.07586
PTI	MN	Waseca	44.07799	-93.53380
PTI	NE	Mead	41.15932	-96.41987
PTI	NE	Steven's Creek	40.86306	-96.59556
PTI	ONT	Palmyra	42.42430	-81.77809
PTI	ONT	Woodstock	43.14432	-80.78583
PTI	QUE	St-Hyacinthe	45.59000	-72.93417
UTII	IA	Boone	42.01784	-93.77292
UTII	IL	Pontiac	40.79733	-88.60450
UTII	IL	Urbana	40.05364	-88.23630
UTII	IN	Wanatah	41.45364	-86.94172
UTII	IN	West Lafayette	40.48070	-87.00438
UTII	MI	Britton	41.92900	-83.81700
UTII	MI	Williamston	42.65200	-84.32600
UTII	NE	Mead	41.15932	-96.41987
UTII	NE	Steven's Creek	40.86306	-96.59556
UTII	ONT	Chatham	42.37020	-82.26493

Location GPS Coordinates by Test for Reported Data in 2020

Test	State/Province	Location	Latitude (deg)	Longitude (deg)
PTIIA	IL	Urbana	40.05364	-88.23630
PTIIA	IN	West Lafayette	40.48070	-87.00438
PTIIA	MI	Williamston	42.65200	-84.32600
PTIIA	NE	Mead	41.15932	-96.41987
PTIIA	NE	Steven's Creek	40.86306	-96.59556
PTIIA	ONT	Chatham	42.37020	-82.26493
PTIIB	IL	Urbana	40.05364	-88.23630
PTIIB	IN	West Lafayette	40.48070	-87.00438
PTIIB	MI	Williamston	42.65200	-84.32600
PTIIB	NE	Mead	41.15932	-96.41987
PTIIB	NE	Steven's Creek	40.86306	-96.59556
PTIIB	ONT	Chatham	42.37020	-82.26493
UTIII	IL	Arthur	39.70413	-88.46992
UTIII	IL	Urbana	40.05364	-88.23630
UTIII	IN	Romney	40.23106	-86.89002
UTIII	IN	Wanatah	41.45364	-86.94172
UTIII	IN	West Lafayette	40.48066	-87.00335
UTIII	KS	Manhattan	39.13285	-96.62012
UTIII	MO	Columbia	38.88556	-92.20167
UTIII	NE	Holdrege	40.57188	-99.43273
UTIII	NE	Steven's Creek	40.86306	-96.59556
PTIIIA	IL	Urbana	40.05364	-88.23630
PTIIIA	IN	West Lafayette	40.48066	-87.00335
PTIIIA	KS	Manhattan	39.13285	-96.62012
PTIIIA	MO	Columbia	38.88556	-92.20167
PTIIIA	NE	Holdrege	40.57188	-99.43273
PTIIIA	NE	Steven's Creek	40.86306	-96.59556
PTIIIB	IL	Urbana	40.05364	-88.23630
PTIIIB	IN	West Lafayette	40.48066	-87.00335
PTIIIB	KS	Manhattan	39.13285	-96.62012
PTIIIB	MO	Columbia	38.88556	-92.20167
PTIIIB	NE	Holdrege	40.57188	-99.43273
PTIIIB	NE	Steven's Creek	40.86306	-96.59556
UTIV	IL	Flora	38.65675	-88.45196
UTIV	IL	Savoy	40.05000	-88.21667
UTIV	IL	Urbana	40.08763	-88.22573
UTIV	IN	Romney	40.23106	-86.89002
UTIV	IN	West Lafayette	40.48066	-87.00335
UTIV	KS	Ottawa	38.54137	-95.24789
UTIV	MO	Portageville (Clay)	36.40058	-89.60389
UTIV	MO	Portageville (Loam)	36.39266	-89.61072

Location GPS Coordinates by Test for Reported Data in 2020

Test	State/Province	Location	Latitude (deg)	Longitude (deg)
PTIV	IL	Savoy	40.05000	-88.21667
PTIV	IL	Urbana	40.08763	-88.22573
PTIV	IN	Romney	40.23106	-86.89002
PTIV	IN	West Lafayette	40.48066	-87.00335
PTIV	KS	Manhattan	39.13285	-96.62012
PTIV	KS	Ottawa	38.54137	-95.24789
PTIV	MO	Columbia	38.88556	-92.20167
UT00TM	MN	Roseau	48.87731	-95.81660
UT0TM	MN	Crookston	47.81996	-96.62196
UT0TM	MN	Glyndon	46.89300	-96.51109
UT0TM	MN	Morehead	47.00618	-96.80201
UT0TM	MN	Shelly	47.44458	-96.79930
PT0TM	MN	Crookston	47.81996	-96.62196
PT0TM	MN	Glyndon	46.89300	-96.51109
PT0TM	MN	Morehead	47.00618	-96.80201
PT0TM	MN	Shelly	47.44458	-96.79930
UTITM	IN	Wanatah	41.45364	-86.94172
UTITM	IN	West Lafayette	40.48067	-87.00501
UTITM	MI	Saginaw	42.67800	-85.71900
UTITM	MI	Williamston	42.65200	-84.32600
UTITM	MN	Rosemount	44.70756	-93.07586
UTITM	MN	Waseca	44.07799	-93.53380
UTITM	QUE	St-Hyacinthe	45.59000	-72.93417
UTIITM	IL	Pontiac	40.79733	-88.60450
UTIITM	IL	Urbana	40.05368	-88.23391
UTIITM	IN	Wanatah	41.45364	-86.94172
UTIITM	IN	West Lafayette	40.48070	-87.00438
UTIITM	MI	Britton	41.92900	-83.81700
UTIITM	MI	Williamston	42.65200	-84.32600
UTIITM	OH	Wooster	40.75650	-81.90037
PTIITM	IL	Urbana	40.05368	-88.23391
PTIITM	IN	West Lafayette	40.48070	-87.00438
PTIITM	MI	Williamston	42.65200	-84.32600
PTIITM	OH	Wooster	40.75650	-81.90037

Location GPS Coordinates by Test for Reported Data in 2020

Test	State/Province	Location	Latitude (deg)	Longitude (deg)
UTIIITM	IL	Arthur	39.70413	-88.46992
UTIIITM	IL	Urbana	40.05368	-88.23391
UTIIITM	IN	Romney	40.23106	-86.89002
UTIIITM	IN	Wanatah	41.45364	-86.94172
UTIIITM	IN	West Lafayette	40.48066	-87.00335
UTIIITM	MO	Columbia	38.88556	-92.20167
UTIIITM	OH	Wooster	40.75650	-81.90037
PTIIITM	IN	Romney	40.23106	-86.89002
PTIIITM	IN	West Lafayette	40.48066	-87.00335
PTIIITM	MO	Columbia	38.88556	-92.20167
PTIIITM	OH	Wooster	40.75650	-81.90037
UTIVTM	IL	Flora	38.65675	-88.45196
UTIVTM	IN	Romney	40.23106	-86.89002
UTIVTM	IN	West Lafayette	40.48066	-87.00335
UTIVTM	MO	Columbia	38.88556	-92.20167
UTIVTM	MO	Portageville (Clay)	36.40075	-89.60389
UTIVTM	MO	Portageville (Loam)	36.39249	-89.61072

**Northern Regional Uniform Test
Uniform Test 00, 2020**

Ent.	Strain	Parentage	Seed Source	Previous Testing	Gen. Comp.	Unique Traits
1	MN0083 (00)	M97-121138 x MN0091	Lorenz	2	F5	Rps6
2	MN0095 (0)	M92-270029 x M93-313185	Lorenz	11	F5	Rps1
3	ND Rolette	M00-3075 x ND05-17649	Helms	5	F4	
4	M14-330015	PI639537 x M08-608106	Lorenz	Initial	F5	Diversity
5	ND16-7274	AR191018 x ND07-2205	Helms	1	F4	
6	ND16-7896	ND10-3495 x ND Stutsman	Helms	1	F4	PI 88788 SCN Resist.
7	ND16-8305	ND10-2479 x ND10-2522	Helms	1	F4	PI 88788 SCN Resist.
8	ND17-20727	ND10-3601 x Pioneer 91M10	Helms	Initial	F4	PI 88788 SCN Resist.
9	ND17-21410	ND10-3495 x ND10-4677	Helms	Initial	F4	PI 88788 SCN Resist.

UNIFORM TEST 00, 2020**DESCRIPTIVE AND DISEASE DATA**

Strain	Descriptive Code	IDC Score	Green Stem Score	Leaf Shape
		Graceville & Danvers, MN	St Mathieu de Beloeil	Elora
MN0083 (00)	WGTSYYI	1.3	1.0	Ovate
MN0095 (0)	PGBDYIbI	1.3	1.0	Ovate
ND Rolette	PGBSYBfI	1.1	1.0	Ovate
M14-330015	WlTDYBrI	1.4	1.0	Ovate
ND16-7274	PGBSYYI	1.6	1.0	Ovate
ND16-7896	WGTDYBfI	1.3	1.0	Ovate
ND16-8305	WGTSYYI	2.9	1.0	Ovate
ND17-20727	PGTDYBfI	1.3	1.0	Ovate
ND17-21410	PGBDYBfI	1.5	1.0	Ovate

UNIFORM TEST 00, 2020**REGIONAL SUMMARY**

No. of Tests Strain	Yield 2 bu/a	Rank 2 No.	Maturity 2 Date	Lodging 2 Score	Plant Height 2 In	Seed Size 2 g/100	Seed Quality 2 Score	<u>Composition</u>	
								Protein 2 %	Oil 2 %
MN0083 (00)	46.5	9	9/12	1.2	32	15.7	1.3	34.5	17.5
MN0095 (0)	48.9	8	2.0	1.4	32	15.1	1.3	34.2	17.6
ND Rolette	53.2	5	2.0	1.0	30	15.6	1.3	33.9	17.7
M14-330015	52.3	7	4.5	1.7	34	18.3	1.4	35.7	16.9
ND16-7274	55.6	4	5.0	1.0	31	18.6	1.3	32.4	18.2
ND16-7896	57.0	1	6.5	1.5	33	17.0	1.3	35.8	17.3
ND16-8305	53.1	6	6.0	1.0	28	17.9	1.0	33.3	18.1
ND17-20727	55.9	2	5.5	1.4	31	18.8	1.9	34.5	17.7
ND17-21410	55.7	3	4.5	1.5	33	18.6	1.4	36.3	17.2
Mean	53.1			1.3	31.2	17.3	1.3	34.5	17.6
C.V. (%)	8.8								
L.S.D. (5%)	5.5								

111.5 Days After Planting

UNIFORM TEST 00, 2020**2019-2020 2-YEAR MEAN**

No. of Tests Strain	Yield 9 bu/a	Rank 9 No.	Maturity 10 Date	Lodging 8 Score	Plant Height 7 In.	Seed Size 10 g/100	Seed Quality 9 Score	<u>Composition</u>	
								Protein 7 %	Oil 7 %
MN0083 (00)	46.0	6	9/14	1.1	30	15.2	1.3	35.1	17.5
MN0095 (0)	46.6	5	2.5	1.2	29	14.2	1.4	34.7	17.7
ND Rolette	49.6	3	2.5	1.0	29	14.8	1.5	34.8	17.6
ND16-7274	54.7	1	6.1	1.0	30	18.1	1.3	32.9	18.5
ND16-7896	50.8	2	9.9	1.3	30	16.4	1.5	35.8	17.5
ND16-8305	47.7	4	7.7	1.0	26	17.2	1.3	33.6	18.2

112.5 Days After Planting

UNIFORM TEST 00, 2020**YIELD (bu/a)**

Strain	Mean 2 Tests	Elora ONT	St Mathieu de Beloeil QUE
MN0083 (00)	46.5	43.3	49.6
MN0095 (0)	48.9	43.7	54.0
ND Rolette	53.2	52.0	54.4
M14-330015	52.3	47.5	57.1
ND16-7274	55.6	49.1	62.0
ND16-7896	57.0	50.0	63.9
ND16-8305	53.1	47.0	59.2
ND17-20727	55.9	48.4	63.4
ND17-21410	55.7	49.1	62.2
Location Mean		47.8	58.4
C.V. (%)		10.6	6.7
L.S.D. (5%)		10.8	6.8
Row Sp. (In.)		13	7
Rows/Plot		4	5
Reps		3	3

UNIFORM TEST 00, 2020**YIELD RANK**

Strain	Yield Rank	Elora ONT	St Mathieu de Beloeil QUE
MN0083 (00)	9	9	9
MN0095 (0)	8	8	8
ND Rolette	5	1	7
M14-330015	7	6	6
ND16-7274	4	3	4
ND16-7896	1	2	1
ND16-8305	6	7	5
ND17-20727	2	5	2
ND17-21410	3	3	3

UNIFORM TEST 00, 2020**MATURITY (date)**

Strain	Mean 2 Tests	Elora ONT	St Mathieu de Beloeil QUE*
MN0083 (00)	9/12	9/7	9/18
MN0095 (0)	2.0	1	3
ND Rolette	2.0	0	4
M14-330015	4.5	1	8
ND16-7274	5.0	1	9
ND16-7896	6.5	4	9
ND16-8305	6.0	3	9
ND17-20727	5.5	2	9
ND17-21410	4.5	2	7
Date Planted	5/24	5/21	5/27
Days to Mature	111.5	109	114

*Killing Frost on 9/19

UNIFORM TEST 00, 2020**LODGING (score)**

Strain	Mean 2 Tests	Elora ONT	St Mathieu de Beloeil QUE
MN0083 (00)	1.2	1.0	1.3
MN0095 (0)	1.4	1.0	1.7
ND Rolette	1.0	1.0	1.0
M14-330015	1.7	1.0	2.3
ND16-7274	1.0	1.0	1.0
ND16-7896	1.5	1.0	2.0
ND16-8305	1.0	1.0	1.0
ND17-20727	1.4	1.0	1.7
ND17-21410	1.5	1.0	2.0

UNIFORM TEST 00, 2020**PLANT HEIGHT (inches)**

Strain	Mean 2 Tests	Elora ONT	St Mathieu de Beloeil QUE
MN0083 (00)	32	32	31
MN0095 (0)	32	30	33
ND Rolette	30	30	30
M14-330015	34	34	33
ND16-7274	31	30	32
ND16-7896	33	31	34
ND16-8305	28	27	28
ND17-20727	31	29	32
ND17-21410	33	34	32

UNIFORM TEST 00, 2020**SEED SIZE (g/100)**

Strain	Mean 2 Tests	Elora ONT	St Mathieu de Beloeil QUE
MN0083 (00)	15.7	14.8	16.6
MN0095 (0)	15.1	15.0	15.2
ND Rolette	15.6	15.3	15.8
M14-330015	18.3	18.2	18.3
ND16-7274	18.6	18.1	19.0
ND16-7896	17.0	16.6	17.3
ND16-8305	17.9	18.0	17.7
ND17-20727	18.8	18.1	19.4
ND17-21410	18.6	18.4	18.7

UNIFORM TEST 00, 2020**SEED QUALITY (score)**

Strain	Mean 2 Tests	Elora ONT	St Mathieu de Beloeil QUE
MN0083 (00)	1.3	1.5	1.0
MN0095 (0)	1.3	1.5	1.0
ND Rolette	1.3	1.5	1.0
M14-330015	1.4	1.5	1.3
ND16-7274	1.3	1.5	1.0
ND16-7896	1.3	1.5	1.0
ND16-8305	1.0	1.0	1.0
ND17-20727	1.9	1.5	2.3
ND17-21410	1.4	1.5	1.3

UNIFORM TEST 00, 2020**PROTEIN (%)**

Strain	Mean 2 Tests	Elora ONT*	St Mathieu de Beloeil QUE
MN0083 (00)	34.5	33.8	35.3
MN0095 (0)	34.2	33.2	35.2
ND Rolette	33.9	33.3	34.5
M14-330015	35.7	36.0	35.4
ND16-7274	32.4	31.5	33.4
ND16-7896	35.8	36.0	35.6
ND16-8305	33.3	33.3	33.3
ND17-20727	34.5	33.3	35.8
ND17-21410	36.3	36.2	36.4

*Data Adjusted to 13% moisture.

UNIFORM TEST 00, 2020**OIL (%)**

Strain	Mean 2 Tests	Elora ONT*	St Mathieu de Beloeil QUE
MN0083 (00)	17.5	18.0	17.1
MN0095 (0)	17.6	18.2	17.1
ND Rolette	17.7	18.2	17.2
M14-330015	16.9	17.3	16.5
ND16-7274	18.2	18.6	17.9
ND16-7896	17.3	18.0	16.7
ND16-8305	18.1	19.2	17.1
ND17-20727	17.7	18.3	17.2
ND17-21410	17.2	17.8	16.6

*Data Adjusted to 13% moisture.

**Northern Regional Uniform Test
Uniform Test 0, 2020**

Ent.	Strain	Parentage	Seed Source	Previous Testing	Gen. Comp.	Unique Traits
1	ND Dickey (0) (ND13-4508)	P. 91M10 x Sheyenne	Helms	3	F4	Race 3 Resist.
2	MN0095 (E)	M92-270029 x M93-313185	Lorenz	11	F5	Rps1
3	MN0404CN (SCN)	MN0902CN x MN0304	Lorenz	3		SCN, Rpsk1, PLT
4	MN1410 (L)	Unknown	Lorenz	13	F5	
5	M07-296048HOLL-1	[M07-296048(4) x M05-319034LL] x [M07-296048(4) x M10-237089HO]	Lorenz	UT0TM	BC3F3	
6	M07-296048HOLL-3	[M07-296048(4) x M10-237089HO] x [M07-296048(4) x M05-319036LL]	Lorenz	UT0TM	BC3F3	
7	M12-416003	M06-297013 x M02-383166	Lorenz	1	F5	
8	M13-106018	M03-172059 x A09-754003	Lorenz	1	F5	
9	M13-236028	SD06-393 x M07-375020	Lorenz	1	F5	Oil
10	M13-236029	SD06-393 x M07-375020	Lorenz	1	F5	Oil
11	M13-250051	M06-288190 x AR09-191018	Lorenz	1	F5	SCN
12	M14-137078	MN0606CN x MN1606SP	Lorenz	Initial	F5	SDS
13	M14-140012	M07-340035 x M08-395044	Lorenz	Initial	F5	WM
14	M14-262034	M07-292111 x M08-231043	Lorenz	Initial	F5	Divers
15	M14-271013	M08-212034 x M05-353086	Lorenz	Initial	F5	Divers
16	M14-271042	M08-212034 x M05-353086	Lorenz	Initial	F5	Divers
17	M14-323003	M07-301036 x M08-434024	Lorenz	Initial	F5	Pro
18	ND13-4810	P.91M10 x ProSoy	Helms	1	F4	High Protein
19	ND13-7510	ND04-10046 x P.91M10	Helms	1	F4	High Protein
20	ND16-6745	ND10-3460 x MN1401	Helms	Initial	F4	Resist. Race 4 pmg
21	ND16-6769	ND10-3495 x M05-363022	Helms	1	F4	
22	ND16-7108	AR-191018 x Ashtabula	Helms	Initial	F4	Resist. Race 4 pmg
23	ND16-7155	AR191018 x Ashtabula	Helms	1	F4	
24	ND16-7175	AR191018 x Ashtabula	Helms	1	F4	
25	ND16-7176	AR191018 x Ashtabula	Helms	1	F4	
26	ND16-8257	ND10-3459 x ND10-2479	Helms	1	F4	High Protein
27	ND16-8821	Sheyenne x ND10-3600	Helms	1	F4	PI 88788 SCN Resist.
28	ND17-20565	ND10-3601 x Pioneer 91M10	Helms	Initial	F4	PI 88788 SCN Resist.
29	ND17-20728	ND10-3610 x Pioneer 91M10	Helms	Initial	F4	PI 88788 SCN Resist.
30	ND17-20754	ND10-3610 x Pioneer 91M10	Helms	Initial	F4	PI 88788 SCN Resist.
31	ND17-21922	ND10-3610 x Pioneer 91M10	Helms	Initial	F4	PI 88788 SCN Resist.
32	ND17-21929	ND10-3610 x Pioneer 91M10	Helms	Initial	F4	PI 88788 SCN Resist.
33	ND17-22117	ND10-3610 x Pioneer 91M10	Helms	Initial	F4	PI 88788 SCN Resist.
34	ND17-22120	ND10-3610 x Pioneer 91M10	Helms	Initial	F4	PI 88788 SCN Resist.
35	ND17-22388	Pioneer 91M10 x ND10-2993	Helms	Initial	F4	PI 88788 SCN Resist.
36	OAC 18-75C	OAC 11-34C x S05-T6	Rajcan	Initial	F5	

UNIFORM TEST 0, 2020

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code	IDC	Green Stem	Leaf Shape
		Score Danvers & Graceville, MN	Score St Mathieu de Beloeil	Elora
ND Dickey (0) (ND13-4508)	PGTSYYI	2.3	1.0	Ovate
MN0095 (E)	PGBDYIbI	1.4	1.0	Ovate
MN0404CN (SCN)	PTTSYBrI	1.4	1.0	Ovate
MN1410 (L)	WGBSYBfI	2.6	1.0	Ovate
M07-296048HOLL-1	PTTDYYI	2.1	1.0	Ovate
M07-296048HOLL-3	PTTDYYI	1.6	1.0	Ovate
M12-416003	PGBSYYI	2.0	1.0	Ovate
M13-106018	P+WT+GB+TDYHI	2.3	1.0	Ovate
M13-236028	PT+GBDYHI	1.8	1.0	Ovate
M13-236029	PTBDYBrI	1.5	1.0	Ovate
M13-250051	WGBDYBfI	2.0	1.0	Ovate
M14-137078	WTTDYGI	2.0	1.0	Ovate
M14-140012	PGB+TSYYI	1.4	1.0	Ovate
M14-262034	PTBSYBrI	1.4	1.0	Ovate
M14-271013	PTB+TSYYI	1.3	1.0	Ovate
M14-271042	PTBSYBrI	1.3	1.0	Ovate
M14-323003	PGTDYIbI	1.4	1.0	Ovate
ND13-4810	PGB+TSYYI	2.0	1.0	Ovate
ND13-7510	PGB+TSYYI	1.6	1.0	Ovate
ND16-6745	PLtBSYBrI	1.4	1.0	Ovate
ND16-6769	PLtBSYBrI	1.8	1.0	Ovate
ND16-7108	PLtBDYBrI	1.9	1.0	Ovate
ND16-7155	PLtBDYBrI	2.0	1.0	Ovate
ND16-7175	PLtBSYBrI	2.1	1.0	Ovate
ND16-7176	PLtBDYBrI	2.1	1.0	Ovate
ND16-8257	WGTDYBfI	1.6	1.0	Ovate
ND16-8821	PGTDYBfI	1.5	1.0	Ovate
ND17-20565	WGTSYYI	1.8	1.0	Ovate
ND17-20728	PGTDYBfI	1.4	1.0	Ovate
ND17-20754	P+WGTSYYI	1.6	1.0	Ovate
ND17-21922	P+WGB+TSYYI	1.3	1.0	Ovate
ND17-21929	PGTDYBfI	1.3	1.0	Ovate
ND17-22117	WGTDYBfI	1.4	1.0	Ovate
ND17-22120	PGTDYYI	1.4	1.0	Ovate
ND17-22388	PGTDYBfI	1.4	1.0	Ovate
OAC 18-75C	PGBDYII	2.1	1.0	Ovate

UNIFORM TEST 0, 2020

REGIONAL SUMMARY

No. of Tests Strain	Yield 3 bu/a	Rank 3 No.	Maturity 5 Date	Lodging 3 Score	Plant Height 4 In.	Seed Size 5 g/100	Seed Quality 5 Score	Composition	
								Protein 5 %	Oil 5 %
ND Dickey (0) (ND13-4508)	49.0	20	9/20	1.3	28	16.8	1.3	34.6	17.4
MN0095 (E)	45.3	32	-4.0	1.2	23	14.0	1.8	35.2	18.4
MN0404CN (SCN)	43.9	35	-4.6	1.7	28	14.9	1.4	34.4	18.6
MN1410 (L)	48.6	24	4.4	1.8	34	15.8	1.4	35.0	17.8
M07-296048HOLL-1	44.8	33	-0.6	1.3	28	15.4	1.4	36.1	17.0
M07-296048HOLL-3	41.0	36	1.3	1.7	31	14.9	1.2	35.7	16.9
M12-416003	52.9	5	1.0	1.3	31	16.1	1.8	34.3	18.2
M13-106018	48.6	23	2.4	1.3	30	16.2	1.6	34.5	18.2
M13-236028	51.9	8	1.2	1.2	29	15.7	1.4	33.8	19.2
M13-236029	48.3	26	5.2	1.5	33	14.5	1.6	33.7	18.9
M13-250051	48.5	25	5.4	1.3	33	15.9	1.9	34.1	17.7
M14-137078	49.2	17	-0.8	1.2	27	18.2	1.4	35.3	18.0
M14-140012	49.7	14	-0.4	1.3	32	17.4	1.2	35.6	18.2
M14-262034	50.7	13	2.2	1.3	29	15.7	1.3	35.2	18.4
M14-271013	44.3	34	-0.8	1.0	28	18.5	1.2	35.9	17.1
M14-271042	46.4	31	0.2	1.5	33	18.4	1.6	36.1	16.5
M14-323003	49.0	19	3.0	1.2	30	21.7	1.5	36.0	17.3
ND13-4810	51.8	9	0.8	1.2	30	18.1	1.3	35.4	18.1
ND13-7510	47.5	30	0.6	1.2	31	17.7	1.3	36.5	16.5
ND16-6745	50.8	12	-1.2	1.3	28	15.2	1.4	34.6	17.8
ND16-6769	52.0	7	-2.0	1.2	28	15.4	1.4	35.1	17.7
ND16-7108	52.2	6	0.0	1.3	28	15.4	1.4	34.6	17.6
ND16-7155	51.1	11	-0.2	1.3	30	14.9	1.4	34.9	17.7
ND16-7175	53.4	2	-0.8	1.2	29	14.8	1.2	35.0	17.7
ND16-7176	53.2	3	-1.4	1.3	28	15.2	1.4	34.7	17.8
ND16-8257	52.9	4	-0.4	1.3	32	15.1	1.2	35.3	17.4
ND16-8821	53.9	1	0.0	1.2	27	14.3	1.3	35.1	17.4
ND17-20565	49.0	18	1.8	1.3	31	16.5	1.3	34.8	18.3
ND17-20728	49.6	15	1.4	1.2	30	15.6	1.2	34.1	18.6
ND17-20754	48.9	22	0.0	1.0	26	14.8	1.2	34.7	18.3
ND17-21922	47.9	27	-2.6	1.3	23	16.8	1.2	35.6	18.1
ND17-21929	47.6	28	2.6	1.7	31	15.1	1.3	36.2	17.6
ND17-22117	51.4	10	0.6	1.3	28	14.0	1.3	35.2	18.2
ND17-22120	49.6	16	0.4	1.3	30	15.1	1.2	34.1	18.4
ND17-22388	47.5	29	-1.2	1.5	28	13.2	1.2	33.9	18.7
OAC 18-75C	48.9	21	2.2	1.2	33	16.3	1.4	35.4	17.8
Mean	49.2			1.3	29.4	15.9	1.4	35.0	17.9
C.V. (%)	8.7								
L.S.D. (5%)	4.0								

120.0 Days After Planting

UNIFORM TEST 0, 2020

2019-2020 2-YEAR MEAN

No. of Tests Strain	Yield 7 bu/a	Rank 7 No.	Maturity 10 Date	Lodging 9 Score	Plant Height 10 In.	Seed Size 12 g/100	Seed Quality 12 Score	Composition	
								Protein 11 %	Oil 11 %
ND Dickey (0) (ND13-4508)	49.0	10	5/11	1.2	27	17.0	1.2	34.3	17.6
MN0095 (E)	39.8	17	-7.5	1.1	22	13.5	1.6	34.8	18.6
MN0404CN (SCN)	43.6	16	-6.1	1.6	27	14.6	1.3	34.3	18.6
MN1410 (L)	48.2	14	4.2	1.5	31	16.5	1.2	34.8	18.3
M12-416003	50.5	2	1.5	1.2	29	16.0	1.5	33.8	18.2
M13-106018	49.5	5	0.5	1.2	28	16.7	1.5	34.1	18.4
M13-236028	50.8	1	-0.3	1.2	27	16.0	1.3	33.5	19.2
M13-236029	49.1	9	2.8	1.3	29	15.3	1.5	33.6	18.8
M13-250051	48.9	11	3.9	1.2	30	16.3	1.6	33.9	17.8
ND13-4810	48.7	12	0.0	1.1	28	18.0	1.3	35.2	18.1
ND13-7510	47.0	15	-0.6	1.1	29	17.8	1.2	35.6	16.9
ND16-6769	48.6	13	-2.4	1.1	26	15.7	1.3	34.5	17.7
ND16-7155	49.3	8	-1.6	1.2	27	15.1	1.3	34.3	17.6
ND16-7175	49.4	6	-1.8	1.1	26	15.0	1.2	34.1	17.8
ND16-7176	49.8	3	-2.7	1.2	26	15.1	1.3	34.1	17.8
ND16-8257	49.6	4	-1.3	1.2	29	15.1	1.2	34.8	17.4
ND16-8821	49.4	7	-1.4	1.1	25	13.9	1.3	34.3	17.5

117.2 Days After Planting

UNIFORM TEST 0, 2020

YIELD (bu/a)

Strain	Mean 3 Tests	Crookston MN*	Shelly MN	Elora ONT	Wood- stock ONT*	St Mathieu de Beloeil QUE
ND Dickey (0) (ND13-4508)	49.0	40.5	40.7	44.2	50.5	62.1
MN0095 (E)	45.3	32.8	48.3	35.4	34.2	52.2
MN0404CN (SCN)	43.9	39.2	38.5	35.6	30.3	57.7
MN1410 (L)	48.6	38.9	43.6	40.6	45.6	61.5
M07-296048HOLL-1	44.8	31.8	42.4	39.1	28.2	52.9
M07-296048HOLL-3	41.0	36.8	38.1	34.5	30.1	50.4
M12-416003	52.9	36.0	48.7	46.7	29.8	63.3
M13-106018	48.6	40.0	45.7	43.2	45.3	56.9
M13-236028	51.9	39.7	51.0	44.7	36.5	60.0
M13-236029	48.3	41.3	47.2	41.3	56.1	56.5
M13-250051	48.5	46.1	49.1	41.7	42.6	54.6
M14-137078	49.2	39.1	47.3	43.2	36.6	57.1
M14-140012	49.7	45.8	48.7	40.4	40.3	60.0
M14-262034	50.7	36.3	48.2	45.2	27.7	58.7
M14-271013	44.3	42.3	42.0	38.6	33.6	52.3
M14-271042	46.4	39.6	40.4	45.1	39.0	53.6
M14-323003	49.0	43.2	46.8	41.4	29.9	58.8
ND13-4810	51.8	36.9	51.2	44.0	40.6	60.1
ND13-7510	47.5	45.0	43.8	41.4	37.6	57.3
ND16-6745	50.8	54.5	51.8	42.2	31.7	58.4
ND16-6769	52.0	45.4	50.4	44.4	34.4	61.2
ND16-7108	52.2	45.4	52.9	44.8	35.9	58.8
ND16-7155	51.1	54.1	48.3	44.0	39.1	60.9
ND16-7175	53.4	49.9	50.2	45.0	42.3	64.9
ND16-7176	53.2	46.3	50.8	43.1	35.7	65.6
ND16-8257	52.9	51.8	56.2	42.4	34.4	60.1
ND16-8821	53.9	50.8	53.3	42.6	38.1	65.7
ND17-20565	49.0	47.5	51.7	40.1	41.3	55.3
ND17-20728	49.6	48.6	49.4	39.3	35.6	60.1
ND17-20754	48.9	39.0	50.0	38.3	36.5	58.3
ND17-21922	47.9	40.4	51.1	30.8	28.7	61.8
ND17-21929	47.6	41.3	41.7	36.0	40.4	65.2
ND17-22117	51.4	47.4	53.6	41.3	39.3	59.4
ND17-22120	49.6	50.8	50.8	41.7	41.3	56.3
ND17-22388	47.5	44.3	49.2	35.7	40.2	57.7
OAC 18-75C	48.9	39.0	43.2	44.5	41.9	59.1
Location Mean		43.0	47.7	41.2	37.5	58.7
C.V. (%)		16.5	9.4	4.9	17.3	5.2
L.S.D. (5%)		11.6	7.2	4.0	12.7	6.3
Row Sp. (In.)		7	30	13	13	7
Rows/Plot		8	4	4	4	5
Reps		3	3	3	3	2

*Data not included in mean, high perennial weed pressure at Woodstock.

UNIFORM TEST 0, 2020

YIELD RANK

Strain	Yield Rank	Crookston MN	Shelly MN	Elora ONT	Woodstock ONT	St Mathieu de Beloeil QUE
ND Dickey (0) (ND13-4508)	20	21	33	9	2	6
MN0095 (E)	32	35	20	34	27	35
MN0404CN (SCN)	35	26	35	33	30	23
MN1410 (L)	24	30	28	24	3	8
M07-296048HOLL-1	33	36	30	28	35	33
M07-296048HOLL-3	36	32	36	35	31	36
M12-416003	5	34	18	1	33	5
M13-106018	23	23	26	12	4	27
M13-236028	8	24	9	6	20	14
M13-236029	26	19	24	22	1	28
M13-250051	25	11	17	18	5	31
M14-137078	17	27	23	12	19	26
M14-140012	14	12	18	25	12	14
M14-262034	13	33	22	2	36	20
M14-271013	34	18	31	29	28	34
M14-271042	31	25	34	3	16	32
M14-323003	19	17	25	20	32	18
ND13-4810	9	31	7	10	10	11
ND13-7510	30	15	27	20	18	25
ND16-6745	12	1	5	17	29	21
ND16-6769	7	13	12	8	25	9
ND16-7108	6	13	4	5	22	18
ND16-7155	11	2	20	10	15	10
ND16-7175	2	6	13	4	6	4
ND16-7176	3	10	10	14	23	2
ND16-8257	4	3	1	16	25	11
ND16-8821	1	4	3	15	17	1
ND17-20565	18	8	6	26	8	30
ND17-20728	15	7	15	27	24	11
ND17-20754	22	28	14	30	20	22
ND17-21922	27	22	8	36	34	7
ND17-21929	28	19	32	31	11	3
ND17-22117	10	9	2	22	14	16
ND17-22120	16	4	10	18	8	29
ND17-22388	29	16	16	32	13	23
OAC 18-75C	21	28	29	7	7	17

UNIFORM TEST 0, 2020

MATURITY (date)

Strain	Mean 5 Tests	Crookston MN	Shelly MN	Elora ONT	Wood- stock ONT	St Mathieu de Beloeil QUE
ND Dickey (0) (ND13-4508)	9/20	9/22	9/16	9/17	9/17	9/30
MN0095 (E)	-4	-1	-6	-5	-3	-5
MN0404CN (SCN)	-5	-3	-3	-5	-8	-4
MN1410 (L)	4	5	6	5	3	3
M07-296048HOLL-1	-1	0	2	-1	-2	-2
M07-296048HOLL-3	1		4	2	-2	1
M12-416003	1	1	2	1	2	-1
M13-106018	2	6	3	4	-1	0
M13-236028	1	3	2	4	0	-3
M13-236029	5	6	5	9	3	3
M13-250051	5	8	5	6	4	4
M14-137078	-1	-1	1	1	-3	-2
M14-140012	-0	2	1	0	-2	-3
M14-262034	2	2	3	4	1	1
M14-271013	-1	1	0	2	-3	-4
M14-271042	0	2	1	1	-1	-2
M14-323003	3	4	2	10	0	-1
ND13-4810	1	1	2	2	0	-1
ND13-7510	1	1	2	4	-2	-2
ND16-6745	-1	-1	0	-2	-2	-1
ND16-6769	-2	-1	1	-3	-5	-2
ND16-7108	0	1	2	0	-1	-2
ND16-7155	-0	2	3	-2	-2	-2
ND16-7175	-1	0	2	-1	-2	-3
ND16-7176	-1	0	1	-2	-3	-3
ND16-8257	-0	2	0	1	-3	-2
ND16-8821	0	0	1	0	0	-1
ND17-20565	2	5	2	5	-2	-1
ND17-20728	1	1	1	6	0	-1
ND17-20754	0	4	-1	1	-1	-3
ND17-21922	-3	-3	-2	-4	-1	-3
ND17-21929	3	2	2	7	3	-1
ND17-22117	1	2	2	0	1	-2
ND17-22120	0	0	1	1	1	-1
ND17-22388	-1	0	0	-2	-2	-2
OAC 18-75C	2	3	1	8	-1	0
Date Planted	5/23	5/21	5/22	5/21	5/26	5/27
Days to Mature	120	124	117	119	114	126

UNIFORM TEST 0, 2020

LODGING (score)

Strain	Mean 3 Tests	Crookston MN	Shelly MN	Elora ONT	Wood- stock ONT	St Mathieu de Beloeil QUE
ND Dickey (0) (ND13-4508)	1.3			1.0	1.0	2.0
MN0095 (E)	1.2			1.0	1.0	1.5
MN0404CN (SCN)	1.7			1.0	1.0	3.0
MN1410 (L)	1.8			1.0	1.0	3.5
M07-296048HOLL-1	1.3			1.0	1.0	2.0
M07-296048HOLL-3	1.7			1.0	1.0	3.0
M12-416003	1.3			1.0	1.0	2.0
M13-106018	1.3			1.0	1.0	2.0
M13-236028	1.2			1.0	1.0	1.5
M13-236029	1.5			1.0	1.0	2.5
M13-250051	1.3			1.0	1.0	2.0
M14-137078	1.2			1.0	1.0	1.5
M14-140012	1.3			1.0	1.0	2.0
M14-262034	1.3			1.0	1.0	2.0
M14-271013	1.0			1.0	1.0	1.0
M14-271042	1.5			1.0	1.0	2.5
M14-323003	1.2			1.0	1.0	1.5
ND13-4810	1.2			1.0	1.0	1.5
ND13-7510	1.2			1.0	1.0	1.5
ND16-6745	1.3			1.0	1.0	2.0
ND16-6769	1.2			1.0	1.0	1.5
ND16-7108	1.3			1.0	1.0	2.0
ND16-7155	1.3			1.0	1.0	2.0
ND16-7175	1.2			1.0	1.0	1.5
ND16-7176	1.3			1.0	1.0	2.0
ND16-8257	1.3			1.0	1.0	2.0
ND16-8821	1.2			1.0	1.0	1.5
ND17-20565	1.3			1.0	1.0	2.0
ND17-20728	1.2			1.0	1.0	1.5
ND17-20754	1.0			1.0	1.0	1.0
ND17-21922	1.3			1.0	1.0	2.0
ND17-21929	1.7			1.0	1.0	3.0
ND17-22117	1.3			1.0	1.0	2.0
ND17-22120	1.3			1.0	1.0	2.0
ND17-22388	1.5			1.0	1.0	2.5
OAC 18-75C	1.2			1.0	1.0	1.5

UNIFORM TEST 0, 2020

PLANT HEIGHT (inches)

Strain	Mean 4 Tests	Crookston MN	Shelly MN	Elora ONT	Wood- stock ONT	St Mathieu de Beloeil QUE
ND Dickey (0) (ND13-4508)	28	21		30	27	35
MN0095 (E)	23	17		25	22	28
MN0404CN (SCN)	28	21		29	26	37
MN1410 (L)	34	30		32	30	43
M07-296048HOLL-1	28	21		28	27	35
M07-296048HOLL-3	31	23		30	31	39
M12-416003	31	24		32	28	39
M13-106018	30	25		28	31	37
M13-236028	29	24		31	27	35
M13-236029	33	28		34	33	37
M13-250051	33	29		32	31	38
M14-137078	27	22		30	23	32
M14-140012	32	25		34	32	37
M14-262034	29	23		30	29	34
M14-271013	28	26		29	26	31
M14-271042	33	30		33	30	38
M14-323003	30	27		34	24	35
ND13-4810	30	22		32	30	37
ND13-7510	31	26		32	28	39
ND16-6745	28	25		28	26	33
ND16-6769	28	24		28	27	33
ND16-7108	28	24		29	25	33
ND16-7155	30	27		30	29	34
ND16-7175	29	24		29	28	34
ND16-7176	28	24		27	28	34
ND16-8257	32	27		32	30	37
ND16-8821	27	24		28	26	31
ND17-20565	31	28		29	30	36
ND17-20728	30	27		30	28	36
ND17-20754	26	22		27	25	29
ND17-21922	23	18		23	23	28
ND17-21929	31	22		34	31	36
ND17-22117	28	23		29	25	35
ND17-22120	30	26		29	29	34
ND17-22388	28	24		27	24	38
OAC 18-75C	33	26		39	28	39

UNIFORM TEST 0, 2020

SEED SIZE (g/100)

Strain	Mean 5 Tests	Crookston MN	Shelly MN	Elora ONT	Wood- stock ONT	St Mathieu de Beloeil QUE
ND Dickey (0) (ND13-4508)	16.8	15.0	14.8	17.0	18.9	18.3
MN0095 (E)	14.0	14.3	12.9	13.4	15.1	14.4
MN0404CN (SCN)	14.9	15.5	12.9	14.6	15.3	16.2
MN1410 (L)	15.8	13.4	13.0	15.5	20.1	17.1
M07-296048HOLL-1	15.4	13.4	13.9	14.8	18.3	16.8
M07-296048HOLL-3	14.9	13.9	13.1	15.0	16.5	15.9
M12-416003	16.1	14.8	14.0	15.6	19.0	17.3
M13-106018	16.2	14.5	14.3	15.2	19.8	17.2
M13-236028	15.7	14.6	13.9	15.2	18.1	16.7
M13-236029	14.5	12.6	12.5	14.8	17.3	15.5
M13-250051	15.9	14.8	13.6	15.9	18.7	16.3
M14-137078	18.2	17.8	16.2	18.2	19.9	18.7
M14-140012	17.4	15.3	16.1	16.2	20.2	19.4
M14-262034	15.7	15.5	14.2	15.5	17.3	16.1
M14-271013	18.5	18.0	17.2	17.3	20.0	20.2
M14-271042	18.4	17.0	15.8	17.7	21.4	20.3
M14-323003	21.7	22.8	18.7	21.3	23.5	22.0
ND13-4810	18.1	16.4	16.1	18.1	19.9	19.8
ND13-7510	17.7	15.8	16.0	17.6	19.9	19.1
ND16-6745	15.2	13.8	13.6	15.5	17.0	16.2
ND16-6769	15.4	13.5	14.1	15.9	17.2	16.3
ND16-7108	15.4	13.1	13.9	16.5	16.9	16.5
ND16-7155	14.9	12.7	13.3	15.6	16.0	17.1
ND16-7175	14.8	14.1	14.0	14.8	15.4	15.9
ND16-7176	15.2	13.9	13.8	15.6	16.6	16.2
ND16-8257	15.1	13.7	14.1	13.6	17.2	17.1
ND16-8821	14.3	14.8	12.5	13.8	15.4	15.2
ND17-20565	16.5	14.2	15.0	15.5	18.6	19.0
ND17-20728	15.6	13.5	14.8	13.9	18.2	17.5
ND17-20754	14.8	12.6	14.2	13.5	16.2	17.3
ND17-21922	16.8	15.9	15.0	16.1	18.6	18.6
ND17-21929	15.1	13.8	12.9	13.6	18.3	16.8
ND17-22117	14.0	12.8	12.6	12.9	16.3	15.6
ND17-22120	15.1	13.4	13.6	14.3	17.9	16.4
ND17-22388	13.2	11.0	11.6	13.0	15.4	14.9
OAC 18-75C	16.3	15.3	14.9	16.3	18.0	16.9

UNIFORM TEST 0, 2020

SEED QUALITY (score)

Strain	Mean 5 Tests	Crookston MN	Shelly MN	Elora ONT	Wood- stock ONT	St Mathieu de Beloeil QUE
ND Dickey (0) (ND13-4508)	1.3	1.0	1.0	2.0	1.5	1.0
MN0095 (E)	1.8	3.0	1.0	2.0	2.0	1.0
MN0404CN (SCN)	1.4	1.0	1.0	2.0	2.0	1.0
MN1410 (L)	1.4	2.0	1.0	1.5	1.5	1.0
M07-296048HOLL-1	1.4	2.0	1.0	1.5	1.5	1.0
M07-296048HOLL-3	1.2	1.0	1.0	1.5	1.5	1.0
M12-416003	1.8	2.0	1.0	2.0	3.0	1.0
M13-106018	1.6	2.0	1.0	1.5	2.0	1.5
M13-236028	1.4	2.0	1.0	1.5	1.5	1.0
M13-236029	1.6	2.0	1.0	1.5	1.5	2.0
M13-250051	1.9	2.0	2.0	2.0	2.0	1.5
M14-137078	1.4	1.0	1.0	2.0	2.0	1.0
M14-140012	1.2	1.0	1.0	1.5	1.5	1.0
M14-262034	1.3	1.0	1.0	2.0	1.5	1.0
M14-271013	1.2	1.0	1.0	1.5	1.5	1.0
M14-271042	1.6	1.0	1.0	2.0	2.5	1.5
M14-323003	1.5	1.0	1.0	2.5	2.0	1.0
ND13-4810	1.3	1.0	1.0	1.5	2.0	1.0
ND13-7510	1.3	1.0	1.0	2.0	1.5	1.0
ND16-6745	1.4	2.0	1.0	1.5	1.5	1.0
ND16-6769	1.4	2.0	1.0	1.5	1.5	1.0
ND16-7108	1.4	2.0	1.0	1.5	1.5	1.0
ND16-7155	1.4	2.0	1.0	1.5	1.5	1.0
ND16-7175	1.2	1.0	1.0	1.5	1.5	1.0
ND16-7176	1.4	2.0	1.0	1.5	1.5	1.0
ND16-8257	1.2	1.0	1.0	1.5	1.5	1.0
ND16-8821	1.3	1.0	1.0	1.5	2.0	1.0
ND17-20565	1.3	1.0	1.0	1.5	2.0	1.0
ND17-20728	1.2	1.0	1.0	1.5	1.5	1.0
ND17-20754	1.2	1.0	1.0	1.5	1.5	1.0
ND17-21922	1.2	1.0	1.0	1.5	1.5	1.0
ND17-21929	1.3	1.0	1.0	1.5	2.0	1.0
ND17-22117	1.3	1.0	1.0	1.5	2.0	1.0
ND17-22120	1.2	1.0	1.0	1.5	1.5	1.0
ND17-22388	1.2	1.0	1.0	1.5	1.5	1.0
OAC 18-75C	1.4	2.0	1.0	1.5	1.5	1.0

UNIFORM TEST 0, 2020

PROTEIN (%)

Strain	Mean 5 Tests	Crookston MN	Shelly MN	Elora ONT*	Wood- stock ONT*	St Mathieu de Beloeil QUE
ND Dickey (0) (ND13-4508)	34.6	35.8	33.3	35.9	33.5	34.6
MN0095 (E)	35.2	35.5	33.7	36.7	34.9	35.0
MN0404CN (SCN)	34.4	36.3	32.4	35.3	33.5	34.4
MN1410 (L)	35.0	35.3	34.2	35.4	35.3	34.6
M07-296048HOLL-1	36.1	37.4	36.0	36.2	35.3	35.6
M07-296048HOLL-3	35.7	37.3	35.7	36.1	34.2	35.1
M12-416003	34.3	34.4	33.2	35.8	34.6	33.7
M13-106018	34.5	34.8	32.7	36.0	34.4	34.6
M13-236028	33.8	33.3	32.5	35.0	34.3	34.0
M13-236029	33.7	33.3	32.3	35.1	34.1	33.8
M13-250051	34.1	34.5	33.1	35.6	33.4	34.1
M14-137078	35.3	35.8	33.5	36.2	35.5	35.3
M14-140012	35.6	35.1	34.9	36.9	34.6	36.3
M14-262034	35.2	35.3	34.8	35.8	35.0	35.3
M14-271013	35.9	36.0	36.8	36.0	34.5	36.1
M14-271042	36.1	36.6	35.5	36.4	35.6	36.7
M14-323003	36.0	37.2	34.8	36.6	34.8	36.4
ND13-4810	35.4	36.0	34.6	35.9	34.9	35.6
ND13-7510	36.5	36.9	36.2	37.6	35.8	36.1
ND16-6745	34.6	33.3	33.2	37.1	34.7	34.7
ND16-6769	35.1	34.8	34.2	36.9	35.0	34.7
ND16-7108	34.6	34.2	34.0	36.6	34.2	34.1
ND16-7155	34.9	33.8	34.4	36.6	34.4	35.2
ND16-7175	35.0	34.8	33.9	37.0	34.8	34.6
ND16-7176	34.7	34.1	34.0	36.7	34.5	34.5
ND16-8257	35.3	35.3	34.1	36.3	35.7	35.2
ND16-8821	35.1	36.8	33.1	35.5	35.3	34.7
ND17-20565	34.8	34.8	34.5	35.3	34.6	34.6
ND17-20728	34.1	34.3	33.1	35.2	34.0	34.1
ND17-20754	34.7	35.0	34.3	36.4	33.6	34.2
ND17-21922	35.6	36.4	34.3	36.2	35.1	36.0
ND17-21929	36.2	36.6	35.2	37.5	35.2	36.4
ND17-22117	35.2	34.9	34.9	36.5	34.6	35.3
ND17-22120	34.1	33.6	34.1	35.4	33.7	33.9
ND17-22388	33.9	33.1	33.0	35.5	33.7	34.4
OAC 18-75C	35.4	36.2	33.5	37.3	35.2	35.2

*Data Adjusted to 13% moisture.

UNIFORM TEST 0, 2020

OIL (%)

Strain	Mean 5 Tests	Crookston MN	Shelly MN	Elora ONT*	Wood- stock ONT*	St Mathieu de Beloeil QUE
ND Dickey (0) (ND13-4508)	17.4	16.3	17.7	18.1	18.6	16.2
MN0095 (E)	18.4	18.8	19.4	18.0	18.8	17.0
MN0404CN (SCN)	18.6	17.7	19.2	19.3	19.4	17.1
MN1410 (L)	17.8	17.1	18.0	18.5	18.3	16.9
M07-296048HOLL-1	17.0	16.7	17.5	17.5	18.0	15.5
M07-296048HOLL-3	16.9	16.2	17.2	17.4	18.6	15.2
M12-416003	18.2	17.9	18.1	19.0	19.2	16.7
M13-106018	18.2	17.6	18.8	18.7	19.1	17.1
M13-236028	19.2	19.1	19.9	18.7	19.7	18.5
M13-236029	18.9	18.8	19.5	19.0	19.3	17.8
M13-250051	17.7	17.1	18.1	18.2	19.0	16.1
M14-137078	18.0	17.6	18.6	18.5	18.6	16.9
M14-140012	18.2	17.6	18.5	18.4	19.4	16.9
M14-262034	18.4	18.2	18.5	19.1	19.0	17.3
M14-271013	17.1	16.5	18.2	17.4	18.3	15.3
M14-271042	16.5	16.1	16.6	17.3	17.5	15.1
M14-323003	17.3	16.1	18.0	17.8	18.9	15.8
ND13-4810	18.1	17.5	18.4	19.0	19.0	16.7
ND13-7510	16.5	16.0	17.0	16.7	17.6	15.4
ND16-6745	17.8	17.6	18.2	18.1	18.7	16.3
ND16-6769	17.7	17.3	18.0	18.1	18.9	16.4
ND16-7108	17.6	17.4	17.6	18.1	18.8	16.2
ND16-7155	17.7	17.1	17.6	18.1	18.8	16.8
ND16-7175	17.7	17.5	17.7	18.2	19.0	16.2
ND16-7176	17.8	17.4	17.9	18.2	18.9	16.5
ND16-8257	17.4	17.2	18.1	17.7	17.8	16.2
ND16-8821	17.4	16.8	18.4	17.1	18.6	16.2
ND17-20565	18.3	17.7	19.0	18.2	19.4	17.1
ND17-20728	18.6	18.2	19.5	18.3	19.5	17.6
ND17-20754	18.3	17.3	18.9	18.2	19.5	17.5
ND17-21922	18.1	17.7	18.9	19.0	18.1	16.8
ND17-21929	17.6	17.3	18.0	17.6	18.8	16.3
ND17-22117	18.2	18.4	18.6	18.5	18.5	17.2
ND17-22120	18.4	18.7	18.9	18.7	18.6	17.3
ND17-22388	18.7	18.3	18.7	19.3	19.9	17.3
OAC 18-75C	17.8	17.3	18.5	18.1	18.8	16.6

*Data Adjusted to 13% moisture.

**Northern Regional Uniform Test
Uniform Test I, 2020**

Ent.	Strain	Parentage	Seed Source	Previous Testing	Gen. Comp.	Unique Traits
1	MN1410 (I)	Unknown	Lorenz	15	F5	
2	ND Dickey (0) (ND13-4508)	P. 91M10 x Sheyenne	Helms	3	F4	Race 3 Resist.
3	U11-917032 (SCN) (L)	LD02-4485 x U03-100612	Graef	6	F6	SCN, HR, MR, IDC
4	U14-103015	LG07-2249 x LG07-6944	Graef	3	F5	Diversity
5	E15338	E09088 x E12901	Wang	2	F5	SCN Resist?
6	E16099	PI 550729 x IA2102	Wang	1	F5	
7	E16346	PI 540453 x LD02-4485	Wang	1	F5	SCN
8	LD17-4967a	E11128T x LD14-8030	Diers	PTI	F5	Rag1+2+3
9	M07-297007HOLL-1	[M07-297007(4) x M05-319034LL] x [M07-297007(4) x M10-237089HO]	Lorenz	UTITM	BC3F3	
10	M07-297007HOLL-3					
11	M07-297007HOLL-4					
12	M10-238-2036	MO HI OLEIC X	Lorenz	UTITM	F5	
13	M11-314101	MN1505SP x MN0804SP	Lorenz	UTITM	F5	
14	M13-104022	M07-260028 x M05-353086	Lorenz	UT0	F5	SCN
15	M13-106007	M03-172059 x A09-754003	Lorenz	PTI	F5	
16	M13-106015	M03-172059 x A09-754003	Lorenz	PTI	F5	
17	M13-106022	M03-172059 x A09-754003	Lorenz	PTI	F5	
18	M13-264055	LD10-5903a x KATO	Lorenz	PTI	F5	Rag1
19	U16-126608	U02-242055-0187 x U09-105007-174	Graef	PTI		Rps

Entry 9-11 share same parentage.

UNIFORM TEST I, 2020

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code	IDC	Leaf Shape
		Score Danvers & Graceville, MN	Woodstock
MN1410 (I)	WGBSYBI	1.5	Ovate
ND Dickey (0) (ND13-4508)	PGTSYI	1.0	Ovate
U11-917032 (SCN) (L)	PTBSYBI	1.3	Ovate
U14-103015	PLtTDYBI	1.3	Ovate
E15338	PGBSYIbI	1.4	Ovate
E16099	PGTSYHI	1.5	Ovate
E16346	PT+GBDYHI	1.0	Ovate
LD17-4967a	PT+LtBDYGI	1.3	Ovate
M07-297007HOLL-1	P+WGBDYHI	1.4	Ovate
M07-297007HOLL-3	P+WTTDYBI	1.0	Ovate
M07-297007HOLL-4	P+WTTSYBI	1.0	Ovate
M10-238-2036	PLtTDYGI	1.4	Ovate
M11-314101	PGBSYI	1.0	Ovate
M13-104022	P+WT+GB+TSYHI	1.5	Ovate
M13-106007	P+WTTDYHI	1.5	Ovate
M13-106015	P+WT+GBSYHI	1.3	Ovate
M13-106022	PT+GBDYHI	1.0	Ovate
M13-264055	PGBDYIbI	1.5	Ovate
U16-126608	WLtBDYGI	2.9	Ovate

UNIFORM TEST I, 2020

REGIONAL SUMMARY

No. of Tests Strain	Yield	Rank	Maturity	Lodging	Plant Height	Seed Size	Seed Quality	<u>Composition</u>	
	10 bu/a	10 No.	10 Date	10 Score	10 In.	10 g/100	10 Score	Protein 10 %	Oil 10 %
MN1410 (I)	51.1	13	9/14	1.5	36	16.6	1.3	35.5	19.2
ND Dickey (0) (ND13-4508)	49.4	17	-2.3	1.2	32	16.8	1.4	34.9	18.6
U11-917032 (SCN) (L)	56.6	3	5.3	2.0	34	15.2	1.3	33.4	19.5
U14-103015	54.0	6	5.3	1.6	33	15.3	1.3	34.6	19.5
E15338	56.4	4	4.7	2.0	35	15.4	1.2	33.8	18.7
E16099	54.4	5	7.3	1.8	37	13.9	1.1	34.4	18.6
E16346	59.2	1	7.7	1.4	35	12.8	1.7	32.9	18.9
LD17-4967a	49.1	18	4.6	1.2	35	17.7	1.4	33.5	19.4
M07-297007HOLL-1	53.8	7	4.8	1.2	34	13.3	1.2	37.6	18.6
M07-297007HOLL-3	52.3	12	3.8	1.5	37	13.8	1.2	37.4	18.0
M07-297007HOLL-4	53.6	8	3.7	1.5	36	14.0	1.3	37.3	18.3
M10-238-2036	50.4	15	0.2	1.4	33	14.8	1.4	36.8	18.7
M11-314101	48.1	19	1.8	1.4	34	19.0	1.3	38.0	18.2
M13-104022	49.9	16	1.1	1.2	34	17.9	1.3	35.4	18.5
M13-106007	52.6	11	2.1	1.2	34	14.9	1.4	35.3	18.4
M13-106015	53.5	10	5.2	1.8	37	14.7	1.3	35.3	18.5
M13-106022	53.6	9	4.2	1.4	35	16.1	1.3	34.8	18.5
M13-264055	50.4	14	6.5	1.7	38	16.8	1.3	35.9	18.4
U16-126608	58.8	2	7.3	1.5	36	16.7	1.4	33.2	19.7
Mean	53.0			1.5	34.9	15.6	1.3	35.3	18.7
C.V. (%)	13.0								
L.S.D. (5%)	3.5								

112.4 Days After Planting

UNIFORM TEST I, 2020

2019-2020 2-YEAR MEAN

No. of Tests Strain	Yield	Rank	Maturity	Lodging	Plant Height	Seed Size	Seed Quality	<u>Composition</u>	
	25 bu/a	25 No.	24 Date	21 Score	23 In.	24 g/100	23 Score	Protein 18 %	Oil 18 %
MN1410 (I)	50.0	6.0	9/16	1.4	33	16.6	1.3	35.4	18.8
U11-917032 (SCN) (L)	56.2	3.0	5.9	1.6	31	15.5	1.5	33.2	19.4
U14-103015	54.8	5.0	5.1	1.5	31	15.9	1.4	34.9	19.2
E15338	57.1	2.0	4.3	1.6	32	16.0	1.4	33.8	18.5
E16099	55.6	4.0	6.3	1.5	34	14.7	1.3	34.4	18.3
E16346	58.2	1.0	7.1	1.4	32	13.4	1.7	32.9	18.8

111.7 Days After Planting

2018-2020 3-YEAR MEAN

No. of Tests Strain	37	37	36	34	36	34	33	25	25
MN1410 (I)	52.0	4.0	9/16	1.7	34	16.9	1.4	35.4	18.8
U11-917032 (SCN) (L)	56.8	3.0	5.3	1.8	32	15.8	1.6	33.1	19.6
U14-103015	57.3	2.0	4.3	1.6	32	16.5	1.4	34.9	19.3
E15338	58.1	1.0	3.9	1.8	34	16.4	1.4	33.8	18.6

113.3 Days After Planting

UNIFORM TEST I, 2020

YIELD (bu/a)

Strain	Mean 10 Tests	Wanatah IN	West Lafayette IN	Saginaw MI	Williams- ton MI	Rose- Mount MN	Waseca MN
MN1410 (I)	51.1	43.4	57.1	47.1	36.7	60.1	81.2
ND Dickey (0) (ND13-4508)	49.4	44.7	51.9	41.4	33.8	57.9	83.0
U11-917032 (SCN) (L)	56.6	41.5	61.2	56.8	33.9	58.3	78.8
U14-103015	54.0	42.5	62.6	48.3	34.4	52.6	83.4
E15338	56.4	43.9	66.9	54.9	37.8	50.7	91.0
E16099	54.4	44.4	63.0	55.8	37.5	55.8	78.6
E16346	59.2	43.3	65.4	53.9	40.8	56.8	83.9
LD17-4967a	49.1	43.5	60.3	48.3	34.7	56.1	33.9
M07-297007HOLL-1	53.8	43.5	62.2	52.2	32.7	52.5	70.2
M07-297007HOLL-3	52.3	43.1	58.8	52.3	36.5	50.1	63.8
M07-297007HOLL-4	53.6	39.8	58.3	50.8	36.6	46.6	69.9
M10-238-2036	50.4	41.7	53.1	48.5	35.4	52.2	72.0
M11-314101	48.1	41.1	55.0	52.5	33.8	50.6	65.8
M13-104022	49.9	42.1	55.0	46.5	36.2	56.0	71.0
M13-106007	52.6	42.1	53.0	49.5	39.0	52.9	84.1
M13-106015	53.5	33.2	58.7	50.4	36.3	50.8	96.6
M13-106022	53.6	40.0	57.9	46.5	38.6	52.5	85.1
M13-264055	50.4	43.3	52.0	43.6	37.8	43.7	67.6
U16-126608	58.8	46.2	59.5	47.0	45.2	53.8	97.7
Location Mean		42.3	58.5	49.8	36.7	53.2	76.7
C.V. (%)		12.1	6.6	9.8	10.4	8.6	8.0
L.S.D. (5%)		10.8	8.1	9.7	7.6	7.5	10.2
Row Sp. (In.)		30	30	15	15	30	30
Rows/Plot		4	4	6	6	4	4
Reps		2	2	3	3	3	3

UNIFORM TEST I, 2020

YIELD (bu/a)

Strain	Mead NE	Steven's Creek NE	Palmyra ONT	Wood- Stock ONT	Saint Hyacinthe QUE*
MN1410 (I)	58.6	30.2	50.2	46.4	71.0
ND Dickey (0) (ND13-4508)	58.6	27.3	49.3	46.6	66.8
U11-917032 (SCN) (L)	66.1	47.9	70.1	51.5	71.4
U14-103015	61.0	35.2	68.3	51.8	67.0
E15338	59.5	27.5	74.3	57.5	50.5
E16099	56.3	29.5	69.6	53.9	69.9
E16346	63.2	52.6	74.8	56.8	60.0
LD17-4967a	59.4	43.7	63.9	47.0	68.2
M07-297007HOLL-1	62.7	44.3	69.9	48.1	61.1
M07-297007HOLL-3	56.3	41.2	73.5	47.1	54.6
M07-297007HOLL-4	62.3	44.5	80.9	46.5	40.1
M10-238-2036	52.8	40.2	67.2	40.7	63.2
M11-314101	51.0	29.6	59.7	41.5	60.1
M13-104022	52.1	28.8	65.2	45.8	62.0
M13-106007	59.7	30.8	69.7	45.4	43.4
M13-106015	58.4	34.0	70.1	46.1	64.4
M13-106022	62.8	32.9	65.7	54.2	67.8
M13-264055	53.8	43.1	70.6	48.9	43.1
U16-126608	60.5	43.4	89.5	44.8	67.0
Location Mean	58.7	37.2	68.6	48.5	60.6
C.V. (%)	7.3	10.7	13.5	9.5	19.1
L.S.D. (5%)	11.1	10.4	19.4	9.1	19.2
Row Sp. (In.)	30	30	17	13	15
Rows/Plot	4	4	5	4	4
Reps	2	2	2	3	3

*Data not included in mean.

UNIFORM TEST I, 2020

YIELD RANK

Strain	Yield Rank	Wanatah IN	West Lafayette IN	Saginaw MI	Williams-ton MI	Rose-Mount MN	Waseca MN
MN1410 (I)	13	7	13	14	8	1	9
ND Dickey (0) (ND13-4508)	17	2	19	19	17	3	8
U11-917032 (SCN) (L)	3	15	6	1	16	2	10
U14-103015	6	11	4	12	15	10	7
E15338	4	4	1	3	5	15	3
E16099	5	3	3	2	7	7	11
E16346	1	8	2	4	2	4	6
LD17-4967a	18	5	7	12	14	5	19
M07-297007HOLL-1	7	5	5	7	19	11	14
M07-297007HOLL-3	12	10	9	6	10	17	18
M07-297007HOLL-4	8	18	11	8	9	18	15
M10-238-2036	15	14	16	11	13	13	12
M11-314101	19	16	14	5	17	16	17
M13-104022	16	12	14	16	12	6	13
M13-106007	11	12	17	10	3	9	5
M13-106015	10	19	10	9	11	14	2
M13-106022	9	17	12	16	4	11	4
M13-264055	14	8	18	18	5	19	16
U16-126608	2	1	8	15	1	8	1

UNIFORM TEST I, 2020

YIELD RANK

Strain	Mead NE	Steven's Creek NE	Palmyra ONT	Wood- Stock ONT	Saint Hyacinthe QUE
MN1410 (I)	11	14	18	13	2
ND Dickey (0) (ND13-4508)	11	19	19	11	8
U11-917032 (SCN) (L)	1	2	7	6	1
U14-103015	6	10	12	5	6
E15338	9	18	4	1	16
E16099	14	16	11	4	3
E16346	2	1	3	2	14
LD17-4967a	10	5	16	10	4
M07-297007HOLL-1	4	4	9	8	12
M07-297007HOLL-3	14	8	5	9	15
M07-297007HOLL-4	5	3	2	12	19
M10-238-2036	17	9	13	19	10
M11-314101	19	15	17	18	13
M13-104022	18	17	15	15	11
M13-106007	8	13	10	16	17
M13-106015	13	11	7	14	9
M13-106022	3	12	14	3	5
M13-264055	16	7	6	7	18
U16-126608	7	6	1	17	6

UNIFORM TEST I, 2020

MATURITY (date)

Strain	Mean 10 Tests	Wanatah IN	West Lafayette IN	Saginaw MI	Williams- ton MI	Rose- Mount MN	Waseca MN
MN1410 (I)	9/14	8/30	9/7	9/12	9/15	9/20	9/23
ND Dickey (0) (ND13-4508)	-2	1	-2	2	-4	-2	-7
U11-917032 (SCN) (L)	5	8	6	10	5	5	3
U14-103015	5	10	7	8	7	4	2
E15338	5	10	8	7	3	5	3
E16099	7	12	10	17	6	6	5
E16346	8	12	9	11	7	5	7
LD17-4967a	5	9	6	7	5	4	1
M07-297007HOLL-1	5	9	7	6	5	3	7
M07-297007HOLL-3	4	9	6	7	3	2	1
M07-297007HOLL-4	4	8	3	10	3	3	1
M10-238-2036	0	4	0	4	0	-1	0
M11-314101	2	7	4	6	-2	3	3
M13-104022	1	7	2	3	2	-2	0
M13-106007	2	5	3	6	1	1	0
M13-106015	5	9	6	7	4	3	7
M13-106022	4	8	5	5	3	3	2
M13-264055	6	11	7	7	7	6	8
U16-126608	7	15	10	10	7	3	4
Date Planted	5/24	6/1	6/2	5/24	5/24	5/29	5/7
Days to Mature	112	90	97	111	114	114	139

UNIFORM TEST I, 2020

MATURITY (date)

Strain	Mead NE	Steven's Creek NE	Palmyra ONT *	Wood- Stock ONT	Saint Hyacinthe QUE
MN1410 (I)	8/29	9/15		9/23	9/28
ND Dickey (0) (ND13-4508)	-1	-2		-4	-4
U11-917032 (SCN) (L)	6	7		5	0
U14-103015	6	5		6	0
E15338	5	4		2	1
E16099	7	-1		6	5
E16346	11	6		6	3
LD17-4967a	7	5		2	0
M07-297007HOLL-1	7	4		3	-2
M07-297007HOLL-3	6	3		3	-1
M07-297007HOLL-4	6	3		1	-1
M10-238-2036	-1	-1		0	-3
M11-314101	4	-1		-3	-1
M13-104022	3	-1		0	-2
M13-106007	4	2		1	-2
M13-106015	7	6		4	-1
M13-106022	7	6		4	0
M13-264055	6	8		3	2
U16-126608	7	9		4	5
Date Planted	5/20	6/9		5/26	5/11
Days to Mature	101	98		120	140

*Killing Frost on 9/19

UNIFORM TEST I, 2020

LODGING (score)

Strain	Mean 10 Tests	Wanatah IN	West Lafayette IN	Saginaw MI	Williams- ton MI	Rose- Mount MN	Waseca MN
MN1410 (I)	1.5	2.0	1.5	1.0		2.0	2.3
ND Dickey (0) (ND13-4508)	1.2	1.0	1.0	1.0		1.3	2.3
U11-917032 (SCN) (L)	2.0	2.0	2.0	2.3		3.0	3.0
U14-103015	1.6	1.5	2.0	1.3		2.0	2.7
E15338	2.0	2.0	2.0	2.0		3.0	3.0
E16099	1.8	2.0	2.0	1.7		2.7	3.0
E16346	1.4	1.0	1.0	1.7		2.7	2.7
LD17-4967a	1.2	1.0	1.0	1.3		1.3	2.0
M07-297007HOLL-1	1.2	1.0	1.0	1.3		1.3	2.0
M07-297007HOLL-3	1.5	1.5	1.5	1.0		2.7	2.3
M07-297007HOLL-4	1.5	1.5	1.5	1.7		2.3	2.3
M10-238-2036	1.4	1.5	1.5	1.0		2.0	3.0
M11-314101	1.4	1.0	1.5	1.3		1.7	2.3
M13-104022	1.2	1.5	1.0	1.3		1.0	2.0
M13-106007	1.2	1.0	1.0	1.7		1.7	2.0
M13-106015	1.8	2.0	1.5	1.3		1.7	3.0
M13-106022	1.4	1.5	1.5	1.3		1.0	2.3
M13-264055	1.7	2.0	2.0	1.0		2.0	3.0
U16-126608	1.5	2.0	2.0	1.0		2.3	2.7

UNIFORM TEST I, 2020

LODGING (score)

Strain	Mead NE	Steven's Creek NE	Palmyra ONT	Wood- Stock ONT	Saint Hyacinthe QUE
MN1410 (I)	1.5	1.0	1.0	1.0	2.0
ND Dickey (0) (ND13-4508)	1.0	1.0	1.0	1.0	1.0
U11-917032 (SCN) (L)	1.0	1.0	1.0	1.2	3.0
U14-103015	1.0	2.0	1.0	1.0	1.0
E15338	1.5	2.0	1.0	1.0	2.0
E16099	1.3	1.0	1.0	1.0	2.0
E16346	1.0	1.0	1.0	1.0	1.0
LD17-4967a	1.0	1.0	1.0	1.0	1.0
M07-297007HOLL-1	1.0	1.0	1.0	1.0	1.0
M07-297007HOLL-3	1.0	1.0	1.0	1.0	2.0
M07-297007HOLL-4	1.0	1.0	1.0	1.0	1.7
M10-238-2036	1.0	1.0	1.0	1.0	1.0
M11-314101	1.0	1.0	1.0	1.0	2.0
M13-104022	1.0	1.0	1.0	1.0	1.0
M13-106007	1.0	1.0	1.0	1.0	1.0
M13-106015	1.0	2.0	1.0	1.0	3.0
M13-106022	1.0	1.0	1.0	1.0	2.3
M13-264055	1.0	1.5	1.0	1.0	2.0
U16-126608	1.0	1.0	1.0	1.0	1.0

UNIFORM TEST I, 2020

PLANT HEIGHT (inches)

Strain	Mean 10 Tests	Wanatah IN	West Lafayette IN	Saginaw MI	Williams- ton MI	Rose- Mount MN	Waseca MN
MN1410 (I)	36	33	37	36		43	38
ND Dickey (0) (ND13-4508)	32	30	32	34		38	35
U11-917032 (SCN) (L)	34	30	32	37		38	34
U14-103015	33	29	32	32		39	36
E15338	35	32	34	39		41	38
E16099	37	32	34	45		41	42
E16346	35	29	31	40		42	40
LD17-4967a	35	30	33	41		37	34
M07-297007HOLL-1	34	29	35	38		41	35
M07-297007HOLL-3	37	31	37	34		44	42
M07-297007HOLL-4	36	33	36	41		42	40
M10-238-2036	33	30	33	35		40	37
M11-314101	34	32	34	35		44	35
M13-104022	34	30	35	38		41	35
M13-106007	34	29	32	39		40	35
M13-106015	37	31	37	37		42	41
M13-106022	35	28	34	36		40	38
M13-264055	38	35	34	35		46	45
U16-126608	36	32	34	38		41	42

UNIFORM TEST I, 2020

PLANT HEIGHT (inches)

Strain	Mead NE	Steven's Creek NE	Palmyra ONT	Wood- Stock ONT	Saint Hyacinthe QUE
MN1410 (I)	34	29	33	35	43
ND Dickey (0) (ND13-4508)	29	24	31	29	36
U11-917032 (SCN) (L)	35	26	36	30	41
U14-103015	33	25	33	32	40
E15338	33	27	35	35	33
E16099	37	26	37	35	43
E16346	33	28	35	33	42
LD17-4967a	35	27	37	32	41
M07-297007HOLL-1	35	26	34	31	41
M07-297007HOLL-3	36	29	41	35	38
M07-297007HOLL-4	36	25	41	34	34
M10-238-2036	31	24	36	30	37
M11-314101	31	24	33	29	40
M13-104022	34	26	35	31	39
M13-106007	32	25	41	32	32
M13-106015	36	28	38	35	41
M13-106022	36	27	39	34	40
M13-264055	39	30	43	36	38
U16-126608	37	27	39	33	41

UNIFORM TEST I, 2020

SEED SIZE (g/100)

Strain	Mean 10 Tests	Wanatah IN	West Lafayette IN	Saginaw MI	Williams- ton MI	Rose- Mount MN	Waseca MN
MN1410 (I)	16.6	12.9	16.0		15.4	16.6	19.7
ND Dickey (0) (ND13-4508)	16.8	13.1	15.7		16.4	16.9	20.6
U11-917032 (SCN) (L)	15.2	11.6	14.4		14.7	16.1	17.5
U14-103015	15.3	11.4	15.2		13.6	15.5	18.9
E15338	15.4	11.5	15.4		15.0	15.9	18.1
E16099	13.9	10.7	14.0		11.7	13.7	17.0
E16346	12.8	9.5	13.6		11.8	13.3	14.6
LD17-4967a	17.7	13.8	18.0		16.0	18.8	20.2
M07-297007HOLL-1	13.3	10.1	13.7		12.3	13.5	15.1
M07-297007HOLL-3	13.8	10.9	13.6		14.1	15.2	15.4
M07-297007HOLL-4	14.0	10.8	14.0		11.6	15.2	16.3
M10-238-2036	14.8	11.6	14.5		7.2	16.9	18.7
M11-314101	19.0	16.1	19.6		12.8	19.7	22.6
M13-104022	17.9	15.8	18.7		11.9	19.1	21.9
M13-106007	14.9	11.7	14.1		14.2	14.6	17.7
M13-106015	14.7	11.3	14.0		13.4	14.9	18.2
M13-106022	16.1	11.4	15.3		14.8	16.7	19.5
M13-264055	16.8	14.0	17.3		16.1	16.5	19.7
U16-126608	16.7	13.4	16.5		16.4	18.4	20.7

UNIFORM TEST I, 2020

SEED SIZE (g/100)

Strain	Mead NE	Steven's Creek NE	Palmyra ONT	Wood- Stock ONT	Saint Hyacinthe QUE
MN1410 (I)	14.9	15.9	18.0	17.9	18.3
ND Dickey (0) (ND13-4508)	15.8	14.7	17.1	18.0	19.4
U11-917032 (SCN) (L)	13.8	14.0	16.6	17.8	15.8
U14-103015	14.4	14.8	16.4	16.9	15.7
E15338	14.0	14.7	16.7	17.3	15.0
E16099	12.8	13.2	15.8	15.9	14.7
E16346	11.8	12.3	14.9	14.1	12.0
LD17-4967a	16.7	16.7	20.4	19.1	17.5
M07-297007HOLL-1	12.6	11.4	15.4	15.4	13.5
M07-297007HOLL-3	13.0	13.2	15.2	14.5	13.3
M07-297007HOLL-4	14.1	13.0	16.5	15.7	13.2
M10-238-2036	14.5	13.9	16.7	17.3	16.9
M11-314101	17.4	17.6	21.9	21.8	20.4
M13-104022	16.0	15.3	19.7	20.1	20.8
M13-106007	14.1	13.9	17.4	17.2	14.5
M13-106015	13.9	14.5	16.3	15.3	14.9
M13-106022	14.9	15.9	18.1	18.0	16.2
M13-264055	16.0	17.2	19.0	16.8	15.9
U16-126608	14.8	15.6	18.1	17.0	16.2

UNIFORM TEST I, 2020

SEED QUALITY (score)

Strain	Mean 10 Tests	Wanatah IN	West Lafayette IN	Saginaw MI	Williams- ton MI	Rose- Mount MN	Waseca MN
MN1410 (I)	1.3	1.0	1.0		2.5	1.0	1.0
ND Dickey (0) (ND13-4508)	1.4	1.0	1.0		2.0	1.0	1.0
U11-917032 (SCN) (L)	1.3	1.0	1.0		2.0	1.0	1.0
U14-103015	1.3	1.0	1.0		2.3	1.0	1.0
E15338	1.2	1.0	1.0		1.7	1.0	1.0
E16099	1.1	1.0	1.0		1.0	1.0	1.0
E16346	1.7	1.0	1.0		5.0	1.0	1.0
LD17-4967a	1.4	1.0	1.5		2.0	1.0	1.0
M07-297007HOLL-1	1.2	1.0	1.0		1.3	1.0	1.0
M07-297007HOLL-3	1.2	1.0	1.0		1.5	1.0	1.0
M07-297007HOLL-4	1.3	1.0	1.0		2.3	1.0	1.0
M10-238-2036	1.4	1.0	1.0		2.5	1.0	1.0
M11-314101	1.3	1.0	1.0		2.3	1.0	1.0
M13-104022	1.3	1.0	1.0		2.3	1.0	1.0
M13-106007	1.4	1.0	1.0		2.0	1.0	1.0
M13-106015	1.3	1.0	1.0		1.3	1.0	1.0
M13-106022	1.3	1.0	1.0		1.7	1.0	1.0
M13-264055	1.3	1.0	1.0		1.7	1.0	1.0
U16-126608	1.4	1.0	1.0		1.0	1.0	1.0

UNIFORM TEST I, 2020**SEED QUALITY (score)**

Strain	Mead NE	Steven's Creek NE	Palmyra ONT	Wood- Stock ONT	Saint Hyacinthe QUE
MN1410 (I)	1.0	1.0	1.0	1.0	2.7
ND Dickey (0) (ND13-4508)	1.0	1.0	1.0	1.5	3.0
U11-917032 (SCN) (L)	1.0	1.0	1.0	1.5	2.7
U14-103015	1.0	1.0	1.0	1.5	2.3
E15338	1.0	1.0	1.0	1.5	2.3
E16099	1.0	1.0	1.0	1.0	2.0
E16346	1.0	1.0	1.0	1.5	3.7
LD17-4967a	1.0	1.0	1.0	1.5	3.0
M07-297007HOLL-1	1.0	1.0	1.0	1.0	2.3
M07-297007HOLL-3	1.0	1.0	1.0	1.5	2.3
M07-297007HOLL-4	1.0	1.0	1.0	1.5	2.0
M10-238-2036	1.0	1.0	1.0	1.5	3.0
M11-314101	1.0	1.0	1.0	1.0	2.7
M13-104022	1.0	1.0	1.0	1.0	3.0
M13-106007	1.0	1.0	1.0	1.5	3.7
M13-106015	1.0	1.0	1.0	1.5	3.3
M13-106022	1.0	1.0	1.0	1.5	3.3
M13-264055	1.0	1.0	1.0	1.5	3.3
U16-126608	1.0	1.0	1.0	1.5	4.0

UNIFORM TEST I, 2020

PROTEIN (%)

Strain	Mean 10 Tests	Wanatah IN	West Lafayette IN	Williams- ton MI	Rose- Mount MN	Waseca MN	Mead NE
MN1410 (I)	35.5	36.4	35.1	34.3	35.9	37.1	35.3
ND Dickey (0) (ND13-4508)	34.9	36.5	34.4	34.8	35.0	34.1	34.4
U11-917032 (SCN) (L)	33.4	35.6	33.4	31.2	33.9	34.6	32.8
U14-103015	34.6	36.3	34.9	33.3	35.4	34.8	34.3
E15338	33.8	35.2	34.4	32.2	35.8	34.8	32.6
E16099	34.4	36.4	34.8	33.0	35.1	35.2	34.2
E16346	32.9	35.0	34.1	31.2	34.0	34.0	31.4
LD17-4967a	33.5	33.7	33.5	32.8	35.4	35.4	32.5
M07-297007HOLL-1	37.6	38.1	38.1	36.5	38.4	39.2	37.9
M07-297007HOLL-3	37.4	38.0	39.0	36.3	38.9	38.8	37.1
M07-297007HOLL-4	37.3	38.1	37.5	36.5	38.4	38.5	37.5
M10-238-2036	36.8	38.8	36.8	36.0	37.8	37.4	35.7
M11-314101	38.0	38.7	38.4	35.7	39.7	37.1	37.4
M13-104022	35.4	37.0	35.5	34.2	36.5	35.2	33.7
M13-106007	35.3	36.5	35.5	33.7	36.7	36.2	34.8
M13-106015	35.3	36.8	35.8	34.5	36.1	36.5	34.6
M13-106022	34.8	36.5	33.9	34.4	34.2	35.7	34.1
M13-264055	35.9	36.9	36.8	34.3	36.4	38.1	34.4
U16-126608	33.2	34.4	34.3	31.3	34.2	35.9	32.9

UNIFORM TEST I, 2020

PROTEIN (%)

Strain	Steven's Creek NE	Palmyra ONT	Wood- Stock ONT*	Saint Hyacinthe QUE*
MN1410 (I)	33.7	35.7	34.8	36.4
ND Dickey (0) (ND13-4508)	33.5	35.7	33.9	36.8
U11-917032 (SCN) (L)	31.5	33.1	33.0	35.2
U14-103015	33.4	33.7	33.9	36.3
E15338	32.0	33.9	32.9	34.3
E16099	32.9	34.1	33.5	34.9
E16346	31.9	32.4	31.2	33.7
LD17-4967a	32.0	33.7	32.4	34.0
M07-297007HOLL-1	36.5	38.2	36.0	37.4
M07-297007HOLL-3	36.4	38.0	34.5	36.9
M07-297007HOLL-4	36.4	37.8	35.8	36.3
M10-238-2036	36.3	36.8	35.3	37.1
M11-314101	37.0	39.5	37.2	39.2
M13-104022	33.5	35.8	35.3	37.2
M13-106007	33.5	35.8	34.1	35.8
M13-106015	33.4	35.7	33.2	36.1
M13-106022	34.2	35.0	34.7	35.4
M13-264055	34.4	37.0	34.0	36.7
U16-126608	30.4	32.8	31.9	33.8

*Data Adjusted to 13% moisture.

UNIFORM TEST I, 2020

OIL (%)

Strain	Mean 10 Tests	Wanatah IN	West Lafayette IN	Williams- ton MI	Rose- Mount MN	Waseca MN	Mead NE
MN1410 (I)	19.2	19.0	20.2	19.9	18.8	18.5	19.8
ND Dickey (0) (ND13-4508)	18.6	18.2	18.9	19.3	18.1	19.0	19.7
U11-917032 (SCN) (L)	19.5	19.0	20.8	20.8	18.6	18.6	20.9
U14-103015	19.5	19.3	20.6	20.5	18.7	18.8	20.7
E15338	18.7	18.4	19.8	19.8	17.6	18.2	20.1
E16099	18.6	18.3	19.3	19.6	17.6	18.0	20.0
E16346	18.9	18.5	19.9	19.9	17.8	18.2	20.7
LD17-4967a	19.4	20.1	20.7	20.2	17.9	18.6	21.2
M07-297007HOLL-1	18.6	18.8	19.5	19.8	18.3	17.8	19.5
M07-297007HOLL-3	18.0	18.4	18.4	18.9	17.2	17.1	19.5
M07-297007HOLL-4	18.3	18.7	19.4	19.3	17.3	17.6	19.3
M10-238-2036	18.7	18.4	19.4	20.0	18.1	18.4	19.2
M11-314101	18.2	18.3	19.2	19.5	16.8	17.3	19.6
M13-104022	18.5	18.4	19.4	19.3	17.9	17.9	19.9
M13-106007	18.4	19.0	19.6	20.0	17.5	17.5	19.7
M13-106015	18.5	18.2	19.5	19.7	18.1	17.6	19.6
M13-106022	18.5	18.7	20.5	19.5	17.4	17.7	19.9
M13-264055	18.4	18.7	19.2	19.7	17.9	17.0	20.1
U16-126608	19.7	19.9	20.8	20.9	19.1	18.5	21.0

UNIFORM TEST I, 2020

OIL (%)

Strain	Steven's Creek NE	Palmyra ONT	Wood- Stock ONT*	Saint Hyacinthe QUE*
MN1410 (I)	20.8	19.1	19.2	16.2
ND Dickey (0) (ND13-4508)	20.1	18.3	18.9	15.6
U11-917032 (SCN) (L)	20.8	19.4	19.9	16.3
U14-103015	21.1	19.1	19.6	16.2
E15338	20.0	18.4	18.9	15.6
E16099	20.5	18.5	18.4	15.7
E16346	20.1	18.6	19.7	15.7
LD17-4967a	20.5	19.4	19.5	16.0
M07-297007HOLL-1	19.4	18.0	19.0	15.8
M07-297007HOLL-3	19.5	17.2	18.3	15.3
M07-297007HOLL-4	20.1	17.3	18.5	15.6
M10-238-2036	19.7	18.7	19.0	15.8
M11-314101	19.6	17.9	18.4	15.4
M13-104022	20.7	17.9	18.7	15.1
M13-106007	20.4	18.1	17.3	15.2
M13-106015	20.1	18.2	18.5	15.6
M13-106022	20.0	18.6	17.4	15.7
M13-264055	19.8	18.0	18.2	15.6
U16-126608	21.6	19.8	19.2	16.4

*Data Adjusted to 13% moisture.

**Northern Regional Uniform Test
Preliminary Test I, 2020**

Ent.	Strain	Parentage	Seed Source	Gen. Comp.	Unique Traits
1	MN1410 (I)	Unknown	Lorenz	F5	
2	ND Dickey (0) (ND13-4508)	M92-270029 x M93-313185	Helms	F5	Rps1
3	U11-917032 (SCN) (L)	LD02-4485 x U03-100612	Graef	F6	SCN, HR, MR, IDC
4	U14-103015	LG07-2249 x LG07-6944	Graef	F5	Diversity
5	A14004-13	IA1026 x LD02-5213a	Singh		
6	A14011-30	IA1026 x IA2102	Singh		
7	A14011-55	IA1026 x IA2102	Singh		
8	A14011-77	IA1026 x IA2102	Singh		
9	A14011-90	IA1026 x IA2102	Singh		
10	A14011-116	IA1026 x IA2102	Singh		
11	A14035-80	(U09-105007 x OAC Calypso) x IA2102	Singh		
12	A14038-53	(U11-911079 x OAC Avatar) x IA1026	Singh		
13	A14039-55	(U11-911079 x OAC Avatar) x IA2102	Singh		
14	A14041-44	(OAC Brooke x U09-133021) x IA3050	Singh		
15	A14041-58	(OAC Brooke x U09-133021) x IA3050	Singh		
16	A14042-50	(U11-919011 x LD02-4485(SCN)) x IA2102	Singh		
17	A14046-66	(U11-932025 x LD10-5330a) x IA2102	Singh		
18	A14068-20	(IA1026 x IA3027LF) x IA3050	Singh		
19	A15704-2	U11-920017 x P2C10	Singh		
20	E18074	E09107 x E11431	Wang	F5	
21	LD17-5399a	LD10-10198 x LD14-8035	Diers	F5	Rag 1
22	M14-151039	LD08-12435a x M04-241226	Lorenz	F5	Aphid
23	M14-151094	LD08-12435a x M04-241226	Lorenz	F5	Aphid
24	M14-152051	LD08-12441a x M04-239054	Lorenz	F5	Aphid
25	M14-152074	LD08-12441a x M04-239054	Lorenz	F5	Aphid
26	M14-157011	LD10-5903a x M08-207019	Lorenz	F5	Aphid
27	M14-157032	LD10-5903a x M08-207019	Lorenz	F5	Aphid
28	M14-256061	M07-278122 x M07-297004	Lorenz	F5	Drougt
29	M14-260009	MLG03-4069017 x LG07-6251013	Lorenz	F5	Divers
30	M14-260012	MLG03-4069017 x LG07-6251013	Lorenz	F5	Divers
31	OAC 18-110C	OAC Wallace x S23-T5	Rajcan	F5	
32	OAC 18-111C-SCN	OAC Wallace x Sheyenne	Rajcan	F5	
33	ORC 3119N	RCAT 1003 x AAC Malden	Eskandari	F5	SCN
34	ORC 3419	SC 3313N x OAC Brooke	Eskandari	F5	
35	U17-107198	U11-619102 x U13-905029	Graef		Rps
36	U17-226201	U11-619102 x U11-932025	Graef		Rps Hetero. for Race 25
37	U17-311242	U11-619102 x U13-905029	Graef		Rps
38	U17-326222	U11-614119 x U13-905029	Graef		Rps

PRELIMINARY TEST I, 2020

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code	IDC	Leaf Shape
		Score Danvers & Graceville, MN	Woodstock
MN1410 (I)	WGBSYBfI	1.1	Ovate
ND Dickey (0) (ND13-4508)	PGTSYYI	1.1	Ovate
U11-917032 (SCN) (L)	PTBSYBI	2.1	Ovate
U14-103015	PLtTDYBI	2.6	Ovate
A14004-13	PT+GBDYHI	1.3	Ovate
A14011-30	WLtBSYBI	1.5	Ovate
A14011-55	WGB+TDYYI	1.9	Ovate
A14011-77	PGTSYYI	1.3	Ovate
A14011-90	PGTSYYI	1.6	Ovate
A14011-116	PGTSYYI	1.3	Ovate
A14035-80	PGB+TDYYI	1.4	Ovate
A14038-53	PLtBSYBI	1.3	Ovate
A14039-55	WLtBSYHI	1.4	Ovate
A14041-44	PLtB+TDYBrI	1.3	Ovate
A14041-58	P+WTTDYBrI	1.4	Ovate
A14042-50	PLt+GBDYHI	1.6	Ovate
A14046-66	WLt+GB+TDYHI	1.9	Ovate
A14068-20	P+WLtB+TSYYI	1.0	Ovate
A15704-2	PT+GBSYHI	1.9	Ovate
E18074	PTTSYBI	3.9	Ovate
LD17-5399a	PLtBSYBI	2.8	Ovate
M14-151039	PTTDYHI	1.9	Ovate
M14-151094	PTTDYBrI	2.5	Ovate
M14-152051	PTBDYGI	1.0	Ovate
M14-152074	PTTDYBrI	2.1	Ovate
M14-157011	PGBSYII	1.4	Ovate
M14-157032	PGBSYBfI	1.1	Ovate
M14-256061	PGTSYYI	1.0	Ovate
M14-260009	PTBSYBI	2.5	Ovate
M14-260012	PTBSYHI	3.0	Ovate
OAC 18-110C	PLtTSYGI	1.3	Ovate
OAC 18-111C-SCN	PGBSYII	1.8	Ovate
ORC 3119N	WGTDYYI	2.4	Ovate
ORC 3419	WGBDYII	2.3	Ovate
U17-107198	WLtBSYBI	1.3	Ovate
U17-226201	WLtBDYBI	1.4	Ovate
U17-311242	PLtBSYBI	2.4	Ovate
U17-326222	PLtBSYBI	3.9	Ovate

PRELIMINARY TEST I, 2020

REGIONAL SUMMARY

No. of Tests Strain	Yield 7 bu/a	Rank 7 No.	Maturity 8 Date	Lodging 8 Score	Plant Height 8 In.	Seed Size 9 g/100	Seed Quality 9 Score	Composition	
								Protein 9 %	Oil 9 %
MN1410 (I)	51.9	35	9/15	1.9	36	17.0	1.6	35.3	19.2
ND Dickey (0) (ND13-4508)	53.5	32	-3.8	1.2	31	17.0	1.6	35.3	18.7
U11-917032 (SCN) (L)	58.2	18	4.3	1.7	34	15.4	1.6	33.3	19.5
U14-103015	56.9	23	5.0	1.3	33	16.1	1.5	34.4	19.4
A14004-13	59.3	12	5.8	1.3	34	17.3	1.7	35.0	18.5
A14011-30	58.3	17	4.9	2.2	36	15.1	1.4	34.2	19.0
A14011-55	63.7	3	6.3	1.6	35	17.6	1.6	34.8	18.6
A14011-77	65.8	1	7.3	1.4	36	16.2	1.6	35.0	18.3
A14011-90	63.3	5	7.9	1.4	36	16.7	1.5	35.2	17.9
A14011-116	63.0	6	7.3	1.4	35	17.7	1.6	35.6	17.9
A14035-80	59.7	11	9.6	2.7	37	16.4	1.3	35.0	18.5
A14038-53	58.6	14	5.5	1.6	36	14.8	1.4	33.9	18.9
A14039-55	63.6	4	7.8	1.5	36	16.5	1.5	34.2	19.1
A14041-44	61.1	7	8.3	1.6	39	17.0	1.4	34.3	18.8
A14041-58	60.0	9	9.7	1.3	37	16.5	1.5	35.0	18.0
A14042-50	64.9	2	5.9	2.0	36	16.5	1.7	33.8	18.5
A14046-66	53.3	33	8.0	1.9	36	17.4	1.6	33.4	19.2
A14068-20	58.6	13	8.3	1.5	36	16.4	1.5	36.1	17.8
A15704-2	55.4	25	6.1	2.0	33	19.6	1.4	34.5	18.3
E18074	49.8	38	8.4	1.8	37	15.6	1.4	32.6	18.7
LD17-5399a	50.2	37	2.0	1.1	33	14.4	1.5	34.5	18.5
M14-151039	55.2	26	4.8	2.0	35	15.2	1.5	34.7	18.8
M14-151094	60.0	10	4.0	1.2	33	17.0	1.5	35.3	18.9
M14-152051	50.6	36	-0.6	1.8	29	16.6	1.5	34.7	19.1
M14-152074	57.7	19	4.6	1.5	32	14.6	1.5	33.9	19.2
M14-157011	54.2	27	-1.3	1.9	37	15.8	1.4	33.5	19.3
M14-157032	54.2	28	-1.3	1.6	38	14.9	1.5	34.0	19.0
M14-256061	57.2	21	6.1	1.5	38	14.7	1.6	34.5	18.7
M14-260009	52.4	34	1.4	1.2	34	17.3	1.5	35.8	19.0
M14-260012	57.0	22	5.0	1.3	37	16.0	1.4	35.6	18.3
OAC 18-110C	58.5	15	6.1	1.6	38	16.1	1.4	33.9	19.0
OAC 18-111C-SCN	54.1	29	5.3	2.1	38	15.3	1.4	32.4	19.3
ORC 3119N	53.8	31	0.2	1.2	35	18.8	1.5	37.3	18.0
ORC 3419	56.3	24	1.1	1.3	35	20.9	1.4	36.9	17.9
U17-107198	60.4	8	7.2	1.3	34	14.3	1.4	33.2	19.0
U17-226201	57.5	20	5.4	1.3	34	15.3	1.5	33.7	18.9
U17-311242	58.3	16	7.2	1.4	38	14.6	1.4	33.7	18.6
U17-326222	53.8	30	16.3	1.3	37	14.2	1.3	33.6	18.8
Mean	57.4			1.6	35.3	16.3	1.5	34.5	18.7
C.V. (%)	12.6								
L.S.D. (5%)	4.3								

114.6 Days After Planting

PRELIMINARY TEST I, 2020

YIELD (bu/a)

Strain	Mean 7 Tests	West Lafayette IN	William- ston MI	Rose- Mount MN	Waseca MN	Mead NE	Steven's Creek NE*
MN1410 (I)	51.9	54.3	36.1	54.1	64.9	49.8	29.9
ND Dickey (0) (ND13-4508)	53.5	51.0	28.3	56.5	81.5	46.9	29.6
U11-917032 (SCN) (L)	58.2	61.1	37.7	60.1	80.3	58.4	51.4
U14-103015	56.9	56.6	48.7	55.2	74.0	59.9	51.8
A14004-13	59.3	61.1	45.7	54.2	78.1	61.2	47.4
A14011-30	58.3	62.3	46.2	55.6	79.1	55.2	26.4
A14011-55	63.7	68.0	51.2	54.4	87.9	70.5	33.7
A14011-77	65.8	67.5	49.7	62.1	84.0	73.7	54.9
A14011-90	63.3	68.1	42.5	58.8	87.2	72.5	50.3
A14011-116	63.0	65.2	45.0	68.2	82.8	69.5	24.8
A14035-80	59.7	71.0	48.9	48.1	73.9	65.4	32.8
A14038-53	58.6	52.0	48.3	56.4	79.3	62.2	40.2
A14039-55	63.6	67.0	41.7	63.1	98.0	65.3	48.7
A14041-44	61.1	70.2	48.6	55.4	87.2	61.2	50.1
A14041-58	60.0	63.4	51.3	61.4	83.2	58.2	45.8
A14042-50	64.9	66.6	51.7	65.0	83.0	69.4	37.2
A14046-66	53.3	63.1	29.8	59.2	38.2	67.9	35.0
A14068-20	58.6	61.4	39.0	56.7	88.2	62.5	59.3
A15704-2	55.4	53.9	36.1	63.2	78.8	58.5	36.7
E18074	49.8	45.6	47.0	49.4	74.0	48.2	
LD17-5399a	50.2	52.9	31.7	57.7		42.9	38.6
M14-151039	55.2	60.9	40.2	51.5	68.0	61.1	28.3
M14-151094	60.0	65.1	46.8	53.4	81.2	65.7	26.2
M14-152051	50.6	53.4	37.8	56.3	54.5	50.4	22.9
M14-152074	57.7	55.8	42.5	55.6	74.6	63.7	35.8
M14-157011	54.2	61.6	35.8	56.7	62.3	56.5	36.2
M14-157032	54.2	58.5	44.2	56.0	70.1	44.8	29.4
M14-256061	57.2	59.7	42.3	52.7	78.7	56.2	45.3
M14-260009	52.4	55.1	36.7	57.6	59.7	49.1	41.6
M14-260012	57.0	57.7	45.9	53.8	78.3	58.5	42.1
OAC 18-110C	58.5	53.7	51.0	56.2	81.9	61.4	26.3
OAC 18-111C-SCN	54.1	65.7	41.4	51.4	63.2	52.4	25.1
ORC 3119N	53.8	52.8	33.9	58.7	72.0	51.8	19.9
ORC 3419	56.3	52.1	39.3	60.5	83.0	48.4	24.2
U17-107198	60.4	67.1	37.7	65.9	72.4	64.9	57.5
U17-226201	57.5	53.8	45.3	70.5	52.8	62.9	57.0
U17-311242	58.3	63.6	46.5	49.9	76.1	60.1	58.8
U17-326222	53.8	61.4	53.4	52.2	74.4	56.4	61.1
Location Mean		60.0	42.8	57.2	75.3	59.0	39.5
C.V. (%)		8.3	9.8	8.8	14.2	10.1	18.3
L.S.D. (5%)		10.1	10.2	8.2	17.3	15.2	18.6
Row Sp. (In.)		30	15	30	30	30	30
Rows/Plot		4	6	4	4	4	4
Reps		2	2	2	2	2	2

*Data not included in mean.

PRELIMINARY TEST I, 2020

YIELD (bu/a)

Strain	Palmyra ONT*	Wood- stock ONT	Saint Hyacinthe QUE
MN1410 (I)	40.0	38.1	65.7
ND Dickey (0) (ND13-4508)	43.3	39.2	71.0
U11-917032 (SCN) (L)	76.1	41.5	68.2
U14-103015	59.1	36.4	67.8
A14004-13	79.8	46.8	68.1
A14011-30	86.8	45.7	63.8
A14011-55	85.6	44.1	69.6
A14011-77	76.1	55.5	67.9
A14011-90	81.6	49.9	64.3
A14011-116	80.1	42.2	68.5
A14035-80	80.7	50.7	60.0
A14038-53	80.8	45.3	66.5
A14039-55	70.2	43.5	66.3
A14041-44	76.2	42.1	63.1
A14041-58	62.4	42.8	59.7
A14042-50	74.6	52.7	65.7
A14046-66	53.0	48.0	67.1
A14068-20	65.8	40.1	62.3
A15704-2	48.9	32.7	64.8
E18074	43.2	34.7	50.0
LD17-5399a	69.4	46.7	69.3
M14-151039	68.7	43.9	61.0
M14-151094	75.5	46.9	60.6
M14-152051	67.0	41.1	60.8
M14-152074	74.6	47.7	63.9
M14-157011	48.0	40.7	66.2
M14-157032	56.2	40.6	65.4
M14-256061	53.5	45.4	65.1
M14-260009	55.9	45.2	63.2
M14-260012	65.5	43.6	61.0
OAC 18-110C	78.6	37.4	67.7
OAC 18-111C-SCN	41.9	45.3	59.2
ORC 3119N	70.8	38.7	68.5
ORC 3419	55.2	42.7	67.8
U17-107198	54.3	44.1	70.6
U17-226201	64.9	41.4	76.1
U17-311242	69.2	49.3	62.6
U17-326222	67.4	37.2	41.4
Location Mean	65.8	43.4	64.5
C.V. (%)	15.2	10.1	5.8
L.S.D. (5%)	20.3	10.7	6.1
Row Sp. (In.)	17	13	15
Rows/Plot	5	4	4
Reps	2	2	3

*Data not included in mean.

PRELIMINARY TEST I, 2020

YIELD RANK

Strain	Yield Rank	West Lafayette IN	Williamston MI	Rose-Mount MN	Waseca MN	Mead NE	Steven's Creek NE
MN1410 (I)	35	28	32	29	31	32	26
ND Dickey (0) (ND13-4508)	32	37	38	18	12	36	27
U11-917032 (SCN) (L)	18	19	29	10	14	23	8
U14-103015	23	25	8	26	24	20	7
A14004-13	12	19	16	28	20	16	12
A14011-30	17	15	14	23	16	28	30
A14011-55	3	4	4	27	3	3	24
A14011-77	1	5	6	7	6	1	6
A14011-90	5	3	20	12	4	2	9
A14011-116	6	10	18	2	10	4	34
A14035-80	11	1	7	38	26	8	25
A14038-53	14	36	10	19	15	14	17
A14039-55	4	7	23	6	1	9	11
A14041-44	7	2	9	25	4	16	10
A14041-58	9	13	3	8	7	24	13
A14042-50	2	8	2	4	8	5	19
A14046-66	33	14	37	11	37	6	23
A14068-20	13	17	27	16	2	13	2
A15704-2	25	29	32	5	17	21	20
E18074	38	38	11	37	24	35	
LD17-5399a	37	33	36	14		38	18
M14-151039	26	21	25	34	30	18	29
M14-151094	10	11	12	31	13	7	32
M14-152051	36	32	28	20	35	31	36
M14-152074	19	26	20	23	22	11	22
M14-157011	27	16	34	16	33	25	21
M14-157032	28	23	19	22	29	37	28
M14-256061	21	22	22	32	18	27	14
M14-260009	34	27	31	15	34	33	16
M14-260012	22	24	15	30	19	21	15
OAC 18-110C	15	31	5	21	11	15	31
OAC 18-111C-SCN	29	9	24	35	32	29	33
ORC 3119N	31	34	35	13	28	30	37
ORC 3419	24	35	26	9	8	34	35
U17-107198	8	6	29	3	27	10	4
U17-226201	20	30	17	1	36	12	5
U17-311242	16	12	13	36	21	19	3
U17-326222	30	17	1	33	23	26	1

PRELIMINARY TEST I, 2020

YIELD RANK

Strain	Palmyra ONT	Wood- stock ONT	Saint Hyacinthe QUE
MN1410 (I)	38	33	18
ND Dickey (0) (ND13-4508)	35	31	2
U11-917032 (SCN) (L)	10	25	8
U14-103015	26	36	11
A14004-13	7	9	9
A14011-30	1	11	25
A14011-55	2	16	4
A14011-77	10	1	10
A14011-90	3	4	23
A14011-116	6	23	6
A14035-80	5	3	34
A14038-53	4	13	15
A14039-55	16	20	16
A14041-44	9	24	27
A14041-58	25	21	35
A14042-50	13	2	18
A14046-66	32	6	14
A14068-20	22	30	29
A15704-2	33	38	22
E18074	36	37	37
LD17-5399a	17	10	5
M14-151039	19	18	30
M14-151094	12	8	33
M14-152051	21	27	32
M14-152074	13	7	24
M14-157011	34	28	17
M14-157032	27	29	20
M14-256061	31	12	21
M14-260009	28	15	26
M14-260012	23	19	30
OAC 18-110C	8	34	13
OAC 18-111C-SCN	37	13	36
ORC 3119N	15	32	6
ORC 3419	29	22	11
U17-107198	30	16	3
U17-226201	24	26	1
U17-311242	18	5	28
U17-326222	20	35	38

PRELIMINARY TEST I, 2020

MATURITY (date)

Strain	Mean 8 Tests	West Lafayette IN	William- ston MI	Rose- Mount MN	Waseca MN	Mead NE	Steven's Creek NE
MN1410 (I)	9/15	9/7	9/15	9/20	9/20	9/1	9/14
ND Dickey (0) (ND13-4508)	-4	-4	6	-8	-4	-6	-1
U11-917032 (SCN) (L)	4	6	6	5	5	2	9
U14-103015	5	5	7	6	4	3	9
A14004-13	6	10	6	7	6	4	9
A14011-30	5	8	6	7	6	4	7
A14011-55	6	9	9	6	7	10	7
A14011-77	7	12	8	7	7	10	10
A14011-90	8	13	8	7	8	10	10
A14011-116	7	13	8	8	9	10	6
A14035-80	10	12	9	9	12	14	10
A14038-53	6	7	7	6	7	6	8
A14039-55	8	11	8	7	7	8	10
A14041-44	8	11	7	8	12	6	10
A14041-58	10	11	7	9	13	14	10
A14042-50	6	10	6	6	9	4	7
A14046-66	8	13	7	7	7	10	10
A14068-20	8	10	5	8	11	10	10
A15704-2	6	8	13	6	5	4	7
E18074	8	11	10	7	11	11	6
LD17-5399a	2	2	2	4		2	3
M14-151039	5	9	7	6	6	3	5
M14-151094	4	8	5	4	5	4	8
M14-152051	-1	-2	-1	0	10	-3	-1
M14-152074	5	3	7	4	8	3	10
M14-157011	-1	-1	-2	1	-1	0	-1
M14-157032	-1	2	1	-3	0	-1	-1
M14-256061	6	10	3	6	13	7	9
M14-260009	1	4	6	3	2	1	2
M14-260012	5	7	5	5	5	4	7
OAC 18-110C	6	9	7	6	9	4	9
OAC 18-111C-SCN	5	6	1	6	8	5	9
ORC 3119N	0	1	1	2	4	0	-1
ORC 3419	1	4	2	3	4	-3	1
U17-107198	7	10	6	6	10	9	10
U17-226201	5	9	5	5	7	3	7
U17-311242	7	9	7	8	11	4	8
U17-326222	16	17	17	14	16	19	23
Date Planted	5/23	6/2	5/24	5/29	5/7	5/20	6/9
Days to Mature	115	97	114	114	136	104	97

PRELIMINARY TEST I, 2020

MATURITY (date)

Strain	Palmyra ONT*	Wood- stock ONT	Saint Hyacinthe QUE
MN1410 (I)		9/18	9/28
ND Dickey (0) (ND13-4508)		-7	-6
U11-917032 (SCN) (L)		4	-2
U14-103015		8	-2
A14004-13		5	0
A14011-30		3	-1
A14011-55		6	-3
A14011-77		6	-1
A14011-90		8	0
A14011-116		3	2
A14035-80		10	1
A14038-53		4	0
A14039-55		7	5
A14041-44		8	5
A14041-58		8	6
A14042-50		4	2
A14046-66		6	5
A14068-20		7	6
A15704-2		6	1
E18074		8	4
LD17-5399a		4	-3
M14-151039		5	-2
M14-151094		3	-4
M14-152051		-3	-5
M14-152074		6	-4
M14-157011		-2	-5
M14-157032		-4	-4
M14-256061		4	-3
M14-260009		-1	-5
M14-260012		7	0
OAC 18-110C		3	3
OAC 18-111C-SCN		6	1
ORC 3119N		-1	-4
ORC 3419		0	-2
U17-107198		7	0
U17-226201		6	1
U17-311242		8	3
U17-326222		14	11
Date Planted		5/26	5/11
Days to Mature		115	140

*Killing Frost on 9/19

PRELIMINARY TEST I, 2020

LODGING (score)

Strain	Mean 8 Tests	West Lafayette IN	William- ston MI	Rose- Mount MN	Waseca MN	Mead NE	Steven's Creek NE
MN1410 (I)	1.9	2.0		2.3	2.3	1.0	2.5
ND Dickey (0) (ND13-4508)	1.2	1.0		1.0	2.3	1.0	1.0
U11-917032 (SCN) (L)	1.7	1.0		3.3	2.0	1.0	1.0
U14-103015	1.3	1.0		1.7	2.3	1.0	1.0
A14004-13	1.3	1.0		2.0	2.0	1.0	1.0
A14011-30	2.2	1.5		4.7	3.0	1.0	2.0
A14011-55	1.6	1.0		2.7	2.7	1.0	2.0
A14011-77	1.4	1.0		2.3	2.7	1.0	1.5
A14011-90	1.4	1.0		2.3	2.7	1.0	1.0
A14011-116	1.4	1.0		2.0	2.7	1.0	1.0
A14035-80	2.7	3.0		4.3	3.7	1.0	3.5
A14038-53	1.6	1.5		2.3	2.3	1.0	2.5
A14039-55	1.5	1.0		2.3	2.3	1.0	1.5
A14041-44	1.6	1.0		2.7	3.3	1.0	2.0
A14041-58	1.3	1.0		1.3	2.3	1.0	1.5
A14042-50	2.0	2.0		3.0	2.7	1.0	2.0
A14046-66	1.9	2.0		3.0	2.0	1.3	3.0
A14068-20	1.5	1.5		2.3	2.0	1.3	2.0
A15704-2	2.0	2.0		3.3	2.3	1.0	1.5
E18074	1.8	2.0		2.7	2.3	1.3	1.0
LD17-5399a	1.1	1.0		1.6		1.0	1.0
M14-151039	2.0	2.0		3.0	2.3	1.0	4.0
M14-151094	1.2	1.0		1.0	2.3	1.0	1.5
M14-152051	1.8	1.5		1.7	2.7	1.0	3.5
M14-152074	1.5	1.5		1.7	2.7	1.0	2.0
M14-157011	1.9	2.0		2.7	2.3	1.0	1.5
M14-157032	1.6	2.0		2.3	2.7	1.0	2.0
M14-256061	1.5	1.5		2.3	2.3	1.0	1.5
M14-260009	1.2	1.0		1.3	2.0	1.0	1.0
M14-260012	1.3	1.5		2.0	2.0	1.0	1.0
OAC 18-110C	1.6	1.5		2.7	2.3	1.0	2.0
OAC 18-111C-SCN	2.1	2.0		3.7	3.0	1.0	2.5
ORC 3119N	1.2	1.5		1.0	2.0	1.0	1.0
ORC 3419	1.3	1.5		1.7	2.0	1.0	1.0
U17-107198	1.3	1.0		2.0	2.0	1.3	1.0
U17-226201	1.3	1.0		1.7	2.3	1.0	1.0
U17-311242	1.4	1.0		2.0	2.0	1.0	2.0
U17-326222	1.3	1.0		2.0	2.3	1.0	1.0

PRELIMINARY TEST I, 2020

LODGING (score)

Strain	Palmyra ONT	Wood- stock ONT	Saint Hyacinthe QUE
MN1410 (I)	1.0	1.5	2.7
ND Dickey (0) (ND13-4508)	1.0	1.0	1.0
U11-917032 (SCN) (L)	1.0	1.1	3.0
U14-103015	1.0	1.1	1.0
A14004-13	1.0	1.0	1.0
A14011-30	2.5	1.2	1.7
A14011-55	1.5	1.0	1.0
A14011-77	1.0	1.0	1.0
A14011-90	1.0	1.1	1.0
A14011-116	1.0	1.2	1.0
A14035-80	2.0	2.2	2.0
A14038-53	1.0	1.0	1.0
A14039-55	1.0	1.1	1.7
A14041-44	1.0	1.1	1.0
A14041-58	1.0	1.0	1.0
A14042-50	1.0	1.1	3.0
A14046-66	1.0	1.0	2.0
A14068-20	1.0	1.1	1.0
A15704-2	1.0	1.5	3.0
E18074	1.0	1.1	3.0
LD17-5399a	1.0	1.1	1.0
M14-151039	1.0	1.0	2.0
M14-151094	1.0	1.0	1.0
M14-152051	1.5	1.1	1.7
M14-152074	1.0	1.0	1.0
M14-157011	1.5	1.2	3.0
M14-157032	1.0	0.5	1.0
M14-256061	1.0	1.0	1.3
M14-260009	1.0	1.0	1.0
M14-260012	1.0	1.2	1.0
OAC 18-110C	1.5	1.0	1.0
OAC 18-111C-SCN	1.0	1.3	2.0
ORC 3119N	1.0	1.0	1.0
ORC 3419	1.0	1.0	1.3
U17-107198	1.0	1.0	1.0
U17-226201	1.0	1.1	1.0
U17-311242	1.0	1.0	1.0
U17-326222	1.0	1.0	1.0

PRELIMINARY TEST I, 2020

PLANT HEIGHT (inches)

Strain	Mean 8 Tests	West Lafayette IN	William- ston MI	Rose- Mount MN	Waseca MN	Mead NE	Steven's Creek NE
MN1410 (I)	36	35		45	34	32	33
ND Dickey (0) (ND13-4508)	31	33		38	33	28	24
U11-917032 (SCN) (L)	34	31		38	34	31	29
U14-103015	33	29		40	33	33	26
A14004-13	34	30		41	35	32	26
A14011-30	36	32		40	39	33	30
A14011-55	35	33		40	37	34	28
A14011-77	36	32		43	37	36	31
A14011-90	36	33		41	37	36	27
A14011-116	35	33		43	37	36	26
A14035-80	37	35		40	39	36	34
A14038-53	36	32		42	37	35	31
A14039-55	36	34		43	41	36	29
A14041-44	39	37		45	45	37	33
A14041-58	37	35		44	41	33	35
A14042-50	36	34		43	37	37	30
A14046-66	36	37		46	33	38	29
A14068-20	36	33		44	39	35	31
A15704-2	33	32		40	35	33	27
E18074	37	35		47	38	38	29
LD17-5399a	33	30		42		31	26
M14-151039	35	32		43	36	34	25
M14-151094	33	31		36	35	32	27
M14-152051	29	26		33	29	27	28
M14-152074	32	29		38	31	32	27
M14-157011	37	35		45	35	35	32
M14-157032	38	37		45	35	34	35
M14-256061	38	35		45	40	37	36
M14-260009	34	34		43	32	30	26
M14-260012	37	35		43	40	35	27
OAC 18-110C	38	33		47	41	39	24
OAC 18-111C-SCN	38	35		46	43	38	30
ORC 3119N	35	32		43	35	32	27
ORC 3419	35	33		42	35	34	27
U17-107198	34	31		43	34	33	28
U17-226201	34	32		40	33	35	32
U17-311242	38	34		45	43	38	31
U17-326222	37	35		44	41	37	32

PRELIMINARY TEST I, 2020

PLANT HEIGHT (inches)

Strain	Palmyra ONT	Wood- stock ONT	Saint Hyacinthe QUE
MN1410 (I)	36	30	42
ND Dickey (0) (ND13-4508)	33	27	33
U11-917032 (SCN) (L)	37	30	38
U14-103015	33	31	36
A14004-13	39	30	39
A14011-30	41	32	41
A14011-55	38	35	38
A14011-77	37	31	38
A14011-90	39	35	40
A14011-116	39	31	40
A14035-80	41	34	37
A14038-53	39	31	39
A14039-55	38	31	40
A14041-44	43	31	41
A14041-58	41	29	41
A14042-50	37	30	41
A14046-66	37	31	40
A14068-20	39	30	39
A15704-2	34	29	37
E18074	41	31	42
LD17-5399a	33	30	39
M14-151039	41	30	39
M14-151094	39	34	34
M14-152051	33	28	32
M14-152074	35	29	34
M14-157011	39	32	39
M14-157032	41	33	42
M14-256061	39	30	39
M14-260009	36	35	37
M14-260012	41	35	42
OAC 18-110C	39	38	42
OAC 18-111C-SCN	37	34	41
ORC 3119N	42	30	41
ORC 3419	37	30	40
U17-107198	36	28	39
U17-226201	36	27	39
U17-311242	41	34	42
U17-326222	35	34	39

PRELIMINARY TEST I, 2020

SEED SIZE (g/100)

Strain	Mean 9 Tests	West Lafayette IN	William- ston MI	Rose- Mount MN	Waseca MN	Mead NE	Steven's Creek NE
MN1410 (I)	17.0	16.4	14.0	17.5	19.7	15.7	16.3
ND Dickey (0) (ND13-4508)	17.0	16.2	15.2	17.0	20.4	15.9	15.4
U11-917032 (SCN) (L)	15.4	14.4	13.1	15.6	17.5	14.1	14.5
U14-103015	16.1	15.1	15.4	16.7	18.4	15.3	16.2
A14004-13	17.3	16.6	16.8	18.0	19.2	15.8	16.4
A14011-30	15.1	13.9	13.7	16.5	16.6	13.5	14.1
A14011-55	17.6	17.8	17.6	18.3	19.5	16.6	16.1
A14011-77	16.2	14.9	16.0	16.3	19.0	15.4	15.9
A14011-90	16.7	15.8	16.8	16.7	18.9	15.5	16.2
A14011-116	17.7	17.1	17.8	18.5	19.4	16.0	17.1
A14035-80	16.4	15.9	15.6	17.6	18.6	14.3	16.5
A14038-53	14.8	12.6	14.3	15.3	16.3	13.7	14.9
A14039-55	16.5	15.3	15.6	17.8	18.8	14.8	15.8
A14041-44	17.0	16.6	17.0	17.6	19.6	15.6	16.4
A14041-58	16.5	14.9	17.2	17.2	18.4	14.5	16.2
A14042-50	16.5	15.7	15.8	17.5	17.7	15.9	15.9
A14046-66	17.4	16.0	15.9	17.7	19.4	16.6	17.7
A14068-20	16.4	15.6	16.7	18.1	18.4	14.8	15.6
A15704-2	19.6	18.9	18.8	22.0	21.4	18.2	19.0
E18074	15.6	15.3	16.7	16.3	18.3	13.9	14.6
LD17-5399a	14.4	14.0	13.6	14.8		13.9	14.2
M14-151039	15.2	15.0	15.3	15.8	17.1	13.2	13.7
M14-151094	17.0	16.4	15.6	17.8	19.1	15.3	15.0
M14-152051	16.6	15.3	14.3	18.1	18.1	14.9	14.8
M14-152074	14.6	13.5	12.9	16.1	17.0	13.5	13.6
M14-157011	15.8	15.6	12.6	17.4	16.7	15.7	14.3
M14-157032	14.9	14.7	13.4	15.8	16.3	13.8	13.7
M14-256061	14.7	14.3	12.6	14.6	16.9	14.2	14.3
M14-260009	17.3	15.7	15.9	17.7	18.3	15.6	17.3
M14-260012	16.0	14.9	16.3	16.9	18.0	13.4	15.8
OAC 18-110C	16.1	15.8	16.1	16.5	17.7	15.2	14.8
OAC 18-111C-SCN	15.3	14.5	13.2	17.1	18.0	14.8	14.9
ORC 3119N	18.8	17.3	16.9	19.1	20.8	18.0	17.2
ORC 3419	20.9	20.8	18.8	23.3	23.8	18.9	19.2
U17-107198	14.3	13.4	13.5	14.9	17.0	13.5	14.6
U17-226201	15.3	14.1	14.7	15.7	18.1	13.6	14.3
U17-311242	14.6	13.2	14.0	14.5	16.8	13.3	15.6
U17-326222	14.2	13.0	16.1	13.1	16.5	12.4	15.6

PRELIMINARY TEST I, 2020

SEED SIZE (g/100)

Strain	Palmyra ONT	Wood- stock ONT	Saint Hyacinthe QUE
MN1410 (I)	15.8	20.1	17.6
ND Dickey (0) (ND13-4508)	16.2	18.1	18.4
U11-917032 (SCN) (L)	17.0	17.3	15.0
U14-103015	15.8	16.3	16.0
A14004-13	18.7	18.1	16.4
A14011-30	16.5	16.8	14.1
A14011-55	18.3	18.1	16.5
A14011-77	17.9	16.5	14.1
A14011-90	18.2	17.2	14.7
A14011-116	19.3	17.5	16.2
A14035-80	17.4	15.8	15.7
A14038-53	16.4	16.4	13.7
A14039-55	18.0	18.0	14.4
A14041-44	19.3	17.3	13.7
A14041-58	18.6	17.4	13.8
A14042-50	17.4	17.7	14.9
A14046-66	19.5	17.5	15.9
A14068-20	17.4	16.4	14.8
A15704-2	19.0	19.2	19.6
E18074	15.6	15.3	14.2
LD17-5399a	15.3	15.4	14.3
M14-151039	16.6	15.5	14.6
M14-151094	18.4	18.0	17.1
M14-152051	17.4	18.3	18.0
M14-152074	15.6	15.9	13.3
M14-157011	16.4	16.4	17.5
M14-157032	15.7	14.8	15.9
M14-256061	15.1	15.2	14.9
M14-260009	18.9	18.3	18.1
M14-260012	17.6	16.7	14.8
OAC 18-110C	16.8	16.1	15.7
OAC 18-111C-SCN	14.4	16.2	14.9
ORC 3119N	20.6	20.5	18.6
ORC 3419	21.6	20.7	21.1
U17-107198	14.7	13.8	13.5
U17-226201	16.2	16.1	15.2
U17-311242	15.1	15.0	13.5
U17-326222	15.3	14.5	11.5

PRELIMINARY TEST I, 2020

SEED QUALITY (score)

Strain	Mean 9 Tests	West Lafayette IN	William- ston MI	Rose- Mount MN	Waseca MN	Mead NE	Steven's Creek NE
MN1410 (I)	1.6	1.5	2.0	1.0	2.0	1.0	1.0
ND Dickey (0) (ND13-4508)	1.6	1.0	3.0	1.0	2.0	1.0	1.0
U11-917032 (SCN) (L)	1.6	2.0	3.0	1.0	1.0	1.0	1.0
U14-103015	1.5	2.0	1.5	1.0	1.0	1.0	2.0
A14004-13	1.7	1.0	2.5	1.0	2.0	1.0	1.0
A14011-30	1.4	1.0	2.5	1.0	1.0	1.0	1.0
A14011-55	1.6	2.0	2.5	1.0	2.0	1.0	1.0
A14011-77	1.6	1.0	2.5	1.0	2.0	1.0	1.0
A14011-90	1.5	1.0	2.5	1.0	1.0	1.0	1.0
A14011-116	1.6	1.5	2.0	1.0	1.0	1.0	1.0
A14035-80	1.3	1.0	1.5	1.0	1.0	1.0	1.0
A14038-53	1.4	1.0	2.5	1.0	1.0	1.0	1.0
A14039-55	1.5	1.0	2.0	1.0	1.0	1.0	1.0
A14041-44	1.4	1.0	1.5	1.0	1.0	1.0	1.0
A14041-58	1.5	1.0	2.0	1.0	1.0	1.0	1.0
A14042-50	1.7	2.0	2.5	1.0	1.0	1.0	1.0
A14046-66	1.6	1.0	2.5	1.0	1.0	1.0	1.0
A14068-20	1.5	1.0	3.0	1.0	1.0	1.0	1.0
A15704-2	1.4	1.0	2.5	1.0	1.0	1.0	1.0
E18074	1.4	1.0	2.0	1.0	1.0	1.0	1.0
LD17-5399a	1.5	1.0	2.5	1.0		1.0	1.0
M14-151039	1.5	1.0	2.0	1.0	1.0	1.0	1.0
M14-151094	1.5	1.0	2.0	1.0	1.0	1.0	2.0
M14-152051	1.5	1.0	3.0	1.0	1.0	1.0	1.0
M14-152074	1.5	1.0	3.0	1.0	1.0	1.0	1.0
M14-157011	1.4	1.0	2.0	1.0	1.0	1.0	1.0
M14-157032	1.5	1.0	2.0	1.0	1.0	1.0	1.0
M14-256061	1.6	2.0	2.5	1.0	1.0	1.0	1.0
M14-260009	1.5	1.0	3.0	1.0	1.0	1.0	1.0
M14-260012	1.4	1.0	2.0	1.0	1.0	1.0	1.0
OAC 18-110C	1.4	1.0	2.0	1.0	1.0	1.0	1.0
OAC 18-111C-SCN	1.4	1.0	2.0	1.0	1.0	1.0	1.0
ORC 3119N	1.5	1.0	3.0	1.0	1.0	1.0	1.0
ORC 3419	1.4	1.0	3.0	1.0	1.0	1.0	1.0
U17-107198	1.4	1.0	2.0	1.0	1.0	1.0	1.0
U17-226201	1.5	1.0	2.5	1.0	1.0	1.0	1.0
U17-311242	1.4	1.0	2.0	1.0	1.0	1.0	1.0
U17-326222	1.3	1.0	1.5	1.0	1.0	1.0	1.0

PRELIMINARY TEST I, 2020

SEED QUALITY (score)

Strain	Palmyra ONT	Wood- stock ONT	Saint Hyacinthe QUE
MN1410 (I)	1.0	1.5	3.0
ND Dickey (0) (ND13-4508)	1.0	1.5	3.0
U11-917032 (SCN) (L)	1.0	1.5	3.0
U14-103015	1.0	1.5	2.3
A14004-13	1.0	1.5	4.0
A14011-30	1.0	1.5	3.0
A14011-55	1.0	1.0	2.7
A14011-77	1.0	1.5	3.0
A14011-90	1.0	1.5	3.3
A14011-116	1.0	1.5	4.0
A14035-80	1.0	1.5	2.7
A14038-53	1.0	1.5	3.0
A14039-55	1.0	1.5	3.7
A14041-44	1.0	1.5	3.7
A14041-58	1.0	1.5	4.0
A14042-50	1.0	1.5	4.0
A14046-66	1.0	1.5	4.0
A14068-20	1.0	1.5	3.0
A15704-2	1.0	1.5	3.0
E18074	1.0	1.5	3.0
LD17-5399a	1.0	1.5	2.7
M14-151039	1.0	1.5	4.0
M14-151094	1.0	1.5	3.0
M14-152051	1.0	1.5	3.3
M14-152074	1.0	1.5	3.3
M14-157011	1.0	1.5	2.7
M14-157032	1.0	1.5	3.7
M14-256061	1.0	2.0	2.7
M14-260009	1.0	1.5	3.3
M14-260012	1.0	1.5	3.3
OAC 18-110C	1.0	1.5	3.3
OAC 18-111C-SCN	1.0	1.5	3.0
ORC 3119N	1.0	1.5	3.0
ORC 3419	1.0	1.0	3.0
U17-107198	1.0	1.5	3.0
U17-226201	1.0	1.5	3.3
U17-311242	1.0	1.5	3.3
U17-326222	1.0	1.5	3.0

PRELIMINARY TEST I, 2020

PROTEIN (%)

Strain	Mean 9 Tests	West Lafayette IN	William- ston MI	Rose- Mount MN	Waseca MN	Mead NE	Steven's Creek NE
MN1410 (I)	35.3	35.9	35.0	35.9		35.1	35.2
ND Dickey (0) (ND13-4508)	35.3	36.2	34.9	34.9	35.0	34.8	34.5
U11-917032 (SCN) (L)	33.3	33.7	31.3	34.9	34.5	32.3	32.2
U14-103015	34.4	34.2	33.6	35.2	36.0	33.4	33.8
A14004-13	35.0	35.7	34.6	35.7	34.7	33.9	34.4
A14011-30	34.2	34.0	34.1	35.6	33.6	33.9	34.3
A14011-55	34.8	34.8	35.3	35.9	35.8	34.1	34.3
A14011-77	35.0	34.1	34.8	36.3	36.1	35.2	33.3
A14011-90	35.2	35.7	33.6	37.0	36.3	35.0	34.4
A14011-116	35.6	35.8	34.1	37.2	36.4	35.0	36.2
A14035-80	35.0	36.4	33.4	35.6	35.7	33.3	34.3
A14038-53	33.9	33.1	33.0	34.9	35.5	33.3	34.1
A14039-55	34.2	33.4	33.8	35.1	34.4	33.9	32.9
A14041-44	34.3	34.4	33.6	34.0	35.4	34.2	33.6
A14041-58	35.0	34.9	33.3	34.8	35.9	35.8	34.6
A14042-50	33.8	34.3	33.0	34.4	34.2	33.3	32.3
A14046-66	33.4	32.4	33.2	33.3	35.3	33.5	32.8
A14068-20	36.1	36.7	35.1	36.1	36.5	36.0	36.0
A15704-2	34.5	35.2	35.1	35.1	34.3	33.8	34.3
E18074	32.6	33.5	31.3	32.8	34.3	32.7	32.1
LD17-5399a	34.5	34.8	34.2	35.1	36.0	34.0	34.1
M14-151039	34.7	35.2	32.9	35.3	34.9	34.2	34.4
M14-151094	35.3	35.0	34.8	34.6	35.5	34.7	35.8
M14-152051	34.7	35.1	34.6	35.1	33.1	34.6	35.0
M14-152074	33.9	34.3	33.4	35.4	35.4	32.9	33.0
M14-157011	33.5	33.8	34.0	33.5	31.3	32.8	32.0
M14-157032	34.0	34.2	34.2	34.1	33.0	32.3	32.5
M14-256061	34.5	34.8	33.0	34.8	35.4	34.0	34.6
M14-260009	35.8	35.9	35.0	36.1	34.5	36.1	35.9
M14-260012	35.6	36.5	34.9	36.6	36.2	35.5	34.6
OAC 18-110C	33.9	34.1	33.3	33.8	34.5	34.7	33.0
OAC 18-111C-SCN	32.4	32.2	31.6	33.4	32.8	31.3	31.6
ORC 3119N	37.3	37.2	37.4	37.9	38.0	37.2	37.4
ORC 3419	36.9	36.3	36.2	38.3	37.4	37.2	36.5
U17-107198	33.2	33.0	32.6	33.7	33.8	32.7	33.3
U17-226201	33.7	34.2	32.8	33.9	34.3	33.4	32.9
U17-311242	33.7	34.2	32.2	33.3	36.0	33.0	32.2
U17-326222	33.6	32.8	32.6	33.6	34.2	33.2	32.0

PRELIMINARY TEST I, 2020

PROTEIN (%)

Strain	Palmyra ONT	Wood- stock ONT*	Saint Hyacinthe QUE*
MN1410 (I)	33.9	34.9	36.7
ND Dickey (0) (ND13-4508)	35.9	34.4	36.9
U11-917032 (SCN) (L)	32.9	33.0	35.3
U14-103015	33.8	33.2	36.3
A14004-13	35.4	35.0	35.8
A14011-30	33.7	32.7	35.4
A14011-55	34.8	32.9	35.4
A14011-77	35.4	34.1	35.7
A14011-90	35.6	33.4	35.7
A14011-116	35.6	33.6	36.2
A14035-80	35.2	33.9	37.1
A14038-53	34.2	32.2	35.0
A14039-55	34.3	34.3	35.4
A14041-44	35.3	32.8	35.0
A14041-58	36.0	33.9	35.5
A14042-50	33.5	33.9	35.1
A14046-66	33.5	32.5	34.5
A14068-20	36.3	35.6	36.7
A15704-2	34.3	33.8	34.9
E18074	32.4	30.8	33.1
LD17-5399a	35.2	33.6	33.8
M14-151039	35.3	34.1	35.8
M14-151094	35.8	34.3	37.0
M14-152051	34.9	33.9	36.1
M14-152074	33.9	32.1	34.6
M14-157011	35.3	33.1	35.3
M14-157032	36.4	33.8	35.9
M14-256061	34.8	33.2	35.8
M14-260009	36.7	35.3	36.4
M14-260012	36.1	34.7	35.3
OAC 18-110C	34.4	31.6	35.4
OAC 18-111C-SCN	32.3	32.5	33.9
ORC 3119N	37.8	35.5	37.6
ORC 3419	37.6	34.2	38.5
U17-107198	33.1	32.8	34.1
U17-226201	33.6	33.3	35.3
U17-311242	33.9	33.1	35.3
U17-326222	34.1	33.8	35.7

*Data Adjusted to 13% moisture.

PRELIMINARY TEST I, 2020

OIL (%)

Strain	Mean 9 Tests	West Lafayette IN	William- ston MI	Rose- Mount MN	Waseca MN	Mead NE	Steven's Creek NE
MN1410 (I)	19.2	20.2	19.8	18.9		19.8	20.3
ND Dickey (0) (ND13-4508)	18.7	19.1	18.9	18.3	18.9	19.7	20.0
U11-917032 (SCN) (L)	19.5	20.9	20.4	18.2	18.7	20.7	20.8
U14-103015	19.4	20.8	19.6	18.7	18.6	21.1	20.2
A14004-13	18.5	19.7	19.6	17.5	17.7	20.4	19.6
A14011-30	19.0	20.7	19.4	17.9	18.8	20.1	19.7
A14011-55	18.6	19.9	19.3	17.9	17.9	20.2	19.5
A14011-77	18.3	19.7	19.0	17.3	17.4	19.3	19.2
A14011-90	17.9	18.9	19.1	17.0	17.3	19.3	19.4
A14011-116	17.9	19.0	19.1	16.9	17.5	19.3	18.6
A14035-80	18.5	19.4	19.6	17.9	18.2	20.3	19.3
A14038-53	18.9	20.7	19.7	17.8	18.0	20.5	19.8
A14039-55	19.1	20.3	19.4	18.3	18.6	20.1	20.3
A14041-44	18.8	20.0	19.8	18.2	17.5	20.2	19.9
A14041-58	18.0	19.0	19.1	17.7	17.3	18.8	19.2
A14042-50	18.5	19.5	18.9	17.5	18.0	20.1	19.9
A14046-66	19.2	20.7	19.8	18.5	18.4	20.4	20.4
A14068-20	17.8	18.9	18.8	17.4	17.5	19.4	18.5
A15704-2	18.3	19.5	19.3	17.5	18.0	19.4	19.3
E18074	18.7	19.9	19.8	18.2	18.1	20.1	19.6
LD17-5399a	18.5	19.5	19.0	18.1	18.1	19.6	19.6
M14-151039	18.8	19.8	19.7	18.3	18.2	20.2	19.9
M14-151094	18.9	20.1	19.8	18.8	18.4	20.1	19.2
M14-152051	19.1	19.6	19.2	18.2	20.1	20.4	20.1
M14-152074	19.2	20.3	20.0	18.9	18.3	20.6	20.0
M14-157011	19.3	20.2	19.5	19.0	20.1	20.7	21.1
M14-157032	19.0	19.8	19.3	18.8	19.2	20.6	20.6
M14-256061	18.7	19.5	19.6	18.1	17.9	19.7	19.4
M14-260009	19.0	19.5	19.6	18.4	19.5	19.8	19.6
M14-260012	18.3	19.2	19.2	17.8	18.0	19.1	19.3
OAC 18-110C	19.0	20.5	19.6	18.7	19.1	20.1	20.3
OAC 18-111C-SCN	19.3	20.9	20.2	18.2	18.6	20.9	20.2
ORC 3119N	18.0	19.2	17.8	17.6	17.5	19.4	19.3
ORC 3419	17.9	19.0	18.4	17.2	17.4	18.7	19.3
U17-107198	19.0	20.2	19.6	18.4	18.8	20.3	19.9
U17-226201	18.9	20.0	19.5	18.3	18.8	20.1	19.9
U17-311242	18.6	19.6	19.7	18.2	17.4	20.2	19.7
U17-326222	18.8	20.3	19.6	18.6	18.5	20.3	19.8

PRELIMINARY TEST I, 2020

OIL (%)

Stain	Palmyra ONT	Wood- stock ONT*	Saint Hyacinthe QUE*
MN1410 (I)	19.5	18.5	16.4
ND Dickey (0) (ND13-4508)	18.3	19.2	15.7
U11-917032 (SCN) (L)	19.5	19.8	16.2
U14-103015	19.5	19.5	16.4
A14004-13	18.1	18.5	15.5
A14011-30	18.8	19.5	15.7
A14011-55	18.0	19.1	15.6
A14011-77	18.2	19.0	15.5
A14011-90	17.7	17.4	15.1
A14011-116	17.8	17.5	15.3
A14035-80	18.4	17.8	15.7
A14038-53	18.6	19.1	15.6
A14039-55	19.4	19.2	16.1
A14041-44	18.1	19.4	15.7
A14041-58	17.7	17.8	15.1
A14042-50	18.6	18.5	15.3
A14046-66	19.5	18.7	16.1
A14068-20	17.9	17.5	14.6
A15704-2	18.6	17.9	15.2
E18074	19.1	17.8	15.8
LD17-5399a	18.5	17.8	15.9
M14-151039	18.4	18.5	15.8
M14-151094	18.8	19.2	16.0
M14-152051	19.2	18.7	16.1
M14-152074	19.1	19.0	16.3
M14-157011	19.1	18.2	15.7
M14-157032	18.6	18.7	15.5
M14-256061	18.9	19.5	15.9
M14-260009	18.8	19.1	16.4
M14-260012	18.3	18.3	16.0
OAC 18-110C	19.0	17.7	15.6
OAC 18-111C-SCN	19.9	19.0	15.9
ORC 3119N	17.5	18.5	15.6
ORC 3419	17.8	18.1	14.9
U17-107198	19.5	18.0	16.4
U17-226201	18.7	19.0	16.0
U17-311242	18.7	18.3	15.7
U17-326222	18.8	17.8	15.1

*Data Adjusted to 13% moisture.

**Northern Regional Uniform Test
Uniform Test II, 2020**

Ent.	Strain	Parentage	Seed Source	Previous Testing	Gen. Comp.	Unique Traits
1	IA2102 (II)	A04-545045 x AgriPro 98180-A01-0613	Cai	8	F4	
2	LD02-4485 (SCN)	M90-184111 x IA3010	Diers	9	F5	SCN
3	U11-917032 (SCN) (E)	LD02-4485 x U03-100612	Graef	2	F6	SCN, HR, MR, IDC
4	U14-910097 (SCN) (L)	U09-105007 x LD07-3419	Graef	3	F5	Rps, SCN (HR, HR)
5	CR16-0008	CL04-13234 x CL05-20252-2	Rainey	PTIIB	F6	SCN
6	CR16-0058	LG09-7341 x LG09-8165	Rainey	PTIIB	F6	
7	CR16-0070	LG09-7871 x LG09-7256	Rainey	PTIIB	F6	
8	E15345	IA2102 x LD02-4485	Wang	2	F5	SCN Resist.
9	E15351	IA2102 x E07051	Wang	2	F5	SCN Resist.
10	E16030	06NB204846 x LG08-3009	Wang	1	F5	
11	E16380	E07051 x E10174	Wang	1	F5	SCN, Rps1
12	E16410	E06240 x E10174	Wang	1	F5	
13	E17004	PI 540453 x IA2102	Wang	PTIIA	F5	Rps
14	E17040	E07051 x IA2102	Wang	PTIIA	F5	SCN, Rps1
15	E17054	IA2102 x E07051	Wang	PTIIA	F5	SCN, Rps1
16	E17062	IA2102 x E06240	Wang	PTIIA	F5	
17	E17069	IA2102 x E06240	Wang	PTIIA	F5	
18	E17184	Jilin 20-2 x LD01-7323	Wang	PTIIA	F5	SCN
19	E17203	E11128T x LD02-4485	Wang	PTIIA	F5	SCN
20	E17283	E13367 x E05181-T	Wang	PTIIA	F5	Aphid, SCN, Rps1
21	LD15-5170a	LD09-10220 x LD12-6623	Diers	SCN UTII	F5	SCN, Rps1k, Rag 1+2
22	LD15-544	HM09-W084 x LD10-10226	Diers	1	F5	SCN
23	LD15-6268	AR10-205011 x LD10-10226	Diers	SCN UTII	F5	SCN
24	LD15-6280	AR10-205011 x LD10-10226	Diers	SCN UTII	F5	SCN
25	LD16-4385a	HM09-W084 x LD09-30224	Diers	PTIIA	F5	Rag 1
26	LD16-4471a	AR10-205011 x LDX11050a	Diers	1	F5	SCN, Rag 1+2
27	LD16-4766a	AR10-205011 x LD09-30224	Diers	SCN UTII	F5	SCN, Rag 1
28	LD16-4852	LD09-30015 x LD09-30224	Diers	SCN UTII	F5	SCN
29	LD16-6557	LD07-3419 x AR10-205011	Diers	SCN UTII	F5	SCN
30	U16-125610	U02-242055-0165 x U09-105007-174	Graef	PTI		Rps
31	U16-127621	U02-242055-0187 x U09-105007-174	Graef	PTIIB		Rps
32	U16-129612	U09-105007-174 x U11-919011	Graef	PTIIB		SCN(LR,LR), Seg Rps1k
33	U16-129646	U11-932025 x U13-602106	Graef	PTIIB		Rps3a, IDC
34	U16-609059	U11-932025 x U09-105007-174	Graef	1	F5	IDC, Rps
35	U16-909058	U11-614093 x U11-610107	Graef	1	F5	Rps1k, SCN
36	U16-932015	U11-932025 x U09-105007-174	Graef	1	F5	IDC, Rps
37	U17-618174	U14-916082 x U14-903100	Graef	PTIIB		
38	U17-920124	U14-919098 x U13-212431	Graef	PTIIB		
39	U17-924011	U11-619102 x U11-932025	Graef	PTI		Rps3a, IDC

UNIFORM TEST II, 2020
DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code
IA2102 (II)	WGTDYYI
LD02-4485 (SCN)	PGBDYBfI
U11-917032 (SCN) (E)	PTBDYBI
U14-910097 (SCN) (L)	PGTDYBfI
CR16-0008	WTTSYBI
CR16-0058	PLt+GBDYHI
CR16-0070	PLtBSYBI
E15345	WGBDYII
E15351	WGBDYBfI
E16030	WLtBSYBI
E16380	WGBSYBfI
E16410	P+WGBSYYI
E17004	P+WGBDYBfI
E17040	WGBDYII
E17054	PGBDYII
E17062	PLtBDYGI
E17069	WGBSYYI
E17184	PGTSYYI
E17203	PGBDYBfI
E17283	P+WGBDYBfI
LD15-5170a	PGTSYBfI
LD15-544	WLtTSYBI
LD15-6268	PLt+GTDYHI
LD15-6280	PT+GBDYHI
LD16-4385a	P+WGTDYHI
LD16-4471a	PGTDYIbI
LD16-4766a	PGBDYBfI
LD16-4852	PGBDYIbI
LD16-6557	P+WGTDYBfI
U16-125610	PLtBDYBI
U16-127621	WLtBSYGI
U16-129612	PLtBDYBrI
U16-129646	P+WLtBSYBI
U16-609059	WTBDYBrI
U16-909058	PLtBDYBI
U16-932015	P+WLtBDYBrI
U17-618174	PGBSYBfI
U17-920124	PLtBDYHI
U17-924011	WLtBDYBI

UNIFORM TEST II, 2020

REGIONAL SUMMARY

No. of Tests Strain	Yield 9 bu/a	Rank 9 No.	Maturity 9 Date	Lodging 8 Score	Plant Height 8 In.	Seed Size 9 g/100	Seed Quality 9 Score	Composition	
								Protein 9 %	Oil 9 %
IA2102 (II)	56.5	25	9/20	2.1	36	14.4	1.3	34.1	19.0
LD02-4485 (SCN)	58.7	9	0.5	1.7	36	13.7	1.6	32.2	19.6
U11-917032 (SCN) (E)	54.4	36	-4.6	1.4	32	13.9	1.6	32.6	20.3
U14-910097 (SCN) (L)	64.7	1	7.6	1.8	34	13.7	1.2	32.2	20.2
CR16-0008	53.6	38	10.3	1.3	40	15.4	1.3	33.7	18.6
CR16-0058	54.9	35	7.2	1.6	43	14.8	1.3	34.6	18.4
CR16-0070	58.5	11	5.5	1.3	40	14.0	1.3	33.1	18.8
E15345	58.5	12	3.5	2.0	37	14.4	1.4	32.8	19.4
E15351	55.3	32	-0.4	1.3	34	15.0	1.4	32.9	19.5
E16030	57.1	22	4.8	1.5	35	16.4	1.4	34.1	18.8
E16380	57.1	21	7.5	1.1	35	18.2	1.7	33.0	19.3
E16410	57.5	19	6.4	1.3	35	16.9	1.3	33.0	20.2
E17004	57.9	15	3.5	1.2	36	15.8	1.3	34.3	19.3
E17040	57.8	16	2.5	1.8	37	14.7	1.3	33.8	18.8
E17054	56.4	26	1.0	1.4	36	16.1	1.6	34.1	18.6
E17062	58.9	8	3.9	1.9	36	16.1	1.6	34.3	19.4
E17069	56.7	24	7.3	2.1	42	16.6	1.3	35.1	18.8
E17184	55.2	33	-0.5	1.9	36	15.6	1.4	34.2	19.8
E17203	57.5	20	2.1	1.3	34	14.5	1.3	33.3	19.3
E17283	52.9	39	8.4	1.3	31	17.3	1.6	34.2	18.8
LD15-5170a	60.4	3	4.8	1.8	37	15.1	1.4	33.7	19.1
LD15-544	55.0	34	1.2	1.0	34	15.8	1.5	33.5	19.6
LD15-6268	56.1	28	2.1	1.4	36	15.3	1.7	34.9	18.5
LD15-6280	58.3	14	4.1	1.2	34	14.9	1.4	34.5	19.7
LD16-4385a	55.6	31	-0.3	1.0	31	14.9	1.4	35.1	18.8
LD16-4471a	60.3	4	1.9	1.1	33	15.6	1.4	34.8	19.2
LD16-4766a	60.7	2	2.8	1.3	34	15.8	1.4	34.0	19.3
LD16-4852	58.4	13	4.0	1.2	35	13.7	1.6	32.0	19.5
LD16-6557	56.1	27	5.7	1.2	32	15.1	1.3	33.4	19.6
U16-125610	53.8	37	-1.0	1.0	33	14.3	1.3	32.1	20.4
U16-127621	57.0	23	6.4	1.5	36	15.6	1.3	32.8	20.2
U16-129612	55.8	29	0.7	1.2	36	14.4	1.5	32.8	20.4
U16-129646	59.0	6	-2.0	1.0	30	12.5	1.3	32.8	19.4
U16-609059	59.8	5	8.7	1.5	35	15.1	1.4	33.1	19.6
U16-909058	57.6	17	5.2	1.7	37	13.8	1.3	34.1	18.6
U16-932015	58.7	10	-1.0	1.1	35	15.9	1.3	33.6	19.8
U17-618174	57.5	18	6.6	1.1	35	12.9	1.4	32.5	19.0
U17-920124	58.9	7	6.3	1.1	35	13.8	1.3	32.3	20.0
U17-924011	55.8	30	-2.4	1.0	31	12.3	1.4	33.3	19.1
Mean	57.3			1.4	35.3	15.0	1.4	33.5	19.4
C.V. (%)	13.9								
L.S.D. (5%)	4.1								

113.0 Days After Planting

UNIFORM TEST II, 2020

2019-2020 2-YEAR MEAN

No. of Tests Strain	Yield 19 bu/a	Rank 19 No.	Maturity 19 Date	Lodging 18 Score	Plant Height 18 In.	Seed Size 19 g/100	Seed Quality 18 Score	Composition	
								Protein 15 %	Oil 15 %
IA2102 (II)	53.2	14	9/22	1.8	33	15.8	1.5	34.0	19.2
LD02-4485 (SCN)	61.3	5	1.1	1.5	33	14.9	1.8	32.2	19.7
U11-917032 (SCN) (E)	55.0	13	-3.8	1.4	30	14.8	1.6	32.3	20.4
U14-910097 (SCN) (L)	65.6	1	6.7	1.6	32	15.1	1.2	32.3	20.4
E15345	61.2	6	3.8	1.7	34	15.3	1.6	32.9	19.5
E15351	60.0	11	0.2	1.3	32	16.3	1.8	33.3	19.3
E16030	60.6	10	4.6	1.3	34	17.3	1.4	34.3	18.8
E16380	61.8	2	6.2	1.1	32	19.6	1.6	33.4	19.4
E16410	60.6	9	5.9	1.2	34	18.1	1.5	33.2	20.2
LD15-544	59.4	12	1.7	1.0	33	16.8	1.4	33.5	19.7
LD16-4471a	61.0	7	2.2	1.1	31	16.7	1.5	35.1	19.2
U16-609059	61.4	4	6.6	1.3	33	16.3	1.6	33.3	19.7
U16-909058	61.5	3	5.0	1.4	34	15.1	1.5	34.0	18.7
U16-932015	60.9	8	-1.4	1.1	32	17.2	1.6	33.8	19.9

114.1 Days After Planting

2018-2020 3-YEAR MEAN

No. of Tests Strain	32	32	32	31	31	28	27	23	23
IA2102 (II)	57.3	5	9/21	1.9	34	15.8	1.4	34.0	19.1
LD02-4485 (SCN)	63.1	2	1.1	1.6	34	14.6	1.6	32.2	19.7
U14-910097 (SCN) (L)	67.5	1	6.5	1.7	33	14.9	1.3	32.4	20.3
E15345	63.1	3	4.0	1.9	34	15.1	1.6	32.8	19.5
E15351	62.4	4	0.1	1.5	33	16.1	1.7	33.3	19.1

116.3 Days After Planting

UNIFORM TEST II, 2020

YIELD (bu/a)

Strain	Mean 9 Tests	Boone IA*	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN	Britton MI
IA2102 (II)	56.5	55.0	55.3	44.8	40.2	63.8	61.2
LD02-4485 (SCN)	58.7	70.9	56.4	46.4	48.0	71.0	61.5
U11-917032 (SCN) (E)	54.4	59.5	50.9	38.4	41.0	50.8	59.2
U14-910097 (SCN) (L)	64.7	63.6	65.4	50.4	51.5	73.4	68.0
CR16-0008	53.6	58.5	53.2	47.6	46.0	64.0	55.8
CR16-0058	54.9	56.0	57.4	51.1	46.0	56.0	56.1
CR16-0070	58.5	49.7	55.9	50.3	47.1	63.9	55.3
E15345	58.5	71.7	57.0	50.8	46.9	59.0	61.7
E15351	55.3	69.1	54.3	39.5	45.2	69.3	58.0
E16030	57.1	61.2	59.3	50.0	43.2	58.5	64.2
E16380	57.1	64.7	51.4	48.6	38.6	61.0	60.0
E16410	57.5	53.0	58.8	48.1	44.6	62.7	56.6
E17004	57.9	69.0	57.2	50.2	41.4	69.0	61.0
E17040	57.8	66.2	54.6	47.5	44.6	69.3	61.2
E17054	56.4	56.9	57.1	43.8	41.8	70.9	63.0
E17062	58.9	64.7	52.2	47.2	47.7	65.1	64.8
E17069	56.7	66.5	56.4	43.7	45.6	62.3	58.9
E17184	55.2	56.3	51.1	36.7	44.8	62.0	55.7
E17203	57.5	64.7	56.1	45.4	46.3	66.5	54.9
E17283	52.9	46.2	54.8	41.0	44.3	69.3	58.2
LD15-5170a	60.4	62.5	58.8	45.4	45.6	71.6	64.0
LD15-544	55.0	56.8	59.4	41.4	43.4	64.9	56.7
LD15-6268	56.1	69.5	48.9	46.5	43.0	62.4	64.4
LD15-6280	58.3	61.5	53.4	40.0	48.1	73.7	57.1
LD16-4385a	55.6	62.0	55.7	50.5	42.5	52.9	56.9
LD16-4471a	60.3	63.9	60.7	47.1	48.6	66.4	59.0
LD16-4766a	60.7	58.6	51.1	49.9	48.0	62.4	60.8
LD16-4852	58.4	54.7	55.1	50.7	46.2	62.5	55.5
LD16-6557	56.1	60.0	57.9	48.7	41.3	64.0	59.5
U16-125610	53.8	54.6	48.2	39.7	41.4	64.5	55.8
U16-127621	57.0	68.3	59.4	54.1	42.6	57.3	66.4
U16-129612	55.8	52.9	49.7	44.5	42.0	55.9	63.9
U16-129646	59.0	48.5	60.5	48.3	42.9	66.2	62.0
U16-609059	59.8	56.2	61.5	52.8	39.6	62.7	67.5
U16-909058	57.6	52.8	57.6	53.8	44.9	61.9	60.5
U16-932015	58.7	56.0	57.2	50.9	41.8	61.2	63.2
U17-618174	57.5	61.0	62.4	51.9	45.0	59.1	61.3
U17-920124	58.9	64.2	56.6	52.9	44.6	62.6	66.7
U17-924011	55.8	48.3	48.6	41.2	43.3	65.9	60.3
Location Mean		59.9	55.8	47.0	44.3	63.7	60.4
C.V. (%)		14.7	6.9	10.6	7.0	9.6	6.1
L.S.D. (5%)		16.4	7.8	10.1	6.3	12.3	7.2
Row Sp. (In.)		30	30	30	30	30	15
Rows/Plot		4	4	4	4	4	6
Reps		2	2	2	2	2	3

*Data not included in the mean.

UNIFORM TEST II, 2020

YIELD (bu/a)

Strain	William- ston MI	Mead NE	Steven's Creek NE	Chatham ONT
IA2102 (II)	58.0	61.8	47.2	76.2
LD02-4485 (SCN)	50.5	71.0	53.5	70.4
U11-917032 (SCN) (E)	51.4	61.7	61.5	75.0
U14-910097 (SCN) (L)	60.3	70.1	72.6	70.4
CR16-0008	58.1	54.1	43.0	60.9
CR16-0058	45.4	62.4	67.1	52.8
CR16-0070	51.6	67.8	73.2	61.2
E15345	56.5	66.3	56.9	71.1
E15351	53.2	64.7	42.9	70.8
E16030	51.3	67.4	58.4	61.6
E16380	62.7	58.4	60.2	73.5
E16410	65.8	63.1	50.6	67.4
E17004	48.5	68.4	55.9	69.5
E17040	55.4	69.3	54.2	64.5
E17054	53.2	62.8	50.7	64.6
E17062	58.4	63.4	55.8	75.4
E17069	44.8	62.6	60.7	75.6
E17184	55.6	64.2	59.1	67.5
E17203	47.6	75.0	55.3	70.3
E17283	56.2	61.9	43.3	47.0
LD15-5170a	63.4	64.0	57.7	73.3
LD15-544	51.1	69.4	55.3	53.4
LD15-6268	59.5	64.7	40.7	74.4
LD15-6280	55.6	70.2	57.1	69.3
LD16-4385a	51.8	64.3	64.3	61.2
LD16-4471a	56.5	74.8	60.3	69.7
LD16-4766a	58.1	69.5	65.6	80.7
LD16-4852	56.2	64.0	58.4	77.1
LD16-6557	53.8	61.4	46.9	71.6
U16-125610	54.1	69.8	66.5	44.2
U16-127621	65.0	70.1	69.2	29.1
U16-129612	54.8	68.0	67.6	56.3
U16-129646	52.0	65.9	66.8	66.6
U16-609059	61.7	67.6	74.0	50.6
U16-909058	55.0	69.0	65.3	50.6
U16-932015	64.4	63.8	67.3	58.1
U17-618174	60.7	55.5	68.3	53.6
U17-920124	63.0	63.3	69.6	51.2
U17-924011	50.0	68.7	62.3	62.3
Location Mean	55.7	65.7	59.1	64.1
C.V. (%)	12.8	8.0	11.6	14.8
L.S.D. (5%)	13.8	13.7	18.2	19.2
Row Sp. (In.)	15	30	30	17
Rows/Plot	6	4	4	5
Reps	3	2	2	2

UNIFORM TEST II, 2020

YIELD RANK

Strain	Yield Rank	Boone IA	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN	Britton MI
IA2102 (II)	25	30	24	28	37	20	16
LD02-4485 (SCN)	9	2	19	25	4	4	14
U11-917032 (SCN) (E)	36	21	35	38	36	39	24
U14-910097 (SCN) (L)	1	14	1	11	1	2	1
CR16-0008	38	23	30	20	11	17	34
CR16-0058	35	28	13	6	11	36	33
CR16-0070	11	36	22	12	7	19	38
E15345	12	1	17	8	8	33	13
E15351	32	4	28	37	15	6	28
E16030	22	18	8	14	25	34	7
E16380	21	9	32	17	39	31	22
E16410	19	33	9	19	19	21	32
E17004	15	5	14	13	33	9	18
E17040	16	8	27	21	19	6	16
E17054	26	24	16	30	31	5	11
E17062	8	9	31	22	6	14	5
E17069	24	7	19	31	13	27	26
E17184	33	26	33	39	18	28	36
E17203	20	9	21	26	9	10	39
E17283	39	39	26	34	22	6	27
LD15-5170a	3	15	9	26	13	3	8
LD15-544	34	25	6	32	23	15	31
LD15-6268	28	3	37	24	26	25	6
LD15-6280	14	17	29	35	3	1	29
LD16-4385a	31	16	23	10	29	38	30
LD16-4471a	4	13	4	23	2	11	25
LD16-4766a	2	22	33	15	4	25	19
LD16-4852	13	31	25	9	10	24	37
LD16-6557	27	20	11	16	35	17	23
U16-125610	37	32	39	36	33	16	34
U16-127621	23	6	6	1	28	35	4
U16-129612	29	34	36	29	30	37	9
U16-129646	6	37	5	18	27	12	12
U16-609059	5	27	3	4	38	21	2
U16-909058	17	35	12	2	17	29	20
U16-932015	10	28	14	7	31	30	10
U17-618174	18	19	2	5	16	32	15
U17-920124	7	12	18	3	19	23	3
U17-924011	30	38	38	33	24	13	21

UNIFORM TEST II, 2020

YIELD RANK

Strain	William- ston MI	Mead NE	Steven's Creek NE	Chatham ONT
IA2102 (II)	14	34	34	3
LD02-4485 (SCN)	34	3	31	13
U11-917032 (SCN) (E)	31	35	16	6
U14-910097 (SCN) (L)	9	5	3	13
CR16-0008	12	39	37	28
CR16-0058	38	32	9	33
CR16-0070	30	15	2	26
E15345	15	18	25	11
E15351	26	20	38	12
E16030	32	17	22	25
E16380	6	37	19	8
E16410	1	29	33	20
E17004	36	13	26	17
E17040	21	10	30	23
E17054	26	30	32	22
E17062	11	27	27	5
E17069	39	31	17	4
E17184	19	23	20	19
E17203	37	1	28	15
E17283	17	33	36	37
LD15-5170a	4	24	23	9
LD15-544	33	9	29	32
LD15-6268	10	20	39	7
LD15-6280	19	4	24	18
LD16-4385a	29	22	14	26
LD16-4471a	15	2	18	16
LD16-4766a	12	8	12	1
LD16-4852	17	24	21	2
LD16-6557	25	36	35	10
U16-125610	24	7	11	38
U16-127621	2	5	5	39
U16-129612	23	14	7	30
U16-129646	28	19	10	21
U16-609059	7	16	1	35
U16-909058	22	11	13	35
U16-932015	3	26	8	29
U17-618174	8	38	6	31
U17-920124	5	28	4	34
U17-924011	35	12	15	24

UNIFORM TEST II, 2020

MATURITY (date)

Strain	Mean 9 Tests	Boone IA	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN	Britton MI
IA2102 (II)	9/20	9/21	9/18	9/25	9/14	9/20	9/24
LD02-4485 (SCN)	0.5	0	0	3	2	1	-1
U11-917032 (SCN) (E)	-4.6	-3	-5	-5	-7	-5	-4
U14-910097 (SCN) (L)	7.6	5	10	7	9	9	5
CR16-0008	10.3	12	12	9	11	9	9
CR16-0058	7.2	5	11	5	8	7	3
CR16-0070	5.5	3	7	3	8	5	3
E15345	3.5	2	4	5	2	5	2
E15351	-0.4	-1	-1	1	-2	0	-0
E16030	4.8	3	6	5	7	2	4
E16380	7.5	5	9	7	7	4	6
E16410	6.4	2	8	5	8	6	3
E17004	3.5	2	3	6	2	1	2
E17040	2.5	-1	1	2	0	4	0
E17054	1.0	1	-1	3	-1	-1	1
E17062	3.9	2	3	3	6	6	3
E17069	7.3	5	10	6	8	8	6
E17184	-0.5	0	-2	1	2	-2	0
E17203	2.1	2	2	2	3	1	0
E17283	8.4	5	8	8	7	10	8
LD15-5170a	4.8	5	9	4	4	6	4
LD15-544	1.2	3	1	1	2	-2	1
LD15-6268	2.1	1	1	3	2	1	2
LD15-6280	4.1	2	3	3	4	2	2
LD16-4385a	-0.3	-2	-2	1	-1	-1	-2
LD16-4471a	1.9	-2	2	3	3	1	-0
LD16-4766a	2.8	0	0	3	4	5	1
LD16-4852	4.0	2	6	3	5	6	1
LD16-6557	5.7	6	6	6	5	7	3
U16-125610	-1.0	-3	-3	-4	-1	-2	-3
U16-127621	6.4	3	9	5	9	6	3
U16-129612	0.7	-1	0	3	-1	-1	0
U16-129646	-2.0	-2	-2	-3	-4	-2	-2
U16-609059	8.7	5	12	7	9	9	7
U16-909058	5.2	3	5	3	3	6	1
U16-932015	-1.0	-3	-2	0	-3	-3	-1
U17-618174	6.6	5	10	5	8	8	4
U17-920124	6.3	4	7	6	7	5	3
U17-924011	-2.4	-3	-5	-3	-2	-3	-3
Date Planted	5/30	5/22	6/3	6/1	6/1	6/2	6/2
Days to Mature	113	122	107	116	105	110	114

UNIFORM TEST II, 2020

MATURITY (date)

Strain	William- ston MI	Mead NE	Steven's Creek NE	Chatham ONT*
IA2102 (II)	9/28	9/5	9/25	
LD02-4485 (SCN)	-4	0	3	
U11-917032 (SCN) (E)	-7	-2	-4	
U14-910097 (SCN) (L)	2	13	8	
CR16-0008	12	15	5	
CR16-0058	4	13	9	
CR16-0070	3	13	6	
E15345	1	9	2	
E15351	-1	-1	1	
E16030	-0	10	7	
E16380	8	13	10	
E16410	4	12	10	
E17004	4	5	7	
E17040	3	10	4	
E17054	4	0	2	
E17062	4	7	2	
E17069	6	11	6	
E17184	-1	-2	-1	
E17203	0	5	4	
E17283	7	14	10	
LD15-5170a	1	6	5	
LD15-544	-1	4	2	
LD15-6268	-1	11	-1	
LD15-6280	5	12	5	
LD16-4385a	-1	2	2	
LD16-4471a	0	5	5	
LD16-4766a	3	5	4	
LD16-4852	2	6	7	
LD16-6557	2	9	9	
U16-125610	-3	9	1	
U16-127621	3	11	9	
U16-129612	-4	5	5	
U16-129646	-3	0	-1	
U16-609059	4	15	11	
U16-909058	6	12	8	
U16-932015	-3	5	0	
U17-618174	3	11	6	
U17-920124	4	12	8	
U17-924011	-2	-1	0	
Date Planted	5/24	5/20	6/9	
Days to Mature	127	108	108	

*Killing Frost on 9/19

UNIFORM TEST II, 2020

LODGING (score)

Strain	Mean 8 Tests	Boone IA	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN	Britton MI
IA2102 (II)	2.1	1.5	2.8		2.0	2.5	1.0
LD02-4485 (SCN)	1.7	2.0	2.0		2.0	1.5	1.0
U11-917032 (SCN) (E)	1.4	1.0	2.0		2.0	1.5	1.0
U14-910097 (SCN) (L)	1.8	1.5	2.8		2.0	2.0	1.0
CR16-0008	1.3	1.0	1.8		1.0	1.0	1.0
CR16-0058	1.6	1.5	2.5		2.0	1.0	1.0
CR16-0070	1.3	1.5	1.3		1.5	2.0	1.0
E15345	2.0	3.0	2.5		2.0	2.0	1.0
E15351	1.3	1.0	1.3		1.0	1.5	1.0
E16030	1.5	1.5	1.8		2.0	1.0	1.0
E16380	1.1	1.0	1.3		1.5	1.0	1.0
E16410	1.3	1.0	1.5		1.5	1.5	1.0
E17004	1.2	1.5	1.5		1.0	1.0	1.0
E17040	1.8	2.0	2.0		2.5	2.0	1.0
E17054	1.4	1.0	1.8		1.0	1.5	1.0
E17062	1.9	2.0	2.8		2.0	2.0	1.0
E17069	2.1	2.5	3.5		2.5	2.0	1.0
E17184	1.9	2.0	2.5		2.0	2.0	1.0
E17203	1.3	1.0	1.8		2.0	1.0	1.0
E17283	1.3	1.0	1.5		1.5	2.0	1.0
LD15-5170a	1.8	2.0	3.0		2.5	2.0	1.0
LD15-544	1.0	1.0	1.0		1.0	1.0	1.0
LD15-6268	1.4	1.0	1.3		2.0	1.5	1.0
LD15-6280	1.2	1.0	1.3		1.0	1.0	1.0
LD16-4385a	1.0	1.0	1.0		1.0	1.0	1.0
LD16-4471a	1.1	1.0	1.5		1.0	1.0	1.0
LD16-4766a	1.3	1.0	1.5		1.5	1.5	1.0
LD16-4852	1.2	1.0	1.8		1.5	1.0	1.0
LD16-6557	1.2	1.0	1.3		2.0	1.0	1.0
U16-125610	1.0	1.0	1.0		1.0	1.0	1.0
U16-127621	1.5	1.0	1.5		2.1	1.5	1.0
U16-129612	1.2	1.0	1.3		1.5	1.5	1.0
U16-129646	1.0	1.0	1.0		1.0	1.0	1.0
U16-609059	1.5	1.0	2.3		1.5	1.5	1.0
U16-909058	1.7	2.0	1.8		2.0	2.0	1.0
U16-932015	1.1	1.0	1.0		1.5	1.5	1.0
U17-618174	1.1	1.0	1.8		1.0	1.0	1.0
U17-920124	1.1	1.0	1.5		1.0	1.0	1.0
U17-924011	1.0	1.0	1.0		1.0	1.0	1.0

UNIFORM TEST II, 2020

LODGING (score)

Strain	William- ston MI	Mead NE	Steven's Creek NE	Chatham ONT
IA2102 (II)		1.8	4.5	1.0
LD02-4485 (SCN)		1.3	2.5	1.0
U11-917032 (SCN) (E)		1.0	1.5	1.0
U14-910097 (SCN) (L)		1.0	3.0	1.0
CR16-0008		1.0	2.5	1.0
CR16-0058		1.5	2.0	1.0
CR16-0070		1.0	1.0	1.0
E15345		1.0	3.5	1.0
E15351		1.3	2.5	1.0
E16030		1.0	2.5	1.0
E16380		1.0	1.0	1.0
E16410		1.0	1.5	1.0
E17004		1.0	1.5	1.0
E17040		1.0	3.0	1.0
E17054		1.0	3.0	1.0
E17062		1.0	3.0	1.5
E17069		1.5	2.5	1.5
E17184		1.3	2.5	2.0
E17203		1.0	1.5	1.0
E17283		1.0	1.0	1.0
LD15-5170a		1.0	1.5	1.0
LD15-544		1.0	1.0	1.0
LD15-6268		1.0	2.5	1.0
LD15-6280		1.0	2.0	1.0
LD16-4385a		1.0	1.0	1.0
LD16-4471a		1.0	1.0	1.0
LD16-4766a		1.0	2.0	1.0
LD16-4852		1.0	1.0	1.0
LD16-6557		1.0	1.0	1.0
U16-125610		1.0	1.0	1.0
U16-127621		1.0	2.5	1.0
U16-129612		1.0	1.0	1.0
U16-129646		1.0	1.0	1.0
U16-609059		1.0	2.5	1.0
U16-909058		1.0	2.5	1.0
U16-932015		1.0	1.0	1.0
U17-618174		1.0	1.0	1.0
U17-920124		1.0	1.0	1.0
U17-924011		1.0	1.0	1.0

UNIFORM TEST II, 2020

PLANT HEIGHT (inches)

Strain	Mean 8 Tests	Boone IA	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN	Britton MI
IA2102 (II)	36.1	30	39		33	38	34
LD02-4485 (SCN)	36.0	30	39		33	37	34
U11-917032 (SCN) (E)	31.7	27	33		29	28	31
U14-910097 (SCN) (L)	33.9	31	35		32	34	32
CR16-0008	39.6	34	43		34	40	40
CR16-0058	43.4	37	51		38	40	45
CR16-0070	40.4	37	44		34	39	40
E15345	36.6	35	39		36	34	36
E15351	34.3	28	36		33	36	35
E16030	35.5	33	39		32	37	35
E16380	35.1	31	37		29	36	32
E16410	35.1	32	39		31	37	34
E17004	35.9	33	37		30	37	36
E17040	36.8	35	39		32	39	37
E17054	36.3	32	39		31	39	35
E17062	36.4	33	40		32	36	37
E17069	42.4	38	46		36	44	44
E17184	36.4	31	41		32	39	33
E17203	34.4	31	37		31	36	31
E17283	31.3	25	34		31	36	31
LD15-5170a	36.6	31	38		34	38	38
LD15-544	34.2	26	39		30	37	34
LD15-6268	35.7	31	37		31	35	36
LD15-6280	34.3	29	36		30	36	33
LD16-4385a	31.2	29	34		29	30	30
LD16-4471a	33.0	31	35		31	34	32
LD16-4766a	33.5	29	35		30	32	32
LD16-4852	35.1	31	37		31	36	35
LD16-6557	32.4	28	34		28	32	32
U16-125610	32.7	26	38		29	33	29
U16-127621	35.9	33	37		33	37	38
U16-129612	36.3	33	40		34	35	34
U16-129646	30.3	24	33		26	31	29
U16-609059	34.9	32	38		32	36	35
U16-909058	36.6	32	40		31	37	37
U16-932015	34.7	31	38		29	36	34
U17-618174	35.1	31	38		29	35	33
U17-920124	35.4	32	37		31	37	35
U17-924011	31.2	25	34		28	32	30

UNIFORM TEST II, 2020

PLANT HEIGHT (inches)

Strain	William- ston MI	Mead NE	Steven's Creek NE	Chatham ONT
IA2102 (II)		39	38	39
LD02-4485 (SCN)		39	33	44
U11-917032 (SCN) (E)		35	33	39
U14-910097 (SCN) (L)		38	31	39
CR16-0008		43	36	47
CR16-0058		46	40	51
CR16-0070		47	39	45
E15345		38	32	43
E15351		38	30	39
E16030		40	33	37
E16380		39	35	43
E16410		39	31	39
E17004		38	37	41
E17040		39	36	39
E17054		39	36	41
E17062		43	33	39
E17069		47	37	47
E17184		39	35	43
E17203		40	31	39
E17283		35	27	33
LD15-5170a		40	34	41
LD15-544		38	31	39
LD15-6268		39	33	45
LD15-6280		37	35	39
LD16-4385a		34	30	35
LD16-4471a		35	29	39
LD16-4766a		37	31	43
LD16-4852		38	33	41
LD16-6557		35	31	40
U16-125610		35	35	38
U16-127621		40	33	38
U16-129612		41	33	42
U16-129646		34	29	38
U16-609059		41	33	34
U16-909058		42	35	41
U16-932015		39	32	40
U17-618174		42	34	39
U17-920124		41	33	39
U17-924011		35	31	37

UNIFORM TEST II, 2020

SEED SIZE (g/100)

Strain	Mean 9 Tests	Boone IA	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN	Britton MI
IA2102 (II)	14.4	15.4	12.7	14.9	10.5	15.1	
LD02-4485 (SCN)	13.7	14.6	12.6	13.6	10.8	14.3	
U11-917032 (SCN) (E)	13.9	14.0	12.9	14.4	10.2	14.4	
U14-910097 (SCN) (L)	13.7	13.7	13.0	15.4	11.0	14.3	
CR16-0008	15.4	15.3	14.3	16.2	13.4	16.4	
CR16-0058	14.8	16.2	14.7	15.1	12.3	16.0	
CR16-0070	14.0	14.8	13.0	13.8	11.7	14.9	
E15345	14.4	15.2	13.3	15.4	11.2	16.2	
E15351	15.0	15.4	13.3	15.7	11.2	16.2	
E16030	16.4	17.3	16.3	16.7	12.4	16.5	
E16380	18.2	18.4	16.8	18.8	14.3	19.2	
E16410	16.9	16.6	16.5	17.8	13.7	17.9	
E17004	15.8	16.4	15.0	16.9	11.8	16.4	
E17040	14.7	15.8	12.7	14.8	11.0	15.9	
E17054	16.1	16.4	14.5	16.7	12.5	17.0	
E17062	16.1	16.7	15.2	17.2	13.9	17.1	
E17069	16.6	16.8	15.4	17.6	13.7	17.4	
E17184	15.6	16.0	14.1	15.5	13.0	16.1	
E17203	14.5	14.8	13.1	15.0	11.5	15.4	
E17283	17.3	18.8	16.6	18.4	13.1	18.1	
LD15-5170a	15.1	15.4	14.8	16.2	11.8	16.3	
LD15-544	15.8	16.6	16.1	15.8	12.5	16.5	
LD15-6268	15.3	15.8	13.3	16.2	12.1	16.4	
LD15-6280	14.9	14.6	14.0	15.1	12.0	15.9	
LD16-4385a	14.9	16.0	13.9	15.3	11.1	15.4	
LD16-4471a	15.6	15.1	15.3	16.7	12.5	16.9	
LD16-4766a	15.8	15.9	14.1	15.9	12.5	17.0	
LD16-4852	13.7	13.4	12.6	13.9	11.0	15.2	
LD16-6557	15.1	15.6	14.0	15.7	12.0	15.9	
U16-125610	14.3	14.0	12.3	14.1	11.2	15.2	
U16-127621	15.6	16.3	15.0	15.8	13.0	16.1	
U16-129612	14.4	14.6	13.0	15.2	10.9	14.2	
U16-129646	12.5	11.9	11.5	12.3	9.4	12.9	
U16-609059	15.1	14.7	15.7	15.5	12.3	15.5	
U16-909058	13.8	14.9	13.3	13.8	11.0	14.8	
U16-932015	15.9	14.9	14.3	17.1	11.8	15.9	
U17-618174	12.9	13.0	13.5	13.1	10.7	13.3	
U17-920124	13.8	14.5	13.0	14.3	11.6	13.9	
U17-924011	12.3	12.7	10.3	11.8	9.7	12.8	

UNIFORM TEST II, 2020

SEED SIZE (g/100)

Strain	William- ston MI	Mead NE	Steven's Creek NE	Chatham ONT
IA2102 (II)	14.8	13.0	16.7	16.2
LD02-4485 (SCN)	14.4	13.0	14.2	15.6
U11-917032 (SCN) (E)	13.9	13.0	14.8	17.2
U14-910097 (SCN) (L)	15.5	11.9	13.6	15.2
CR16-0008	18.3	12.0	14.9	17.8
CR16-0058	15.5	12.5	15.9	15.4
CR16-0070	15.8	12.3	14.2	15.4
E15345	14.7	13.3	14.8	15.4
E15351	16.9	13.6	15.5	17.5
E16030	18.6	14.2	18.0	17.4
E16380	19.2	15.8	19.7	21.4
E16410	18.2	15.5	18.6	17.3
E17004	16.8	13.9	17.2	18.1
E17040	15.8	14.1	15.7	16.4
E17054	17.2	13.9	18.2	18.2
E17062	16.4	14.0	17.8	17.1
E17069	18.3	14.0	17.3	18.6
E17184	17.3	13.5	16.4	18.9
E17203	15.3	13.6	15.8	16.4
E17283	19.0	15.4	18.9	17.7
LD15-5170a	16.0	12.6	15.9	17.2
LD15-544	16.4	14.6	16.9	16.9
LD15-6268	16.5	13.8	15.8	18.1
LD15-6280	16.1	13.8	16.0	16.7
LD16-4385a	16.5	14.2	16.4	15.8
LD16-4471a	16.4	14.1	16.1	17.2
LD16-4766a	17.3	14.0	16.5	18.8
LD16-4852	15.4	12.2	14.1	15.7
LD16-6557	16.5	13.6	16.3	16.7
U16-125610	15.5	14.5	16.0	15.7
U16-127621	17.0	13.1	17.6	16.8
U16-129612	15.9	13.9	16.6	15.5
U16-129646	13.7	11.8	13.6	15.3
U16-609059	17.1	13.3	16.3	15.3
U16-909058	14.7	12.4	15.0	14.8
U16-932015	18.0	15.3	18.2	17.3
U17-618174	14.4	10.9	13.7	13.4
U17-920124	15.7	11.9	15.3	14.1
U17-924011	14.0	11.1	13.6	14.5

UNIFORM TEST II, 2020

SEED QUALITY (score)

Strain	Mean 9 Tests	Boone IA	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN	Britton MI
IA2102 (II)	1.3	1.0	2.0	2.0	1.0	1.0	
LD02-4485 (SCN)	1.6	2.0	2.0	2.0	2.0	1.0	
U11-917032 (SCN) (E)	1.6	2.0	2.0	2.0	1.0	2.0	
U14-910097 (SCN) (L)	1.2	1.0	1.0	2.0	1.0	1.0	
CR16-0008	1.3	2.0	2.0	2.0	1.0	1.0	
CR16-0058	1.3	1.0	2.0	2.0	1.0	1.5	
CR16-0070	1.3	1.0	2.0	2.0	1.0	1.0	
E15345	1.4	1.0	2.0	2.0	1.0	1.0	
E15351	1.4	1.0	2.0	2.0	1.0	1.0	
E16030	1.4	1.0	2.0	2.0	2.0	1.0	
E16380	1.7	2.0	3.0	2.0	2.0	1.0	
E16410	1.3	2.0	2.0	2.0	1.0	1.0	
E17004	1.3	2.0	2.0	2.0	1.0	1.0	
E17040	1.3	1.0	2.0	2.0	1.0	1.0	
E17054	1.6	2.0	3.0	2.0	1.0	1.0	
E17062	1.6	2.0	2.0	3.0	1.0	1.0	
E17069	1.3	2.0	2.0	1.0	1.0	1.0	
E17184	1.4	1.0	3.0	2.0	1.0	1.0	
E17203	1.3	1.0	2.0	2.0	1.0	1.0	
E17283	1.6	2.0	2.0	3.0	1.0	1.0	
LD15-5170a	1.4	2.0	2.0	2.0	1.0	1.0	
LD15-544	1.5	2.0	2.0	2.0	1.5	1.0	
LD15-6268	1.7	1.0	3.0	2.0	2.0	1.5	
LD15-6280	1.4	1.0	2.0	2.0	2.0	1.0	
LD16-4385a	1.4	1.0	2.0	2.0	2.0	1.0	
LD16-4471a	1.4	1.0	2.0	2.0	2.0	1.0	
LD16-4766a	1.4	1.0	2.0	2.0	2.0	1.0	
LD16-4852	1.6	1.0	3.0	2.0	2.0	1.0	
LD16-6557	1.3	1.0	2.0	2.0	1.0	1.0	
U16-125610	1.3	1.0	2.0	2.0	1.0	1.0	
U16-127621	1.3	1.0	2.0	2.0	1.0	1.0	
U16-129612	1.5	1.0	2.0	2.0	2.0	1.0	
U16-129646	1.3	1.0	2.0	2.0	1.0	1.0	
U16-609059	1.4	1.0	2.0	2.0	1.0	1.0	
U16-909058	1.3	1.0	2.0	2.0	1.0	1.0	
U16-932015	1.3	1.0	2.0	2.0	1.0	1.0	
U17-618174	1.4	1.0	2.0	3.0	1.0	1.0	
U17-920124	1.3	1.0	2.0	2.0	1.5	1.0	
U17-924011	1.4	1.0	2.0	2.0	1.0	1.0	

UNIFORM TEST II, 2020

SEED QUALITY (score)

Strain	William- ston MI	Mead NE	Steven's Creek NE	Chatham ONT
IA2102 (II)	1.5	1.0	1.0	1.0
LD02-4485 (SCN)	2.7	1.0	1.0	1.0
U11-917032 (SCN) (E)	2.3	1.0	1.0	1.0
U14-910097 (SCN) (L)	1.7	1.0	1.0	1.0
CR16-0008	1.0	1.0	1.0	1.0
CR16-0058	1.0	1.0	1.0	1.0
CR16-0070	1.7	1.0	1.0	1.0
E15345	2.3	1.0	1.0	1.0
E15351	2.0	1.0	2.0	1.0
E16030	2.0	1.0	1.0	1.0
E16380	2.0	1.0	1.0	1.0
E16410	1.0	1.0	1.0	1.0
E17004	1.0	1.0	1.0	1.0
E17040	2.0	1.0	1.0	1.0
E17054	2.0	1.0	1.0	1.0
E17062	2.0	1.0	1.0	1.0
E17069	2.0	1.0	1.0	1.0
E17184	1.7	1.0	1.0	1.0
E17203	2.0	1.0	1.0	1.0
E17283	2.0	1.0	1.0	1.0
LD15-5170a	2.0	1.0	1.0	1.0
LD15-544	1.7	1.0	1.0	1.0
LD15-6268	2.0	1.0	1.5	1.0
LD15-6280	2.0	1.0	1.0	1.0
LD16-4385a	2.0	1.0	1.0	1.0
LD16-4471a	1.7	1.0	1.0	1.0
LD16-4766a	2.0	1.0	1.0	1.0
LD16-4852	2.0	1.0	1.0	1.0
LD16-6557	1.7	1.0	1.0	1.0
U16-125610	2.0	1.0	1.0	1.0
U16-127621	2.0	1.0	1.0	1.0
U16-129612	2.3	1.0	1.0	1.0
U16-129646	1.7	1.0	1.0	1.0
U16-609059	2.3	1.0	1.0	1.0
U16-909058	1.7	1.0	1.0	1.0
U16-932015	2.0	1.0	1.0	1.0
U17-618174	2.0	1.0	1.0	1.0
U17-920124	1.5	1.0	1.0	1.0
U17-924011	2.3	1.0	1.0	1.0

UNIFORM TEST II, 2020

PROTEIN (%)

Strain	Mean 9 Tests	Boone IA	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN	William- ston MI
IA2102 (II)	34.1	34.1	31.6	34.1	36.5	34.5	32.6
LD02-4485 (SCN)	32.2	31.9	32.0	31.4	34.6	33.1	31.2
U11-917032 (SCN) (E)	32.6	32.6	33.3	31.6	35.5	33.0	32.1
U14-910097 (SCN) (L)	32.2	31.9	29.8	33.2	32.7	32.9	31.9
CR16-0008	33.7	33.8	31.7	35.4	33.1	33.7	34.6
CR16-0058	34.6	34.8	33.2	35.5	36.7	34.3	34.1
CR16-0070	33.1	32.6	31.1	33.4	34.4	33.4	33.0
E15345	32.8	33.2	31.8	33.1	35.1	32.6	31.5
E15351	32.9	33.4	31.0	33.2	35.0	33.5	31.5
E16030	34.1	34.1	33.8	33.4	35.8	33.8	33.3
E16380	33.0	33.1	32.3	33.1	33.5	32.5	32.4
E16410	33.0	33.3	31.2	32.6	35.1	33.7	32.2
E17004	34.3	34.5	33.1	33.9	36.8	34.9	32.6
E17040	33.8	34.6	32.5	33.1	35.8	33.4	32.3
E17054	34.1	33.5	32.8	34.0	36.6	34.1	33.9
E17062	34.3	35.0	33.2	34.8	35.3	34.6	32.5
E17069	35.1	35.6	34.4	34.7	36.3	35.2	35.5
E17184	34.2	33.7	33.6	33.5	36.3	34.7	32.6
E17203	33.3	32.5	32.6	32.9	35.6	34.0	32.9
E17283	34.2	34.8	32.3	33.8	35.3	34.8	33.5
LD15-5170a	33.7	33.3	33.2	34.1	35.4	34.0	32.5
LD15-544	33.5	33.2	32.5	33.7	36.2	34.1	31.6
LD15-6268	34.9	34.3	33.6	35.5	37.3	35.2	32.9
LD15-6280	34.5	33.6	33.0	35.9	36.0	35.8	33.4
LD16-4385a	35.1	35.7	35.1	35.1	37.6	36.1	33.2
LD16-4471a	34.8	33.7	35.0	35.8	37.0	35.7	33.1
LD16-4766a	34.0	34.4	32.8	33.4	35.9	35.1	32.6
LD16-4852	32.0	31.0	30.7	32.6	33.8	33.0	32.2
LD16-6557	33.4	33.4	32.1	33.5	35.5	32.7	32.2
U16-125610	32.1	31.5	31.4	32.1	34.7	33.5	30.1
U16-127621	32.8	33.1	30.5	33.3	35.2	33.4	31.3
U16-129612	32.8	33.0	31.9	32.3	35.2	32.6	31.6
U16-129646	32.8	34.0	32.5	32.0	35.8	33.4	30.9
U16-609059	33.1	33.1	32.3	33.2	34.3	34.2	33.3
U16-909058	34.1	33.0	32.8	34.6	36.1	34.7	33.4
U16-932015	33.6	33.8	33.2	33.3	35.7	34.8	33.2
U17-618174	32.5	31.5	31.3	34.5	34.1	32.1	31.8
U17-920124	32.3	32.9	30.6	31.6	33.6	32.4	31.9
U17-924011	33.3	32.9	33.6	32.8	36.1	33.4	32.2

UNIFORM TEST II, 2020

PROTEIN (%)

Strain	Mead NE	Steven's Creek NE	Chatham ONT
IA2102 (II)	34.2	35.6	33.7
LD02-4485 (SCN)	31.6	31.6	32.2
U11-917032 (SCN) (E)	31.8	30.7	32.5
U14-910097 (SCN) (L)	33.0	31.3	32.7
CR16-0008	33.9	33.2	33.9
CR16-0058	34.3	33.7	34.9
CR16-0070	33.9	32.1	33.8
E15345	32.1	32.9	33.2
E15351	33.8	31.6	33.4
E16030	35.0	33.5	33.9
E16380	33.4	34.1	32.5
E16410	33.4	32.5	33.4
E17004	33.8	33.2	35.5
E17040	34.5	33.1	34.5
E17054	34.2	32.8	34.6
E17062	34.3	33.9	35.2
E17069	33.9	34.7	35.6
E17184	35.7	33.4	34.5
E17203	33.6	32.5	33.2
E17283	34.4	34.2	34.5
LD15-5170a	33.4	33.0	34.6
LD15-544	33.2	32.6	34.1
LD15-6268	34.2	35.3	35.5
LD15-6280	34.9	33.0	34.9
LD16-4385a	35.3	33.4	34.7
LD16-4471a	34.0	33.4	35.3
LD16-4766a	34.1	32.8	34.6
LD16-4852	31.5	31.0	32.6
LD16-6557	34.0	33.6	33.9
U16-125610	31.8	31.2	32.5
U16-127621	33.0	32.6	33.2
U16-129612	32.5	32.8	33.2
U16-129646	32.8	31.1	32.7
U16-609059	32.4	32.1	32.8
U16-909058	33.7	34.0	34.9
U16-932015	33.3	32.2	33.2
U17-618174	34.5	30.1	32.9
U17-920124	32.4	31.9	33.0
U17-924011	33.3	31.9	33.0

UNIFORM TEST II, 2020

OIL (%)

Strain	Mean 9 Tests	Boone IA	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN	William- ston MI
IA2102 (II)	19.0	18.9	19.8	19.5	17.7	19.3	19.2
LD02-4485 (SCN)	19.6	19.8	20.4	20.2	18.7	19.4	19.7
U11-917032 (SCN) (E)	20.3	20.5	20.5	21.4	18.9	20.8	20.1
U14-910097 (SCN) (L)	20.2	19.7	21.4	20.0	20.2	20.7	20.4
CR16-0008	18.6	19.0	19.4	18.0	19.0	18.9	18.2
CR16-0058	18.4	18.1	19.4	18.3	19.1	18.9	17.7
CR16-0070	18.8	19.0	19.8	19.3	18.5	19.1	18.0
E15345	19.4	19.1	20.4	19.9	18.6	19.8	19.2
E15351	19.5	19.4	21.0	20.2	18.5	19.7	19.4
E16030	18.8	18.6	19.4	19.2	18.1	19.5	19.4
E16380	19.3	19.1	20.2	19.8	19.0	19.9	19.1
E16410	20.2	20.1	21.3	20.8	19.4	20.1	20.0
E17004	19.3	19.0	20.4	20.0	17.6	19.9	19.3
E17040	18.8	18.3	19.7	19.6	18.2	19.3	18.9
E17054	18.6	19.0	19.8	18.9	17.8	19.2	18.1
E17062	19.4	18.9	20.4	19.6	18.9	19.5	20.5
E17069	18.8	18.5	19.4	19.6	18.3	18.4	18.3
E17184	19.8	20.4	20.8	20.5	19.3	20.0	19.3
E17203	19.3	19.6	20.3	19.9	18.2	19.4	18.9
E17283	18.8	18.6	19.9	19.7	18.3	18.9	18.7
LD15-5170a	19.1	19.5	19.8	19.7	18.3	19.7	18.8
LD15-544	19.6	19.7	20.5	20.3	18.3	20.2	19.4
LD15-6268	18.5	18.9	19.4	18.9	17.2	18.8	19.0
LD15-6280	19.7	19.7	20.8	20.0	19.8	19.8	19.3
LD16-4385a	18.8	19.2	19.7	19.1	17.4	18.7	19.1
LD16-4471a	19.2	19.4	19.9	19.4	18.6	19.3	19.2
LD16-4766a	19.3	19.8	19.9	20.3	18.6	19.2	19.0
LD16-4852	19.5	20.1	20.6	20.2	18.9	19.5	19.1
LD16-6557	19.6	19.4	20.9	20.1	18.9	20.4	19.8
U16-125610	20.4	20.5	20.9	21.7	19.2	20.6	20.8
U16-127621	20.2	20.0	21.9	20.6	19.5	20.4	20.1
U16-129612	20.4	20.5	21.2	21.1	19.0	21.0	20.5
U16-129646	19.4	19.3	20.3	20.2	18.1	19.5	19.7
U16-609059	19.6	19.5	20.2	20.2	19.2	19.6	19.4
U16-909058	18.6	19.3	19.7	19.1	17.8	18.9	18.0
U16-932015	19.8	20.2	20.6	20.2	18.5	20.0	19.2
U17-618174	19.0	19.6	19.8	18.7	18.3	19.8	19.3
U17-920124	20.0	19.8	21.2	20.5	19.6	20.4	19.8
U17-924011	19.1	20.1	19.3	19.7	17.8	19.3	19.0

UNIFORM TEST II, 2020

OIL (%)

Strain	Mead NE	Steven's Creek NE	Chatham ONT
IA2102 (II)	19.8	19.3	17.8
LD02-4485 (SCN)	20.4	19.7	18.0
U11-917032 (SCN) (E)	21.1	20.7	19.0
U14-910097 (SCN) (L)	20.0	20.6	18.5
CR16-0008	18.7	19.1	17.1
CR16-0058	18.9	18.6	16.7
CR16-0070	19.0	19.2	17.3
E15345	20.2	19.5	17.9
E15351	19.6	20.0	18.0
E16030	18.8	19.1	17.0
E16380	19.5	19.3	17.7
E16410	20.6	20.3	18.9
E17004	20.3	20.0	17.6
E17040	19.2	19.0	17.0
E17054	19.0	18.1	17.4
E17062	19.9	19.6	16.9
E17069	20.1	19.3	16.9
E17184	18.9	20.2	18.7
E17203	20.1	19.9	17.6
E17283	19.1	18.7	16.9
LD15-5170a	19.8	19.4	17.2
LD15-544	20.3	20.1	17.2
LD15-6268	19.0	18.4	16.5
LD15-6280	19.9	19.9	18.0
LD16-4385a	19.2	19.2	18.0
LD16-4471a	20.2	19.3	17.3
LD16-4766a	19.8	19.9	17.4
LD16-4852	20.4	19.9	17.2
LD16-6557	19.9	19.3	17.6
U16-125610	21.3	20.6	18.4
U16-127621	20.6	20.1	18.9
U16-129612	20.7	20.6	19.0
U16-129646	19.8	19.9	17.9
U16-609059	20.4	20.3	18.0
U16-909058	19.7	18.3	16.8
U16-932015	20.5	20.4	18.6
U17-618174	18.2	20.0	17.4
U17-920124	20.6	20.3	18.0
U17-924011	19.6	19.1	18.2

**Northern Regional Uniform Test
Preliminary Test IIA, 2020**

Ent.	Strain	Parentage	Seed Source	Gen. Comp.	Unique Traits
1	IA2102 (II)	A04-545045 x AgriPro 98180-A01-0613	Cai	F4	
2	LD02-4485 (SCN)	M90-184111 x IA3010	Diers	F5	SCN
3	U11-917032 (SCN) (E)	LD02-4485 x U03-100612	Graef	F6	SCN, HR, MR, IDC
4	U14-910097 (SCN) (L)	U09-105007 x LD07-3419	Graef	F5	Rps, SCN (HR, HR)
5	CR17-3780	F3:5 U092-15057 x LG09-7161	Rainey	F5	
6	CR17-3841	F3:5 LG09-7871 x LG09-7341	Rainey	F5	
7	CR17-3842	F3:5 LG09-7871 x LG09-7341	Rainey	F5	
8	CR17-3913	F3:5 LG09-7167 x LG10-1562	Rainey	F5	
9	CR17-4959	F3:5 U093-11114 x LG07-1851	Rainey	F5	
10	CR17-4971	F3:5 U093-11114 x LG07-1851	Rainey	F5	
11	LD17- 247	U11-932025 x U09-105007	Diers	F5	
12	LD17- 822	U11-614119 x U11-610107	Diers	F5	
13	LD17-1884	U11-614119 x LD10-10198	Diers	F5	SCN
14	LD17-1887	U11-614119 x LD10-10198	Diers	F5	SCN
15	LD17-1900	U11-614119 x LD10-10198	Diers	F5	SCN
16	LD17-1902	U11-614119 x LD10-10198	Diers	F5	SCN
17	LD17-3855	LD10-10198 x LG11-6210	Diers	F5	SCN
18	LD17-4947a	E11128T x LD14-8030	Diers	F5	Rag1 +2
19	LD17-5713a	LD12-300 x LD14-8047	Diers	F5	Rag1+2+3
20	LD17-7152a	LD12-268 x LD12-12701a	Diers	F5	Rag 1+2
21	LD18-1827	LD11-7311 x LD10-10198	Diers	F5	SCN
22	LD18-1866	LD11-7311 x LD10-10198	Diers	F5	SCN
23	U16-207253	U11-614093 x U02-242055	Graef	F5	SCN, Rps 1k
24	U17-217211	U11-374036 x U13-905029	Graef	F5	Expected Rps Resist.
25	U17-221057	U13-228304 x U13-131132	Graef	F5	
26	U17-221061	U14-919098 x U13-228304	Graef	F5	Rps, Dt
27	U17-238027	U14-919098 x U13-212431	Graef	F5	Rps, Dt
28	U17-238045	U14-919098 x U14-604086	Graef	F5	Rps, Dt
29	U17-244210	U09-118017 x U13-618087	Graef	F5	Expected Rps Resist.
30	U17-333174	U14-927142 x U13-228304	Graef	F5	
31	U18-607283	U14-217253 x U14-218244	Graef	F5	
32	U18-610140	U14-217253 x U14-112015	Graef	F5	
33	U18-903050	U14-216260 x U14-114011	Graef	F5	Rsv4, Rps
34	U18-929246	U14-216260 x U14-212285	Graef	F5	Rsv4, Rps
35	U18-930197	U14-217253 x U14-220237	Graef	F5	
36	U18-930208	U14-217253 x U14-220237	Graef	F5	
37	U18-932147	U14-322043 x U14-220237	Graef	F5	Rps1K, Rps, Dt

PRELIMINARY TEST IIA, 2020
DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code
IA2102 (II)	WGTDYYI
LD02-4485 (SCN)	PGBDYBfi
U11-917032 (SCN) (E)	PTBDYBI
U14-910097 (SCN) (L)	PGTDYBfi
CR17-3780	PGBDYIbI
CR17-3841	PLtBSYBI
CR17-3842	PLtBDYBI
CR17-3913	PLtBDYBI
CR17-4959	PLtBSYBI
CR17-4971	PTBSYBI
LD17- 247	WLtBDYBI
LD17- 822	PLtBDYBI
LD17-1884	PLtBDYGI
LD17-1887	P+WLtBDYBI
LD17-1900	PTBDYBI
LD17-1902	PLtBDYGI
LD17-3855	PLtBDYHI
LD17-4947a	PGBDYIbI
LD17-5713a	WLtBDYBI
LD17-7152a	PGTDYHI
LD18-1827	PGBDYHI
LD18-1866	WGBDYBfi
U16-207253	PLtBDYBI
U17-217211	PTBSYBI
U17-221057	PLtTDYBI
U17-221061	PLt+GBDYHI
U17-238027	PLt+GBDYHI
U17-238045	PLtBDYBrI
U17-244210	WLtBSYBI
U17-333174	P+WTBDYBrI
U18-607283	WGTDYBfi
U18-610140	WT+GB+TDYHI
U18-903050	PT+LtBSYBI
U18-929246	PLtBDYBI
U18-930197	PLtTDYBI
U18-930208	WGTDYBfi
U18-932147	PTTDYBI

PRELIMINARY TEST IIA, 2020

REGIONAL SUMMARY

No. of Tests Strain	Yield 6 bu/a	Rank 6 No.	Maturity 5 Date	Lodging 4 Score	Plant Height 4 In.	Seed Size 6 g/100	Seed Quality 6 Score	Composition	
								Protein 6 %	Oil 6 %
IA2102 (II)	56.8	29	9/21	2.0	38	15.0	1.3	33.8	19.2
LD02-4485 (SCN)	58.0	25	0.7	2.1	38	14.1	1.5	32.1	19.6
U11-917032 (SCN) (E)	57.2	27	-2.6	1.4	34	14.6	1.3	32.5	20.4
U14-910097 (SCN) (L)	66.8	1	7.6	2.1	36	14.2	1.2	32.5	20.1
CR17-3780	59.4	18	2.6	1.3	39	15.0	1.5	33.6	19.2
CR17-3841	57.6	26	5.8	1.4	41	15.8	1.5	34.3	19.3
CR17-3842	55.0	36	8.0	1.6	43	14.9	1.3	35.2	18.6
CR17-3913	55.5	32	6.8	1.9	40	15.4	1.3	33.7	18.6
CR17-4959	59.5	17	8.1	1.5	45	14.5	1.3	31.7	19.4
CR17-4971	57.1	28	7.3	2.3	45	13.8	1.2	32.2	19.4
LD17- 247	62.2	10	3.9	1.6	39	17.4	1.3	33.4	19.9
LD17- 822	55.2	33	-1.1	1.6	33	15.2	1.5	32.8	20.0
LD17-1884	63.0	8	2.9	1.8	35	15.8	1.3	33.2	19.5
LD17-1887	66.8	2	4.6	1.3	36	14.3	1.5	32.6	19.4
LD17-1900	64.5	5	5.1	1.6	40	17.0	1.2	33.6	19.8
LD17-1902	63.6	6	3.6	1.4	37	15.3	1.3	33.1	19.7
LD17-3855	66.7	3	1.8	1.1	40	13.8	1.4	33.6	18.6
LD17-4947a	50.1	37	-0.6	1.6	36	16.8	1.5	32.9	19.6
LD17-5713a	56.7	30	2.9	2.2	37	15.1	1.5	32.5	19.8
LD17-7152a	60.3	16	4.8	1.5	38	14.6	1.1	33.3	19.3
LD18-1827	58.4	22	2.6	1.5	39	14.9	1.5	34.0	19.1
LD18-1866	65.5	4	4.4	1.3	39	15.1	1.3	34.4	18.3
U16-207253	60.8	13	5.1	1.0	34	15.3	1.3	33.0	20.1
U17-217211	58.2	24	5.2	1.3	40	15.7	1.2	32.8	20.0
U17-221057	60.6	14	10.1	1.0	39	13.0	1.3	31.1	19.2
U17-221061	62.3	9	8.1	1.1	42	13.8	1.2	32.2	19.8
U17-238027	58.3	23	6.7	1.1	42	14.3	1.2	32.3	19.5
U17-238045	61.4	12	6.4	1.0	43	15.6	1.3	33.0	19.8
U17-244210	55.1	34	2.6	1.3	38	16.3	1.3	33.0	19.5
U17-333174	63.1	7	5.8	1.5	39	13.4	1.3	32.2	19.9
U18-607283	59.1	19	8.6	1.1	40	15.4	1.3	32.7	19.6
U18-610140	55.1	35	9.6	1.0	38	13.6	1.3	32.4	19.4
U18-903050	56.0	31	4.4	1.3	38	14.1	1.1	32.8	19.8
U18-929246	60.5	15	7.2	1.4	41	14.1	1.2	31.7	19.8
U18-930197	58.6	20	9.2	1.0	36	12.5	1.3	31.8	19.7
U18-930208	58.5	21	6.4	1.0	36	12.0	1.2	31.2	20.1
U18-932147	61.6	11	8.0	1.3	38	13.0	1.0	32.5	19.6
Mean	59.6			1.4	38.6	14.7	1.3	32.9	19.5
C.V. (%)	12.0								
L.S.D. (5%)	5.8								

114.2 Days After Planting

PRELIMINARY TEST IIA, 2020

YIELD (bu/a)

Strain	Mean 6 Tests	Urbana IL	West Lafayette IN	William- ston MI	Mead NE	Steven's Creek NE	Chatham ONT
IA2102 (II)	56.8	32.9	63.3	52.9	68.7	47.4	75.4
LD02-4485 (SCN)	58.0	47.1	67.7	50.7	67.9	43.2	71.2
U11-917032 (SCN) (E)	57.2	37.8	64.7	48.8	67.1	55.9	69.2
U14-910097 (SCN) (L)	66.8	58.4	73.1	59.3	70.5	67.7	72.0
CR17-3780	59.4	50.1	60.3	53.4	60.0	64.3	68.3
CR17-3841	57.6	45.1	59.1	57.9	59.6	68.2	55.6
CR17-3842	55.0	40.8	59.2	61.7	55.1	60.3	52.8
CR17-3913	55.5	50.7	60.4	55.6	56.1	59.2	51.2
CR17-4959	59.5	48.5	70.9	44.9	58.7	70.0	64.1
CR17-4971	57.1	48.2	66.6	52.3	58.9	61.5	54.9
LD17- 247	62.2	50.9	64.3	62.5	66.9	71.6	56.9
LD17- 822	55.2	30.9	60.9	52.7	65.8	66.1	54.8
LD17-1884	63.0	46.1	68.7	58.6	71.0	55.2	78.1
LD17-1887	66.8	50.6	72.6	56.8	72.3	76.0	72.4
LD17-1900	64.5	54.7	70.7	55.6	68.7	60.9	76.6
LD17-1902	63.6	44.8	74.2	63.4	64.2	65.4	69.7
LD17-3855	66.7	54.6	73.4	57.4	70.3	63.8	80.8
LD17-4947a	50.1	34.8	55.9	41.3	64.3		54.4
LD17-5713a	56.7	44.9	65.8	43.9	64.0	62.9	58.4
LD17-7152a	60.3	57.7	67.4	48.8	58.3	66.6	63.1
LD18-1827	58.4	35.0	64.6	47.5	68.4	58.7	76.2
LD18-1866	65.5	49.8	77.9	51.5	69.4	69.4	75.0
U16-207253	60.8	45.7	65.2	54.4	65.7	77.3	56.6
U17-217211	58.2	44.4	65.3	65.4	57.9	53.1	62.9
U17-221057	60.6	43.7	75.6	56.8	58.0	67.7	61.6
U17-221061	62.3	44.4	67.5	61.2	65.1	77.7	57.9
U17-238027	58.3	44.7	66.5	57.7	59.5	69.6	51.5
U17-238045	61.4	36.3	62.9	68.3	69.7	70.9	60.0
U17-244210	55.1	43.8	70.7	41.7	55.9	63.7	54.7
U17-333174	63.1	43.1	74.6	57.8	67.4	70.1	65.4
U18-607283	59.1	45.2	68.5	57.4	57.5	67.6	58.5
U18-610140	55.1	43.7	57.1	52.9	58.6	61.9	56.1
U18-903050	56.0	40.8	61.4	60.6	65.4	64.7	43.3
U18-929246	60.5	45.5	66.5	64.4	57.0	66.5	63.0
U18-930197	58.6	48.5	65.5	48.4	64.1	77.7	47.5
U18-930208	58.5	44.8	59.8	49.2	63.6	77.7	55.8
U18-932147	61.6	49.6	61.7	68.3	56.9	80.3	52.6
Location Mean		45.4	66.2	55.2	63.5	65.6	62.1
C.V. (%)			9.7	13.1	6.5	8.8	9.3
L.S.D. (5%)			13.0	17.6	10.3	14.5	11.7
Row Sp. (In.)		30	30	15	30	30	17
Rows/Plot		4	4	6	4	4	5
Reps		1	2	2	2	2	2

PRELIMINARY TEST IIA, 2020

YIELD RANK

Strain	Yield Rank	Urbana IL	West Lafayette IN	Williamston MI	Mead NE	Steven's Creek NE	Chatham ONT
IA2102 (II)	29	36	26	23	8	35	5
LD02-4485 (SCN)	25	14	13	28	10	36	9
U11-917032 (SCN) (E)	27	32	23	30	12	32	11
U14-910097 (SCN) (L)	1	1	6	10	3	14	8
CR17-3780	18	8	32	22	23	22	12
CR17-3841	26	19	35	12	24	13	27
CR17-3842	36	30	34	7	37	29	32
CR17-3913	32	6	31	19	35	30	35
CR17-4959	17	11	8	34	27	10	14
CR17-4971	28	13	16	26	26	27	28
LD17- 247	10	5	25	6	13	7	23
LD17- 822	33	37	30	25	14	19	29
LD17-1884	8	15	11	11	2	33	2
LD17-1887	2	7	7	17	1	6	7
LD17-1900	5	3	9	19	7	28	3
LD17-1902	6	21	4	5	19	20	10
LD17-3855	3	4	5	15	4	23	1
LD17-4947a	37	35	37	37	18		31
LD17-5713a	30	20	19	35	21	25	21
LD17-7152a	16	2	15	30	29	17	15
LD18-1827	22	34	24	33	9	31	4
LD18-1866	4	9	1	27	6	12	6
U16-207253	13	16	22	21	15	5	24
U17-217211	24	24	21	3	31	34	17
U17-221057	14	27	2	17	30	15	18
U17-221061	9	24	14	8	17	4	22
U17-238027	23	23	17	14	25	11	34
U17-238045	12	33	27	1	5	8	19
U17-244210	34	26	9	36	36	24	30
U17-333174	7	29	3	13	11	9	13
U18-607283	19	18	12	15	32	16	20
U18-610140	35	27	36	23	28	26	25
U18-903050	31	30	29	9	16	21	37
U18-929246	15	17	17	4	33	18	16
U18-930197	20	11	20	32	20	3	36
U18-930208	21	21	33	29	22	2	26
U18-932147	11	10	28	1	34	1	33

PRELIMINARY TEST IIA, 2020

MATURITY (date)

Strain	Mean 5 Tests	Urbana IL	West Lafayette IN	William- ston MI	Mead NE	Steven's Creek NE	Chatham ONT
IA2102 (II)	9/21	9/24	9/20	9/28	9/8	9/25	
LD02-4485 (SCN)	1	4	3	-4	-1	2	
U11-917032 (SCN) (E)	-3	-1	-5	-6	-2	0	
U14-910097 (SCN) (L)	8	10	9	6	6	8	
CR17-3780	3	3	1	3	3	3	
CR17-3841	6	5	3	2	10	9	
CR17-3842	8	8	6	4	11	11	
CR17-3913	7	6	7	2	9	10	
CR17-4959	8	8	7	6	10	10	
CR17-4971	7	9	7	4	7	10	
LD17- 247	4	5	1	-1	7	8	
LD17- 822	-1	-1	-2	-1	-2	0	
LD17-1884	3	3	4	1	5	2	
LD17-1887	5	4	4	3	7	6	
LD17-1900	5	5	6	3	9	4	
LD17-1902	4	4	5	0	7	2	
LD17-3855	2	4	3	-2	2	2	
LD17-4947a	-1	0	-1	-2	1	-2	
LD17-5713a	3	4	5	-1	3	4	
LD17-7152a	5	6	4	1	6	7	
LD18-1827	3	2	1	2	6	3	
LD18-1866	4	5	4	9	6	-1	
U16-207253	5	4	5	1	7	9	
U17-217211	5	5	4	4	5	8	
U17-221057	10	9	11	8	11	12	
U17-221061	8	7	7	7	10	10	
U17-238027	7	6	5	4	11	9	
U17-238045	6	7	3	4	9	10	
U17-244210	3	5	0	1	4	3	
U17-333174	6	3	8	2	7	9	
U18-607283	9	8	9	6	9	12	
U18-610140	10	10	8	9	10	12	
U18-903050	4	3	3	-1	8	9	
U18-929246	7	5	6	6	10	10	
U18-930197	9	8	9	9	10	10	
U18-930208	6	7	5	7	4	9	
U18-932147	8	8	3	7	11	12	
Date Planted	5/29	6/1	6/2	5/24	5/20	6/9	
Days to Mature	114	115	110	127	111	108	

PRELIMINARY TEST IIA, 2020

LODGING (score)

Strain	Mean 4 Tests	Urbana IL	West Lafayette IN	William- ston MI	Mead NE	Steven's Creek NE	Chatham ONT
IA2102 (II)	2.0		2.0		2.5	2.5	1.0
LD02-4485 (SCN)	2.1		2.0		1.5	4.0	1.0
U11-917032 (SCN) (E)	1.4		1.5		1.0	2.0	1.0
U14-910097 (SCN) (L)	2.1		2.0		1.3	4.0	1.0
CR17-3780	1.3		1.0		1.0	2.0	1.0
CR17-3841	1.4		2.0		1.5	1.0	1.0
CR17-3842	1.6		2.0		2.0	1.5	1.0
CR17-3913	1.9		2.0		2.0	2.0	1.5
CR17-4959	1.5		2.0		1.3	1.5	1.0
CR17-4971	2.3		2.5		3.0	2.5	1.0
LD17- 247	1.6		1.5		1.5	2.5	1.0
LD17- 822	1.6		1.5		1.0	3.0	1.0
LD17-1884	1.8		1.5		1.0	3.5	1.0
LD17-1887	1.3		1.0		1.3	2.0	1.0
LD17-1900	1.6		1.0		1.0	3.5	1.0
LD17-1902	1.4		1.5		1.0	2.0	1.0
LD17-3855	1.1		1.0		1.0	1.5	1.0
LD17-4947a	1.6		1.0		1.0	3.5	1.0
LD17-5713a	2.2		2.0		2.8	3.0	1.0
LD17-7152a	1.5		1.5		1.3	2.0	1.0
LD18-1827	1.5		1.5		1.3	2.0	1.0
LD18-1866	1.3		2.0		1.0	1.0	1.0
U16-207253	1.0		1.0		1.0	1.0	1.0
U17-217211	1.3		1.0		1.0	2.0	1.0
U17-221057	1.0		1.0		1.0	1.0	1.0
U17-221061	1.1		1.5		1.0	1.0	1.0
U17-238027	1.1		1.0		1.0	1.5	1.0
U17-238045	1.0		1.0		1.0	1.0	1.0
U17-244210	1.3		1.0		1.0	2.0	1.0
U17-333174	1.5		1.5		1.0	2.5	1.0
U18-607283	1.1		1.5		1.0	1.0	1.0
U18-610140	1.0		1.0		1.0	1.0	1.0
U18-903050	1.3		1.5		1.0	1.5	1.0
U18-929246	1.4		1.0		1.0	2.5	1.0
U18-930197	1.0		1.0		1.0	1.0	1.0
U18-930208	1.0		1.0		1.0	1.0	1.0
U18-932147	1.3		1.0		1.0	2.0	1.0

PRELIMINARY TEST IIA, 2020

PLANT HEIGHT (inches)

Strain	Mean 4 Tests	Urbana IL	West Lafayette IN	William- ston MI	Mead NE	Steven's Creek NE	Chatham ONT
IA2102 (II)	38		36		40	33	43
LD02-4485 (SCN)	38		35		40	36	43
U11-917032 (SCN) (E)	34		31		37	30	39
U14-910097 (SCN) (L)	36		35		37	31	41
CR17-3780	39		34		41	36	45
CR17-3841	41		41		46	38	41
CR17-3842	43		43		47	38	45
CR17-3913	40		40		44	34	43
CR17-4959	45		47		49	41	45
CR17-4971	45		48		50	39	45
LD17- 247	39		39		44	34	41
LD17- 822	33		30		35	28	38
LD17-1884	35		33		38	33	38
LD17-1887	36		32		40	32	39
LD17-1900	40		40		44	34	43
LD17-1902	37		34		40	32	43
LD17-3855	40		39		42	35	43
LD17-4947a	36		35		40	33	39
LD17-5713a	37		35		38	34	39
LD17-7152a	38		36		39	35	40
LD18-1827	39		37		42	35	43
LD18-1866	39		39		42	32	43
U16-207253	34		32		39	30	37
U17-217211	40		37		41	41	41
U17-221057	39		38		44	35	39
U17-221061	42		41		47	35	45
U17-238027	42		41		48	37	43
U17-238045	43		41		48	39	43
U17-244210	38		38		39	34	42
U17-333174	39		39		40	35	41
U18-607283	40		41		42	37	43
U18-610140	38		36		42	33	39
U18-903050	38		37		42	36	38
U18-929246	41		39		43	40	41
U18-930197	36		33		39	33	38
U18-930208	36		34		37	33	39
U18-932147	38		35		45	34	38

PRELIMINARY TEST IIA, 2020

SEED SIZE (g/100)

Strain	Mean 6 Tests	Urbana IL	West Lafayette IN	William- ston MI	Mead NE	Steven's Creek NE	Chatham ONT
IA2102 (II)	15.0	14.3	14.7	15.5	12.9	16.0	16.8
LD02-4485 (SCN)	14.1	13.6	14.2	14.6	12.4	14.4	15.2
U11-917032 (SCN) (E)	14.6	13.9	14.7	14.1	12.9	15.1	17.0
U14-910097 (SCN) (L)	14.2	14.8	14.1	15.3	11.6	13.7	15.5
CR17-3780	15.0	15.1	14.8	15.9	12.5	16.1	15.8
CR17-3841	15.8	15.2	15.7	18.0	13.7	16.4	16.1
CR17-3842	14.9	14.3	15.6	16.4	12.2	14.9	16.3
CR17-3913	15.4	14.9	15.7	16.6	13.3	16.5	15.4
CR17-4959	14.5	14.6	14.7	15.0	12.2	15.8	14.6
CR17-4971	13.8	13.9	14.0	15.2	10.8	14.2	14.5
LD17- 247	17.4	16.6	17.0	18.5	14.7	19.1	18.5
LD17- 822	15.2	14.3	15.6	16.6	12.5	16.0	16.4
LD17-1884	15.8	15.6	16.2	16.9	13.1	16.7	16.6
LD17-1887	14.3	13.9	14.7	15.1	12.2	14.8	15.3
LD17-1900	17.0	16.8	17.4	19.2	14.2	17.2	17.5
LD17-1902	15.3	15.1	15.9	15.6	12.5	15.9	16.6
LD17-3855	13.8	13.5	13.7	14.5	11.5	13.9	15.7
LD17-4947a	16.8	17.0	16.4	17.9	14.8	17.5	17.4
LD17-5713a	15.1	14.8	15.6	14.9	13.5	15.7	16.0
LD17-7152a	14.6	14.9	14.3	15.0	12.4	16.0	15.3
LD18-1827	14.9	14.5	15.0	15.9	12.2	15.5	16.5
LD18-1866	15.1	14.5	16.3	16.1	12.5	15.3	16.1
U16-207253	15.3	14.4	15.8	17.2	13.0	16.3	15.3
U17-217211	15.7	15.5	15.7	17.1	12.4	17.3	16.1
U17-221057	13.0	12.4	14.0	14.2	10.8	13.7	13.2
U17-221061	13.8	13.3	14.1	15.9	11.0	14.1	14.5
U17-238027	14.3	14.0	14.1	16.5	11.8	15.3	13.9
U17-238045	15.6	15.2	14.5	17.4	13.7	16.8	16.2
U17-244210	16.3	16.0	16.3	17.9	13.5	16.7	17.7
U17-333174	13.4	13.0	13.2	15.6	11.1	13.6	14.1
U18-607283	15.4	15.2	14.8	17.5	12.7	16.8	15.6
U18-610140	13.6	13.4	12.9	15.4	11.7	14.7	13.5
U18-903050	14.1	13.5	13.9	16.0	11.8	15.6	13.9
U18-929246	14.1	13.6	14.5	15.1	11.5	15.1	14.9
U18-930197	12.5	11.8	12.1	14.0	10.4	13.8	13.2
U18-930208	12.0	11.9	10.9	14.0	10.1	12.9	12.2
U18-932147	13.0	13.1	12.5	15.2	10.5	13.9	13.0

PRELIMINARY TEST IIA, 2020

SEED QUALITY (score)

Strain	Mean 6 Tests	Urbana IL	West Lafayette IN	William- ston MI	Mead NE	Steven's Creek NE	Chatham ONT
IA2102 (II)	1.3	2.0	1.0	2.0	1.0	1.0	1.0
LD02-4485 (SCN)	1.5	2.0	1.0	3.0	1.0	1.0	1.0
U11-917032 (SCN) (E)	1.3	2.0	1.0	2.0	1.0	1.0	1.0
U14-910097 (SCN) (L)	1.2	1.0	1.0	2.0	1.0	1.0	1.0
CR17-3780	1.5	2.0	1.0	3.0	1.0	1.0	1.0
CR17-3841	1.5	2.0	1.0	3.0	1.0	1.0	1.0
CR17-3842	1.3	2.0	1.0	2.0	1.0	1.0	1.0
CR17-3913	1.3	2.0	1.0	2.0	1.0	1.0	1.0
CR17-4959	1.3	2.0	1.0	2.0	1.0	1.0	1.0
CR17-4971	1.2	1.0	1.0	2.0	1.0	1.0	1.0
LD17- 247	1.3	2.0	1.0	1.5	1.0	1.0	1.0
LD17- 822	1.5	2.0	2.0	2.0	1.0	1.0	1.0
LD17-1884	1.3	2.0	1.0	2.0	1.0	1.0	1.0
LD17-1887	1.5	2.0	2.0	2.0	1.0	1.0	1.0
LD17-1900	1.2	1.0	1.0	2.0	1.0	1.0	1.0
LD17-1902	1.3	2.0	1.0	2.0	1.0	1.0	1.0
LD17-3855	1.4	2.0	1.0	2.5	1.0	1.0	1.0
LD17-4947a	1.5	3.0	1.0	2.0	1.0	1.0	1.0
LD17-5713a	1.5	2.0	2.0	2.0	1.0	1.0	1.0
LD17-7152a	1.1	1.0	1.0	1.5	1.0	1.0	1.0
LD18-1827	1.5	3.0	2.0	1.0	1.0	1.0	1.0
LD18-1866	1.3	2.0	1.0	2.0	1.0	1.0	1.0
U16-207253	1.3	2.0	1.0	2.0	1.0	1.0	1.0
U17-217211	1.2	1.0	1.0	2.0	1.0	1.0	1.0
U17-221057	1.3	2.0	1.0	2.0	1.0	1.0	1.0
U17-221061	1.2	1.0	1.0	2.0	1.0	1.0	1.0
U17-238027	1.2	2.0	1.0	1.0	1.0	1.0	1.0
U17-238045	1.3	2.0	1.0	2.0	1.0	1.0	1.0
U17-244210	1.3	2.0	1.0	1.5	1.0	1.0	1.0
U17-333174	1.3	2.0	1.0	1.5	1.0	1.0	1.0
U18-607283	1.3	2.0	1.0	2.0	1.0	1.0	1.0
U18-610140	1.3	2.0	1.0	2.0	1.0	1.0	1.0
U18-903050	1.1	1.0	1.0	1.5	1.0	1.0	1.0
U18-929246	1.2	1.0	1.0	2.0	1.0	1.0	1.0
U18-930197	1.3	2.0	1.0	2.0	1.0	1.0	1.0
U18-930208	1.2	1.0	1.0	2.0	1.0	1.0	1.0
U18-932147	1.0	1.0	1.0	1.0	1.0	1.0	1.0

PRELIMINARY TEST IIA, 2020

PROTEIN (%)

Strain	Mean 6 Tests	Urbana IL	West Lafayette IN	William- ston MI	Mead NE	Steven's Creek NE	Chatham ONT
IA2102 (II)	33.8	34.3	34.7	32.6	33.6	33.6	34.2
LD02-4485 (SCN)	32.1	31.8	34.5	31.1	31.9	31.0	32.2
U11-917032 (SCN) (E)	32.5	31.8	34.2	32.0	32.2	32.2	32.7
U14-910097 (SCN) (L)	32.5	32.4	33.5	31.2	34.1	30.8	32.9
CR17-3780	33.6	34.4	34.5	32.0	34.8	32.3	33.8
CR17-3841	34.3	35.3	34.0	33.0	35.4	33.0	35.4
CR17-3842	35.2	37.2	34.8	33.4	35.9	34.2	35.7
CR17-3913	33.7	33.9	33.7	32.6	35.1	33.2	33.7
CR17-4959	31.7	32.2	32.5	31.7	31.1	30.8	32.1
CR17-4971	32.2	33.8	32.1	31.1	32.6	30.9	32.5
LD17- 247	33.4	33.6	33.5	32.1	34.0	33.3	34.0
LD17- 822	32.8	32.9	34.4	32.0	32.0	32.8	32.9
LD17-1884	33.2	32.6	33.4	32.6	33.5	32.9	34.0
LD17-1887	32.6	31.8	33.4	32.7	33.0	31.9	32.7
LD17-1900	33.6	33.9	33.4	33.0	33.4	33.6	34.2
LD17-1902	33.1	32.6	34.4	32.1	33.5	32.4	33.4
LD17-3855	33.6	34.3	33.8	32.9	34.1	32.5	34.2
LD17-4947a	32.9	33.3	33.9	32.3	32.4	32.3	33.1
LD17-5713a	32.5	32.7	33.2	31.5	33.3	31.4	33.0
LD17-7152a	33.3	33.9	33.6	32.1	32.8	33.6	33.6
LD18-1827	34.0	34.6	33.9	34.2	34.2	33.3	33.8
LD18-1866	34.4	35.3	35.1	34.7	34.0	33.1	34.5
U16-207253	33.0	33.1	33.5	32.2	33.3	32.2	33.5
U17-217211	32.8	32.9	33.9	32.2	32.6	32.3	33.0
U17-221057	31.1	30.4	32.1	30.7	30.8	30.4	31.9
U17-221061	32.2	33.5	32.6	31.8	32.0	30.6	32.7
U17-238027	32.3	32.7	31.6	31.1	33.8	32.0	32.3
U17-238045	33.0	34.0	33.2	32.0	32.8	32.4	33.8
U17-244210	33.0	32.5	33.4	32.1	34.1	32.0	34.0
U17-333174	32.2	32.2	32.3	32.0	32.4	31.8	32.4
U18-607283	32.7	33.1	33.3	31.0	34.7	31.6	32.6
U18-610140	32.4	33.9	32.5	31.5	32.9	31.6	32.2
U18-903050	32.8	31.8	34.8	32.1	33.0	32.2	32.8
U18-929246	31.7	31.8	32.1	30.4	33.0	30.4	32.5
U18-930197	31.8	31.3	31.9	31.3	32.9	30.8	32.5
U18-930208	31.2	31.4	31.1	30.9	32.3	30.0	31.5
U18-932147	32.5	33.1	32.8	31.7	33.8	30.4	33.4

PRELIMINARY TEST IIA, 2020

OIL (%)

Strain	Mean 6 Tests	Urbana IL	West Lafayette IN	William- ston MI	Mead NE	Steven's Creek NE	Chatham ONT
IA2102 (II)	19.2	19.8	19.6	19.1	19.5	19.5	17.9
LD02-4485 (SCN)	19.6	20.1	18.8	19.6	20.1	20.1	18.7
U11-917032 (SCN) (E)	20.4	21.5	20.4	19.9	20.8	20.7	19.2
U14-910097 (SCN) (L)	20.1	20.5	19.9	19.8	20.0	21.1	19.3
CR17-3780	19.2	19.4	19.4	19.5	18.9	19.9	18.4
CR17-3841	19.3	19.5	20.1	18.9	19.3	20.1	17.8
CR17-3842	18.6	18.3	19.1	18.4	19.0	19.3	17.2
CR17-3913	18.6	18.9	18.9	18.1	18.4	18.7	18.5
CR17-4959	19.4	19.7	19.5	19.0	20.3	19.7	18.2
CR17-4971	19.4	19.2	19.8	19.3	20.1	19.8	18.3
LD17- 247	19.9	20.4	20.1	20.3	20.1	19.9	18.6
LD17- 822	20.0	20.6	20.6	19.8	20.1	20.3	18.8
LD17-1884	19.5	20.6	19.9	18.9	20.1	19.4	18.0
LD17-1887	19.4	20.3	19.7	18.9	20.0	19.5	18.0
LD17-1900	19.8	20.5	20.5	19.5	20.4	19.8	17.9
LD17-1902	19.7	20.8	19.8	19.3	20.6	19.7	18.2
LD17-3855	18.6	18.4	19.0	18.7	19.0	19.6	17.0
LD17-4947a	19.6	20.2	20.1	19.2	20.4	19.8	17.9
LD17-5713a	19.8	20.3	20.0	19.7	19.9	20.0	18.8
LD17-7152a	19.3	19.8	19.6	19.2	20.3	18.9	18.0
LD18-1827	19.1	19.6	19.8	18.3	19.7	19.4	17.6
LD18-1866	18.3	18.7	18.4	17.9	19.2	19.1	16.5
U16-207253	20.1	20.6	20.8	19.9	20.4	20.5	18.4
U17-217211	20.0	20.5	19.9	19.7	20.6	20.4	18.6
U17-221057	19.2	20.1	19.2	18.6	20.1	19.5	17.8
U17-221061	19.8	20.0	20.1	19.6	20.6	20.4	18.4
U17-238027	19.5	20.1	20.4	19.8	19.2	19.5	18.1
U17-238045	19.8	20.0	20.8	19.9	20.4	20.0	17.9
U17-244210	19.5	19.9	19.9	19.4	19.8	20.1	18.2
U17-333174	19.9	20.6	20.2	19.6	20.4	19.9	18.4
U18-607283	19.6	20.4	19.8	19.3	19.7	19.9	18.4
U18-610140	19.4	19.3	19.9	19.3	20.0	19.8	18.0
U18-903050	19.8	20.6	20.6	19.4	20.3	19.6	18.1
U18-929246	19.8	20.5	20.3	19.5	19.9	20.4	18.1
U18-930197	19.7	20.4	19.8	19.3	19.5	20.3	19.1
U18-930208	20.1	20.6	20.5	19.8	20.1	20.8	18.7
U18-932147	19.6	20.3	20.4	19.9	19.1	20.5	17.4

**Northern Regional Uniform Test
Preliminary Test IIB, 2020**

Ent.	Strain	Parentage	Seed Source	Gen. Comp.	Unique Traits
1	IA2102 (II)	A04-545045 x AgriPro 98180-A01-0613	Cai	F4	
2	LD02-4485 (SCN)	M90-184111 x IA3010	Diers	F5	SCN
3	U11-917032 (SCN) (E)	LD02-4485 x U03-100612	Graef	F6	SCN, HR, MR, IDC
4	U14-910097 (SCN) (L)	U09-105007 x LD07-3419	Graef	F5	Rps, SCN (HR, HR)
5	A14004-126	IA1026 x LD10-5213a	Singh		
6	A14035-53	(U09-105007 x OAC Calypso) x IA2102	Singh		
7	A14037-61	(U11-610107 x OAC Perth) x IA2102	Singh		
8	A14037-69	(U11-610107 x OAC Perth) x IA2102	Singh		
9	A14037-134	(U11-610107 x OAC Perth) x IA2102	Singh		
10	A14037-143	(U11-610107 x OAC Perth) x IA2102	Singh		
11	A14039-47	(U11-911079 x OAC Avatar) x IA2102	Singh		
12	A14039-58	(U11-911079 x OAC Avatar) x IA2102	Singh		
13	A14039-72	(U11-911079 x OAC Avatar) x IA2102	Singh		
14	A14039-100	(U11-911079 x OAC Avatar) x IA2102	Singh		
15	A14039-114	(U11-911079 x OAC Avatar) x IA2102	Singh		
16	A14039-126	(U11-911079 x OAC Avatar) x IA2102	Singh		
17	A14040-99	(OAC Brooke x U09-133021) x IA2102	Singh		
18	A14042-68	(U11-919011 x LD02-4485(SCN)) x IA2102	Singh		
19	A14044-136	(U11-920017 x LD10-5213a) x IA2102	Singh		
20	A14044-161	(U11-920017 x LD10-5213a) x IA2102	Singh		
21	A14044-188	(U11-920017 x LD10-5213a) x IA2102	Singh		
22	A14046-68	(U11-932025 x LD10-5330a) x IA2102	Singh		
23	A14047-145	(U11-932025 x LD10-5330a) x IA3045	Singh		
24	E16915	E13902 x E13367	Wang	F5	SCN, Rps1
25	E18012	E07051 x E13364	Wang	F5	SCN, Rps1
26	E18015	IA2102 x E11128T	Wang	F5	SCN, Rps1
27	E18024T	LD01-7323 x E11128T	Wang	F5	SCN, Rps1
28	E18073	(E06167 x E07051) x (E07051 x E06380)	Wang	F5	SCN, Rps1
29	E18433	E13364 x U06-814223R	Wang	F5	SCN, Rps1
30	E18638T	E11128T x IA2102	Wang	F5	SCN, Rps1
31	HM17-08202	Summit x M10-W111	McHale	F4	
32	HM17-08203	Summit x M10-W111	McHale	F4	
33	HM17-09043	M09-W153 x M10-W111	McHale	F4	
34	HM17-10253	Clermont x M11-I039	McHale	F4	
35	HM17-12161	M11-W117 x M09-W153	McHale	F4	
36	ORC 4019N	SC 8412N x SC 7512N	Eskandari	F5	SCN
37	ORC 4219N	SC 3313N x AAC Malden	Eskandari	F5	SCN

PRELIMINARY TEST IIB, 2020
DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code
IA2102 (II)	WGTDYYI
LD02-4485 (SCN)	PGBDYBfI
U11-917032 (SCN) (E)	PTBDYBI
U14-910097 (SCN) (L)	PGTDYBfI
A14004-126	PGBDYYI
A14035-53	PGBSYYI
A14037-61	PGBDYYI
A14037-69	WGBDYYI
A14037-134	PGB+TDYYI
A14037-143	WGB+TDYYI
A14039-47	P+Wl ^t BDYHI
A14039-58	Wl ^t +GBDYYI
A14039-72	Wl ^t B+TDYGI
A14039-100	Wl ^t +GB+TDYHI
A14039-114	Pl ^t +GB+TDYYI
A14039-126	PGBDYYI
A14040-99	Wl ^t BDYGI
A14042-68	Pl ^t BDYYI
A14044-136	WGTDYYI
A14044-161	WGBDYBfI
A14044-188	PGBDYBfI
A14046-68	WGBDYYI
A14047-145	PT+L ^t TDYYI
E16915	PGB+TDYI ^b I
E18012	PGBDYI ^b I
E18015	P+WGTDYYI
E18024T	PGTSYYI
E18073	PGBDYBfI
E18433	PGBDYI ^b I
E18638T	P+WGTSYYI
HM17-08202	PT+GTSYYI
HM17-08203	PGTDYYI
HM17-09043	PGBSYYI
HM17-10253	PT+GBDYHI
HM17-12161	Wl ^t BSYGI
ORC 4019N	PGTDYYI
ORC 4219N	WGTDYYI

PRELIMINARY TEST IIB, 2020

REGIONAL SUMMARY

No. of Tests Strain	Yield 6 bu/a	Rank 6 No.	Maturity 5 Date	Lodging 4 Score	Plant Height 4 In.	Seed Size 6 g/100	Seed Quality 6 Score	Composition	
								Protein 6 %	Oil 6 %
IA2102 (II)	55.2	27	9/20	2.4	36	15.1	1.6	33.7	19.3
LD02-4485 (SCN)	61.6	6	2.1	1.8	37	14.1	1.5	32.1	19.4
U11-917032 (SCN) (E)	53.7	30	-5.2	1.3	34	14.6	1.3	32.4	20.4
U14-910097 (SCN) (L)	65.1	1	7.4	1.5	36	14.3	1.3	32.0	20.1
A14004-126	60.8	9	1.3	1.0	34	14.3	1.3	33.2	19.7
A14035-53	55.7	25	0.4	1.4	36	15.7	1.7	33.5	18.8
A14037-61	55.9	23	2.3	1.6	36	16.3	1.5	32.6	19.7
A14037-69	56.3	22	4.2	2.1	39	15.4	1.3	33.2	19.7
A14037-134	56.9	20	3.7	1.6	38	14.4	1.3	33.6	18.7
A14037-143	54.0	29	3.3	1.8	39	14.1	1.3	32.5	19.3
A14039-47	58.0	17	0.0	1.5	37	15.1	1.3	33.0	19.9
A14039-58	56.4	21	3.2	1.9	41	15.0	1.3	35.1	18.1
A14039-72	60.0	11	4.8	1.8	42	14.8	1.6	33.3	19.0
A14039-100	58.4	16	2.4	1.6	38	15.8	1.3	33.6	19.1
A14039-114	61.3	7	2.5	1.4	38	15.2	1.3	34.1	18.9
A14039-126	55.8	24	1.7	1.3	36	14.8	1.3	34.0	19.0
A14040-99	51.0	35	0.8	1.5	33	16.4	1.3	33.3	19.8
A14042-68	64.0	2	6.0	1.8	39	14.5	1.3	32.8	18.7
A14044-136	63.1	4	5.2	1.6	38	17.1	1.4	33.2	19.5
A14044-161	60.2	10	3.0	1.9	38	15.8	1.3	32.5	20.0
A14044-188	61.0	8	5.4	1.6	37	14.4	1.3	32.2	20.1
A14046-68	63.7	3	1.8	1.6	36	14.8	1.7	32.8	19.2
A14047-145	58.5	14	2.0	1.3	37	15.6	1.4	34.0	18.4
E16915	57.6	19	4.7	1.3	37	16.0	1.3	33.6	18.5
E18012	52.5	32	2.8	1.4	34	14.8	1.3	32.9	19.5
E18015	55.1	28	5.8	1.8	35	18.0	1.3	34.4	18.3
E18024T	58.5	15	5.5	1.6	37	17.0	1.2	35.6	17.8
E18073	47.9	37	3.4	1.6	39	16.4	1.3	33.4	20.1
E18433	49.9	36	1.7	2.5	39	15.2	1.4	33.6	19.8
E18638T	51.5	34	-1.7	1.3	36	16.5	1.5	34.3	18.8
HM17-08202	57.9	18	4.0	2.1	37	16.3	1.3	32.0	20.3
HM17-08203	59.5	12	4.6	1.4	37	16.8	1.1	32.4	20.1
HM17-09043	53.1	31	3.4	1.9	40	13.8	1.3	33.1	18.6
HM17-10253	55.5	26	2.2	1.4	39	15.5	1.3	33.3	19.1
HM17-12161	59.3	13	5.8	1.4	39	15.8	1.3	33.0	18.9
ORC 4019N	62.1	5	3.9	1.3	37	16.9	1.3	33.6	19.3
ORC 4219N	52.0	33	-3.6	1.3	36	19.2	1.2	36.6	18.2
Mean	57.3			1.6	37.1	15.6	1.4	33.4	19.2
C.V. (%)	10.6								
L.S.D. (5%)	4.9								

113.8 Days After Planting

PRELIMINARY TEST IIB, 2020

YIELD (bu/a)

Strain	Mean 6 Tests	Urbana IL	West Lafayette IN	William- ston MI	Mead NE	Steven's Creek NE	Chatham ONT
IA2102 (II)	55.2	43.4	55.1	43.6	70.5	47.1	71.6
LD02-4485 (SCN)	61.6	47.2	63.7	62.0	65.6	57.8	73.5
U11-917032 (SCN) (E)	53.7	39.9	56.1	32.9	68.9	55.0	69.4
U14-910097 (SCN) (L)	65.1	51.4	72.5	55.5	67.2	71.0	72.7
A14004-126	60.8	46.9	68.3	51.0	71.9	61.3	65.7
A14035-53	55.7	43.9	61.7	41.4	74.5	55.3	57.1
A14037-61	55.9	37.5	61.7	44.6	73.8	57.3	60.7
A14037-69	56.3	46.3	64.0	48.6	65.5	52.4	61.0
A14037-134	56.9	45.8	64.9	48.4	64.3	57.4	60.4
A14037-143	54.0	42.0	69.4	51.3	71.0	45.6	45.0
A14039-47	58.0	47.2	69.7	38.9	65.1	52.9	74.0
A14039-58	56.4	47.0	64.2	41.5	60.8	45.5	79.5
A14039-72	60.0	49.5	69.6	46.3	68.2	56.5	69.6
A14039-100	58.4	48.6	72.1	48.9	67.8	49.9	63.1
A14039-114	61.3	49.4	74.0	45.4	67.0	60.9	70.9
A14039-126	55.8	43.7	61.5	47.0	69.8	58.7	54.1
A14040-99	51.0	38.4	52.6	49.8	67.4	50.9	46.8
A14042-68	64.0	51.3	72.3	51.4	70.7	70.5	67.8
A14044-136	63.1	43.9	68.5	70.5	71.5	51.6	72.9
A14044-161	60.2	42.8	74.9	54.5	70.9	49.9	68.2
A14044-188	61.0	49.5	63.9	58.3	65.2	70.4	58.6
A14046-68	63.7	43.6	76.3	49.9	72.1	59.2	81.1
A14047-145	58.5	43.1	69.2	45.7	66.3	66.8	60.0
E16915	57.6	48.7	64.1	57.0	56.9	53.8	64.9
E18012	52.5	49.5	58.5	43.8	62.1	56.4	44.8
E18015	55.1	42.5	64.2	48.3	65.8	40.4	69.7
E18024T	58.5	51.3	65.8	56.5	64.9	45.8	66.5
E18073	47.9	34.8	52.8	42.9	57.2	55.9	44.0
E18433	49.9	36.7	59.5	49.8	60.3	36.1	57.3
E18638T	51.5	36.9	53.0	45.9	68.3	43.1	61.9
HM17-08202	57.9	52.4	64.1	50.3	61.3	72.1	47.4
HM17-08203	59.5	48.9	64.1	53.5	62.2	69.5	59.1
HM17-09043	53.1	42.9	57.5	50.4	64.4	45.9	57.4
HM17-10253	55.5	42.4	48.5	57.1	66.1	54.8	63.9
HM17-12161	59.3	45.1	59.8	55.2	66.0	67.0	62.8
ORC 4019N	62.1	46.8	63.5	60.9	70.9	63.4	67.3
ORC 4219N	52.0	22.0	53.8	62.0	55.1		66.9
Location Mean		44.4	63.7	50.3	66.4	55.8	63.2
C.V. (%)		6.8	10.7	12.0	5.9	11.6	11.0
L.S.D. (5%)		6.1	13.8	14.7	9.9	16.5	14.1
Row Sp. (In.)		30	30	15	30	30	17
Rows/Plot		4	4	6	4	4	5
Reps		2	2	2	2	2	2

PRELIMINARY TEST IIB, 2020

YIELD RANK

Strain	Yield Rank	Urbana IL	West Lafayette IN	Williamston MI	Mead NE	Steven's Creek NE	Chatham ONT
IA2102 (II)	27	24	32	32	10	29	7
LD02-4485 (SCN)	6	12	22	2	23	13	4
U11-917032 (SCN) (E)	30	31	31	37	12	20	11
U14-910097 (SCN) (L)	1	2	4	9	17	2	6
A14004-126	9	15	12	15	4	9	17
A14035-53	25	20	24	35	1	19	31
A14037-61	23	33	24	30	2	15	24
A14037-69	22	17	20	22	24	24	23
A14037-134	20	18	14	23	29	14	25
A14037-143	29	30	9	14	6	32	35
A14039-47	17	13	7	36	26	23	3
A14039-58	21	14	15	34	33	33	2
A14039-72	11	5	8	26	14	16	10
A14039-100	16	11	6	21	15	28	20
A14039-114	7	8	3	29	18	10	8
A14039-126	24	22	26	25	11	12	32
A14040-99	35	32	36	19	16	26	34
A14042-68	2	3	5	13	9	3	13
A14044-136	4	20	11	1	5	25	5
A14044-161	10	27	2	11	8	27	12
A14044-188	8	5	21	5	25	4	28
A14046-68	3	23	1	18	3	11	1
A14047-145	14	25	10	28	19	7	26
E16915	19	10	17	7	36	22	18
E18012	32	5	29	31	31	17	36
E18015	28	28	15	24	22	35	9
E18024T	15	3	13	8	27	31	16
E18073	37	36	35	33	35	18	37
E18433	36	35	28	19	34	36	30
E18638T	34	34	34	27	13	34	22
HM17-08202	18	1	17	17	32	1	33
HM17-08203	12	9	17	12	30	5	27
HM17-09043	31	26	30	16	28	30	29
HM17-10253	26	29	37	6	20	21	19
HM17-12161	13	19	27	10	21	6	21
ORC 4019N	5	16	23	4	7	8	14
ORC 4219N	33	37	33	2	37		15

PRELIMINARY TEST IIB, 2020

MATURITY (date)

Strain	Mean 5 Tests	Urbana IL	West Lafayette IN	William- ston MI	Mead NE	Steven's Creek NE	Chatham ONT
IA2102 (II)	9/20	9/24	9/19	9/24	9/10	9/26	
LD02-4485 (SCN)	2	3	1	7	-4	4	
U11-917032 (SCN) (E)	-5	-4	-4	-4	-7	-7	
U14-910097 (SCN) (L)	7	8	9	6	6	9	
A14004-126	1	3	1	2	-2	3	
A14035-53	0	0	0	1	0	1	
A14037-61	2	1	2	5	1	3	
A14037-69	4	4	5	6	2	5	
A14037-134	4	5	6	2	2	4	
A14037-143	3	4	3	4	4	2	
A14039-47	0	2	1	-1	-4	2	
A14039-58	3	4	4	1	3	4	
A14039-72	5	5	5	3	4	7	
A14039-100	2	4	3	7	0	-1	
A14039-114	3	4	4	1	0	4	
A14039-126	2	2	1	1	1	4	
A14040-99	1	2	-1	1	-2	4	
A14042-68	6	7	7	7	0	9	
A14044-136	5	6	2	9	7	2	
A14044-161	3	6	2	6	1	1	
A14044-188	5	7	5	7	2	6	
A14046-68	2	4	4	1	-2	2	
A14047-145	2	3	4	2	-2	4	
E16915	5	5	5	8	1	5	
E18012	3	6	3	2	-2	5	
E18015	6	7	5	9	1	7	
E18024T	6	8	6	10	-1	5	
E18073	3	5	2	3	1	6	
E18433	2	4	3	3	-2	1	
E18638T	-2	-3	-1	-1	-2	-2	
HM17-08202	4	4	5	2	3	7	
HM17-08203	5	2	2	11	2	6	
HM17-09043	3	4	4	2	2	5	
HM17-10253	2	4	1	3	-1	4	
HM17-12161	6	4	5	9	6	6	
ORC 4019N	4	3	4	6	2	5	
ORC 4219N	-4	-2	-5	4	-8	-7	
Date Planted	5/29	6/1	6/2	5/24	5/20	6/9	
Days to Mature	114	115	109	123	113	109	

PRELIMINARY TEST IIB, 2020

LODGING (score)

Strain	Mean 4 Tests	Urbana IL	West Lafayette IN	William- ston MI	Mead NE	Steven's Creek NE	Chatham ONT
IA2102 (II)	2.4		2.0		3.0	3.0	1.5
LD02-4485 (SCN)	1.8		1.5		1.5	3.0	1.0
U11-917032 (SCN) (E)	1.3		1.5		1.0	1.5	1.0
U14-910097 (SCN) (L)	1.5		2.0		1.0	2.0	1.0
A14004-126	1.0		1.0		1.0	1.0	1.0
A14035-53	1.4		1.0		1.0	2.5	1.0
A14037-61	1.6		1.0		1.0	3.5	1.0
A14037-69	2.1		2.0		1.8	3.5	1.0
A14037-134	1.6		2.0		1.0	2.5	1.0
A14037-143	1.8		2.0		1.8	2.5	1.0
A14039-47	1.5		1.5		1.0	2.5	1.0
A14039-58	1.9		2.0		1.0	3.5	1.0
A14039-72	1.8		2.0		1.3	3.0	1.0
A14039-100	1.6		1.5		1.5	2.5	1.0
A14039-114	1.4		1.0		1.0	2.5	1.0
A14039-126	1.3		1.0		1.0	2.0	1.0
A14040-99	1.5		1.5		1.0	2.5	1.0
A14042-68	1.8		2.0		1.0	3.0	1.0
A14044-136	1.6		1.5		1.0	3.0	1.0
A14044-161	1.9		2.5		1.0	3.0	1.0
A14044-188	1.6		1.5		1.8	2.0	1.0
A14046-68	1.6		2.5		1.0	2.0	1.0
A14047-145	1.3		1.5		1.0	1.5	1.0
E16915	1.3		1.0		1.0	2.0	1.0
E18012	1.4		1.0		1.5	2.0	1.0
E18015	1.8		1.5		2.0	2.5	1.0
E18024T	1.6		1.5		2.8	1.0	1.0
E18073	1.6		1.5		1.5	2.5	1.0
E18433	2.5		2.0		3.3	3.0	1.5
E18638T	1.3		1.5		1.0	1.5	1.0
HM17-08202	2.1		2.0		2.3	3.0	1.0
HM17-08203	1.4		1.5		1.0	2.0	1.0
HM17-09043	1.9		1.5		2.0	3.0	1.0
HM17-10253	1.4		1.0		1.0	2.5	1.0
HM17-12161	1.4		1.0		1.5	2.0	1.0
ORC 4019N	1.3		1.0		1.0	2.0	1.0
ORC 4219N	1.3		1.5		1.0	1.0	1.5

PRELIMINARY TEST IIB, 2020

PLANT HEIGHT (inches)

Strain	Mean 4 Tests	Urbana IL	West Lafayette IN	William- ston MI	Mead NE	Steven's Creek NE	Chatham ONT
IA2102 (II)	36		34		40	33	39
LD02-4485 (SCN)	37		34		40	34	41
U11-917032 (SCN) (E)	34		30		37	30	39
U14-910097 (SCN) (L)	36		34		37	31	41
A14004-126	34		32		36	29	37
A14035-53	36		35		43	30	37
A14037-61	36		35		39	31	41
A14037-69	39		36		44	38	39
A14037-134	38		39		41	34	39
A14037-143	39		36		43	39	37
A14039-47	37		36		40	33	39
A14039-58	41		41		42	38	42
A14039-72	42		41		47	38	43
A14039-100	38		39		43	33	39
A14039-114	38		39		42	34	39
A14039-126	36		33		40	32	39
A14040-99	33		33		36	29	34
A14042-68	39		37		41	36	42
A14044-136	38		36		41	35	41
A14044-161	38		35		41	34	41
A14044-188	37		35		41	36	36
A14046-68	36		37		36	30	41
A14047-145	37		38		39	31	39
E16915	37		39		41	30	38
E18012	34		33		38	31	35
E18015	35		34		40	28	38
E18024T	37		37		40	33	39
E18073	39		39		40	36	41
E18433	39		36		41	33	45
E18638T	36		35		40	30	39
HM17-08202	37		37		42	33	37
HM17-08203	37		37		41	33	39
HM17-09043	40		36		44	37	43
HM17-10253	39		38		40	35	45
HM17-12161	39		36		43	35	41
ORC 4019N	37		37		40	32	39
ORC 4219N	36		37		36	27	45

PRELIMINARY TEST IIB, 2020

SEED SIZE (g/100)

Strain	Mean 6 Tests	Urbana IL	West Lafayette IN	William- ston MI	Mead NE	Steven's Creek NE	Chatham ONT
IA2102 (II)	15.1	15.6	14.4	14.6	13.3	16.5	16.5
LD02-4485 (SCN)	14.1	13.6	13.8	15.1	12.2	14.7	15.1
U11-917032 (SCN) (E)	14.6	13.2	13.7	14.5	13.4	15.7	17.2
U14-910097 (SCN) (L)	14.3	14.3	14.6	15.8	11.7	13.5	15.7
A14004-126	14.3	14.1	14.1	14.6	12.8	15.4	14.8
A14035-53	15.7	15.5	15.3	17.2	13.3	16.2	17.0
A14037-61	16.3	15.1	16.1	17.6	15.4	16.6	16.9
A14037-69	15.4	15.4	15.3	16.7	12.6	16.8	15.5
A14037-134	14.4	14.3	14.5	15.3	11.7	15.5	15.3
A14037-143	14.1	13.8	14.3	15.2	12.6	15.5	13.5
A14039-47	15.1	14.9	15.1	15.3	12.9	16.6	16.1
A14039-58	15.0	14.3	15.8	15.5	12.0	15.8	16.9
A14039-72	14.8	14.4	14.1	16.2	12.7	15.9	15.8
A14039-100	15.8	15.7	15.8	17.2	13.6	16.3	16.5
A14039-114	15.2	15.6	15.1	15.7	12.8	16.3	15.8
A14039-126	14.8	13.7	14.7	15.3	13.2	15.9	16.3
A14040-99	16.4	16.5	16.3	17.6	13.6	17.9	16.7
A14042-68	14.5	14.3	13.8	15.8	12.4	14.7	16.0
A14044-136	17.1	16.8	17.2	17.8	14.9	18.0	17.8
A14044-161	15.8	15.1	15.8	16.3	13.9	17.3	16.5
A14044-188	14.4	14.3	13.9	16.0	12.0	16.1	13.9
A14046-68	14.8	13.8	15.1	14.8	13.5	15.2	16.1
A14047-145	15.6	14.9	15.4	17.2	13.3	16.7	16.4
E16915	16.0	16.5	15.9	17.1	13.1	16.3	17.0
E18012	14.8	15.7	14.0	16.3	12.4	15.8	15.0
E18015	18.0	17.0	17.6	18.9	15.5	19.6	19.4
E18024T	17.0	16.9	16.7	18.5	14.6	17.5	17.6
E18073	16.4	16.0	16.7	17.8	14.6	16.2	17.3
E18433	15.2	14.6	14.4	16.3	12.6	17.1	16.3
E18638T	16.5	16.0	16.7	16.1	15.0	17.5	18.0
HM17-08202	16.3	15.4	16.2	19.0	13.7	17.2	16.3
HM17-08203	16.8	16.3	16.1	18.4	14.5	17.9	17.3
HM17-09043	13.8	13.0	13.5	15.9	11.6	14.2	14.9
HM17-10253	15.5	14.8	14.3	17.4	13.5	16.5	16.3
HM17-12161	15.8	15.6	15.6	18.0	12.7	15.9	17.3
ORC 4019N	16.9	17.0	17.0	18.2	14.9	17.1	17.1
ORC 4219N	19.2	16.9	19.8	22.1	17.4	16.3	22.5

PRELIMINARY TEST IIB, 2020

SEED QUALITY (score)

Strain	Mean 6 Tests	Urbana IL	West Lafayette IN	William- ston MI	Mead NE	Steven's Creek NE	Chatham ONT
IA2102 (II)	1.6	2.0	1.5	2.5	1.0	1.5	1.0
LD02-4485 (SCN)	1.5	3.0	1.0	2.0	1.0	1.0	1.0
U11-917032 (SCN) (E)	1.3	2.0	1.0	2.0	1.0	1.0	1.0
U14-910097 (SCN) (L)	1.3	2.0	1.0	1.5	1.0	1.0	1.0
A14004-126	1.3	2.0	1.0	2.0	1.0	1.0	1.0
A14035-53	1.7	3.0	1.0	3.0	1.0	1.0	1.0
A14037-61	1.5	3.0	1.0	2.0	1.0	1.0	1.0
A14037-69	1.3	2.0	1.0	2.0	1.0	1.0	1.0
A14037-134	1.3	2.0	1.0	1.5	1.0	1.0	1.0
A14037-143	1.3	2.0	1.0	2.0	1.0	1.0	1.0
A14039-47	1.3	2.0	1.0	1.5	1.0	1.0	1.0
A14039-58	1.3	2.0	1.0	2.0	1.0	1.0	1.0
A14039-72	1.6	3.0	1.0	2.5	1.0	1.0	1.0
A14039-100	1.3	2.0	1.0	1.5	1.0	1.0	1.0
A14039-114	1.3	2.0	1.0	2.0	1.0	1.0	1.0
A14039-126	1.3	2.0	1.0	2.0	1.0	1.0	1.0
A14040-99	1.3	2.0	1.0	2.0	1.0	1.0	1.0
A14042-68	1.3	2.0	1.0	2.0	1.0	1.0	1.0
A14044-136	1.4	2.0	2.0	1.5	1.0	1.0	1.0
A14044-161	1.3	2.0	1.0	1.5	1.0	1.0	1.0
A14044-188	1.3	2.0	1.0	2.0	1.0	1.0	1.0
A14046-68	1.7	3.0	1.0	3.0	1.0	1.0	1.0
A14047-145	1.4	2.0	1.0	2.5	1.0	1.0	1.0
E16915	1.3	2.0	1.0	2.0	1.0	1.0	1.0
E18012	1.3	2.0	1.0	2.0	1.0	1.0	1.0
E18015	1.3	2.0	1.0	1.5	1.0	1.0	1.0
E18024T	1.2	2.0	1.0	1.0	1.0	1.0	1.0
E18073	1.3	2.0	1.0	2.0	1.0	1.0	1.0
E18433	1.4	2.0	1.0	2.5	1.0	1.0	1.0
E18638T	1.5	3.0	1.0	2.0	1.0	1.0	1.0
HM17-08202	1.3	2.0	1.0	1.5	1.0	1.0	1.0
HM17-08203	1.1	1.0	1.0	1.5	1.0	1.0	1.0
HM17-09043	1.3	2.0	1.0	2.0	1.0	1.0	1.0
HM17-10253	1.3	2.0	1.0	2.0	1.0	1.0	1.0
HM17-12161	1.3	2.0	1.0	2.0	1.0	1.0	1.0
ORC 4019N	1.3	2.0	1.0	1.5	1.0	1.0	1.0
ORC 4219N	1.2	2.0	1.0	1.0	1.0	1.0	1.0

PRELIMINARY TEST IIB, 2020

PROTEIN (%)

Strain	Mean 6 Tests	Urbana IL	West Lafayette IN	William- ston MI	Mead NE	Steven's Creek NE	Chatham ONT
IA2102 (II)	33.7	33.9	32.7	32.7	33.6	35.4	34.1
LD02-4485 (SCN)	32.1	31.8	33.0	32.7	31.8	31.4	31.9
U11-917032 (SCN) (E)	32.4	32.3	34.3	31.6	31.9	31.5	32.6
U14-910097 (SCN) (L)	32.0	32.3	32.5	31.0	32.2	31.4	32.9
A14004-126	33.2	33.4	34.3	32.3	33.4	33.0	32.7
A14035-53	33.5	34.8	33.3	32.7	33.5	33.2	33.5
A14037-61	32.6	32.7	32.6	32.2	32.5	32.4	32.9
A14037-69	33.2	32.5	33.7	32.7	32.8	33.6	33.6
A14037-134	33.6	34.0	34.3	32.3	33.3	33.1	34.4
A14037-143	32.5	33.0	33.0	31.4	31.7	33.1	32.6
A14039-47	33.0	33.0	33.4	32.1	32.7	33.3	33.5
A14039-58	35.1	34.9	36.2	34.1	35.5	34.5	35.6
A14039-72	33.3	33.8	32.1	32.9	33.0	33.7	34.4
A14039-100	33.6	33.5	33.5	33.4	33.2	33.9	34.4
A14039-114	34.1	35.2	34.5	32.4	34.6	33.4	34.4
A14039-126	34.0	34.7	34.4	32.6	34.5	33.7	34.3
A14040-99	33.3	34.6	32.8	32.7	32.7	33.3	33.8
A14042-68	32.8	33.4	33.5	31.5	33.0	32.0	33.4
A14044-136	33.2	34.2	33.2	31.8	33.0	33.3	33.8
A14044-161	32.5	32.8	33.6	31.4	32.0	32.6	32.7
A14044-188	32.2	31.8	31.9	31.3	32.9	32.6	32.5
A14046-68	32.8	33.2	34.2	31.0	33.6	32.2	32.8
A14047-145	34.0	34.3	34.0	33.0	34.4	33.3	35.0
E16915	33.6	34.7	33.6	32.7	33.3	33.2	34.2
E18012	32.9	33.6	33.4	31.8	32.9	32.0	33.8
E18015	34.4	34.5	34.8	33.3	34.6	34.0	35.1
E18024T	35.6	35.8	36.4	34.7	34.7	36.2	35.7
E18073	33.4	33.3	34.0	32.8	33.2	32.0	34.9
E18433	33.6	34.3	33.6	32.3	34.1	32.9	34.2
E18638T	34.3	35.1	35.5	33.4	32.3	34.5	34.8
HM17-08202	32.0	31.4	32.0	30.5	33.6	31.7	32.5
HM17-08203	32.4	32.1	32.0	31.9	33.2	32.7	32.6
HM17-09043	33.1	33.0	33.6	32.6	33.4	32.6	33.5
HM17-10253	33.3	34.0	33.3	32.8	33.3	33.5	33.0
HM17-12161	33.0	33.4	33.7	32.6	32.4	31.9	34.0
ORC 4019N	33.6	34.4	34.3	32.0	33.5	33.8	33.6
ORC 4219N	36.6	37.1	37.6	35.5	37.1	36.0	36.1

PRELIMINARY TEST IIB, 2020

OIL (%)

Strain	Mean 6 Tests	Urbana IL	West Lafayette IN	William- ston MI	Mead NE	Steven's Creek NE	Chatham ONT
IA2102 (II)	19.3	19.5	20.6	19.2	19.9	19.0	17.6
LD02-4485 (SCN)	19.4	20.1	19.6	18.6	20.4	19.8	17.9
U11-917032 (SCN) (E)	20.4	21.1	20.4	20.1	20.8	20.5	19.2
U14-910097 (SCN) (L)	20.1	20.5	20.1	20.3	21.0	20.5	18.4
A14004-126	19.7	20.1	19.9	19.7	20.0	19.7	18.5
A14035-53	18.8	19.1	19.4	19.1	19.3	18.6	17.1
A14037-61	19.7	20.1	20.1	19.5	20.6	19.7	18.2
A14037-69	19.7	19.9	20.1	19.6	20.4	20.0	17.9
A14037-134	18.7	19.0	19.0	19.1	19.2	18.9	16.9
A14037-143	19.3	19.7	19.4	19.2	20.5	19.3	17.8
A14039-47	19.9	20.7	19.9	20.0	20.3	20.4	18.4
A14039-58	18.1	18.7	18.2	18.6	18.8	18.6	15.9
A14039-72	19.0	19.4	19.7	18.9	20.2	19.1	16.8
A14039-100	19.1	19.6	19.5	18.7	20.2	19.3	17.3
A14039-114	18.9	19.0	19.2	19.1	19.6	19.5	17.3
A14039-126	19.0	19.2	19.5	19.0	19.7	19.3	17.0
A14040-99	19.8	19.9	20.8	19.6	20.5	19.6	18.6
A14042-68	18.7	18.8	18.7	19.6	19.3	19.4	16.5
A14044-136	19.5	20.0	20.1	19.4	20.5	19.5	17.4
A14044-161	20.0	20.4	19.9	20.2	20.8	19.9	18.5
A14044-188	20.1	21.3	20.4	20.0	20.2	20.4	18.4
A14046-68	19.2	19.6	18.9	20.1	20.0	19.4	17.5
A14047-145	18.4	18.8	18.8	18.8	18.9	18.5	16.4
E16915	18.5	18.4	19.2	18.8	19.4	18.8	16.1
E18012	19.5	19.6	19.7	19.8	19.8	20.1	18.2
E18015	18.3	18.5	18.4	18.7	19.1	18.7	16.3
E18024T	17.8	18.1	18.1	18.1	19.0	17.4	16.4
E18073	20.1	20.4	20.5	20.0	20.7	20.7	18.0
E18433	19.8	20.0	20.6	19.8	20.0	20.3	18.3
E18638T	18.8	19.0	19.0	19.0	20.1	18.8	17.1
HM17-08202	20.3	21.2	21.3	20.1	20.3	20.5	18.6
HM17-08203	20.1	21.2	21.2	19.4	20.6	19.8	18.6
HM17-09043	18.6	19.3	19.3	17.7	19.4	18.9	17.2
HM17-10253	19.1	19.7	19.6	19.1	19.4	19.2	17.9
HM17-12161	18.9	19.8	19.0	18.2	20.1	19.2	16.9
ORC 4019N	19.3	19.4	19.5	19.7	20.1	19.0	18.0
ORC 4219N	18.2	18.1	18.5	18.4	19.1	18.4	16.9

**Northern Regional Uniform Test
Uniform Test III, 2020**

Ent.	Strain	Parentage	Seed Source	Previous Testing	Gen. Comp.	Unique Traits
1	LD11-2170 (III)	Syngenta 03JR313108 x LD05-3171	Diers	5	F5	SCN
2	U15-606207 (SCN)	LD07-3419 x U09-105007	Graef	2	F5	SCN (HR, HR), Rps
3	LD07-3395bf (SCN) (L)	LD07-3395 Reselection	Diers	5	F5	SCN
4	U14-910097 (SCN) (E)	U09-105007 x LD07-3419	Graef	2	F6	Ex Rps Resist
5	CR15-1385	4J10534 x LD06-7620	Rainey	1	F5	SCN
6	CR15-2775	LS07-1343 x PI556909	Rainey	1	F5	Ex PVP
7	CR16-0035	CL05-3314 x KB10-22-1	Rainey	PTIIIB	F6	SCN
8	CR16-0042	LG05-4832 x R05-4114-1	Rainey	PTIIIB	F6	
9	CR16-0067	LG09-7871 x LG09-7256	Rainey	PTIIIB	F6	
10	LD15-1477	WN0902577 x LD07-4477	Diers	SCN UTIII	F5	SCN, Rps1k
11	LD15-6762	WN0902577 x SD08CV-2102	Diers	1	F5	SCN
12	LD16-2751	LD08- 1592 x LD10-9434	Diers	PTIIIA	F5	SCN
13	LD16-6787	LD07-3419 x LD10-10226	Diers	SCN UTIII	F5	SCN
14	LD16-6886	LD07-3419 x LD10-10226	Diers	SCN UTIII	F5	SCN
15	LD16-7669	LD07-3395bf x U09-133021	Diers	SCN UTIII	F5	SCN
16	LG15-4491	LG06-2354 x LG08-4955	Walker	PTIIIA	F6	Genetic diversity
17	LG16-2547	LD02-4485 x LG07-2309	Walker	PTIIIA	F6	Genetic diversity
18	LG16-3733	LG09-8165 x HI0800685	Walker	PTIIIA	F6	Genetic diversity
19	LG17-5674	LG09-8165 x WN0800527	Walker	PTIIIA	F6	Genetic diversity
20	SA14-9653	LD07-4477 x LD02-9050	Scaboo	2	F4	
21	SA16-11831	SA12-1530 x LD11-10927	Scaboo	PTIIIA	F5	
22	SA16-12014	SA12-1530 x LD10-2477	Scaboo	PTIIIA	F5	SCN
23	SA16-12472	LS09-1803 x LD09-10911	Scaboo	PTIIIA	F5	
24	SA16-2194	U11-616086 x A12-961044	Scaboo	PTIIIA	F5	SCN
25	SA16-30116	LG04-6000 x AR09-391017	Scaboo	PTIIIA	F5	
26	U15-322139	U09-312115 x U11-614093	Graef	1	F5	Rps1k
27	U15-322140	U09-312115 x U11-614093	Graef	1	F5	Rps1k
28	U16-322148	U11-614093 x U13-602106	Graef	PTIIB		Rps1k
29	U16-322178	U11-614093 x U13-602106	Graef	PTIIB		Rps1k
30	U16-323153	U11-614093 x U13-602106	Graef	PTIIIB		Rps1k
31	U16-323177	U11-614093 x U13-602106	Graef	PTIIIB		Rps1k
32	U16-324137	U11-919011 x U11-614093	Graef	PTIIB		SCN(LR,LR), Seg Rps1k
33	U16-324189	U11-614093 x U13-602106	Graef	PTIIIB		Rps1k
34	U16-325193	U11-919011 x U11-614093	Graef	PTIIIB		SCN(LR,NR), Rps1k
35	U16-902058	U11-919011 x U11-614093	Graef	1	F5	SCN, Rps1k
36	U16-928123	U11-410122 x U11-614093	Graef	1	F5	Rps1k
37	U17-603165	U14-919098 x U13-131132	Graef	PTIIIB		Rps1k
38	U17-606129	U13-228304 x U13-220427	Graef	PTIIIB		Rps
39	U17-608196	U14-919098 x U13-212431	Graef	PTIIIB		Rps1k

UNIFORM TEST III, 2020
DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code
LD11-2170 (III)	PLtBDYBrI
U15-606207 (SCN)	PGTDYBfI
LD07-3395bf (SCN) (L)	WGTDYBfI
U14-910097 (SCN) (E)	PGTDYBfI
CR15-1385	WLtBDYBI
CR15-2775	PTB+TSYHI
CR16-0035	WLtBDYBI
CR16-0042	PGBDYIbI
CR16-0067	PLtBSYBI
LD15-1477	WLtTDYBrI
LD15-6762	PGTDYBfI
LD16-2751	PGBDYIbI
LD16-6787	WGBDYIYI
LD16-6886	PGBDYHI
LD16-7669	PT+GBSYHI
LG15-4491	PLtBSYBI
LG16-2547	PGBDYIbI
LG16-3733	PTBDYBI
LG17-5674	PLt+GTDYHI
SA14-9653	PTBSYBI
SA16-11831	PLtTDYBI
SA16-12014	WGBSYIYI
SA16-12472	PGTSYIbI
SA16-2194	WTTDYBrI
SA16-30116	WLtTDYBI
U15-322139	PLtBDYBI
U15-322140	PLtBDYBI
U16-322148	PLtBSYBI
U16-322178	PLtBDYBI
U16-323153	PTBSYBI
U16-323177	PLtBSYBI
U16-324137	PLtBDYBI
U16-324189	PLtBSYBI
U16-325193	PTBDYBI
U16-902058	PLtBDYBI
U16-928123	WLtBDYBI
U17-603165	PGBDYIbI
U17-606129	PTBSYBI
U17-608196	PTBDYBI

UNIFORM TEST III, 2020

REGIONAL SUMMARY

No. of Tests Strain	Yield 9 bu/a	Rank 9 No.	Maturity 8 Date	Lodging 7 Score	Plant Height 6 In.	Seed Size 8 g/100	Seed Quality 8 Score	Composition	
								Protein 8 %	Oil 8 %
LD11-2170 (III)	69.6	5	9/27	1.1	33	15.3	1.3	33.2	20.3
U15-606207 (SCN)	64.5	26	2.3	1.2	33	15.0	1.4	32.1	20.3
LD07-3395bf (SCN) (L)	69.2	8	5.5	1.4	33	15.1	1.4	31.8	20.4
U14-910097 (SCN) (E)	69.4	6	-0.1	2.2	32	14.2	1.4	32.2	20.5
CR15-1385	68.8	10	5.1	1.5	38	13.1	1.6	33.1	19.0
CR15-2775	57.8	39	-1.8	1.8	35	17.5	1.4	33.2	19.8
CR16-0035	59.3	38	3.2	1.6	36	15.7	1.5	35.6	18.5
CR16-0042	63.0	32	2.9	1.7	38	15.8	1.5	33.3	18.8
CR16-0067	62.8	34	-1.3	1.8	38	13.2	1.4	33.2	19.0
LD15-1477	63.6	30	0.1	1.3	36	13.9	1.3	34.5	19.4
LD15-6762	60.6	36	2.5	1.4	35	15.1	1.3	34.2	19.6
LD16-2751	63.8	29	0.5	1.4	35	14.9	1.4	34.4	19.1
LD16-6787	69.4	7	4.0	1.1	35	14.8	1.3	33.9	18.6
LD16-6886	63.6	31	0.5	1.1	32	16.7	1.3	32.0	20.6
LD16-7669	67.4	14	3.7	1.2	38	12.8	1.5	33.1	19.4
LG15-4491	64.9	24	-1.4	1.3	39	15.7	1.4	33.9	18.8
LG16-2547	65.2	23	5.4	2.0	39	13.5	1.3	33.0	19.1
LG16-3733	68.6	11	0.9	1.1	35	15.6	1.3	33.9	19.1
LG17-5674	66.8	19	3.5	1.9	39	15.2	1.6	32.4	19.5
SA14-9653	66.9	17	4.7	1.6	38	16.2	1.4	34.6	18.9
SA16-11831	64.5	25	3.1	1.9	39	14.5	1.3	34.8	18.4
SA16-12014	66.2	21	2.5	2.4	39	13.9	1.5	34.7	18.0
SA16-12472	62.6	35	2.8	1.5	34	14.9	1.6	33.4	18.7
SA16-2194	64.0	28	3.7	1.5	34	13.9	1.5	33.6	19.6
SA16-30116	60.5	37	3.6	1.8	41	13.0	1.4	33.9	18.5
U15-322139	69.9	4	1.6	1.4	37	15.8	1.3	32.2	20.0
U15-322140	67.9	13	3.9	1.2	34	13.9	1.6	32.6	19.8
U16-322148	67.0	16	1.1	1.3	36	13.5	1.4	32.8	20.1
U16-322178	67.2	15	-0.8	1.4	36	14.8	1.4	32.5	20.6
U16-323153	71.7	3	6.8	1.4	38	13.7	1.1	32.5	20.0
U16-323177	71.7	2	0.8	1.4	36	13.5	1.4	32.6	19.9
U16-324137	65.2	22	0.2	1.1	32	15.5	1.5	33.3	20.1
U16-324189	72.0	1	2.1	1.6	38	14.1	1.6	32.1	20.3
U16-325193	66.9	18	-0.7	1.1	32	15.3	1.4	33.6	20.0
U16-902058	68.8	9	-0.6	1.2	36	15.1	1.5	32.8	19.6
U16-928123	66.6	20	-0.5	1.2	35	15.6	1.4	33.3	19.7
U17-603165	64.2	27	-1.5	1.2	35	13.9	1.4	32.5	19.5
U17-606129	68.0	12	1.6	1.5	38	13.7	1.5	33.8	19.1
U17-608196	63.0	33	0.8	1.4	39	14.3	1.5	33.0	19.7
Mean	66.0			1.5	36.0	14.7	1.4	33.3	19.5
C.V. (%)	11.0								
L.S.D. (5%)	3.8								

119.3 Days After Planting

UNIFORM TEST III, 2020

2019-2020 2-YEAR MEAN

No. of Tests Strain	Yield 18 bu/a	Rank 18 No.	Maturity 18 Date	Lodging 17 Score	Plant Height 16 In.	Seed Size 18 g/100	Seed Quality 18 Score	Composition	
								Protein 13 %	Oil 13 %
LD11-2170 (III)	68.3	1	9/30	1.2	31	15.9	1.4	33.9	20.2
U15-606207 (SCN)	64.5	10	2.3	1.3	32	15.5	1.4	32.6	20.1
LD07-3395bf (SCN) (L)	67.4	5	5.3	1.3	31	16.0	1.5	32.4	20.3
U14-910097 (SCN) (E)	68.1	2	0.2	2.0	31	15.3	1.5	32.9	20.4
CR15-1385	66.4	8	5.4	1.4	35	14.4	1.6	33.5	18.9
CR15-2775	57.7	12	-0.2	1.6	33	18.5	1.5	33.5	19.8
LD15-6762	64.2	11	2.2	1.5	34	15.9	1.4	34.7	19.6
SA14-9653	68.1	3	5.1	1.7	36	17.0	1.5	35.1	18.8
U15-322139	67.2	6	2.5	1.3	35	16.1	1.4	32.7	20.0
U15-322140	67.7	4	4.0	1.2	32	14.7	1.6	33.2	19.7
U16-902058	66.7	7	0.2	1.3	34	15.8	1.6	33.2	19.5
U16-928123	66.1	9	0.9	1.2	34	16.1	1.5	33.6	19.6

121.3 Days After Planting

2018-2020 3-YEAR MEAN

No. of Tests Strain	30	30	30	30	28	26	26	19	19
LD11-2170 (III)	71.3	1	6/30	1.3	33	15.6	1.5	33.8	20.2
U15-606207 (SCN)	68.6	3	2.4	1.3	33	15.4	1.5	32.5	20.1
LD07-3395bf (SCN) (L)	68.4	4	5.4	1.5	33	15.6	1.6	32.4	20.3
U14-910097 (SCN) (E)	68.8	2	-1.2	1.9	32	15.4	1.6	32.3	20.5
SA14-9653	68.4	5	5.7	1.8	38	16.7	1.5	35.0	19.0

121.9 Days After Planting

UNIFORM TEST III, 2020

YIELD (bu/a)

Strain	Mean 9 Tests	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Man- hattan KS
LD11-2170 (III)	69.6	91.3	49.0	85.6	41.1	70.9	73.7
U15-606207 (SCN)	64.5	65.0	44.3	84.4	44.0	67.3	74.6
LD07-3395bf (SCN) (L)	69.2	73.5	45.1	77.4	49.7	79.2	78.8
U14-910097 (SCN) (E)	69.4	81.8	50.0	74.1	46.8	71.2	77.3
CR15-1385	68.8	81.2	50.4	93.0	51.0	64.1	72.3
CR15-2775	57.8	71.9	39.8	60.8	42.0	57.0	59.1
CR16-0035	59.3	67.4	40.6	78.9	43.3	62.6	63.7
CR16-0042	63.0	80.4	48.1	84.8	44.6	54.1	66.0
CR16-0067	62.8	61.5	42.2	89.6	46.4	66.0	63.0
LD15-1477	63.6	69.5	42.5	90.1	40.7	64.2	66.7
LD15-6762	60.6	69.7	45.4	78.7	44.1	56.8	80.7
LD16-2751	63.8	80.0	49.9	70.9	40.1	60.4	72.6
LD16-6787	69.4	93.5	45.7	83.6	47.3	72.4	74.0
LD16-6886	63.6	67.7	44.0	84.1	48.5	60.9	74.7
LD16-7669	67.4	77.7	45.9	82.3	50.4	74.0	73.4
LG15-4491	64.9	71.2	45.8	85.0	46.5	72.1	69.3
LG16-2547	65.2	71.5	46.1	81.0	41.9	62.6	69.3
LG16-3733	68.6	61.1	49.9	94.0	47.6	79.6	71.6
LG17-5674	66.8	81.5	48.8	85.0	49.2	75.1	72.1
SA14-9653	66.9	87.6	42.9	74.7	43.9	70.1	78.0
SA16-11831	64.5	82.2	36.3	83.6	50.8	60.8	65.8
SA16-12014	66.2	85.7	45.7	76.1	45.8	69.1	68.5
SA16-12472	62.6	80.4	45.0	72.6	47.1	49.1	71.3
SA16-2194	64.0	76.3	43.7	74.9	47.5	63.2	68.4
SA16-30116	60.5	71.5	37.8	62.4	40.4	60.2	69.8
U15-322139	69.9	94.1	51.9	81.5	46.8	71.6	70.9
U15-322140	67.9	84.1	46.7	70.9	47.5	65.6	72.9
U16-322148	67.0	73.0	43.6	83.3	55.0	62.7	65.5
U16-322178	67.2	77.6	41.9	83.3	47.7	72.1	72.1
U16-323153	71.7	89.4	50.6	86.0	51.3	71.4	68.7
U16-323177	71.7	77.1	51.3	93.6	48.0	81.4	74.7
U16-324137	65.2	84.6	48.0	75.1	47.2	58.8	71.3
U16-324189	72.0	86.9	48.1	95.1	48.2	73.6	70.4
U16-325193	66.9	68.5	44.8	78.4	44.0	66.6	71.3
U16-902058	68.8	79.0	46.0	88.0	47.3	75.4	71.2
U16-928123	66.6	78.0	50.7	76.1	47.3	62.4	71.4
U17-603165	64.2	68.8	46.8	78.7	42.7	56.3	71.1
U17-606129	68.0	71.5	51.0	86.3	43.0	71.9	67.7
U17-608196	63.0	64.2	50.5	63.9	42.5	64.8	66.0
Location Mean		76.9	46.0	80.7	46.1	66.6	70.8
C.V. (%)		12.5	11.1	12.1	6.9	11.0	7.9
L.S.D. (5%)		19.5	10.4	19.8	6.4	14.8	9.2
Row Sp. (In.)		30	30	30	30	30	30
Rows/Plot		4	4	2	4	4	4
Reps		2	2	2	2	2	3

UNIFORM TEST III, 2020

YIELD (bu/a)

Strain	Colum- bia MO	Hold- rege NE	Steven's Creek NE
LD11-2170 (III)	54.9	82.2	77.4
U15-606207 (SCN)	50.4	88.6	61.8
LD07-3395bf (SCN) (L)	63.8	86.0	69.6
U14-910097 (SCN) (E)	63.3	83.1	77.1
CR15-1385	57.5	78.2	71.4
CR15-2775	54.3	78.0	57.0
CR16-0035	50.1	68.5	58.5
CR16-0042	53.9	76.3	58.7
CR16-0067	56.0	78.0	62.2
LD15-1477	48.5	69.1	81.6
LD15-6762	41.6	68.1	
LD16-2751	54.9	72.4	72.7
LD16-6787	60.6	76.6	70.7
LD16-6886	57.3	65.4	69.9
LD16-7669	62.3	66.9	73.9
LG15-4491	47.6	76.5	69.9
LG16-2547	59.7	86.0	68.6
LG16-3733	62.9	77.1	73.9
LG17-5674	49.3	74.8	65.8
SA14-9653	52.2	76.2	76.4
SA16-11831	49.5	80.9	71.1
SA16-12014	56.1	68.5	80.3
SA16-12472	59.6	72.3	65.9
SA16-2194	50.1	78.6	73.1
SA16-30116	62.8	70.8	69.0
U15-322139	58.8	73.1	80.5
U15-322140	58.9	80.6	83.9
U16-322148	53.6	82.7	83.7
U16-322178	58.5	74.8	76.7
U16-323153	65.1	81.5	81.4
U16-323177	61.8	79.4	78.3
U16-324137	57.3	66.5	78.3
U16-324189	61.0	82.9	81.8
U16-325193	61.6	87.9	78.6
U16-902058	57.7	81.1	73.6
U16-928123	59.1	81.3	73.3
U17-603165	50.2	85.4	77.5
U17-606129	65.2	82.2	73.4
U17-608196	60.5	75.6	78.9
Location Mean	56.6	77.3	73.1
C.V. (%)	9.9	7.7	8.1
L.S.D. (5%)	9.1	15.0	15.3
Row Sp. (In.)	30	30	30
Rows/Plot	4	4	4
Reps	3	2	2

UNIFORM TEST III, 2020

YIELD RANK

Strain	Yield Rank	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Manhattan KS
LD11-2170 (III)	5	3	11	10	36	15	9
U15-606207 (SCN)	26	36	28	14	27	18	7
LD07-3395bf (SCN) (L)	8	23	25	27	6	3	2
U14-910097 (SCN) (E)	6	11	8	33	20	14	4
CR15-1385	10	13	7	4	3	24	13
CR15-2775	39	25	37	39	34	35	39
CR16-0035	38	35	36	23	30	27	37
CR16-0042	32	14	13	13	25	38	33
CR16-0067	34	38	34	6	23	20	38
LD15-1477	30	31	33	5	37	23	32
LD15-6762	36	30	24	25	26	36	1
LD16-2751	29	16	9	36	39	32	12
LD16-6787	7	2	22	17	15	8	8
LD16-6886	31	34	29	15	8	30	5
LD16-7669	14	19	20	20	5	6	10
LG15-4491	24	29	21	12	22	9	26
LG16-2547	23	26	18	22	35	27	26
LG16-3733	11	39	9	2	12	2	16
LG17-5674	19	12	12	11	7	5	14
SA14-9653	17	5	32	32	29	16	3
SA16-11831	25	10	39	16	4	31	35
SA16-12014	21	7	22	29	24	17	29
SA16-12472	35	14	26	34	19	39	18
SA16-2194	28	22	30	31	13	25	30
SA16-30116	37	26	38	38	38	33	25
U15-322139	4	1	1	21	20	12	23
U15-322140	13	9	17	35	13	21	11
U16-322148	16	24	31	19	1	26	36
U16-322178	15	20	35	18	11	9	14
U16-323153	3	4	5	9	2	13	28
U16-323177	2	21	2	3	10	1	5
U16-324137	22	8	15	30	18	34	18
U16-324189	1	6	13	1	9	7	24
U16-325193	18	33	27	26	27	19	18
U16-902058	9	17	19	7	15	4	21
U16-928123	20	18	4	28	15	29	17
U17-603165	27	32	16	24	32	37	22
U17-606129	12	26	3	8	31	11	31
U17-608196	33	37	6	37	33	22	33

UNIFORM TEST III, 2020

YIELD RANK

Strain	Colum- bia MO	Hold- rege NE	Steven's Creek NE
LD11-2170 (III)	25	9	13
U15-606207 (SCN)	31	1	35
LD07-3395bf (SCN) (L)	3	3	29
U14-910097 (SCN) (E)	4	6	14
CR15-1385	20	18	24
CR15-2775	27	19	38
CR16-0035	33	34	37
CR16-0042	28	24	36
CR16-0067	24	19	34
LD15-1477	37	33	4
LD15-6762	39	36	
LD16-2751	25	30	23
LD16-6787	11	22	26
LD16-6886	21	39	27
LD16-7669	7	37	17
LG15-4491	38	23	28
LG16-2547	13	3	31
LG16-3733	5	21	18
LG17-5674	36	27	33
SA14-9653	30	25	16
SA16-11831	35	14	25
SA16-12014	23	34	7
SA16-12472	14	31	32
SA16-2194	34	17	22
SA16-30116	6	32	30
U15-322139	17	29	6
U15-322140	16	15	1
U16-322148	29	8	2
U16-322178	18	27	15
U16-323153	2	11	5
U16-323177	8	16	11
U16-324137	22	38	10
U16-324189	10	7	3
U16-325193	9	2	9
U16-902058	19	13	19
U16-928123	15	12	21
U17-603165	32	5	12
U17-606129	1	9	20
U17-608196	12	26	8

UNIFORM TEST III, 2020

MATURITY (date)

Strain	Mean 8 Tests	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Man- hattan KS
LD11-2170 (III)	9/27	9/23	9/30	9/29	9/19	9/28	9/24
U15-606207 (SCN)	2.3	-3	5	1	4	2	6
LD07-3395bf (SCN) (L)	5.5	4	10	4	8	5	7
U14-910097 (SCN) (E)	-0.1	1	3	-7	3	0	0
CR15-1385	5.1	5	8	5	7	4	8
CR15-2775	-1.8	-5	2	-8	-1	-2	0
CR16-0035	3.2	1	5	5	8	2	2
CR16-0042	2.9	2	5	2	7	2	0
CR16-0067	-1.3	-6	-2	-5	3	-1	0
LD15-1477	0.1	-2	1	2	1	-2	0
LD15-6762	2.5	1	3	4	6	3	2
LD16-2751	0.5	-1	3	-2	1	2	0
LD16-6787	4.0	3	7	-2	7	4	8
LD16-6886	0.5	-5	5	-1	2	0	0
LD16-7669	3.7	3	7	6	4	2	2
LG15-4491	-1.4	-3	0	-6	1	1	0
LG16-2547	5.4	3	7	8	10	4	4
LG16-3733	0.9	-2	4	-8	7	3	0
LG17-5674	3.5	3	4	3	3	5	5
SA14-9653	4.7	4	8	1	7	5	8
SA16-11831	3.1	3	1	4	6	3	2
SA16-12014	2.5	3	6	-4	5	3	4
SA16-12472	2.8	2	8	-6	8	4	0
SA16-2194	3.7	1	7	5	8	2	2
SA16-30116	3.6	0	7	-2	9	5	4
U15-322139	1.6	-1	5	-1	5	1	0
U15-322140	3.9	4	7	4	7	3	1
U16-322148	1.1	1	4	-5	5	-1	0
U16-322178	-0.8	-3	1	-3	2	-3	0
U16-323153	6.8	6	9	8	9	5	7
U16-323177	0.8	0	4	-6	4	1	1
U16-324137	0.2	-4	-2	1	0	-1	6
U16-324189	2.1	3	2	2	3	-2	1
U16-325193	-0.7	-4	-1	-3	-1	1	0
U16-902058	-0.6	-5	1	0	-1	-2	0
U16-928123	-0.5	-4	1	-2	0	-1	0
U17-603165	-1.5	-6	-2	0	1	-5	0
U17-606129	1.6	1	5	3	1	2	0
U17-608196	0.8	-3	5	-2	5	1	0
Date Planted	5/31	5/12	6/1	5/27	6/1	6/2	6/8
Days to Mature	119	134	121	125	110	118	108

UNIFORM TEST III, 2020

MATURITY (date)

Strain	Colum- bia MO	Hold- rege NE	Steven's Creek NE
LD11-2170 (III)	9/30		10/6
U15-606207 (SCN)	2		1
LD07-3395bf (SCN) (L)	5		2
U14-910097 (SCN) (E)	1		-1
CR15-1385	3		3
CR15-2775	0		-2
CR16-0035	4		1
CR16-0042	3		3
CR16-0067	1		-1
LD15-1477	1		0
LD15-6762	1		2
LD16-2751	-0		1
LD16-6787	3		3
LD16-6886	4		-1
LD16-7669	5		1
LG15-4491	-1		-2
LG16-2547	4		4
LG16-3733	1		2
LG17-5674	2		4
SA14-9653	3		4
SA16-11831	4		3
SA16-12014	3		1
SA16-12472	5		2
SA16-2194	2		3
SA16-30116	2		4
U15-322139	2		2
U15-322140	3		4
U16-322148	3		2
U16-322178	-1		0
U16-323153	6		5
U16-323177	1		2
U16-324137	-1		1
U16-324189	3		4
U16-325193	0		1
U16-902058	0		1
U16-928123	0		1
U17-603165	-1		1
U17-606129	0		2
U17-608196	-1		2
Date Planted	6/3		6/9
Days to Mature	119		119

UNIFORM TEST III, 2020

LODGING (score)

Strain	Mean 7 Tests	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Man- hattan KS
LD11-2170 (III)	1.1	1.0		1.0	1.0	1.5	1.0
U15-606207 (SCN)	1.2	1.5		1.0	1.0	1.5	1.0
LD07-3395bf (SCN) (L)	1.4	1.8		1.0	1.5	2.0	1.0
U14-910097 (SCN) (E)	2.2	3.0		2.5	2.0	2.0	2.0
CR15-1385	1.5	1.8		1.0	3.0	1.0	1.3
CR15-2775	1.8	3.0		2.0	2.0	1.0	1.7
CR16-0035	1.6	2.0		1.0	2.0	1.5	1.0
CR16-0042	1.7	2.0		1.5	2.5	1.5	2.0
CR16-0067	1.8	1.8		1.0	2.0	2.0	1.0
LD15-1477	1.3	1.3		1.0	1.5	1.0	1.0
LD15-6762	1.4	2.0		1.5	2.0	1.0	1.0
LD16-2751	1.4	1.8		1.0	2.0	1.0	1.3
LD16-6787	1.1	1.0		1.0	1.5	1.0	1.0
LD16-6886	1.1	1.0		1.0	1.0	1.0	1.0
LD16-7669	1.2	1.8		1.0	1.0	1.0	1.0
LG15-4491	1.3	1.8		1.0	1.5	1.0	1.0
LG16-2547	2.0	3.0		1.0	3.0	2.0	1.7
LG16-3733	1.1	1.3		1.0	1.0	1.0	1.0
LG17-5674	1.9	3.0		1.5	2.0	2.0	2.0
SA14-9653	1.6	2.5		1.5	2.0	1.5	1.3
SA16-11831	1.9	3.0		1.5	3.0	1.5	2.0
SA16-12014	2.4	3.5		3.0	3.0	2.0	2.0
SA16-12472	1.5	3.0		1.0	2.0	1.0	1.3
SA16-2194	1.5	1.8		1.5	2.0	1.0	1.0
SA16-30116	1.8	3.0		2.0	2.0	1.5	1.7
U15-322139	1.4	1.8		1.0	2.0	1.5	1.0
U15-322140	1.2	2.0		1.0	1.0	1.0	1.0
U16-322148	1.3	2.5		1.0	1.5	1.0	1.0
U16-322178	1.4	1.8		1.0	1.5	1.0	1.7
U16-323153	1.4	2.5		1.0	1.5	1.0	1.0
U16-323177	1.4	2.0		1.0	2.0	1.5	1.0
U16-324137	1.1	1.0		2.0	1.0	1.0	1.0
U16-324189	1.6	2.8		1.0	2.0	1.5	1.7
U16-325193	1.1	1.5		1.0	1.0	1.0	1.0
U16-902058	1.2	1.5		1.0	1.5	1.0	1.0
U16-928123	1.2	1.0		1.0	1.5	1.0	1.0
U17-603165	1.2	1.3		1.0	1.5	1.0	1.0
U17-606129	1.5	2.3		1.0	1.5	1.0	1.7
U17-608196	1.4	1.8		1.5	2.0	1.0	1.3

UNIFORM TEST III, 2020

LODGING (score)

Strain	Colum- bia MO	Hold- rege NE	Steven's Creek NE
LD11-2170 (III)	1.5		1.0
U15-606207 (SCN)	1.5		1.0
LD07-3395bf (SCN) (L)	1.5		1.0
U14-910097 (SCN) (E)	1.5		2.5
CR15-1385	1.5		1.0
CR15-2775	1.5		1.5
CR16-0035	1.7		2.0
CR16-0042	1.5		1.0
CR16-0067	1.5		3.0
LD15-1477	1.5		2.0
LD15-6762	1.5		1.0
LD16-2751	1.3		1.5
LD16-6787	1.3		1.0
LD16-6886	1.5		1.0
LD16-7669	1.5		1.0
LG15-4491	1.7		1.0
LG16-2547	1.5		1.5
LG16-3733	1.5		1.0
LG17-5674	1.5		1.0
SA14-9653	1.7		1.0
SA16-11831	1.3		1.0
SA16-12014	1.5		2.0
SA16-12472	1.5		1.0
SA16-2194	1.5		1.5
SA16-30116	1.5		1.0
U15-322139	1.5		1.0
U15-322140	1.3		1.0
U16-322148	1.3		1.0
U16-322178	1.5		1.5
U16-323153	1.5		1.0
U16-323177	1.5		1.0
U16-324137	1.0		1.0
U16-324189	1.5		1.0
U16-325193	1.2		1.0
U16-902058	1.5		1.0
U16-928123	1.5		1.5
U17-603165	1.3		1.0
U17-606129	1.3		1.5
U17-608196	1.5		1.0

UNIFORM TEST III, 2020

PLANT HEIGHT (inches)

Strain	Mean 6 Tests	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Man- hattan KS
LD11-2170 (III)	32.7	41			28	32	38
U15-606207 (SCN)	33.0	40			30	33	38
LD07-3395bf (SCN) (L)	33.0	37			29	36	40
U14-910097 (SCN) (E)	32.2	38			29	33	37
CR15-1385	37.6	42			36	39	42
CR15-2775	34.8	41			32	33	39
CR16-0035	36.3	42			33	37	41
CR16-0042	38.0	46			36	40	43
CR16-0067	38.5	45			38	41	43
LD15-1477	36.5	44			36	35	42
LD15-6762	34.8	42			34	33	41
LD16-2751	34.9	41			33	34	42
LD16-6787	34.7	44			31	34	39
LD16-6886	31.6	35			31	31	35
LD16-7669	37.8	43			35	40	42
LG15-4491	38.9	48			35	39	46
LG16-2547	39.1	45			36	42	44
LG16-3733	34.8	41			32	38	39
LG17-5674	38.7	43			37	39	47
SA14-9653	37.9	45			36	37	43
SA16-11831	38.7	45			37	41	44
SA16-12014	39.1	45			38	39	45
SA16-12472	34.4	42			32	33	38
SA16-2194	34.3	40			33	36	39
SA16-30116	41.3	49			37	41	47
U15-322139	37.3	47			34	38	42
U15-322140	33.6	41			31	33	40
U16-322148	36.0	41			33	36	42
U16-322178	35.6	40			33	37	41
U16-323153	38.1	46			35	38	44
U16-323177	36.5	43			33	38	43
U16-324137	31.5	37			28	30	38
U16-324189	37.7	45			34	40	43
U16-325193	31.6	38			28	30	38
U16-902058	35.9	41			31	37	42
U16-928123	35.3	42			33	36	40
U17-603165	34.6	41			31	37	40
U17-606129	38.2	47			36	40	43
U17-608196	38.7	45			34	38	46

UNIFORM TEST III, 2020

PLANT HEIGHT (inches)

Strain	Colum- bia MO	Hold- rege NE	Steven's Creek NE
LD11-2170 (III)	26		33
U15-606207 (SCN)	25		33
LD07-3395bf (SCN) (L)	25		32
U14-910097 (SCN) (E)	25		32
CR15-1385	27		41
CR15-2775	28		36
CR16-0035	27		38
CR16-0042	29		35
CR16-0067	30		35
LD15-1477	26		37
LD15-6762	25		35
LD16-2751	27		34
LD16-6787	27		34
LD16-6886	24		33
LD16-7669	28		39
LG15-4491	28		39
LG16-2547	30		39
LG16-3733	25		34
LG17-5674	26		41
SA14-9653	27		40
SA16-11831	27		40
SA16-12014	30		39
SA16-12472	27		36
SA16-2194	25		34
SA16-30116	34		41
U15-322139	29		36
U15-322140	23		34
U16-322148	27		38
U16-322178	27		36
U16-323153	27		39
U16-323177	26		36
U16-324137	23		35
U16-324189	28		38
U16-325193	23		33
U16-902058	27		37
U16-928123	26		36
U17-603165	26		34
U17-606129	29		36
U17-608196	31		39

UNIFORM TEST III, 2020

SEED SIZE (g/100)

Strain	Mean 8 Tests	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Man- hattan KS
LD11-2170 (III)	15.3	15.9	14.7		12.1	15.3	15.0
U15-606207 (SCN)	15.0	13.6	14.8		12.7	14.9	16.0
LD07-3395bf (SCN) (L)	15.1	14.7	14.3		13.1	16.6	15.0
U14-910097 (SCN) (E)	14.2	14.5	14.4		11.6	14.3	14.0
CR15-1385	13.1	13.3	13.2		11.2	12.8	13.0
CR15-2775	17.5	17.0	16.0		13.9	17.7	19.0
CR16-0035	15.7	15.6	14.8		13.4	15.8	17.0
CR16-0042	15.8	16.4	14.5		12.2	15.6	18.0
CR16-0067	13.2	12.0	12.7		11.4	14.0	12.0
LD15-1477	13.9	12.9	14.1		11.0	14.2	14.0
LD15-6762	15.1	15.2	14.9		11.8	15.2	15.0
LD16-2751	14.9	15.1	14.8		11.1	14.5	16.0
LD16-6787	14.8	15.8	14.1		12.7	14.7	16.0
LD16-6886	16.7	15.7	16.1		13.6	16.4	17.0
LD16-7669	12.8	12.4	13.2		10.8	12.4	13.0
LG15-4491	15.7	13.9	15.3		12.7	15.9	17.0
LG16-2547	13.5	13.2	12.9		12.2	12.8	14.0
LG16-3733	15.6	14.4	15.0		13.6	15.6	15.0
LG17-5674	15.2	15.4	14.7		12.0	14.5	16.0
SA14-9653	16.2	16.5	15.8		14.5	15.7	17.0
SA16-11831	14.5	15.1	13.7		12.3	14.0	14.0
SA16-12014	13.9	14.6	13.7		11.0	13.3	15.0
SA16-12472	14.9	16.0	14.6		13.7	15.0	15.0
SA16-2194	13.9	13.9	13.2		11.5	13.4	16.0
SA16-30116	13.0	12.4	12.7		11.6	13.1	13.0
U15-322139	15.8	16.8	14.8		12.8	14.9	17.0
U15-322140	13.9	13.8	13.0		11.6	13.5	15.0
U16-322148	13.5	13.1	12.9		11.6	12.8	14.0
U16-322178	14.8	14.0	13.9		11.8	14.7	17.0
U16-323153	13.7	14.9	13.3		12.2	13.4	14.0
U16-323177	13.5	13.5	13.5		11.2	13.8	14.0
U16-324137	15.5	15.1	14.6		12.4	15.9	17.0
U16-324189	14.1	15.1	13.2		10.6	13.7	14.0
U16-325193	15.3	13.1	14.1		11.7	15.9	17.0
U16-902058	15.1	14.1	14.7		11.5	14.7	16.0
U16-928123	15.6	15.1	15.2		12.4	15.3	16.0
U17-603165	13.9	13.4	13.2		10.9	13.3	16.0
U17-606129	13.7	13.4	13.4		11.4	13.6	14.0
U17-608196	14.3	13.8	14.1		12.0	14.0	14.0

UNIFORM TEST III, 2020

SEED SIZE (g/100)

Strain	Colum- bia MO	Hold- rege NE	Steven's Creek NE
LD11-2170 (III)	17.5	16.1	16.1
U15-606207 (SCN)	17.0	15.3	16.1
LD07-3395bf (SCN) (L)	17.1	15.1	15.3
U14-910097 (SCN) (E)	15.6	15.1	14.3
CR15-1385	14.6	12.6	14.1
CR15-2775	19.9	18.4	18.5
CR16-0035	17.3	15.3	16.1
CR16-0042	18.2	15.9	15.9
CR16-0067	15.8	14.0	13.9
LD15-1477	15.1	15.0	15.3
LD15-6762	17.2	15.7	16.0
LD16-2751	16.3	15.4	15.9
LD16-6787	15.1	14.8	15.6
LD16-6886	19.5	17.7	17.7
LD16-7669	14.6	12.6	13.6
LG15-4491	17.4	16.5	17.0
LG16-2547	16.7	12.5	13.7
LG16-3733	18.3	16.1	16.7
LG17-5674	18.2	16.0	15.0
SA14-9653	17.4	16.0	16.6
SA16-11831	17.3	14.4	14.9
SA16-12014	15.8	13.9	14.2
SA16-12472	16.9	13.7	14.7
SA16-2194	15.5	13.8	14.0
SA16-30116	14.4	13.2	13.5
U15-322139	17.1	16.6	16.6
U15-322140	15.8	14.1	14.5
U16-322148	15.0	14.7	14.1
U16-322178	15.8	15.6	15.8
U16-323153	14.2	13.2	14.1
U16-323177	14.4	13.9	14.1
U16-324137	16.6	16.9	15.7
U16-324189	16.6	15.0	14.7
U16-325193	17.6	16.8	15.9
U16-902058	17.2	16.3	16.1
U16-928123	17.9	16.7	16.1
U17-603165	14.0	15.4	15.3
U17-606129	14.9	14.5	14.7
U17-608196	15.9	15.4	15.1

UNIFORM TEST III, 2020

SEED QUALITY (score)

Strain	Mean 8 Tests	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Man- hattan KS
LD11-2170 (III)	1.3	1.0	1.0		1.0	1.0	2.0
U15-606207 (SCN)	1.4	2.0	1.0		2.0	1.0	2.0
LD07-3395bf (SCN) (L)	1.4	2.0	2.0		1.0	1.0	2.0
U14-910097 (SCN) (E)	1.4	2.0	2.0		1.0	1.0	2.0
CR15-1385	1.6	2.0	2.0		2.0	1.0	2.0
CR15-2775	1.4	2.0	1.0		1.0	1.0	2.0
CR16-0035	1.5	2.0	1.0		2.0	1.0	2.0
CR16-0042	1.5	2.0	2.0		2.0	1.0	2.0
CR16-0067	1.4	2.0	2.0		1.0	1.0	1.0
LD15-1477	1.3	1.0	2.0		1.0	1.0	2.0
LD15-6762	1.3	1.0	2.0		1.0	1.0	1.0
LD16-2751	1.4	2.0	2.0		1.0	1.0	2.0
LD16-6787	1.3	1.0	2.0		1.0	1.0	2.0
LD16-6886	1.3	1.0	2.0		1.0	1.0	2.0
LD16-7669	1.5	2.0	2.0		1.0	1.0	2.0
LG15-4491	1.4	2.0	2.0		1.0	1.0	2.0
LG16-2547	1.3	2.0	2.0		1.0	1.0	1.0
LG16-3733	1.3	2.0	2.0		1.0	1.0	1.0
LG17-5674	1.6	2.0	2.0		2.0	1.0	2.0
SA14-9653	1.4	1.0	2.0		1.0	1.0	2.0
SA16-11831	1.3	1.0	2.0		1.0	1.0	2.0
SA16-12014	1.5	2.0	3.0		1.0	1.0	2.0
SA16-12472	1.6	2.0	3.0		2.0	1.0	2.0
SA16-2194	1.5	2.0	2.0		2.0	1.0	2.0
SA16-30116	1.4	1.0	2.0		1.0	1.0	2.0
U15-322139	1.3	1.0	1.0		2.0	1.0	2.0
U15-322140	1.6	2.0	2.0		2.0	1.0	2.0
U16-322148	1.4	1.0	2.0		2.0	1.0	2.0
U16-322178	1.4	1.0	2.0		2.0	1.0	1.0
U16-323153	1.1	1.0	2.0		1.0	1.0	1.0
U16-323177	1.4	2.0	2.0		1.0	1.0	2.0
U16-324137	1.5	2.0	2.0		2.0	1.0	2.0
U16-324189	1.6	2.0	2.0		2.0	1.0	2.0
U16-325193	1.4	2.0	2.0		1.0	1.0	2.0
U16-902058	1.5	2.0	2.0		2.0	1.0	1.0
U16-928123	1.4	2.0	2.0		1.0	1.0	2.0
U17-603165	1.4	2.0	2.0		1.0	1.0	2.0
U17-606129	1.5	1.0	2.0		2.0	1.0	2.0
U17-608196	1.5	1.0	2.0		2.0	1.0	2.0

UNIFORM TEST III, 2020**SEED QUALITY (score)**

Strain	Colum- bia MO	Hold- rege NE	Steven's Creek NE
LD11-2170 (III)	2.0	1.0	1.0
U15-606207 (SCN)	1.0	1.0	1.0
LD07-3395bf (SCN) (L)	1.0	1.0	1.0
U14-910097 (SCN) (E)	1.0	1.0	1.0
CR15-1385	2.0	1.0	1.0
CR15-2775	2.0	1.0	1.0
CR16-0035	2.0	1.0	1.0
CR16-0042	1.0	1.0	1.0
CR16-0067	2.0	1.0	1.0
LD15-1477	1.0	1.0	1.0
LD15-6762	2.0	1.0	1.0
LD16-2751	1.0	1.0	1.0
LD16-6787	1.0	1.0	1.0
LD16-6886	1.0	1.0	1.0
LD16-7669	2.0	1.0	1.0
LG15-4491	1.0	1.0	1.0
LG16-2547	1.0	1.0	1.0
LG16-3733	1.0	1.0	1.0
LG17-5674	2.0	1.0	1.0
SA14-9653	2.0	1.0	1.0
SA16-11831	1.0	1.0	1.0
SA16-12014	1.0	1.0	1.0
SA16-12472	1.0	1.0	1.0
SA16-2194	1.0	1.0	1.0
SA16-30116	2.0	1.0	1.0
U15-322139	1.0	1.0	1.0
U15-322140	2.0	1.0	1.0
U16-322148	1.0	1.0	1.0
U16-322178	2.0	1.0	1.0
U16-323153	1.0	1.0	1.0
U16-323177	1.0	1.0	1.0
U16-324137	1.0	1.0	1.0
U16-324189	2.0	1.0	1.0
U16-325193	1.0	1.0	1.0
U16-902058	2.0	1.0	1.0
U16-928123	1.0	1.0	1.0
U17-603165	1.0	1.0	1.0
U17-606129	2.0	1.0	1.0
U17-608196	2.0	1.0	1.0

UNIFORM TEST III, 2020

PROTEIN (%)

Strain	Mean 8 Tests	Arthur IL	Urbana IL	Wanatah IN	West Lafayette IN	Man- hattan KS	Colum- bia MO
LD11-2170 (III)	33.2	33.2	34.3	34.4	33.9	32.1	33.6
U15-606207 (SCN)	32.1	31.0	31.9	31.6	33.3	31.9	33.5
LD07-3395bf (SCN) (L)	31.8	30.1	32.5	31.5	32.6	32.3	32.4
U14-910097 (SCN) (E)	32.2	32.0	33.1	32.8	31.7	31.3	32.6
CR15-1385	33.1	32.1	33.9	34.2	33.6	33.2	33.2
CR15-2775	33.2	32.7	33.5	35.0	33.9	33.4	32.9
CR16-0035	35.6	36.3	36.5	35.3	36.4	35.6	36.4
CR16-0042	33.3	33.2	34.1	32.9	34.2	33.1	33.8
CR16-0067	33.2	33.9	32.6	34.0	33.5	33.0	34.1
LD15-1477	34.5	33.4	34.3	36.5	35.9	34.0	34.9
LD15-6762	34.2	33.8	33.0	34.6	35.0	34.2	34.8
LD16-2751	34.4	33.4	34.9	36.8	35.2	34.1	33.8
LD16-6787	33.9	33.4	34.8	34.7	34.5	33.2	34.4
LD16-6886	32.0	31.1	32.8	32.7	31.9	31.3	32.7
LD16-7669	33.1	32.2	33.7	33.2	33.2	33.5	34.1
LG15-4491	33.9	33.9	34.7	34.9	34.7	32.9	33.6
LG16-2547	33.0	32.5	33.1	33.5	33.7	34.4	33.2
LG16-3733	33.9	33.5	34.1	34.6	34.3	34.5	34.0
LG17-5674	32.4	32.1	32.7	32.4	32.4	32.4	34.2
SA14-9653	34.6	34.7	35.3	35.1	34.9	33.9	35.1
SA16-11831	34.8	34.4	34.9	35.6	34.9	35.3	34.9
SA16-12014	34.7	34.3	36.1	36.0	35.2	34.1	35.4
SA16-12472	33.4	32.2	34.1	33.3	33.9	33.3	34.3
SA16-2194	33.6	33.2	34.3	34.0	34.7	32.4	33.8
SA16-30116	33.9	34.3	33.8	34.6	34.3	33.6	33.5
U15-322139	32.2	32.6	30.3	32.4	32.2	33.1	32.2
U15-322140	32.6	32.4	33.6	32.5	32.8	32.6	33.5
U16-322148	32.8	33.2	33.2	32.8	33.7	32.8	32.4
U16-322178	32.5	32.6	31.5	33.2	32.6	32.9	32.8
U16-323153	32.5	32.7	33.3	32.9	33.0	31.7	31.8
U16-323177	32.6	33.0	32.7	33.6	33.4	32.4	32.7
U16-324137	33.3	33.0	32.7	36.0	34.8	31.9	33.1
U16-324189	32.1	31.8	32.0	32.8	32.5	31.7	32.7
U16-325193	33.6	32.6	32.6	34.5	35.4	33.7	33.0
U16-902058	32.8	31.9	33.1	33.5	33.3	32.6	33.5
U16-928123	33.3	33.3	32.4	35.0	32.9	33.2	33.3
U17-603165	32.5	32.2	32.0	34.8	33.2	33.2	31.5
U17-606129	33.8	34.3	33.9	35.1	34.2	33.0	32.8
U17-608196	33.0	33.0	34.4	33.9	33.8	31.4	33.1

UNIFORM TEST III, 2020

PROTEIN (%)

	Hold- rege NE	Steven's Creek NE
LD11-2170 (III)	32.7	31.7
U15-606207 (SCN)	31.2	32.4
LD07-3395bf (SCN) (L)	32.7	30.7
U14-910097 (SCN) (E)	31.6	32.7
CR15-1385	31.9	32.7
CR15-2775	32.3	32.0
CR16-0035	33.4	34.7
CR16-0042	32.4	32.8
CR16-0067	32.1	32.5
LD15-1477	33.6	33.2
LD15-6762	33.8	34.6
LD16-2751	33.1	33.8
LD16-6787	33.3	33.0
LD16-6886	32.0	31.3
LD16-7669	32.7	32.5
LG15-4491	34.0	32.7
LG16-2547	32.2	31.5
LG16-3733	33.1	32.9
LG17-5674	31.1	32.0
SA14-9653	33.6	34.3
SA16-11831	33.6	34.5
SA16-12014	33.8	32.7
SA16-12472	33.1	33.1
SA16-2194	33.3	33.0
SA16-30116	33.5	33.8
U15-322139	33.3	31.8
U15-322140	32.3	31.2
U16-322148	32.6	31.5
U16-322178	32.4	32.0
U16-323153	32.1	32.2
U16-323177	32.3	30.8
U16-324137	32.7	32.4
U16-324189	31.8	31.6
U16-325193	34.4	32.3
U16-902058	32.8	32.0
U16-928123	33.9	32.7
U17-603165	31.4	32.0
U17-606129	33.8	33.6
U17-608196	32.2	32.5

UNIFORM TEST III, 2020

OIL (%)

Strain	Mean 8 Tests	Arthur IL	Urbana IL	Wanatah IN	West Lafayette IN	Man- hattan KS	Colum- bia MO
LD11-2170 (III)	20.3	20.7	20.0	19.4	20.2	21.2	20.8
U15-606207 (SCN)	20.3	20.9	20.3	20.4	19.7	20.9	20.2
LD07-3395bf (SCN) (L)	20.4	21.7	20.1	20.4	19.9	20.8	20.6
U14-910097 (SCN) (E)	20.5	21.0	20.5	20.1	20.6	21.0	20.8
CR15-1385	19.0	19.6	18.4	18.1	18.8	19.4	19.8
CR15-2775	19.8	20.2	19.8	19.2	19.3	20.2	20.5
CR16-0035	18.5	18.9	18.3	18.4	17.9	18.8	18.4
CR16-0042	18.8	19.1	18.4	19.0	18.4	19.6	19.2
CR16-0067	19.0	18.9	19.6	18.4	18.9	19.5	19.2
LD15-1477	19.4	20.1	20.0	18.1	18.9	20.0	19.6
LD15-6762	19.6	20.4	20.2	18.9	19.1	20.2	19.6
LD16-2751	19.1	18.8	19.1	17.7	18.8	19.4	20.1
LD16-6787	18.6	19.0	18.5	18.0	18.3	19.3	18.7
LD16-6886	20.6	21.5	20.3	20.1	20.7	21.4	20.8
LD16-7669	19.4	20.0	19.3	19.2	19.0	20.1	19.4
LG15-4491	18.8	19.5	18.8	18.3	18.2	19.2	19.5
LG16-2547	19.1	19.5	18.8	18.5	18.5	19.6	19.7
LG16-3733	19.1	19.8	19.2	18.5	18.6	19.3	19.8
LG17-5674	19.5	20.1	19.3	19.4	19.3	20.2	19.4
SA14-9653	18.9	19.5	18.7	18.5	18.8	19.6	19.2
SA16-11831	18.4	19.0	18.6	18.0	18.4	18.5	18.9
SA16-12014	18.0	18.5	17.3	17.3	17.7	18.8	18.4
SA16-12472	18.7	19.7	18.2	18.9	18.3	19.1	18.9
SA16-2194	19.6	20.4	19.4	19.2	19.5	19.9	20.4
SA16-30116	18.5	18.7	18.3	18.1	18.2	19.3	19.4
U15-322139	20.0	20.3	18.9	20.3	20.3	20.7	21.1
U15-322140	19.8	20.0	19.3	19.9	19.8	20.1	20.0
U16-322148	20.1	20.3	20.0	19.9	19.6	20.5	20.9
U16-322178	20.6	20.9	21.2	20.2	20.8	21.0	21.2
U16-323153	20.0	20.1	19.6	19.7	19.9	20.7	20.6
U16-323177	19.9	20.4	19.8	19.4	19.7	20.5	20.7
U16-324137	20.1	20.4	20.4	19.3	19.7	20.8	21.0
U16-324189	20.3	20.7	20.6	19.9	20.1	21.0	20.8
U16-325193	20.0	20.4	20.4	19.7	19.3	20.6	21.0
U16-902058	19.6	20.1	19.7	19.4	19.3	20.2	20.3
U16-928123	19.7	20.2	20.1	18.9	20.2	20.2	20.1
U17-603165	19.5	20.3	20.0	18.1	19.4	19.8	20.5
U17-606129	19.1	18.9	18.8	18.5	19.0	19.9	20.4
U17-608196	19.7	20.1	19.0	19.2	19.6	20.5	20.4

UNIFORM TEST III, 2020

OIL (%)

	Hold- rege NE	Steven's Creek NE
LD11-2170 (III)	19.5	20.3
U15-606207 (SCN)	19.9	20.3
LD07-3395bf (SCN) (L)	19.1	20.3
U14-910097 (SCN) (E)	19.9	19.7
CR15-1385	18.9	18.9
CR15-2775	19.3	19.9
CR16-0035	18.6	18.3
CR16-0042	18.6	18.5
CR16-0067	18.7	18.9
LD15-1477	18.8	19.4
LD15-6762	19.1	19.2
LD16-2751	19.0	19.5
LD16-6787	18.4	18.5
LD16-6886	19.7	20.3
LD16-7669	18.7	19.4
LG15-4491	18.1	19.0
LG16-2547	18.5	19.3
LG16-3733	18.5	19.3
LG17-5674	19.3	19.1
SA14-9653	18.4	18.2
SA16-11831	18.0	18.2
SA16-12014	17.5	18.5
SA16-12472	18.0	18.5
SA16-2194	18.8	19.2
SA16-30116	17.9	18.3
U15-322139	18.9	19.6
U15-322140	19.1	20.1
U16-322148	19.4	20.1
U16-322178	19.4	20.0
U16-323153	19.6	19.6
U16-323177	19.1	19.7
U16-324137	19.5	19.6
U16-324189	19.3	20.0
U16-325193	18.7	19.8
U16-902058	18.5	19.6
U16-928123	18.3	19.4
U17-603165	19.1	19.2
U17-606129	18.4	18.7
U17-608196	19.2	19.3

**Northern Regional Uniform Test
Preliminary Test IIIA, 2020**

Ent.	Strain	Parentage	Seed Source	Gen. Comp.	Unique Traits
1	LD11-2170 (III)	Syngenta 03JR313108 x LD05-3171	Diers	F5	SCN
2	U15-606207 (SCN)	LD07-3419 x U09-105007	Graef	F5	SCN (HR, HR), Rps
3	LD07-3395bf (SCN) (L)	LD07-3395 Reselection	Diers	F5	SCN
4	U14-910097 (SCN) (E)	U09-105007 x LD07-3419	Graef	F6	Ex Rps Resist.
5	CR17-2874	CL0J095-4-6 x [CR13275.1 (CL05-4637 x KB10-22)]	Rainey	F5	SCN
6	CR17-3693	F3:5 LG09-8165 x WN0800527	Rainey	F5	
7	CR17-3701	F3:5 LG09-8165 x WN0800527	Rainey	F5	
8	CR17-3964	F3:5 LG07-2309 x WN0800527	Rainey	F5	
9	CR17-4112	F3:5 LG09-7431 x LG10-3250	Rainey	F5	
10	CR17-4545	F3:5 LG10-2699 x LG09-7163	Rainey	F5	
11	CR17-5284	LG04-4717 x LG03-3191-1	Rainey	F5	
12	HM17-01057	M11-W274 x HS8W-179	McHale	F4	
13	HM17-02244	M09-W153 x HS8-3463	McHale	F4	
14	HM17-02293	M09-W153 x HS8-3463	McHale	F4	
15	HM17-02297	M09-W153 x HS8-3463	McHale	F4	
16	HM17-06107	M09-W158 x M10-W111	McHale	F4	
17	HM17-07029	Clermont x [Clermont x (Clermont x H09-277)]	McHale	F4	
18	HM17-12086	M11-W117 x HS8W-179	McHale	F4	
19	LD17-10157	LD11-7311 x LG09-7163	Diers	F5	SCN
20	LD17-10174	LD11-7311 x LG09-7163	Diers	F5	SCN
21	LD17-10199	LD11-7311 x LG09-7163	Diers	F5	SCN
22	LD17-2522	LD12-300 x LD09-30224	Diers	F5	Rag 1
23	LD17-833	U11-614119 x U11-610107	Diers	F5	
24	LD17-872	U11-614119 x U11-920017	Diers	F5	
25	LD17-894	U11-614119 x U11-920017	Diers	F5	
26	LD18-01855	LD11-7311 x LD10-10198	Diers	F5	SCN
27	LD18-01867	LD11-7311 x LD10-10198	Diers	F5	SCN
28	SA17-17782	SA12-1532 x LG09-8165	Scaboo	F5	
29	SA17-18138	SA12-1533 x LD10-10219	Scaboo	F5	
30	SA17-18148	SA12-1533 x LD10-10219	Scaboo	F5	
31	SA17-19056	SA12-1541 x LD10-10226	Scaboo	F5	
32	SA17-19715	U11-616086 x LS07-3131	Scaboo	F5	
33	SA17-19973	U11-410128 x LD11-10310	Scaboo	F5	
34	SA17-20063	U11-410128 x LD11-10927	Scaboo	F5	

PRELIMINARY TEST IIIA, 2020
DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code
LD11-2170 (III)	PLtBDYBrI
U15-606207 (SCN)	PGTDYBfI
LD07-3395bf (SCN) (L)	WGTDYBfI
U14-910097 (SCN) (E)	PGTDYBfI
CR17-2874	PLtTDYBI
CR17-3693	PTB+TSYBI
CR17-3701	PLtTDYBI
CR17-3964	PGTDYIbI
CR17-4112	PGTDYIbI
CR17-4545	PLtBDYBI
CR17-5284	PTTDYBfI
HM17-01057	PGBDYIYI
HM17-02244	P+WGBSYHI
HM17-02293	WGBSYBfI
HM17-02297	WGBSYBfI
HM17-06107	PGB+TDYIYI
HM17-07029	PTTDYBI
HM17-12086	WGBDYIYI
LD17-10157	PGBDYIbI
LD17-10174	PLtBDYBI
LD17-10199	PLtBDYHI
LD17-2522	PLtBDYBI
LD17-833	WLtBDYBI
LD17-872	WLtBDYBI
LD17-894	PLtBDYBI
LD18-01855	PGBDYIYI
LD18-01867	WGBDYHI
SA17-17782	WGTDYBfI
SA17-18138	PLtTSYBI
SA17-18148	PLtTSYBI
SA17-19056	PGBDYGI
SA17-19715	PLtBDYBI
SA17-19973	PLtTDYBI
SA17-20063	PGBDYIbI

PRELIMINARY TEST IIIA, 2020

REGIONAL SUMMARY

No. of Tests Strain	Yield 6 bu/a	Rank 6 No.	Maturity 5 Date	Lodging 4 Score	Plant Height 4 In.	Seed Size 6 g/100	Seed Quality 6 Score	Composition	
								Protein 6 %	Oil 6 %
LD11-2170 (III)	70.3	12	9/28	1.2	34	15.5	1.2	33.0	20.3
U15-606207 (SCN)	72.6	4	2.2	1.1	36	15.5	1.2	32.3	20.0
LD07-3395bf (SCN) (L)	71.2	9	4.8	1.2	34	15.2	1.3	31.4	20.6
U14-910097 (SCN) (E)	72.5	5	-0.7	2.3	33	15.2	1.3	32.6	20.4
CR17-2874	68.5	21	4.4	1.3	36	15.0	1.2	34.3	19.6
CR17-3693	68.9	19	2.4	1.9	43	14.9	1.3	32.5	18.7
CR17-3701	71.0	11	2.3	2.4	41	15.8	1.7	32.8	19.4
CR17-3964	69.4	16	2.1	1.7	40	15.9	1.5	33.0	19.2
CR17-4112	75.7	1	0.5	1.9	39	16.5	1.3	33.2	19.3
CR17-4545	67.7	26	3.9	2.3	43	15.9	1.3	34.0	19.2
CR17-5284	63.7	33	1.8	2.6	38	15.7	1.3	37.1	18.5
HM17-01057	66.7	29	4.7	1.6	39	19.9	1.5	35.4	18.8
HM17-02244	68.2	24	1.8	2.4	38	19.2	1.5	34.5	18.3
HM17-02293	68.4	22	2.1	1.9	39	16.9	1.3	33.8	19.6
HM17-02297	67.2	27	2.5	1.7	42	17.3	1.3	34.8	19.5
HM17-06107	68.0	25	0.2	2.5	38	16.8	1.3	34.0	19.6
HM17-07029	66.9	28	3.5	2.1	39	17.1	1.2	34.3	18.9
HM17-12086	63.8	32	0.1	2.5	37	19.2	1.2	33.1	19.4
LD17-10157	72.1	6	3.4	1.1	35	16.3	1.2	34.6	19.2
LD17-10174	73.2	3	1.3	2.6	42	16.6	1.5	34.0	18.8
LD17-10199	70.2	14	-1.2	1.8	39	16.1	1.2	34.4	19.3
LD17-2522	70.1	15	-1.9	2.1	36	17.1	1.0	33.0	19.3
LD17-833	71.3	8	-0.2	1.6	34	16.5	1.5	33.6	19.5
LD17-872	71.1	10	-1.5	1.4	36	15.2	1.2	32.4	20.3
LD17-894	70.2	13	-1.8	2.0	35	16.8	1.5	32.2	20.9
LD18-01855	68.7	20	-1.9	1.1	36	16.6	1.5	34.9	18.6
LD18-01867	69.0	18	-0.6	1.3	37	15.2	1.3	33.7	19.5
SA17-17782	66.1	30	3.1	1.6	40	13.1	1.3	34.2	18.4
SA17-18138	63.0	34	4.3	1.3	38	13.8	1.3	33.8	18.1
SA17-18148	68.3	23	3.7	1.6	40	14.0	1.3	34.4	17.9
SA17-19056	64.0	31	-1.8	1.8	38	13.0	1.3	35.1	18.2
SA17-19715	74.3	2	4.0	1.1	40	13.8	1.2	33.2	19.0
SA17-19973	69.2	17	1.7	1.6	39	13.1	1.3	32.9	19.6
SA17-20063	71.5	7	4.7	1.4	42	14.8	1.3	33.6	19.6
Mean	69.2			1.8	38.1	15.9	1.3	33.7	19.3
C.V. (%)	8.3								
L.S.D. (5%)	4.6								

115.2 Days After Planting

PRELIMINARY TEST IIIA, 2020

YIELD (bu/a)

Strain	Mean 6 Tests	Urbana IL	West Lafayette IN	Man- hattan KS	Columbia MO	Hold- rege NE	Steven's Creek NE
LD11-2170 (III)	70.3	48.4	72.1	76.7	77.0	73.7	73.9
U15-606207 (SCN)	72.6	51.3	72.6	78.4	86.3	78.4	68.9
LD07-3395bf (SCN) (L)	71.2	40.4	71.7	78.0	82.5	77.6	77.1
U14-910097 (SCN) (E)	72.5	43.1	75.4	78.3	74.6	87.5	76.3
CR17-2874	68.5	49.1	65.8	72.2	72.2	75.3	76.2
CR17-3693	68.9	49.4	71.6	77.3	64.2	80.3	70.9
CR17-3701	71.0	51.2	74.0	75.1	77.6	89.0	58.9
CR17-3964	69.4	53.3	65.8	74.3	75.3	84.0	63.7
CR17-4112	75.7	55.9	81.6	75.2	84.8	82.2	74.5
CR17-4545	67.7	45.0	73.8	69.3	71.3	79.0	68.1
CR17-5284	63.7	45.1	70.1	68.3	70.4	67.3	61.1
HM17-01057	66.7	45.8	61.4	71.5	72.6	81.4	67.6
HM17-02244	68.2	45.0	70.8	70.7	74.4	76.4	71.8
HM17-02293	68.4	45.5	60.7	70.9	80.1	83.7	69.4
HM17-02297	67.2	40.7	73.9	71.8	81.2	71.3	64.2
HM17-06107	68.0	44.6	69.2	68.5	75.3	81.5	69.1
HM17-07029	66.9	52.3	63.8	65.1	73.2	82.7	64.4
HM17-12086	63.8	37.9	72.9	70.4	75.9	69.5	56.5
LD17-10157	72.1	58.2	79.2	78.4	75.0	66.9	75.2
LD17-10174	73.2	51.4	77.9	75.4	81.0	75.4	78.3
LD17-10199	70.2	50.2	72.1	72.3	77.0	84.8	64.7
LD17-2522	70.1	52.3	77.4	68.0	74.9	78.5	69.5
LD17-833	71.3	53.5	79.6	73.8	68.9	75.8	76.1
LD17-872	71.1	48.4	75.2	77.5	64.6	84.5	76.3
LD17-894	70.2	52.4	73.2	73.7	68.8	88.9	64.2
LD18-01855	68.7	46.0	75.2	72.0	71.0	75.4	72.7
LD18-01867	69.0	47.2	81.7	70.8	71.4	79.0	63.9
SA17-17782	66.1	48.2	64.0	73.1	66.8	75.7	69.0
SA17-18138	63.0	40.0	60.6	76.8	74.3	70.7	55.7
SA17-18148	68.3	46.3	68.4	78.6	79.1	75.2	62.5
SA17-19056	64.0	41.5	71.9	71.3	70.1	71.9	57.2
SA17-19715	74.3	45.8	77.5	77.1	77.8	90.9	76.7
SA17-19973	69.2	44.5	68.5	76.0	69.6	85.6	70.8
SA17-20063	71.5	46.4	68.8	73.7	88.7	79.2	72.4
Location Mean		47.5	71.7	73.5	74.9	78.8	68.8
C.V. (%)		9.3	10.7	3.4	3.2	8.9	8.2
L.S.D. (5%)		8.9	15.6	5.0	6.2	17.5	14.5
Row Sp. (In.)		30	30	30	30	30	30
Rows/Plot		4	4	4	4	4	4
Reps		2	2	2	2	2	2

PRELIMINARY TEST IIIA, 2020

YIELD RANK

Strain	Yield Rank	Urbana IL	West Lafayette IN	Manhattan KS	Columbia MO	Holdrege NE	Steven's Creek NE
LD11-2170 (III)	12	14	17	10	12	28	10
U15-606207 (SCN)	4	9	16	2	2	19	20
LD07-3395bf (SCN) (L)	9	32	20	5	4	20	2
U14-910097 (SCN) (E)	5	29	8	4	18	4	4
CR17-2874	21	13	28	21	23	26	6
CR17-3693	19	12	21	7	34	14	14
CR17-3701	11	10	11	14	10	2	31
CR17-3964	16	4	28	15	15	8	28
CR17-4112	1	2	2	13	3	11	9
CR17-4545	26	25	13	30	25	16	21
CR17-5284	33	24	23	32	27	33	30
HM17-01057	29	21	32	24	22	13	22
HM17-02244	24	25	22	28	19	21	13
HM17-02293	22	23	33	26	7	9	17
HM17-02297	27	31	12	23	5	30	25
HM17-06107	25	27	24	31	14	12	18
HM17-07029	28	6	31	34	21	10	24
HM17-12086	32	34	15	29	13	32	33
LD17-10157	6	1	4	2	16	34	8
LD17-10174	3	8	5	12	6	24	1
LD17-10199	14	11	17	20	11	6	23
LD17-2522	15	6	7	33	17	18	16
LD17-833	8	3	3	16	30	22	7
LD17-872	10	14	9	6	33	7	4
LD17-894	13	5	14	17	31	3	25
LD18-01855	20	20	9	22	26	24	11
LD18-01867	18	17	1	27	24	16	27
SA17-17782	30	16	30	19	32	23	19
SA17-18138	34	33	34	9	20	31	34
SA17-18148	23	19	27	1	8	27	29
SA17-19056	31	30	19	25	28	29	32
SA17-19715	2	21	6	8	9	1	3
SA17-19973	17	28	26	11	29	5	15
SA17-20063	7	18	25	17	1	15	12

PRELIMINARY TEST IIIA, 2020

MATURITY (date)

Strain	Mean 5 Tests	Urbana IL	West Lafayette IN	Man- hattan KS	Columbia MO	Hold- rege NE	Steven's Creek NE
LD11-2170 (III)	9/28	9/29	9/28	9/24	9/26		10/4
U15-606207 (SCN)	2	5	2	1	3		1
LD07-3395bf (SCN) (L)	5	10	4	5	3		3
U14-910097 (SCN) (E)	-1	2	0	-5	1		-1
CR17-2874	4	6	3	9	1		4
CR17-3693	2	6	3	-2	3		3
CR17-3701	2	5	5	-2	3		0
CR17-3964	2	3	3	1	2		2
CR17-4112	1	1	3	-2	3		-1
CR17-4545	4	6	5	4	3		3
CR17-5284	2	6	3	-4	3		2
HM17-01057	5	11	4	5	2		3
HM17-02244	2	4	3	-5	4		4
HM17-02293	2	5	2	-2	2		3
HM17-02297	3	4	3	1	3		3
HM17-06107	0	1	0	-3	1		2
HM17-07029	4	5	5	4	3		2
HM17-12086	0	2	1	-4	3		-1
LD17-10157	3	7	6	2	2		1
LD17-10174	1	1	3	2	-1		2
LD17-10199	-1	-1	0	-4	-2		0
LD17-2522	-2	-1	-3	-1	-4		-2
LD17-833	-0	1	1	0	-3		1
LD17-872	-2	-1	-1	0	-4		-2
LD17-894	-2	0	-3	0	-5		-2
LD18-01855	-2	-1	-2	0	-5		-2
LD18-01867	-1	1	-1	0	-2		-1
SA17-17782	3	5	3	5	2		2
SA17-18138	4	7	4	3	4		4
SA17-18148	4	7	5	0	4		3
SA17-19056	-2	3	-1	-8	-4		0
SA17-19715	4	7	5	3	1		5
SA17-19973	2	3	2	1	0		3
SA17-20063	5	5	2	7	8		3
Date Planted	6/5	6/1	6/5	6/8	6/2		6/9
Days to Mature	115	120	115	108	116		117

PRELIMINARY TEST IIIA, 2020

LODGING (score)

Strain	Mean 4 Tests	Urbana IL	West Lafayette IN	Man- hattan KS	Columbia MO	Hold- rege NE	Steven's Creek NE
LD11-2170 (III)	1.2		1.0	1.0	1.8		1.0
U15-606207 (SCN)	1.1		1.0	1.0	1.5		1.0
LD07-3395bf (SCN) (L)	1.2		1.0	1.0	1.8		1.0
U14-910097 (SCN) (E)	2.3		2.0	2.0	3.3		2.0
CR17-2874	1.3		1.0	2.0	1.3		1.0
CR17-3693	1.9		2.0	2.0	2.3		1.5
CR17-3701	2.4		2.0	2.5	2.5		2.5
CR17-3964	1.7		1.5	2.0	2.3		1.0
CR17-4112	1.9		2.0	2.0	2.0		1.5
CR17-4545	2.3		2.5	2.0	2.0		2.5
CR17-5284	2.6		3.0	2.0	2.8		2.5
HM17-01057	1.6		1.5	1.0	2.0		2.0
HM17-02244	2.4		2.0	2.5	2.8		2.5
HM17-02293	1.9		1.5	1.5	2.3		2.5
HM17-02297	1.7		2.0	1.5	2.3		1.0
HM17-06107	2.5		2.5	2.0	3.0		2.5
HM17-07029	2.1		1.5	2.5	2.0		2.5
HM17-12086	2.5		2.5	2.0	3.0		2.5
LD17-10157	1.1		1.0	1.0	1.5		1.0
LD17-10174	2.6		2.0	3.0	2.8		2.5
LD17-10199	1.8		1.0	2.0	2.0		2.0
LD17-2522	2.1		2.5	1.5	1.8		2.5
LD17-833	1.6		2.0	1.0	2.0		1.5
LD17-872	1.4		1.5	1.5	1.5		1.0
LD17-894	2.0		1.5	2.0	2.0		2.5
LD18-01855	1.1		1.0	1.0	1.5		1.0
LD18-01867	1.3		1.5	1.0	1.8		1.0
SA17-17782	1.6		1.5	2.0	1.8		1.0
SA17-18138	1.3		1.5	1.0	1.8		1.0
SA17-18148	1.6		2.0	1.5	2.0		1.0
SA17-19056	1.8		1.5	2.0	2.0		1.5
SA17-19715	1.1		1.0	1.0	1.5		1.0
SA17-19973	1.6		1.0	2.0	2.0		1.5
SA17-20063	1.4		1.5	1.0	2.0		1.0

PRELIMINARY TEST IIIA, 2020

PLANT HEIGHT (inches)

Strain	Mean 4 Tests	Urbana IL	West Lafayette IN	Man- hattan KS	Columbia MO	Hold- rege NE	Steven's Creek NE
LD11-2170 (III)	34		32	37	32		34
U15-606207 (SCN)	36		36	39	35		33
LD07-3395bf (SCN) (L)	34		33	37	34		32
U14-910097 (SCN) (E)	33		34	39	31		30
CR17-2874	36		37	41	33		33
CR17-3693	43		42	49	39		43
CR17-3701	41		40	48	40		37
CR17-3964	40		41	48	39		34
CR17-4112	39		40	42	38		37
CR17-4545	43		45	45	39		43
CR17-5284	38		42	41	38		31
HM17-01057	39		39	42	39		38
HM17-02244	38		40	42	39		32
HM17-02293	39		38	44	39		37
HM17-02297	42		43	46	40		38
HM17-06107	38		37	42	36		36
HM17-07029	39		40	42	39		34
HM17-12086	37		40	40	38		32
LD17-10157	35		36	39	34		33
LD17-10174	42		41	47	43		40
LD17-10199	39		39	44	37		37
LD17-2522	36		39	39	34		34
LD17-833	34		35	37	32		32
LD17-872	36		36	41	34		34
LD17-894	35		34	37	32		36
LD18-01855	36		37	39	33		34
LD18-01867	37		38	40	36		35
SA17-17782	40		40	44	39		39
SA17-18138	38		37	43	37		36
SA17-18148	40		39	43	40		37
SA17-19056	38		36	44	38		36
SA17-19715	40		41	41	39		40
SA17-19973	39		36	44	38		37
SA17-20063	42		42	45	42		40

PRELIMINARY TEST IIIA, 2020

SEED SIZE (g/100)

Strain	Mean 6 Tests	Urbana IL	West Lafayette IN	Man- hattan KS	Columbia MO	Hold- rege NE	Steven's Creek NE
LD11-2170 (III)	15.5	14.9	15.6	15.0	15.6	15.9	16.1
U15-606207 (SCN)	15.5	15.6	15.1	15.0	16.2	15.5	15.4
LD07-3395bf (SCN) (L)	15.2	15.4	14.8	15.0	16.4	15.1	14.6
U14-910097 (SCN) (E)	15.2	15.6	14.4	16.0	15.9	15.2	14.0
CR17-2874	15.0	15.0	13.8	16.0	15.8	14.6	14.9
CR17-3693	14.9	14.3	14.5	16.0	15.7	14.5	14.3
CR17-3701	15.8	15.4	15.2	17.0	16.7	15.8	15.0
CR17-3964	15.9	14.7	14.9	18.0	16.6	15.5	15.5
CR17-4112	16.5	15.1	16.4	18.0	17.6	16.3	15.8
CR17-4545	15.9	15.2	15.3	17.0	16.5	15.3	16.0
CR17-5284	15.7	14.9	15.8	16.0	16.8	15.3	15.5
HM17-01057	19.9	19.1	19.1	23.0	19.0	19.4	19.5
HM17-02244	19.2	17.2	17.9	21.0	20.6	19.3	19.4
HM17-02293	16.9	15.3	15.7	18.0	17.8	17.0	17.4
HM17-02297	17.3	16.4	16.9	18.0	18.2	16.5	18.0
HM17-06107	16.8	15.6	16.4	17.0	17.6	17.4	16.9
HM17-07029	17.1	16.2	15.6	21.0	16.4	16.5	16.8
HM17-12086	19.2	18.7	20.5	21.0	19.5	18.2	17.4
LD17-10157	16.3	15.2	16.7	18.0	16.2	15.5	15.9
LD17-10174	16.6	15.8	17.0	18.0	16.5	16.2	16.2
LD17-10199	16.1	15.0	16.0	18.0	15.8	16.2	15.8
LD17-2522	17.1	16.6	17.6	17.0	17.6	17.0	17.1
LD17-833	16.5	15.5	16.8	18.0	15.4	16.2	17.0
LD17-872	15.2	14.5	14.9	17.0	14.0	15.7	15.0
LD17-894	16.8	16.5	16.8	17.0	15.6	17.8	17.3
LD18-01855	16.6	14.5	15.4	26.0	14.2	14.3	15.2
LD18-01867	15.2	14.9	15.4	15.0	15.0	15.7	15.2
SA17-17782	13.1	12.5	12.1	15.0	13.0	13.0	12.7
SA17-18138	13.8	13.0	12.7	15.0	14.7	14.4	13.2
SA17-18148	14.0	13.5	13.2	15.0	14.9	13.5	13.9
SA17-19056	13.0	12.8	12.4	14.0	12.5	12.8	13.3
SA17-19715	13.8	13.1	13.4	15.0	14.1	13.8	13.4
SA17-19973	13.1	12.6	12.5	15.0	12.4	12.6	13.5
SA17-20063	14.8	14.4	13.9	15.0	16.1	14.6	15.0

PRELIMINARY TEST IIIA, 2020

SEED QUALITY (score)

Strain	Mean 6 Tests	Urbana IL	West Lafayette IN	Man- hattan KS	Columbia MO	Hold- rege NE	Steven's Creek NE
LD11-2170 (III)	1.2	2.0	1.0	1.0	1.0	1.0	1.0
U15-606207 (SCN)	1.2	1.0	1.0	2.0	1.0	1.0	1.0
LD07-3395bf (SCN) (L)	1.3	2.0	1.0	2.0	1.0	1.0	1.0
U14-910097 (SCN) (E)	1.3	2.0	1.0	2.0	1.0	1.0	1.0
CR17-2874	1.2	1.0	1.0	2.0	1.0	1.0	1.0
CR17-3693	1.3	2.0	1.0	2.0	1.0	1.0	1.0
CR17-3701	1.7	2.0	2.0	2.0	2.0	1.0	1.0
CR17-3964	1.5	2.0	1.0	2.0	2.0	1.0	1.0
CR17-4112	1.3	2.0	1.0	2.0	1.0	1.0	1.0
CR17-4545	1.3	2.0	1.0	2.0	1.0	1.0	1.0
CR17-5284	1.3	2.0	1.0	2.0	1.0	1.0	1.0
HM17-01057	1.5	3.0	1.0	2.0	1.0	1.0	1.0
HM17-02244	1.5	3.0	1.0	2.0	1.0	1.0	1.0
HM17-02293	1.3	2.0	1.0	2.0	1.0	1.0	1.0
HM17-02297	1.3	2.0	1.0	2.0	1.0	1.0	1.0
HM17-06107	1.3	2.0	1.0	2.0	1.0	1.0	1.0
HM17-07029	1.2	1.0	1.0	2.0	1.0	1.0	1.0
HM17-12086	1.2	2.0	1.0	1.0	1.0	1.0	1.0
LD17-10157	1.2	2.0	1.0	1.0	1.0	1.0	1.0
LD17-10174	1.5	2.0	1.0	2.0	2.0	1.0	1.0
LD17-10199	1.2	1.0	1.0	2.0	1.0	1.0	1.0
LD17-2522	1.0	1.0	1.0	1.0	1.0	1.0	1.0
LD17-833	1.5	2.0	1.0	2.0	2.0	1.0	1.0
LD17-872	1.2	2.0	1.0	1.0	1.0	1.0	1.0
LD17-894	1.5	2.0	1.0	2.0	2.0	1.0	1.0
LD18-01855	1.5	2.0	1.0	2.0	2.0	1.0	1.0
LD18-01867	1.3	2.0	1.0	2.0	1.0	1.0	1.0
SA17-17782	1.3	2.0	1.0	2.0	1.0	1.0	1.0
SA17-18138	1.3	2.0	1.0	2.0	1.0	1.0	1.0
SA17-18148	1.3	2.0	1.0	2.0	1.0	1.0	1.0
SA17-19056	1.3	2.0	1.0	2.0	1.0	1.0	1.0
SA17-19715	1.2	2.0	1.0	1.0	1.0	1.0	1.0
SA17-19973	1.3	2.0	1.0	2.0	1.0	1.0	1.0
SA17-20063	1.3	2.0	1.0	2.0	1.0	1.0	1.0

PRELIMINARY TEST IIIA, 2020

PROTEIN (%)

Strain	Mean 6 Tests	Urbana IL	West Lafayette IN	Man- hattan KS	Columbia MO	Hold- rege NE	Steven's Creek NE
LD11-2170 (III)	33.0	33.2	34.4	31.9	33.7	32.8	32.3
U15-606207 (SCN)	32.3	32.7	33.6	32.7	31.8	31.6	31.6
LD07-3395bf (SCN) (L)	31.4	32.5	31.0	31.2	31.0	31.8	31.2
U14-910097 (SCN) (E)	32.6	33.9	32.0	32.5	33.2	32.7	31.2
CR17-2874	34.3	36.0	34.8	34.4	33.6	33.3	33.5
CR17-3693	32.5	32.8	33.4	32.0	32.6	32.3	32.1
CR17-3701	32.8	31.7	33.9	33.5	33.3	32.1	32.4
CR17-3964	33.0	32.8	33.9	34.2	32.8	32.2	32.3
CR17-4112	33.2	32.1	34.9	33.7	33.9	32.9	31.5
CR17-4545	34.0	34.5	34.6	34.0	33.8	33.9	33.3
CR17-5284	37.1	37.9	37.9	36.9	37.3	36.4	35.9
HM17-01057	35.4	38.0	36.1	35.4	35.4	34.2	33.6
HM17-02244	34.5	35.5	35.8	33.7	34.1	34.2	33.9
HM17-02293	33.8	35.7	34.0	32.9	33.8	33.9	32.8
HM17-02297	34.8	34.6	36.6	33.9	35.0	34.2	34.8
HM17-06107	34.0	34.7	34.4	34.5	34.8	33.4	32.1
HM17-07029	34.3	35.0	34.9	34.8	33.0	33.3	34.5
HM17-12086	33.1	33.7	34.0	32.9	33.6	32.3	32.3
LD17-10157	34.6	35.8	35.4	33.9	35.0	33.9	33.5
LD17-10174	34.0	34.2	34.1	34.7	33.9	33.4	33.7
LD17-10199	34.4	34.3	33.9	35.1	34.6	34.2	34.1
LD17-2522	33.0	32.5	34.0	32.9	33.1	32.8	32.9
LD17-833	33.6	33.7	35.3	33.7	32.3	33.0	33.6
LD17-872	32.4	31.9	33.4	32.7	32.6	32.6	31.2
LD17-894	32.2	31.5	32.4	31.6	31.6	32.3	34.1
LD18-01855	34.9	34.9	36.4	34.6	35.2	33.6	34.4
LD18-01867	33.7	35.0	34.4	33.7	34.2	33.0	31.7
SA17-17782	34.2	36.0	35.4	33.3	33.9	33.3	33.2
SA17-18138	33.8	35.6	33.8	32.0	34.3	34.1	32.8
SA17-18148	34.4	35.8	34.3	33.6	35.0	34.1	33.6
SA17-19056	35.1	35.2	35.6	35.7	35.6	34.6	34.1
SA17-19715	33.2	35.2	33.5	32.8	32.8	32.6	32.3
SA17-19973	32.9	33.6	32.2	33.7	31.9	32.9	33.0
SA17-20063	33.6	33.3	33.1	32.9	36.0	33.9	32.5

PRELIMINARY TEST IIIA, 2020

OIL (%)

Strain	Mean 6 Tests	Urbana IL	West Lafayette IN	Man- hattan KS	Columbia MO	Hold- rege NE	Steven's Creek NE
LD11-2170 (III)	20.3	20.4	19.8	21.1	21.0	19.5	20.1
U15-606207 (SCN)	20.0	20.1	19.6	20.1	20.9	19.4	20.1
LD07-3395bf (SCN) (L)	20.6	20.4	20.8	21.1	21.6	19.6	20.3
U14-910097 (SCN) (E)	20.4	20.1	20.6	20.5	20.9	19.7	20.6
CR17-2874	19.6	19.1	19.3	20.0	20.2	19.2	19.6
CR17-3693	18.7	18.6	18.2	19.1	20.0	17.8	18.5
CR17-3701	19.4	19.4	18.9	19.6	19.8	19.1	19.3
CR17-3964	19.2	19.2	18.7	18.9	19.9	18.8	19.5
CR17-4112	19.3	20.0	18.6	19.4	19.7	18.5	19.5
CR17-4545	19.2	19.2	18.8	19.3	20.0	18.7	19.1
CR17-5284	18.5	17.9	18.0	18.8	19.5	18.0	18.6
HM17-01057	18.8	17.9	18.5	19.2	19.5	18.5	19.0
HM17-02244	18.3	18.1	18.0	18.7	19.0	17.7	18.2
HM17-02293	19.6	19.2	19.7	20.1	20.1	19.0	19.6
HM17-02297	19.5	19.8	19.2	20.1	20.2	18.8	19.1
HM17-06107	19.6	19.6	19.4	19.9	20.0	19.1	19.8
HM17-07029	18.9	18.9	18.6	19.0	19.6	18.7	18.8
HM17-12086	19.4	19.0	19.1	20.3	19.8	19.0	18.9
LD17-10157	19.2	18.8	18.8	19.8	20.1	18.8	19.2
LD17-10174	18.8	19.2	18.9	18.8	19.6	18.0	18.6
LD17-10199	19.3	19.6	19.5	19.2	19.7	18.5	19.1
LD17-2522	19.3	19.6	18.8	20.0	19.7	18.7	19.2
LD17-833	19.5	19.9	18.5	19.4	20.9	19.0	19.3
LD17-872	20.3	20.6	19.8	20.3	21.1	19.4	20.6
LD17-894	20.9	21.3	20.7	21.4	21.8	19.3	20.9
LD18-01855	18.6	18.8	17.7	18.8	19.5	18.3	18.2
LD18-01867	19.5	20.6	18.5	19.6	20.0	18.8	19.6
SA17-17782	18.4	17.6	17.8	19.0	19.6	18.0	18.3
SA17-18138	18.1	17.4	17.5	18.8	19.2	17.4	18.1
SA17-18148	17.9	17.6	17.7	18.6	18.5	17.6	17.4
SA17-19056	18.2	18.2	17.5	18.0	18.9	18.1	18.4
SA17-19715	19.0	18.5	18.9	19.4	20.2	18.5	18.7
SA17-19973	19.6	19.6	19.9	19.6	20.7	18.7	19.4
SA17-20063	19.6	19.4	19.4	19.6	21.1	18.6	19.3

**Northern Regional Uniform Test
Preliminary Test IIB, 2020**

Ent.	Strain	Parentage	Seed Source	Gen. Comp.	Unique Traits
1	LD11-2170 (III)	Syngenta 03JR313108 x LD05-3171	Diers	F5	SCN
2	U15-606207 (SCN)	LD07-3419 x U09-105007	Graef	F5	SCN (HR, HR), Rps
3	LD07-3395bf (SCN) (L)	LD07-3395 Reselection	Diers	F5	SCN
4	U14-910097 (SCN) (E)	U09-105007 x LD07-3419	Graef	F6	Ex Rps Resist
5	A14004-58	IA1026 x LD10-5213a	Singh		
6	A14010-168	IA2102 x IA3024	Singh		
7	A14037-159	(U11-610107 x OAC Perth) x IA2102	Singh		
8	A14039-188	(U11-911079 x OAC Avatar) x IA2102	Singh		
9	A14041-189	(OAC Brooke x U09-133021) x IA3050	Singh		
10	A14043-52	(U11-919011 x LD02-4485(SCN)) x IA3024	Singh		
11	A14044-167	(U11-920017 x LD10-5213a) x IA2102	Singh		
12	A14066-156	(IA2076LF x IA2103) x IA2102	Singh		
13	A14068-102	(IA1026 x IA3027LF) x IA3050	Singh		
14	A14068-146	(IA1026 x IA3027LF) x IA3050	Singh		
15	LG15-8010	LD00-2817P x LG11-402	Walker	F6	Genetic diversity
16	LG17-5763	LG10-2699 x LG09-7167	Walker	F6	Genetic diversity
17	LG17-7150	LG08-3465 x LG10-12179	Walker	F6	Genetic diversity
18	LG18-2636	LG10-2695 x LS07-3131	Walker	F6	Genetic diversity
19	U16-317096	U11-410122 x U13-611161	Graef	F5	Rps1k
20	U17-311090	U13-228304 x U14-912075	Graef	F5	Expected Rps
21	U17-313161	NAM64A-20 x U11-614093	Graef	F5	Expected Rps
22	U17-322103	U14-919098 x U13-131132	Graef	F5	
23	U17-323182	U13-228304 x U14-912075	Graef	F5	Expected Rps
24	U17-326153	U13-228304 x U14-604086	Graef	F5	
25	U17-335221	U13-618087 x U13-604147	Graef	F5	Expected Rps
26	U17-336167	U13-220427 x U14-918103	Graef	F5	
27	U17-337087	U13-228304 x U14-909100	Graef	F5	Expected Rps, SCN
28	U17-342096	U14-918103 x U14-909100	Graef	F5	Expected Rps, SCN
29	U18-609101	U14-322043 x U14-112042	Graef	F5	Expected Rps
30	U18-612127	U14-322043 x U14-112015	Graef	F5	Expected Rps
31	U18-613282	U14-322043 x U14-218244	Graef	F5	Expected Rps
32	U18-615191	U14-216260 x U14-212231	Graef	F5	Expected Rps, Rsv4
33	U18-902015	U14-216260 x U14-114011	Graef	F5	Rsv4, Rps

PRELIMINARY TEST IIB, 2020
DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code
LD11-2170 (III)	PLtBDYBrI
U15-606207 (SCN)	PGTDYBfI
LD07-3395bf (SCN) (L)	WGTDYBfI
U14-910097 (SCN) (E)	PGTDYBfI
A14004-58	PGBDYfYI
A14010-168	WGBDYfYI
A14037-159	WLtBDYfYI
A14039-188	PGBDYfHI
A14041-189	WLtTDYBrI
A14043-52	PLtBDYBI
A14044-167	P+WLtBDYBrI
A14066-156	WGTDYfYI
A14068-102	PLtTDYfYI
A14068-146	PLtTDYfYI
LG15-8010	PLtBDYBI
LG17-5763	PLtBSYBI
LG17-7150	PTTDYBI
LG18-2636	WGTDYBfI
U16-317096	WLtBDYBI
U17-311090	PLtTDYfHI
U17-313161	PTBDYBI
U17-322103	PGBDYfBI
U17-323182	PGBDYBfI
U17-326153	PTBDYBI
U17-335221	PLtBSYBI
U17-336167	PGBDYfBI
U17-337087	PT+GBDYfHI
U17-342096	PGBDYBfI
U18-609101	WLtTDYBI
U18-612127	WTTDYBI
U18-613282	WLtTDYBI
U18-615191	PLtBDYBI
U18-902015	PGBSYfBI

PRELIMINARY TEST IIIB, 2020

REGIONAL SUMMARY

No. of Tests Strain	Yield	Rank	Maturity	Lodging	Plant	Seed	Seed	Composition	
	6 bu/a	6 No.	5 Date	4 Score	4 In.	6 g/100	6 Score	6 Protein %	6 Oil %
LD11-2170 (III)	68.9	7	9/28	1.5	34	15.6	1.3	33.2	20.2
U15-606207 (SCN)	67.2	11	2.2	1.3	35	14.9	1.3	32.2	20.3
LD07-3395bf (SCN) (L)	71.9	2	4.6	1.3	34	15.2	1.2	31.3	20.5
U14-910097 (SCN) (E)	77.0	1	0.8	2.3	32	14.7	1.3	32.2	20.6
A14004-58	65.0	20	-1.6	1.2	33	14.2	1.3	33.0	19.9
A14010-168	59.5	32	-1.3	2.7	36	15.1	1.3	34.4	19.4
A14037-159	67.5	10	0.7	2.3	36	15.7	1.5	33.5	19.4
A14039-188	63.3	28	0.3	2.1	40	14.7	1.5	34.4	19.4
A14041-189	61.7	29	-2.2	2.2	37	16.9	1.4	33.7	19.6
A14043-52	66.8	13	-1.8	2.3	38	15.8	1.7	33.5	20.3
A14044-167	66.9	12	-1.1	1.6	35	18.9	1.3	33.7	19.8
A14066-156	59.7	31	0.4	2.1	39	17.7	1.3	34.1	19.0
A14068-102	60.7	30	-0.1	2.2	38	15.5	1.5	35.6	18.2
A14068-146	59.1	33	-1.9	1.3	32	18.2	1.5	35.7	18.5
LG15-8010	71.0	3	2.3	1.8	39	14.8	1.3	34.6	19.4
LG17-5763	64.2	25	1.7	2.2	40	15.0	1.2	33.0	19.7
LG17-7150	65.6	18	5.9	1.9	37	16.6	1.3	32.0	20.2
LG18-2636	66.2	16	7.9	1.6	43	14.3	1.3	33.1	19.4
U16-317096	65.6	19	5.5	1.1	40	16.6	1.3	33.9	19.3
U17-311090	70.8	4	1.9	1.1	35	15.1	1.3	32.3	20.0
U17-313161	64.7	23	5.9	1.2	39	14.2	1.5	33.9	19.3
U17-322103	68.2	8	-0.1	1.1	37	14.2	1.5	32.4	20.0
U17-323182	66.1	17	6.1	1.1	34	14.8	1.5	32.9	19.4
U17-326153	66.8	14	4.9	1.2	42	13.3	1.7	31.6	19.6
U17-335221	64.8	21	3.9	1.1	39	14.2	1.2	33.2	19.5
U17-336167	64.7	22	3.5	1.1	38	15.5	1.5	34.1	19.2
U17-337087	67.9	9	2.2	1.6	39	14.7	1.5	33.5	19.7
U17-342096	69.2	6	0.8	1.7	40	14.9	1.2	31.9	19.9
U18-609101	66.8	15	3.2	1.2	38	14.8	1.3	32.1	20.3
U18-612127	64.0	26	4.0	1.3	35	14.6	1.2	32.7	19.9
U18-613282	63.7	27	6.4	1.3	35	16.0	1.3	34.1	19.4
U18-615191	64.2	24	3.7	2.2	41	15.6	1.7	31.5	20.2
U18-902015	70.8	5	1.0	1.2	35	17.1	1.2	32.1	20.3
Mean	66.1			1.6	37.2	15.4	1.4	33.2	19.7
C.V. (%)	10.3								
L.S.D. (5%)	5.5								

115.6 Days After Planting

PRELIMINARY TEST IIIB, 2020

YIELD (bu/a)

Strain	Mean 6 Tests	Urbana IL	West Lafayette IN	Man- hattan KS	Columbia MO	Hold- rege NE	Steven's Creek NE
LD11-2170 (III)	68.9	43.7	81.2	69.0	68.5	76.4	74.7
U15-606207 (SCN)	67.2	50.9	65.1	72.8	72.2	74.8	67.1
LD07-3395bf (SCN) (L)	71.9	42.1	74.0	69.4	82.2	84.4	79.5
U14-910097 (SCN) (E)	77.0	46.6	77.9	78.3	81.8	95.8	81.4
A14004-58	65.0	39.4	70.9	70.5	58.0	78.3	72.9
A14010-168	59.5	47.6	65.4	73.8	38.2	77.6	54.5
A14037-159	67.5	47.5	80.2	68.8	69.7	73.3	65.6
A14039-188	63.3	42.6	74.7	72.5	49.9	82.9	57.5
A14041-189	61.7	43.9	73.0	69.4	49.9	75.3	58.4
A14043-52	66.8	36.8	89.2	73.8	65.5	81.7	53.9
A14044-167	66.9	40.0	83.0	72.4	71.3	75.1	59.8
A14066-156	59.7	40.5	68.8	63.5	44.4	80.7	60.4
A14068-102	60.7	35.3	63.7	69.9	49.5	76.4	69.4
A14068-146	59.1	35.6	68.8	63.6	45.5	76.1	64.9
LG15-8010	71.0	42.3	76.5	71.2	70.5	87.4	78.3
LG17-5763	64.2	41.4	61.7	75.2	55.5	75.3	75.9
LG17-7150	65.6	48.3	64.6	72.0	66.4	78.5	64.0
LG18-2636	66.2	50.4	73.8	70.8	53.7	81.1	67.6
U16-317096	65.6	39.1	73.4	64.8	70.9	76.1	69.2
U17-311090	70.8	47.6	79.6	72.7	57.4	87.1	80.7
U17-313161	64.7	38.0	79.1	69.2	56.9	73.6	71.3
U17-322103	68.2	42.6	78.8	72.6	43.3	89.2	82.9
U17-323182	66.1	43.0	71.6	76.5	49.2	84.6	71.7
U17-326153	66.8	42.6	73.0	68.3	50.3	81.4	85.1
U17-335221	64.8	38.8	78.1	60.7	62.3	71.7	77.5
U17-336167	64.7	34.6	71.5	72.0	61.1	74.8	74.3
U17-337087	67.9	42.6	80.9	72.6	57.0	80.5	73.9
U17-342096	69.2	48.4	77.8	71.8	59.8	78.8	78.7
U18-609101	66.8	46.9	62.5	67.5	72.2	74.9	76.7
U18-612127	64.0	44.4	66.8	71.5	53.5	70.6	77.2
U18-613282	63.7	43.7	64.5	67.1	68.2	67.7	71.1
U18-615191	64.2	50.8	59.8	73.9	50.1	78.9	71.9
U18-902015	70.8	46.3	61.4	76.2	76.6	81.0	83.3
Location Mean		43.1	72.5	70.7	60.0	78.8	71.3
C.V. (%)		10.2	13.2	6.0	11.4	8.9	9.8
L.S.D. (5%)		9.0	19.4	8.7	14.0	17.3	17.8
Row Sp. (In.)		30	30	30	30	30	30
Rows/Plot		4	4	4	4	4	4
Reps		2	2	2	2	2	2

PRELIMINARY TEST IIIB, 2020

YIELD RANK

Strain	Yield Rank	Urbana IL	West Lafayette IN	Manhattan KS	Columbia MO	Holdrege NE	Steven's Creek NE
LD11-2170 (III)	7	14	3	25	10	20	13
U15-606207 (SCN)	11	1	26	8	4	27	24
LD07-3395bf (SCN) (L)	2	22	14	22	1	6	6
U14-910097 (SCN) (E)	1	10	10	1	2	1	4
A14004-58	20	26	21	20	17	17	16
A14010-168	32	6	25	6	33	18	32
A14037-159	10	8	5	26	9	30	25
A14039-188	28	17	13	12	26	7	31
A14041-189	29	13	17	22	27	23	30
A14043-52	13	30	1	6	13	8	33
A14044-167	12	25	2	13	6	25	29
A14066-156	31	24	22	32	31	12	28
A14068-102	30	32	29	21	28	19	21
A14068-146	33	31	22	31	30	22	26
LG15-8010	3	21	12	18	8	3	8
LG17-5763	25	23	31	4	21	24	12
LG17-7150	18	5	27	15	12	16	27
LG18-2636	16	3	15	19	22	10	23
U16-317096	19	27	16	30	7	21	22
U17-311090	4	6	6	9	18	4	5
U17-313161	23	29	7	24	20	29	19
U17-322103	8	17	8	10	32	2	3
U17-323182	17	16	19	2	29	5	18
U17-326153	14	17	17	27	24	9	1
U17-335221	21	28	9	33	14	31	9
U17-336167	22	33	20	14	15	28	14
U17-337087	9	17	4	10	19	13	15
U17-342096	6	4	11	16	16	15	7
U18-609101	15	9	30	28	4	26	11
U18-612127	26	12	24	17	23	32	10
U18-613282	27	14	28	29	11	33	20
U18-615191	24	2	33	5	25	14	17
U18-902015	5	11	32	3	3	11	2

PRELIMINARY TEST IIIB, 2020

MATURITY (date)

Strain	Mean 5 Tests	Urbana IL	West Lafayette IN	Man- hattan KS	Columbia MO	Hold- rege NE	Steven's Creek NE
LD11-2170 (III)	9/28	9/29	9/27	9/24	9/25		10/5
U15-606207 (SCN)	2	5	2	1	1		3
LD07-3395bf (SCN) (L)	5	8	5	2	5		4
U14-910097 (SCN) (E)	1	3	1	0	1		0
A14004-58	-2	-1	-3	0	-3		-2
A14010-168	-1	-2	-2	0	-2		-1
A14037-159	1	3	1	1	-2		1
A14039-188	0	1	3	0	-3		1
A14041-189	-2	-1	-4	0	-3		-3
A14043-52	-2	-2	-3	2	-3		-3
A14044-167	-1	-2	-1	0	-1		-2
A14066-156	0	1	1	2	-2		0
A14068-102	-0	-2	1	0	-1		2
A14068-146	-2	-3	-2	0	-3		-2
LG15-8010	2	2	4	1	3		2
LG17-5763	2	0	1	6	-2		4
LG17-7150	6	8	4	9	7		3
LG18-2636	8	13	7	11	5		5
U16-317096	6	7	4	10	4		4
U17-311090	2	4	3	1	-2		4
U17-313161	6	7	5	8	4		6
U17-322103	-0	0	-1	2	-4		2
U17-323182	6	9	7	9	2		5
U17-326153	5	4	6	8	4		4
U17-335221	4	6	6	2	3		4
U17-336167	4	3	3	4	4		5
U17-337087	2	4	2	5	-2		3
U17-342096	1	5	1	0	-2		0
U18-609101	3	6	2	5	0		3
U18-612127	4	5	1	6	5		3
U18-613282	6	9	3	10	6		5
U18-615191	4	5	1	10	0		4
U18-902015	1	3	0	0	-1		3
Date Planted	6/4	6/1	6/2	6/8	6/2		6/9
Days to Mature	116	120	117	108	115		118

PRELIMINARY TEST IIIB, 2020

LODGING (score)

Strain	Mean 4 Tests	Urbana IL	West Lafayette IN	Man- hattan KS	Columbia MO	Hold- rege NE	Steven's Creek NE
LD11-2170 (III)	1.5		1.0	1.0	2.0		2.0
U15-606207 (SCN)	1.3		1.0	1.5	1.5		1.0
LD07-3395bf (SCN) (L)	1.3		1.0	1.5	1.8		1.0
U14-910097 (SCN) (E)	2.3		1.5	2.0	2.8		3.0
A14004-58	1.2		1.0	1.0	1.8		1.0
A14010-168	2.7		2.0	3.0	2.3		3.5
A14037-159	2.3		2.0	2.0	2.5		2.5
A14039-188	2.1		1.5	1.5	2.3		3.0
A14041-189	2.2		1.5	2.0	2.3		3.0
A14043-52	2.3		2.0	2.5	2.5		2.0
A14044-167	1.6		1.5	1.5	2.5		1.0
A14066-156	2.1		2.0	2.0	2.3		2.0
A14068-102	2.2		1.5	1.5	2.8		3.0
A14068-146	1.3		1.0	1.5	1.8		1.0
LG15-8010	1.8		1.0	1.5	2.5		2.0
LG17-5763	2.2		1.5	2.0	2.3		3.0
LG17-7150	1.9		2.0	2.5	2.3		1.0
LG18-2636	1.6		1.5	1.5	2.5		1.0
U16-317096	1.1		1.0	1.0	1.5		1.0
U17-311090	1.1		1.0	1.0	1.5		1.0
U17-313161	1.2		1.0	1.0	1.8		1.0
U17-322103	1.1		1.0	1.0	1.5		1.0
U17-323182	1.1		1.0	1.0	1.5		1.0
U17-326153	1.2		1.0	1.0	1.8		1.0
U17-335221	1.1		1.0	1.0	1.5		1.0
U17-336167	1.1		1.0	1.0	1.5		1.0
U17-337087	1.6		1.5	1.5	1.8		1.5
U17-342096	1.7		1.5	1.0	2.3		2.0
U18-609101	1.2		1.0	1.0	1.8		1.0
U18-612127	1.3		1.0	1.0	1.8		1.5
U18-613282	1.3		1.0	1.5	1.8		1.0
U18-615191	2.2		1.0	2.5	2.8		2.5
U18-902015	1.2		1.0	1.0	1.8		1.0

PRELIMINARY TEST IIIB, 2020

PLANT HEIGHT (inches)

Strain	Mean 4 Tests	Urbana IL	West Lafayette IN	Man- hattan KS	Columbia MO	Hold- rege NE	Steven's Creek NE
LD11-2170 (III)	34		34	38	31		32
U15-606207 (SCN)	35		34	39	32		36
LD07-3395bf (SCN) (L)	34		36	36	35		31
U14-910097 (SCN) (E)	32		34	36	30		31
A14004-58	33		33	36	32		32
A14010-168	36		36	39	32		38
A14037-159	36		37	39	34		36
A14039-188	40		40	42	37		43
A14041-189	37		39	40	35		36
A14043-52	38		40	39	38		34
A14044-167	35		37	38	33		32
A14066-156	39		41	41	35		38
A14068-102	38		40	39	35		38
A14068-146	32		35	34	31		28
LG15-8010	39		39	42	37		40
LG17-5763	40		40	45	36		40
LG17-7150	37		40	40	34		35
LG18-2636	43		42	47	39		44
U16-317096	40		44	42	35		40
U17-311090	35		37	39	32		34
U17-313161	39		43	42	33		37
U17-322103	37		38	39	32		38
U17-323182	34		36	39	30		32
U17-326153	42		44	49	35		43
U17-335221	39		44	42	36		36
U17-336167	38		39	41	37		36
U17-337087	39		41	43	35		38
U17-342096	40		43	44	37		38
U18-609101	38		39	42	33		39
U18-612127	35		36	39	31		35
U18-613282	35		36	38	33		32
U18-615191	41		40	42	37		44
U18-902015	35		34	39	32		34

PRELIMINARY TEST IIB, 2020

SEED SIZE (g/100)

Strain	Mean 6 Tests	Urbana IL	West Lafayette IN	Man- hattan KS	Columbia MO	Hold- rege NE	Steven's Creek NE
LD11-2170 (III)	15.6	14.5	15.6	16.0	15.4	16.1	16.3
U15-606207 (SCN)	14.9	14.8	14.7	16.0	13.1	15.5	15.3
LD07-3395bf (SCN) (L)	15.2	14.4	14.7	16.0	15.3	15.4	15.2
U14-910097 (SCN) (E)	14.7	14.2	14.8	15.0	14.3	15.0	14.9
A14004-58	14.2	13.1	14.0	15.0	14.6	14.2	14.6
A14010-168	15.1	14.3	14.8	16.0	14.0	15.8	15.6
A14037-159	15.7	14.4	15.8	16.0	15.7	15.6	16.7
A14039-188	14.7	14.4	14.1	16.0	13.1	15.1	15.5
A14041-189	16.9	16.2	16.0	18.0	15.6	17.5	18.2
A14043-52	15.8	14.2	15.3	17.0	15.2	16.9	16.4
A14044-167	18.9	17.0	19.3	20.0	18.5	18.9	19.6
A14066-156	17.7	16.2	17.2	19.0	16.7	18.3	18.6
A14068-102	15.5	13.6	14.7	17.0	14.4	16.1	17.0
A14068-146	18.2	16.4	18.7	20.0	16.1	19.4	18.9
LG15-8010	14.8	13.0	14.4	16.0	15.0	14.9	15.5
LG17-5763	15.0	13.9	14.9	17.0	13.3	15.2	15.8
LG17-7150	16.6	15.2	15.8	18.0	16.6	16.4	17.5
LG18-2636	14.3	13.5	13.9	17.0	12.8	13.9	15.0
U16-317096	16.6	15.6	17.4	18.0	14.1	16.9	17.8
U17-311090	15.1	13.3	15.1	18.0	13.5	15.7	15.3
U17-313161	14.2	12.8	14.3	16.0	13.3	14.2	14.6
U17-322103	14.2	12.2	14.5	16.0	11.0	15.6	16.0
U17-323182	14.8	13.9	14.3	18.0	13.1	14.7	15.1
U17-326153	13.3	11.3	12.9	15.0	13.8	13.3	13.5
U17-335221	14.2	12.4	13.9	15.0	14.3	14.8	14.5
U17-336167	15.5	13.4	14.7	17.0	15.9	15.9	16.2
U17-337087	14.7	12.8	14.1	17.0	14.0	15.4	15.0
U17-342096	14.9	14.1	14.5	16.0	14.2	15.3	15.4
U18-609101	14.8	13.1	13.9	16.0	14.4	15.2	16.2
U18-612127	14.6	12.8	13.8	16.0	15.0	15.1	15.2
U18-613282	16.0	15.3	14.8	17.0	15.8	16.2	16.7
U18-615191	15.6	14.5	14.8	17.0	14.1	16.1	17.4
U18-902015	17.1	15.4	15.8	18.0	17.1	17.7	18.7

PRELIMINARY TEST IIIB, 2020

SEED QUALITY (score)

Strain	Mean 6 Tests	Urbana IL	West Lafayette IN	Man- hattan KS	Columbia MO	Hold- rege NE	Steven's Creek NE
LD11-2170 (III)	1.3	2.0	1.0	2.0	1.0	1.0	1.0
U15-606207 (SCN)	1.3	2.0	1.0	2.0	1.0	1.0	1.0
LD07-3395bf (SCN) (L)	1.2	2.0	1.0	1.0	1.0	1.0	1.0
U14-910097 (SCN) (E)	1.3	2.0	1.0	2.0	1.0	1.0	1.0
A14004-58	1.3	2.0	1.0	2.0	1.0	1.0	1.0
A14010-168	1.3	2.0	1.0	1.0	2.0	1.0	1.0
A14037-159	1.5	2.0	1.0	2.0	2.0	1.0	1.0
A14039-188	1.5	3.0	1.0	2.0	1.0	1.0	1.0
A14041-189	1.4	2.0	1.5	1.0	2.0	1.0	1.0
A14043-52	1.7	3.0	1.0	2.0	2.0	1.0	1.0
A14044-167	1.3	2.0	1.0	2.0	1.0	1.0	1.0
A14066-156	1.3	2.0	1.0	2.0	1.0	1.0	1.0
A14068-102	1.5	2.0	1.0	2.0	2.0	1.0	1.0
A14068-146	1.5	2.0	1.0	2.0	2.0	1.0	1.0
LG15-8010	1.3	2.0	1.0	2.0	1.0	1.0	1.0
LG17-5763	1.2	2.0	1.0	1.0	1.0	1.0	1.0
LG17-7150	1.3	2.0	1.0	2.0	1.0	1.0	1.0
LG18-2636	1.3	2.0	1.0	2.0	1.0	1.0	1.0
U16-317096	1.3	2.0	1.0	2.0	1.0	1.0	1.0
U17-311090	1.3	2.0	1.0	1.0	2.0	1.0	1.0
U17-313161	1.5	3.0	1.0	2.0	1.0	1.0	1.0
U17-322103	1.5	2.0	1.0	2.0	2.0	1.0	1.0
U17-323182	1.5	2.0	1.0	2.0	2.0	1.0	1.0
U17-326153	1.7	2.0	1.0	2.0	3.0	1.0	1.0
U17-335221	1.2	2.0	1.0	1.0	1.0	1.0	1.0
U17-336167	1.5	2.0	1.0	2.0	2.0	1.0	1.0
U17-337087	1.5	2.0	1.0	2.0	2.0	1.0	1.0
U17-342096	1.2	2.0	1.0	1.0	1.0	1.0	1.0
U18-609101	1.3	2.0	1.0	2.0	1.0	1.0	1.0
U18-612127	1.2	2.0	1.0	1.0	1.0	1.0	1.0
U18-613282	1.3	2.0	1.0	2.0	1.0	1.0	1.0
U18-615191	1.7	2.0	1.0	2.0	3.0	1.0	1.0
U18-902015	1.2	1.0	1.0	2.0	1.0	1.0	1.0

PRELIMINARY TEST IIB, 2020

PROTEIN (%)

Strain	Mean 6 Tests	Urbana IL	West Lafayette IN	Man- hattan KS	Columbia MO	Hold- rege NE	Steven's Creek NE
LD11-2170 (III)	33.2	32.5	34.3	31.9	33.9	32.6	34.1
U15-606207 (SCN)	32.2	33.0	33.0	31.3	32.3	32.1	31.5
LD07-3395bf (SCN) (L)	31.3	31.0	32.1	32.1	31.3	30.2	31.0
U14-910097 (SCN) (E)	32.2	31.6	32.4	31.9	33.0	32.0	32.0
A14004-58	33.0	32.7	34.2	33.1	34.1	32.4	31.2
A14010-168	34.4	33.2	35.1	35.0	35.7	33.6	33.7
A14037-159	33.5	33.6	33.9	32.6	33.5	33.5	33.8
A14039-188	34.4	34.6	35.1	33.5	35.4	33.7	34.0
A14041-189	33.7	32.6	34.4	33.2	35.9	32.4	33.7
A14043-52	33.5	33.0	34.3	33.7	34.2	33.0	33.1
A14044-167	33.7	33.3	34.8	33.9	34.1	33.3	32.9
A14066-156	34.1	32.2	33.5	34.7	34.8	35.2	34.4
A14068-102	35.6	35.1	35.3	35.6	36.7	36.0	35.1
A14068-146	35.7	35.5	36.1	35.7	36.4	35.6	34.9
LG15-8010	34.6	34.2	36.3	33.9	34.9	34.3	34.2
LG17-5763	33.0	32.0	33.4	33.5	33.4	32.8	33.0
LG17-7150	32.0	32.0	31.9	32.0	32.3	32.3	31.6
LG18-2636	33.1	33.8	34.1	33.5	32.7	32.0	32.3
U16-317096	33.9	33.9	35.2	33.8	33.6	33.6	33.4
U17-311090	32.3	31.7	33.1	32.4	33.1	31.5	32.0
U17-313161	33.9	33.3	35.1	33.3	34.2	33.7	33.8
U17-322103	32.4	32.0	32.7	32.4	33.8	31.8	31.6
U17-323182	32.9	33.7	34.7	32.7	32.5	31.9	32.2
U17-326153	31.6	31.2	32.2	31.7	32.3	31.0	31.1
U17-335221	33.2	32.9	34.2	33.0	33.7	33.2	32.2
U17-336167	34.1	35.6	34.3	33.2	35.1	33.3	33.2
U17-337087	33.5	32.7	34.8	33.5	33.9	33.3	33.0
U17-342096	31.9	33.0	32.7	31.6	32.4	30.7	31.3
U18-609101	32.1	32.0	32.8	31.9	32.9	31.3	31.5
U18-612127	32.7	33.3	33.6	32.5	33.1	31.8	31.9
U18-613282	34.1	34.1	34.5	33.8	35.2	32.6	34.2
U18-615191	31.5	30.8	32.1	31.7	32.3	30.6	31.7
U18-902015	32.1	31.5	32.3	31.3	32.8	32.6	32.0

PRELIMINARY TEST IIB, 2020

OIL (%)

Strain	Mean 6 Tests	Urbana IL	West Lafayette IN	Man- hattan KS	Columbia MO	Hold- rege NE	Steven's Creek NE
LD11-2170 (III)	20.2	20.8	19.8	20.8	20.8	19.8	19.2
U15-606207 (SCN)	20.3	20.0	20.0	20.6	21.4	19.6	20.0
LD07-3395bf (SCN) (L)	20.5	21.3	20.2	20.5	21.1	19.8	20.2
U14-910097 (SCN) (E)	20.6	20.7	20.3	21.1	20.9	20.2	20.3
A14004-58	19.9	20.1	19.3	20.2	20.3	19.4	19.9
A14010-168	19.4	19.9	19.2	19.6	19.4	19.1	19.2
A14037-159	19.4	19.6	19.0	20.2	20.3	18.8	18.7
A14039-188	19.4	19.4	19.0	20.2	19.6	19.1	18.9
A14041-189	19.6	20.4	18.9	20.4	19.9	18.9	19.0
A14043-52	20.3	20.6	20.1	20.7	20.6	20.0	20.0
A14044-167	19.8	20.2	19.3	20.1	20.4	19.5	19.5
A14066-156	19.0	19.7	19.4	19.0	19.5	17.9	18.4
A14068-102	18.2	18.7	18.3	18.5	18.7	17.5	17.3
A14068-146	18.5	19.0	18.4	18.9	19.1	17.6	18.1
LG15-8010	19.4	19.6	18.6	19.8	20.1	18.7	19.3
LG17-5763	19.7	20.3	19.9	19.7	20.4	18.7	19.0
LG17-7150	20.2	20.2	20.4	20.6	20.7	19.4	19.8
LG18-2636	19.4	18.9	18.9	19.9	20.2	19.1	19.1
U16-317096	19.3	19.1	18.7	19.6	20.4	18.4	19.3
U17-311090	20.0	19.9	19.6	20.2	20.6	19.6	20.1
U17-313161	19.3	19.5	19.0	20.1	20.0	18.6	18.4
U17-322103	20.0	20.2	19.6	20.4	20.4	19.7	19.9
U17-323182	19.4	19.1	18.8	19.7	20.6	19.1	19.2
U17-326153	19.6	19.9	19.2	19.9	20.4	18.8	19.2
U17-335221	19.5	19.5	18.8	20.1	20.1	18.8	19.4
U17-336167	19.2	18.8	18.7	20.0	19.8	19.0	19.1
U17-337087	19.7	20.1	19.0	19.9	20.6	18.8	19.7
U17-342096	19.9	19.4	19.4	20.4	20.5	20.0	19.8
U18-609101	20.3	20.3	19.9	20.6	21.1	20.0	19.9
U18-612127	19.9	19.7	19.6	20.1	20.7	19.5	19.8
U18-613282	19.4	19.4	19.3	19.8	20.0	19.5	18.7
U18-615191	20.2	20.9	20.2	20.4	21.2	19.4	19.3
U18-902015	20.3	20.8	20.7	20.6	20.7	19.3	19.4

**Northern Regional Uniform Test
Uniform Test IV, 2020**

Ent.	Strain	Parentage	Seed Source	Previous Testing	Gen. Comp.	Unique Traits
1	LD06-7620 (IV)	IA3023 x LD00-3309	Diers	10	F5	SCN
2	LD00-2817 (L)	Ina x Dwight	Diers	13	F5	SCN
3	LD07-3395bf (SCN) (E)	LD07-3395 Reselection	Diers	5	F5	SCN
4	CR15-0616	CL05-4637 x AR08-286003	Rainey	1	F5	SCN
5	CR15-1369	4J10534 x LD06-7620	Rainey	1	F5	SCN
6	CR15-1382	4J10534 x LD06-7620	Rainey	1	F5	SCN
7	CR16-0130	LD02-9050 x L66-2470-2	Rainey	PTIV	F6	
8	CR16-0153	LG09-8165 x HI0800685	Rainey	PTIV	F6	
9	CR16-0154	LG09-8165 x HI0800685	Rainey	PTIV	F6	
10	K16-1222	LS07-3125 x K10-8556	Schapaugh	PTIV	F4	SCN
11	K16-1229	LS07-3125 x K10-8556	Schapaugh	PTIV	F4	SCN
12	LD15-3818	LD09-3913 x BN09002129	Diers	1	F5	SCN
13	LD16-2955	LD07-3395bf x LD10-10219	Diers	SCN UTIV	F5	SCN
14	LG17-8880	LG09-8165 x WN0800527	Walker	PTIV	F6	Genetic diversity
15	LG17-8885	LG09-8165 x WN0800527	Walker	PTIV	F6	Genetic diversity
16	LG17-8888	LG09-8165 x WN0800527	Walker	PTIV	F6	Genetic diversity
17	S13-2743C	LS07-3125 x S05-11400	Chen	1		SCN
18	S15-10879C	S09-13635 x S08-8440RR1	Chen	1		SCN, STS
19	S16-9784C	S09-9943 x DT97-4290	Chen	1		
20	SA16-10735	LD07-3395bf x HM11-W193	Scaboo	PTIV	F5	

UNIFORM TEST IV, 2020
DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code
LD06-7620 (IV)	PLtBDYBI
LD00-2817 (L)	PGTDYIbI
LD07-3395bf (SCN) (E)	WGTDYBfI
CR15-0616	PLtBDYBI
CR15-1369	PLtBDYBI
CR15-1382	PLtBDYBI
CR16-0130	PTBDYBI
CR16-0153	PTBDYBI
CR16-0154	PT+LtBDYBI
K16-1222	WGBSYBfI
K16-1229	PGB+TDYIbI
LD15-3818	PLtTDYBI
LD16-2955	PLtBDYBI
LG17-8880	PLtBDYBI
LG17-8885	PGBDYIbI
LG17-8888	PGBDYIbI
S13-2743C	WGB+TDYBfI
S15-10879C	WGBDYBfI
S16-9784C	P+WTTDYBI
SA16-10735	PGTDYIbI

UNIFORM TEST IV, 2020

REGIONAL SUMMARY

No. of Tests Strain	Yield	Rank	Maturity	Lodging	Plant Height	Seed Size	Seed Quality	<u>Composition</u>	
	5 bu/a	5 No.	8 Date	8 Score	7 In.	7 g/100	7 Score	5 Protein %	5 Oil %
LD06-7620 (IV)	60.9	11	10/2	1.0	26	13.7	1.9	34.2	18.9
LD00-2817 (L)	60.3	13	2.7	1.4	31	12.9	2.0	32.4	20.1
LD07-3395bf (SCN) (E)	65.4	4	-1.9	1.0	25	14.8	2.0	32.4	20.5
CR15-0616	60.1	14	-0.4	1.0	29	13.2	1.8	33.3	19.8
CR15-1369	64.5	5	-0.2	1.1	28	14.3	1.7	33.8	19.6
CR15-1382	67.4	1	-1.0	1.1	28	16.5	2.1	34.0	19.7
CR16-0130	61.2	10	-1.0	1.0	28	12.5	1.8	34.1	18.7
CR16-0153	63.8	7	-1.2	1.1	30	15.2	1.9	35.2	18.3
CR16-0154	61.9	9	-0.5	1.0	29	15.7	1.7	34.7	18.7
K16-1222	56.4	17	3.5	1.0	30	12.2	1.6	33.1	19.4
K16-1229	58.2	15	0.0	1.0	28	13.8	2.0	33.0	20.0
LD15-3818	65.6	3	-1.0	1.0	28	14.2	1.9	33.9	19.8
LD16-2955	60.4	12	0.7	1.0	25	15.5	1.9	33.0	20.7
LG17-8880	63.9	6	-0.3	1.6	34	14.3	1.9	33.5	19.2
LG17-8885	62.3	8	0.2	2.0	35	13.2	1.9	33.8	18.9
LG17-8888	66.1	2	3.1	2.0	35	13.8	1.7	33.7	19.0
S13-2743C	53.4	19	4.7	1.2	31	13.1	1.9	34.8	19.0
S15-10879C	48.9	20	2.9	1.2	30	13.5	1.9	35.7	17.8
S16-9784C	54.2	18	3.8	1.5	29	15.6	1.5	34.8	18.2
SA16-10735	57.9	16	1.1	2.2	31	14.4	2.0	34.0	19.6
Mean	60.7			1.3	29.5	14.1	1.9	33.9	19.3
C.V. (%)	8.7								
L.S.D. (5%)	3.8								

126.9 Days After Planting

UNIFORM TEST IV, 2020

2019-2020 2-YEAR MEAN

No. of Tests Strain	Yield 16 bu/a	Rank 16 No.	Maturity 19 Date	Lodging 19 Score	Plant Height 18 In.	Seed Size 18 g/100	Seed Quality 18 Score	<u>Composition</u>	
								Protein 9 %	Oil 9 %
LD06-7620 (IV)	59.3	5	10/3	1.1	28	14.4	2.0	34.9	18.8
LD00-2817 (L)	57.8	7	0.7	1.5	32	13.7	2.1	32.9	20.1
LD07-3395bf (SCN) (E)	63.4	1	-2.4	1.1	27	15.8	2.0	33.1	20.3
CR15-0616	58.1	6	-1.5	1.0	30	13.9	1.9	33.9	19.9
CR15-1369	61.4	4	0.0	1.2	30	15.0	2.0	34.3	19.5
CR15-1382	61.4	3	-0.9	1.2	28	17.5	2.2	34.4	19.6
LD15-3818	63.1	2	-1.7	1.1	29	14.9	2.0	34.5	19.6
S13-2743C	56.8	8	3.4	1.2	33	13.6	1.9	35.1	19.1
S15-10879C	52.1	10	1.8	1.3	31	14.0	2.0	36.5	17.3
S16-9784C	54.8	9	3.6	1.5	31	16.0	1.7	35.0	18.4

125.8 Days After Planting

2018-2020 3-YEAR MEAN

No. of Tests Strain	28	28	30	31	29	25	25	12	12
LD06-7620 (IV)	57.8	2	9/29	1.4	29	14.2	2.2	34.6	18.9
LD00-2817 (L)	56.1	4	1.6	1.7	34	13.3	2.2	32.8	20.2
LD07-3395bf (SCN) (E)	60.3	1	-2.6	1.3	28	15.4	2.3	32.9	20.5
S13-2743C	57.1	3	3.7	1.5	35	13.4	1.9	34.7	19.2

127.9 Days After Planting

UNIFORM TEST IV, 2020

YIELD (bu/a)

Strain	Mean 5 Tests	Flora IL*	Savoy IL*	Urbana IL	Romney IN	West Lafayette IN	Ottawa KS
LD06-7620 (IV)	60.9	49.3	35.2	59.9	82.7	70.3	47.3
LD00-2817 (L)	60.3	58.3	31.1	56.3	71.0	70.6	45.3
LD07-3395bf (SCN) (E)	65.4	53.7	36.0	56.0	85.5	82.6	50.8
CR15-0616	60.1	49.1	38.3	53.9	83.1	69.5	39.9
CR15-1369	64.5	48.5	41.4	69.3	78.7	73.3	48.7
CR15-1382	67.4	61.8	56.2	68.6	86.4	88.1	48.3
CR16-0130	61.2	50.6	41.4	62.7	77.5	77.0	37.6
CR16-0153	63.8	45.9	45.2	54.8	84.7	79.6	44.6
CR16-0154	61.9	54.7	36.3	58.5	88.3	75.8	40.4
K16-1222	56.4	42.9	37.2	48.6	77.3	60.3	47.3
K16-1229	58.2	52.7	34.9	54.4	72.9	68.2	43.7
LD15-3818	65.6	52.5	44.1	69.1	80.4	79.5	46.3
LD16-2955	60.4	47.6	34.0	62.5	74.8	76.1	43.3
LG17-8880	63.9	49.3	42.2	67.5	83.9	67.6	42.8
LG17-8885	62.3	55.4	47.8	59.9	75.1	69.3	47.3
LG17-8888	66.1	54.7	37.7	63.8	82.0	76.1	49.4
S13-2743C	53.4	55.5	35.6	42.5	72.9	56.9	45.1
S15-10879C	48.9	48.5	31.4	32.5	60.5	61.1	41.3
S16-9784C	54.2	52.2	27.8	50.9	56.3	65.6	41.3
SA16-10735	57.9	45.3	44.8	59.2	55.1	65.9	45.8
Location Mean		51.4	38.9	57.5	76.4	71.7	44.8
C.V. (%)		17.0	17.7	6.6	9.1	8.7	6.1
L.S.D. (5%)		18.3	14.4	8.0	14.6	13.0	4.6
Row Sp. (In.)		30	30	30	30	30	30
Rows/Plot		4	4	4	2	4	4
Reps		2	2	2	2	2	3

*Data not included in mean.

UNIFORM TEST IV, 2020

YIELD (bu/a)

Strain	Portageville Clay MO**	Portageville Loam MO**
LD06-7620 (IV)	44.1	33.5
LD00-2817 (L)	58.1	23.9
LD07-3395bf (SCN) (E)	52.0	18.9
CR15-0616	54.3	19.3
CR15-1369	52.6	15.7
CR15-1382	45.9	21.2
CR16-0130	51.4	20.6
CR16-0153	55.4	18.3
CR16-0154	46.7	25.5
K16-1222	48.6	32.2
K16-1229	51.9	26.2
LD15-3818	52.9	21.9
LD16-2955	45.5	24.8
LG17-8880	57.9	27.8
LG17-8885	59.7	33.2
LG17-8888	59.3	37.2
S13-2743C	49.7	21.9
S15-10879C	48.9	31.2
S16-9784C	57.1	41.5
SA16-10735	63.6	24.9
Location Mean	52.8	26.0
C.V. (%)	10.6	31.2
L.S.D. (5%)	11.1	16.1
Row Sp. (In.)	30	30
Rows/Plot	4	4
Reps	3	3

**Significant dicamba damage, Portageville Loam data not included in mean.

UNIFORM TEST IV, 2020

YIELD RANK

Strain	Yield Rank	Flora IL	Savoy IL	Urbana IL	Romney IN	West Lafayette IN	Ottawa KS
LD06-7620 (IV)	11	12	15	8	7	11	5
LD00-2817 (L)	13	2	19	12	17	10	10
LD07-3395bf (SCN) (E)	4	7	13	13	3	2	1
CR15-0616	14	14	9	16	6	12	19
CR15-1369	5	15	8	1	10	9	3
CR15-1382	1	1	1	3	2	1	4
CR16-0130	10	11	7	6	11	5	20
CR16-0153	7	18	3	14	4	3	12
CR16-0154	9	5	12	11	1	8	18
K16-1222	17	20	11	18	12	19	5
K16-1229	15	8	16	15	16	14	13
LD15-3818	3	9	5	2	9	4	8
LD16-2955	12	17	17	7	14	6	14
LG17-8880	6	12	6	4	5	15	15
LG17-8885	8	4	2	8	13	13	5
LG17-8888	2	5	10	5	8	6	2
S13-2743C	19	3	14	19	15	20	11
S15-10879C	20	15	18	20	18	18	16
S16-9784C	18	10	20	17	19	17	16
SA16-10735	16	19	4	10	20	16	9

UNIFORM TEST IV, 2020**YIELD RANK**

Strain	Portageville	Portageville
	Clay MO	Loam MO
LD06-7620 (IV)	20	3
LD00-2817 (L)	4	12
LD07-3395bf (SCN) (E)	11	18
CR15-0616	8	17
CR15-1369	10	20
CR15-1382	18	15
CR16-0130	13	16
CR16-0153	7	19
CR16-0154	17	9
K16-1222	16	5
K16-1229	12	8
LD15-3818	9	13
LD16-2955	19	11
LG17-8880	5	7
LG17-8885	2	4
LG17-8888	3	2
S13-2743C	14	13
S15-10879C	15	6
S16-9784C	6	1
SA16-10735	1	10

UNIFORM TEST IV, 2020

MATURITY (date)

Strain	Mean 8 Tests	Flora IL	Savoy IL	Urbana IL	Romney IN	West Lafayette IN	Ottawa KS
LD06-7620 (IV)	10/2	9/27	10/10	9/27	10/7	10/4	9/15
LD00-2817 (L)	2.7	4	2	5	-2	7	7
LD07-3395bf (SCN) (E)	-1.9	-5	1	-1	-6	-1	0
CR15-0616	-0.4	1	3	0	-4	2	-1
CR15-1369	-0.2	-1	1	-1	-4	3	4
CR15-1382	-1.0	-1	0	-3	-3	1	1
CR16-0130	-1.0	1	2	0	-6	1	3
CR16-0153	-1.2	-4	1	1	-4	4	-1
CR16-0154	-0.5	1	2	0	-5	1	-2
K16-1222	3.5	-1	7	5	2	6	8
K16-1229	0.0	1	1	-1	-7	3	6
LD15-3818	-1.0	-3	1	-1	-5	2	-0
LD16-2955	0.7	-2	2	3	-1	4	2
LG17-8880	-0.3	-3	2	3	-4	3	1
LG17-8885	0.2	-1	2	4	-4	2	3
LG17-8888	3.1	1	2	8	2	7	7
S13-2743C	4.7	3	5	7	2	9	10
S15-10879C	2.9	1	3	9	1	4	5
S16-9784C	3.8	2	5	3	-4	7	11
SA16-10735	1.1	-3	3	2	-3	7	3
Date Planted	5/28	6/2	6/3	5/12	5/27	6/2	5/20
Days to Mature	127	117	129	138	133	124	118

UNIFORM TEST IV, 2020

MATURITY (date)

Strain	Portageville	Portageville
	Clay MO	Loam MO
LD06-7620 (IV)	10/17	10/3
LD00-2817 (L)	-1	0
LD07-3395bf (SCN) (E)	-1	-3
CR15-0616	-3	-1
CR15-1369	-2	-2
CR15-1382	0	-2
CR16-0130	-5	-3
CR16-0153	-5	-1
CR16-0154	-3	2
K16-1222	0	1
K16-1229	-2	-1
LD15-3818	-2	0
LD16-2955	-3	0
LG17-8880	-3	-1
LG17-8885	-4	0
LG17-8888	-3	0
S13-2743C	2	1
S15-10879C	0	0
S16-9784C	-1	8
SA16-10735	0	0
Date Planted	6/12	5/27
Days to Mature	127	129

UNIFORM TEST IV, 2020

LODGING (score)

Strain	Mean 8 Tests	Flora IL	Savoy IL	Urbana IL	Romney IN	West Lafayette IN	Ottawa KS
LD06-7620 (IV)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
LD00-2817 (L)	1.4	1.8	1.0	1.3	1.0	2.5	1.0
LD07-3395bf (SCN) (E)	1.0	1.3	1.0	1.0	1.0	1.0	1.0
CR15-0616	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CR15-1369	1.1	1.3	1.0	1.3	1.0	1.5	1.0
CR15-1382	1.1	1.3	1.0	1.0	1.0	1.5	1.0
CR16-0130	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CR16-0153	1.1	1.0	1.0	1.3	1.0	1.5	1.0
CR16-0154	1.0	1.0	1.0	1.0	1.0	1.0	1.0
K16-1222	1.0	1.0	1.0	1.0	1.0	1.0	1.0
K16-1229	1.0	1.0	1.0	1.3	1.0	1.0	1.0
LD15-3818	1.0	1.0	1.0	1.0	1.0	1.0	1.0
LD16-2955	1.0	1.0	1.0	1.0	1.0	1.0	1.0
LG17-8880	1.6	2.5	1.0	2.0	1.0	2.0	1.0
LG17-8885	2.0	3.0	1.0	2.5	2.0	2.0	1.7
LG17-8888	2.0	3.3	1.0	2.8	2.5	2.0	1.0
S13-2743C	1.2	1.0	1.0	1.3	1.0	1.5	1.0
S15-10879C	1.2	1.0	1.0	1.5	2.0	1.0	1.0
S16-9784C	1.5	1.5	1.0	2.8	1.5	1.0	1.0
SA16-10735	2.2	2.8	1.0	4.0	3.0	2.5	1.0

UNIFORM TEST IV, 2020**LODGING (score)**

Strain	Portageville	Portageville
	Clay MO	Loam MO
LD06-7620 (IV)	1.0	1.0
LD00-2817 (L)	2.0	1.0
LD07-3395bf (SCN) (E)	1.0	1.0
CR15-0616	1.0	1.0
CR15-1369	1.0	1.0
CR15-1382	1.0	1.0
CR16-0130	1.0	1.0
CR16-0153	1.0	1.0
CR16-0154	1.0	1.0
K16-1222	1.0	1.3
K16-1229	1.0	1.0
LD15-3818	1.0	1.0
LD16-2955	1.0	1.0
LG17-8880	1.7	1.7
LG17-8885	2.0	2.0
LG17-8888	1.7	1.7
S13-2743C	1.0	1.7
S15-10879C	1.0	1.3
S16-9784C	1.3	2.0
SA16-10735	2.3	1.0

UNIFORM TEST IV, 2020

PLANT HEIGHT (inches)

Strain	Mean 7 Tests	Flora IL	Savoy IL	Urbana IL	Romney IN	West Lafayette IN	Ottawa KS
LD06-7620 (IV)	26.3	35	21	35		35	29
LD00-2817 (L)	31.1	41	18	40		43	36
LD07-3395bf (SCN) (E)	25.3	32	19	32		38	26
CR15-0616	28.6	37	24	37		36	32
CR15-1369	28.4	35	21	42		41	31
CR15-1382	27.8	35	23	37		42	27
CR16-0130	28.0	34	21	36		40	32
CR16-0153	29.8	36	23	42		44	30
CR16-0154	29.1	41	23	38		39	31
K16-1222	29.5	37	22	38		41	34
K16-1229	28.3	38	21	35		39	31
LD15-3818	28.1	33	21	37		38	32
LD16-2955	24.7	28	19	32		33	27
LG17-8880	33.8	42	24	48		46	39
LG17-8885	35.3	40	27	47		48	40
LG17-8888	35.1	42	23	47		48	41
S13-2743C	31.2	41	21	40		44	37
S15-10879C	29.9	33	24	32		42	35
S16-9784C	29.4	34	19	38		38	33
SA16-10735	30.9	38	26	41		41	33

UNIFORM TEST IV, 2020**PLANT HEIGHT (inches)**

Strain	Portageville	Portageville
	Clay MO	Loam MO
LD06-7620 (IV)	19	11
LD00-2817 (L)	27	14
LD07-3395bf (SCN) (E)	21	10
CR15-0616	22	13
CR15-1369	21	10
CR15-1382	20	12
CR16-0130	22	11
CR16-0153	23	11
CR16-0154	21	11
K16-1222	21	15
K16-1229	23	13
LD15-3818	21	15
LD16-2955	21	14
LG17-8880	23	15
LG17-8885	27	19
LG17-8888	26	20
S13-2743C	23	14
S15-10879C	24	21
S16-9784C	24	21
SA16-10735	25	14

UNIFORM TEST IV, 2020

SEED SIZE (g/100)

Strain	Mean 7 Tests	Flora IL	Savoy IL	Urbana IL	Romney IN	West Lafayette IN	Ottawa KS
LD06-7620 (IV)	13.7	13.1	14.0	14.0		13.5	12.0
LD00-2817 (L)	12.9	12.5	12.0	13.3		13.5	11.3
LD07-3395bf (SCN) (E)	14.8	13.6	16.0	14.7		15.1	14.7
CR15-0616	13.2	11.8	13.0	13.5		13.8	12.0
CR15-1369	14.3	13.5	15.0	14.5		14.9	13.7
CR15-1382	16.5	16.6	17.0	16.2		17.5	15.3
CR16-0130	12.5	12.2	13.0	12.9		12.8	10.7
CR16-0153	15.2	13.2	16.0	14.8		16.1	13.0
CR16-0154	15.7	14.8	16.0	15.6		16.2	14.0
K16-1222	12.2	10.4	12.0	11.9		12.1	11.0
K16-1229	13.8	12.6	14.0	13.5		12.8	13.0
LD15-3818	14.2	13.2	15.0	14.7		14.6	12.3
LD16-2955	15.5	13.9	14.0	17.6		16.9	13.3
LG17-8880	14.3	12.2	16.0	14.7		14.6	11.7
LG17-8885	13.2	12.2	13.0	13.4		13.2	11.0
LG17-8888	13.8	12.8	14.0	14.0		13.8	11.3
S13-2743C	13.1	11.8	13.0	14.0		12.4	11.0
S15-10879C	13.5	12.7	13.0	13.9		13.5	11.0
S16-9784C	15.6	14.0	16.0	14.6		15.7	13.0
SA16-10735	14.4	12.7	15.0	14.4		15.2	12.3

UNIFORM TEST IV, 2020**SEED SIZE (g/100)**

Strain	Portageville	Portageville
	Clay MO	Loam MO
LD06-7620 (IV)	15.3	14.1
LD00-2817 (L)	15.6	12.3
LD07-3395bf (SCN) (E)	15.5	14.0
CR15-0616	16.0	12.3
CR15-1369	16.0	12.5
CR15-1382	17.9	15.3
CR16-0130	13.9	11.9
CR16-0153	18.3	15.1
CR16-0154	18.3	14.7
K16-1222	15.0	13.0
K16-1229	17.0	13.7
LD15-3818	15.9	13.8
LD16-2955	17.8	14.7
LG17-8880	17.0	13.6
LG17-8885	15.6	13.7
LG17-8888	16.8	14.1
S13-2743C	16.0	13.6
S15-10879C	16.7	13.6
S16-9784C	18.9	16.8
SA16-10735	17.0	14.6

UNIFORM TEST IV, 2020

SEED QUALITY (score)

Strain	Mean 7 Tests	Flora IL	Savoy IL	Urbana IL	Romney IN	West Lafayette IN	Ottawa KS
LD06-7620 (IV)	1.9	1.0	2.0	2.0		1.0	2.0
LD00-2817 (L)	2.0	2.0	2.5	2.0		1.0	2.0
LD07-3395bf (SCN) (E)	2.0	2.0	1.5	2.0		1.0	2.0
CR15-0616	1.8	2.0	1.5	2.0		1.0	2.0
CR15-1369	1.7	1.0	1.5	1.0		1.0	2.0
CR15-1382	2.1	2.0	1.5	2.0		1.0	2.0
CR16-0130	1.8	1.0	2.0	1.0		1.0	2.0
CR16-0153	1.9	1.0	1.5	2.0		1.0	2.0
CR16-0154	1.7	1.0	1.5	1.0		1.0	1.7
K16-1222	1.6	1.0	1.5	2.0		1.0	2.0
K16-1229	2.0	1.0	2.5	2.0		1.0	2.0
LD15-3818	1.9	2.0	1.5	2.0		1.0	2.0
LD16-2955	1.9	1.0	3.0	2.0		1.0	2.0
LG17-8880	1.9	2.0	1.5	2.0		1.0	2.0
LG17-8885	1.9	2.0	1.5	2.0		1.0	2.3
LG17-8888	1.7	2.0	1.0	2.0		1.0	2.0
S13-2743C	1.9	2.0	1.5	2.0		1.0	2.0
S15-10879C	1.9	2.0	2.0	2.0		1.0	2.3
S16-9784C	1.5	1.0	2.0	2.0		1.0	1.3
SA16-10735	2.0	2.0	1.5	2.0		1.0	2.0

UNIFORM TEST IV, 2020**SEED QUALITY (score)**

Strain	Portageville	Portageville
	Clay MO	Loam MO
LD06-7620 (IV)	2.7	2.7
LD00-2817 (L)	2.0	2.3
LD07-3395bf (SCN) (E)	3.0	2.3
CR15-0616	2.3	2.0
CR15-1369	3.0	2.3
CR15-1382	3.0	3.0
CR16-0130	2.7	2.7
CR16-0153	3.0	2.7
CR16-0154	3.0	2.7
K16-1222	2.0	2.0
K16-1229	3.0	2.7
LD15-3818	2.0	2.7
LD16-2955	2.3	2.3
LG17-8880	2.3	2.7
LG17-8885	2.3	2.3
LG17-8888	2.3	1.7
S13-2743C	2.3	2.7
S15-10879C	2.3	1.7
S16-9784C	2.0	1.3
SA16-10735	2.3	3.0

UNIFORM TEST IV, 2020

PROTEIN (%)

Strain	Mean 5 Tests	Flora IL	Urbana IL	West Lafayette IN	Ottawa KS	Portageville Loam MO
LD06-7620 (IV)	34.2	34.9	33.1	34.2	33.1	35.9
LD00-2817 (L)	32.4	32.1	31.2	33.2	32.5	32.9
LD07-3395bf (SCN) (E)	32.4	33.6	29.7	32.3	32.6	33.7
CR15-0616	33.3	34.1	32.5	33.5	33.0	33.6
CR15-1369	33.8	34.5	32.7	33.6	33.4	34.8
CR15-1382	34.0	34.7	33.0	33.7	33.7	34.7
CR16-0130	34.1	34.3	33.5	35.2	33.5	34.2
CR16-0153	35.2	35.9	33.6	36.0	35.3	35.3
CR16-0154	34.7	34.9	32.8	35.6	34.6	35.8
K16-1222	33.1	33.7	32.3	34.0	32.5	33.3
K16-1229	33.0	34.1	31.7	33.8	32.6	32.9
LD15-3818	33.9	34.3	32.7	35.9	33.4	33.4
LD16-2955	33.0	34.3	32.3	33.5	32.3	32.4
LG17-8880	33.5	34.6	32.7	33.7	33.3	33.0
LG17-8885	33.8	35.6	32.3	35.1	32.8	33.2
LG17-8888	33.7	35.4	32.6	34.3	33.2	33.0
S13-2743C	34.8	35.2	35.1	35.9	33.8	33.9
S15-10879C	35.7	36.6	35.6	36.9	34.5	34.9
S16-9784C	34.8	36.0	34.2	34.9	34.9	33.8
SA16-10735	34.0	34.4	32.8	33.8	34.9	34.2

UNIFORM TEST IV, 2020

OIL (%)

Strain	Mean 5 Tests	Flora IL	Urbana IL	West Lafayette IN	Ottawa KS	Portageville Loam MO
LD06-7620 (IV)	18.9	19.3	19.4	18.6	19.5	17.8
LD00-2817 (L)	20.1	20.9	20.7	19.2	20.0	19.6
LD07-3395bf (SCN) (E)	20.5	20.8	21.4	20.1	20.6	19.4
CR15-0616	19.8	19.9	20.3	19.3	20.2	19.5
CR15-1369	19.6	20.1	19.9	19.3	19.8	18.7
CR15-1382	19.7	20.2	20.1	19.5	19.9	19.0
CR16-0130	18.7	19.1	18.8	17.9	19.2	18.5
CR16-0153	18.3	19.0	19.2	17.1	18.1	18.2
CR16-0154	18.7	19.3	19.4	17.7	19.1	18.1
K16-1222	19.4	19.3	19.5	18.5	20.1	19.6
K16-1229	20.0	20.1	20.4	19.0	20.4	20.1
LD15-3818	19.8	20.2	20.0	18.5	20.0	20.2
LD16-2955	20.7	20.4	20.8	20.3	20.8	21.1
LG17-8880	19.2	19.4	19.4	18.1	19.3	19.7
LG17-8885	18.9	18.5	19.3	17.6	19.4	19.8
LG17-8888	19.0	19.0	19.0	17.7	19.3	20.0
S13-2743C	19.0	19.2	17.6	17.4	20.5	20.3
S15-10879C	17.8	17.5	17.5	16.3	18.8	18.9
S16-9784C	18.2	18.1	18.3	17.3	18.6	18.9
SA16-10735	19.6	20.0	20.0	19.0	19.1	20.0

**Northern Regional Uniform Test
Preliminary Test IV, 2020**

Ent.	Strain	Parentage	Seed Source	Gen. Comp.	Unique Traits
1	LD06-7620 (IV)	IA3023 x LD00-3309	Diers	F5	SCN
2	LD00-2817 (L)	Ina x Dwight	Diers	F5	SCN
3	LD07-3395bf (SCN) (E)	LD07-3395 Reselection	Diers	F5	SCN
4	CR17-3734	F3:5 LG09-8165 x WN0800527	Rainey	F5	
5	CR17-4046	F3:5 LG07-4722 x LD07-4477	Rainey	F5	SCN
6	CR17-4386	F3:5 LG10-2699 x LG09-7163	Rainey	F5	
7	CR17-4388	F3:5 LG10-2699 x LG09-7163	Rainey	F5	
8	K17-1441	K10-8556 x 435.TCS	Schapaugh	F5	STS
9	K17-1712	LG11-6208 x LS07-3131	Schapaugh	F5	
10	K17-1835	LS07-3131 x 435.TCS	Schapaugh	F5	STS
11	K17-6185	LG11-6210 x K11-2363B	Schapaugh	F5	
12	K17-6254	LG11-6210 x K11-2363T	Schapaugh	F5	STS
13	K17-6326	LG11-6210 x K11-2363T	Schapaugh	F5	STS
14	K17-6436	LG11-6210 x K11-2363T	Schapaugh	F5	STS
15	K17-6472	LG11-6210 x K11-2363T	Schapaugh	F5	STS
16	LG17-7290	LG09-7163 x LG10-4028	Walker	F6	Genetic diversity
17	LG17-7434	LG09-8165 x WN0800527	Walker	F6	Genetic diversity
18	LG17-8856	LG09-8165 x WN0800527	Walker	F6	Genetic diversity
19	LG17-8858	LG09-8165 x WN0800527	Walker	F6	Genetic diversity
20	LG17-8882	LG09-8165 x WN0800527	Walker	F6	Genetic diversity
21	LG17-8898	LG09-8166 x LG10-4028	Walker	F6	Genetic diversity
22	LG17-8900	LG09-8166 x LG10-4028	Walker	F6	Genetic diversity
23	SA17-15682	Ellis x LG09-7163	Scaboo	F5	
24	SA17-19304	LS09-1803 x LD09-10911	Scaboo	F5	
25	SA17-21156	LG11-6208 x HM11-W193	Scaboo	F5	
26	SA17-29905	134137 x LD11-11299	Scaboo	F5	

PRELIMINARY TEST IV, 2020
DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code
LD06-7620 (IV)	PLtBDYBI
LD00-2817 (L)	PGTDYIbI
LD07-3395bf (SCN) (E)	WGTDYBfI
CR17-3734	PLtBDYBI
CR17-4046	PLtBDYBI
CR17-4386	PLtBSYBI
CR17-4388	PLtBSYBI
K17-1441	PTTDYBI
K17-1712	WGBDYBfI
K17-1835	PGBDYIbI
K17-6185	WLtTDYBI
K17-6254	PLtTDYBI
K17-6326	PLtTDYBI
K17-6436	PLtBDYBI
K17-6472	PLtTDYBI
LG17-7290	PLtBDYBI
LG17-7434	PLt+GTDYHI
LG17-8856	PTBDYBI
LG17-8858	PGTDYIbI
LG17-8882	PGB+TDYIbI
LG17-8898	PLtBDYBI
LG17-8900	PLtBDYBI
SA17-15682	P+WLtBDYBI
SA17-19304	PGTDYIbI
SA17-21156	WLtTDYBI
SA17-29905	PLtBDYBI

PRELIMINARY TEST IV, 2020

REGIONAL SUMMARY

No. of Tests Strain	Yield	Rank	Maturity	Lodging	Plant	Seed	Seed	<u>Composition</u>	
	6 bu/a	6 No.	7 Date	7 Score	6 In.	6 g/100	6 Score	5 Protein %	5 Oil %
LD06-7620 (IV)	70.2	5	10/2	1.2	33	14.1	1.7	34.0	19.2
LD00-2817 (L)	65.2	17	3.4	1.5	37	13.2	1.8	32.5	19.9
LD07-3395bf (SCN) (E)	72.0	2	-2.9	1.1	31	15.2	1.8	31.6	20.7
CR17-3734	67.0	11	-0.2	1.3	33	14.0	1.8	33.9	19.3
CR17-4046	66.4	15	-0.4	1.1	32	13.8	1.6	33.7	19.1
CR17-4386	66.8	13	-0.1	1.6	36	16.0	1.7	33.1	19.8
CR17-4388	63.5	23	1.0	1.8	39	17.2	1.6	33.4	19.6
K17-1441	58.8	26	2.9	1.5	32	14.3	1.6	33.7	19.1
K17-1712	69.6	7	2.1	1.1	35	13.2	1.4	33.8	19.2
K17-1835	62.5	24	1.6	1.3	33	16.1	1.6	34.0	19.9
K17-6185	70.2	4	-0.7	1.2	34	13.3	1.5	34.1	19.5
K17-6254	65.9	16	-1.1	1.1	32	12.9	1.3	36.0	18.4
K17-6326	70.8	3	0.1	1.1	34	12.5	1.6	34.0	19.5
K17-6436	65.1	18	4.0	1.1	34	14.9	1.6	34.3	18.8
K17-6472	68.0	9	1.8	1.1	33	14.8	1.6	34.4	18.5
LG17-7290	64.0	20	-0.3	1.5	38	14.2	1.4	34.3	19.5
LG17-7434	69.9	6	-2.1	1.6	37	13.0	1.5	33.3	19.2
LG17-8856	73.7	1	2.0	1.6	40	14.7	1.5	33.2	19.4
LG17-8858	68.6	8	-0.2	1.5	38	14.3	1.3	32.6	19.9
LG17-8882	67.6	10	1.2	2.1	41	13.7	1.8	33.5	18.9
LG17-8898	66.9	12	0.6	1.9	41	14.9	1.5	34.7	18.6
LG17-8900	65.1	19	3.6	2.0	42	15.2	1.8	35.2	18.4
SA17-15682	61.7	25	-2.4	1.8	35	14.2	1.8	35.3	19.5
SA17-19304	63.9	21	-1.4	1.6	35	13.7	1.6	32.5	19.5
SA17-21156	63.7	22	0.0	1.6	36	14.5	1.6	34.7	19.3
SA17-29905	66.6	14	0.1	1.2	36	16.2	1.4	35.2	19.0
Mean	66.7			1.4	35.6	14.4	1.6	33.9	19.3
C.V. (%)	9.1								
L.S.D. (5%)	4.9								

127.1 Days After Planting

PRELIMINARY TEST IV, 2020

YIELD (bu/a)

Strain	Mean 6 Tests	Savoy IL*	Urbana IL	Romney IN	West Lafayette IN	Man- hattan KS	Ottawa KS	Columbia MO
LD06-7620 (IV)	70.2	45.4	63.7	87.4	76.1	77.1	48.1	68.6
LD00-2817 (L)	65.2	31.2	60.4	84.6	69.7	66.9	47.3	62.6
LD07-3395bf (SCN) (E)	72.0	40.9	63.7	81.1	84.6	77.9	51.0	73.4
CR17-3734	67.0	36.4	64.3	69.6	79.7	76.0	46.3	66.2
CR17-4046	66.4	29.7	61.1	77.8	83.1	76.7	46.3	53.6
CR17-4386	66.8	40.2	60.6	78.1	78.6	72.1	47.8	63.4
CR17-4388	63.5	28.2	63.9	70.7	73.9	61.4	49.9	61.4
K17-1441	58.8	31.2	54.8	63.4	60.8	65.9	46.0	61.9
K17-1712	69.6	41.7	63.0	82.6	77.9	75.0	50.8	68.3
K17-1835	62.5	35.6	54.7	73.9	69.2	74.0	49.1	54.1
K17-6185	70.2	45.7	66.9	76.3	86.8	77.9	53.0	60.4
K17-6254	65.9	41.8	64.5	84.2	71.0	65.8	52.5	57.2
K17-6326	70.8	38.8	66.3	80.8	83.4	80.1	50.5	63.8
K17-6436	65.1	40.0	59.4	77.2	76.6	63.0	50.9	63.7
K17-6472	68.0	34.6	67.1	83.0	72.8	66.9	50.6	67.7
LG17-7290	64.0	37.4	50.4	88.8	72.9	65.7	46.6	59.7
LG17-7434	69.9	36.0	67.3	74.1	81.2	75.6	53.8	67.3
LG17-8856	73.7	47.7	70.1	83.7	84.1	71.3	50.4	82.9
LG17-8858	68.6	41.2	52.8	88.1	71.0	76.8	56.9	65.7
LG17-8882	67.6	39.9	59.2	63.1	77.7	75.4	51.8	78.5
LG17-8898	66.9	47.0	63.0	68.7	73.3	69.3	53.0	74.3
LG17-8900	65.1	45.6	63.2	74.0	72.3	63.4	48.8	68.8
SA17-15682	61.7	30.9	48.0	64.4	72.6	64.4	54.7	66.2
SA17-19304	63.9	34.9	63.4	56.6	76.9	75.7	50.7	60.3
SA17-21156	63.7	38.5	55.6	74.0	73.7	66.1	56.2	56.6
SA17-29905	66.6	41.5	59.7	83.2	82.1	65.4	42.5	66.7
Location Mean		38.5	61.0	76.5	76.2	71.0	50.2	65.1
C.V. (%)		16.4	8.1	15.0	5.7	3.9	3.1	10.5
L.S.D. (5%)		13.0	10.2	23.7	9.0	5.7	3.1	14.2
Row Sp. (In.)		30	30	30	30	30	30	30
Rows/Plot		4	4	2	4	4	4	4
Reps		2	2	2	2	2	2	2

*Data not included in mean

PRELIMINARY TEST IV, 2020

YIELD RANK

Strain	Yield Rank	Savoy IL	Urbana IL	Romney IN	West Lafayette IN	Manhattan KS	Ottawa KS	Columbia MO
LD06-7620 (IV)	5	5	9	3	14	4	19	6
LD00-2817 (L)	17	22	17	4	24	16	21	17
LD07-3395bf (SCN) (E)	2	10	9	10	2	2	9	4
CR17-3734	11	17	7	21	8	7	23	11
CR17-4046	15	25	15	13	5	6	23	26
CR17-4386	13	11	16	12	9	13	20	16
CR17-4388	23	26	8	20	15	26	16	19
K17-1441	26	22	22	24	26	19	25	18
K17-1712	7	7	13	9	10	11	11	7
K17-1835	24	19	23	19	25	12	17	25
K17-6185	4	3	4	15	1	3	5	20
K17-6254	16	6	6	5	22	20	7	23
K17-6326	3	14	5	11	4	1	14	14
K17-6436	18	12	19	14	13	25	10	15
K17-6472	9	21	3	8	19	16	13	8
LG17-7290	20	16	25	1	18	21	22	22
LG17-7434	6	18	2	16	7	9	4	9
LG17-8856	1	1	1	6	3	14	15	1
LG17-8858	8	9	24	2	22	5	1	13
LG17-8882	10	13	20	25	11	10	8	2
LG17-8898	12	2	13	22	17	15	5	3
LG17-8900	19	4	12	18	21	24	18	5
SA17-15682	25	24	26	23	20	23	3	12
SA17-19304	21	20	11	26	12	8	12	21
SA17-21156	22	15	21	17	16	18	2	24
SA17-29905	14	8	18	7	6	22	26	10

PRELIMINARY TEST IV, 2020

MATURITY (date)

Strain	Mean 7 Tests	Savoy IL	Urbana IL	Romney IN	West Lafayette IN	Man- hattan KS	Ottawa KS	Columbia MO
LD06-7620 (IV)	10/2	10/9	9/24	10/6	10/7	10/7	9/18	10/6
LD00-2817 (L)	3	5	2	2	6	2	4	3
LD07-3395bf (SCN) (E)	-3	2	-3	-6	-3	-7	-3	-1
CR17-3734	-0	1	-1	1	-1	0	-1	-1
CR17-4046	-0	1	0	-1	0	-1	-3	0
CR17-4386	-0	2	0	-3	3	-1	-1	-1
CR17-4388	1	2	1	3	3	-1	0	-1
K17-1441	3	6	4	-2	4	2	6	2
K17-1712	2	3	3	1	3	2	1	3
K17-1835	2	3	1	-1	2	2	6	0
K17-6185	-1	1	-1	-2	-2	-4	4	-1
K17-6254	-1	2	-2	-2	-1	-6	2	-2
K17-6326	0	3	-1	-3	-2	-1	3	1
K17-6436	4	6	6	3	6	2	6	1
K17-6472	2	3	1	1	1	2	5	1
LG17-7290	-0	2	-2	0	2	-1	-3	-1
LG17-7434	-2	1	-3	-5	-1	-4	-3	-1
LG17-8856	2	4	2	1	3	2	3	0
LG17-8858	-0	2	-2	-4	2	-1	3	-2
LG17-8882	1	3	1	-3	3	2	4	-1
LG17-8898	1	3	1	3	1	-2	-1	-1
LG17-8900	4	7	6	2	4	2	6	1
SA17-15682	-2	-1	-4	-6	-1	-3	-2	-1
SA17-19304	-1	2	-2	-2	1	-5	-4	-1
SA17-21156	0	1	-3	1	-2	1	4	-1
SA17-29905	0	2	-1	1	2	-1	-1	-1
Date Planted	5/28	6/3	5/12	5/27	6/2	6/8	5/20	6/2
Days to Mature	127	128	135	132	127	121	121	126

PRELIMINARY TEST IV, 2020

LODGING (score)

Strain	Mean 7 Tests	Savoy IL	Urbana IL	Romney IN	West Lafayette IN	Man- hattan KS	Ottawa KS	Columbia MO
LD06-7620 (IV)	1.2	1.0	1.5	1.0	1.5	1.0	1.0	1.5
LD00-2817 (L)	1.5	1.0	1.3	1.5	2.0	2.0	1.0	1.8
LD07-3395bf (SCN) (E)	1.1	1.0	1.0	1.0	1.5	1.0	1.0	1.5
CR17-3734	1.3	1.0	1.0	1.0	1.5	1.5	1.0	1.8
CR17-4046	1.1	1.0	1.0	1.0	1.5	1.0	1.0	1.3
CR17-4386	1.6	2.0	1.8	1.0	2.0	1.5	1.0	2.0
CR17-4388	1.8	2.0	2.0	1.5	2.5	1.5	1.0	2.0
K17-1441	1.5	1.0	2.5	1.0	2.0	1.5	1.0	1.5
K17-1712	1.1	1.0	1.0	1.0	1.0	1.0	1.0	2.0
K17-1835	1.3	1.0	1.0	1.5	1.0	1.5	1.0	1.8
K17-6185	1.2	1.0	1.0	1.0	1.5	1.0	1.0	1.8
K17-6254	1.1	1.0	1.0	1.5	1.0	1.0	1.0	1.5
K17-6326	1.1	1.0	1.0	1.0	1.0	1.0	1.0	2.0
K17-6436	1.1	1.0	1.0	1.0	1.0	1.5	1.0	1.5
K17-6472	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.8
LG17-7290	1.5	1.0	2.0	1.0	2.0	1.0	1.0	2.3
LG17-7434	1.6	1.0	2.0	1.0	2.5	2.0	1.0	1.8
LG17-8856	1.6	1.0	2.3	1.0	2.5	1.5	1.0	2.0
LG17-8858	1.5	1.0	2.0	1.0	2.0	1.0	1.5	2.0
LG17-8882	2.1	1.0	2.0	1.5	2.5	3.0	2.0	2.8
LG17-8898	1.9	1.0	2.0	2.0	2.0	2.0	2.0	2.3
LG17-8900	2.0	1.0	2.0	1.5	3.0	2.0	1.5	2.8
SA17-15682	1.8	1.0	3.3	1.5	2.5	1.5	1.0	1.8
SA17-19304	1.6	1.0	2.3	1.5	2.0	2.0	1.0	1.5
SA17-21156	1.6	1.0	2.0	2.5	2.0	1.0	1.0	1.5
SA17-29905	1.2	1.0	1.3	1.0	1.5	1.0	1.0	1.8

PRELIMINARY TEST IV, 2020

PLANT HEIGHT (inches)

Strain	Mean 6 Tests	Savoy IL	Urbana IL	Romney IN	West Lafayette IN	Man- hattan KS	Ottawa KS	Columbia MO
LD06-7620 (IV)	33	22	37		40	39	32	31
LD00-2817 (L)	37	23	41		43	47	37	31
LD07-3395bf (SCN) (E)	31	21	33		37	38	29	28
CR17-3734	33	23	36		38	39	30	30
CR17-4046	32	20	36		40	39	31	26
CR17-4386	36	23	41		43	43	35	32
CR17-4388	39	23	44		48	46	38	33
K17-1441	32	22	36		39	38	34	26
K17-1712	35	22	38		42	43	33	32
K17-1835	33	21	36		40	37	32	30
K17-6185	34	24	38		40	39	34	29
K17-6254	32	23	37		36	38	33	29
K17-6326	34	22	37		40	40	33	31
K17-6436	34	22	38		43	42	35	29
K17-6472	33	22	38		40	38	35	29
LG17-7290	38	24	44		47	46	35	32
LG17-7434	37	25	46		41	46	35	31
LG17-8856	40	25	45		47	51	40	36
LG17-8858	38	25	41		46	44	38	33
LG17-8882	41	24	45		48	49	44	38
LG17-8898	41	25	46		46	51	42	37
LG17-8900	42	24	49		50	49	41	39
SA17-15682	35	20	40		44	40	35	31
SA17-19304	35	24	40		41	41	35	30
SA17-21156	36	22	42		42	44	39	30
SA17-29905	36	22	39		44	41	36	33

PRELIMINARY TEST IV, 2020

SEED SIZE (g/100)

Strain	Mean 6 Tests	Savoy IL	Urbana IL	Romney IN	West Lafayette IN	Man- hattan KS	Ottawa KS	Columbia MO
LD06-7620 (IV)	14.1	14.0	14.3		14.0	14.0	13.5	14.9
LD00-2817 (L)	13.2	13.0	13.3		13.8	13.0	11.0	15.2
LD07-3395bf (SCN) (E)	15.2	14.0	14.9		15.6	15.0	15.0	16.6
CR17-3734	14.0	14.0	14.4		13.6	14.0	12.5	15.4
CR17-4046	13.8	14.0	14.1		14.0	13.0	12.5	15.0
CR17-4386	16.0	16.0	15.9		16.1	16.0	14.0	17.8
CR17-4388	17.2	17.0	17.2		17.3	18.0	14.5	19.0
K17-1441	14.3	14.0	14.6		14.7	15.0	12.0	15.6
K17-1712	13.2	12.0	13.4		13.1	14.0	12.5	14.3
K17-1835	16.1	16.0	16.1		15.9	16.0	14.5	17.9
K17-6185	13.3	13.0	13.5		14.0	14.0	11.0	14.1
K17-6254	12.9	12.0	13.6		13.1	13.0	12.0	13.8
K17-6326	12.5	12.0	13.0		13.3	13.0	10.5	13.3
K17-6436	14.9	14.0	15.1		15.5	16.0	13.0	16.1
K17-6472	14.8	15.0	15.5		15.4	15.0	13.0	14.8
LG17-7290	14.2	14.0	14.0		15.2	15.0	12.0	15.1
LG17-7434	13.0	13.0	13.2		13.2	14.0	11.0	13.9
LG17-8856	14.7	14.0	14.4		15.5	15.0	13.0	16.6
LG17-8858	14.3	14.0	14.1		15.3	14.0	12.5	16.2
LG17-8882	13.7	13.0	13.6		14.1	15.0	11.0	15.4
LG17-8898	14.9	14.0	15.2		15.4	15.0	14.0	15.7
LG17-8900	15.2	14.0	15.9		16.3	15.0	14.0	16.1
SA17-15682	14.2	15.0	13.5		14.6	14.0	12.0	16.1
SA17-19304	13.7	14.0	14.2		14.6	14.0	10.0	15.7
SA17-21156	14.5	14.0	14.7		14.9	15.0	13.0	15.2
SA17-29905	16.2	16.0	16.7		17.3	16.0	13.5	17.6

PRELIMINARY TEST IV, 2020

SEED QUALITY (score)

Strain	Mean 6 Tests	Savoy IL	Urbana IL	Romney IN	West Lafayette IN	Man- hattan KS	Ottawa KS	Columbia MO
LD06-7620 (IV)	1.7	2.0	1.0		1.0	2.0	2.0	2.0
LD00-2817 (L)	1.8	2.0	2.0		1.0	2.0	2.0	2.0
LD07-3395bf (SCN) (E)	1.8	1.5	2.0		1.0	2.0	2.0	2.0
CR17-3734	1.8	1.5	2.0		1.0	2.0	2.0	2.0
CR17-4046	1.6	1.5	2.0		1.0	1.0	2.0	2.0
CR17-4386	1.7	1.5	2.0		1.0	2.0	1.5	2.0
CR17-4388	1.6	1.5	2.0		1.0	2.0	2.0	1.0
K17-1441	1.6	1.5	2.0		1.0	1.0	2.0	2.0
K17-1712	1.4	1.5	1.0		1.0	2.0	2.0	1.0
K17-1835	1.6	1.5	2.0		1.0	1.0	2.0	2.0
K17-6185	1.5	1.5	1.0		1.0	2.0	1.5	2.0
K17-6254	1.3	1.5	1.0		1.0	2.0	1.5	1.0
K17-6326	1.6	1.5	2.0		1.0	2.0	2.0	1.0
K17-6436	1.6	1.5	1.0		1.0	2.0	2.0	2.0
K17-6472	1.6	1.5	2.0		1.0	2.0	2.0	1.0
LG17-7290	1.4	1.5	2.0		1.0	1.0	2.0	1.0
LG17-7434	1.5	1.0	2.0		1.0	2.0	2.0	1.0
LG17-8856	1.5	1.0	2.0		1.0	2.0	2.0	1.0
LG17-8858	1.3	1.0	2.0		1.0	1.0	1.5	1.0
LG17-8882	1.8	1.5	2.0		1.0	2.0	2.0	2.0
LG17-8898	1.5	1.5	2.0		1.0	2.0	1.5	1.0
LG17-8900	1.8	1.5	2.0		1.0	2.0	2.0	2.0
SA17-15682	1.8	2.0	2.0		1.0	2.0	1.5	2.0
SA17-19304	1.6	1.0	2.0		1.5	2.0	2.0	1.0
SA17-21156	1.6	1.5	2.0		1.0	2.0	2.0	1.0
SA17-29905	1.4	1.5	1.0		1.0	1.0	2.0	2.0

PRELIMINARY TEST IV, 2020

PROTEIN (%)

Strain	Mean 5 Tests	Urbana IL	West Lafayette IN	Man- hattan KS	Ottawa KS	Columbia MO
LD06-7620 (IV)	34.0	33.2	35.0	33.7	33.3	34.6
LD00-2817 (L)	32.5	31.7	33.2	31.9	33.7	31.9
LD07-3395bf (SCN) (E)	31.6	31.2	30.6	30.6	34.1	31.4
CR17-3734	33.9	34.2	33.7	32.6	34.5	34.6
CR17-4046	33.7	33.4	34.6	31.4	34.2	34.8
CR17-4386	33.1	32.1	33.0	32.6	35.0	32.8
CR17-4388	33.4	31.6	33.3	33.4	34.7	33.8
K17-1441	33.7	33.2	33.8	32.8	34.8	34.0
K17-1712	33.8	33.4	33.7	32.5	35.5	34.1
K17-1835	34.0	32.2	35.0	32.9	35.3	34.8
K17-6185	34.1	32.7	35.4	32.7	35.0	34.8
K17-6254	36.0	35.3	37.2	34.6	35.9	36.9
K17-6326	34.0	32.7	35.5	33.4	33.9	34.3
K17-6436	34.3	33.6	35.8	33.2	34.3	34.6
K17-6472	34.4	33.7	36.1	33.2	34.6	34.3
LG17-7290	34.3	33.6	35.2	33.2	35.0	34.4
LG17-7434	33.3	32.3	33.8	32.4	34.5	33.8
LG17-8856	33.2	32.2	34.2	31.9	34.0	33.8
LG17-8858	32.6	31.1	33.6	30.5	34.0	33.5
LG17-8882	33.5	32.3	34.4	31.7	34.7	34.2
LG17-8898	34.7	34.3	36.3	33.4	35.4	34.2
LG17-8900	35.2	33.7	36.6	33.9	35.5	36.2
SA17-15682	35.3	34.6	36.6	34.0	35.3	35.8
SA17-19304	32.5	31.4	33.5	31.9	33.5	32.2
SA17-21156	34.7	34.5	35.1	34.1	35.8	34.1
SA17-29905	35.2	34.5	35.9	34.6	35.7	35.4

PRELIMINARY TEST IV, 2020

OIL (%)

Strain	Mean 5 Tests	Urbana IL	West Lafayette IN	Man- hattan KS	Ottawa KS	Columbia MO
LD06-7620 (IV)	19.2	19.2	18.3	19.4	19.7	19.4
LD00-2817 (L)	19.9	20.3	19.3	20.2	19.1	20.6
LD07-3395bf (SCN) (E)	20.7	21.4	20.3	20.8	19.6	21.3
CR17-3734	19.3	19.2	18.8	19.5	19.6	19.2
CR17-4046	19.1	19.5	18.4	19.5	19.5	18.6
CR17-4386	19.8	20.3	19.0	20.2	19.5	20.3
CR17-4388	19.6	20.3	19.1	19.7	19.3	19.8
K17-1441	19.1	19.7	18.3	19.7	18.7	19.2
K17-1712	19.2	19.3	18.8	19.8	18.6	19.4
K17-1835	19.9	20.2	18.6	20.2	20.2	20.0
K17-6185	19.5	19.6	18.3	19.9	19.8	19.7
K17-6254	18.4	18.7	17.1	18.7	18.7	18.6
K17-6326	19.5	19.9	17.8	19.6	20.4	19.5
K17-6436	18.8	19.1	17.2	19.3	19.8	18.8
K17-6472	18.5	18.7	17.2	18.8	19.3	18.7
LG17-7290	19.5	20.0	18.7	20.0	19.4	19.6
LG17-7434	19.2	19.7	18.3	19.6	19.0	19.4
LG17-8856	19.4	20.0	18.1	20.0	19.7	19.4
LG17-8858	19.9	20.4	18.5	20.4	20.5	19.5
LG17-8882	18.9	19.3	17.8	19.5	19.1	19.0
LG17-8898	18.6	18.7	17.8	19.1	18.7	18.8
LG17-8900	18.4	18.8	17.4	18.9	18.7	18.3
SA17-15682	19.5	20.1	18.3	19.7	19.8	19.6
SA17-19304	19.5	20.1	18.5	19.8	19.4	19.9
SA17-21156	19.3	19.3	18.3	19.5	19.1	20.2
SA17-29905	19.0	19.1	18.3	19.2	18.8	19.4

**Northern Regional Uniform Test
Uniform Test 00, Traited Material, 2020**

Ent.	Strain	Parentage	Seed Source	Previous Testing	Gen. Comp.	Unique Traits
1	MN0083 (00)	M97-121138 x MN0091	Lorenz	2	F5	Rps6
2	ND17009GT	OAC07-26C x RG607RR	Helms	5	F3	RR1
3	AG005X8		Cai	Initial		RR2, Extend
4	ND16-11454GT	M05-363022 x [ND07-3987 x (RG7008RR x ND03-5441)]	Helms	1	F3	GT, PI 88788 SCN Res.
5	ND16-9796GT	ND10-2522 x ND07-18644	Helms	1	F3	GT
6	ND17-17290(GT)	ND12-20771(GT) x ND10-4423	Helms	Initial	F4	GT
7	ND17-18763(GT)	ND12-21716(GT) x ND10-4423	Helms	Initial	F4	GT
8	ND17-19739(GT)	ND10-3495 x ND12-21469(GT)	Helms	Initial	F4	GT
9	ND17-20264(GT)	ND12-21469(GT) x ND10-2993	Helms	Initial	F4	GT
10	ND17-24101(GT)	ND12-21716(GT) x ND10-4423	Helms	Initial	F4	GT
11	ND17-24158(GT)	ND10-4423 x ND12-20902(GT)	Helms	Initial	F4	GT
12	ND17-25371(GT)	ND10-3473 x ND12-21284(GT)	Helms	Initial	F4	GT
13	ND17-25996(GT)	ND12-20766(GT) x ND10-4423	Helms	Initial	F4	GT
14	ND17-26003(GT)	ND12-20766(GT) x ND10-4423	Helms	Initial	F4	GT

UNIFORM TEST 00 TRAITED MATERIAL, 2020

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code	IDC Score Danvers & Graceville, MN
MN0083 (00)	WGTSYYI	1.0
ND17009GT	WTBSYBII	4.0
AG005X8	PTBDYBII	3.0
ND16-11454GT	WGTSYBfi	2.5
ND16-9796GT	PGTDYBfi	3.5
ND17-17290(GT)	PTTSYYI	3.0
ND17-18763(GT)	PTTSYBII	2.5
ND17-19739(GT)	PGTSYYI	1.0
ND17-20264(GT)	P+WGTDYBfi	2.0
ND17-24101(GT)	PTBSYBII	3.5
ND17-24158(GT)	PGBDYBfi	3.5
ND17-25371(GT)	PTBSYBrI	4.5
ND17-25996(GT)	PTBDYBrI	3.5
ND17-26003(GT)	PTBDYBrI	2.0

Roseau, MN is the only location reporting yield data in 2020.
No individual location data tables are included.

Roseau, MN: planted on 5/20 as 4 row plots (30" row spacing) with 3 replications.

UNIFORM TEST 00 TRAITED MATERIAL, 2020

REGIONAL SUMMARY

No. of Tests Strain	Yield	Rank	Maturity	Lodging	Plant Height	Seed Size	Seed Quality	<u>Composition</u>	
	1 bu/a	1 No.	1 Date	0 Score	1 In	1 g/100	1 Score	1 Protein %	1 Oil %
MN0083 (00)	43.0	3	9/14		28	14.8	1.0	35.8	17.6
ND17009GT	42.5	4	0.0		27	19.3	1.0	36.1	18.2
AG005X8	35.3	12	-6.0		22	19.9	1.0	33.9	18.1
ND16-11454GT	43.9	2	3.0		25	18.6	1.0	32.6	18.7
ND16-9796GT	44.0	1	4.0		29	14.1	1.0	34.4	18.6
ND17-17290(GT)	35.9	11	4.0		30	15.0	1.0	34.8	17.9
ND17-18763(GT)	40.0	9	-1.0		28	13.4	1.0	34.1	18.2
ND17-19739(GT)	41.6	6	4.0		27	15.5	1.0	36.8	17.2
ND17-20264(GT)	41.2	7	2.0		25	13.4	1.0	34.5	17.1
ND17-24101(GT)	42.2	5	-3.0		24	12.3	1.0	33.6	18.0
ND17-24158(GT)	40.9	8	1.0		28	15.8	1.0	34.8	19.4
ND17-25371(GT)	33.8	13	1.0		24	14.9	1.0	35.8	18.0
ND17-25996(GT)	36.7	10	-6.0		21			34.3	18.7
ND17-26003(GT)	29.7	14	-5.0		18			34.1	19.0
Mean	39.3				25.4	15.6	1.0	34.7	18.2
C.V. (%)	10.8								
L.S.D. (5%)	7.1								

117.0 Days After Planting

UNIFORM TEST 00 TRAITED MATERIAL, 2020

2019-2020 2-YEAR MEAN

No. of Tests Strain	Yield	Rank	Maturity	Lodging	Plant Height	Seed Size	Seed Quality	<u>Composition</u>	
	3 bu/a	3 No.	5 Date	2 Score	3 In.	5 g/100	4 Score	4 Protein %	4 Oil %
MN0083 (00)	45.1	2	9/18	1.0	30	14.6	1.0	35.9	17.1
ND17009GT	51.1	1	6.0	1.5	30	18.6	1.0	36.3	17.8
ND16-11454GT	44.8	3	9.8	1.0	27	16.9	1.0	33.8	18.0
ND16-9796GT	42.9	4	10.5	1.4	30	14.5	1.0	34.6	17.9

119.8 Days After Planting

2018-2020 3-YEAR MEAN

No. of Tests Strain	6	6	7	5	5	8	7	6	6
MN0083 (00)	43.9	2	9/15	1.0	30	14.3	1.1	35.7	17.2
ND17009GT	48.9	1	5.3	1.3	29	18.1	1.1	36.2	17.9

118.3 Days After Planting

Northern Regional Uniform Test
Uniform Test 0, Traited Material, 2020

Ent.	Strain	Parentage	Seed Source	Previous Testing	Gen. Comp.	Unique Traits
1	ND Dickey (0) (ND13-4508)	P. 91M10 x Sheyenne	Helms	3	F4	Race 3 Resist.
2	MN1410 (L)	Unknown	Lorenz	13	F5	
3	AG05X9 (E)		Cai	Initial		RR2, Extend
4	AG11X8		Cai	Initial		RR2, Extend
5	M06R-614008	SDX00R-026-42 x N34505R	Lorenz	1	F5	GT
6	M14HO-1326-1002	MO HIOLIEC	Lorenz	2	BC3F3	HO
7	M13-209007	M07-392033 x M05-248041	Lorenz	1	F5	Pro
8	M13-268035	M06-340057 x A09-754003	Lorenz	1	F5	Pro
9	M13-270022	M06-340057 x M05-307064	Lorenz	1	F5	Pro
10	M13-276034	M07-2064093 x M05-297042	Lorenz	1	F5	Pro, SCN
11	M13-277057	M06-226003 x M06-318018	Lorenz	1	F5	Pro
12	M13-278078	M06-289192 x M07-298022	Lorenz	1	F5	Pro, SCN
13	M13-280012	MN1505SP x M07-303013	Lorenz	1	F5	Pro
14	M13R-309006	M06R-619017 x MN1107RR	Lorenz	1	F5	GT
15	M13R-309009	M06R-619017 x MN1107RR	Lorenz	1	F5	GT
16	M13R-309021	M06R-619017 x MN1107RR	Lorenz	1	F5	GT
17	M13R-309024	M06R-619017 x MN1107RR	Lorenz	1	F5	GT
18	M13R-309033	M06R-619017 x MN1107RR	Lorenz	1	F5	GT
19	M13R-309035	M06R-619017 x MN1107RR	Lorenz	1	F5	GT
20	M14HO-1329-1001	MN0107(4) x KB10-10#990-1	Lorenz	2	BC3F3	HO
21	M14HO-1329-4008	MN0107(4) x KB10-10#990-1	Lorenz	2	BC3F3	HO
22	M14HO-1330-14001	MN0107(4) x KB10-10#990-1	Lorenz	2	BC3F3	HO
23	M14HO-1330-3006	MN0107(4) x KB10-10#990-1	Lorenz	2	BC3F3	HO
24	MCH13R-117072	M06R-614008 x M06R-613036	Lorenz	1	F5	GT

UNIFORM TEST 0 TRAITED MATERIAL, 2020

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code	IDC Score Graceville & Danvers, MN
ND Dickey (0) (ND13-4508)	PGTSYYI	1.0
MN1410 (L)	WGBSYBfi	4.0
AG05X9 (E)	PGBDYIbI	3.5
AG11X8	PLtTDYBrI	5.0
M06R-614008	WTBDYGI	3.0
M14HO-1326-1002	WTBSYBII	1.5
M13-209007	WGTSYBfi	3.5
M13-268035	PTBSYGI	2.0
M13-270022	PTBDYBII	2.5
M13-276034	PTTDYHI	4.0
M13-277057	WGBDYII	1.5
M13-278078	PT+GB+TDYHI	3.5
M13-280012	WTTDYGI	2.0
M13R-309006	PGTDYBfi	2.5
M13R-309009	PT+GTDYHI	1.5
M13R-309021	PGTDYBfi	2.0
M13R-309024	PT+GTDYHI	1.5
M13R-309033	PT+GTDYHI	2.0
M13R-309035	PT+GB+TDYHI	1.5
M14HO-1329-1001	PGB+TSYYI	2.0
M14HO-1329-4008	PGBSYYI	1.0
M14HO-1330-14001	PGTDYII	2.0
M14HO-1330-3006	PT+GB+TDYHI	1.0
MCH13R-117072	PT+LbB+TDYBrI	4.0

UNIFORM TEST 0 TRAITED MATERIAL, 2020

REGIONAL SUMMARY

No. of Tests Strain	Yield	Rank	Maturity	Lodging	Plant	Seed	Seed	Composition	
	4 bu/a	4 No.	4 Date	2 Score	1 In.	3 g/100	3 Score	3 %	3 %
ND Dickey (0) (ND13-4508)	55.3	2	9/21	1.4	31	14.7	1.0	34.1	17.4
MN1410 (L)	47.0	18	5.5	1.9	33	13.0	1.0	34.5	17.7
AG05X9 (E)	55.9	1	-1.3	1.7	30	13.7	1.0	34.8	17.1
AG11X8	53.1	3	3.8	1.2	27	11.5	1.0	34.3	16.7
M06R-614008	52.6	4	-4.0	1.4	22	13.8	1.0	33.0	18.1
M14HO-1326-1002	41.5	24	3.5	1.5	30	10.9	1.0	35.3	17.1
M13-209007	51.3	8	0.3	1.5	27	12.7	1.0	35.2	17.5
M13-268035	46.9	19	2.8	1.7	33	13.6	1.0	35.0	17.6
M13-270022	44.9	22	2.3	1.7	34	13.4	1.0	34.6	18.0
M13-276034	42.5	23	2.0	2.2	31	14.7	1.0	36.7	16.9
M13-277057	46.7	20	0.5	1.5	34	18.9	1.0	37.7	16.5
M13-278078	47.4	17	0.5	2.0	31	14.1	1.0	35.1	17.1
M13-280012	51.8	6	-4.3	1.5	25	20.9	1.0	37.2	17.5
M13R-309006	50.8	9	-3.5	1.5	30	17.1	1.0	33.2	19.1
M13R-309009	51.6	7	-0.5	1.9	31	15.4	1.0	33.8	18.3
M13R-309021	52.3	5	-1.8	1.5	30	16.4	1.0	33.1	18.9
M13R-309024	45.6	21	-0.3	1.5	30	14.2	1.0	33.0	18.4
M13R-309033	49.6	12	-1.0	1.5	29	16.7	1.0	33.3	18.8
M13R-309035	48.5	16	-1.0	1.9	29	16.2	1.0	33.6	18.6
M14HO-1329-1001	49.1	14	-5.3	2.9	31	16.3	1.0	35.5	17.7
M14HO-1329-4008	50.1	10	-6.5	2.5	33	15.0	1.0	35.3	18.1
M14HO-1330-14001	49.0	15	-5.0	2.5	32	15.0	1.0	35.0	17.9
M14HO-1330-3006	49.5	13	-4.3	2.7	33	15.0	1.0	35.0	18.2
MCH13R-117072	49.6	11	1.3	1.5	29	13.3	1.0	32.8	18.2
Mean	49.3			1.8	30.2	14.8	1.0	34.6	17.8
C.V. (%)	11.5								
L.S.D. (5%)	4.5								

124.0 Days After Planting

UNIFORM TEST 0 TRAITED MATERIAL, 2020

2019-2020 2-YEAR MEAN

No. of Tests Strain	Yield*	Rank	Maturity	Lodging	Plant Height	Seed Size	Seed Quality	Composition	
	4 bu/a	4 No.	6 Date	3 Score	2 In.	5 g/100	5 Score	5 Protein %	5 Oil %
MN1410 (L)	47.0	15	10/1	1.4	33	14.2	1.0	33.0	18.4
M06R-614008	52.6	1	-6.5	1.2	27	14.0	1.0	33.3	18.0
M13-209007	51.3	5	-6.4	1.3	26	13.7	1.0	34.5	17.8
M13-268035	46.9	16	-4.4	1.3	31	14.6	1.0	33.7	18.1
M13-270022	44.9	19	-5.4	1.3	32	14.6	1.0	32.6	18.7
M13-276034	42.5	20	-8.1	1.6	31	15.2	1.0	35.3	17.3
M13-277057	46.7	17	-6.1	1.3	30	18.4	1.0	36.0	16.9
M13-278078	47.4	14	-8.9	1.5	28	14.4	1.0	34.3	17.6
M13-280012	51.8	3	-12.4	1.3	22	20.0	1.3	36.0	17.6
M13R-309006	50.8	6	-10.9	1.3	26	16.6	1.0	32.9	18.7
M13R-309009	51.6	4	-8.2	1.4	28	15.7	1.3	33.0	18.4
M13R-309021	52.3	2	-10.3	1.3	28	16.5	1.0	32.5	18.8
M13R-309024	45.6	18	-6.8	1.3	29	15.1	1.0	32.9	18.2
M13R-309033	49.6	9	-10.1	1.3	25	16.9	1.0	32.8	18.7
M13R-309035	48.5	13	-9.2	1.4	27	16.2	1.0	33.2	18.5
M14HO-1329-1001	49.1	11	-13.7	1.9	26	15.4	1.0	34.9	17.6
M14HO-1329-4008	50.1	7	-15.6	1.8	30	14.8	1.0	35.0	17.5
M14HO-1330-14001	49.0	12	-13.4	1.8	31	14.8	1.0	34.8	17.8
M14HO-1330-3006	49.5	10	-13.3	1.8	32	15.0	1.0	34.4	17.8
MCH13R-117072	49.6	8	-8.3	1.3	26	14.3	1.0	31.8	18.4

135.4 Days After Planting

2018-2020 3-YEAR MEAN

No. of Tests Strain	6	6	9	6	4	8	8	7	7
MN1410 (L)	53.5	1	9/30	1.4	34	15.0	1.2	33.3	18.7
M14HO-1329-1001	49.3	5	-11.6	1.7	29	15.7	1.0	34.9	17.8
M14HO-1329-4008	49.9	4	-13.3	1.5	32	14.9	1.0	35.1	17.7
M14HO-1330-14001	51.1	2	-11.3	1.5	33	15.5	1.0	35.2	18.0
M14HO-1330-3006	49.9	3	-11.3	1.6	33	15.6	1.0	34.9	17.8

134.5 Days After Planting

* No yield data reported in 2019.

UNIFORM TEST 0 TRAITED MATERIAL, 2020

YIELD (bu/a)

Strain	Mean 4 Tests	Crookston MN	Glyndon MN	Morehead MN	Shelly MN
ND Dickey (0) (ND13-4508)	55.3	61.3	58.3	52.7	49.0
MN1410 (L)	47.0	47.3	45.8	52.0	43.0
AG05X9 (E)	55.9	58.2	60.5	55.1	49.7
AG11X8	53.1	48.9	61.3	51.2	51.0
M06R-614008	52.6	53.3	58.9	48.0	50.4
M14HO-1326-1002	41.5	48.6	40.2	38.9	38.3
M13-209007	51.3	50.4	51.5	54.5	48.9
M13-268035	46.9	51.3	45.1	49.4	41.9
M13-270022	44.9	49.7	46.4	45.9	37.8
M13-276034	42.5	45.2	44.6	40.8	39.5
M13-277057	46.7	51.6	43.7	48.3	43.3
M13-278078	47.4	49.0	51.6	47.5	41.3
M13-280012	51.8	51.2	51.5	54.6	49.9
M13R-309006	50.8	53.7	52.8	49.0	47.7
M13R-309009	51.6	50.6	55.4	51.1	49.2
M13R-309021	52.3	56.3	55.4	49.7	48.0
M13R-309024	45.6	46.0	49.3	41.8	45.2
M13R-309033	49.6	50.8	50.6	47.7	49.4
M13R-309035	48.5	48.4	55.1	43.7	46.7
M14HO-1329-1001	49.1	54.4	52.1	47.6	42.4
M14HO-1329-4008	50.1	53.1	54.7	43.6	49.0
M14HO-1330-14001	49.0	55.8	49.2	49.4	41.7
M14HO-1330-3006	49.5	55.8	51.8	46.5	43.7
MCH13R-117072	49.6	48.0	56.7	48.5	45.2
Location Mean		51.6	51.8	48.2	45.5
C.V. (%)		8.3	7.7	10.4	7.6
L.S.D. (5%)		7.1	6.5	8.2	5.7
Row sp. (In.)		7	30	30	30
Rows/Plot		8	4	4	4
Reps		3	3	3	3

UNIFORM TEST 0 TRAITED MATERIAL, 2020

YIELD RANK

Strain	Yield Rank	Crookston MN	Glyndon MN	Morehead MN	Shelly MN
ND Dickey (0) (ND13-4508)	2	1	4	4	7
MN1410 (L)	18	22	20	5	17
AG05X9 (E)	1	2	2	1	4
AG11X8	3	18	1	6	1
M06R-614008	4	8	3	14	2
M14HO-1326-1002	24	19	24	24	23
M13-209007	8	15	14	3	9
M13-268035	19	11	21	9	19
M13-270022	22	16	19	19	24
M13-276034	23	24	22	23	22
M13-277057	20	10	23	13	16
M13-278078	17	17	13	17	21
M13-280012	6	12	14	2	3
M13R-309006	9	7	10	11	11
M13R-309009	7	14	6	7	6
M13R-309021	5	3	6	8	10
M13R-309024	21	23	17	22	13
M13R-309033	12	13	16	15	5
M13R-309035	16	20	8	20	12
M14HO-1329-1001	14	6	11	16	18
M14HO-1329-4008	10	9	9	21	7
M14HO-1330-14001	15	4	18	9	20
M14HO-1330-3006	13	4	12	18	15
MCH13R-117072	11	21	5	12	13

UNIFORM TEST 0 TRAITED MATERIAL, 2020

MATURITY (date)

Strain	Mean 4 Tests	Crookston MN	Glyndon MN	Morehead MN	Shelly MN
ND Dickey (0) (ND13-4508)	9/21	9/24	9/24	9/20	9/17
MN1410 (L)	5.5	5	6	5	6
AG05X9 (E)	-1.3	-1	-3	-2	1
AG11X8	3.8	8	4	0	3
M06R-614008	-4.0	-4	-6	-4	-2
M14HO-1326-1002	3.5	5	5	-1	5
M13-209007	0.3	2	-1	-1	1
M13-268035	2.8	6	3	-1	3
M13-270022	2.3	4	4	-1	2
M13-276034	2.0	6	3	-2	1
M13-277057	0.5	2	-1	0	1
M13-278078	0.5	3	-1	-1	1
M13-280012	-4.3	-4	-7	-3	-3
M13R-309006	-3.5	-1	-6	-5	-2
M13R-309009	-0.5	0	0	-2	0
M13R-309021	-1.8	-1	-3	-3	0
M13R-309024	-0.3	3	-1	-2	-1
M13R-309033	-1.0	1	-1	-3	-1
M13R-309035	-1.0	1	-2	-3	0
M14HO-1329-1001	-5.3	-4	-10	-4	-3
M14HO-1329-4008	-6.5	-6	-10	-6	-4
M14HO-1330-14001	-5.0	-3	-9	-3	-5
M14HO-1330-3006	-4.3	-2	-9	-3	-3
MCH13R-117072	1.3	2	2	-1	2
Date Planted	5/20	5/21	5/15	5/23	5/22
Days to Mature	124	126	132	120	118

UNIFORM TEST 0 TRAITED MATERIAL, 2020

LODGING (score)

Strain	Mean 2 Tests	Crookston MN	Glyndon MN	Morehead MN	Shelly MN
ND Dickey (0) (ND13-4508)	1.4	1.0	1.7		
MN1410 (L)	1.9	1.0	2.7		
AG05X9 (E)	1.7	1.0	2.3		
AG11X8	1.2	1.0	1.3		
M06R-614008	1.4	1.0	1.7		
M14HO-1326-1002	1.5	1.0	2.0		
M13-209007	1.5	1.0	2.0		
M13-268035	1.7	1.0	2.3		
M13-270022	1.7	1.0	2.3		
M13-276034	2.2	1.0	3.3		
M13-277057	1.5	1.0	2.0		
M13-278078	2.0	1.0	3.0		
M13-280012	1.5	1.0	2.0		
M13R-309006	1.5	1.0	2.0		
M13R-309009	1.9	1.0	2.7		
M13R-309021	1.5	1.0	2.0		
M13R-309024	1.5	1.0	2.0		
M13R-309033	1.5	1.0	2.0		
M13R-309035	1.9	1.0	2.7		
M14HO-1329-1001	2.9	1.0	4.7		
M14HO-1329-4008	2.5	1.0	4.0		
M14HO-1330-14001	2.5	1.0	4.0		
M14HO-1330-3006	2.7	1.0	4.3		
MCH13R-117072	1.5	1.0	2.0		

UNIFORM TEST 0 TRAITED MATERIAL, 2020

PLANT HEIGHT (inches)

Strain	Mean 1 Tests	Crookston MN	Glyndon MN	Morehead MN	Shelly MN
ND Dickey (0) (ND13-4508)	30.7	31			
MN1410 (L)	33.0	33			
AG05X9 (E)	29.7	30			
AG11X8	26.7	27			
M06R-614008	22.0	22			
M14HO-1326-1002	30.0	30			
M13-209007	27.1	27			
M13-268035	33.0	33			
M13-270022	34.3	34			
M13-276034	31.3	31			
M13-277057	34.0	34			
M13-278078	31.3	31			
M13-280012	25.3	25			
M13R-309006	29.7	30			
M13R-309009	30.7	31			
M13R-309021	29.7	30			
M13R-309024	30.2	30			
M13R-309033	28.7	29			
M13R-309035	29.3	29			
M14HO-1329-1001	31.0	31			
M14HO-1329-4008	32.7	33			
M14HO-1330-14001	32.0	32			
M14HO-1330-3006	33.0	33			
MCH13R-117072	29.3	29			

UNIFORM TEST 0 TRAITED MATERIAL, 2020

SEED SIZE (g/100)

Strain	Mean 3 Tests	Crookston MN	Glyndon MN	Morehead MN	Shelly MN
ND Dickey (0) (ND13-4508)	14.7	14.9		14.3	14.9
MN1410 (L)	13.0	13.4		13.1	12.4
AG05X9 (E)	13.7	13.6		13.8	13.6
AG11X8	11.5	11.3		11.5	11.7
M06R-614008	13.8	14.2		13.5	13.6
M14HO-1326-1002	10.9	11.3		10.5	10.8
M13-209007	12.7	11.8		13.3	13.0
M13-268035	13.6	13.2		14.0	13.5
M13-270022	13.4	13.6		13.3	13.3
M13-276034	14.7	14.4		15.1	14.5
M13-277057	18.9	18.4		19.5	18.7
M13-278078	14.1	13.2		14.8	14.4
M13-280012	20.9	21.0		21.1	20.7
M13R-309006	17.1	17.0		17.4	16.8
M13R-309009	15.4	15.5		15.0	15.8
M13R-309021	16.4	16.0		16.4	16.7
M13R-309024	14.2	14.2		14.1	14.2
M13R-309033	16.7	18.0		15.7	16.4
M13R-309035	16.2	16.0		16.4	16.2
M14HO-1329-1001	16.3	14.4		19.9	14.5
M14HO-1329-4008	15.0	14.2		14.7	16.1
M14HO-1330-14001	15.0	14.5		15.4	15.2
M14HO-1330-3006	15.0	14.6		15.2	15.1
MCH13R-117072	13.3	13.4		13.8	12.8

UNIFORM TEST 0 TRAITED MATERIAL, 2020

SEED QUALITY (score)

Strain	Mean 3 Tests	Crookston MN	Glyndon MN	Morehead MN	Shelly MN
ND Dickey (0) (ND13-4508)	1.0	1.0		1.0	1.0
MN1410 (L)	1.0	1.0		1.0	1.0
AG05X9 (E)	1.0	1.0		1.0	1.0
AG11X8	1.0	1.0		1.0	1.0
M06R-614008	1.0	1.0		1.0	1.0
M14HO-1326-1002	1.0	1.0		1.0	1.0
M13-209007	1.0	1.0		1.0	1.0
M13-268035	1.0	1.0		1.0	1.0
M13-270022	1.0	1.0		1.0	1.0
M13-276034	1.0	1.0		1.0	1.0
M13-277057	1.0	1.0		1.0	1.0
M13-278078	1.0	1.0		1.0	1.0
M13-280012	1.0	1.0		1.0	1.0
M13R-309006	1.0	1.0		1.0	1.0
M13R-309009	1.0	1.0		1.0	1.0
M13R-309021	1.0	1.0		1.0	1.0
M13R-309024	1.0	1.0		1.0	1.0
M13R-309033	1.0	1.0		1.0	1.0
M13R-309035	1.0	1.0		1.0	1.0
M14HO-1329-1001	1.0	1.0		1.0	1.0
M14HO-1329-4008	1.0	1.0		1.0	1.0
M14HO-1330-14001	1.0	1.0		1.0	1.0
M14HO-1330-3006	1.0	1.0		1.0	1.0
MCH13R-117072	1.0	1.0		1.0	1.0

UNIFORM TEST 0 TRAITED MATERIAL, 2020

PROTEIN (%)

Strain	Mean 3 Tests	Crookston MN	Morehead MN	Shelly MN
ND Dickey (0) (ND13-4508)	34.1	34.8	34.4	33.3
MN1410 (L)	34.5	35.0	34.9	33.5
AG05X9 (E)	34.8	35.0	34.9	34.6
AG11X8	34.3	34.8	34.0	34.1
M06R-614008	33.0	34.7	30.9	33.4
M14HO-1326-1002	35.3	37.0	34.8	34.1
M13-209007	35.2	35.7	35.2	34.7
M13-268035	35.0	35.6	34.4	35.1
M13-270022	34.6	35.9	34.0	33.7
M13-276034	36.7	37.3	36.2	36.7
M13-277057	37.7	38.2	38.1	36.6
M13-278078	35.1	35.7	34.8	34.9
M13-280012	37.2	37.8	37.6	36.3
M13R-309006	33.2	34.2	32.9	32.3
M13R-309009	33.8	34.4	33.8	33.3
M13R-309021	33.1	33.9	33.4	32.2
M13R-309024	33.0	33.5	32.6	33.1
M13R-309033	33.3	34.0	33.1	32.7
M13R-309035	33.6	35.2	33.1	32.7
M14HO-1329-1001	35.5	36.5	34.8	35.1
M14HO-1329-4008	35.3	36.4	34.1	35.4
M14HO-1330-14001	35.0	36.9	34.1	34.1
M14HO-1330-3006	35.0	35.6	34.3	
MCH13R-117072	32.8	33.0	32.3	33.1

UNIFORM TEST 0 TRAITED MATERIAL, 2020

OIL (%)

Strain	Mean 3 Tests	Crookston MN	Morehead MN	Shelly MN
ND Dickey (0) (ND13-4508)	17.4	17.0	16.8	18.3
MN1410 (L)	17.7	17.6	17.4	18.0
AG05X9 (E)	17.1	17.0	17.2	17.2
AG11X8	16.7	15.9	17.2	16.9
M06R-614008	18.1	17.7	18.3	18.2
M14HO-1326-1002	17.1	16.5	17.2	17.6
M13-209007	17.5	16.5	17.9	18.1
M13-268035	17.6	17.1	18.1	17.5
M13-270022	18.0	17.2	18.3	18.4
M13-276034	16.9	16.5	17.3	17.0
M13-277057	16.5	15.8	16.4	17.2
M13-278078	17.1	16.7	16.9	17.6
M13-280012	17.5	17.2	17.3	18.0
M13R-309006	19.1	18.4	19.8	19.3
M13R-309009	18.3	17.7	18.5	18.6
M13R-309021	18.9	18.2	19.2	19.3
M13R-309024	18.4	17.7	18.7	18.7
M13R-309033	18.8	18.3	18.9	19.2
M13R-309035	18.6	17.8	19.0	18.9
M14HO-1329-1001	17.7	17.2	18.2	17.8
M14HO-1329-4008	18.1	17.5	18.6	18.3
M14HO-1330-14001	17.9	17.7	18.8	17.3
M14HO-1330-3006	18.2	18.0	18.5	
MCH13R-117072	18.2	17.8	18.7	18.0

UNIFORM TEST 0 TRAITED MATERIAL, 2020
REGIONAL SUMMARY - SEED COMPOSITION (FATTY ACID)

No. of Tests Strain	Palmitic 3 %	Stearic 3 %	Oleic 3 %	Linoleic 3 %	Linolenic 3 %
ND13-4508 (0)	10.2	3.3	19.7	57.8	9.1
MN1410 (L)	10.4	3.9	18.9	57.4	9.3
M14HO-1326-1002	8.2	3.3	52.6	34.7	1.3
M14HO-1329-1001	7.5	2.7	67.2	16.1	6.5
M14HO-1329-4008	7.8	2.8	58.4	23.8	7.1
M14HO-1330-14001	6.4	2.6	81.7	4.0	5.3
M14HO-1330-3006	8.4	2.8	45.5	34.6	8.8
Mean	8.4	3.1	49.1	32.6	6.8

UNIFORM TEST 0 TRAITED MATERIAL, 2020

FATTY ACID, PALMITIC (%)

Strain	Mean 3 Tests	MN Crookston	MN Morehead	MN Shelly
ND13-4508 (0)	10.2	10.1	10.5	9.9
MN1410 (L)	10.4	10.5	10.1	10.7
M14HO-1326-1002	8.2	7.6	9.4	7.5
M14HO-1329-1001	7.5	8.0	7.3	7.3
M14HO-1329-4008	7.8	7.7	8.9	6.9
M14HO-1330-14001	6.4	6.7	6.2	6.4
M14HO-1330-3006	8.4	8.9	8.4	7.8

UNIFORM TEST 0 TRAITED MATERIAL, 2020

FATTY ACID, STEARIC (%)

Strain	Mean 3 Tests	MN Crookston	MN Morehead	MN Shelly
ND13-4508 (0)	3.3	3.1	3.5	3.3
MN1410 (L)	3.9	3.8	3.9	4.1
M14HO-1326-1002	3.3	3.2	3.4	3.2
M14HO-1329-1001	2.7	2.8	2.6	2.8
M14HO-1329-4008	2.8	2.7	3.1	2.5
M14HO-1330-14001	2.6	2.6	2.5	2.7
M14HO-1330-3006	2.8	2.7	2.9	2.7

UNIFORM TEST 0 TRAITED MATERIAL, 2020**FATTY ACID, OLEIC (%)**

Strain	Mean 3 Tests	MN Crookston	MN Morehead	MN Shelly
ND13-4508 (0)	19.7	19.9	19.2	20.1
MN1410 (L)	18.9	18.9	19.7	18.2
M14HO-1326-1002	52.6	60.6	38.0	59.2
M14HO-1329-1001	67.2	61.3	68.2	71.9
M14HO-1329-4008	58.4	58.8	41.4	75.1
M14HO-1330-14001	81.7	80.1	81.9	82.9
M14HO-1330-3006	45.5	36.6	47.8	52.1

UNIFORM TEST 0 TRAITED MATERIAL, 2020**FATTY ACID, LINOLEIC (%)**

Strain	Mean 3 Tests	MN Crookston	MN Morehead	MN Shelly
ND13-4508 (0)	57.8	57.4	57.8	58.2
MN1410 (L)	57.4	56.9	57.6	57.7
M14HO-1326-1002	34.7	27.3	47.8	28.8
M14HO-1329-1001	16.1	20.3	16.0	12.0
M14HO-1329-4008	23.8	23.4	38.0	10.0
M14HO-1330-14001	4.0	4.7	4.2	3.1
M14HO-1330-3006	34.6	41.8	32.1	29.8

UNIFORM TEST 0 TRAITED MATERIAL, 2020**FATTY ACID, LINOLENIC (%)**

Strain	Mean 3 Tests	MN Crookston	MN Morehead	MN Shelly
ND13-4508 (0)	9.1	9.6	9.0	8.6
MN1410 (L)	9.3	9.9	8.7	9.3
M14HO-1326-1002	1.3	1.3	1.5	1.3
M14HO-1329-1001	6.5	7.5	6.0	5.9
M14HO-1329-4008	7.1	7.4	8.6	5.5
M14HO-1330-14001	5.3	5.9	5.2	4.8
M14HO-1330-3006	8.8	10.0	8.8	7.6

**Northern Regional Uniform Test
Preliminary Test 0, Traited Material, 2020**

Ent.	Strain	Parentage	Seed Source	Gen. Comp.	Unique Traits
1	ND Dickey (0) (ND13-4508)	P. 91M10 x Sheyenne	Helms	F4	Race 3 Res.
2	MN1410 (L)	Unknown	Lorenz	F5	
3	AG05X9 (E)		Cai		RR2, Extend
4	AG11X8		Cai		RR2, Extend
5	M06-160019HOLL-1	[M09-160019(4) x M05-319034LL] x [M09-160019(4) x KB13-39#871HO]	Lorenz	BC3F2	HOLL
6	M07-296048HOLL-10				
7	M07-296048HOLL-12	[M07-296048(4) x M10-237089HO]	Lorenz	BC3F2	HOLL
8	M07-296048HOLL-13	x [M07-296048(4) x M05-319036]			
9	M07-296048HOLL-15	[M07-296048(4) x M05-319034LL]	Lorenz	BC3F2	HOLL
10	M07-296048HOLL-6	x [M07-296048(4) x M10-237089HO]			
11	M08-359176HOLL-1		Lorenz	BC3F2	HOLL
12	M14-191-2014	M08-450124 x ANY KB	Lorenz	F5	HI SU/
13	M14-194017	M08-610002 x MN0404CN	Lorenz	F5	HI SU/
14	M14-194018	M08-610002 x MN0404CN	Lorenz	F5	HI SU/
15	M14-502-6008	MN0107 x 942-3B	Lorenz	F5	HO
16	M14-502-6012	MN0107 x 942-3B	Lorenz	F5	HO
17	M14-512016	M03-289072 x 939-3	Lorenz	F5	HO
18	ND17-19726(GT)	ND10-3495 x ND12-21469(GT)	Helms	F4	GT
19	ND17-20229(GT)	ND12-21469(GT) x ND10-2993	Helms	F4	GT
20	ND17-24362(GT)	ND12-21211(GT) x ND10-3601	Helms	F4	GT
21	ND17-25230(GT)	ND10-3473 x ND12-21458(GT)	Helms	F4	GT

Entry 6-8 share same parentage. Entry 9-10 share same parentage.

PRELIMINARY TEST 0 TRAITED MATERIAL, 2020

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code	IDC Score Graceville & Danvers, MN
ND Dickey (0) (ND13-4508)	PGTSYYI	3.0
MN1410 (L)	WGBSYBfI	5.0
AG05X9 (E)	PGBDYIbI	5.0
AG11X8	PLtTDYBfI	5.0
M06-160019HOLL-1	WTBDYHI	4.0
M07-296048HOLL-10	PTTSYYI	2.0
M07-296048HOLL-12	PTTSYYI	1.0
M07-296048HOLL-13	PTTSYYI	5.0
M07-296048HOLL-15	PTTDYYI	5.0
M07-296048HOLL-6	PTTSYYI	1.0
M08-359176HOLL-1	WTTSYYI	5.0
M14-191-2014	PGTSYYI	1.0
M14-194017	PT+GB+TDYHI	5.0
M14-194018	PT+GTSYYI	3.0
M14-502-6008	PGBDYI	2.0
M14-502-6012	PGBDYI	2.0
M14-512016	WTBSYBI	1.0
ND17-19726(GT)	PGTDYBfI	1.0
ND17-20229(GT)	WGTSYHI	3.0
ND17-24362(GT)	PGBDYBfI	4.0
ND17-25230(GT)	PGBSYBfI	3.0

PRELIMINARY TEST 0 TRAITED MATERIAL, 2020

REGIONAL SUMMARY

No. of Tests Strain	Yield	Rank	Maturity	Lodging	Plant	Seed	Seed	Composition	
	4 bu/a	4 No.	4 Date	2 Score	1 In.	3 g/100	3 Score	3 %	3 %
ND Dickey (0) (ND13-4508)	54.5	2	9/20	1.5	26	14.4	1.0	34.4	17.1
MN1410 (L)	46.0	13	5.8	1.9	32	12.8	1.3	34.4	17.6
AG05X9 (E)	55.6	1	-1.3	1.4	24	13.8	1.0	34.6	17.4
AG11X8	51.4	7	4.3	1.4	27	11.2	1.3	34.8	16.5
M06-160019HOLL-1	43.2	15	2.0	1.5	28	12.8	1.3	37.5	17.8
M07-296048HOLL-10	37.1	19	3.5	2.2	32	11.2	1.3	35.7	16.2
M07-296048HOLL-12	36.7	20	3.5	2.2	34	11.6	1.3	37.2	15.9
M07-296048HOLL-13	41.9	17	3.8	1.5	30	13.3	1.3	36.8	16.1
M07-296048HOLL-15	34.8	21	6.3	2.4	29	12.6	1.3	37.2	15.9
M07-296048HOLL-6	39.9	18	4.8	1.9	28	12.4	1.3	37.1	16.5
M08-359176HOLL-1	42.2	16	-2.5	2.2	27	11.8	1.3	35.7	18.1
M14-191-2014	47.2	11	-2.8	2.4	23	11.0	1.0	34.0	18.2
M14-194017	54.1	3	-3.3	2.5	24	13.6	1.3	32.7	18.6
M14-194018	52.7	4	-1.3	1.7	33	13.1	1.3	33.8	17.8
M14-502-6008	51.9	5	-7.5	2.2	26	15.0	1.3	36.0	18.2
M14-502-6012	47.9	9	-2.5	2.2	27	10.5	1.0	34.1	18.1
M14-512016	43.4	14	0.0	1.5	28	12.0	1.0	36.5	17.7
ND17-19726(GT)	51.6	6	-3.8	2.2	27	12.9	1.0	34.0	19.0
ND17-20229(GT)	47.6	10	-6.5	1.5	26	11.8	1.0	33.4	18.4
ND17-24362(GT)	46.8	12	-0.8	1.7	31	14.7	1.0	36.1	17.6
ND17-25230(GT)	50.7	8	-5.3	1.5	23	14.5	1.0	34.3	18.3
Mean	46.5			1.8	27.8	12.7	1.2	35.3	17.5
C.V. (%)	14.3								
L.S.D. (5%)	6.6								

123.0 Days After Planting

PRELIMINARY TEST 0 TRAITED MATERIAL, 2020

YIELD (bu/a)

Strain	Mean	Crookston MN	Glyndon MN	Morehead MN	Shelly MN
	4 Tests				
ND Dickey (0) (ND13-4508)	54.5	61.0	63.8	49.1	44.1
MN1410 (L)	46.0	45.5	55.3	47.4	36.0
AG05X9 (E)	55.6	55.0	62.7	53.4	51.3
AG11X8	51.4	44.7	64.1	49.3	47.7
M06-160019HOLL-1	43.2	44.5	55.4	41.6	31.6
M07-296048HOLL-10	37.1	42.8	38.2	35.9	31.4
M07-296048HOLL-12	36.7	38.3	42.2	34.2	32.2
M07-296048HOLL-13	41.9	46.1	45.9	42.6	33.1
M07-296048HOLL-15	34.8	33.4	43.0	34.7	28.1
M07-296048HOLL-6	39.9	43.6	41.7	40.1	34.1
M08-359176HOLL-1	42.2	39.8	47.9	45.9	35.1
M14-191-2014	47.2	45.5	54.0	46.3	43.1
M14-194017	54.1	52.8	57.5	60.0	46.1
M14-194018	52.7	58.1	57.5	52.1	43.1
M14-502-6008	51.9	57.1	57.8	50.3	42.4
M14-502-6012	47.9	49.1	56.4	45.7	40.4
M14-512016	43.4	49.6	48.3	37.2	38.5
ND17-19726(GT)	51.6	54.6	59.5	42.9	49.6
ND17-20229(GT)	47.6	49.3	59.2	40.4	41.4
ND17-24362(GT)	46.8	52.4	50.1	44.4	40.3
ND17-25230(GT)	50.7	54.4	57.8	44.0	46.6
Location Mean		48.5	53.2	44.6	39.8
C.V. (%)		12.4	6.9	10.4	12.1
L.S.D. (5%)		9.8	5.9	7.6	7.9
Row sp. (In.)		7	30	30	30
Rows/Plot		8	4	4	4
Reps		2	2	2	2

PRELIMINARY TEST 0 TRAITED MATERIAL, 2020

YIELD RANK

Strain	Yield Rank	Crookston MN	Glyndon MN	Morehead MN	Shelly MN
ND Dickey (0) (ND13-4508)	2	1	2	6	6
MN1410 (L)	13	13	12	7	14
AG05X9 (E)	1	4	3	2	1
AG11X8	7	15	1	5	3
M06-160019HOLL-1	15	16	11	15	19
M07-296048HOLL-10	19	18	21	19	20
M07-296048HOLL-12	20	20	19	21	18
M07-296048HOLL-13	17	12	17	14	17
M07-296048HOLL-15	21	21	18	20	21
M07-296048HOLL-6	18	17	20	17	16
M08-359176HOLL-1	16	19	16	9	15
M14-191-2014	11	13	13	8	7
M14-194017	3	7	8	1	5
M14-194018	4	2	8	3	7
M14-502-6008	5	3	6	4	9
M14-502-6012	9	11	10	10	11
M14-512016	14	9	15	18	13
ND17-19726(GT)	6	5	4	13	2
ND17-20229(GT)	10	10	5	16	10
ND17-24362(GT)	12	8	14	11	12
ND17-25230(GT)	8	6	6	12	4

PRELIMINARY TEST 0 TRAITED MATERIAL, 2020

MATURITY (date)

Strain	Mean	Crookston MN	Glyndon MN	Morehead MN	Shelly MN
	4 Tests				
ND Dickey (0) (ND13-4508)	9/20	9/22	9/23	9/19	9/17
MN1410 (L)	6	8	6	4	5
AG05X9 (E)	-1	0	-2	-3	0
AG11X8	4	6	6	1	4
M06-160019HOLL-1	2	8	3	-1	-2
M07-296048HOLL-10	4	6	5	0	3
M07-296048HOLL-12	4	6	5	-1	4
M07-296048HOLL-13	4	5	4	0	6
M07-296048HOLL-15	6	8	7	3	7
M07-296048HOLL-6	5	7	4	2	6
M08-359176HOLL-1	-3	2	-3	-4	-5
M14-191-2014	-3	-2	-4	-4	-1
M14-194017	-3	-2	-5	-3	-3
M14-194018	-1	4	-3	-4	-2
M14-502-6008	-8	-8	-9	-8	-5
M14-502-6012	-3	0	-4	-5	-1
M14-512016	0	5	0	-4	-1
ND17-19726(GT)	-4	0	-6	-5	-4
ND17-20229(GT)	-7	-4	-9	-7	-6
ND17-24362(GT)	-1	2	-1	-1	-3
ND17-25230(GT)	-5	-3	-8	-5	-5
Date Planted	5/20	5/21	5/15	5/23	5/22
Days to Mature	123	124	131	119	118

PRELIMINARY TEST 0 TRAITED MATERIAL, 2020

LODGING (score)

Strain	Mean 2 Tests	Crookston MN	Glyndon MN	Morehead MN	Shelly MN
ND Dickey (0) (ND13-4508)	1.5	1.0	2.0		
MN1410 (L)	1.9	1.0	2.7		
AG05X9 (E)	1.4	1.0	1.7		
AG11X8	1.4	1.0	1.7		
M06-160019HOLL-1	1.5	1.0	2.0		
M07-296048HOLL-10	2.2	1.0	3.3		
M07-296048HOLL-12	2.2	1.0	3.3		
M07-296048HOLL-13	1.5	1.0	2.0		
M07-296048HOLL-15	2.4	1.0	3.7		
M07-296048HOLL-6	1.9	1.0	2.7		
M08-359176HOLL-1	2.2	1.0	3.3		
M14-191-2014	2.4	1.0	3.7		
M14-194017	2.5	1.0	4.0		
M14-194018	1.7	1.0	2.3		
M14-502-6008	2.2	1.0	3.3		
M14-502-6012	2.2	1.0	3.3		
M14-512016	1.5	1.0	2.0		
ND17-19726(GT)	2.2	1.0	3.3		
ND17-20229(GT)	1.5	1.0	2.0		
ND17-24362(GT)	1.7	1.0	2.3		
ND17-25230(GT)	1.5	1.0	2.0		

PRELIMINARY TEST 0 TRAITED MATERIAL, 2020

PLANT HEIGHT (inches)

Strain	Mean 1 Tests	Crookston MN	Glyndon MN	Morehead MN	Shelly MN
ND Dickey (0) (ND13-4508)	26	26			
MN1410 (L)	32	32			
AG05X9 (E)	24	24			
AG11X8	27	27			
M06-160019HOLL-1	28	28			
M07-296048HOLL-10	32	32			
M07-296048HOLL-12	34	34			
M07-296048HOLL-13	30	30			
M07-296048HOLL-15	29	29			
M07-296048HOLL-6	28	28			
M08-359176HOLL-1	27	27			
M14-191-2014	23	23			
M14-194017	24	24			
M14-194018	33	33			
M14-502-6008	26	26			
M14-502-6012	27	27			
M14-512016	28	28			
ND17-19726(GT)	27	27			
ND17-20229(GT)	26	26			
ND17-24362(GT)	31	31			
ND17-25230(GT)	23	23			

PRELIMINARY TEST 0 TRAITED MATERIAL, 2020

SEED SIZE (g/100)

Strain	Mean 3 Tests	Crookston MN	Glyndon MN	Morehead MN	Shelly MN
ND Dickey (0) (ND13-4508)	14.4	14.7		14.1	14.3
MN1410 (L)	12.8	13.0		12.9	12.4
AG05X9 (E)	13.8	13.3		14.4	13.7
AG11X8	11.2	10.4		10.6	12.7
M06-160019HOLL-1	12.8	14.8		10.5	13.2
M07-296048HOLL-10	11.2	11.2		10.6	11.8
M07-296048HOLL-12	11.6	11.5		11.5	11.7
M07-296048HOLL-13	13.3	13.1		13.5	13.4
M07-296048HOLL-15	12.6	12.9		12.4	12.6
M07-296048HOLL-6	12.4	12.9		12.1	12.1
M08-359176HOLL-1	11.8	12.7		11.6	11.2
M14-191-2014	11.0	10.7		11.5	10.8
M14-194017	13.6	13.7		13.9	13.3
M14-194018	13.1	13.5		13.0	12.9
M14-502-6008	15.0	14.9		14.7	15.3
M14-502-6012	10.5	11.1		10.5	9.9
M14-512016	12.0	12.8		11.7	11.6
ND17-19726(GT)	12.9	13.1		12.8	12.7
ND17-20229(GT)	11.8	13.2		11.7	10.5
ND17-24362(GT)	14.7	14.9		13.5	15.8
ND17-25230(GT)	14.5	14.8		14.7	14.1

PRELIMINARY TEST 0 TRAITED MATERIAL, 2020

SEED QUALITY (score)

Strain	Mean 3 Tests	Crookston MN	Glyndon MN	Morehead MN	Shelly MN
ND Dickey (0) (ND13-4508)	1.0	1.0		1.0	1.0
MN1410 (L)	1.3	2.0		1.0	1.0
AG05X9 (E)	1.0	1.0		1.0	1.0
AG11X8	1.3	2.0		1.0	1.0
M06-160019HOLL-1	1.3	2.0		1.0	1.0
M07-296048HOLL-10	1.3	2.0		1.0	1.0
M07-296048HOLL-12	1.3	2.0		1.0	1.0
M07-296048HOLL-13	1.3	2.0		1.0	1.0
M07-296048HOLL-15	1.3	2.0		1.0	1.0
M07-296048HOLL-6	1.3	2.0		1.0	1.0
M08-359176HOLL-1	1.3	2.0		1.0	1.0
M14-191-2014	1.0	1.0		1.0	1.0
M14-194017	1.3	2.0		1.0	1.0
M14-194018	1.3	2.0		1.0	1.0
M14-502-6008	1.3	2.0		1.0	1.0
M14-502-6012	1.0	1.0		1.0	1.0
M14-512016	1.0	1.0		1.0	1.0
ND17-19726(GT)	1.0	1.0		1.0	1.0
ND17-20229(GT)	1.0	1.0		1.0	1.0
ND17-24362(GT)	1.0	1.0		1.0	1.0
ND17-25230(GT)	1.0	1.0		1.0	1.0

PRELIMINARY TEST 0 TRAITED MATERIAL, 2020

PROTEIN (%)

Strain	Mean 3 Tests	Crookston MN	Morehead MN	Shelly MN
ND Dickey (0) (ND13-4508)	34.4	35.1	35.1	32.9
MN1410 (L)	34.4	34.4	35.1	33.7
AG05X9 (E)	34.6	35.6	34.0	34.3
AG11X8	34.8	36.0	34.7	33.8
M06-160019HOLL-1	37.5	36.8	35.5	40.3
M07-296048HOLL-10	35.7	37.0	34.9	35.3
M07-296048HOLL-12	37.2	38.3	36.1	37.3
M07-296048HOLL-13	36.8	37.7	36.6	36.2
M07-296048HOLL-15	37.2	38.2	36.6	36.9
M07-296048HOLL-6	37.1	37.6	37.0	36.8
M08-359176HOLL-1	35.7	37.3	34.9	35.0
M14-191-2014	34.0	34.3	33.6	33.9
M14-194017	32.7	34.0	32.6	31.7
M14-194018	33.8	34.9	33.7	33.0
M14-502-6008	36.0	36.7	35.4	36.0
M14-502-6012	34.1	35.0	33.5	33.9
M14-512016	36.5	38.5	35.6	35.5
ND17-19726(GT)	34.0	35.1	33.3	33.5
ND17-20229(GT)	33.4	35.0	32.9	32.4
ND17-24362(GT)	36.1	37.0	35.7	35.5
ND17-25230(GT)	34.3	34.3	33.9	34.7

PRELIMINARY TEST 0 TRAITED MATERIAL, 2020

OIL (%)

Strain	Mean 3 Tests	Crookston MN	Morehead MN	Shelly MN
ND Dickey (0) (ND13-4508)	17.1	16.8	16.4	18.2
MN1410 (L)	17.6	17.2	17.5	17.9
AG05X9 (E)	17.4	17.1	17.7	17.4
AG11X8	16.5	15.8	16.5	17.2
M06-160019HOLL-1	17.8	17.0	17.4	19.1
M07-296048HOLL-10	16.2	15.5	16.5	16.7
M07-296048HOLL-12	15.9	15.3	16.5	15.9
M07-296048HOLL-13	16.1	15.5	16.5	16.4
M07-296048HOLL-15	15.9	15.4	16.2	16.1
M07-296048HOLL-6	16.5	16.5	16.5	16.6
M08-359176HOLL-1	18.1	17.0	18.6	18.7
M14-191-2014	18.2	17.9	18.4	18.3
M14-194017	18.6	18.0	18.8	19.1
M14-194018	17.8	17.2	17.9	18.3
M14-502-6008	18.2	17.9	18.6	18.2
M14-502-6012	18.1	17.7	18.5	18.2
M14-512016	17.7	16.4	18.3	18.4
ND17-19726(GT)	19.0	18.2	19.6	19.3
ND17-20229(GT)	18.4	17.9	18.6	18.7
ND17-24362(GT)	17.6	16.6	17.7	18.5
ND17-25230(GT)	18.3	18.0	18.4	18.4

PRELIMINARY TEST 0 TRAITED MATERIAL, 2020

REGIONAL SUMMARY - SEED COMPOSITION (FATTY ACID)

No. of Tests Strain	Palmitic 3 %	Stearic 3 %	Oleic 3 %	Linoleic 3 %	Linolenic 3 %
ND13-4508 (0)	10.5	3.3	18.9	57.9	9.3
MN1410 (L)	9.6	3.7	31.5	47.2	8.1
M06-160019HOLL-1	6.6	3.6	81.1	6.3	2.4
M07-296048HOLL-10	7.8	3.4	72.4	12.7	3.7
M07-296048HOLL-12	8.6	3.5	70.3	13.7	3.9
M07-296048HOLL-13	7.7	3.7	71.8	13.0	3.7
M07-296048HOLL-15	7.9	3.7	73.5	11.6	3.3
M07-296048HOLL-6	7.8	3.6	74.9	9.5	4.2
M08-359176HOLL-1	6.7	3.6	81.8	5.2	2.8
M14-502-6008	6.1	2.5	84.0	2.7	4.6
M14-502-6012	9.8	3.7	24.6	52.7	9.0
M14-512016	6.5	3.0	78.2	11.2	1.1
Mean	8.0	3.4	63.6	20.3	4.7

PRELIMINARY TEST 0 TRAITED MATERIAL, 2020

FATTY ACID, PALMITIC (%)

Strain	Mean 3 Tests	Crookston MN	Morehead MN	Shelly MN
ND13-4508 (0)	10.5	10.7	10.6	10.3
MN1410 (L)	9.6	10.3	9.4	9.0
M06-160019HOLL-1	6.6	6.7	6.4	6.5
M07-296048HOLL-10	7.8	7.8	8.0	7.5
M07-296048HOLL-12	8.6	8.8	8.6	8.3
M07-296048HOLL-13	7.7	7.7	7.9	7.7
M07-296048HOLL-15	7.9	7.9	8.0	7.8
M07-296048HOLL-6	7.8	7.9	7.7	7.8
M08-359176HOLL-1	6.7	6.8	6.5	6.7
M14-502-6008	6.1	6.1	6.1	6.1
M14-502-6012	9.8	10.2	10.2	9.2
M14-512016	6.5	6.9	6.4	6.3

PRELIMINARY TEST 0 TRAITED MATERIAL, 2020

FATTY ACID, STEARIC (%)

Strain	Mean 3 Tests	Crookston MN	Morehead MN	Shelly MN
ND13-4508 (0)	3.3	3.2	3.4	3.4
MN1410 (L)	3.7	3.9	3.6	3.6
M06-160019HOLL-1	3.6	3.8	3.4	3.6
M07-296048HOLL-10	3.4	3.3	3.4	3.5
M07-296048HOLL-12	3.5	3.5	3.5	3.5
M07-296048HOLL-13	3.7	4.1	3.6	3.4
M07-296048HOLL-15	3.7	3.8	3.5	3.7
M07-296048HOLL-6	3.6	3.5	3.7	3.4
M08-359176HOLL-1	3.6	3.5	3.7	3.5
M14-502-6008	2.5	2.6	2.6	2.5
M14-502-6012	3.7	3.8	3.8	3.6
M14-512016	3.0	3.0	3.0	3.0

PRELIMINARY TEST 0 TRAITED MATERIAL, 2020

FATTY ACID, OLEIC (%)

Strain	Mean 3 Tests	Crookston MN	Morehead MN	Shelly MN
ND13-4508 (0)	18.9	18.4	19.8	18.4
MN1410 (L)	31.5	19.3	35.8	39.4
M06-160019HOLL-1	81.1	78.9	82.7	81.7
M07-296048HOLL-10	72.4	71.4	70.9	74.9
M07-296048HOLL-12	70.3	69.1	69.3	72.5
M07-296048HOLL-13	71.8	74.1	65.9	75.5
M07-296048HOLL-15	73.5	72.5	74.8	73.3
M07-296048HOLL-6	74.9	74.5	74.2	76.1
M08-359176HOLL-1	81.8	81.1	82.3	81.9
M14-502-6008	84.0	83.4	84.1	84.6
M14-502-6012	24.6	18.6	18.9	36.4
M14-512016	78.2	71.6	81.0	81.8

PRELIMINARY TEST 0 TRAITED MATERIAL, 2020

FATTY ACID, LINOLEIC (%)

Strain	Mean 3 Tests	Crookston MN	Morehead MN	Shelly MN
ND13-4508 (0)	57.9	57.8	57.3	58.6
MN1410 (L)	47.2	57.0	44.2	40.5
M06-160019HOLL-1	6.3	7.7	5.3	6.0
M07-296048HOLL-10	12.7	13.6	13.6	10.9
M07-296048HOLL-12	13.7	14.4	14.6	12.2
M07-296048HOLL-13	13.0	10.7	18.0	10.3
M07-296048HOLL-15	11.6	12.2	10.7	12.0
M07-296048HOLL-6	9.5	9.5	10.3	8.8
M08-359176HOLL-1	5.2	5.6	4.8	5.1
M14-502-6008	2.7	2.9	2.6	2.5
M14-502-6012	52.7	57.1	57.7	43.5
M14-512016	11.2	17.3	8.4	7.9

PRELIMINARY TEST 0 TRAITED MATERIAL, 2020

FATTY ACID, LINOLENIC (%)

Strain	Mean 3 Tests	Crookston MN	Morehead MN	Shelly MN
ND13-4508 (0)	9.3	9.8	8.9	9.2
MN1410 (L)	8.1	9.5	7.1	7.5
M06-160019HOLL-1	2.4	2.9	2.2	2.2
M07-296048HOLL-10	3.7	3.8	4.1	3.2
M07-296048HOLL-12	3.9	4.3	4.0	3.6
M07-296048HOLL-13	3.7	3.5	4.6	3.1
M07-296048HOLL-15	3.3	3.6	3.0	3.3
M07-296048HOLL-6	4.2	4.6	4.1	4.0
M08-359176HOLL-1	2.8	3.0	2.6	2.7
M14-502-6008	4.6	5.1	4.5	4.3
M14-502-6012	9.0	10.4	9.4	7.3
M14-512016	1.1	1.2	1.1	1.1

PRELIMINARY TEST 0 TRAITED MATERIAL, 2020
REGIONAL SUMMARY - SEED COMPOSITION (SUGAR)

No. of Tests Strain	Sucrose 3 %	Raffinose 3 %	Stachyose 3 %	Total Sugar 3 %
ND13-4508 (0)	5.1	0.5	3.0	8.7
MN1410 (L)	3.8	0.6	3.1	7.5
M14-191-2014	3.3	0.4	3.7	7.4
M14-194017	4.1	0.5	3.1	7.8
M14-194018	4.8	0.5	3.2	8.5
Mean	4.2	0.5	3.2	8.0

PRELIMINARY TEST 0 TRAITED MATERIAL, 2020

SEED SUGAR, SUCROSE (%)

Strain	Mean 3 Tests	Crookston MN	Morehead MN	Shelly MN
ND13-4508 (0)	5.1	4.6	5.9	4.7
MN1410 (L)	3.8	3.8	3.7	3.9
M14-191-2014	3.3	3.7	2.9	3.3
M14-194017	4.1	3.9	4.1	4.4
M14-194018	4.8	4.4	5.3	4.7

PRELIMINARY TEST 0 TRAITED MATERIAL, 2020

SEED SUGAR, RAFFINOSE (%)

Strain	Mean 3 Tests	Crookston MN	Morehead MN	Shelly MN
ND13-4508 (0)	0.5	0.5	0.6	0.5
MN1410 (L)	0.6	0.6	0.6	0.6
M14-191-2014	0.4	0.5	0.3	0.3
M14-194017	0.5	0.5	0.5	0.6
M14-194018	0.5	0.5	0.6	0.5

PRELIMINARY TEST 0 TRAITED MATERIAL, 2020

SEED SUGAR, STACHYOSE (%)

Strain	Mean 3 Tests	Crookston MN	Morehead MN	Shelly MN
ND13-4508 (0)	3.0	2.8	3.4	2.9
MN1410 (L)	3.1	3.1	3.0	3.1
M14-191-2014	3.7	4.3	3.1	3.6
M14-194017	3.1	3.2	3.0	3.1
M14-194018	3.2	3.2	3.2	3.1

PRELIMINARY TEST 0 TRAITED MATERIAL, 2020

SEED SUGAR, TOTAL (%)

Strain	Mean 3 Tests	Crookston MN	Morehead MN	Shelly MN
ND13-4508 (0)	8.7	7.9	9.9	8.2
MN1410 (L)	7.5	7.5	7.3	7.6
M14-191-2014	7.4	8.5	6.3	7.3
M14-194017	7.8	7.7	7.7	8.1
M14-194018	8.5	8.1	9.1	8.3

**Northern Regional Uniform Test
Uniform Test I, Traited Material, 2020**

Ent.	Strain	Parentage	Seed Source	Previous Testing	Gen. Comp.	Unique Traits
1	MN1410 (I)	Unknown	Lorenz	15	F5	
2	U11-917032 (SCN) (L)	LD02-4485 x U03-100612	Graef	6	F6	SCN, HR, MR, IDC
3	AG11X8 (E)		Cai	Initial		RR2, Extend
4	AG17X8		Cai	Initial		RR2, Extend
5	A14015-21	IA1028HO x IA3050	Singh	Initial		
6	A14017-33	IA1027HO x IA2102	Singh	Initial		
7	A14019-1	IA1026HO x IA2104HS	Singh	Initial		
8	A14019-35	IA1026HO x IA2104HS	Singh	Initial		
9	A14058-20	(IA2104HS x IA2106HO) x IA2102	Singh	Initial		
10	A14058-33	(IA2104HS x IA2106HO) x IA2102	Singh	Initial		
11	E15165T	E07158-T x E07051	Wang	2	F5	> 50% Meal, SCN?
12	E17808-1	LD02-4485 x (E13906 x E13816)	Wang	2	F5	HOLL, low saturated
13	M12R-803016	U07-135636R x M06R-613036	Lorenz	2	F5	GT
14	M13-246073	M03-172059 x MN1606SP	Lorenz	1	F5	Pro
15	M13R-323077	MN1107RR x M10-236018	Lorenz	1	F5	GT
16	M13R-323141	MN1107RR x M10-236018	Lorenz	1	F5	GT
17	M14-190005	M08-610015 x ANY KB	Lorenz	Initial	F5	HI SU/
18	M14-190158	M08-610015 x ANY KB	Lorenz	Initial	F5	HI SU/
19	M14-190162	M08-610015 x ANY KB	Lorenz	Initial	F5	HI SU/
20	M14-194030	M08-610002 x MN0404CN	Lorenz	Initial	F5	HI SU/
21	M14-245013	M08-328037 x M07-306032	Lorenz	Initial	F5	Pro
22	M14-245021	M08-328037 x M07-306032	Lorenz	Initial	F5	Pro
23	M14-245055	M08-328037 x M07-306032	Lorenz	Initial	F5	Pro
24	M14-245086	M08-328037 x M07-306032	Lorenz	Initial	F5	Pro
25	M14-250018	M06-318018 x M08-328030	Lorenz	Initial	F5	Pro
26	M14-250027	M06-318018 x M08-328030	Lorenz	Initial	F5	Pro
27	M14-508017	939-3B x MM0404CN	Lorenz	Initial	F5	HO
28	M14-508041	939-3B x MM0404CN	Lorenz	Initial	F5	HO
29	M14-508084	939-3B x MM0404CN	Lorenz	Initial	F5	HO
30	M14-508100	939-3B x MM0404CN	Lorenz	Initial	F5	HO
31	M14-510B013	937-1B x M06-289001	Lorenz	Initial	F5	HO
32	M14-511045	M03-289072 x 937-1	Lorenz	Initial	F5	HO
33	M14-516011	M04-342068 x 989-5	Lorenz	Initial	F5	HO
34	MCH13R-117054	M06R-614008 x M06R-613036	Lorenz	2	F5	GT

UNIFORM TEST I TRAITED MATERIAL, 2020

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code	IDC Score Graceville & Danvers, MN
MN1410 (I)	WGBDYBfI	4.5
U11-917032 (SCN) (L)	PTBDYBI	5.0
AG11X8 (E)	PLtTDYBrI	5.0
AG17X8	PLtBDYBI	5.0
A14015-21	PT+LtTSYBrI	2.5
A14017-33	PGTDYYI	3.5
A14019-1	PTTSYYI	4.0
A14019-35	P+WTB+TSYYI	4.0
A14058-20	WGTDDYYI	4.0
A14058-33	WT+LtTDYBrI	4.0
E15165T	PGBSYYI	5.0
E17808-1	PTB+TSYBrI	5.0
M12R-803016	PGBDYIbI	2.5
M13-246073	PTB+TDYBI	1.5
M13R-323077	PLtTDYBrI	2.0
M13R-323141	PLtB+TDYBrI	2.0
M14-190005	PGBDYBfI	2.0
M14-190158	PGBSYHI	1.5
M14-190162	PGBDYHI	4.0
M14-194030	PGBSYYI	2.5
M14-245013	PTBSYBI	2.0
M14-245021	PTBSYBI	2.5
M14-245055	P+WT+GB+TSYHI	1.5
M14-245086	PGTSYIbI	2.0
M14-250018	PGBDYYI	4.0
M14-250027	PGBSYYI	1.0
M14-508017	WTBSYBI	1.5
M14-508041	P+WTBDYBI	2.5
M14-508084	WTBDYBI	2.0
M14-508100	WTBDYBI	1.5
M14-510B013	WTBDYBI	2.0
M14-511045	WTBDYBI	1.0
M14-516011	PTBSYBI	1.0
MCH13R-117054	PLtTDYBrI	2.5

UNIFORM TEST I TRAITED MATERIAL, 2020

REGIONAL SUMMARY

No. of Tests Strain	Yield	Rank	Maturity	Lodging	Plant Height	Seed Size	Seed Quality	Composition	
	7 bu/a	7 No.	7 Date	6 Score	6 In.	6 g/100	6 Score	6 Protein %	6 Oil %
MN1410 (I)	55.5	6	9/14	1.8	36	16.2	1.7	35.9	18.9
U11-917032 (SCN) (L)	59.0	1	5.4	2.1	34	14.4	1.4	34.1	18.9
AG11X8 (E)	56.3	3	-1.0	1.2	32	14.1	1.5	35.4	18.3
AG17X8	54.9	10	2.8	1.5	35	17.7	1.4	34.4	19.4
A14015-21	55.4	7	4.0	1.7	35	14.3	1.5	36.3	18.0
A14017-33	56.1	4	8.4	2.1	35	14.6	1.6	36.8	18.3
A14019-1	54.6	11	5.0	1.4	34	16.7	1.4	37.2	18.2
A14019-35	55.6	5	7.2	1.4	35	15.6	1.5	36.9	18.1
A14058-20	55.1	9	8.7	2.6	37	14.4	1.7	37.1	18.0
A14058-33	56.7	2	6.6	2.1	37	15.4	1.7	36.7	18.5
E15165T	55.2	8	7.5	1.6	34	20.5	1.7	38.6	17.2
E17808-1	47.6	31	9.4	2.1	40	13.8	1.7	35.9	18.2
M12R-803016	54.4	12	7.5	1.5	39	16.4	2.1	35.2	18.7
M13-246073	49.9	21	0.0	1.5	36	19.5	1.7	36.3	18.4
M13R-323077	52.7	14	6.8	1.2	34	16.1	2.2	36.6	18.6
M13R-323141	54.2	13	6.4	1.3	35	15.6	1.8	36.0	18.4
M14-190005	46.8	34	2.3	1.5	38	16.9	1.7	36.4	18.2
M14-190158	50.6	19	3.0	1.2	33	15.1	1.8	34.5	18.8
M14-190162	48.8	26	-3.0	1.8	34	14.5	1.8	37.3	17.1
M14-194030	51.7	15	-4.1	1.5	31	15.7	1.6	33.8	18.8
M14-245013	50.9	18	2.5	1.3	34	15.7	1.4	37.4	17.4
M14-245021	51.6	16	1.8	1.5	31	17.4	1.6	37.7	17.7
M14-245055	48.3	29	2.5	1.9	34	17.2	1.7	37.6	17.5
M14-245086	48.8	26	2.5	1.8	32	16.0	1.4	37.0	18.0
M14-250018	51.5	17	0.3	2.1	34	19.0	1.9	37.0	18.3
M14-250027	49.7	23	-1.2	1.2	33	19.9	1.7	38.0	18.0
M14-508017	47.6	32	-0.1	1.8	38	14.4	2.3	37.1	18.5
M14-508041	48.7	28	2.1	1.5	37	14.9	2.1	36.7	18.3
M14-508084	47.1	33	1.7	1.7	36	14.1	1.8	37.0	18.6
M14-508100	49.5	24	1.1	1.5	36	14.7	1.8	37.0	18.4
M14-510B013	49.8	22	-1.6	1.8	36	15.4	1.6	36.4	18.4
M14-511045	49.5	25	-1.5	1.6	34	15.0	1.9	36.8	18.0
M14-516011	48.0	30	5.6	2.4	43	12.7	1.6	37.2	18.1
MCH13R-117054	50.6	20	0.4	1.3	34	16.5	1.5	35.1	18.9
Mean	51.8			1.7	35.3	15.9	1.7	36.5	18.3
C.V. (%)	14.3								
L.S.D. (5%)	4.5								

114.7 Days After Planting

UNIFORM TEST I TRAITED MATERIAL, 2020

2019-2020 2-YEAR MEAN

No. of Tests Strain	Yield	Rank	Maturity	Lodging	Plant Height	Seed Size	Seed Quality	Composition	
	13 bu/a	13 No.	14 Date	11 Score	12 In.	12 g/100	12 Score	Protein 10 %	Oil 10 %
MN1410 (I)	50.8	4	9/18	1.4	33	16.1	1.4	35.0	19.1
U11-917032 (SCN) (L)	56.7	1	5.6	1.5	32	15.1	1.4	33.0	19.5
E15165T	53.2	2	6.9	1.3	31	21.2	1.5	38.4	17.4
E17808-1	47.6	9	7.3	1.6	36	14.4	1.7	35.8	18.6
M12R-803016	51.4	3	6.7	1.3	35	16.5	1.6	35.2	18.8
M13-246073	48.1	8	-0.3	1.3	33	19.9	1.5	36.0	18.5
M13R-323077	49.6	6	5.2	1.1	29	16.5	1.7	36.5	19.0
M13R-323141	50.2	5	4.8	1.1	31	15.3	1.5	35.6	18.6
MCH13R-117054	48.5	7	-0.3	1.1	31	16.6	1.3	34.4	19.2

114.0 Days After Planting

2018-2020 3-YEAR MEAN

No. of Tests Strain	18	18	20	17	18	17	17	15	15
MN1410 (I)	51.3	3	6/22	1.5	33	16.5	1.5	35.0	19.2
U11-917032 (SCN) (L)	56.4	1	5.7	1.7	32	15.5	1.5	32.9	19.8
M12R-803016	53.0	2	6.1	1.3	35	16.6	1.6	35.1	19.0
MCH13R-117054	50.2	4	-0.7	1.1	30	17.1	1.4	34.4	19.4

114.3 Days After Planting

UNIFORM TEST I TRAITED MATERIAL, 2020

YIELD (bu/a)

Strain	Mean 7 Tests	Wanatah IN	West Lafayette IN	Saginaw MI	William- ston MI	Rose- Mount MN	Waseca MN	Saint Hyacinthe QUE
MN1410 (I)	55.5	39.8	57.1	38.7	40.0	59.1	80.5	73.5
U11-917032 (SCN) (L)	59.0	35.2	60.5	53.4	46.5	57.4	90.3	69.5
AG11X8 (E)	56.3	38.4	54.3	38.2	40.4	62.2	84.9	75.7
AG17X8	54.9	42.9	64.1	43.6	36.6	51.4	88.2	57.7
A14015-21	55.4	40.0	52.1	44.9	41.7	60.1	81.4	67.8
A14017-33	56.1	38.1	58.5	49.9	42.6	49.9	90.6	63.1
A14019-1	54.6	40.0	54.8	37.0	41.1	58.6	87.2	63.9
A14019-35	55.6	39.6	59.8	41.9	43.4	56.1	83.1	65.0
A14058-20	55.1	45.7	62.7	47.5	41.5	54.9	75.9	57.2
A14058-33	56.7	41.4	60.5	45.6	47.2	54.9	90.0	57.0
E15165T	55.2	38.6	61.7	47.7	45.8	54.1	78.4	59.7
E17808-1	47.6	45.0	51.7	34.8	31.9	51.0	71.8	47.4
M12R-803016	54.4	42.4	55.0	38.0	38.2	51.2	88.2	68.1
M13-246073	49.9	36.5	47.9	36.8	34.3	48.1	75.4	70.6
M13R-323077	52.7	38.8	46.6	36.1	39.7	56.7	86.6	64.1
M13R-323141	54.2	34.2	49.7	46.2	38.0	63.0	84.9	63.7
M14-190005	46.8	39.4	47.1	40.5	29.7	49.1	67.4	54.7
M14-190158	50.6	38.1	50.2	33.9	36.0	61.8	70.8	63.5
M14-190162	48.8	41.8	51.1	31.5	31.4	49.0	71.3	65.4
M14-194030	51.7	43.7	52.8	34.7	38.6	56.7	73.8	61.4
M14-245013	50.9	41.0	43.6	36.4	44.5	56.7	77.1	57.1
M14-245021	51.6	39.6	45.5	33.9	42.9	56.2	80.3	62.7
M14-245055	48.3	34.6	48.2	33.6	34.5	47.8	76.6	63.0
M14-245086	48.8	37.8	49.3	33.5	36.5	50.8	77.8	55.8
M14-250018	51.5	42.1	50.2	43.6	36.2	53.2	73.4	61.9
M14-250027	49.7	41.2	53.9	35.7	33.3	49.0	73.5	61.0
M14-508017	47.6	37.4	52.1	35.4	34.5	51.7	66.4	55.9
M14-508041	48.7	37.1	54.1	41.7	28.9	51.7	68.5	58.7
M14-508084	47.1	38.0	51.5	42.1	26.0	48.2	70.1	53.5
M14-508100	49.5	36.1	51.0	45.9	37.0	48.6	71.8	56.3
M14-510B013	49.8	40.9	49.8	42.4	37.7	53.8	65.2	58.8
M14-511045	49.5	36.4	54.1	40.9	39.5	51.2	65.3	59.0
M14-516011	48.0	36.6	55.0	38.4	40.9	44.6	65.7	54.5
MCH13R-117054	50.6	42.6	44.8	41.2	37.1	50.6	68.0	69.8
Location Mean		39.4	53.0	40.2	38.1	53.5	77.1	61.7
C.V. (%)		9.2	7.9	11.4	12.9	11.9	7.1	1.4
L.S.D. (5%)		7.3	8.5	8.9	9.6	10.3	8.9	3.3
Row sp. (In.)		30	30	15	15	30	30	15
Rows/Plot		4	4	6	6	4	4	4
Reps		2	2	3	3	3	3	3

UNIFORM TEST I TRAITED MATERIAL, 2020

YIELD RANK

Strain	Yield Rank	Wanatah IN	West Lafayette IN	Saginaw MI	Williamston MI	Rose-Mount MN	Waseca MN	Saint Hyacinthe QUE
MN1410 (I)	6	15	8	18	13	5	12	2
U11-917032 (SCN) (L)	1	32	4	1	2	7	2	5
AG11X8 (E)	3	21	12	20	12	2	9	1
AG17X8	10	4	1	9	22	20	4	24
A14015-21	7	13	17	8	8	4	11	7
A14017-33	4	22	7	2	7	26	1	14
A14019-1	11	13	11	22	10	6	6	11
A14019-35	5	16	6	13	5	12	10	9
A14058-20	9	1	2	4	9	13	18	25
A14058-33	2	9	4	7	1	13	3	27
E15165T	8	20	3	3	3	15	14	20
E17808-1	31	2	19	28	30	23	23	34
M12R-803016	12	6	9	21	17	21	4	6
M13-246073	21	29	29	23	28	32	19	3
M13R-323077	14	19	31	25	14	8	7	10
M13R-323141	13	34	26	5	18	1	8	12
M14-190005	34	18	30	17	32	27	30	31
M14-190158	19	22	23	30	25	3	26	13
M14-190162	26	8	21	34	31	28	25	8
M14-194030	15	3	16	29	16	8	20	18
M14-245013	18	11	34	24	4	8	16	26
M14-245021	16	16	32	30	6	11	13	16
M14-245055	29	33	28	32	26	33	17	15
M14-245086	26	25	27	33	23	24	15	30
M14-250018	17	7	23	9	24	17	22	17
M14-250027	23	10	15	26	29	28	21	19
M14-508017	32	26	17	27	26	18	31	29
M14-508041	28	27	13	14	33	18	28	23
M14-508084	33	24	20	12	34	31	27	33
M14-508100	24	31	22	6	21	30	23	28
M14-510B013	22	12	25	11	19	16	34	22
M14-511045	25	30	13	16	15	21	33	21
M14-516011	30	28	9	19	11	34	32	32
MCH13R-117054	20	5	33	15	20	25	29	4

UNIFORM TEST I TRAITED MATERIAL, 2020

MATURITY (date)

Strain	Mean 7 Tests	Wanatah IN	West Lafayette IN	Saginaw MI	William- ston MI	Rose- Mount MN	Waseca MN	Saint Hyacinthe QUE
MN1410 (I)	9/14	8/30	9/6	9/11	9/15	9/22	9/21	9/28
U11-917032 (SCN) (L)	5	7	9	7	7	2	5	1
AG11X8 (E)	-1	0	-1	3	-1	-1	-5	-3
AG17X8	3	4	6	4	4	1	1	-1
A14015-21	4	9	4	7	4	2	4	-1
A14017-33	8	13	12	12	5	4	10	4
A14019-1	5	10	6	10	4	2	3	0
A14019-35	7	11	8	9	9	4	7	3
A14058-20	9	14	10	12	8	3	12	3
A14058-33	7	13	7	10	0	4	11	1
E15165T	7	12	13	5	5	3	6	8
E17808-1	9	15	8	12	8	7	9	7
M12R-803016	8	11	7	9	8	7	6	5
M13-246073	0	6	1	2	-3	-1	-2	-2
M13R-323077	7	9	6	9	7	2	8	7
M13R-323141	6	9	5	6	7	3	9	6
M14-190005	2	9	2	3	-2	1	1	3
M14-190158	3	8	3	6	3	1	2	-2
M14-190162	-3	-2	-1	0	-4	-3	-8	-3
M14-194030	-4	-3	-4	0	-1	-6	-11	-4
M14-245013	2	6	1	6	5	0	1	-1
M14-245021	2	7	2	4	2	1	-1	-2
M14-245055	2	6	1	5	4	1	1	0
M14-245086	3	7	3	4	4	-1	2	-1
M14-250018	0	-2	3	1	5	-1	-2	-1
M14-250027	-1	-3	0	-0	-2	-2	1	-2
M14-508017	-0	1	-1	4	-1	-1	0	-3
M14-508041	2	7	2	6	2	2	-1	-2
M14-508084	2	3	1	3	5	1	-1	1
M14-508100	1	6	2	2	1	1	-2	-2
M14-510B013	-2	3	-2	3	-2	-6	-4	-2
M14-511045	-2	-2	1	2	-2	-4	-3	-3
M14-516011	6	9	9	6	2	2	9	3
MCH13R-117054	0	4	2	2	-1	1	-2	-2
Date Planted	5/22	6/1	6/2	5/24	5/24	5/29	5/7	5/11
Days to Mature	115	90	96	110	114	116	137	140

UNIFORM TEST I TRAITED MATERIAL, 2020

LODGING (score)

Strain	Mean 6 Tests	Wanatah IN	West Lafayette IN	Saginaw MI	William- ston MI	Rose- Mount MN	Waseca MN	Saint Hyacinthe QUE
MN1410 (I)	1.8	2.0	1.0	1.0		2.0	2.3	2.3
U11-917032 (SCN) (L)	2.1	2.0	1.5	1.0		3.0	2.7	2.3
AG11X8 (E)	1.2	1.0	1.0	1.0		1.0	2.3	1.0
AG17X8	1.5	1.0	1.5	1.0		1.7	2.3	1.3
A14015-21	1.7	1.0	1.0	1.0		2.3	3.0	2.0
A14017-33	2.1	2.0	2.0	1.0		2.3	3.0	2.0
A14019-1	1.4	1.0	1.0	1.0		1.3	2.3	1.7
A14019-35	1.4	1.0	1.5	1.0		1.7	2.3	1.0
A14058-20	2.6	2.0	1.5	1.3		3.0	3.3	4.3
A14058-33	2.1	2.0	1.0	1.0		2.3	3.0	3.3
E15165T	1.6	1.0	1.0	1.3		2.0	2.7	1.3
E17808-1	2.1	2.5	2.0	1.3		2.7	2.5	1.7
M12R-803016	1.5	1.5	1.0	1.0		1.7	2.7	1.0
M13-246073	1.5	1.5	1.5	1.0		1.7	2.3	1.0
M13R-323077	1.2	1.0	1.0	1.0		1.3	2.0	1.0
M13R-323141	1.3	1.0	1.0	1.0		1.7	2.0	1.0
M14-190005	1.5	1.0	1.5	1.0		1.7	2.0	2.0
M14-190158	1.2	1.0	1.0	1.0		1.3	2.0	1.0
M14-190162	1.8	2.5	2.0	1.0		1.7	2.3	1.0
M14-194030	1.5	1.5	2.0	1.0		1.3	2.0	1.0
M14-245013	1.3	1.0	1.5	1.3		1.0	2.0	1.0
M14-245021	1.5	1.5	1.5	1.0		1.0	2.3	1.7
M14-245055	1.9	1.0	2.0	1.3		1.7	2.3	3.0
M14-245086	1.8	1.5	1.0	1.0		2.0	2.0	3.3
M14-250018	2.1	2.5	1.5	1.3		2.3	2.3	2.7
M14-250027	1.2	1.0	1.0	1.0		1.0	2.0	1.0
M14-508017	1.8	2.0	2.0	1.3		2.0	2.0	1.3
M14-508041	1.5	1.5	2.0	1.0		1.7	2.0	1.0
M14-508084	1.7	2.0	2.0	1.0		1.7	2.0	1.7
M14-508100	1.5	1.5	2.0	1.0		1.7	2.0	1.0
M14-510B013	1.8	2.5	2.0	1.0		2.0	2.0	1.0
M14-511045	1.6	2.0	2.0	1.0		1.7	2.0	1.0
M14-516011	2.4	2.0	2.5	1.0		2.7	3.0	3.3
MCH13R-117054	1.3	1.0	1.5	1.0		1.0	2.0	1.0

UNIFORM TEST I TRAITED MATERIAL, 2020

PLANT HEIGHT (inches)

Strain	Mean 6 Tests	Wanatah IN	West Lafayette IN	Saginaw MI	William- ston MI	Rose- Mount MN	Waseca MN	Saint Hyacinthe QUE
MN1410 (I)	36	32	35	30		44	36	42
U11-917032 (SCN) (L)	34	29	31	31		40	38	38
AG11X8 (E)	32	27	30	30		36	35	36
AG17X8	35	30	32	30		39	41	39
A14015-21	35	29	31	30		40	39	39
A14017-33	35	31	35	29		41	38	36
A14019-1	34	27	30	34		36	36	39
A14019-35	35	28	33	32		41	37	38
A14058-20	37	32	34	36		41	39	39
A14058-33	37	32	33	36		44	41	39
E15165T	34	29	33	34		39	35	38
E17808-1	40	34	38	36		48	42	44
M12R-803016	39	33	37	33		45	43	43
M13-246073	36	31	35	34		40	37	40
M13R-323077	34	27	29	30		38	37	42
M13R-323141	35	28	31	33		40	38	39
M14-190005	38	32	36	33		44	42	43
M14-190158	33	27	31	31		42	32	37
M14-190162	34	31	33	31		41	34	38
M14-194030	31	28	31	27		37	33	33
M14-245013	34	30	30	29		37	38	38
M14-245021	31	27	28	30		35	34	34
M14-245055	34	29	31	30		42	36	39
M14-245086	32	27	29	27		39	35	37
M14-250018	34	29	33	34		41	31	37
M14-250027	33	27	32	27		40	34	37
M14-508017	38	34	37	35		43	38	40
M14-508041	37	31	37	36		43	39	39
M14-508084	36	33	37	29		42	38	39
M14-508100	36	32	36	28		44	38	39
M14-510B013	36	32	34	31		43	39	41
M14-511045	34	29	35	27		41	34	39
M14-516011	43	37	40	42		46	47	47
MCH13R-117054	34	31	34	28		41	33	38

UNIFORM TEST I TRAITED MATERIAL, 2020

SEED SIZE (g/100)

Strain	Mean 6 Tests	Wanatah IN	West Lafayette IN	Saginaw MI	William- ston MI	Rose- Mount MN	Waseca MN	Saint Hyacinthe QUE
MN1410 (I)	16.2	11.9	16.0		15.0	15.5	20.4	18.4
U11-917032 (SCN) (L)	14.4	9.8	14.1		11.6	16.7	18.3	15.8
AG11X8 (E)	14.1	11.1	13.6		13.3	13.5	17.6	15.7
AG17X8	17.7	13.7	18.3		16.8	18.1	20.3	18.8
A14015-21	14.3	10.5	13.5		14.2	14.6	18.1	15.2
A14017-33	14.6	11.6	15.1		14.2	16.0	17.4	13.5
A14019-1	16.7	11.7	15.5		16.6	18.3	20.2	17.7
A14019-35	15.6	11.0	14.2		16.4	16.0	19.9	16.0
A14058-20	14.4	11.1	13.7		13.9	15.0	18.2	14.6
A14058-33	15.4	10.5	13.9		16.1	16.5	20.1	15.2
E15165T	20.5	15.4	21.4		19.6	22.1	23.8	20.9
E17808-1	13.8	11.7	13.5		14.2	13.4	16.8	13.3
M12R-803016	16.4	12.8	15.3		16.1	15.5	21.2	17.7
M13-246073	19.5	16.2	18.5		16.8	22.3	21.4	21.7
M13R-323077	16.1	12.5	14.8		15.7	15.9	20.3	17.5
M13R-323141	15.6	12.9	15.0		15.1	15.9	18.6	15.9
M14-190005	16.9	14.3	15.6		14.8	18.8	21.4	16.7
M14-190158	15.1	11.8	14.5		13.7	16.1	18.2	16.4
M14-190162	14.5	11.7	14.4		11.7	15.7	17.2	16.6
M14-194030	15.7	13.3	15.4		13.4	16.0	16.8	19.6
M14-245013	15.7	12.5	15.1		14.8	16.4	17.7	17.6
M14-245021	17.4	13.7	16.5		15.3	17.9	21.5	19.8
M14-245055	17.2	13.6	16.8		15.0	18.6	21.1	18.0
M14-245086	16.0	11.9	14.5		14.6	17.0	20.3	17.4
M14-250018	19.0	14.7	18.3		17.2	20.7	22.6	20.5
M14-250027	19.9	15.3	20.2		16.9	20.3	23.4	23.1
M14-508017	14.4	11.8	14.8		12.9	14.7	16.4	15.9
M14-508041	14.9	12.8	14.9		14.0	15.0	16.1	16.3
M14-508084	14.1	12.2	14.7		12.0	13.5	16.2	16.2
M14-508100	14.7	12.5	14.9		13.3	15.0	16.4	16.0
M14-510B013	15.4	13.8	14.4		13.9	14.8	17.9	17.4
M14-511045	15.0	12.5	15.0		12.9	15.0	16.9	17.6
M14-516011	12.7	10.6	12.3		13.8	12.9	14.4	12.5
MCH13R-117054	16.5	12.2	15.8		14.8	16.3	20.5	19.5

UNIFORM TEST I TRAITED MATERIAL, 2020

SEED QUALITY (score)

Strain	Mean 6 Tests	Wanatah IN	West Lafayette IN	Saginaw MI	William- ston MI	Rose- Mount MN	Waseca MN	Saint Hyacinthe QUE
MN1410 (I)	1.7	1.0	1.0		2.0	1.0	2.0	3.0
U11-917032 (SCN) (L)	1.4	1.0	1.0		1.3	1.0	1.0	3.3
AG11X8 (E)	1.5	1.0	1.0		2.0	1.0	1.0	3.0
AG17X8	1.4	1.0	1.0		1.7	1.0	1.0	2.7
A14015-21	1.5	1.0	1.0		2.0	1.0	1.0	3.0
A14017-33	1.6	1.0	1.0		1.7	1.0	2.0	3.0
A14019-1	1.4	1.0	1.0		1.5	1.0	1.0	3.0
A14019-35	1.5	1.0	1.0		2.0	1.0	1.0	2.7
A14058-20	1.7	1.0	1.0		3.0	1.0	2.0	2.3
A14058-33	1.7	1.0	1.0		2.0	1.0	2.0	3.3
E15165T	1.7	1.0	1.0		2.0	1.0	2.0	3.0
E17808-1	1.7	1.5	1.0		2.7	1.0	2.0	2.0
M12R-803016	2.1	2.0	1.0		2.7	1.0	2.0	4.0
M13-246073	1.7	1.0	1.0		3.0	1.0	1.0	3.3
M13R-323077	2.2	2.0	1.0		2.7	1.0	3.0	3.3
M13R-323141	1.8	1.5	1.0		1.3	1.0	2.0	4.0
M14-190005	1.7	1.0	1.0		2.0	1.0	2.0	3.3
M14-190158	1.8	1.0	1.0		3.0	1.0	1.0	3.7
M14-190162	1.8	1.0	1.0		2.7	1.0	2.0	3.0
M14-194030	1.6	1.0	1.0		2.7	1.0	1.0	3.0
M14-245013	1.4	1.0	1.0		1.7	1.0	1.0	3.0
M14-245021	1.6	1.0	1.0		2.0	1.0	1.0	3.3
M14-245055	1.7	1.0	1.0		2.7	2.0	1.0	2.7
M14-245086	1.4	1.0	1.0		1.7	1.0	1.0	3.0
M14-250018	1.9	1.0	1.0		1.7	2.0	2.0	3.7
M14-250027	1.7	1.0	1.0		2.0	1.0	2.0	3.3
M14-508017	2.3	1.5	2.0		3.0	2.0	2.0	3.0
M14-508041	2.1	2.0	1.5		2.7	1.0	2.0	3.3
M14-508084	1.8	1.5	1.0		3.0	1.0	1.0	3.3
M14-508100	1.8	1.5	2.0		2.0	1.0	1.0	3.0
M14-510B013	1.6	1.0	1.0		2.0	1.0	1.0	3.7
M14-511045	1.9	1.0	1.5		2.7	2.0	1.0	3.0
M14-516011	1.6	1.5	1.0		2.0	1.0	1.0	3.3
MCH13R-117054	1.5	1.0	1.0		2.0	1.0	1.0	3.0

UNIFORM TEST I TRAITED MATERIAL, 2020

PROTEIN (%)

Strain	Mean 6 Tests	Wanatah IN	West Lafayette IN	William- ston MI	Rose- Mount MN	Waseca MN	Saint Hyacinthe QUE*
MN1410 (I)	35.9	36.6	35.2	35.0	35.8	37.3	35.5
U11-917032 (SCN) (L)	34.1	36.1	33.3	30.9	35.2	34.7	34.3
AG11X8 (E)	35.4	36.7	34.8	34.7	35.6	36.1	34.7
AG17X8	34.4	35.6	33.3	33.2	34.7	35.2	34.1
A14015-21	36.3	37.6	35.4	35.0	36.7	37.8	35.1
A14017-33	36.8	37.9	35.7	35.2	37.5	38.3	36.2
A14019-1	37.2	38.0	36.2	36.0	38.4	39.0	35.6
A14019-35	36.9	38.3	35.6	35.9	37.5	38.3	35.8
A14058-20	37.1	38.6	36.4	35.2	37.9	38.5	36.1
A14058-33	36.7	38.4	36.4	35.3	37.8	37.0	35.4
E15165T	38.6	39.9	38.2	36.8	40.1	39.2	37.4
E17808-1	35.9	36.8	36.0	34.8	36.4	37.1	34.4
M12R-803016	35.2	35.3	34.0	34.7	35.6	36.8	34.8
M13-246073	36.3	37.5	36.4	34.9	37.6	35.6	35.9
M13R-323077	36.6	37.7	35.3	36.1	36.6	38.4	35.7
M13R-323141	36.0	36.6	36.0	35.0	35.9	36.9	35.5
M14-190005	36.4	36.9	35.9	34.7	37.8	38.7	34.5
M14-190158	34.5	34.7	34.4	33.0	35.1	34.8	35.0
M14-190162	37.3	38.5	36.8	36.4	37.7	36.9	37.3
M14-194030	33.8	33.8	34.3	33.2	34.2	32.4	35.1
M14-245013	37.4	38.4	36.1	35.2	39.0	38.5	37.1
M14-245021	37.7	38.2	37.4	35.5	38.5	39.5	37.1
M14-245055	37.6	37.8	38.2	36.9	37.6	38.8	36.5
M14-245086	37.0	38.4	35.4	35.3	37.7	37.8	37.4
M14-250018	37.0	37.8	34.9	35.3	38.2	39.2	36.8
M14-250027	38.0	37.6	38.4	36.3	38.8	40.1	37.1
M14-508017	37.1	37.7	37.0	37.6	37.8	36.4	36.5
M14-508041	36.7	37.0	36.5	36.3	37.4	36.7	36.3
M14-508084	37.0	36.9	36.6	36.6	37.3	37.9	36.6
M14-508100	37.0	38.2	36.4	36.1	37.9	37.6	35.9
M14-510B013	36.4	36.6	35.8	35.2	37.4	36.6	36.6
M14-511045	36.8	36.5	36.9	36.2	37.6	37.6	35.8
M14-516011	37.2	37.2	37.2	35.6	38.5	38.1	36.6
MCH13R-117054	35.1	36.3	33.1	34.6	35.3	35.9	35.6

*Data corrected to 13% moisture.

UNIFORM TEST I TRAITED MATERIAL, 2020

OIL (%)

Strain	Mean 6 Tests	Wanatah IN	West Lafayette IN	William- ston MI	Rose- Mount MN	Waseca MN	Saint Hyacinthe QUE*
MN1410 (I)	18.9	19.0	20.3	20.0	19.4	18.2	16.4
U11-917032 (SCN) (L)	18.9	18.4	20.9	20.8	18.1	18.8	16.7
AG11X8 (E)	18.3	18.3	19.7	19.2	18.3	18.1	16.3
AG17X8	19.4	19.6	20.9	20.9	19.2	19.3	16.5
A14015-21	18.0	18.3	19.8	19.4	17.3	17.5	15.6
A14017-33	18.3	18.5	20.0	20.0	18.1	17.5	15.4
A14019-1	18.2	18.2	20.0	19.6	17.8	17.5	16.1
A14019-35	18.1	18.3	20.3	19.1	17.7	18.0	15.3
A14058-20	18.0	18.2	19.6	19.1	17.4	17.6	16.0
A14058-33	18.5	18.6	20.4	19.7	17.8	18.6	16.0
E15165T	17.2	17.0	18.5	18.6	16.6	17.1	15.7
E17808-1	18.2	18.8	19.9	19.9	17.9	18.0	15.0
M12R-803016	18.7	19.3	20.7	19.7	18.6	18.3	15.6
M13-246073	18.4	18.4	19.4	19.5	17.8	18.8	16.4
M13R-323077	18.6	19.0	20.7	19.9	18.9	17.6	15.7
M13R-323141	18.4	19.1	19.6	19.7	18.1	18.2	15.8
M14-190005	18.2	18.9	19.5	19.7	17.6	17.8	16.0
M14-190158	18.8	19.3	19.7	20.1	18.8	18.8	16.4
M14-190162	17.1	17.0	18.4	18.2	17.0	17.5	14.6
M14-194030	18.8	19.3	19.4	19.6	18.7	19.4	16.6
M14-245013	17.4	17.4	19.1	18.5	16.4	17.2	15.9
M14-245021	17.7	18.2	18.8	19.0	17.2	17.1	16.2
M14-245055	17.5	18.2	18.5	18.1	17.1	17.2	15.9
M14-245086	18.0	17.8	19.7	18.9	17.6	17.6	16.2
M14-250018	18.3	18.6	19.7	19.7	17.6	17.9	16.0
M14-250027	18.0	18.8	19.3	19.2	17.7	17.1	15.9
M14-508017	18.5	19.0	19.9	19.1	18.4	18.9	15.6
M14-508041	18.3	18.8	19.7	19.1	17.9	18.4	15.8
M14-508084	18.6	19.4	19.9	19.7	18.5	18.7	15.6
M14-508100	18.4	18.6	20.0	19.5	18.1	18.5	15.5
M14-510B013	18.4	19.0	19.6	19.6	18.1	18.6	15.5
M14-511045	18.0	18.7	19.0	19.2	17.6	18.3	15.1
M14-516011	18.1	18.2	19.4	19.8	17.6	18.3	15.3
MCH13R-117054	18.9	18.8	21.1	19.5	18.9	18.8	16.3

*Data corrected to 13% moisture.

UNIFORM TEST I TRAITED MATERIAL, 2020
REGIONAL SUMMARY - SEED COMPOSITION (FATTY ACID)

No. of Tests Strain	Palmitic 5 %	Stearic 5 %	Oleic 5 %	Linoleic 5 %	Linolenic 5 %
MN1410 (I)	10.0	5.0	26.7	51.5	6.7
U11-917032 (SCN) (L)	10.9	4.1	21.3	55.5	8.2
A14015-21	8.7	4.6	65.0	17.3	4.5
A14017-33	8.9	4.3	62.0	18.6	6.3
A14019-1	9.7	4.4	39.1	41.3	5.5
A14019-35	9.4	4.0	45.3	37.7	3.6
A14058-20	7.9	3.9	71.6	12.0	4.7
A14058-33	8.8	4.4	59.6	21.0	6.3
E17808-1	4.7	3.1	77.5	12.2	2.5
M14-508017	6.9	3.6	70.2	17.0	2.3
M14-508041	8.1	4.0	56.4	30.3	1.2
M14-508084	6.6	3.7	81.5	6.9	1.3
M14-508100	7.1	3.7	72.2	15.1	2.0
M14-510B013	7.8	4.1	59.2	27.5	1.4
M14-511045	7.8	4.1	63.8	22.4	1.9
M14-516011	7.2	3.5	74.5	13.5	1.2
Mean	8.2	4.0	59.1	25.0	3.7

UNIFORM TEST I TRAITED MATERIAL, 2020
FATTY ACID, PALMITIC (%)

Strain	Mean 5 Tests	Wanatah IN	West Lafayette IN	William- ston MI	Rose- mount MN	Waseca MN
MN1410 (I)	10.0	10.2	9.5	9.6	10.4	10.4
U11-917032 (SCN) (L)	10.9	11.3	10.6	11.0	11.0	10.8
A14015-21	8.7	9.7	7.3	8.7	9.6	8.0
A14017-33	8.9	9.0	10.5	8.0	8.5	8.6
A14019-1	9.7	9.8	9.5	9.1	10.4	10.0
A14019-35	9.4	8.9	9.5	9.0	9.4	10.1
A14058-20	7.9	8.2	8.4	7.3	7.8	7.9
A14058-33	8.8	8.2	8.8	8.5	9.5	8.8
E17808-1	4.7	4.4	4.5	4.4	5.0	5.2
M14-508017	6.9	7.1	7.6	6.5	7.3	6.2
M14-508041	8.1	8.7	7.7	7.7	8.2	8.2
M14-508084	6.6	6.3	6.9	7.2	6.1	6.7
M14-508100	7.1	6.6	6.4	7.1	8.4	6.8
M14-510B013	7.8	7.8	7.8	7.7	7.0	8.5
M14-511045	7.8	9.0	8.2	6.3	8.6	6.8
M14-516011	7.2	6.8	6.7	6.8	6.6	9.0

UNIFORM TEST I TRAITED MATERIAL, 2020

FATTY ACID, STEARIC (%)

Strain	Mean 5 Tests	Wanatah IN	West Lafayette IN	William- ston MI	Rose- mount MN	Waseca MN
MN1410 (I)	5.0	5.9	5.2	5.7	4.4	4.0
U11-917032 (SCN) (L)	4.1	4.8	4.3	3.8	4.0	3.7
A14015-21	4.6	5.7	4.6	4.4	4.2	4.1
A14017-33	4.3	4.9	4.1	4.2	4.2	4.0
A14019-1	4.4	5.8	4.5	3.9	4.2	3.7
A14019-35	4.0	4.9	4.0	3.7	3.7	3.9
A14058-20	3.9	4.4	3.9	3.6	3.8	3.8
A14058-33	4.4	5.2	4.3	4.3	4.1	4.0
E17808-1	3.1	3.8	2.6	2.9	3.1	3.1
M14-508017	3.6	4.5	3.5	3.3	3.7	3.0
M14-508041	4.0	4.9	3.7	4.2	4.1	3.3
M14-508084	3.7	3.9	3.4	4.3	3.4	3.1
M14-508100	3.7	4.9	3.4	3.4	3.6	3.2
M14-510B013	4.1	4.8	4.4	4.0	3.8	3.4
M14-511045	4.1	5.4	3.9	4.1	3.8	3.2
M14-516011	3.5	3.9	3.8	3.5	3.0	3.6

UNIFORM TEST I TRAITED MATERIAL, 2020

FATTY ACID, OLEIC (%)

Strain	Mean 5 Tests	Wanatah IN	West Lafayette IN	William- ston MI	Rose- mount MN	Waseca MN
MN1410 (I)	26.7	26.7	31.3	24.9	25.7	25.0
U11-917032 (SCN) (L)	21.3	25.3	23.5	18.3	20.1	19.2
A14015-21	65.0	49.9	80.2	62.9	55.6	76.3
A14017-33	62.0	56.7	31.2	75.6	72.6	73.9
A14019-1	39.1	39.3	43.0	42.5	35.2	35.6
A14019-35	45.3	53.2	41.2	51.5	51.4	29.5
A14058-20	71.6	67.8	65.0	76.9	73.6	74.5
A14058-33	59.6	76.3	61.5	55.4	54.0	50.6
E17808-1	77.5	82.3	83.5	81.8	75.4	64.4
M14-508017	70.2	67.1	50.5	83.0	65.6	84.5
M14-508041	56.4	48.5	64.9	59.5	55.7	53.2
M14-508084	81.5	83.0	83.3	79.1	84.1	77.9
M14-508100	72.2	81.8	84.8	70.0	40.8	83.6
M14-510B013	59.2	62.2	56.7	58.2	66.5	52.3
M14-511045	63.8	45.1	57.7	82.0	50.9	83.4
M14-516011	74.5	82.2	83.7	82.8	82.9	41.0

UNIFORM TEST I TRAITED MATERIAL, 2020

FATTY ACID, LINOLEIC (%)

Strain	Mean 5 Tests	Wanatah IN	West Lafayette IN	William- ston MI	Rose- mount MN	Waseca MN
MN1410 (I)	51.5	50.7	47.7	53.1	52.5	53.6
U11-917032 (SCN) (L)	55.5	50.7	54.4	58.8	56.3	57.1
A14015-21	17.3	29.8	4.8	19.4	25.0	7.6
A14017-33	18.6	23.5	47.3	6.6	8.4	7.1
A14019-1	41.3	40.4	38.1	38.4	44.1	45.3
A14019-35	37.7	30.3	42.4	32.8	31.7	51.2
A14058-20	12.0	16.5	17.7	7.5	9.5	8.6
A14058-33	21.0	5.0	19.9	25.2	25.5	29.4
E17808-1	12.2	7.5	7.4	8.9	13.7	23.3
M14-508017	17.0	19.0	33.7	6.2	20.6	5.4
M14-508041	30.3	36.7	22.4	27.3	30.9	34.3
M14-508084	6.9	5.9	5.5	6.2	5.6	11.4
M14-508100	15.1	5.7	4.6	16.8	42.7	5.6
M14-510B013	27.5	24.1	30.1	29.1	21.8	32.6
M14-511045	22.4	38.4	27.3	4.6	35.7	5.8
M14-516011	13.5	6.2	5.0	6.1	6.7	43.6

UNIFORM TEST I TRAITED MATERIAL, 2020

FATTY ACID, LINOLENIC (%)

Strain	Mean 5 Tests	Wanatah IN	West Lafayette IN	William- ston MI	Rose- mount MN	Waseca MN
MN1410 (I)	6.7	6.5	6.2	6.6	7.0	7.0
U11-917032 (SCN) (L)	8.2	7.9	7.2	8.1	8.6	9.3
A14015-21	4.5	5.0	3.1	4.6	5.6	4.0
A14017-33	6.3	6.0	7.0	5.6	6.3	6.4
A14019-1	5.5	4.8	4.9	6.0	6.2	5.4
A14019-35	3.6	2.8	2.8	3.0	3.9	5.3
A14058-20	4.7	3.2	4.9	4.7	5.3	5.2
A14058-33	6.3	5.3	5.4	6.6	6.9	7.2
E17808-1	2.5	2.1	1.9	1.9	2.7	4.0
M14-508017	2.3	2.3	4.6	0.9	2.8	0.8
M14-508041	1.2	1.2	1.3	1.3	1.1	1.0
M14-508084	1.3	0.9	0.9	3.1	0.8	0.9
M14-508100	2.0	1.1	0.8	2.8	4.6	0.8
M14-510B013	1.4	1.1	1.0	1.0	1.0	3.2
M14-511045	1.9	2.0	2.9	3.0	1.0	0.8
M14-516011	1.2	0.9	0.8	0.8	0.7	2.9

UNIFORM TEST I TRAITED MATERIAL, 2020
REGIONAL SUMMARY - SEED COMPOSITION (SUGAR)

Strain	Sucrose 5 %	Raffinose 5 %	Stachyose 5 %	Total Sugar 5 %
MN1410 (I)	3.0	0.6	2.5	6.1
U11-917032 (SCN) (L)	3.2	0.6	3.1	6.9
A14019-1	5.9	0.8	0.8	7.5
A14019-35	6.3	0.7	0.9	7.9
A14058-20	4.0	0.5	2.5	7.0
M14-190005	4.7	0.9	0.5	6.1
M14-190158	3.0	0.5	2.6	6.1
M14-190162	2.4	0.7	2.9	6.0
M14-194030	3.7	0.8	3.1	7.7
Mean	4.0	0.7	2.1	6.8

UNIFORM TEST I TRAITED MATERIAL, 2020
SEED SUGAR, SUCROSE (%)

No. of Tests Strain	Mean 5 Tests	Wanatah IN	West Lafayette IN	William- ston MI	Rose- mount MN	Waseca MN
MN1410 (I)	3.0	2.9	2.6	3.0	3.6	2.7
U11-917032 (SCN) (L)	3.2	2.4	4.0	3.0	3.6	3.0
A14019-1	5.9	7.3	5.5	5.4	5.5	5.8
A14019-35	6.3	5.1	5.7	6.6	7.4	6.6
A14058-20	4.0	3.8	4.1	3.6	4.6	4.1
M14-190005	4.7	3.9	5.2	4.7	5.0	4.7
M14-190158	3.0	2.9	3.0	2.4	3.6	3.2
M14-190162	2.4	2.0	2.5	2.1	2.3	3.2
M14-194030	3.7	3.6		3.6	4.0	3.9

UNIFORM TEST I TRAITED MATERIAL, 2020

SEED SUGAR, RAFFINOSE (%)

Strain	Mean 5 Tests	Wanatah IN	West Lafayette IN	William- ston MI	Rose- mount MN	Waseca MN
MN1410 (I)	0.6	0.8	0.5	0.7	0.6	0.6
U11-917032 (SCN) (L)	0.6	0.7	0.8	0.5	0.5	0.5
A14019-1	0.8	1.3	0.9	0.7	0.6	0.5
A14019-35	0.7	0.9	0.8	0.7	0.7	0.5
A14058-20	0.5	0.6	0.4	0.5	0.4	0.4
M14-190005	0.9	0.9	1.0	1.0	0.8	0.7
M14-190158	0.5	0.6	0.5	0.5	0.5	0.6
M14-190162	0.7	0.8	0.6	0.6	0.5	0.8
M14-194030	0.8	1.2		0.9	0.6	0.7

UNIFORM TEST I TRAITED MATERIAL, 2020

SEED SUGAR, STACHYOSE (%)

Strain	Mean 5 Tests	Wanatah IN	West Lafayette IN	William- ston MI	Rose- mount MN	Waseca MN
MN1410 (I)	2.5	2.9	2.4	2.2	2.6	2.4
U11-917032 (SCN) (L)	3.1	3.2	4.3	2.3	2.8	2.9
A14019-1	0.8	1.0	0.6	0.9	0.7	0.7
A14019-35	0.9	1.0	0.9	0.8	0.7	0.9
A14058-20	2.5	3.2	2.7	2.2	2.3	2.2
M14-190005	0.5	0.6	0.6	0.4	0.5	0.6
M14-190158	2.6	2.9	2.8	2.0	2.5	2.6
M14-190162	2.9	3.0	3.0	2.5	2.6	3.5
M14-194030	3.1	3.3		2.9	2.9	3.2

UNIFORM TEST I TRAITED MATERIAL, 2020

SEED SUGAR, TOTAL (%)

Strain	Mean 5 Tests	Wanatah IN	West Lafayette IN	William- ston MI	Rose- mount MN	Waseca MN
MN1410 (I)	6.1	6.6	5.5	5.9	6.9	5.7
U11-917032 (SCN) (L)	6.9	6.4	9.0	5.8	7.0	6.5
A14019-1	7.5	9.6	7.0	7.1	6.9	7.0
A14019-35	7.9	6.9	7.4	8.1	8.9	8.0
A14058-20	7.0	7.6	7.3	6.2	7.3	6.7
M14-190005	6.1	5.3	6.7	6.1	6.3	6.0
M14-190158	6.1	6.5	6.3	4.9	6.6	6.4
M14-190162	6.0	5.7	6.1	5.2	5.4	7.4
M14-194030	7.7	8.1		7.4	7.4	7.8

**Northern Regional Uniform Test
Uniform Test II, Traited Material, 2020**

Ent.	Strain	Parentage	Seed Source	Previous Testing	Gen. Comp.	Unique Traits
1	IA2102 (II)	A04-545045 x AgriPro 98180-A01-0613	Cai	8	F4	
2	U14-910097 (SCN) (L)	U09-105007 x LD07-3419	Graef	2	F6	SCN, HR, MR, IDC
3	AG17X8 (E)		Cai	Initial		RR2, Extend
4	AG25X8		Cai	Initial		RR2, Extend
5	E11128T	E05276-T x LD01-7323	Wang	2		> 50% Meal, SCN
6	E17143	E07051 x (E13906 x E13816)	Wang	1	F5	HOLL, low saturated
7	E17804-01	E07051 x E15805	Wang	1	F5	HOLL, low saturated
8	HM16-M015	M10-W111 x M09-W153	McHale	1	F4	
9	HM16-W150	M11-W117 x HS8-3463	McHale	1	F4	
10	SA17-13168-1	LD10-10226 x A12-961044	Scaboo	1	F5	HOLL, SCN
11	SA17-2742	LD10-10226 x A12-961054	Scaboo	1	F5	HOLL

UNIFORM TEST II TRAITED MATERIAL, 2020

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code
IA2102 (II)	WGTDYYI
U14-910097 (SCN) (L)	PGTDYBfI
AG17X8 (E)	PLtBDYBI
AG25X8	PGTDYIbI
E11128T	PGTSYYI
E17143	PTBDYBI
E17804-01	PGBDYIbI
HM16-M015	PGBSYYI
HM16-W150	PTBDYHI
SA17-13168-1	PLt+GB+TSYGI
SA17-2742	PGB+TDYBfI

UNIFORM TEST II TRAITED MATERIAL, 2020

REGIONAL SUMMARY

No. of Tests Strain	Yield	Rank	Maturity	Lodging	Plant Height	Seed Size	Seed Quality	Composition	
	7 bu/a	7 No.	7 Date	5 Score	5 In.	6 g/100	6 Score	Protein 6 %	Oil 6 %
IA2102 (II)	50.4	7	9/19	1.7	33	14.2	1.4	34.6	19.3
U14-910097 (SCN) (L)	61.0	1	8.6	1.9	32	14.5	1.3	32.6	20.0
AG17X8 (E)	45.0	11	-7.8	1.1	31	16.4	1.9	34.2	20.3
AG25X8	55.9	2	1.3	1.1	33	15.3	1.6	34.1	19.4
E11128T	51.5	6	1.9	1.6	32	17.8	1.4	36.5	18.5
E17143	45.1	9	3.5	1.2	35	14.8	1.7	35.8	18.8
E17804-01	45.0	10	0.6	1.4	31	16.0	1.8	35.5	19.3
HM16-M015	55.3	3	6.2	1.2	35	17.0	1.4	34.5	19.6
HM16-W150	53.4	4	6.8	2.2	37	15.7	1.5	34.3	18.7
SA17-13168-1	52.0	5	1.9	1.5	33	15.3	1.6	36.7	19.1
SA17-2742	49.2	8	1.2	1.6	32	13.6	1.6	35.9	19.5
Mean	51.2			1.5	33.1	15.5	1.6	35.0	19.3
C.V. (%)	13.4								
L.S.D. (5%)	4.2								

112.4 Days After Planting

UNIFORM TEST II TRAITED MATERIAL, 2020

2019-2020 2-YEAR MEAN

No. of Tests Strain	Yield	Rank	Maturity	Lodging	Plant Height	Seed Size	Seed Quality	Composition	
	14 bu/a	14 No.	15 Date	13 Score	13 In.	13 g/100	13 Score	11 %	11 %
IA2102 (II)	51.3	7	9/22	1.5	31	15.3	1.4	34.5	19.1
U14-910097 (SCN) (L)	62.8	1	6.9	1.6	31	15.1	1.4	32.9	20.1
E11128T	54.9	5	1.4	1.3	31	19.0	1.5	37.0	17.9
E17143	51.1	8	3.7	1.3	33	15.6	1.5	36.6	18.4
E17804-01	50.6	9	0.8	1.3	30	17.1	1.7	36.0	19.0
HM16-M015	58.1	2	5.7	1.2	33	18.0	1.4	34.8	19.5
HM16-W150	57.1	3	5.4	2.0	36	16.1	1.5	34.9	18.6
SA17-13168-1	55.7	4	2.5	1.3	32	16.3	1.5	36.9	19.0
SA17-2742	54.0	6	1.9	1.4	30	14.6	1.5	36.4	19.4

115.0 Days After Planting

2018-2020 3-YEAR MEAN

No. of Tests Strain	23	23	24	22	22	21	21	19	19
IA2102 (II)	55.3	2	6/25	1.8	32	15.4	1.5	34.4	19.1
E11128T	56.7	1	1.7	1.6	32	19.2	1.6	37.0	17.9

118.4 Days After Planting

UNIFORM TEST II TRAITED MATERIAL, 2020

YIELD (bu/a)

Strain	Mean 7 Tests	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN	Britton MI	William- ston MI	Wooster OH
IA2102 (II)	50.4	50.7	46.8	42.8	63.7	56.2	47.5	44.9
U14-910097 (SCN) (L)	61.0	69.4	44.0	47.4	76.7	66.7	52.7	70.3
AG17X8 (E)	45.0	50.7	30.9	46.6	55.5	47.9	38.0	45.3
AG25X8	55.9	61.1	42.9	46.3	72.1	58.9	48.6	61.2
E11128T	51.5	55.0	47.9	43.2	60.7	43.9	43.9	65.9
E17143	45.1	51.3	34.4	40.5	52.0	47.2	35.9	54.2
E17804-01	45.0	52.8	35.6	41.9	54.9	47.7	38.9	43.2
HM16-M015	55.3	59.6	46.9	45.7	62.7	56.2	50.0	66.1
HM16-W150	53.4	54.0	46.4	41.1	67.4	55.8	45.7	63.6
SA17-13168-1	52.0	56.8	42.8	43.4	65.4	53.7	50.3	51.3
SA17-2742	49.2	54.0	42.7	38.8	62.2	51.2	52.0	43.8
Location Mean		55.9	41.9	43.4	63.0	53.2	45.8	55.4
C.V. (%)		6.4	7.0	10.4	6.1	6.2	12.7	10.6
L.S.D. (5%)		8.0	6.5	14.3	8.5	6.8	12.0	12.5
Row sp. (In.)		30	30	30	30	15	15	8
Rows/Plot		4	4	4	4	6	6	8
Reps		2	2	2	2	3	3	3

UNIFORM TEST II TRAITED MATERIAL, 2020

YIELD RANK

Strain	Yield Rank	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN	Britton MI	William- ston MI	Wooster OH
IA2102 (II)	7	10	3	7	5	3	6	9
U14-910097 (SCN) (L)	1	1	5	1	1	1	1	1
AG17X8 (E)	11	10	11	2	9	8	10	8
AG25X8	2	2	6	3	2	2	5	5
E11128T	6	5	1	6	8	11	8	3
E17143	9	9	10	10	11	10	11	6
E17804-01	10	8	9	8	10	9	9	11
HM16-M015	3	3	2	4	6	3	4	2
HM16-W150	4	6	4	9	3	5	7	4
SA17-13168-1	5	4	7	5	4	6	3	7
SA17-2742	8	6	8	11	7	7	2	10

UNIFORM TEST II TRAITED MATERIAL, 2020

MATURITY (date)

Strain	Mean 7 Tests	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN	Britton MI	William- ston MI	Wooster OH
IA2102 (II)	9/19	9/18	9/26	9/13	9/20	9/22	9/25	9/14
U14-910097 (SCN) (L)	8.6	13	8	9	9	4	6	12
AG17X8 (E)	-7.8	-8	-8	-9	-8	-4	-10	-9
AG25X8	1.3	2	2	1	1	2	-1	4
E11128T	1.9	7	5	1	-1	1	-4	5
E17143	3.5	3	4	5	-1	4	3	7
E17804-01	0.6	1	5	-1	0	1	-1	0
HM16-M015	6.2	10	4	5	6	3	6	10
HM16-W150	6.8	10	6	7	6	3	8	8
SA17-13168-1	1.9	5	2	4	2	2	-3	3
SA17-2742	1.2	1	1	1	3	1	1	2
Date Planted	5/30	6/3	6/1	6/1	6/2	6/2	5/24	5/24
Days to Mature	112	107	117	104	110	112	124	113

UNIFORM TEST II TRAITED MATERIAL, 2020

LODGING (score)

Strain	Mean 5 Tests	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN	Britton MI	William- ston MI	Wooster OH
IA2102 (II)	1.7	2.5		2.0	2.0	1.0		1.0
U14-910097 (SCN) (L)	1.9	3.5		2.0	2.0	1.0		1.0
AG17X8 (E)	1.1	1.3		1.0	1.0	1.0		1.0
AG25X8	1.1	1.5		1.0	1.0	1.0		1.0
E11128T	1.6	1.8		2.0	2.0	1.0		1.0
E17143	1.2	1.5		1.5	1.0	1.0		1.0
E17804-01	1.4	1.5		2.0	1.5	1.0		1.0
HM16-M015	1.2	2.0		1.0	1.0	1.0		1.0
HM16-W150	2.2	3.0		3.0	3.0	1.0		1.0
SA17-13168-1	1.5	2.0		2.0	1.5	1.0		1.0
SA17-2742	1.6	2.0		2.0	2.0	1.0		1.0

UNIFORM TEST II TRAITED MATERIAL, 2020

PLANT HEIGHT (inches)

Strain	Mean 5 Tests	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN	Britton MI	William- ston MI	Wooster OH
IA2102 (II)	32.9	38		32	37	34		25
U14-910097 (SCN) (L)	31.9	37		30	37	32		24
AG17X8 (E)	31.0	38		31	33	32		23
AG25X8	33.1	37		32	37	34		25
E11128T	32.4	41		31	36	31		24
E17143	34.8	42		32	39	36		26
E17804-01	31.2	36		31	35	31		24
HM16-M015	34.8	43		34	36	36		25
HM16-W150	37.3	43		34	43	38		29
SA17-13168-1	32.7	37		31	37	35		25
SA17-2742	31.8	38		30	36	34		22

UNIFORM TEST II TRAITED MATERIAL, 2020

SEED SIZE (g/100)

Strain	Mean 6 Tests	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN	Britton MI	William- ston MI	Wooster OH
IA2102 (II)	14.2	13.7	16.0	11.6	15.0		15.6	13.5
U14-910097 (SCN) (L)	14.5	15.1	15.0	11.2	14.5		15.9	15.5
AG17X8 (E)	16.4	16.2	17.1	14.0	18.4		16.4	16.5
AG25X8	15.3	14.4	15.9	12.2	17.0		17.0	15.6
E11128T	17.8	16.6	16.5	15.0	19.7		19.3	19.6
E17143	14.8	15.3	14.9	12.9	14.8		16.4	14.8
E17804-01	16.0	16.3	17.7	13.4	17.3		16.9	14.7
HM16-M015	17.0	17.8	16.2	13.7	17.4		19.0	18.2
HM16-W150	15.7	15.6	15.1	12.2	16.4		17.8	16.9
SA17-13168-1	15.3	16.1	14.8	12.2	16.1		17.3	15.6
SA17-2742	13.6	13.7	13.2	10.8	14.9		15.5	13.7

UNIFORM TEST II TRAITED MATERIAL, 2020

SEED QUALITY (score)

Strain	Mean 6 Tests	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN	Britton MI	William- ston MI	Wooster OH
IA2102 (II)	1.4	2.0	2.0	1.0	1.0		1.3	1.0
U14-910097 (SCN) (L)	1.3	2.0	2.0	1.0	1.0		1.0	1.0
AG17X8 (E)	1.9	2.0	3.0	1.0	1.5		2.0	1.7
AG25X8	1.6	2.0	2.0	1.0	1.5		2.0	1.0
E11128T	1.4	2.0	2.0	1.0	1.0		1.3	1.3
E17143	1.7	2.0	3.0	1.5	1.0		1.3	1.3
E17804-01	1.8	3.0	3.0	1.0	1.0		1.7	1.3
HM16-M015	1.4	2.0	2.0	1.0	1.0		1.3	1.3
HM16-W150	1.5	2.0	2.0	1.0	1.0		1.7	1.3
SA17-13168-1	1.6	3.0	2.0	1.0	1.0		1.5	1.0
SA17-2742	1.6	2.0	2.0	1.0	1.0		2.5	1.0

UNIFORM TEST II TRAITED MATERIAL, 2020

PROTEIN (%)

Strain	Mean 6 Tests	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN	William- ston MI	Wooster OH
IA2102 (II)	34.6	33.7	36.5	36.7	33.1	33.0	34.8
U14-910097 (SCN) (L)	32.6	32.2	32.0	34.0	33.2	31.7	32.7
AG17X8 (E)	34.2	33.3	33.1	35.8	34.4	33.6	35.2
AG25X8	34.1	32.9	33.7	35.6	35.0	33.2	34.0
E11128T	36.5	33.0	34.4	39.6	37.5	35.1	39.2
E17143	35.8	34.6	34.6	37.4	34.8	36.5	36.9
E17804-01	35.5	34.1	36.5	36.5	35.9	34.5	35.5
HM16-M015	34.5	32.9	34.7	36.8	33.5	33.7	35.2
HM16-W150	34.3	32.3	32.6	37.0	34.9	33.9	35.3
SA17-13168-1	36.7	36.2	35.4	38.7	36.9	36.0	37.3
SA17-2742	35.9	35.1	34.3	38.8	36.4	35.5	35.4

UNIFORM TEST II TRAITED MATERIAL, 2020

OIL (%)

Strain	Mean 6 Tests	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN	William- ston MI	Wooster OH
IA2102 (II)	19.3	19.9	19.7	17.7	19.7	19.1	19.5
U14-910097 (SCN) (L)	20.0	20.4	19.9	19.3	20.1	19.8	20.5
AG17X8 (E)	20.3	21.1	20.4	19.2	20.5	20.3	20.1
AG25X8	19.4	20.1	19.7	18.6	19.3	19.2	19.6
E11128T	18.5	20.4	19.6	17.0	18.0	18.5	17.3
E17143	18.8	19.4	19.2	18.0	19.4	18.0	18.6
E17804-01	19.3	20.0	18.7	18.6	19.4	19.1	19.9
HM16-M015	19.6	20.4	19.8	18.5	20.3	19.0	19.6
HM16-W150	18.7	19.7	19.2	17.1	18.7	18.7	18.9
SA17-13168-1	19.1	19.5	19.6	17.9	19.2	19.1	19.3
SA17-2742	19.5	20.4	20.5	18.2	19.0	18.9	20.1

UNIFORM TEST II TRAITED MATERIAL, 2020

REGIONAL SUMMARY - SEED COMPOSITION (FATTY ACID)

No. of Tests Strain	Palmitic 6 %	Stearic 6 %	Oleic 6 %	Linoleic 6 %	Linolenic 6 %
IA2102 (II)	11.5	4.2	20.6	54.8	8.8
U14-910097 (SCN) (L)	11.5	3.8	21.3	55.7	7.7
E17143	4.9	3.1	80.9	9.1	2.0
E17804-01	3.7	3.7	79.5	10.9	2.2
SA17-13168-1	7.0	3.8	76.1	9.1	4.0
SA17-2742	7.7	4.3	74.5	12.0	1.6
Mean	7.7	3.8	58.8	25.3	4.4

UNIFORM TEST II TRAITED MATERIAL, 2020

FATTY ACID, PALMITIC (%)

Strain	Mean 6 Tests	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN	William- ston MI	Wooster OH
IA2102 (II)	11.5	11.7	11.7	11.5	11.4	11.5	11.3
U14-910097 (SCN) (L)	11.5	11.2	11.4	11.2	11.5	11.4	12.0
E17143	4.9	5.4	4.7	4.9	4.8	4.9	4.7
E17804-01	3.7	3.1	3.3	3.5	4.5	3.9	4.0
SA17-13168-1	7.0	8.0	6.6	6.6	6.7	6.4	7.5
SA17-2742	7.7	6.9	7.6	7.0	7.6	9.1	7.7

UNIFORM TEST II TRAITED MATERIAL, 2020

FATTY ACID, STEARIC (%)

Strain	Mean 6 Tests	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN	William- ston MI	Wooster OH
IA2102 (II)	4.2	4.3	4.0	4.7	3.7	4.0	4.5
U14-910097 (SCN) (L)	3.8	3.7	3.7	3.8	3.6	3.7	4.1
E17143	3.1	3.3	2.7	3.2	2.9	3.1	3.2
E17804-01	3.7	3.4	3.2	4.3	3.5	3.5	4.4
SA17-13168-1	3.8	3.9	3.5	4.3	3.4	3.7	4.3
SA17-2742	4.3	4.1	4.0	5.2	4.1	3.8	4.6

UNIFORM TEST II TRAITED MATERIAL, 2020

FATTY ACID, OLEIC (%)

Strain	Mean 6 Tests	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN	William- ston MI	Wooster OH
IA2102 (II)	20.6	20.9	19.6	21.1	20.5	20.4	21.1
U14-910097 (SCN) (L)	21.3	22.2	19.7	22.3	21.8	20.5	21.6
E17143	80.9	79.5	82.9	81.2	82.5	78.1	80.8
E17804-01	79.5	85.3	86.5	83.4	70.8	80.7	70.1
SA17-13168-1	76.1	66.8	81.3	79.7	81.3	79.7	67.9
SA17-2742	74.5	81.5	80.2	79.2	80.6	46.1	79.6

UNIFORM TEST II TRAITED MATERIAL, 2020

FATTY ACID, LINOLEIC (%)

Strain	Mean 6 Tests	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN	William- ston MI	Wooster OH
IA2102 (II)	54.8	53.7	56.0	53.8	55.4	55.0	54.9
U14-910097 (SCN) (L)	55.7	55.0	56.6	55.4	55.7	56.5	55.1
E17143	9.1	9.7	7.6	8.8	7.9	11.8	9.2
E17804-01	10.9	6.2	5.3	6.8	18.5	9.9	18.6
SA17-13168-1	9.1	16.7	4.9	5.8	5.2	6.4	15.8
SA17-2742	12.0	6.7	7.2	7.6	6.9	36.2	7.3

UNIFORM TEST II TRAITED MATERIAL, 2020

FATTY ACID, LINOLENIC (%)

Strain	Mean 6 Tests	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN	William- ston MI	Wooster OH
IA2102 (II)	8.8	9.4	8.6	8.8	8.9	9.1	8.1
U14-910097 (SCN) (L)	7.7	7.8	8.5	7.4	7.4	8.0	7.2
E17143	2.0	2.1	2.1	1.9	1.9	2.1	2.1
E17804-01	2.2	1.9	1.8	1.9	2.6	2.0	2.9
SA17-13168-1	4.0	4.6	3.8	3.7	3.4	3.9	4.4
SA17-2742	1.6	0.9	1.0	1.0	0.9	4.8	0.9

**Northern Regional Uniform Test
Preliminary Test II, Traited Material, 2020**

Ent.	Strain	Parentage	Seed Source	Gen. Comp.	Unique Traits
1	IA2102 (II)	A04-545045 x AgriPro 98180-A01-0613	Cai	F4	
2	U14-910097 (SCN) (L)	U09-105007 x LD07-3419	Graef	F6	SCN, HR, MR, IDC
3	AG17X8 (E)		Cai	F6	RR2, Extend
4	AG25X8		Cai	F5	RR2, Extend
5	A14017-111	IA1027HO x IA2102	Singh		
6	A14017-166	IA1027HO x IA2102	Singh		
7	A14017-66	IA1027HO x IA2102	Singh		High Protein
8	A14019-28	IA1026HO x IA2104HS	Singh		
9	A14039-95	(U11-911079 x OAC Avatar) x IA2102	Singh		High Protein
10	A14040-184	(OAC Brooke x U09-133021) x IA2102	Singh		High Oil
11	A14041-27	(OAC Brooke x U09-133021) x IA3050	Singh		High Protein
12	A14056-186	(IA1026HO x IA2104HS) x IA2102	Singh		
13	A14056-75	(IA1026HO x IA2104HS) x IA2102	Singh		
14	A14056-77	(IA1026HO x IA2104HS) x IA2102	Singh		
15	A14058-96	(IA2104HS x IA2106HO) x IA2102	Singh		
16	A14061-177	(IA1026HO x IA3051HS) x IA2102	Singh		
17	A14062-101	(IA2106HO x IA3051HS) x IA2102	Singh		
18	A14062-182	(IA2106HO x IA3051HS) x IA2102	Singh		
19	A14069-28	IA1026 x IA2102	Singh		High Protein
20	E18450GT	E13367 x U06-814223R	Wang	F5	SCN, Rps1, GT
21	E18610T	IA2102 x E11128T	Wang	F5	SCN, Rps1, Pro
22	HM17-06108	M09-W158 x M10-W111	McHale	F4	High Oil
23	HM17-06255	M11-M055 x M09-W122	McHale	F4	>50% meal
24	HM17-06285	M11-M055 x (M11-L012 x SG0-717)	McHale	F4	>50% meal
25	LD18-12212	LD12-6010a x LDXGL15-025-1	Diers	F4	HOLL
26	LD18-12216	LD12-6010a x LDXGL15-025-1	Diers	F4	HOLL
27	LD18-12217	LD12-6010a x LDXGL15-025-1	Diers	F4	HOLL
28	LD18-12218	LD12-6010a x LDXGL15-025-1	Diers	F4	HOLL
29	LD18-12335	LD16-10111 x LD10-10198	Diers	F4	HOLL
30	LD18-12370	LD16-10111 x LD10-10198	Diers	F4	HOLL
31	LD18-14008				
32	LD18-14024	[LD10-10198(4) x KB12-1#70HO]			
33	LD18-14040	x [LD10-10198(4) x KB13F3:14-228LL]	Diers	F4	HOLL
34	LD18-14052				
35	LD18-GH324-1-4	[LD10-10198(4) x KB13F3:14-228LL]			
36	LD18-GH324-1-5	x [LD10-10198(4) x KB12-1#70HO]	Diers		SCN, HOLL

Entry 31-34 share the same parentage. Entry 35-36 share the same parentage.

PRELIMINARY TEST II TRAITED MATERIAL, 2020

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code
IA2102 (II)	WGTDYYI
U14-910097 (SCN) (L)	PGTDYBfi
AG17X8 (E)	PLtBDYBI
AG25X8	PGTSYIbi
A14017-111	WGB+TDYYI
A14017-166	WGTSYYI
A14017-66	WGBSYYI
A14019-28	WTTDYYI
A14039-95	WLtBDYGI
A14040-184	WGTDYYI
A14041-27	PLtBDYGI
A14056-186	WLt+GTDYYI
A14056-75	WT+GTSYYI
A14056-77	WGTSYYI
A14058-96	WTTSYYI
A14061-177	PGB+TDYYI
A14062-101	PGTSYYI
A14062-182	WGTDYYI
A14069-28	WT+GB+TSYYI
E18450GT	WGBDYBfi
E18610T	WGTDYYI
HM17-06108	P+WGBSYYI
HM17-06255	PT+GBSYHI
HM17-06285	PT+Lt+GBDYHI
LD18-12212	WT+LtBDYBI
LD18-12216	WTBDYBI
LD18-12217	WT+LtBDYBI
LD18-12218	WT+LtBDYBI
LD18-12335	PLtBSYYI
LD18-12370	WLtBSYYI
LD18-14008	PGBDYGI
LD18-14024	PGBSYHI
LD18-14040	PGBDYGI
LD18-14052	PGBSYHI
LD18-GH324-1-4	PGBSYGI
LD18-GH324-1-5	PGBSYGI

PRELIMINARY TEST II TRAITED MATERIAL, 2020

REGIONAL SUMMARY

No. of Tests Strain	Yield 4 bu/a	Rank 4 No.	Maturity 4 Date	Lodging 2 Score	Plant Height 2 In.	Seed Size 4 g/100	Seed Quality 4 Score	<u>Composition</u>	
								Protein 4 %	Oil 4 %
IA2102 (II)	45.9	32	9/20	1.3	31	14.7	1.5	33.5	19.4
U14-910097 (SCN) (L)	60.8	1	9.4	1.5	29	15.1	1.4	32.8	20.2
AG17X8 (E)	39.1	36	-6.0	1.3	27	16.7	2.0	34.2	20.3
AG25X8	51.5	13	3.3	1.0	30	16.3	1.9	34.0	19.3
A14017-111	52.9	7	3.6	1.0	26	14.2	1.3	36.1	19.4
A14017-166	52.5	9	5.6	1.0	28	13.5	1.0	35.3	19.6
A14017-66	53.4	5	5.1	1.3	27	14.5	1.4	34.1	19.7
A14019-28	47.9	26	2.1	1.0	26	18.3	1.4	36.4	19.4
A14039-95	52.9	8	7.4	1.5	35	15.0	1.5	34.3	19.0
A14040-184	52.1	10	6.8	1.3	29	16.8	1.5	33.5	20.5
A14041-27	49.1	22	2.3	1.0	26	17.7	1.6	35.6	19.6
A14056-186	46.3	31	4.0	1.5	28	15.5	1.8	37.1	18.4
A14056-75	45.4	33	3.1	1.0	28	14.5	1.5	36.4	19.0
A14056-77	46.7	28	1.1	1.3	29	16.7	1.8	36.4	18.4
A14058-96	47.2	27	1.5	1.0	30	14.0	2.0	35.0	20.0
A14061-177	49.3	20	5.8	1.3	30	18.3	1.6	34.7	19.5
A14062-101	53.3	6	1.4	1.3	28	15.5	1.8	34.5	19.3
A14062-182	49.7	19	2.4	1.3	30	16.3	1.5	34.4	19.9
A14069-28	42.3	35	2.7	1.0	28	14.1	1.9	35.0	19.3
E18450GT	46.5	29	5.0	1.5	33	14.5	2.1	32.7	20.0
E18610T	49.1	21	2.9	1.5	29	17.1	1.8	35.0	18.7
HM17-06108	56.9	2	7.5	1.3	31	17.4	1.5	33.3	20.5
HM17-06255	55.1	3	7.9	1.5	32	17.4	1.1	34.2	19.6
HM17-06285	51.5	14	6.6	1.5	34	16.4	1.3	36.7	19.1
LD18-12212	50.0	18	6.1	1.0	28	15.7	1.6	36.0	19.7
LD18-12216	46.5	30	4.1	1.0	26	14.6	1.8	36.2	19.6
LD18-12217	48.8	23	2.9	1.0	27	15.0	1.6	36.0	19.5
LD18-12218	51.4	16	3.5	1.0	27	15.2	1.6	36.0	19.4
LD18-12335	54.4	4	6.8	1.0	29	13.1	1.6	34.5	19.6
LD18-12370	45.2	34	4.1	1.0	27	14.1	1.5	35.0	19.7
LD18-14008	51.4	15	5.0	1.0	29	14.6	1.5	34.8	19.2
LD18-14024	51.6	12	3.2	1.0	29	13.8	1.6	34.6	19.0
LD18-14040	48.6	25	3.6	1.0	26	13.7	1.5	35.5	19.5
LD18-14052	48.6	24	5.3	1.0	28	13.9	1.8	34.6	19.0
LD18-GH324-1-4	52.0	11	4.5	1.0	28	14.3	1.5	35.5	19.3
LD18-GH324-1-5	50.5	17	2.6	1.0	25	13.4	1.5	35.4	19.3
Mean	49.9			1.2	28.6	15.3	1.6	35.0	19.5
C.V. (%)	11.8								
L.S.D. (5%)	5.8								

115.3 Days After Planting

PRELIMINARY TEST II TRAITED MATERIAL, 2020

YIELD (bu/a)

Strain	Mean 4 Tests	Urbana IL	West Lafayette IN	William- ston MI	Wooster OH
IA2102 (II)	45.9	40.6	60.2	35.1	47.6
U14-910097 (SCN) (L)	60.8	43.3	67.2	64.5	68.1
AG17X8 (E)	39.1	24.2	60.0	36.2	35.8
AG25X8	51.5	38.6	68.3	46.6	52.6
A14017-111	52.9	46.3	62.9	42.1	60.4
A14017-166	52.5	43.3	54.0	49.0	63.8
A14017-66	53.4	45.8	67.1	53.8	47.0
A14019-28	47.9	40.3	60.5	37.8	53.2
A14039-95	52.9	44.7	68.0	41.9	56.9
A14040-184	52.1	46.6	59.0	38.3	64.7
A14041-27	49.1	42.6	61.2	48.9	43.8
A14056-186	46.3	43.4	55.9	34.6	51.2
A14056-75	45.4	42.3	56.5	35.5	47.5
A14056-77	46.7	39.3	63.1	37.5	46.7
A14058-96	47.2	40.8	59.5	36.9	51.7
A14061-177	49.3	46.7	56.9	33.2	60.4
A14062-101	53.3	48.6	59.1	45.4	60.1
A14062-182	49.7	43.4	58.6	40.9	56.0
A14069-28	42.3	42.5	55.2	33.2	38.1
E18450GT	46.5	43.4	58.7	36.2	47.6
E18610T	49.1	36.6	56.6	50.5	52.8
HM17-06108	56.9	43.2	67.6	58.0	58.7
HM17-06255	55.1	46.4	61.4	47.6	64.8
HM17-06285	51.5	46.1	53.7	44.9	61.2
LD18-12212	50.0	42.1	59.3	35.9	62.8
LD18-12216	46.5	43.1	51.3	40.3	51.3
LD18-12217	48.8	42.6	56.9	35.9	59.8
LD18-12218	51.4	44.7	59.9	42.4	58.5
LD18-12335	54.4	43.1	67.1	43.1	64.4
LD18-12370	45.2	33.5	63.6	35.4	48.4
LD18-14008	51.4	39.0	61.8	39.1	65.8
LD18-14024	51.6	32.8	60.6	56.4	56.5
LD18-14040	48.6	32.3	60.8	35.4	65.8
LD18-14052	48.6	33.6	60.3	41.0	59.5
LD18-GH324-1-4	52.0	41.5	69.4	35.4	61.9
LD18-GH324-1-5	50.5	39.1	68.9	44.1	50.1
Location Mean		41.3	60.9	42.0	55.4
C.V. (%)		9.5	9.5	9.8	12.4
L.S.D. (5%)		7.9	11.8	10.0	13.6
Row sp. (In.)		30	30	15	8
Rows/Plot		4	4	6	8
Reps		2	2	2	2

PRELIMINARY TEST II TRAITED MATERIAL, 2020

YIELD RANK

Strain	Yield Rank	Urbana IL	West Lafayette IN	Williamston MI	Wooster OH
IA2102 (II)	32	25	19	33	29
U14-910097 (SCN) (L)	1	13	6	1	1
AG17X8 (E)	36	36	20	25	36
AG25X8	13	30	3	9	23
A14017-111	7	5	11	15	11
A14017-166	9	13	34	6	7
A14017-66	5	7	7	4	32
A14019-28	26	26	17	22	21
A14039-95	8	9	4	16	18
A14040-184	10	3	25	21	5
A14041-27	22	18	14	7	34
A14056-186	31	10	32	34	26
A14056-75	33	21	31	29	31
A14056-77	28	27	10	23	33
A14058-96	27	24	22	24	24
A14061-177	20	2	28	35	11
A14062-101	6	1	24	10	13
A14062-182	19	10	27	18	20
A14069-28	35	20	33	35	35
E18450GT	29	10	26	25	29
E18610T	21	31	30	5	22
HM17-06108	2	15	5	2	16
HM17-06255	3	4	13	8	4
HM17-06285	14	6	35	11	10
LD18-12212	18	22	23	27	8
LD18-12216	30	16	36	19	25
LD18-12217	23	18	28	27	14
LD18-12218	16	8	21	14	17
LD18-12335	4	16	7	13	6
LD18-12370	34	33	9	30	28
LD18-14008	15	29	12	20	2
LD18-14024	12	34	16	3	19
LD18-14040	25	35	15	30	2
LD18-14052	24	32	18	17	15
LD18-GH324-1-4	11	23	1	30	9
LD18-GH324-1-5	17	28	2	12	27

PRELIMINARY TEST II TRAITED MATERIAL, 2020

MATURITY (date)

Strain	Mean 4 Tests	Urbana IL	West Lafayette IN	William- ston MI	Wooster OH
IA2102 (II)	9/20	9/25	9/19	9/20	9/18
U14-910097 (SCN) (L)	9.4	8	8	11	11
AG17X8 (E)	-6.0	-7	-8	0	-10
AG25X8	3.3	2	2	6	4
A14017-111	3.6	4	-1	7	5
A14017-166	5.6	5	1	12	6
A14017-66	5.1	5	0	12	4
A14019-28	2.1	2	-1	5	2
A14039-95	7.4	7	6	9	8
A14040-184	6.8	7	4	8	9
A14041-27	2.3	3	1	6	0
A14056-186	4.0	4	3	6	4
A14056-75	3.1	1	-2	8	5
A14056-77	1.1	1	1	4	-1
A14058-96	1.5	0	-2	3	4
A14061-177	5.8	4	5	7	8
A14062-101	1.4	1	1	4	0
A14062-182	2.4	1	1	4	4
A14069-28	2.7	2	-1	4	5
E18450GT	5.0	4	3	10	4
E18610T	2.9	3	2	6	1
HM17-06108	7.5	6	5	13	7
HM17-06255	7.9	7	6	8	11
HM17-06285	6.6	6	4	8	8
LD18-12212	6.1	5	4	8	8
LD18-12216	4.1	3	1	9	4
LD18-12217	2.9	3	-1	6	4
LD18-12218	3.5	3	1	6	4
LD18-12335	6.8	6	5	8	8
LD18-12370	4.1	6	2	5	4
LD18-14008	5.0	3	4	8	6
LD18-14024	3.2	2	3	6	2
LD18-14040	3.6	2	3	5	5
LD18-14052	5.3	4	4	8	6
LD18-GH324-1-4	4.5	4	3	7	5
LD18-GH324-1-5	2.6	3	3	4	1
Date Planted	5/28	6/1	6/2	5/24	5/24
Days to Mature	115	116	109	119	117

PRELIMINARY TEST II TRAITED MATERIAL, 2020

LODGING (score)

Strain	Mean 2 Tests	Urbana IL	West Lafayette IN	William- ston MI	Wooster OH
IA2102 (II)	1.3		1.5		1.0
U14-910097 (SCN) (L)	1.5		2.0		1.0
AG17X8 (E)	1.3		1.5		1.0
AG25X8	1.0		1.0		1.0
A14017-111	1.0		1.0		1.0
A14017-166	1.0		1.0		1.0
A14017-66	1.3		1.5		1.0
A14019-28	1.0		1.0		1.0
A14039-95	1.5		2.0		1.0
A14040-184	1.3		1.5		1.0
A14041-27	1.0		1.0		1.0
A14056-186	1.5		2.0		1.0
A14056-75	1.0		1.0		1.0
A14056-77	1.3		1.5		1.0
A14058-96	1.0		1.0		1.0
A14061-177	1.3		1.5		1.0
A14062-101	1.3		1.5		1.0
A14062-182	1.3		1.5		1.0
A14069-28	1.0		1.0		1.0
E18450GT	1.5		2.0		1.0
E18610T	1.5		2.0		1.0
HM17-06108	1.3		1.5		1.0
HM17-06255	1.5		2.0		1.0
HM17-06285	1.5		2.0		1.0
LD18-12212	1.0		1.0		1.0
LD18-12216	1.0		1.0		1.0
LD18-12217	1.0		1.0		1.0
LD18-12218	1.0		1.0		1.0
LD18-12335	1.0		1.0		1.0
LD18-12370	1.0		1.0		1.0
LD18-14008	1.0		1.0		1.0
LD18-14024	1.0		1.0		1.0
LD18-14040	1.0		1.0		1.0
LD18-14052	1.0		1.0		1.0
LD18-GH324-1-4	1.0		1.0		1.0
LD18-GH324-1-5	1.0		1.0		1.0

PRELIMINARY TEST II TRAITED MATERIAL, 2020

PLANT HEIGHT (inches)

Strain	Mean 2 Tests	Urbana IL	West Lafayette IN	William- ston MI	Wooster OH
IA2102 (II)	31.0		36		26
U14-910097 (SCN) (L)	28.8		34		24
AG17X8 (E)	27.3		32		23
AG25X8	30.3		37		24
A14017-111	26.3		30		23
A14017-166	27.5		31		24
A14017-66	26.8		33		21
A14019-28	25.8		32		20
A14039-95	34.8		41		29
A14040-184	28.8		33		25
A14041-27	26.0		33		19
A14056-186	28.3		34		23
A14056-75	28.0		34		22
A14056-77	28.5		35		22
A14058-96	30.0		36		24
A14061-177	29.5		33		26
A14062-101	28.3		34		23
A14062-182	30.0		36		24
A14069-28	27.5		35		20
E18450GT	32.8		41		25
E18610T	29.3		34		25
HM17-06108	31.3		38		25
HM17-06255	32.0		37		27
HM17-06285	34.0		40		28
LD18-12212	28.0		32		24
LD18-12216	26.0		29		23
LD18-12217	26.5		30		23
LD18-12218	26.8		30		24
LD18-12335	29.0		33		25
LD18-12370	26.8		32		22
LD18-14008	29.3		33		26
LD18-14024	28.5		32		25
LD18-14040	26.3		29		24
LD18-14052	28.0		30		26
LD18-GH324-1-4	28.0		31		25
LD18-GH324-1-5	25.0		30		20

PRELIMINARY TEST II TRAITED MATERIAL, 2020

SEED SIZE (g/100)

Strain	Mean 4 Tests	Urbana IL	West Lafayette IN	William- ston MI	Wooster OH
IA2102 (II)	14.7	14.8	14.9	15.2	14.1
U14-910097 (SCN) (L)	15.1	15.1	14.1	15.6	15.8
AG17X8 (E)	16.7	17.2	17.8	15.4	16.4
AG25X8	16.3	15.5	17.0	17.1	15.6
A14017-111	14.2	13.9	13.9	15.0	14.1
A14017-166	13.5	13.0	13.3	14.1	13.6
A14017-66	14.5	14.4	14.3	15.4	14.1
A14019-28	18.3	19.0	15.7	19.3	19.1
A14039-95	15.0	14.8	14.9	15.7	14.5
A14040-184	16.8	17.4	16.2	17.5	16.0
A14041-27	17.7	19.9	16.7	17.9	16.3
A14056-186	15.5	16.1	15.3	15.4	15.2
A14056-75	14.5	14.6	13.6	15.5	14.4
A14056-77	16.7	17.4	15.9	17.1	16.5
A14058-96	14.0	13.5	13.1	16.1	13.6
A14061-177	18.3	18.2	18.4	18.8	17.9
A14062-101	15.5	15.4	15.6	16.3	14.7
A14062-182	16.3	16.9	15.8	16.4	16.1
A14069-28	14.1	14.7	14.2	14.0	13.4
E18450GT	14.5	13.7	13.4	16.7	14.1
E18610T	17.1	17.6	17.0	17.3	16.4
HM17-06108	17.4	16.2	16.6	18.9	17.8
HM17-06255	17.4	17.0	16.8	18.5	17.5
HM17-06285	16.4	15.6	15.9	18.1	15.9
LD18-12212	15.7	14.8	15.1	17.4	15.6
LD18-12216	14.6	14.8	14.2	14.8	14.5
LD18-12217	15.0	14.7	14.5	16.1	14.6
LD18-12218	15.2	14.6	15.1	16.0	15.1
LD18-12335	13.1	12.7	12.4	13.8	13.6
LD18-12370	14.1	14.2	13.7	14.4	13.9
LD18-14008	14.6	14.2	14.2	15.2	14.7
LD18-14024	13.8	13.1	13.6	15.0	13.7
LD18-14040	13.7	12.6	13.8	14.6	13.8
LD18-14052	13.9	13.8	13.5	14.5	13.9
LD18-GH324-1-4	14.3	14.1	13.8	14.8	14.7
LD18-GH324-1-5	13.4	12.9	13.8	13.8	13.0

PRELIMINARY TEST II TRAITED MATERIAL, 2020

SEED QUALITY (score)

Strain	Mean 4 Tests	Urbana IL	West Lafayette IN	William- ston MI	Wooster OH
IA2102 (II)	1.5	2.0	1.0	2.0	1.0
U14-910097 (SCN) (L)	1.4	2.0	1.0	1.5	1.0
AG17X8 (E)	2.0	2.0	1.0	3.0	2.0
AG25X8	1.9	2.0	2.0	2.5	1.0
A14017-111	1.3	1.0	1.0	2.0	1.0
A14017-166	1.0	1.0	1.0	1.0	1.0
A14017-66	1.4	2.0	1.0	1.5	1.0
A14019-28	1.4	1.0	1.5	2.0	1.0
A14039-95	1.5	2.0	1.0	2.0	1.0
A14040-184	1.5	2.0	1.0	1.5	1.5
A14041-27	1.6	2.0	1.0	2.5	1.0
A14056-186	1.8	2.0	1.0	3.0	1.0
A14056-75	1.5	2.0	1.0	2.0	1.0
A14056-77	1.8	2.0	1.0	3.0	1.0
A14058-96	2.0	2.0	2.0	2.0	2.0
A14061-177	1.6	2.0	1.0	2.0	1.5
A14062-101	1.8	2.0	1.0	3.0	1.0
A14062-182	1.5	2.0	1.0	2.0	1.0
A14069-28	1.9	2.0	1.0	3.0	1.5
E18450GT	2.1	3.0	1.0	3.0	1.5
E18610T	1.8	2.0	1.5	2.5	1.0
HM17-06108	1.5	2.0	1.0	2.0	1.0
HM17-06255	1.1	1.0	1.0	1.5	1.0
HM17-06285	1.3	2.0	1.0	1.0	1.0
LD18-12212	1.6	2.0	1.5	2.0	1.0
LD18-12216	1.8	2.0	1.5	2.5	1.0
LD18-12217	1.6	2.0	1.0	2.5	1.0
LD18-12218	1.6	2.0	1.0	2.5	1.0
LD18-12335	1.6	2.0	1.0	2.0	1.5
LD18-12370	1.5	2.0	1.0	2.0	1.0
LD18-14008	1.5	2.0	1.0	2.0	1.0
LD18-14024	1.6	3.0	1.0	1.5	1.0
LD18-14040	1.5	2.0	1.0	2.0	1.0
LD18-14052	1.8	2.0	1.0	2.5	1.5
LD18-GH324-1-4	1.5	2.0	1.0	2.0	1.0
LD18-GH324-1-5	1.5	2.0	1.0	2.0	1.0

PRELIMINARY TEST II TRAITED MATERIAL, 2020

PROTEIN (%)

Strain	Mean 4 Tests	Urbana IL	West Lafayette IN	William- ston MI	Wooster OH
IA2102 (II)	33.5	33.3	34.1	32.7	34.0
U14-910097 (SCN) (L)	32.8	33.5	32.3	32.7	32.7
AG17X8 (E)	34.2	33.1	34.2	34.6	34.9
AG25X8	34.0	35.0	34.8	32.1	34.2
A14017-111	36.1	36.0	36.5	35.0	37.0
A14017-166	35.3	36.0	34.2	34.7	36.2
A14017-66	34.1	33.7	34.6	32.7	35.4
A14019-28	36.4	36.3	36.2	36.1	37.0
A14039-95	34.3	35.0	34.5	32.9	34.6
A14040-184	33.5	34.1	33.3	32.3	34.3
A14041-27	35.6	36.7	35.3	34.6	35.8
A14056-186	37.1	39.9	36.4	35.2	36.9
A14056-75	36.4	36.4	36.9	35.7	36.8
A14056-77	36.4	37.0	35.8	35.6	37.3
A14058-96	35.0	34.8	35.0	34.7	35.7
A14061-177	34.7	34.9	35.2	33.1	35.6
A14062-101	34.5	33.9	34.3	33.2	36.5
A14062-182	34.4	35.1	34.0	33.7	34.9
A14069-28	35.0	35.3	34.9	34.6	35.2
E18450GT	32.7	32.8	33.0	31.4	33.4
E18610T	35.0	35.4	35.0	34.1	35.4
HM17-06108	33.3	34.2	32.2	32.4	34.5
HM17-06255	34.2	35.9	33.2	32.8	34.9
HM17-06285	36.7	36.7	37.7	35.5	36.9
LD18-12212	36.0	36.7	35.7	34.8	36.7
LD18-12216	36.2	37.2	36.2	34.9	36.6
LD18-12217	36.0	36.3	36.3	35.0	36.5
LD18-12218	36.0	36.6	36.8	35.2	35.6
LD18-12335	34.5	35.4	34.2	33.4	35.1
LD18-12370	35.0	35.8	34.5	34.4	35.4
LD18-14008	34.8	35.7	35.0	33.6	34.9
LD18-14024	34.6	34.5	34.4	34.4	35.1
LD18-14040	35.5	35.4	35.9	35.0	35.8
LD18-14052	34.6	35.6	34.5	33.4	35.0
LD18-GH324-1-4	35.5	36.4	35.3	34.4	35.9
LD18-GH324-1-5	35.4	36.3	35.6	34.4	35.4

PRELIMINARY TEST II TRAITED MATERIAL, 2020

OIL (%)

Strain	Mean 4 Tests	Urbana IL	West Lafayette IN	William- ston MI	Wooster OH
IA2102 (II)	19.4	19.7	19.1	19.2	19.5
U14-910097 (SCN) (L)	20.2	19.9	20.5	19.6	20.7
AG17X8 (E)	20.3	20.8	20.8	20.0	19.8
AG25X8	19.3	19.0	19.3	19.2	19.6
A14017-111	19.4	19.6	19.5	19.4	19.3
A14017-166	19.6	19.9	20.0	19.1	19.5
A14017-66	19.7	20.0	19.8	19.8	19.4
A14019-28	19.4	19.4	19.8	19.0	19.3
A14039-95	19.0	18.7	19.0	19.1	19.2
A14040-184	20.5	20.5	20.8	20.4	20.5
A14041-27	19.6	19.8	19.8	19.5	19.4
A14056-186	18.4	18.4	18.2	18.8	18.1
A14056-75	19.0	19.0	19.0	18.9	19.1
A14056-77	18.4	18.2	18.5	18.4	18.5
A14058-96	20.0	20.3	20.1	19.8	19.9
A14061-177	19.5	19.7	19.8	19.3	19.3
A14062-101	19.3	19.5	19.6	19.1	18.9
A14062-182	19.9	19.7	20.4	19.6	20.1
A14069-28	19.3	19.2	19.6	19.3	19.0
E18450GT	20.0	19.9	20.1	20.0	20.0
E18610T	18.7	18.6	19.0	19.0	18.0
HM17-06108	20.5	20.1	21.1	20.2	20.5
HM17-06255	19.6	19.2	19.9	19.3	19.8
HM17-06285	19.1	18.8	19.1	19.0	19.7
LD18-12212	19.7	19.6	19.8	19.7	19.7
LD18-12216	19.6	19.8	19.7	19.3	19.5
LD18-12217	19.5	19.5	19.7	19.3	19.3
LD18-12218	19.4	19.6	19.8	19.2	19.0
LD18-12335	19.6	19.3	19.9	20.0	19.4
LD18-12370	19.7	19.6	20.4	19.7	19.3
LD18-14008	19.2	18.9	19.1	19.2	19.4
LD18-14024	19.0	19.1	19.9	18.2	18.9
LD18-14040	19.5	19.7	19.5	19.5	19.4
LD18-14052	19.0	18.8	19.2	19.0	19.2
LD18-GH324-1-4	19.3	19.1	19.6	19.1	19.2
LD18-GH324-1-5	19.3	19.2	19.4	19.2	19.4

PRELIMINARY TEST II TRAITED MATERIAL, 2020

REGIONAL SUMMARY - SEED COMPOSITION (FATTY ACID)

No. of Tests Strain	Palmitic 4 %	Stearic 4 %	Oleic 4 %	Linoleic 4 %	Linolenic 4 %
IA2102 (II)	11.4	4.1	21.3	54.5	8.7
U14-910097 (SCN) (L)	11.5	3.8	21.3	55.8	7.5
A14017-111	7.3	3.3	77.4	7.4	4.5
A14017-166	7.4	3.5	78.4	6.1	4.7
A14019-28	9.4	3.7	28.9	53.5	4.5
A14056-186	10.2	4.1	24.5	53.0	8.2
A14056-75	7.4	3.9	76.8	6.3	5.6
A14056-77	10.3	3.9	21.7	55.9	8.3
A14058-96	7.8	3.4	70.4	12.6	5.8
A14061-177	11.1	4.0	25.6	52.3	7.0
A14062-101	11.7	4.2	20.4	56.5	7.1
A14062-182	11.4	3.7	22.5	54.4	8.0
LD18-12212	6.5	3.1	82.8	5.2	2.4
LD18-12216	6.9	3.6	80.5	6.5	2.5
LD18-12217	6.5	3.3	84.4	3.5	2.2
LD18-12218	6.5	3.3	84.6	3.4	2.2
LD18-12335	6.5	3.0	84.8	3.6	2.2
LD18-12370	7.1	3.2	84.0	3.5	2.2
LD18-14008	7.6	3.3	62.3	22.7	4.1
LD18-14024	9.4	3.8	43.8	37.2	5.7
LD18-14040	6.9	3.1	78.9	8.5	2.6
LD18-14052	8.9	3.7	49.9	32.4	5.1
LD18-GH324-1-4	7.3	3.6	71.9	14.0	3.1
LD18-GH324-1-5	7.3	3.9	82.3	4.2	2.4
Mean	8.5	3.6	57.5	25.5	4.9

PRELIMINARY TEST II TRAITED MATERIAL, 2020

FATTY ACID, PALMITIC (%)

Strain	Mean 4 Tests	Urbana IL	West Lafayette IN	William- ston MI	Wooster OH
IA2102 (II)	11.4	11.4	11.1	11.5	11.6
U14-910097 (SCN) (L)	11.5	11.7	11.4	11.3	11.7
A14017-111	7.3	7.4	7.4	7.0	7.4
A14017-166	7.4	7.6	7.4	7.1	7.3
A14019-28	9.4	10.2	9.3	9.0	9.2
A14056-186	10.2	10.6	10.1	9.7	10.6
A14056-75	7.4	7.7	7.2	7.2	7.6
A14056-77	10.3	10.6	10.2	9.9	10.4
A14058-96	7.8	7.6	8.2	7.9	7.4
A14061-177	11.1	11.3	11.8	10.4	10.9
A14062-101	11.7	11.9	12.0	11.1	11.7
A14062-182	11.4	11.8	11.5	10.6	11.5
LD18-12212	6.5	6.5	6.7	6.1	6.7
LD18-12216	6.9	7.0	6.6	7.4	6.6
LD18-12217	6.5	6.8	6.6	6.2	6.6
LD18-12218	6.5	6.7	6.7	6.3	6.3
LD18-12335	6.5	6.6	6.7	6.0	6.6
LD18-12370	7.1	7.4	6.9	6.7	7.4
LD18-14008	7.6	8.3	8.1	7.4	6.7
LD18-14024	9.4	9.9	10.8	10.1	6.9
LD18-14040	6.9	6.5	6.7	7.7	6.6
LD18-14052	8.9	9.6	10.0	7.3	8.6
LD18-GH324-1-4	7.3	6.7	7.8	7.9	6.7
LD18-GH324-1-5	7.3	7.0	7.4	7.2	7.5

PRELIMINARY TEST II TRAITED MATERIAL, 2020

FATTY ACID, STEARIC (%)

Strain	Mean 4 Tests	Urbana IL	West Lafayette IN	William- ston MI	Wooster OH
IA2102 (II)	4.1	4.0	3.8	4.1	4.4
U14-910097 (SCN) (L)	3.8	3.8	3.6	3.8	4.0
A14017-111	3.3	3.2	3.6	3.0	3.6
A14017-166	3.5	3.4	3.7	3.2	3.7
A14019-28	3.7	3.5	3.4	3.5	4.3
A14056-186	4.1	3.9	4.0	3.9	4.4
A14056-75	3.9	3.7	3.9	3.8	4.3
A14056-77	3.9	3.8	3.8	3.7	4.4
A14058-96	3.4	3.3	3.4	3.4	3.6
A14061-177	4.0	4.0	3.9	3.9	4.2
A14062-101	4.2	3.9	3.9	4.2	5.0
A14062-182	3.7	3.4	3.7	3.9	3.9
LD18-12212	3.1	3.0	2.9	3.2	3.4
LD18-12216	3.6	3.2	3.2	3.8	4.1
LD18-12217	3.3	3.0	3.1	3.5	3.7
LD18-12218	3.3	3.2	3.1	3.4	3.6
LD18-12335	3.0	2.9	2.9	3.0	3.0
LD18-12370	3.2	3.2	3.2	3.3	3.3
LD18-14008	3.3	3.4	3.3	3.4	3.2
LD18-14024	3.8	3.8	4.2	3.9	3.4
LD18-14040	3.1	3.1	2.9	3.4	3.0
LD18-14052	3.7	3.8	3.9	3.4	3.7
LD18-GH324-1-4	3.6	3.3	3.6	3.7	3.8
LD18-GH324-1-5	3.9	3.9	3.5	3.8	4.3

PRELIMINARY TEST II TRAITED MATERIAL, 2020

FATTY ACID, OLEIC (%)

Strain	Mean 4 Tests	Urbana IL	West Lafayette IN	William- ston MI	Wooster OH
IA2102 (II)	21.3	23.3	19.6	20.4	22.0
U14-910097 (SCN) (L)	21.3	22.4	22.0	19.6	21.3
A14017-111	77.4	78.9	78.0	75.3	77.6
A14017-166	78.4	80.2	79.6	75.5	78.2
A14019-28	28.9	25.2	29.0	28.0	33.3
A14056-186	24.5	24.0	26.0	23.2	24.7
A14056-75	76.8	76.7	79.4	74.0	76.9
A14056-77	21.7	21.4	23.3	20.1	21.8
A14058-96	70.4	78.2	65.5	59.4	78.4
A14061-177	25.6	24.5	22.2	26.0	29.8
A14062-101	20.4	19.7	21.0	19.0	21.9
A14062-182	22.5	21.2	25.8	22.2	20.8
LD18-12212	82.8	83.1	83.2	82.6	82.1
LD18-12216	80.5	84.3	84.1	69.8	83.9
LD18-12217	84.4	84.5	84.7	84.4	84.1
LD18-12218	84.6	85.0	84.3	84.7	84.5
LD18-12335	84.8	85.0	84.8	84.7	84.7
LD18-12370	84.0	84.6	84.5	83.4	83.5
LD18-14008	62.3	52.2	59.0	63.6	74.2
LD18-14024	43.8	37.4	22.4	32.9	82.5
LD18-14040	78.9	84.1	83.0	64.2	84.2
LD18-14052	49.9	37.6	35.8	70.6	55.6
LD18-GH324-1-4	71.9	83.2	66.2	55.6	82.8
LD18-GH324-1-5	82.3	83.1	81.6	82.4	82.1

PRELIMINARY TEST II TRAITED MATERIAL, 2020

FATTY ACID, LINOLEIC (%)

Strain	Mean 4 Tests	Urbana IL	West Lafayette IN	William- ston MI	Wooster OH
IA2102 (II)	54.5	52.1	56.8	55.5	53.6
U14-910097 (SCN) (L)	55.8	55.4	55.4	57.1	55.5
A14017-111	7.4	6.3	6.6	9.5	7.2
A14017-166	6.1	4.7	4.9	8.8	5.9
A14019-28	53.5	57.1	54.3	54.2	48.4
A14056-186	53.0	53.0	52.0	55.7	51.3
A14056-75	6.3	6.2	4.6	8.8	5.5
A14056-77	55.9	55.7	55.0	57.7	55.0
A14058-96	12.6	5.6	17.0	22.5	5.3
A14061-177	52.3	53.3	55.9	52.6	47.5
A14062-101	56.5	57.4	56.3	57.9	54.6
A14062-182	54.4	54.9	51.8	56.0	54.8
LD18-12212	5.2	5.0	5.0	5.7	5.3
LD18-12216	6.5	3.3	3.9	15.6	3.2
LD18-12217	3.5	3.5	3.4	3.8	3.4
LD18-12218	3.4	3.0	3.6	3.5	3.4
LD18-12335	3.6	3.3	3.4	4.1	3.6
LD18-12370	3.5	2.9	3.3	4.3	3.5
LD18-14008	22.7	31.0	25.3	21.8	12.8
LD18-14024	37.2	42.5	55.5	46.1	4.8
LD18-14040	8.5	4.1	5.1	20.9	3.9
LD18-14052	32.4	42.8	44.2	15.3	27.3
LD18-GH324-1-4	14.0	4.6	18.9	28.3	4.4
LD18-GH324-1-5	4.2	3.7	4.9	4.3	3.7

PRELIMINARY TEST II TRAITED MATERIAL, 2020

FATTY ACID, LINOLENIC (%)

Strain	Mean 4 Tests	Urbana IL	West Lafayette IN	William- ston MI	Wooster OH
IA2102 (II)	8.7	9.2	8.7	8.5	8.5
U14-910097 (SCN) (L)	7.5	6.8	7.5	8.2	7.5
A14017-111	4.5	4.3	4.4	5.1	4.3
A14017-166	4.7	4.1	4.4	5.4	4.9
A14019-28	4.5	3.9	4.0	5.4	4.7
A14056-186	8.2	8.5	7.9	7.5	9.0
A14056-75	5.6	5.7	5.0	6.2	5.6
A14056-77	8.3	8.4	7.7	8.6	8.4
A14058-96	5.8	5.3	5.9	6.7	5.4
A14061-177	7.0	6.9	6.2	7.2	7.7
A14062-101	7.1	7.0	6.9	7.9	6.8
A14062-182	8.0	8.7	7.2	7.2	9.0
LD18-12212	2.4	2.3	2.3	2.4	2.5
LD18-12216	2.5	2.2	2.3	3.4	2.1
LD18-12217	2.2	2.3	2.2	2.1	2.2
LD18-12218	2.2	2.2	2.3	2.1	2.2
LD18-12335	2.2	2.2	2.1	2.2	2.2
LD18-12370	2.2	2.0	2.1	2.3	2.2
LD18-14008	4.1	5.2	4.4	3.7	3.1
LD18-14024	5.7	6.4	7.1	7.0	2.3
LD18-14040	2.6	2.1	2.3	3.7	2.3
LD18-14052	5.1	6.2	6.1	3.3	4.7
LD18-GH324-1-4	3.1	2.3	3.5	4.5	2.3
LD18-GH324-1-5	2.4	2.3	2.5	2.3	2.4

PRELIMINARY TEST II TRAITED MATERIAL, 2020

REGIONAL SUMMARY - SEED COMPOSITION (SUGAR)

No. of Tests Strain	Sucrose 4 %	Raffinose 4 %	Stachyose 4 %	Total Sugar 4 %
IA2102 (II)	4.7	0.6	2.9	8.2
U14-910097 (SCN) (L)	4.2	0.5	3.3	7.9
A14019-28	6.2	0.8	1.0	8.0
A14056-186	5.1	0.6	2.2	8.0
A14056-75	4.9	0.6	1.8	7.3
A14056-77	4.3	0.6	2.9	7.8
A14058-96	6.1	0.8	0.9	7.9
A14061-177	7.5	0.9	0.9	9.3
A14062-101	6.6	0.9	1.0	8.5
A14062-182	7.3	0.8	0.9	9.1
Mean				

PRELIMINARY TEST II TRAITED MATERIAL, 2020

SEED SUGAR, SUCROSE (%)

Strain	Mean 4 Tests	Urbana IL	West Lafayette IN	William- ston MI	Wooster OH
IA2102 (II)	4.7	4.4	5.3	5.0	4.0
U14-910097 (SCN) (L)	4.2	3.9	3.9	5.0	3.9
A14019-28	6.2	5.7	6.3	6.0	7.0
A14056-186	5.1	5.1	4.7	5.4	5.3
A14056-75	4.9	5.1	4.6	5.9	4.1
A14056-77	4.3	4.4	4.3	4.4	4.2
A14058-96	6.1	5.6	6.8	6.4	5.7
A14061-177	7.5	6.9	7.2	8.5	7.5
A14062-101	6.6	6.7	5.6	8.2	5.8
A14062-182	7.3	7.3	7.4	7.5	6.8

PRELIMINARY TEST II TRAITED MATERIAL, 2020

SEED SUGAR, RAFFINOSE (%)

Strain	Mean 4 Tests	Urbana IL	West Lafayette IN	William- ston MI	Wooster OH
IA2102 (II)	0.6	0.5	0.6	0.7	0.6
U14-910097 (SCN) (L)	0.5	0.4	0.5	0.5	0.5
A14019-28	0.8	0.6	0.7	0.7	1.0
A14056-186	0.6	0.5	0.6	0.8	0.7
A14056-75	0.6	0.6	0.5	0.7	0.6
A14056-77	0.6	0.6	0.6	0.7	0.7
A14058-96	0.8	0.7	0.9	0.8	0.9
A14061-177	0.9	0.8	0.8	1.0	0.9
A14062-101	0.9	0.8	0.7	0.9	1.0
A14062-182	0.8	0.8	0.9	0.8	0.9

PRELIMINARY TEST II TRAITED MATERIAL, 2020

SEED SUGAR, STACHYOSE (%)

Strain	Mean 4 Tests	Urbana IL	West Lafayette IN	William- ston MI	Wooster OH
IA2102 (II)	2.9	2.8	3.2	2.6	3.0
U14-910097 (SCN) (L)	3.3	3.6	3.0	3.5	2.9
A14019-28	1.0	0.9	0.9	1.0	1.0
A14056-186	2.2	2.2	2.3	2.4	2.0
A14056-75	1.8	1.8	2.0	2.0	1.5
A14056-77	2.9	2.9	2.8	2.7	3.1
A14058-96	0.9	0.9	0.7	1.0	1.0
A14061-177	0.9	0.9	0.9	1.0	0.8
A14062-101	1.0	1.1	0.9	1.0	1.1
A14062-182	0.9	0.9	0.8	1.3	0.8

PRELIMINARY TEST II TRAITED MATERIAL, 2020

SEED SUGAR, TOTAL (%)

Strain	Mean 4 Tests	Urbana IL	West Lafayette IN	William- ston MI	Wooster OH
IA2102 (II)	8.2	7.7	9.1	8.2	7.6
U14-910097 (SCN) (L)	7.9	7.9	7.3	9.0	7.3
A14019-28	8.0	7.1	7.9	7.8	9.0
A14056-186	8.0	7.8	7.6	8.6	7.9
A14056-75	7.3	7.5	7.1	8.6	6.2
A14056-77	7.8	7.9	7.6	7.7	8.0
A14058-96	7.9	7.2	8.5	8.2	7.6
A14061-177	9.3	8.5	9.0	10.6	9.2
A14062-101	8.5	8.6	7.2	10.2	7.8
A14062-182	9.1	9.0	9.2	9.6	8.5

**Northern Regional Uniform Test
Uniform Test III, Traited Material, 2020**

Ent.	Strain	Parentage	Seed Source	Previous Testing	Gen. Comp.	Unique Traits
1	LD11-2170 (III)	LD11-2170 (III) x Syngenta 03JR313108	Diers	5	F5	SCN
2	U15-606207 (SCN)	LD07-3419 x U09-105007	Graef	2	F5	SCN (HR, HR), Rps
3	AG25X8 (E)		Cai	Initial		RR2, Extend
4	AG38X8 (L)		Cai	Initial		RR2, Extend
5	CR16-0020	CL05-51227 x KB10-22-1	Rainey	1	F6	Sugar Comp
6	CR16-0027	CL05-51227 x KB10-22-1	Rainey	1	F6	Sugar Comp
7	CR16-0033	CL05-3314 x KB10-22-1	Rainey	1	F6	Sugar Comp, SCN
8	HM16-M016	M10-W111 x M09-W153	McHale	1	F4	
9	HM16-M019	M10-W111 x M09-W153	McHale	1	F4	
10	LD16-10183	LD10-10198 x KB13-15F314-224	Diers	2	F4	SCN, HOLL
11	LD16-10310	U11-614093 x KB13-15F314-224	Diers	1	F4	HOLL
12	LD16-10319	U11-614093 x KB13-15F314-224	Diers	1	F4	HOLL
13	LD17-12679	[U11-614093 x KB13-15F314-224] x [LD11-10069 x KB13-15F314-224]	Diers	1	F3	HOLL
14	SA17-6259	LS07-3131 x A12-961054	Scaboo	1	F5	HOLL, SCN
15	SA17-8035	SA13-2770 x A12-961044	Scaboo	1	F5	HOLL, SCN

UNIFORM TEST III TRAITED MATERIAL, 2020

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code
LD11-2170 (III)	PLtBDYBrI
U15-606207 (SCN)	PGTDYBfI
AG25X8 (E)	PGTSYIbI
AG38X8 (L)	PGBDYIbI
CR16-0020	WLtTDYBI
CR16-0027	WT+LtB+TSYBI
CR16-0033	PT+LtBDYBrI
HM16-M016	PGBSYYI
HM16-M019	P+WGBSYYI
LD16-10183	PLtBDYGI
LD16-10310	WLtBDYHI
LD16-10319	WLtBDYBrI
LD17-12679	WLtBDYYI
SA17-6259	PTTDYBrI
SA17-8035	PTTDYBI

UNIFORM TEST III TRAITED MATERIAL, 2020

REGIONAL SUMMARY

No. of Tests Strain	Yield 7 bu/a	Rank 7 No.	Maturity 7 Date	Lodging 6 Score	Plant Height 5 In.	Seed Size 6 g/100	Seed Quality 6 Score	<u>Composition</u>	
								Protein 7 %	Oil 7 %
LD11-2170 (III)	63.4	3	9/26	1.2	30	15.2	1.3	34.1	20.2
U15-606207 (SCN)	64.7	2	2.0	1.2	31	15.0	1.5	32.6	20.2
AG25X8 (E)	57.3	15	-5.9	1.3	31	15.4	1.6	34.5	19.2
AG38X8 (L)	67.3	1	8.3	1.3	34	16.0	1.4	34.9	18.4
CR16-0020	57.8	13	5.4	1.6	33	15.6	1.6	36.6	18.4
CR16-0027	62.0	5	2.9	1.6	33	16.5	1.4	35.1	19.3
CR16-0033	61.9	6	5.9	1.5	34	17.1	1.3	35.4	18.7
HM16-M016	58.9	11	1.7	1.6	34	16.7	1.4	35.7	19.4
HM16-M019	61.4	7	2.7	1.9	36	16.1	1.5	35.8	19.2
LD16-10183	59.3	10	0.1	1.1	27	14.5	1.6	35.2	19.6
LD16-10310	62.6	4	3.1	1.2	31	13.4	1.5	36.5	19.1
LD16-10319	60.5	8	-1.8	1.3	30	13.3	1.6	36.5	19.2
LD17-12679	59.8	9	-0.2	1.1	30	13.2	1.6	36.6	18.9
SA17-6259	58.2	12	3.2	1.7	36	15.5	1.6	37.2	18.5
SA17-8035	57.5	14	2.9	1.7	35	14.7	1.6	37.8	18.8
Mean	60.9			1.4	32.3	15.2	1.5	35.6	19.1
C.V. (%)	9.8								
L.S.D. (5%)	3.6								

121.9 Days After Planting

UNIFORM TEST III TRAITED MATERIAL, 2020

2019-2020 2-YEAR MEAN

No. of Tests Strain	Yield 16 bu/a	Rank 16 No.	Maturity 16 Date	Lodging 15 Score	Plant Height 13 In.	Seed Size 15 g/100	Seed Quality 15 Score	Composition	
								Protein 11 %	Oil 11 %
LD11-2170 (III)	66.3	1	9/28	1.2	30	16.0	1.3	34.6	20.0
CR16-0020	60.3	10	5.0	1.6	33	16.5	1.5	37.1	18.3
CR16-0027	62.8	4	3.0	1.5	33	16.9	1.5	35.9	19.0
CR16-0033	63.7	3	5.9	1.6	34	17.6	1.4	35.9	18.6
HM16-M016	62.0	6	1.9	1.6	33	17.6	1.4	35.7	19.4
HM16-M019	62.7	5	1.9	1.7	35	16.9	1.5	36.1	19.2
LD16-10183	61.8	7	0.8	1.1	28	15.2	1.6	36.0	19.3
LD16-10310	64.0	2	3.7	1.2	31	14.0	1.5	37.2	18.9
LD16-10319	61.4	9	-1.0	1.2	29	14.1	1.4	37.2	19.0
LD17-12679	61.6	8	0.4	1.1	30	13.9	1.5	37.1	18.8
SA17-6259	60.3	11	4.3	1.7	35	16.3	1.6	37.9	18.4
SA17-8035	60.2	12	3.1	1.7	34	15.4	1.5	38.2	18.6

129.0 Days After Planting

2018-2020 3-YEAR MEAN

No. of Tests Strain	22	22	22	22	19	21	21	16	16
LD11-2170 (III)	70.0	1	6/29	1.3	32	15.9	1.4	34.3	20.2
LD16-10183	64.1	2	0.4	1.2	29	15.1	1.8	35.5	19.6

130.2 Days After Planting

UNIFORM TEST III TRAITED MATERIAL, 2020

YIELD (bu/a)

Strain	Mean 7 Tests	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Columbia MO	Wooster OH
LD11-2170 (III)	63.4	81.9	46.5	75.7	41.9	73.2	56.9	67.9
U15-606207 (SCN)	64.7	68.5	42.2	92.9	45.4	68.8	65.3	70.1
AG25X8 (E)	57.3	65.8	41.1	56.7	46.1	77.6	52.6	61.5
AG38X8 (L)	67.3	78.5	49.9	95.3	46.7	66.8	67.8	66.0
CR16-0020	57.8	55.2	42.9	65.4	41.0	67.1	64.7	68.5
CR16-0027	62.0	66.0	45.4	73.5	45.8	65.4	66.9	71.1
CR16-0033	61.9	66.6	45.5	81.0	42.7	64.9	65.5	67.3
HM16-M016	58.9	64.2	46.2	60.2	44.1	63.4	64.3	70.2
HM16-M019	61.4	76.1	47.5	63.5	38.3	68.2	65.5	71.0
LD16-10183	59.3	77.4	47.3	81.8	42.8	63.1	47.2	55.8
LD16-10310	62.6	77.8	40.0	83.2	46.4	79.0	47.8	63.7
LD16-10319	60.5	75.8	45.3	76.3	44.2	69.7	55.7	56.5
LD17-12679	59.8	71.5	43.3	71.9	41.7	75.3	51.5	63.7
SA17-6259	58.2	72.9	43.1	76.2	40.0	61.6	53.6	60.3
SA17-8035	57.5	69.3	42.5	71.5	40.7	71.3	46.9	59.9
Location Mean		71.2	44.6	75.0	43.2	69.0	58.1	64.9
C.V. (%)		9.2	8.2	10.3	7.4	9.3	9.0	12.1
L.S.D. (5%)		14.0	7.8	16.5	6.9	13.7	8.8	15.9
Row sp. (In.)		30	30	30	30	30	30	8
Rows/Plot		4	4	2	4	4	4	8
Reps		2	2	2	2	2	3	3

UNIFORM TEST III TRAITED MATERIAL, 2020

YIELD RANK

Strain	Yield Rank	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Columbia MO	Wooster OH
LD11-2170 (III)	3	1	4	8	10	4	8	6
U15-606207 (SCN)	2	10	13	2	5	7	5	4
AG25X8 (E)	15	13	14	15	3	2	11	11
AG38X8 (L)	1	2	1	1	1	10	1	8
CR16-0020	13	15	11	12	12	9	6	5
CR16-0027	5	12	7	9	4	11	2	1
CR16-0033	6	11	6	5	9	12	3	7
HM16-M016	11	14	5	14	7	13	7	3
HM16-M019	7	5	2	13	15	8	3	2
LD16-10183	10	4	3	4	8	14	14	15
LD16-10310	4	3	15	3	2	1	13	9
LD16-10319	8	6	8	6	6	6	9	14
LD17-12679	9	8	9	10	11	3	12	9
SA17-6259	12	7	10	7	14	15	10	12
SA17-8035	14	9	12	11	13	5	15	13

UNIFORM TEST III TRAITED MATERIAL, 2020

MATURITY (date)

Strain	Mean 7 Tests	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Columbia MO	Wooster OH
LD11-2170 (III)	9/26	9/23	10/3	9/29	9/19	9/28	9/28	9/26
U15-606207 (SCN)	2.0	-4	3	1	3	3	5	4
AG25X8 (E)	-5.9	-14	-5	-8	-5	-6	-1	-4
AG38X8 (L)	8.3	6	9	5	11	8	10	10
CR16-0020	5.4	1	5	4	10	2	6	10
CR16-0027	2.9	1	4	-1	5	3	4	5
CR16-0033	5.9	4	7	4	9	5	5	9
HM16-M016	1.7	-1	1	-2	4	3	5	2
HM16-M019	2.7	2	1	2	3	2	5	5
LD16-10183	0.1	1	1	-2	1	-1	1	-1
LD16-10310	3.1	3	4	-1	5	3	4	5
LD16-10319	-1.8	-7	1	-5	-2	-4	1	2
LD17-12679	-0.2	-4	1	-3	0	-1	2	2
SA17-6259	3.2	3	4	0	7	2	3	4
SA17-8035	2.9	1	5	1	6	4	3	3
Date Planted	5/27	5/12	6/1	5/27	6/1	6/2	6/3	5/24
Days to Mature	122	134	124	125	110	118	117	125

UNIFORM TEST III TRAITED MATERIAL, 2020

LODGING (score)

Strain	Mean 6 Tests	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Columbia MO	Wooster OH
LD11-2170 (III)	1.2	1.3		1.0	1.5	1.0	1.5	1.0
U15-606207 (SCN)	1.2	1.3		1.0	1.5	1.0	1.5	1.0
AG25X8 (E)	1.3	1.3		1.0	1.5	1.5	1.5	1.0
AG38X8 (L)	1.3	1.5		1.0	2.0	1.0	1.5	1.0
CR16-0020	1.6	2.3		1.0	2.0	1.5	1.7	1.0
CR16-0027	1.6	2.5		1.0	2.0	1.5	1.5	1.0
CR16-0033	1.5	2.3		1.0	2.0	1.5	1.5	1.0
HM16-M016	1.6	2.3		2.0	2.0	1.0	1.3	1.0
HM16-M019	1.9	3.3		1.0	2.5	2.0	1.5	1.0
LD16-10183	1.1	1.0		1.0	1.0	1.0	1.5	1.0
LD16-10310	1.2	1.5		1.0	1.0	1.0	1.5	1.0
LD16-10319	1.3	1.0		1.0	1.5	1.5	1.5	1.0
LD17-12679	1.1	1.0		1.0	1.5	1.0	1.3	1.0
SA17-6259	1.7	2.3		1.0	2.5	2.0	1.7	1.0
SA17-8035	1.7	2.5		1.0	2.0	2.0	1.5	1.0

UNIFORM TEST III TRAITED MATERIAL, 2020

PLANT HEIGHT (inches)

Strain	Mean 5 Tests	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Columbia MO	Wooster OH
LD11-2170 (III)	29.8	40			29	32	25	23
U15-606207 (SCN)	31.3	39			32	34	27	26
AG25X8 (E)	31.0	35			33	36	27	25
AG38X8 (L)	33.9	45			35	35	28	27
CR16-0020	32.9	41			30	38	30	26
CR16-0027	32.9	43			31	36	30	26
CR16-0033	33.8	42			33	37	30	27
HM16-M016	34.1	43			34	37	29	28
HM16-M019	35.8	47			36	37	31	28
LD16-10183	27.2	36			26	29	24	22
LD16-10310	31.0	41			31	36	24	23
LD16-10319	29.9	39			30	35	24	23
LD17-12679	30.3	39			31	35	25	23
SA17-6259	36.4	43			38	40	32	29
SA17-8035	34.6	42			35	39	29	29

UNIFORM TEST III TRAITED MATERIAL, 2020

SEED SIZE (g/100)

Strain	Mean 6 Tests	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Columbia MO	Wooster OH
LD11-2170 (III)	15.2	15.3	15.8		11.9	15.6	16.9	15.6
U15-606207 (SCN)	15.0	13.2	15.0		12.2	14.8	17.9	16.8
AG25X8 (E)	15.4	13.7	15.5		11.5	17.1	18.3	16.1
AG38X8 (L)	16.0	14.6	14.9		15.3	15.5	18.4	17.5
CR16-0020	15.6	13.9	15.0		14.3	15.6	17.6	17.6
CR16-0027	16.5	15.9	15.5		14.3	16.6	18.8	17.9
CR16-0033	17.1	15.6	17.9		15.4	16.4	18.6	19.0
HM16-M016	16.7	15.6	16.5		14.7	16.9	18.0	18.5
HM16-M019	16.1	17.2	15.5		13.5	16.1	16.8	17.5
LD16-10183	14.5	15.0	13.9		11.8	15.1	16.1	15.2
LD16-10310	13.4	13.2	12.8		11.5	13.6	14.7	14.5
LD16-10319	13.3	13.1	12.8		10.3	13.6	15.8	14.4
LD17-12679	13.2	12.8	12.7		10.5	13.8	15.8	13.9
SA17-6259	15.5	15.3	15.4		13.5	15.3	17.4	16.4
SA17-8035	14.7	13.8	14.0		12.7	14.6	16.7	16.2

UNIFORM TEST III TRAITED MATERIAL, 2020

SEED QUALITY (score)

Strain	Mean 6 Tests	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Columbia MO	Wooster OH
LD11-2170 (III)	1.3	2.0	2.0		1.0	1.0	1.0	1.0
U15-606207 (SCN)	1.5	2.0	2.0		1.5	1.0	1.0	1.3
AG25X8 (E)	1.6	2.0	2.0		1.5	2.0	1.0	1.0
AG38X8 (L)	1.4	2.0	2.0		1.0	1.5	1.0	1.0
CR16-0020	1.6	2.0	2.0		2.0	1.5	1.0	1.0
CR16-0027	1.4	2.0	2.0		1.0	1.5	1.0	1.0
CR16-0033	1.3	2.0	1.0		1.0	1.5	1.0	1.0
HM16-M016	1.4	1.0	2.0		1.0	2.0	1.0	1.3
HM16-M019	1.5	2.0	2.0		1.0	1.0	1.0	2.0
LD16-10183	1.6	2.0	2.0		1.0	2.0	1.0	1.7
LD16-10310	1.5	2.0	2.0		1.0	2.0	1.0	1.0
LD16-10319	1.6	2.0	2.0		1.0	2.0	1.0	1.3
LD17-12679	1.6	1.0	2.0		1.5	2.5	1.0	1.3
SA17-6259	1.6	2.0	2.0		2.0	1.5	1.0	1.0
SA17-8035	1.6	2.0	2.0		1.0	2.0	1.0	1.7

UNIFORM TEST III TRAITED MATERIAL, 2020

PROTEIN (%)

Strain	Mean 7 Tests	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Columbia MO	Wooster OH
LD11-2170 (III)	34.1	34.5	33.9	33.7	35.4	34.4	33.6	33.4
U15-606207 (SCN)	32.6	31.7	32.4	33.0	32.4	32.4	33.2	33.3
AG25X8 (E)	34.5	34.1	34.3	34.5	35.4	35.0	34.6	33.5
AG38X8 (L)	34.9	33.8	35.2	35.0	35.0	35.0	35.6	34.7
CR16-0020	36.6	35.8	37.4	36.7	36.3	36.2	36.2	37.5
CR16-0027	35.1	35.6	35.7	34.9	34.8	34.6	35.1	35.1
CR16-0033	35.4	34.9	36.9	35.8	35.5	35.1	35.3	34.2
HM16-M016	35.7	34.5	36.4	36.3	36.5	35.8	35.3	34.9
HM16-M019	35.8	35.9	34.9	35.8	37.5	34.9	34.8	36.7
LD16-10183	35.2	34.8	34.5	35.6	36.3	35.7	34.6	34.7
LD16-10310	36.5	35.3	36.3	36.6	36.7	37.4	36.3	36.7
LD16-10319	36.5	36.2	35.2	36.4	38.0	37.4	36.1	36.1
LD17-12679	36.6	35.8	35.9	36.6	37.4	36.5	37.0	36.8
SA17-6259	37.2	35.6	37.9	37.7	36.8	37.6	37.2	37.3
SA17-8035	37.8	37.6	38.1	38.0	36.4	38.2	38.6	37.4

UNIFORM TEST III TRAITED MATERIAL, 2020

OIL (%)

Strain	Mean 7 Tests	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Columbia MO	Wooster OH
LD11-2170 (III)	20.2	20.3	20.0	20.4	19.2	19.8	21.1	20.6
U15-606207 (SCN)	20.2	20.7	20.2	19.9	20.2	20.1	20.3	19.9
AG25X8 (E)	19.2	19.8	19.4	19.4	18.3	18.9	19.2	19.7
AG38X8 (L)	18.4	19.2	17.7	18.0	18.5	18.1	18.3	18.8
CR16-0020	18.4	19.1	17.5	18.1	18.5	18.5	19.0	18.0
CR16-0027	19.3	19.7	18.7	19.4	19.3	19.2	19.6	19.2
CR16-0033	18.7	19.3	18.0	18.4	18.4	18.4	19.4	18.8
HM16-M016	19.4	20.1	18.6	19.6	18.7	19.2	19.7	19.7
HM16-M019	19.2	19.3	19.2	18.9	18.4	19.5	20.2	19.1
LD16-10183	19.6	20.1	19.5	19.8	18.4	19.5	19.9	19.7
LD16-10310	19.1	19.3	19.0	18.9	18.9	18.6	19.8	19.3
LD16-10319	19.2	19.6	19.4	19.0	18.3	18.6	20.0	19.5
LD17-12679	18.9	19.1	19.1	18.7	17.9	18.8	19.8	19.1
SA17-6259	18.5	19.4	18.0	18.5	18.3	18.3	18.9	18.4
SA17-8035	18.8	18.9	18.4	18.8	18.9	18.5	18.9	18.9

UNIFORM TEST III TRAITED MATERIAL, 2020

REGIONAL SUMMARY - SEED COMPOSITION (FATTY ACID)

No. of Tests Strain	Palmitic 7 %	Stearic 7 %	Oleic 7 %	Linoleic 7 %	Linolenic 7 %
LD11-2170 (III)	11.5	3.6	23.6	54.2	7.1
U15-606207 (SCN)	11.0	3.9	20.3	56.3	8.5
LD16-10183	6.6	3.2	83.1	4.8	2.4
LD16-10310	6.5	3.3	84.2	3.9	2.2
LD16-10319	6.3	3.3	84.7	3.4	2.2
LD17-12679	6.7	3.4	82.7	4.9	2.4
SA17-6259	7.9	3.4	78.9	8.8	1.0
SA17-8035	7.2	3.2	80.3	7.5	1.9
Mean	8.0	3.4	67.2	18.0	3.5

UNIFORM TEST III TRAITED MATERIAL, 2020

FATTY ACID, PALMITIC (%)

Strain	Mean 7 Tests	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Columbia MO	Wooster OH
LD11-2170 (III)	11.5	12.0	11.3	11.5	11.5	11.1	11.6	11.4
U15-606207 (SCN)	11.0	11.0	10.8	11.5	10.8	11.2	11.4	10.6
LD16-10183	6.6	6.9	6.4	6.6	6.9	6.5	6.3	6.5
LD16-10310	6.5	6.3	6.5	6.9	5.9	6.5	6.6	6.6
LD16-10319	6.3	6.6	6.4	6.3	6.4	6.2	6.2	6.1
LD17-12679	6.7	6.3	6.6	6.9	6.7	6.8	6.8	6.7
SA17-6259	7.9	8.2	7.8	7.9	8.2	7.8	8.0	7.6
SA17-8035	7.2	6.5	7.3	7.5	6.8	7.3	7.4	7.2

UNIFORM TEST III TRAITED MATERIAL, 2020

FATTY ACID, STEARIC (%)

Strain	Mean 7 Tests	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Columbia MO	Wooster OH
LD11-2170 (III)	3.6	3.5	3.3	3.4	3.9	3.3	3.8	3.8
U15-606207 (SCN)	3.9	3.7	4.2	3.5	3.8	3.6	4.0	4.4
LD16-10183	3.2	3.3	3.1	3.0	3.5	3.1	3.0	3.1
LD16-10310	3.3	3.0	3.5	3.2	3.2	3.2	3.4	3.4
LD16-10319	3.3	3.4	3.0	3.0	4.1	2.9	3.3	3.3
LD17-12679	3.4	3.2	3.4	3.3	3.6	3.0	3.5	3.5
SA17-6259	3.4	3.5	3.4	3.2	3.6	3.1	3.5	3.3
SA17-8035	3.2	3.3	3.3	3.2	3.0	3.0	3.2	3.4

UNIFORM TEST III TRAITED MATERIAL, 2020

FATTY ACID, OLEIC (%)

Strain	Mean 7 Tests	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Columbia MO	Wooster OH
LD11-2170 (III)	23.6	23.9	21.5	22.9	23.1	26.3	22.4	25.0
U15-606207 (SCN)	20.3	21.6	21.2	20.8	20.8	20.0	17.8	19.8
LD16-10183	83.1	83.2	83.2	83.5	81.2	82.8	85.0	82.8
LD16-10310	84.2	84.7	83.4	83.6	85.3	83.3	85.1	83.8
LD16-10319	84.7	84.4	85.2	85.2	83.6	85.5	85.5	83.8
LD17-12679	82.7	85.2	83.9	83.8	75.0	84.1	83.6	83.1
SA17-6259	78.9	79.2	77.0	80.0	77.8	80.3	78.8	79.4
SA17-8035	80.3	82.5	78.3	80.0	80.1	80.5	80.7	79.9

UNIFORM TEST III TRAITED MATERIAL, 2020

FATTY ACID, LINOLEIC (%)

Strain	Mean 7 Tests	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Columbia MO	Wooster OH
LD11-2170 (III)	54.2	53.5	56.4	54.6	54.3	52.9	55.1	52.7
U15-606207 (SCN)	56.3	55.1	55.1	55.8	56.6	57.3	57.7	56.6
LD16-10183	4.8	4.3	5.0	4.6	5.8	5.2	3.7	5.1
LD16-10310	3.9	3.8	4.1	4.0	3.5	4.5	3.0	4.0
LD16-10319	3.4	3.4	3.2	3.4	3.5	3.3	3.0	4.4
LD17-12679	4.9	3.2	4.0	3.8	11.6	3.8	3.8	4.3
SA17-6259	8.8	8.2	10.1	8.1	9.5	8.1	9.0	8.4
SA17-8035	7.5	6.9	8.5	7.7	7.7	6.6	7.1	7.8

UNIFORM TEST III TRAITED MATERIAL, 2020

FATTY ACID, LINOLENIC (%)

Strain	Mean 7 Tests	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Columbia MO	Wooster OH
LD11-2170 (III)	7.1	7.1	7.5	7.6	7.1	6.4	7.2	7.1
U15-606207 (SCN)	8.5	8.6	8.7	8.4	8.1	8.0	9.1	8.6
LD16-10183	2.4	2.3	2.4	2.3	2.7	2.4	2.0	2.5
LD16-10310	2.2	2.2	2.5	2.3	2.1	2.5	2.0	2.2
LD16-10319	2.2	2.2	2.1	2.1	2.4	2.2	2.1	2.4
LD17-12679	2.4	2.1	2.1	2.2	3.1	2.3	2.3	2.4
SA17-6259	1.0	0.8	1.7	0.8	0.9	0.8	0.8	1.3
SA17-8035	1.9	0.8	2.6	1.6	2.4	2.6	1.5	1.7

UNIFORM TEST III TRAITED MATERIAL, 2020

REGIONAL SUMMARY - SEED COMPOSITION (SUGAR)

No. of Tests Strain	Sucrose 7 %	Raffinose 7 %	Stachyose 7 %	Total Sugar 7 %
LD11-2170 (III)	3.0	0.6	3.2	6.8
U15-606207 (SCN)	2.6	0.6	3.9	7.1
CR16-0020	4.3	0.7	1.6	6.6
CR16-0027	4.1	0.7	1.3	6.1
CR16-0033	3.8	0.7	2.2	6.7
Mean	3.6	0.6	2.4	6.7

UNIFORM TEST III TRAITED MATERIAL, 2020

SEED SUGAR, SUCROSE (%)

Strain	Mean	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West	Columbia MO	Wooster OH
	7 Tests					Lafayette IN		
LD11-2170 (III)	3.0	3.7	3.0	3.0	2.8	2.9	2.4	3.2
U15-606207 (SCN)	2.6	3.2	3.0	2.6	2.3	2.5	2.4	2.4
CR16-0020	4.3	4.3	4.4	4.5	4.0	4.7	3.9	4.5
CR16-0027	4.1	4.7	3.6	4.3	3.8	4.6	4.1	3.8
CR16-0033	3.8	3.4	4.1	3.5	3.7	4.1	3.7	4.4

UNIFORM TEST III TRAITED MATERIAL, 2020

SEED SUGAR, RAFFINOSE (%)

Strain	Mean	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West	Columbia MO	Wooster OH
	7 Tests					Lafayette IN		
LD11-2170 (III)	0.6	0.6	0.4	0.7	0.6	0.6	0.5	0.6
U15-606207 (SCN)	0.6	0.7	0.6	0.6	0.6	0.5	0.6	0.6
CR16-0020	0.7	0.7	0.6	0.6	0.7	0.7	0.6	0.8
CR16-0027	0.7	0.8	0.6	0.7	0.8	0.7	0.8	0.6
CR16-0033	0.7	0.7	0.6	0.6	0.7	0.5	0.6	0.9

UNIFORM TEST III TRAITED MATERIAL, 2020

SEED SUGAR, STACHYOSE (%)

Strain	Mean 7 Tests	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Columbia MO	Wooster OH
LD11-2170 (III)	3.2	3.6	3.3	3.3	3.5	3.1	2.9	2.9
U15-606207 (SCN)	3.9	4.6	4.1	3.7	3.5	3.6	3.8	3.8
CR16-0020	1.6	1.9	1.4	1.5	1.4	1.7	1.5	1.6
CR16-0027	1.3	1.6	1.1	1.3	1.1	1.3	1.3	1.2
CR16-0033	2.2	2.5	2.3	2.3	2.4	2.4	2.3	1.2

UNIFORM TEST III TRAITED MATERIAL, 2020

SEED SUGAR, TOTAL (%)

Strain	Mean 7 Tests	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Columbia MO	Wooster OH
LD11-2170 (III)	6.8	7.9	6.7	7.0	6.9	6.5	5.8	6.7
U15-606207 (SCN)	7.1	8.5	7.7	6.9	6.5	6.6	6.7	6.9
CR16-0020	6.6	6.9	6.5	6.6	6.0	7.0	6.0	6.9
CR16-0027	6.1	7.0	5.3	6.3	5.7	6.7	6.2	5.6
CR16-0033	6.7	6.6	7.1	6.4	6.7	7.0	6.6	6.6

**Northern Regional Uniform Test
Preliminary Test III, Traited Material, 2020**

Ent.	Strain	Parentage	Seed Source	Gen. Comp.	Unique Traits
1	LD11-2170 (III)	LD11-2170 (III) x Syngenta 03JR313108	Diers	F5	SCN
2	U15-606207 (SCN)	LD07-3419 x U09-105007	Graef	F5	SCN (HR, HR), Rps
3	AG25X8 (E)		Cai		RR2, Extend
4	AG38X8 (L)		Cai		RR2, Extend
5	A14019-141	IA1026HO x IA2104HS	Singh		
6	CR16-1124	CL05-3314 x KB10-22-1	Rainey	F6	Sugar Comp
7	CR17-0594	KB10-22#1551 + x CL0J095-4-6	Rainey	F5	Sugar Comp
8	CR17-0765	KB10-22#1583 a x 4J105-3-4	Rainey	F5	Sugar Comp
9	CR17-0969	KB10-22#1583 a x Maverick	Rainey	F5	Sugar Comp
10	CR17-2856	CL0J095-4-6 x [CR13275.1 (CL05-4637 x KB10-22)]	Rainey	F5	Sugar Comp, SCN
11	CR17-3029	CL0J095-4-6 x [CR13275.1 (CL05-4637 x KB10-22)]	Rainey	F5	Sugar Comp, SCN
12	HM16-W192	SG0-717 x M10-W295	McHale		High Oil
13	HM17-02165	M11-M055 x M11-L012xSG0-717	McHale	F4	>50% meal
14	HM17-02346	M11-M055 x M11-L012xSG0-717	McHale		>50% meal
15	HM17-03278	M11-M055 x M11-L012xSG0-717	McHale		>50% meal
16	LD18-12395	LD16-10111 x LD10-10198	Diers	F4	HOLL
17	LD18-12596	LD16-10099 x LD11-2170	Diers	F4	HOLL
18	LD18-12605	LD16-10099 x LD11-2170	Diers	F4	HOLL
19	LD18-12609	LD16-10099 x LD11-2170	Diers	F4	HOLL
20	LD18-12776	LDXGL15-008-1 x LD12-3903	Diers	F4	HOLL
21	LD18-12779	LDXGL15-008-1 x LD12-3903	Diers	F4	HOLL
22	LD18-14065	LDX16-206-1-4 x LDX16-234-1-5	Diers	F4	HOLL
23	LD18-14296	LDX16-223-1-2 x LDX16-237-1-2	Diers	F4	HOLL
24	LD18-15377R1a	LD11-2170 x LD12-15156R1a	Diers	F5	RR1
25	LD11-14102R2	[Syngenta 03JR313108 x (LD00-3309 x MonsantoRR2)] x LD06-7620	Diers	F5	RR2
26	LD18-15869R1a	LD12-3903 x LD12-15156R1a	Diers	F5	RR1
27	LD18-15909R1a	LD12-3903 x LD12-15156R1a	Diers	F5	RR1
28	SA17-11753	SA13-2692 x A12-961044	Scaboo	F5	HOLL
29	SA17-1852	LG11-6214 x A12-961054	Scaboo	F5	HOLL
30	SA17-5559	HM11-W193 x A12-961044	Scaboo	F5	HOLL
31	SA18-262PR	SA13-1363 (4) x KB13-15 F3 14-224	Scaboo	F5	HOLL
32	SA18-268PR	SA13-1363 (4) x KB13-15 F3 14-224	Scaboo	F5	HOLL
33	SA18-350PR	SA13-2699 (4) x KB13-15 F3 14-224	Scaboo	F5	HOLL

PRELIMINARY TEST III TRAITED MATERIAL, 2020

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code
LD11-2170 (III)	PLtBDYBrI
U15-606207 (SCN)	PGTDYBfI
AG25X8 (E)	PGTDYIbI
AG38X8 (L)	PGBDYIbI
A14019-141	PTB+TDYYI
CR16-1124	PLtBSYBI
CR17-0594	WTTSYBI
CR17-0765	WTBDYBI
CR17-0969	WT+GTSYHI
CR17-2856	PTTDYBI
CR17-3029	PTTDYBI
HM16-W192	PLtTDYBI
HM17-02165	WLtBSYBI
HM17-02346	WTBDYBI
HM17-03278	P+WTBDYBI
LD18-12395	PGBDYII
LD18-12596	WTBDYII
LD18-12605	PTBDYII
LD18-12609	PTBDYII
LD18-12776	P+WLtBDYGI
LD18-12779	P+WLtBDYGI
LD18-14065	P+WTBDYBI
LD18-14296	PTBDYBrI
LD18-15377R1a	PLtBDYBrI
LD11-14102R2	WLtBDYBI
LD18-15869R1a	PTBDYBI
LD18-15909R1a	PLtBDYBI
SA17-11753	PGTDYIbI
SA17-1852	PTTDYBI
SA17-5559	PGB+TDYIbI
SA18-262PR	PLtTDYGI
SA18-268PR	WLtTDYBI
SA18-350PR	PGBDYHI

PRELIMINARY TEST III TRAITED MATERIAL, 2020

REGIONAL SUMMARY

No. of Tests Strain	Yield	Rank	Maturity	Lodging	Plant	Seed	Seed	<u>Composition</u>	
	4 bu/a	4 No.	4 Date	4 Score	3 In.	3 g/100	3 Score	4 Protein %	4 Oil %
LD11-2170 (III)	63.4	9	9/27	1.1	27	16.1	1.3	33.6	20.5
U15-606207 (SCN)	64.0	8	1.8	1.1	28	15.2	1.2	32.5	20.2
AG25X8 (E)	58.1	24	-4.4	1.1	29	16.8	2.0	34.6	19.2
AG38X8 (L)	66.3	2	4.5	1.1	29	16.5	1.3	35.0	18.4
A14019-141	60.1	14	-1.8	1.4	29	16.5	1.3	37.1	18.7
CR16-1124	64.6	7	2.3	1.3	31	19.1	1.0	36.8	19.0
CR17-0594	57.7	26	-0.1	1.4	32	14.8	1.7	36.0	19.0
CR17-0765	58.6	19	3.6	1.8	37	16.4	1.5	35.9	18.4
CR17-0969	59.3	17	4.5	1.4	33	16.3	1.3	34.9	19.0
CR17-2856	58.1	22	1.5	1.1	29	15.1	1.2	34.0	19.7
CR17-3029	55.9	31	0.6	1.1	28	14.4	1.2	34.2	19.7
HM16-W192	57.2	28	0.6	1.3	33	15.7	1.3	34.6	20.8
HM17-02165	62.4	10	1.5	1.4	34	17.8	1.0	37.2	18.7
HM17-02346	58.4	20	-0.6	1.1	28	17.0	1.2	35.7	18.8
HM17-03278	61.6	12	0.9	1.5	32	16.4	1.3	37.2	18.6
LD18-12395	55.9	32	-1.3	1.3	28	15.1	1.8	33.9	20.1
LD18-12596	58.1	23	0.5	1.1	29	13.5	1.2	35.3	19.9
LD18-12605	56.6	29	0.8	1.1	28	13.9	1.2	35.3	20.2
LD18-12609	57.4	27	2.8	1.1	30	14.1	1.3	35.4	20.0
LD18-12776	59.8	15	0.3	1.1	25	15.6	1.2	35.4	19.9
LD18-12779	60.8	13	-0.8	1.1	24	14.9	1.0	35.6	19.9
LD18-14065	59.3	16	0.1	1.8	30	12.2	1.2	33.7	20.8
LD18-14296	58.2	21	0.9	1.8	29	13.3	1.0	35.2	19.6
LD18-15377R1a	65.7	3	2.6	1.6	31	15.8	1.3	34.0	19.8
LD11-14102R2	68.6	1	4.6	1.3	31	14.9	1.3	34.7	19.5
LD18-15869R1a	65.6	4	3.3	1.1	32	16.1	1.5	34.1	19.4
LD18-15909R1a	65.5	5	0.9	1.1	30	15.5	1.3	33.0	19.7
SA17-11753	58.7	18	2.5	1.1	29	16.5	1.5	37.3	19.2
SA17-1852	58.1	25	1.6	1.4	30	13.7	1.3	37.8	18.5
SA17-5559	49.3	33	-1.8	1.6	28	15.2	1.2	36.8	18.9
SA18-262PR	56.0	30	1.6	1.1	26	14.1	1.3	35.7	19.7
SA18-268PR	64.6	6	5.3	1.1	26	14.2	1.5	35.7	19.3
SA18-350PR	61.9	11	6.4	1.1	30	15.4	1.3	35.3	19.6
Mean	60.2			1.3	29.5	15.4	1.3	35.3	19.5
C.V. (%)	11.5								
L.S.D. (5%)	6.8								

121.3 Days After Planting

PRELIMINARY TEST III TRAITED MATERIAL, 2020

YIELD (bu/a)

Strain	Mean 4 Tests	Romney IN	West Lafayette IN	Columbia MO	Wooster OH
LD11-2170 (III)	63.4	86.1	60.1	63.8	43.6
U15-606207 (SCN)	64.0	84.5	65.4	59.4	46.6
AG25X8 (E)	58.1	71.3	74.2	55.0	31.9
AG38X8 (L)	66.3	87.1	65.8	65.7	46.7
A14019-141	60.1	68.7	73.4	63.9	34.4
CR16-1124	64.6	78.6	70.3	59.2	50.2
CR17-0594	57.7	61.6	67.5	55.5	46.0
CR17-0765	58.6	72.2	61.9	52.2	48.1
CR17-0969	59.3	76.2	69.6	50.4	40.9
CR17-2856	58.1	75.0	64.0	48.6	44.9
CR17-3029	55.9	74.7	63.3	52.3	33.3
HM16-W192	57.2	64.2	67.5	60.3	36.6
HM17-02165	62.4	62.8	72.8	58.8	55.2
HM17-02346	58.4	59.3	74.5	54.1	45.7
HM17-03278	61.6	70.0	73.1	54.3	48.9
LD18-12395	55.9	59.7	68.5	48.0	47.2
LD18-12596	58.1	75.6	66.2	61.2	29.4
LD18-12605	56.6	71.6	68.6	56.2	30.0
LD18-12609	57.4	67.2	60.8	62.8	38.6
LD18-12776	59.8	66.6	70.0	62.3	40.4
LD18-12779	60.8	75.4	70.4	63.7	33.5
LD18-14065	59.3	72.6	69.0	56.4	39.4
LD18-14296	58.2	59.7	69.4	61.4	42.3
LD18-15377R1a	65.7	77.1	67.5	62.4	55.8
LD11-14102R2	68.6	82.5	74.9	66.6	50.4
LD18-15869R1a	65.6	81.1	70.4	60.1	50.7
LD18-15909R1a	65.5	86.8	71.0	61.9	42.3
SA17-11753	58.7	70.1	73.0	43.6	48.1
SA17-1852	58.1	68.8	68.4	53.0	42.1
SA17-5559	49.3	61.8	65.0	56.4	13.9
SA18-262PR	56.0	72.4	61.0	61.4	29.4
SA18-268PR	64.6	73.9	65.8	69.2	49.6
SA18-350PR	61.9	74.7	64.7	51.5	56.7
Location Mean		72.4	68.1	57.9	42.2
C.V. (%)		7.5	9.7	11.1	9.8
L.S.D. (5%)		11.1	13.5	13.2	11.6
Row sp. (In.)		30	30	30	8
Rows/Plot		2	4	4	8
Reps		2	2	2	2

PRELIMINARY TEST III TRAITED MATERIAL, 2020

YIELD RANK

Strain	Yield Rank	West			
		Romney IN	Lafayette IN	Columbia MO	Wooster OH
LD11-2170 (III)	9	3	33	5	17
U15-606207 (SCN)	8	4	25	16	13
AG25X8 (E)	24	20	3	23	29
AG38X8 (L)	2	1	23	3	12
A14019-141	14	24	4	4	26
CR16-1124	7	7	11	17	6
CR17-0594	26	30	19	22	14
CR17-0765	19	18	30	28	9
CR17-0969	17	9	13	30	21
CR17-2856	22	12	28	31	16
CR17-3029	31	14	29	27	28
HM16-W192	28	27	19	14	25
HM17-02165	10	28	7	18	3
HM17-02346	20	33	2	25	15
HM17-03278	12	22	5	24	8
LD18-12395	32	31	17	32	11
LD18-12596	23	10	22	13	31
LD18-12605	29	19	16	21	30
LD18-12609	27	25	32	7	24
LD18-12776	15	26	12	9	22
LD18-12779	13	11	9	6	27
LD18-14065	16	16	15	20	23
LD18-14296	21	32	14	11	18
LD18-15377R1a	3	8	19	8	2
LD11-14102R2	1	5	1	2	5
LD18-15869R1a	4	6	9	15	4
LD18-15909R1a	5	2	8	10	18
SA17-11753	18	21	6	33	10
SA17-1852	25	23	18	26	20
SA17-5559	33	29	26	19	33
SA18-262PR	30	17	31	12	32
SA18-268PR	6	15	23	1	7
SA18-350PR	11	13	27	29	1

PRELIMINARY TEST III TRAITED MATERIAL, 2020

MATURITY (date)

Strain	Mean 4 Tests	Romney IN	West Lafayette IN	Columbia MO	Wooster OH
LD11-2170 (III)	9/27	9/28	9/27	9/29	9/27
U15-606207 (SCN)	1.8	1	2	4	1
AG25X8 (E)	-4.4	-5	-5	-1	-7
AG38X8 (L)	4.5	-3	7	8	6
A14019-141	-1.8	2	-4	-1	-4
CR16-1124	2.3	-2	3	4	4
CR17-0594	-0.1	-2	0	1	1
CR17-0765	3.6	-2	8	3	6
CR17-0969	4.5	6	7	3	3
CR17-2856	1.5	2	3	1	0
CR17-3029	0.6	1	2	-1	0
HM16-W192	0.6	2	2	-1	0
HM17-02165	1.5	-1	4	3	0
HM17-02346	-0.6	-1	0	0	-2
HM17-03278	0.9	-1	2	3	0
LD18-12395	-1.3	-2	-1	1	-3
LD18-12596	0.5	-4	2	3	1
LD18-12605	0.8	-1	1	2	1
LD18-12609	2.8	-1	4	5	4
LD18-12776	0.3	-4	-1	3	2
LD18-12779	-0.8	-3	1	1	-1
LD18-14065	0.1	-2	2	2	-1
LD18-14296	0.9	1	1	1	2
LD18-15377R1a	2.6	2	4	2	3
LD11-14102R2	4.6	4	7	3	5
LD18-15869R1a	3.3	2	5	4	3
LD18-15909R1a	0.9	0	2	2	0
SA17-11753	2.5	2	2	3	4
SA17-1852	1.6	1	4	1	1
SA17-5559	-1.8	-3	-5	-1	1
SA18-262PR	1.6	-5	5	4	2
SA18-268PR	5.3	1	6	8	7
SA18-350PR	6.4	1	7	10	9
Date Planted	5/29	5/27	6/2	6/3	5/24
Days to Mature	121	124	117	118	126

PRELIMINARY TEST III TRAITED MATERIAL, 2020

LODGING (score)

Strain	Mean 4 Tests	Romney IN	West Lafayette IN	Columbia MO	Wooster OH
LD11-2170 (III)	1.1	1.0	1.0	1.3	1.0
U15-606207 (SCN)	1.1	1.0	1.0	1.5	1.0
AG25X8 (E)	1.1	1.0	1.0	1.5	1.0
AG38X8 (L)	1.1	1.0	1.0	1.5	1.0
A14019-141	1.4	1.0	2.0	1.8	1.0
CR16-1124	1.3	1.5	1.0	1.5	1.0
CR17-0594	1.4	1.0	2.0	1.8	1.0
CR17-0765	1.8	2.5	2.0	1.8	1.0
CR17-0969	1.4	1.0	2.0	1.5	1.0
CR17-2856	1.1	1.0	1.0	1.3	1.0
CR17-3029	1.1	1.0	1.0	1.5	1.0
HM16-W192	1.3	1.0	1.5	1.8	1.0
HM17-02165	1.4	1.0	2.0	1.5	1.0
HM17-02346	1.1	1.0	1.0	1.5	1.0
HM17-03278	1.5	2.0	1.5	1.5	1.0
LD18-12395	1.3	1.5	1.0	1.8	1.0
LD18-12596	1.1	1.0	1.0	1.5	1.0
LD18-12605	1.1	1.0	1.0	1.5	1.0
LD18-12609	1.1	1.0	1.0	1.5	1.0
LD18-12776	1.1	1.0	1.0	1.5	1.0
LD18-12779	1.1	1.0	1.0	1.5	1.0
LD18-14065	1.8	3.0	1.5	1.5	1.0
LD18-14296	1.8	3.0	1.5	1.5	1.0
LD18-15377R1a	1.6	1.5	2.0	1.8	1.0
LD11-14102R2	1.3	1.0	1.5	1.5	1.0
LD18-15869R1a	1.1	1.0	1.0	1.3	1.0
LD18-15909R1a	1.1	1.0	1.0	1.5	1.0
SA17-11753	1.1	1.0	1.0	1.5	1.0
SA17-1852	1.4	1.5	1.5	1.8	1.0
SA17-5559	1.6	1.5	2.0	1.8	1.0
SA18-262PR	1.1	1.0	1.0	1.5	1.0
SA18-268PR	1.1	1.0	1.0	1.5	1.0
SA18-350PR	1.1	1.0	1.0	1.5	1.0

PRELIMINARY TEST III TRAITED MATERIAL, 2020

PLANT HEIGHT (inches)

Strain	Mean 3 Tests	Romney IN	West Lafayette IN	Columbia MO	Wooster OH
LD11-2170 (III)	26.8		31	27	22
U15-606207 (SCN)	27.5		34	27	22
AG25X8 (E)	28.7		37	28	21
AG38X8 (L)	29.4		36	30	23
A14019-141	28.5		36	29	21
CR16-1124	30.5		39	29	24
CR17-0594	31.8		41	31	24
CR17-0765	36.5		44	38	28
CR17-0969	33.0		43	31	26
CR17-2856	28.7		38	27	22
CR17-3029	28.3		37	27	21
HM16-W192	33.4		42	34	25
HM17-02165	33.9		45	31	26
HM17-02346	28.0		35	28	21
HM17-03278	32.0		41	30	25
LD18-12395	27.8		34	27	23
LD18-12596	28.6		35	29	22
LD18-12605	28.0		37	28	20
LD18-12609	29.6		37	28	24
LD18-12776	25.3		31	25	20
LD18-12779	23.8		30	23	18
LD18-14065	30.4		39	30	23
LD18-14296	28.9		38	28	21
LD18-15377R1a	31.2		40	30	24
LD11-14102R2	31.1		40	32	22
LD18-15869R1a	31.9		44	28	24
LD18-15909R1a	30.0		39	30	22
SA17-11753	29.4		39	26	24
SA17-1852	29.7		39	29	22
SA17-5559	27.9		35	27	22
SA18-262PR	26.4		33	28	19
SA18-268PR	25.6		32	24	21
SA18-350PR	30.3		37	28	26

PRELIMINARY TEST III TRAITED MATERIAL, 2020

SEED SIZE (g/100)

Strain	Mean 3 Tests	Romney IN	West Lafayette IN	Columbia MO	Wooster OH
LD11-2170 (III)	16.1		15.7	17.1	15.5
U15-606207 (SCN)	15.2		14.2	15.2	16.2
AG25X8 (E)	16.8		16.4	18.6	15.5
AG38X8 (L)	16.5		15.1	17.4	16.9
A14019-141	16.5		15.8	18.1	15.5
CR16-1124	19.1		17.6	19.2	20.4
CR17-0594	14.8		14.9	14.2	15.4
CR17-0765	16.4		16.0	16.1	17.0
CR17-0969	16.3		16.1	15.8	16.9
CR17-2856	15.1		14.4	15.2	15.8
CR17-3029	14.4		13.8	14.7	14.8
HM16-W192	15.7		15.2	15.5	16.4
HM17-02165	17.8		18.1	18.0	17.4
HM17-02346	17.0		16.8	17.7	16.5
HM17-03278	16.4		15.5	17.1	16.6
LD18-12395	15.1		15.0	16.2	14.2
LD18-12596	13.5		13.1	13.3	14.1
LD18-12605	13.9		13.5	14.6	13.7
LD18-12609	14.1		13.7	14.0	14.6
LD18-12776	15.6		14.8	16.1	15.9
LD18-12779	14.9		14.4	15.8	14.5
LD18-14065	12.2		12.2	11.7	12.7
LD18-14296	13.3		12.6	13.5	13.6
LD18-15377R1a	15.8		15.3	16.1	16.2
LD11-14102R2	14.9		14.0	15.5	15.1
LD18-15869R1a	16.1		15.4	16.5	16.6
LD18-15909R1a	15.5		14.3	16.9	15.2
SA17-11753	16.5		15.9	16.9	16.7
SA17-1852	13.7		13.2	14.3	13.6
SA17-5559	15.2		14.3	15.8	15.4
SA18-262PR	14.1		13.3	14.3	14.6
SA18-268PR	14.2		13.1	14.7	14.8
SA18-350PR	15.4		13.5	16.0	16.8

PRELIMINARY TEST III TRAITED MATERIAL, 2020

SEED QUALITY (score)

Strain	Mean 3 Tests	Romney IN	West Lafayette IN	Columbia MO	Wooster OH
LD11-2170 (III)	1.3		1.0	2.0	1.0
U15-606207 (SCN)	1.2		1.0	1.0	1.5
AG25X8 (E)	2.0		2.0	2.0	2.0
AG38X8 (L)	1.3		1.0	2.0	1.0
A14019-141	1.3		1.0	2.0	1.0
CR16-1124	1.0		1.0	1.0	1.0
CR17-0594	1.7		1.0	2.0	2.0
CR17-0765	1.5		1.0	2.0	1.5
CR17-0969	1.3		1.0	2.0	1.0
CR17-2856	1.2		1.0	1.0	1.5
CR17-3029	1.2		1.5	1.0	1.0
HM16-W192	1.3		1.0	2.0	1.0
HM17-02165	1.0		1.0	1.0	1.0
HM17-02346	1.2		1.5	1.0	1.0
HM17-03278	1.3		1.0	2.0	1.0
LD18-12395	1.8		1.0	3.0	1.5
LD18-12596	1.2		1.0	1.0	1.5
LD18-12605	1.2		1.0	1.0	1.5
LD18-12609	1.3		1.0	2.0	1.0
LD18-12776	1.2		1.0	1.0	1.5
LD18-12779	1.0		1.0	1.0	1.0
LD18-14065	1.2		1.5	1.0	1.0
LD18-14296	1.0		1.0	1.0	1.0
LD18-15377R1a	1.3		1.0	2.0	1.0
LD11-14102R2	1.3		1.0	2.0	1.0
LD18-15869R1a	1.5		1.5	2.0	1.0
LD18-15909R1a	1.3		1.0	2.0	1.0
SA17-11753	1.5		1.5	2.0	1.0
SA17-1852	1.3		1.0	2.0	1.0
SA17-5559	1.2		1.0	1.0	1.5
SA18-262PR	1.3		1.0	2.0	1.0
SA18-268PR	1.5		1.0	2.0	1.5
SA18-350PR	1.3		1.5	1.0	1.5

PRELIMINARY TEST III TRAITED MATERIAL, 2020

PROTEIN (%)

Strain	Mean 4 Tests	West			
		Romney IN	Lafayette IN	Columbia MO	Wooster OH
LD11-2170 (III)	33.6	33.3	34.2	33.9	32.9
U15-606207 (SCN)	32.5	32.1	32.1	32.8	33.0
AG25X8 (E)	34.6	35.3	34.3	35.0	33.9
AG38X8 (L)	35.0	34.5	34.7	35.1	35.6
A14019-141	37.1	37.8	37.4	37.2	36.0
CR16-1124	36.8	35.8	38.0	37.3	36.1
CR17-0594	36.0	36.4	36.5	35.7	35.2
CR17-0765	35.9	36.1	36.4	35.0	36.0
CR17-0969	34.9	34.9	35.3	35.3	34.1
CR17-2856	34.0	33.9	34.5	34.1	33.5
CR17-3029	34.2	35.1	34.2	33.4	34.0
HM16-W192	34.6	35.5	34.2	34.7	34.1
HM17-02165	37.2	36.8	39.9	35.8	36.2
HM17-02346	35.7	36.1	36.0	35.0	35.7
HM17-03278	37.2	37.4	38.1	35.9	37.3
LD18-12395	33.9	33.9	33.8	34.5	33.6
LD18-12596	35.3	35.3	35.5	34.2	36.0
LD18-12605	35.3	36.0	36.0	34.8	34.6
LD18-12609	35.4	34.7	35.7	35.3	35.9
LD18-12776	35.4	35.5	35.3	35.1	35.6
LD18-12779	35.6	35.2	36.5	34.5	36.0
LD18-14065	33.7	33.8	34.9	33.5	32.5
LD18-14296	35.2	36.0	35.9	33.6	35.2
LD18-15377R1a	34.0	35.2	34.4	32.9	33.7
LD11-14102R2	34.7	35.2	34.9	34.6	34.1
LD18-15869R1a	34.1	34.4	33.8	35.0	33.1
LD18-15909R1a	33.0	33.4	32.9	33.1	32.6
SA17-11753	37.3	37.3	37.6	36.8	37.7
SA17-1852	37.8	37.6	38.2	37.1	38.2
SA17-5559	36.8	37.4	37.5	36.9	35.3
SA18-262PR	35.7	36.2	35.7	35.6	35.2
SA18-268PR	35.7	34.8	35.2	36.2	36.8
SA18-350PR	35.3	34.6	34.7	35.1	37.0

PRELIMINARY TEST III TRAITED MATERIAL, 2020

OIL (%)

Strain	Mean 4 Tests	West			
		Romney IN	Lafayette IN	Columbia MO	Wooster OH
LD11-2170 (III)	20.5	20.4	20.0	20.9	20.9
U15-606207 (SCN)	20.2	19.9	20.0	20.7	20.3
AG25X8 (E)	19.2	18.9	19.3	19.0	19.7
AG38X8 (L)	18.4	18.8	18.3	18.7	17.8
A14019-141	18.7	18.0	18.4	19.2	19.3
CR16-1124	19.0	18.9	18.4	19.4	19.4
CR17-0594	19.0	18.8	18.5	19.3	19.3
CR17-0765	18.4	18.4	18.0	19.1	18.3
CR17-0969	19.0	19.2	18.4	19.2	19.4
CR17-2856	19.7	19.5	19.3	20.0	19.9
CR17-3029	19.7	19.3	19.4	20.2	20.0
HM16-W192	20.8	20.8	21.1	21.4	20.0
HM17-02165	18.7	18.8	18.1	19.0	19.0
HM17-02346	18.8	19.4	19.3	17.1	19.5
HM17-03278	18.6	18.5	18.2	19.0	18.6
LD18-12395	20.1	20.5	20.3	20.2	19.5
LD18-12596	19.9	19.7	19.7	20.5	19.7
LD18-12605	20.2	19.9	19.9	20.5	20.4
LD18-12609	20.0	20.1	19.8	20.5	19.7
LD18-12776	19.9	19.5	19.9	20.3	19.8
LD18-12779	19.9	19.9	19.7	20.4	19.7
LD18-14065	20.8	20.7	19.9	21.5	21.0
LD18-14296	19.6	18.8	19.1	20.8	19.9
LD18-15377R1a	19.8	19.2	19.2	20.6	20.0
LD11-14102R2	19.5	19.2	18.8	20.0	19.9
LD18-15869R1a	19.4	19.1	19.0	19.9	19.6
LD18-15909R1a	19.7	19.1	19.9	19.9	20.0
SA17-11753	19.2	19.5	18.9	19.6	19.0
SA17-1852	18.5	18.6	18.4	18.8	18.2
SA17-5559	18.9	18.8	18.4	19.0	19.4
SA18-262PR	19.7	19.4	19.6	20.4	19.5
SA18-268PR	19.3	19.6	19.4	19.2	19.1
SA18-350PR	19.6	19.7	19.5	20.0	19.2

PRELIMINARY TEST III TRAITED MATERIAL, 2020
REGIONAL SUMMARY - SEED COMPOSITION (FATTY ACID)

No. of Tests Strain	Palmitic 4 %	Stearic 4 %	Oleic 4 %	Linoleic 4 %	Linolenic 4 %
LD11-2170 (III)	11.2	3.4	26.1	52.4	6.9
U15-606207 (SCN)	10.9	3.7	23.0	54.4	8.0
A14019-141	10.1	3.7	28.4	50.3	7.4
LD18-12395	6.9	3.0	83.0	4.8	2.3
LD18-12596	7.5	3.3	83.6	3.4	2.2
LD18-12605	7.0	3.1	84.9	3.0	2.1
LD18-12609	7.2	3.2	83.5	3.8	2.2
LD18-12776	6.7	3.0	85.3	3.0	1.9
LD18-12779	7.1	3.4	83.7	3.6	2.2
LD18-14065	7.2	3.2	84.5	3.1	2.0
LD18-14296	7.1	3.7	83.6	3.5	2.2
SA17-11753	8.5	3.0	79.1	8.6	0.8
SA17-1852	7.5	3.1	79.9	7.1	2.5
SA17-5559	7.8	3.6	74.5	11.3	2.8
SA18-262PR	7.3	3.3	82.6	4.3	2.4
SA18-268PR	6.9	3.1	83.7	4.0	2.2
SA18-350PR	6.8	3.2	83.2	4.4	2.4
Mean	7.9	3.3	72.5	13.2	3.1

PRELIMINARY TEST III TRAITED MATERIAL, 2020

FATTY ACID, PALMITIC (%)

Strain	Mean 4 Tests	Romney IN	West Lafayette IN	Columbia MO	Wooster OH
LD11-2170 (III)	11.2	11.5	10.8	11.5	11.2
U15-606207 (SCN)	10.9	11.3	10.8	11.2	10.1
A14019-141	10.1	10.2	9.9	10.3	10.0
LD18-12395	6.9	6.8	7.2	6.9	6.6
LD18-12596	7.5	7.6	7.5	7.6	7.5
LD18-12605	7.0	7.0	7.0	7.1	6.7
LD18-12609	7.2	7.3	7.3	7.2	7.2
LD18-12776	6.7	6.8	6.8	6.9	6.4
LD18-12779	7.1	7.2	6.9	7.0	7.1
LD18-14065	7.2	7.4	7.1	7.5	6.8
LD18-14296	7.1	7.2	6.9	7.1	7.2
SA17-11753	8.5	8.7	8.4	8.2	8.7
SA17-1852	7.5	7.5	7.5	7.6	7.6
SA17-5559	7.8	7.5	7.5	7.7	8.5
SA18-262PR	7.3	7.4	7.2	7.4	7.1
SA18-268PR	6.9	7.0	7.1	6.9	6.7
SA18-350PR	6.8	7.1	6.7	6.9	6.6

PRELIMINARY TEST III TRAITED MATERIAL, 2020

FATTY ACID, STEARIC (%)

Strain	Mean 4 Tests	Romney IN	West Lafayette IN	Columbia MO	Wooster OH
LD11-2170 (III)	3.4	3.1	3.2	3.5	3.7
U15-606207 (SCN)	3.7	3.6	3.5	3.8	4.1
A14019-141	3.7	3.7	3.6	3.8	3.9
LD18-12395	3.0	3.1	2.7	2.9	3.3
LD18-12596	3.3	3.2	3.2	3.3	3.4
LD18-12605	3.1	2.9	2.9	3.2	3.3
LD18-12609	3.2	3.1	3.3	3.1	3.3
LD18-12776	3.0	2.9	2.8	3.0	3.2
LD18-12779	3.4	3.4	3.0	3.4	3.7
LD18-14065	3.2	3.0	3.0	3.1	3.6
LD18-14296	3.7	3.8	3.4	3.6	3.8
SA17-11753	3.0	3.0	2.8	3.2	3.1
SA17-1852	3.1	2.9	3.1	3.1	3.2
SA17-5559	3.6	3.6	3.2	3.5	4.1
SA18-262PR	3.3	3.2	3.4	3.2	3.6
SA18-268PR	3.1	2.9	2.9	3.1	3.4
SA18-350PR	3.2	3.1	3.1	3.2	3.4

PRELIMINARY TEST III TRAITED MATERIAL, 2020

FATTY ACID, OLEIC (%)

Strain	Mean 4 Tests	Romney IN	West Lafayette IN	Columbia MO	Wooster OH
LD11-2170 (III)	26.1	27.6	27.2	24.9	24.7
U15-606207 (SCN)	23.0	18.8	21.1	21.8	30.3
A14019-141	28.4	28.5	30.0	26.9	28.4
LD18-12395	83.0	83.1	82.7	83.2	83.0
LD18-12596	83.6	83.7	84.4	83.6	82.6
LD18-12605	84.9	84.9	85.1	85.3	84.3
LD18-12609	83.5	84.5	83.1	84.4	82.1
LD18-12776	85.3	85.5	85.1	85.3	85.3
LD18-12779	83.7	83.7	83.8	84.5	82.8
LD18-14065	84.5	84.4	84.3	85.0	84.5
LD18-14296	83.6	83.4	84.7	83.3	83.0
SA17-11753	79.1	79.2	79.9	80.3	76.9
SA17-1852	79.9	80.9	80.0	80.7	77.8
SA17-5559	74.5	80.2	79.4	79.0	59.7
SA18-262PR	82.6	83.4	82.2	82.9	82.0
SA18-268PR	83.7	83.9	83.8	83.3	84.0
SA18-350PR	83.2	83.3	83.5	83.4	82.6

PRELIMINARY TEST III TRAITED MATERIAL, 2020

FATTY ACID, LINOLEIC (%)

Strain	Mean 4 Tests	Romney IN	West Lafayette IN	Columbia MO	Wooster OH
LD11-2170 (III)	52.4	51.0	52.6	53.0	53.1
U15-606207 (SCN)	54.4	57.2	57.3	55.2	48.0
A14019-141	50.3	49.7	49.4	51.5	50.5
LD18-12395	4.8	4.8	5.1	4.7	4.8
LD18-12596	3.4	3.4	2.9	3.3	4.0
LD18-12605	3.0	3.1	2.9	2.5	3.5
LD18-12609	3.8	3.1	4.0	3.1	5.0
LD18-12776	3.0	2.9	3.3	2.8	3.2
LD18-12779	3.6	3.5	4.0	3.0	4.0
LD18-14065	3.1	3.1	3.4	2.6	3.2
LD18-14296	3.5	3.5	3.0	3.7	3.7
SA17-11753	8.6	8.3	8.3	7.5	10.5
SA17-1852	7.1	6.3	7.0	6.3	8.7
SA17-5559	11.3	6.4	7.5	7.5	23.7
SA18-262PR	4.3	3.8	4.9	4.2	4.6
SA18-268PR	4.0	4.0	4.1	4.4	3.7
SA18-350PR	4.4	4.2	4.3	4.2	4.9

PRELIMINARY TEST III TRAITED MATERIAL, 2020

FATTY ACID, LINOLENIC (%)

Strain	Mean 4 Tests	Romney IN	West Lafayette IN	Columbia MO	Wooster OH
LD11-2170 (III)	6.9	6.8	6.3	7.1	7.3
U15-606207 (SCN)	8.0	9.2	7.4	8.0	7.4
A14019-141	7.4	7.8	7.1	7.6	7.2
LD18-12395	2.3	2.2	2.3	2.3	2.3
LD18-12596	2.2	2.2	2.0	2.2	2.5
LD18-12605	2.1	2.1	2.1	2.0	2.2
LD18-12609	2.2	2.1	2.3	2.1	2.4
LD18-12776	1.9	1.9	2.0	2.0	1.9
LD18-12779	2.2	2.2	2.3	2.0	2.3
LD18-14065	2.0	2.0	2.2	1.9	2.0
LD18-14296	2.2	2.2	2.0	2.3	2.3
SA17-11753	0.8	0.8	0.8	0.7	0.9
SA17-1852	2.5	2.3	2.5	2.3	2.7
SA17-5559	2.8	2.3	2.4	2.4	4.0
SA18-262PR	2.4	2.3	2.4	2.4	2.7
SA18-268PR	2.2	2.2	2.1	2.4	2.2
SA18-350PR	2.4	2.3	2.3	2.3	2.5

PRELIMINARY TEST III TRAITED MATERIAL, 2020
REGIONAL SUMMARY - SEED COMPOSITION (SUGAR)

Strain	Sucrose 4 %	Raffinose 4 %	Stachyose 4 %	Total Sugar 4 %
LD11-2170 (III)	2.7	0.6	3.0	6.3
U15-606207 (SCN)	2.5	0.6	3.7	6.8
A14019-141	6.7	0.6	1.5	8.9
CR16-1124	3.6	0.6	1.3	5.4
CR17-0594	3.4	0.7	1.0	5.1
CR17-0765	2.7	0.6	3.4	6.7
CR17-0969	3.3	0.5	2.3	6.0
CR17-2856	2.7	0.7	3.0	6.4
CR17-3029	2.5	0.6	2.8	5.9
Mean	3.4	0.6	2.4	6.4

PRELIMINARY TEST III TRAITED MATERIAL, 2020

SEED SUGAR, SUCROSE (%)

No. of Tests Strain	Mean 4 Tests	Romney IN	West Lafayette IN	Columbia MO	Wooster OH
LD11-2170 (III)	2.7	2.8	2.6	2.6	3.0
U15-606207 (SCN)	2.5	2.5	2.5	2.2	2.8
A14019-141	6.7	7.0	6.1	7.6	6.0
CR16-1124	3.6	3.3	3.3	3.5	4.2
CR17-0594	3.4	3.1	3.1	3.6	3.8
CR17-0765	2.7	2.5	2.9	2.6	2.9
CR17-0969	3.3	3.2	3.2	2.7	3.9
CR17-2856	2.7	2.8	2.8	2.3	3.0
CR17-3029	2.5	2.5	2.4	2.7	2.5

PRELIMINARY TEST III TRAITED MATERIAL, 2020

SEED SUGAR, RAFFINOSE (%)

Strain	Mean 4 Tests	Romney IN	West Lafayette IN	Columbia MO	Wooster OH
LD11-2170 (III)	0.6	0.6	0.5	0.6	0.6
U15-606207 (SCN)	0.6	0.6	0.5	0.5	0.7
A14019-141	0.6	0.6	0.6	0.7	0.7
CR16-1124	0.6	0.5	0.5	0.6	0.7
CR17-0594	0.7	0.6	0.6	0.8	0.7
CR17-0765	0.6	0.6	0.6	0.6	0.6
CR17-0969	0.5	0.5	0.4	0.5	0.6
CR17-2856	0.7	0.7	0.6	0.6	0.8
CR17-3029	0.6	0.6	0.5	0.7	0.7

PRELIMINARY TEST III TRAITED MATERIAL, 2020

SEED SUGAR, STACHYOSE (%)

Strain	Mean 4 Tests	Romney IN	West Lafayette IN	Columbia MO	Wooster OH
LD11-2170 (III)	3.0	2.9	2.8	3.2	3.1
U15-606207 (SCN)	3.7	3.6	3.6	3.4	4.2
A14019-141	1.5	1.5	1.4	1.6	1.5
CR16-1124	1.3	1.3	1.2	1.4	1.3
CR17-0594	1.0	1.0	0.9	1.1	1.0
CR17-0765	3.4	3.1	3.3	3.5	3.6
CR17-0969	2.3	2.3	2.2	1.9	2.6
CR17-2856	3.0	2.8	2.9	3.1	3.1
CR17-3029	2.8	2.6	2.5	3.2	3.1

PRELIMINARY TEST III TRAITED MATERIAL, 2020

SEED SUGAR, TOTAL (%)

Strain	Mean 4 Tests	Romney IN	West Lafayette IN	Columbia MO	Wooster OH
LD11-2170 (III)	6.3	6.3	5.9	6.4	6.6
U15-606207 (SCN)	6.8	6.7	6.7	6.1	7.6
A14019-141	8.9	9.2	8.2	9.9	8.3
CR16-1124	5.4	5.0	5.0	5.5	6.2
CR17-0594	5.1	4.8	4.6	5.5	5.5
CR17-0765	6.7	6.2	6.8	6.6	7.2
CR17-0969	6.0	6.0	5.8	5.2	7.1
CR17-2856	6.4	6.4	6.4	6.1	6.8
CR17-3029	5.9	5.7	5.3	6.6	6.3

**Northern Regional Uniform Test
Uniform Test IV, Traited Material, 2020**

Ent.	Strain	Parentage	Seed Source	Previous Testing	Gen. Comp.	Unique Traits
1	LD06-7620 (IV)	IA3023 x LD00-3309	Diers	10	F5	SCN
2	LD07-3395bf (SCN) (E)	LD07-3395 Reselection	Diers	5	F5	SCN
3	AG38X8		Cai	Initial		RR2, Extend
4	AG41X8 (L)		Cai	Initial		RR2, Extend
5	CR16-0011	CL05-51227 x KB10-22-1	Rainey	1	F6	Sugar Comp
6	CR16-0016	CL05-51227 x KB10-22-1	Rainey	1	F6	Sugar Comp
7	CR16-0037	CL05-4637 x KB10-22-1	Rainey	1	F6	Sugar Comp, SCN
8	CR16-0106	CL05-3314 x KB10-22-1	Rainey	1	F6	Sugar Comp, SCN
9	CR16-0110	CL05-3314 x KB10-22-1	Rainey	1	F6	Sugar Comp, SCN
10	CR16-0112	CL05-3314 x KB10-22-1	Rainey	1	F6	Sugar Comp, SCN
11	CR16-0113	CL05-3314 x KB10-22-1	Rainey	1	F6	Sugar Comp, SCN
12	CR16-0116	CL05-3314 x KB10-22-1	Rainey	1	F6	Sugar Comp, SCN
13	CR16-0124	CL05-4637 x KB10-22-1	Rainey	1	F6	Sugar Comp, SCN
14	CR16-0125	CL05-4638 x KB10-22-2	Rainey	2	F7	Sugar Comp, SCN
15	CR16-1398	CL05-3314 x KB10-22-2	Rainey	Initial	F6	Sugar Comp, SCN
16	CR17-0824	KB10-22#1583 a x 4J105-3-4	Rainey	Initial	F5	Sugar Comp
17	CR17-3001	CL0J095-4-6 x [CR13275.1 (CL05-4637 x KB10-22)]	Rainey	Initial	F5	Sugar Comp
18	LD17-12352	[U11-374036 x KB13-15F314-224] x [LG11-6210 x KB13-15F314-224]	Diers	1	F3	HOLL
19	LD18-12659	LD13-3483 x LDXGL15-012-1	Diers	Initial	F4	HOLL
20	LD18-12663	LD13-3483 x LDXGL15-012-1	Diers	Initial	F4	HOLL
21	LD18-12674	LD13-3483 x LDXGL15-012-1	Diers	Initial	F4	HOLL
22	LD18-14537	LDX16-236-1-2 x LDX16-230-1-2	Diers	Initial	F4	HOLL
23	S17-20605C	S12-16675 x S13-10592	Chen	Initial		HO, High Oil
24	S17PR-499	[S12-3858(4) x S13-16692] x [S12-3858(4) x TN10-5002LL]	Chen	Initial		HOLL, High Oil
25	SA17-5569	HM11-W193 x A12-961044	Scaboo	1	F5	HOLL
26	SA17-8882	SA13-2699 x A12-961044	Scaboo	1	F5	HOLL

UNIFORM TEST IV TRAITED MATERIAL, 2020

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code
LD06-7620 (IV)	PLtBDYBI
LD07-3395bf (SCN) (E)	WGTDYBfI
AG38X8	PGBDYIbI
AG41X8 (L)	PGTDYIbI
CR16-0011	WLtTDYBI
CR16-0016	WT+LtTSYBI
CR16-0037	WLtBDYBI
CR16-0106	WLtTDYBI
CR16-0110	WLtB+TDYHI
CR16-0112	WLtB+TDYBrI
CR16-0113	WLtBDYBrI
CR16-0116	PLtBSYI
CR16-0124	PTBDYBI
CR16-0125	WLtTSYBI
CR16-1398	P+WGBSYHI
CR17-0824	WLtBDYBI
CR17-3001	PLtTDYBI
LD17-12352	WT+LtTDYBI
LD18-12659	PGBDYIbI
LD18-12663	PGBDYBfI
LD18-12674	PGBDYBfI
LD18-14537	PLtBDYBI
S17-20605C	WLtTSYBI
S17PR-499	PGTDYIbI
SA17-5569	PTTDYBI
SA17-8882	PTTDYBI

UNIFORM TEST IV TRAITED MATERIAL, 2020

REGIONAL SUMMARY

No. of Tests Strain	Yield	Rank	Maturity	Lodging	Plant	Seed	Seed	Composition	
	5 bu/a	5 No.	6 Date	6 Score	4 In.	5 g/100	5 Score	5 Protein %	5 Oil %
LD06-7620 (IV)	61.7	14	10/6	1.3	32	14.2	1.9	35.3	18.5
LD07-3395bf (SCN) (E)	65.6	4	-2.6	1.5	29	15.2	1.8	32.8	20.3
AG38X8	71.7	2	-0.8	1.2	34	16.3	1.2	35.2	18.8
AG41X8 (L)	74.6	1	2.7	1.3	38	15.9	1.2	35.4	18.6
CR16-0011	60.6	19	-3.6	1.2	30	16.0	1.4	35.4	18.9
CR16-0016	64.5	7	-3.5	1.3	32	14.2	1.3	33.6	19.6
CR16-0037	62.4	10	-3.8	1.4	36	15.0	1.6	34.9	19.1
CR16-0106	62.2	11	-1.4	1.1	30	15.5	1.2	34.4	19.3
CR16-0110	62.0	13	-2.0	1.2	32	18.0	1.4	36.8	18.7
CR16-0112	59.9	22	0.3	1.7	34	16.5	1.6	36.8	18.5
CR16-0113	60.2	20	-2.9	1.1	31	15.8	1.6	35.9	19.3
CR16-0116	64.5	6	0.4	1.7	34	16.7	1.2	36.0	18.6
CR16-0124	62.5	9	-3.6	1.1	31	12.9	2.0	34.7	18.5
CR16-0125	58.2	24	0.5	1.3	32	15.4	1.6	36.0	18.2
CR16-1398	58.9	23	-4.7	1.3	38	14.9	1.5	35.0	18.8
CR17-0824	65.1	5	-4.0	1.2	32	15.4	1.4	36.6	18.0
CR17-3001	60.8	18	-4.3	1.1	30	14.8	1.6	35.4	18.9
LD17-12352	66.2	3	1.3	1.3	30	14.1	1.4	35.6	19.3
LD18-12659	60.1	21	-1.3	1.1	30	14.4	1.4	36.1	19.3
LD18-12663	61.3	16	-0.9	1.1	31	14.8	1.4	36.6	19.1
LD18-12674	61.3	15	-0.6	1.1	31	15.2	1.6	36.1	19.3
LD18-14537	62.0	12	-3.9	1.9	30	14.9	1.8	34.7	20.4
S17-20605C	61.0	17	7.5	2.7	36	14.4	1.4	35.1	19.0
S17PR-499	57.9	25	1.1	1.6	38	14.6	1.6	37.4	17.8
SA17-5569	57.6	26	-3.7	2.1	33	16.4	1.5	36.6	19.2
SA17-8882	64.0	8	-0.9	1.7	33	14.9	1.6	36.5	19.0
Mean	62.6			1.4	32.5	15.2	1.5	35.6	19.0
C.V. (%)	9.8								
L.S.D. (5%)	4.4								

126.5 Days After Planting

UNIFORM TEST IV TRAITED MATERIAL, 2020

2019-2020 2-YEAR MEAN

No. of Tests Strain	Yield	Rank	Maturity	Lodging	Plant	Seed	Seed	Composition	
	12 bu/a	12 No.	14 Date	14 Score	Height 11 In.	Size 13 g/100	Quality 13 Score	Protein 8 %	Oil 8 %
LD06-7620 (IV)	61.7	5	10/3	1.4	29	14.4	2.0	35.4	18.6
LD07-3395bf (SCN) (E)	65.8	1	-2.9	1.5	27	15.6	1.8	32.5	20.4
CR16-0011	58.3	11	-3.0	1.3	28	15.9	1.4	35.3	19.2
CR16-0016	60.9	6	-3.5	1.4	30	14.2	1.4	33.8	19.7
CR16-0037	59.5	7	-3.7	1.5	34	14.8	1.6	35.3	19.3
CR16-0106	59.0	9	-1.6	1.3	29	15.3	1.4	34.4	19.6
CR16-0110	58.4	10	-0.9	1.3	30	17.8	1.6	36.7	18.8
CR16-0112	58.2	12	1.0	1.7	32	16.3	1.8	36.8	18.6
CR16-0113	56.5	15	-2.7	1.3	29	15.9	1.6	36.0	19.3
CR16-0116	65.6	2	0.4	1.6	32	16.7	1.4	36.4	18.6
CR16-0124	59.1	8	-2.5	1.2	31	14.3	1.8	35.1	19.0
CR16-0125	57.4	14	0.1	1.3	31	15.2	1.6	36.1	18.3
LD17-12352	64.4	3	1.9	1.4	29	14.0	1.5	35.9	19.5
SA17-5569	58.1	13	-2.0	1.9	32	16.4	1.6	37.4	18.9
SA17-8882	62.7	4	-0.9	1.6	32	15.2	1.6	36.9	19.0

124.9 Days After Planting

UNIFORM TEST IV TRAITED MATERIAL, 2020

YIELD (bu/a)

Strain	Mean	Flora IL	Romney IN	West	Columbia MO	Portageville	
	5 Tests			Lafayette IN		Clay MO*	Loam MO*
LD06-7620 (IV)	61.7	60.0	75.7	74.0	62.5	36.3	22.8
LD07-3395bf (SCN) (E)	65.6	57.2	77.1	78.0	65.1	50.7	21.6
AG38X8	71.7	54.5	87.5	80.9	67.4	68.4	64.5
AG41X8 (L)	74.6	62.6	91.6	75.0	78.5	65.5	58.2
CR16-0011	60.6	54.4	80.8	61.9	60.1	45.7	26.8
CR16-0016	64.5	54.1	81.9	74.4	62.2	49.8	27.4
CR16-0037	62.4	51.7	72.8	75.9	60.6	51.0	29.3
CR16-0106	62.2	57.4	81.9	67.4	57.7	46.7	20.4
CR16-0110	62.0	49.2	74.5	71.2	60.8	54.3	31.2
CR16-0112	59.9	46.1	60.6	70.0	65.1	57.9	29.4
CR16-0113	60.2	48.6	74.3	74.3	58.9	44.7	28.0
CR16-0116	64.5	51.1	70.3	75.1	66.7	59.4	38.2
CR16-0124	62.5	51.7	82.3	77.8	53.8	46.7	25.3
CR16-0125	58.2	56.4	65.4	67.6	55.8	45.9	28.0
CR16-1398	58.9	53.9	67.4	68.6	55.9	48.6	23.3
CR17-0824	65.1	52.0	82.6	73.7	61.0	56.2	29.3
CR17-3001	60.8	52.2	75.1	72.9	61.9	41.8	14.4
LD17-12352	66.2	53.7	73.8	78.8	73.4	51.1	26.3
LD18-12659	60.1	54.6	72.3	70.4	51.7	51.5	21.1
LD18-12663	61.3	49.4	70.9	78.3	51.8	56.1	24.9
LD18-12674	61.3	55.4	73.7	67.8	57.5	52.4	17.3
LD18-14537	62.0	60.6	62.3	83.6	61.2	42.4	25.4
S17-20605C	61.0	56.4	66.4	63.2	68.3	50.6	50.4
S17PR-499	57.9	53.2	62.5	62.3	63.3	48.1	34.3
SA17-5569	57.6	48.4	58.4	61.3	64.8	55.2	8.0
SA17-8882	64.0	57.9	72.6	74.9	56.3	58.2	33.0
Location Mean		53.9	73.6	72.3	61.6	51.4	29.2
C.V. (%)		10.3	9.1	4.3	8.8	10.8	16.7
L.S.D. (5%)		11.5	13.9	6.4	8.9	10.9	9.5
Row sp. (In.)		30	30	30	30	30	30
Rows/Plot		4	2	4	4	4	4
Reps		2	2	2	3	3	3

*Significant dicamba damage, Portageville Loam data not included in mean.

UNIFORM TEST IV TRAITED MATERIAL, 2020

YIELD RANK

Strain	Yield Rank	Flora IL	Romney IN	West	Columbia MO	Portageville	
				Lafayette IN		Clay MO	Loam MO
LD06-7620 (IV)	14	3	9	13	10	26	20
LD07-3395bf (SCN) (E)	4	6	8	5	6	14	21
AG38X8	2	11	2	2	4	1	1
AG41X8 (L)	1	1	1	9	1	2	2
CR16-0011	19	12	7	25	17	22	14
CR16-0016	7	13	5	11	11	16	13
CR16-0037	10	19	15	7	16	13	9
CR16-0106	11	5	6	22	19	19	23
CR16-0110	13	23	11	16	15	9	7
CR16-0112	22	26	25	18	7	5	8
CR16-0113	20	24	12	12	18	23	11
CR16-0116	6	21	19	8	5	3	4
CR16-0124	9	19	4	6	24	19	17
CR16-0125	24	7	22	21	23	21	11
CR16-1398	23	14	20	19	22	17	19
CR17-0824	5	18	3	14	14	6	9
CR17-3001	18	17	10	15	12	25	25
LD17-12352	3	15	13	3	2	12	15
LD18-12659	21	10	17	17	26	11	22
LD18-12663	16	22	18	4	25	7	18
LD18-12674	15	9	14	20	20	10	24
LD18-14537	12	2	24	1	13	24	16
S17-20605C	17	7	21	23	3	15	3
S17PR-499	25	16	23	24	9	18	5
SA17-5569	26	25	26	26	8	8	26
SA17-8882	8	4	16	10	21	4	6

UNIFORM TEST IV TRAITED MATERIAL, 2020

MATURITY (date)

Strain	Mean	Flora IL	Romney IN	West	Columbia MO	Portageville	
	6 Tests			Lafayette IN		Clay MO	Loam MO
LD06-7620 (IV)	10/6	9/27	10/6	10/6	10/9	10/18	10/2
LD07-3395bf (SCN) (E)	-2.6	-4	-8	-3	2	-4	0
AG38X8	-0.8	-3	-2	4	1	-6	1
AG41X8 (L)	2.7	6	3	7	2	-2	1
CR16-0011	-3.6	-2	-3	-10	-1	-3	-3
CR16-0016	-3.5	-4	-7	-1	-2	-5	-4
CR16-0037	-3.8	-4	-7	2	-4	-6	-4
CR16-0106	-1.4	-2	-2	1	-1	-3	-2
CR16-0110	-2.0	-3	-6	-1	-1	-3	1
CR16-0112	0.3	-1	-3	3	2	-1	1
CR16-0113	-2.9	-3	-4	-5	-4	-4	1
CR16-0116	0.4	-2	-1	5	2	-3	1
CR16-0124	-3.6	-2	-5	-4	-4	-5	-3
CR16-0125	0.5	3	-1	3	0	-2	0
CR16-1398	-4.7	-4	-6	-5	-3	-6	-5
CR17-0824	-4.0	-5	-5	0	-4	-6	-4
CR17-3001	-4.3	-5	-6	1	-3	-7	-6
LD17-12352	1.3	3	-1	5	1	-1	2
LD18-12659	-1.3	1	-3	-2	1	-3	-2
LD18-12663	-0.9	-2	-7	-1	1	-3	5
LD18-12674	-0.6	1	-3	2	2	-3	-2
LD18-14537	-3.9	-3	-9	-4	-4	-5	1
S17-20605C	7.5	9	2	11	3	5	16
S17PR-499	1.1	4	-3	0	3	0	2
SA17-5569	-3.7	-3	-5	-8	-1	-6	0
SA17-8882	-0.9	2	-5	0	1	-4	1
Date Planted	6/1	6/2	5/27	6/2	6/3	6/12	5/27
Days to Mature	127	117	132	126	128	128	128

UNIFORM TEST IV TRAITED MATERIAL, 2020

LODGING (score)

Strain	Mean	Flora IL	Romney IN	West	Columbia MO	Portageville	
	6 Tests			Lafayette IN		Clay MO	Loam MO
LD06-7620 (IV)	1.3	1.0	2.0	1.0	1.5	1.0	1.0
LD07-3395bf (SCN) (E)	1.5	1.5	2.0	1.5	1.5	1.3	1.0
AG38X8	1.2	1.3	1.0	1.0	1.5	1.0	1.7
AG41X8 (L)	1.3	1.5	1.0	1.5	1.5	1.0	1.3
CR16-0011	1.2	1.0	1.5	1.0	1.5	1.0	1.0
CR16-0016	1.3	1.3	1.5	1.5	1.5	1.3	1.0
CR16-0037	1.4	1.0	1.0	2.5	1.5	1.3	1.0
CR16-0106	1.1	1.0	1.0	1.0	1.5	1.3	1.0
CR16-0110	1.2	1.3	1.0	1.0	1.5	1.3	1.0
CR16-0112	1.7	1.8	1.5	2.0	1.5	2.0	1.3
CR16-0113	1.1	1.3	1.0	1.0	1.5	1.0	1.0
CR16-0116	1.7	2.3	1.0	2.0	1.7	1.3	1.7
CR16-0124	1.1	1.0	1.0	1.0	1.5	1.0	1.0
CR16-0125	1.3	1.5	1.5	1.0	1.5	1.0	1.0
CR16-1398	1.3	1.5	1.0	1.5	1.5	1.0	1.0
CR17-0824	1.2	1.3	1.0	1.0	1.5	1.3	1.0
CR17-3001	1.1	1.0	1.0	1.0	1.5	1.0	1.0
LD17-12352	1.3	1.0	1.0	1.0	1.5	1.7	1.3
LD18-12659	1.1	1.0	1.0	1.0	1.5	1.0	1.0
LD18-12663	1.1	1.0	1.0	1.0	1.5	1.0	1.0
LD18-12674	1.1	1.0	1.0	1.0	1.5	1.0	1.0
LD18-14537	1.9	2.0	3.0	1.0	1.5	2.0	1.7
S17-20605C	2.7	2.5	1.5	3.5	1.5	4.0	3.0
S17PR-499	1.6	1.5	1.0	2.0	1.7	1.7	2.0
SA17-5569	2.1	2.5	2.0	2.5	2.2	1.7	1.7
SA17-8882	1.7	1.8	1.5	2.0	1.5	2.0	1.3

UNIFORM TEST IV TRAITED MATERIAL, 2020

PLANT HEIGHT (inches)

Strain	Mean	Flora IL	Romney IN	West	Columbia MO	Portageville	
	4 Tests			Lafayette IN		Clay MO*	Loam MO*
LD06-7620 (IV)	31.8	41		39	26	21	13
LD07-3395bf (SCN) (E)	28.5	32		36	24	23	14
AG38X8	34.0	36		40	27	33	31
AG41X8 (L)	37.9	42		44	33	34	35
CR16-0011	30.0	34		38	25	24	15
CR16-0016	31.9	34		40	28	26	13
CR16-0037	35.5	39		46	31	27	15
CR16-0106	30.5	36		37	24	25	12
CR16-0110	32.5	36		41	28	26	15
CR16-0112	33.8	38		42	28	28	16
CR16-0113	30.6	34		38	27	24	15
CR16-0116	33.6	37		42	29	27	20
CR16-0124	30.6	34		39	25	24	14
CR16-0125	32.4	37		41	26	26	17
CR16-1398	37.5	41		47	33	30	15
CR17-0824	32.1	36		38	28	27	15
CR17-3001	30.3	33		39	27	23	11
LD17-12352	29.7	31		36	27	25	13
LD18-12659	30.1	34		39	23	25	13
LD18-12663	30.6	34		39	24	25	12
LD18-12674	31.2	36		39	24	27	12
LD18-14537	30.4	33		37	28	24	17
S17-20605C	35.7	40		45	31	27	24
S17PR-499	38.3	41		52	30	31	18
SA17-5569	32.7	35		40	31	25	14
SA17-8882	32.7	34		44	26	27	19

*Significant dicamba damage, Portageville Loam data not included in mean.

UNIFORM TEST IV TRAITED MATERIAL, 2020

SEED SIZE (g/100)

Strain	Mean	Flora IL	Romney IN	West	Columbia MO	Portageville	
	5 Tests			Lafayette IN		Clay MO	Loam MO
LD06-7620 (IV)	14.2	12.2		13.8	16.1	15.6	13.3
LD07-3395bf (SCN) (E)	15.2	13.6		14.7	18.0	16.3	13.6
AG38X8	16.3	13.2		15.8	19.2	17.8	15.4
AG41X8 (L)	15.9	14.7		15.6	18.0	16.5	14.9
CR16-0011	16.0	13.7		15.6	17.9	18.2	14.7
CR16-0016	14.2	12.0		14.2	15.5	15.6	13.7
CR16-0037	15.0	12.3		16.0	16.7	16.3	13.8
CR16-0106	15.5	13.5		15.4	16.8	17.6	14.5
CR16-0110	18.0	14.4		17.9	19.4	20.8	17.3
CR16-0112	16.5	13.2		16.0	19.6	18.4	15.4
CR16-0113	15.8	12.7		15.3	18.5	17.8	14.9
CR16-0116	16.7	13.4		16.0	18.4	19.0	16.7
CR16-0124	12.9	10.6		12.6	14.6	14.8	12.1
CR16-0125	15.4	13.4		15.6	16.4	17.3	14.4
CR16-1398	14.9	12.8		14.5	16.5	17.4	13.3
CR17-0824	15.4	13.0		16.1	17.7	17.1	13.2
CR17-3001	14.8	12.4		14.7	16.3	16.9	13.8
LD17-12352	14.1	12.3		14.2	15.2	15.3	13.3
LD18-12659	14.4	12.7		13.9	16.6	15.8	13.1
LD18-12663	14.8	11.6		14.6	16.9	17.5	13.5
LD18-12674	15.2	13.2		14.0	17.8	17.4	13.4
LD18-14537	14.9	12.6		14.9	16.8	16.4	13.9
S17-20605C	14.4	12.1		12.9	15.4	16.3	15.1
S17PR-499	14.6	13.0		12.9	16.0	16.3	14.6
SA17-5569	16.4	13.7		15.1	18.6	18.0	16.5
SA17-8882	14.9	13.2		14.4	17.1	16.5	13.2

UNIFORM TEST IV TRAITED MATERIAL, 2020

SEED QUALITY (score)

Strain	Mean	Flora IL	Romney IN	West	Columbia MO	Portageville	
	5 Tests			Lafayette IN		Clay MO	Loam MO
LD06-7620 (IV)	1.9	1.0		1.0	1.0	4.0	2.7
LD07-3395bf (SCN) (E)	1.8	2.0		1.0	1.0	3.0	2.0
AG38X8	1.2	2.0		1.0	1.0	1.0	1.0
AG41X8 (L)	1.2	1.0		1.0	1.0	2.0	1.0
CR16-0011	1.4	1.0		1.0	1.0	2.0	2.0
CR16-0016	1.3	1.0		1.0	1.0	1.3	2.0
CR16-0037	1.6	2.0		1.0	2.0	1.0	2.0
CR16-0106	1.2	1.0		1.0	1.0	1.0	2.0
CR16-0110	1.4	2.0		1.0	1.0	2.0	1.0
CR16-0112	1.6	2.0		1.0	1.0	2.0	2.0
CR16-0113	1.6	2.0		1.0	1.0	2.0	2.0
CR16-0116	1.2	1.0		1.0	1.0	2.0	1.0
CR16-0124	2.0	2.0		1.0	2.0	2.0	3.0
CR16-0125	1.6	2.0		1.0	1.0	2.0	2.0
CR16-1398	1.5	1.0		1.0	1.0	2.0	2.7
CR17-0824	1.4	1.0		1.0	1.0	2.0	2.0
CR17-3001	1.6	2.0		1.0	1.0	2.0	2.0
LD17-12352	1.4	2.0		1.0	1.0	2.0	1.0
LD18-12659	1.4	1.0		1.0	1.0	2.0	2.0
LD18-12663	1.4	1.0		1.0	1.0	2.0	2.0
LD18-12674	1.6	1.0		1.0	1.0	3.0	2.0
LD18-14537	1.8	2.0		1.0	2.0	2.0	2.0
S17-20605C	1.4	1.0		1.0	1.0	2.0	2.0
S17PR-499	1.6	2.0		1.0	1.0	2.0	2.0
SA17-5569	1.5	1.0		1.0	1.0	2.0	2.3
SA17-8882	1.6	1.0		1.0	1.0	2.0	3.0

UNIFORM TEST IV TRAITED MATERIAL, 2020

PROTEIN (%)

Strain	Mean 5 Tests	Flora IL	Romney IN	West Lafayette IN	Columbia MO	Portageville Loam MO
LD06-7620 (IV)	35.3	35.9	34.5	34.9	35.4	35.8
LD07-3395bf (SCN) (E)	32.8	32.8	31.9	32.3	32.8	34.2
AG38X8	35.2	35.3	34.4	36.1	35.4	34.9
AG41X8 (L)	35.4	34.5	35.1	37.4	35.1	35.0
CR16-0011	35.4	35.9	35.3	35.1	34.8	36.1
CR16-0016	33.6	33.8	33.0	33.4	32.9	34.7
CR16-0037	34.9	35.2	34.4	35.2	33.8	35.8
CR16-0106	34.4	35.3	33.8	34.3	33.3	35.4
CR16-0110	36.8	38.0	36.6	36.2	36.1	36.9
CR16-0112	36.8	37.6	36.1	36.5	37.0	36.9
CR16-0113	35.9	36.4	35.5	35.6	35.3	36.7
CR16-0116	36.0	36.9	36.7	36.0	35.8	34.8
CR16-0124	34.7	35.1	34.2	34.6	34.5	35.3
CR16-0125	36.0	36.0	35.6	35.7	35.8	36.7
CR16-1398	35.0	34.9	34.8	34.5	35.3	35.8
CR17-0824	36.6	38.1	36.2	36.2	35.6	36.8
CR17-3001	35.4	35.9	34.4	35.1	34.5	37.0
LD17-12352	35.6	35.7	36.5	35.6	35.3	35.2
LD18-12659	36.1	36.2	35.7	36.4	36.0	36.1
LD18-12663	36.6	37.5	35.9	36.6	36.6	36.3
LD18-12674	36.1	36.4	35.9	36.3	35.8	36.1
LD18-14537	34.7	34.9	34.5	35.7	34.4	34.0
S17-20605C	35.1	35.5	34.2	35.4	35.1	35.5
S17PR-499	37.4	38.0	37.5	37.1	37.1	37.5
SA17-5569	36.6	37.6	36.3	37.5	36.9	34.6
SA17-8882	36.5	36.2	36.3	37.2	36.8	35.9

UNIFORM TEST IV TRAITED MATERIAL, 2020

OIL (%)

Strain	Mean 5 Tests	Flora IL	Romney IN	West Lafayette IN	Columbia MO	Portageville Loam MO
LD06-7620 (IV)	18.5	19.1	18.2	18.4	18.8	17.8
LD07-3395bf (SCN) (E)	20.3	20.9	20.5	20.0	20.4	19.5
AG38X8	18.8	19.8	18.7	17.8	18.3	19.6
AG41X8 (L)	18.6	19.3	18.0	17.3	18.3	19.9
CR16-0011	18.9	19.1	19.0	18.6	19.4	18.6
CR16-0016	19.6	20.0	19.8	19.0	20.2	19.2
CR16-0037	19.1	19.6	19.0	18.4	19.9	18.9
CR16-0106	19.3	19.8	19.3	18.7	20.0	18.7
CR16-0110	18.7	18.9	18.5	18.0	18.9	19.1
CR16-0112	18.5	18.5	18.6	18.2	18.5	18.9
CR16-0113	19.3	19.7	19.0	18.9	19.8	19.2
CR16-0116	18.6	18.9	18.2	17.9	18.7	19.4
CR16-0124	18.5	19.0	18.7	18.1	18.8	18.1
CR16-0125	18.2	18.7	18.0	17.5	18.2	18.5
CR16-1398	18.8	18.7	18.8	18.5	18.9	19.0
CR17-0824	18.0	18.0	18.2	17.4	18.4	18.0
CR17-3001	18.9	19.2	18.9	18.5	19.9	17.9
LD17-12352	19.3	19.5	19.0	18.5	19.6	19.9
LD18-12659	19.3	19.8	19.2	18.8	19.2	19.6
LD18-12663	19.1	19.0	19.2	18.9	18.8	19.6
LD18-12674	19.3	19.8	19.0	19.0	19.1	19.5
LD18-14537	20.4	20.7	20.4	19.5	20.5	21.0
S17-20605C	19.0	20.0	18.8	18.1	19.0	19.2
S17PR-499	17.8	18.3	17.3	16.6	17.9	18.8
SA17-5569	19.2	19.4	18.7	18.0	18.8	20.9
SA17-8882	19.0	19.6	18.8	18.1	18.9	19.5

UNIFORM TEST IV TRAITED MATERIAL, 2020

REGIONAL SUMMARY - SEED COMPOSITION (FATTY ACID)

No. of Tests Strain	Palmitic 6 %	Stearic 6 %	Oleic 6 %	Linoleic 6 %	Linolenic 6 %
LD06-7620 (IV)	11.2	4.1	22.2	54.6	7.8
LD07-3395bf (SCN) (E)	10.6	3.6	22.5	55.4	7.9
LD17-12352	6.9	2.9	82.2	5.3	2.6
LD18-12659	6.4	2.9	85.4	3.3	2.0
LD18-12663	6.5	2.9	85.1	3.4	2.1
LD18-12674	6.6	2.9	84.9	3.5	2.1
LD18-14537	7.0	3.2	80.9	6.5	2.4
S17-20605C	7.3	2.9	78.4	5.4	6.0
S17PR-499	8.0	3.0	78.4	8.5	2.2
SA17-5569	8.0	3.8	78.1	8.5	1.7
SA17-8882	7.8	3.4	79.6	6.8	2.4
Mean	7.8	3.2	70.7	14.7	3.6

UNIFORM TEST IV TRAITED MATERIAL, 2020

FATTY ACID, PALMITIC (%)

Strain	Mean 6 Tests	Flora IL	Romney IN	West Lafayette IN	Columbia MO	Portageville	
						Clay MO	Loam MO
LD06-7620 (IV)	11.2	11.2	10.8	11.2	11.2	11.2	11.7
LD07-3395bf (SCN) (E)	10.6	11.1	10.3	10.6	10.5	10.3	10.8
LD17-12352	6.9	6.5	7.1	7.1	7.1	7.1	6.7
LD18-12659	6.4	6.5	6.3	6.5	6.5	6.4	6.4
LD18-12663	6.5	6.5	6.4	6.5	6.7	6.5	6.4
LD18-12674	6.6	6.7	6.9	6.7	6.8	6.3	6.1
LD18-14537	7.0	6.8	7.9	6.8	6.9	7.0	6.6
S17-20605C	7.3	7.1	7.3	7.2	7.5	7.1	7.3
S17PR-499	8.0	7.8	7.8	8.3	8.1	8.3	7.6
SA17-5569	8.0	8.1	7.7	8.2	8.3	7.7	7.8
SA17-8882	7.8	8.2	7.5	7.9	7.6	7.9	7.6

UNIFORM TEST IV TRAITED MATERIAL, 2020

FATTY ACID, STEARIC (%)

Strain	Mean 6 Tests	Flora IL	Romney IN	West Lafayette IN	Columbia MO	Portageville	
						Clay MO	Loam MO
LD06-7620 (IV)	4.1	4.2	3.9	4.1	4.1	4.0	4.4
LD07-3395bf (SCN) (E)	3.6	3.9	3.7	3.4	3.8	3.4	3.6
LD17-12352	2.9	3.0	2.8	2.9	3.0	3.0	3.0
LD18-12659	2.9	3.0	2.7	2.6	3.2	2.7	2.9
LD18-12663	2.9	2.9	2.8	2.7	2.9	2.7	3.0
LD18-12674	2.9	3.2	2.8	2.9	3.1	2.7	3.1
LD18-14537	3.2	3.0	3.3	3.1	3.1	3.2	3.3
S17-20605C	2.9	3.2	2.9	2.8	3.0	2.8	2.6
S17PR-499	3.0	3.2	2.8	3.0	3.2	2.9	2.8
SA17-5569	3.8	4.0	4.0	3.9	4.0	3.5	3.6
SA17-8882	3.4	3.5	3.3	3.5	3.4	3.2	3.5

UNIFORM TEST IV TRAITED MATERIAL, 2020

FATTY ACID, OLEIC (%)

Strain	Mean 6 Tests	Flora IL	Romney IN	West Lafayette IN	Columbia MO	Portageville	
						Clay MO	Loam MO
LD06-7620 (IV)	22.2	24.1	22.9	20.6	21.8	23.1	20.6
LD07-3395bf (SCN) (E)	22.5	23.3	22.8	20.8	23.4	21.4	23.2
LD17-12352	82.2	82.7	83.3	81.4	81.6	81.8	82.5
LD18-12659	85.4	85.4	86.2	85.7	83.8	85.4	85.6
LD18-12663	85.1	85.5	84.9	84.5	84.3	86.1	85.2
LD18-12674	84.9	84.9	83.9	84.8	83.7	85.7	86.2
LD18-14537	80.9	85.0	63.5	83.1	84.4	84.3	85.1
S17-20605C	78.4	80.8	77.1	75.6	76.4	80.6	79.7
S17PR-499	78.4	79.0	79.8	75.0	75.2	78.8	82.6
SA17-5569	78.1	79.2	79.3	75.7	74.9	80.3	79.0
SA17-8882	79.6	80.4	80.3	76.8	78.9	79.4	81.4

UNIFORM TEST IV TRAITED MATERIAL, 2020

FATTY ACID, LINOLEIC (%)

Strain	Mean 6 Tests	Flora IL	Romney IN	West Lafayette IN	Columbia MO	Portageville	
						Clay MO	Loam MO
LD06-7620 (IV)	54.6	53.4	54.2	55.7	54.6	54.2	55.5
LD07-3395bf (SCN) (E)	55.4	53.9	54.8	56.8	54.3	57.1	55.5
LD17-12352	5.3	5.2	4.3	5.9	5.7	5.6	5.3
LD18-12659	3.3	3.1	2.9	3.2	4.1	3.4	3.1
LD18-12663	3.4	3.0	3.7	4.1	3.8	2.7	3.3
LD18-12674	3.5	3.1	4.1	3.5	4.1	3.2	2.7
LD18-14537	6.5	3.1	21.5	4.6	3.5	3.4	2.9
S17-20605C	5.4	3.8	6.4	7.4	6.2	4.1	4.6
S17PR-499	8.5	7.8	7.5	11.4	11.2	7.7	5.1
SA17-5569	8.5	7.1	7.4	10.8	11.3	7.0	7.2
SA17-8882	6.8	5.6	6.5	9.1	7.7	7.0	5.1

UNIFORM TEST IV TRAITED MATERIAL, 2020

FATTY ACID, LINOLENIC (%)

Strain	Mean 6 Tests	Flora IL	Romney IN	West Lafayette IN	Columbia MO	Portageville	
						Clay MO	Loam MO
LD06-7620 (IV)	7.8	7.1	8.2	8.3	8.2	7.5	7.7
LD07-3395bf (SCN) (E)	7.9	7.8	8.3	8.4	8.0	7.9	6.8
LD17-12352	2.6	2.6	2.4	2.7	2.6	2.6	2.5
LD18-12659	2.0	2.0	1.9	2.0	2.3	2.1	2.0
LD18-12663	2.1	2.1	2.2	2.2	2.2	1.9	2.0
LD18-12674	2.1	2.1	2.3	2.1	2.3	2.0	1.9
LD18-14537	2.4	2.1	3.8	2.4	2.2	2.1	2.0
S17-20605C	6.0	5.1	6.2	6.9	6.8	5.4	5.8
S17PR-499	2.2	2.1	2.1	2.3	2.3	2.2	1.9
SA17-5569	1.7	1.6	1.6	1.4	1.4	1.5	2.5
SA17-8882	2.4	2.3	2.3	2.7	2.4	2.4	2.3

UNIFORM TEST IV TRAITED MATERIAL, 2020

REGIONAL SUMMARY - SEED COMPOSITION (SUGAR)

No. of Tests Strain	Sucrose 6 %	Raffinose 6 %	Stachyose 6 %	Total Sugar 6 %
LD06-7620 (IV)	2.7	0.7	3.1	6.6
LD07-3395bf (SCN) (E)	2.6	0.6	3.6	6.8
CR16-0011	3.7	0.6	1.7	6.0
CR16-0016	4.3	0.8	1.1	6.1
CR16-0037	3.2	0.6	1.5	5.3
CR16-0106	4.2	0.6	1.8	6.6
CR16-0110	3.7	0.5	1.4	5.7
CR16-0112	2.9	0.5	1.9	5.4
CR16-0113	3.4	0.6	1.3	5.3
CR16-0116	4.1	0.5	1.5	6.1
CR16-0124	2.6	0.6	3.2	6.4
CR16-0125	3.7	0.6	1.5	5.8
CR16-1398	2.5	0.5	2.9	5.9
CR17-0824	2.7	0.6	3.0	6.2
CR17-3001	2.4	0.6	3.0	6.1
Mean	3.2	0.6	2.2	6.0

UNIFORM TEST IV TRAITED MATERIAL, 2020

SEED SUGAR, SUCROSE (%)

Strain	Mean 6 Tests	Flora IL	Romney IN	West Lafayette IN	Columbia MO	Portageville	
						Clay MO	Loam MO
LD06-7620 (IV)	2.7	2.9	2.8	2.9	2.7	2.8	2.3
LD07-3395bf (SCN) (E)	2.6	3.0	2.9	3.5	2.2	1.9	2.2
CR16-0011	3.7	3.9	4.0	4.5	3.8	3.3	2.8
CR16-0016	4.3	4.4	4.6	5.1	4.0	4.4	3.0
CR16-0037	3.2	3.5	3.9	3.3	3.6	2.7	2.2
CR16-0106	4.2	4.0	4.2	4.7	6.2	3.7	2.3
CR16-0110	3.7	3.0	4.5	4.3	4.2	4.0	2.3
CR16-0112	2.9	2.3	3.2	3.7	3.0	3.4	2.1
CR16-0113	3.4	4.0	3.4	4.0	3.9	3.0	2.1
CR16-0116	4.1	3.5	5.4	4.7	3.6	4.5	2.7
CR16-0124	2.6	2.2	3.0	3.1	2.9	3.1	1.5
CR16-0125	3.7	3.1	4.3	5.1	4.2	3.4	2.3
CR16-1398	2.5	2.1	3.1	3.0	2.5	2.6	1.5
CR17-0824	2.7	2.3	3.3	3.2	3.1	3.0	1.1
CR17-3001	2.4	2.3	2.7	2.5	2.2	2.7	1.9

UNIFORM TEST IV TRAITED MATERIAL, 2020

SEED SUGAR, RAFFINOSE (%)

Strain	Mean 6 Tests	Flora IL	Romney IN	West Lafayette IN	Columbia MO	Portageville	
						Clay MO	Loam MO
LD06-7620 (IV)	0.7	0.9	0.7	0.6	0.7	0.8	0.7
LD07-3395bf (SCN) (E)	0.6	0.9	0.7	0.7	0.5	0.5	0.7
CR16-0011	0.6	0.7	0.5	0.5	0.6	0.6	0.6
CR16-0016	0.8	0.9	0.7	0.8	0.7	0.7	0.8
CR16-0037	0.6	0.7	0.6	0.5	0.6	0.4	0.6
CR16-0106	0.6	0.7	0.6	0.7	0.6	0.6	0.5
CR16-0110	0.5	0.5	0.6	0.5	0.6	0.5	0.5
CR16-0112	0.5	0.5	0.6	0.6	0.2	0.6	0.5
CR16-0113	0.6	0.7	0.5	0.6	0.6	0.4	0.5
CR16-0116	0.5	0.6	0.6	0.6	0.4	0.6	0.4
CR16-0124	0.6	0.6	0.6	0.5	0.6	0.7	0.5
CR16-0125	0.6	0.6	0.6	0.7	0.7	0.5	0.5
CR16-1398	0.5	0.5	0.6	0.5	0.5	0.5	0.6
CR17-0824	0.6	0.6	0.6	0.5	0.6	0.8	0.4
CR17-3001	0.6	0.7	0.7	0.5	0.5	0.7	0.7

UNIFORM TEST IV TRAITED MATERIAL, 2020

SEED SUGAR, STACHYOSE (%)

Strain	Mean 6 Tests	Flora IL	Romney IN	West Lafayette IN	Columbia MO	Portageville	
						Clay MO	Loam MO
LD06-7620 (IV)	3.1	3.3	2.7	2.7	3.0	3.2	3.7
LD07-3395bf (SCN) (E)	3.6	4.3	3.3	4.1	2.9	2.6	4.2
CR16-0011	1.7	1.8	1.4	1.6	1.4	1.5	2.5
CR16-0016	1.1	1.0	1.2	1.1	0.9	1.1	1.4
CR16-0037	1.5	1.8	1.5	1.2	1.4	1.3	1.9
CR16-0106	1.8	2.4	2.0	1.8	1.5	1.4	1.7
CR16-0110	1.4	1.4	1.5	1.2	1.4	1.4	1.8
CR16-0112	1.9	1.9	2.0	1.8	1.7	2.1	2.0
CR16-0113	1.3	1.7	1.1	1.3	1.3	1.3	1.6
CR16-0116	1.5	1.4	1.5	1.4	1.1	1.5	1.8
CR16-0124	3.2	3.0	3.2	3.2	3.6	3.4	2.7
CR16-0125	1.5	1.3	1.2	1.5	1.5	1.3	2.1
CR16-1398	2.9	2.8	2.9	3.1	2.8	2.9	2.8
CR17-0824	3.0	3.1	3.1	2.8	3.4	3.5	2.0
CR17-3001	3.0	3.5	2.9	2.6	2.8	3.2	3.2

UNIFORM TEST IV TRAITED MATERIAL, 2020

SEED SUGAR, TOTAL (%)

Strain	Mean 6 Tests	Flora IL	Romney IN	West Lafayette IN	Columbia MO	Portageville	
						Clay MO	Loam MO
LD06-7620 (IV)	6.6	7.1	6.2	6.2	6.4	6.8	6.7
LD07-3395bf (SCN) (E)	6.8	8.1	6.9	8.3	5.6	5.0	7.0
CR16-0011	6.0	6.5	5.9	6.6	5.7	5.5	5.9
CR16-0016	6.1	6.3	6.5	6.9	5.5	6.2	5.2
CR16-0037	5.3	6.0	6.0	5.0	5.6	4.4	4.7
CR16-0106	6.6	7.1	6.7	7.1	8.2	5.7	4.5
CR16-0110	5.7	4.9	6.5	6.1	6.1	5.9	4.5
CR16-0112	5.4	4.7	5.8	6.1	4.9	6.2	4.5
CR16-0113	5.3	6.4	4.9	5.9	5.8	4.7	4.1
CR16-0116	6.1	5.5	7.5	6.7	5.1	6.7	5.0
CR16-0124	6.4	5.7	6.8	6.8	7.0	7.2	4.7
CR16-0125	5.8	5.1	6.1	7.3	6.5	5.3	4.9
CR16-1398	5.9	5.3	6.7	6.5	5.7	6.0	4.9
CR17-0824	6.2	6.0	7.0	6.4	7.1	7.3	3.6
CR17-3001	6.1	6.6	6.4	5.6	5.6	6.7	5.8

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