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Extension

2020 Michigan Soybean Performance Report

Harvesting Lenawee County Research Plot

Putting Your Checkoff To Work



The Soybean Checkoff
michigansoybean.org

The *2020 Michigan Soybean Performance Report* is a result of a cooperative effort of Michigan State University, Michigan State University Extension and the Michigan Soybean Committee. This information will help you to make informed critical choices for your 2021 soybean crop. Publication and distribution of this report is provided by checkoff funds through the Michigan Soybean Committee. This data can be accessed electronically at www.varietytrials.msu.edu/soybean and in a searchable database at www.soybeanyielddata.msu.edu.

2020 MICHIGAN SOYBEAN PERFORMANCE REPORT

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This report provides information on the performance of Conventional, Liberty Link, and Roundup Ready soybean varieties in Michigan in 2020.

The presentation of data for the entries tested does not suggest approval or endorsement of varieties by Michigan State University.

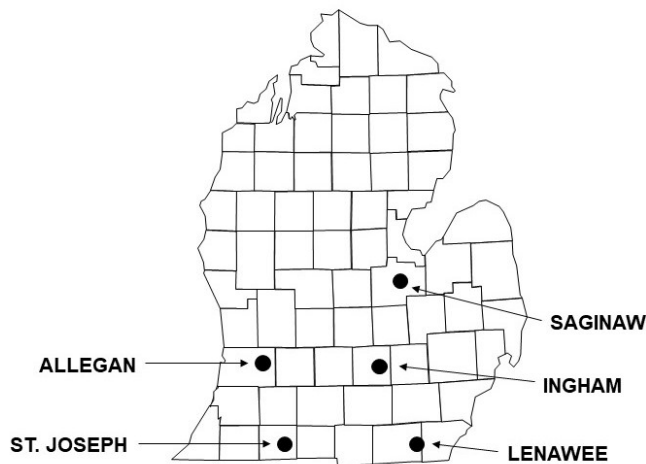
TESTING PROCEDURES

Six trials are reported here. The Central locations for the Conventional and Roundup Ready trials include test sites in Allegan, Ingham and Saginaw Counties. The Southern locations for the Conventional and Roundup Ready trials include test sites in Ingham, Lenawee, and St. Joseph (irrigated) Counties.

Nineteen seed companies entered a total of 196 commercial varieties, not including the experimental MSU lines. The cooperators, planting dates, harvest dates, and other site details for the locations are listed below.

Seed was planted in 6-row plots, 20 feet long with 15-inch row spacing, at a depth of 1.5-inches. The planting rate was 160,000 seeds/acre. At each location, varieties were replicated four times in a Randomized Complete Block Design (RCBD). All locations were planted to 17 feet with 3 foot alleys that were not trimmed. Only the center four rows were harvested. Experimental design, data management, and data analysis were conducted with AGROBASE Generation II, (Agronomix Software, Inc., Winnipeg, Canada).

2020 TEST SITE COUNTY LOCATIONS



TEST SITE INFORMATION

Lenawee County

Nearest city: Britton
Cooperator: David & Jason Woods
Planting date: 6-2-2020
Harvest date: 10-14-2020
Previous crop: Corn
Soil type: Clay Loam
Fertilizer: 250#/A K2O
Herbicides: Pre-emerge 12 oz. Authority MTZ, 1.5 pt. /A Medal II- Roundup PowerMax 32 oz. over the entire field.
Conventional & Liberty Link Trials- 1 qt. Basagran, 5 oz. /A Raptor
Roundup Ready Trials – 32 oz. /A Roundup PowerMax

Hillsdale County

Nearest city: Reading
Cooperator: Robert Lennard
Planting date: We were unable to plant this location, due to COVID-19 restrictions.

St. Joseph County - Irrigated

Nearest city: Mendon
Cooperator: Roger and Anne Gentz and Family
Planting date: 5-26-2020
Harvest date: 10-15-2020
Previous crop: Commercial Corn
Soil type: Oshtemo
Fertilizer: 200+#/A 0-0-60
Herbicides: Pre-emerge 12 oz. Authority MTZ, 1.5 pt. /A Medal II Roundup PowerMax 32 oz. over the whole field
Conventional & Liberty Link Trials- 1 qt. Basagran, 5 oz. /A Raptor
Roundup Ready Trials – 32 oz. /A Roundup PowerMax

Ingham County

Nearest city: Williamston
Cooperator: Cremer Farms
Planting date: 6-4-2020 conventional trials and 6-5-2020 for the Roundup trials
Harvest date: 11-2-2020 conventional trials and 11-3-2020 Roundup trials
Previous crop: Corn
Soil type: Sandy Loam Capac
Fertilizer: Grid Potash/ MAP
Herbicides: Pre-emerge Authority MTZ 16 oz. /A, 1.5 pt. /A Medal II 32 oz. Roundup PowerMax
Conventional & Liberty Link Trials- 1 qt. Basagran, 5 oz. /A Raptor 5 oz. /A Assure II over entire field
Roundup Ready Trials – 32 oz. /A Roundup PowerMax

Allegan County

Nearest city: Wayland
Cooperator: Jim Wykoski
Planting date: 5-13-2020
Harvest Date: 10-7-2020
Previous Crop: Corn
Soil Type: Colwood Silt Loam
Fertilizer: 200#/A Potash
Herbicides: Pre-emerge 16 oz. Authority MTZ, 1.5 pt. /A Medal II- over the entire field 32 oz. Roundup PowerMax Conventional & Liberty Link Trials- 1 qt. Basagran, 5 oz./A Raptor, First Rate
Roundup Ready Trials – 2 applications of 32 oz. /A Roundup PowerMax
1 application 5 oz. /A Assure II

Saginaw County

Nearest city: Saginaw
Cooperator: Tom Hoff
Planting date: 5-24-2020
Harvest date: 10-10-20
Previous crop: Corn
Soil type: Clay Loam
Fertilizer: 200#/A Potash
Herbicides: Pre-emerge 12 oz. Authority MTZ, 1.5 pt. /A Medal II- over the entire field 32 oz. Roundup PowerMax Conventional & Liberty Link Trials- 1 qt. Basagran, 5 oz. /A Raptor
Roundup Ready Trials – 32 oz. /A Roundup PowerMax 5 oz. /A Assure II

Sanilac County

Nearest city: Sandusky
Cooperator: Gerstenberger Farms, Inc.
Planting date: We were unable to plant this location, due to COVID-19 restrictions.

GROWING CONDITIONS / COMMENTS

There were some heavy rain showers during the planting season, but otherwise planting was normal. The St. Joseph county site had a heavy rain immediately after planting causing very low stand counts and high variation, so the data from these trials will not be published. The COVID-19 pandemic caused restrictions to research and travel, so the Sanilac and Hillsdale sites were not planted. Most of Michigan was dry during the early growing season and White Mold as well as most diseases were not a factor. The Allegan location was dry and spider mites came to the west side of the field causing irregular growth and some trials to be thrown out. Excessive rain in August caused plants to grow tall and caused more lodging in some areas. Early October was favorable for harvest. After 2 weeks of rainy weather, early November set record warm temperatures for the remainder of the harvest season. Overall yields were good in most areas.

USING THE DATA

Results are presented in Tables 1 through 6.

Yield: Yield is expressed as bushels per acre at 13% moisture and is reported as single and across site means for 2020. Two and three year means are also presented when applicable.

Height: Plant height, reported in inches, was measured at maturity from the soil surface to the tip of the main stem. The reported values are means of 4 reps at all sites.

Lodging: Lodging scores reflect the erectness of the plants before harvest. The reported values are means of 4 reps at all sites. Ratings are based on the following scale:

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

Phytophthora Resistance: Information on the presence of Phytophthora resistance genes was provided by the organizations entering varieties. Varieties denoted with:

- 1a are resistant to phytophthora Races 1, 2, 10, 11, 13-20, 24, 26 & 27.
- 1b are resistant to Races 1, 3-9, 13, 15, 18, 21, & 22.
- 1c are resistant to Races 1-3, 6-11, 13-15, 17, 21, 23, 24 & 26.
- 1k are resistant to Races 1-11, 13-15, 17, 18, 20-24 & 26.
- 3 are resistant to Races 1-5, 8 and 9.
- 6 are resistant to Races 1-4, 10, 12, 14-16, 18-21 & 25.
- 7 are resistant to Races 12, 16, 18 & 19.

Soybean Cyst Nematode Resistance (SCN): Seed companies that screen varieties for SCN resistance have indicated if the variety has known susceptibility or resistance

- R – Resistant
- MR – Moderately Resistant
- S – Susceptible
- MS – Moderately Susceptible

These notations followed by a number indicate the identified cyst nematode race. The source of resistance was mostly PI88788 with some Peking and PI89722. Sources are found in parenthesis after the variety name in the variety list table.

SELECTING A VARIETY

LSD (least significant difference, found at the bottom of each data column) values are useful when comparing two varieties in the same table. If the difference between two varieties is less than the LSD value, this difference is

probably due to chance or minor environmental differences. However, if the difference between two varieties is greater than the LSD, there is a 95% or greater probability that the difference in performance is due to the greater yield potential of one variety. Valid comparisons can only be made between averages in the same column. The C.V. (coefficient of variation, found at the bottom of each data column) is indicative of the trial precision. Lower C.V. values indicate more precise trials.

The primary consideration in selecting a variety is yield. When evaluating a variety, consider yield performance over locations and across several years, if available. Considerations other than yield are also important in selecting a variety. It is especially important to select a variety that will mature before the first frost in the fall.

The degree of lodging varies among varieties. Lodging ratings should be used to evaluate potential harvest losses. Growers who have experienced lodging in the past and have had harvest problems may want to select a more lodging-resistant variety. Alternatively, a variety susceptible to lodging may be planted at a slightly lower population to increase standability.

Growers should note seed size when selecting planting rates. Planting rates should be based on number of seeds per acre and not on pounds per acre. It often benefits growers to select a few good varieties for planting each year. Yield determination and careful field evaluation during the growing season will add to the grower's knowledge of variety performance and allow for better selection.

HERBICIDE column in chart (HERB)

Conv=conventional

LL=Liberty Link

RR1=Roundup Ready

RR2X=Roundup Ready 2 Extend

E3=Enlist E3

GT27=Glyphosate Tolerant

LLGT27=Liberty Link and Glyphosate Tolerant

Treated soybean seed submitted for Michigan State University's Soybean Performance Trials are noted by abbreviation in the 'TMT' column. Questions concerning treatments should be directed to the seed company. Contact information can be found in the 'Directory of Companies'.

Code	Treatment
• ACL	Accelaron
• Agr F/I	Agrishield Fungicide/Insecticide
• ALL	Allegiance
• AM	Apron Maxx (Maxim)
• AM-C	Apron Maxx & Cruiser
• Clar	Clariva
• CM	Cruiser Maxx
• Ecl-US-Q	EclipseUS quad IM
• EG	EverGoEnergy
• ENC	Encase
• ESC	Escalate
• G	Gaicho
• I	ILeVO (BayerCropScience)
• Lum	Lumisena
• N	NForce
• N-H	Inhibit
• O	Optimize
• P	Poncho
• PA	PA2030
• SmartCote S	SmartCote Supreme
• SS	SureStand
• Vib	Vibrance
• V	Votivo

**Comparing Soybean Varieties
Has Never Been Easier!**

Soybeanyielddata.msu.edu

- ✓ Sort by location
- ✓ Compare specific brands
- ✓ Select by resistance traits
- ✓ Limit the range of maturities
- ✓ View only the top varieties
- ✓ Use the statistical data for validity

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2020 DIRECTORY OF COMPANIES

<u>BRAND</u>	<u>COMPANY NAME AND ADDRESS</u>	<u>BRAND</u>	<u>COMPANY NAME AND ADDRESS</u>
AG AMOUR	AG Armour Seeds Inc 8236 N. Williams Rd St. Johns, MI 48879 www.ag.armourseeds.com	LOCAL SEED	Local Seed Company 802 Rozelle Street Memphis, TN 38104 www.localseed.com
AGRA	AGRA Solutions, LLC 23778 Jennings Delphos Rd Delphos, OH 45833 www.agrasolutions.com	M&W SEEDS	M&W Seeds 8443 Wilcox Rd Eaton Rapids, MI 48827 www.mwseeds.com
LG SEEDS	AgRelaint Genetics, LLC 1122 E 169th St Westfield, IN 46074 www.lgseeds.com	MCIA	Michigan Crop Improvement Assn. 2905 Jolly Rd. Okemos, MI 48864 www.michcrop.com
CREDENZ	Credenz-BASF 2 TW Alexander Drive Research Triangle Park, NC 27709 agriculture.basf.us/crop-protection/products/credenz.html	NK SEED	NK Seeds 2001 Butterfield Rd, Suite 1600 Downers Grove, IL 60515 www.syngenta-us.com/seeds/nk
DAIRYLAND	Dairyland Seed P.O BOX 958 West Bend, IN 53095 www.dairylandseed.com	RENK SEED	Renk Seed 6809 Wilburn Rd Sun Prairie, WI 53590 www.renkseed.com
DF SEEDS	DF Seeds, LLC P.O BOX 159 Dansville, MI 48819 www.dfseeds.com	RUPP SEEDS	Rupp Seeds, Inc. 17919 Co. Rd B Wauseon, OH 43567 www.ruppseeds.com
DYNA-GRO	Dyna-Gro Seed, Nutrien Ag Solutions 4648 S Garfield Rd Auburn, MI 48611 www.dynagroseed.com	SPECIALTY HYBRIDS	Specialty Hybrids 306 N. Main Street Monticello, IN 47960 www.specialtyhybrids.com
GARNER FARMS	Garner Farms, LLC 2376 S. Garner Rd Vassar, MI 48768	WELLMAN SEEDS	Wellman Seeds, Inc. Jennings Delphos Rd Delphos, OH 45833 www.wellmanseeds.com
GROWMARK	Growmark, Inc. 1701 Towanda Ave Bloomington, IL 61701 www.fsseeds.com	XITAVO	Xitavo 103 Avenue D West Point, IA 52656 www.xitavosoybeanseed.com
GOLDEN HARVEST	Golden Harvest 2001 Butterfield Rd-Suite1600 Downers Grove, IL 60515 www.goldenharvestseeds.com	ZEELAND FARM SERVICE	Zeeland Farm Services 2525 84th Ave Zeeland , MI 49464 www.zfsinc.com

TABLE 1. 2020 MICHIGAN CENTRAL CONVENTIONAL SOYBEAN VARIETY TRIAL REPORT

YIELD (BU/AC)

BRAND	VARIETY	Maturity Group	Herb Tech	TMT'	Phyto Res	SCN	Aphid Res	YIELD (BU/AC)			Height	Lodging	Protein	Oil	
								2020 AVG	19-20 AVG	18-20 AVG					
Ag Armour	AA 1914 N	1.9	Conv	AA ELITE	R	R	R	50.4	55.6	52.0	48.7	37	2.6	39.0	21.5
Ag Armour	AA 2214 N	2.2	Conv	AA ELITE	1a	R	R	59.1	61.2	59.7	58.4	40	1.9	39.6	19.5
DF Seeds	DF 151 N	1.5	Conv	DFender-N-I	1k	R	R	60.4		66.4	54.4	37	1.6	38.7	21.0
DF Seeds	DF 155 F	2.5	Conv	DFender-N-I	1k	R	R	55.9	60.2	59.7	52.0	41	2.0	41.8	20.4
DF Seeds	DF 187 N	1.8	Conv	DFender-N-I	R	R	R	56.2	59.4	59.2	52.4	36	1.8	41.1	19.7
DF Seeds	DF 201 N	2.0	Conv	DFender-N-I	R	R	R	54.6		58.2	51.0	35	1.4	37.1	21.5
DF Seeds	DF 210 N	2.1	Conv	DFender-N-I	1k	R	R	55.7	61.3	56.8	54.5	37	1.4	37.2	21.5
DF Seeds	DF 227 N	2.2	Conv	DFender-N-I	1a	R	R	60.2	61.9	62.4	57.9	39	1.9	38.9	20.0
DF Seeds	DF 231 N	2.3	Conv	DFender-N-I	R	R	R	56.0		53.9	58.0	37	1.1	38.3	21.0
DF Seeds	DF 260 N	2.6	Conv	DFender-N-I	1k	R	R	62.8	66.0	65.5	60.0	38	1.8	37.4	21.7
Dyna-Gro	S2207N	2.2	Conv	Eq plus Saitro	1a, 3a	MR	R	59.8	61.9	61.6	58.0	39	1.5	40.2	19.6
Dyna-Gro	S2409N	2.4	Conv	Eq plus Saitro	R	R	R	*63.0	65.6	*67.4	58.5	36	1.5	39.8	20.3
Garner Farms	Denmark Diamond	2.2	Conv	CM and Marauder	R	R	R	60.1		60.3	59.9	38	1.6	38.7	20.5
LG Seeds	C2300	2.3	Conv	AgriShield Max w/Saitro	1a	R	R	58.9	60.9	59.1	58.6	42	1.5	40.3	19.2
LG Seeds	LGS1684	1.6	Conv	AgriShield Max w/Saitro	1k	R	R	59.2		58.7	59.7	37	1.5	38.7	21.3
LG Seeds	LGS2010	2.0	Conv	AgriShield Max w/Saitro	1a	R	R	57.0	58.9	54.2	56.7	37	1.4	38.0	21.1
MCIA	MCIA 2212LL	2.2	LL	CM	R	R	R	57.3	58.2	59.2	55.3	37	1.5	40.3	21.0
MSU	E07158-T	2.3	Conv	DFender-N-I				37.6		37.6	43.5	39	2.0	45.2	19.5
MSU	E11128T	2.5	Conv	DFender-N-I	R	R	R	52.8		51.4	54.2	40	1.8	43.9	18.9
MSU	E12076T	2.9	Conv	DFender-N-I	R	R	R	56.1	62.0	53.1	59.0	41	1.6	38.6	20.3
MSU	E12076T-03	2.2	Conv	DFender-N-I	R	R	R	56.6	63.3	56.4	56.7	38	2.0	38.2	20.6
MSU	E13268	1.7	Conv	DFender-N-I	1c			59.2	60.7	61.8	56.6	37	2.1	38.4	21.5
MSU	E14077	2.4	Conv	DFender-N-I	1k	R	R	60.7	63.1	66.3	58.5	41	1.8	39.5	20.8
MSU	E15079T	2.2	Conv	DFender-N-I				51.5		56.3	46.7	43	2.5	42.8	19.3
MSU	E15165T	2.0	Conv	DFender-N-I	1c			51.3		52.7	49.9	34	1.6	44.4	19.7
MSU	E15339	2.4	Conv	DFender-N-I	R	R	R	58.3	63.4	56.7	59.9	40	2.3	38.7	20.7
MSU	E15345	2.7	Conv	DFender-N-I	R	R	R	59.0	63.6	57.3	60.6	40	2.1	39.0	19.7
MSU	E15346T	1.6	Conv	DFender-N-I				60.4		60.0	60.8	39	1.6	39.1	20.8
MSU	E15349	1.6	Conv	DFender-N-I	1k			57.3		54.9	59.6	40	1.6	40.0	20.3
MSU	E15351	1.8	Conv	DFender-N-I	1c	R	R	60.7	62.4	64.6	61.2	40	2.0	38.1	20.8
MSU	E15901	2.5	Conv	DFender-N-I	1k	R	R	57.8	59.0	55.7	59.8	38	1.5	39.4	19.6
MSU	E16266	2.6	Conv	DFender-N-I	1k	R	R	54.8	58.8	48.7	60.9	40	1.3	39.5	20.5
MSU	E16380	2.8	Conv	DFender-N-I	1k	R	R	58.9	63.7	59.2	58.6	37	1.1	37.3	20.6
MSU	E16387	2.6	Conv	DFender-N-I	1k	R	R	56.6	61.4	65.6	60.2	39	1.5	38.2	19.9
MSU	E16410	2.8	Conv	DFender-N-I	3c	R	R	59.6	63.0	66.2	59.6	39	1.3	38.5	20.9
MSU	E17054	2.6	Conv	DFender-N-I	1c	R	R	55.8	62.0	58.6	52.9	39	1.4	39.2	19.9
MSU	E17181T	2.0	Conv	DFender-N-I				53.4		52.2	54.6	35	1.4	41.4	20.3
MSU	E17203	2.4	Conv	DFender-N-I	R	R	R	59.8	64.8	59.7	59.8	39	1.8	39.3	20.3
MSU	E17275	2.2	Conv	DFender-N-I	1k	R	R	55.5	61.8	53.6	57.4	39	2.9	38.6	20.0
MSU	E17283	2.7	Conv	DFender-N-I	1k	R	R	55.3	61.1	53.3	57.2	38	1.4	40.1	19.7
MSU	E17506T	2.2	Conv	DFender-N-I				52.8	56.3	53.5	52.1	40	1.5	40.4	20.2
MSU	E17808-01	2.0	Conv	DFender-N-I	1c	R	R	46.0	49.2	45.4	46.5	38	1.6	40.9	20.9
MSU	E18012	2.2	Conv	DFender-N-I				53.6		55.7	51.4	36	1.3	39.2	20.3
MSU	E18015	2.6	Conv	DFender-N-I	R	R	R	56.8		53.2	60.4	39	2.4	41.0	19.4
MSU	E18024T	2.7	Conv	DFender-N-I	R	R	R	55.0		54.3	55.6	38	1.8	42.0	18.9
MSU	E18073	2.2	Conv	DFender-N-I	R	R	R	57.6		61.7	53.4	45	1.5	40.8	20.6
MSU	E18074	1.9	Conv	DFender-N-I				47.3		52.1	42.4	40	1.5	37.2	20.9
MSU	E18433	2.3	Conv	DFender-N-I	R	R	R	56.6		58	55.1	40	2.8	38.7	21.0

TABLE 1. 2020 MICHIGAN CENTRAL CONVENTIONAL SOYBEAN VARIETY TRIAL REPORT

YIELD (BU/AC)

BRAND	VARIETY	Maturity Group	Herb Tech	TMT ¹	Phyto Res	SCN	Aphid Res	18-20		Saginaw	Height	Lodging	Protein	Oil
								2020 AVG	19-20 AVG					
MSU	E18450	2.5	Conv	DFender-N-I		R		60.8	58.4	*63.2	44	2.5	38.5	20.3
MSU	E18580	2.1	Conv	DFender-N-I		R		52.8	54.2	51.4	37	2.1	38.5	21.0
MSU	E18610T	2.5	Conv	DFender-N-I		R		55.4	51.4	59.4	38	2.5	41.9	19.2
MSU	E18638T	2.0	Conv	DFender-N-I		R		55.0	54	55.9	40	1.5	41.1	19.7
Zeeland Farm Services	ZFS 1326	2.6	Conv	Ecl-US-Q, N,		R		59.6	59	60.2	41	2.4	40.3	20.0
Zeeland Farm Services	ZFS 1721	1.7	Conv	Untreated		R		57.2	57.5	56.8	34	1.5	40.5	20.8
Zeeland Farm Services	ZFS 1821	2.1	Conv	Ecl-US-Q, N,	1k	R		55.5	56.9	54.0	38	1.0	39.4	19.9
Zeeland Farm Services	ZFS 24019HO	2.4	Conv	Ecl-US-Q, N,		R		53.9	56.5	51.3	40	1.0	43.3	20.5
Zeeland Farm Services	ZFS 2521HO	2.5	Conv	Untreated		R		57.8	58.9	56.6	37	1.3	41.7	20.1
Zeeland Farm Services	ZFS 2819HO	2.8	Conv	Ecl-US-Q, N,		R		55.5	56.4	54.5	40	1.5	40.8	20.1
GRAND MEAN														
Max.								56.3	56.8	55.8	39	1.7	39.8	20.3
Min.								63.0	67.4	63.2	45	2.9	45.2	21.7
LSD (0.05)								40.6	37.6	42.4	34	1.0	37.1	18.9
CV (%)								5.9	7.4	7.7				
								8.1	7.8	8.3				

¹ Seed Treatment: See 'Seed Treatment' paragraph (under 'Using the Data') for product code

* High yield in plot

Top 1/3 of trial is Bold

Michigan State University varieties are experimental

TABLE 2. 2020 MICHIGAN SOUTH CONVENTIONAL SOYBEAN VARIETY TRIAL REPORT

YIELD (BU/AC)

2020 AVERAGE

BRAND	VARIETY	Maturity Group	Herb Tech	TMT ¹	Phyto RES	SCN	Aphid Res	19-20		18-20		Height	Lodging	Protein	Oil
								AVG	AVG	AVG	AVG				
DF Seeds	DF 155 F	2.5	Conv	DFender-N-I	1k			59.5	61.8	63.5	61.2	36	1.4	42.6	20.1
DF Seeds	DF 260 N	2.6	Conv	DFender-N-I	1k	R		*63.7	74.1		*65.6	34	1.9	38.5	21.4
DF Seeds	DF 317 N	3.1	Conv	DFender-N-I	1k	R		62.1	66.0	67.2	62.8	36	1.4	40.7	20.0
Dyna-Gro	S2409N	2.4	Conv	Eq plus Saitro	R	R		57.3	62.7	57.7	56.8	33	1.1	40.3	19.9
Dyna-Gro	S2908N	2.9	Conv	Eq plus Saitro	R	R		59.6	63.4	66.7	59.3	37	1.5	41.5	19.2
LG Seeds	C2300	2.3	Conv	AgriShield Max w/Saitro	1a	R		62.0	62.6	64.0	64.1	36	1.4	40.0	19.6
LG Seeds	LG52010	2.0	Conv	AgriShield Max w/Saitro	1a	R		52.9	59.4		59.1	33	1.0	37.8	21.2
LG Seeds	LG52801	2.8	Conv	AgriShield Max w/Saitro	1c	R		61.2		63.3	60.1	33	1.1	39.5	19.9
MSU	E12076T	2.9	Conv	DFender-N-I	R	R		53.7	59.9		52.3	38	1.5	38.6	20.1
MSU	E12076T-03	2.2	Conv	DFender-N-I	R	R		54.4	61.8		54.0	37	1.6	38.8	20.5
MSU	E13268	1.7	Conv	DFender-N-I	1c	R		56.0	61.3	63.3	55.1	33	1.5	39.2	21.3
MSU	E14077	2.4	Conv	DFender-N-I	1k	R		57.6	63.4	65.3	58.9	36	1.4	39.2	20.8
MSU	E15339	2.4	Conv	DFender-N-I	R	R		55.0	62.4	64.9	53.5	37	1.8	38.2	21.1
MSU	E15345	2.7	Conv	DFender-N-I	R	R		59.4	64.9	67.0	58.7	39	1.9	38.4	20.2
MSU	E15351	1.8	Conv	DFender-N-I	1c	R		54.7	64.0	66.6	55.6	39	1.6	39.1	20.5
MSU	E15901	2.5	Conv	DFender-N-I	1k	R		56.7	62.3		55.4	36	1.3	39.3	19.5
MSU	E16189	2.8	Conv	DFender-N-I	1c	R		55.1	62.8	64.7	60.5	41	1.4	40.3	19.1
MSU	E16266	2.6	Conv	DFender-N-I	1k	R		54.2	62.5	64.9	57.8	37	1.1	39.0	20.7
MSU	E16380	2.8	Conv	DFender-N-I	1k	R		57.9	63.2	65.1	56.8	36	1.0	38.0	20.4
MSU	E16915	2.7	Conv	DFender-N-I	R	R		62.0			63.3	36	1.4	40.0	19.4
MSU	E17004	2.6	Conv	DFender-N-I	1c	R		53.8	63.0		56.2	35	1.3	40.3	20.2
MSU	E17054	2.6	Conv	DFender-N-I	1c	R		54.8	63.4		54.1	35	1.4	39.9	19.6
MSU	E17062	2.7	Conv	DFender-N-I	R	R		56.9	63.9		51.5	38	1.9	40.7	19.8
MSU	E17069	3.0	Conv	DFender-N-I	R	R		52.6	61.0		49.6	42	2.4	42.2	18.7
MSU	E17167	2.3	Conv	DFender-N-I	1a,3a	R		55.7	64.2		55.0	40	1.4	40.6	20.8
MSU	E17184	2.2	Conv	DFender-N-I	R	R		54.8	60.0		51.6	36	1.5	39.8	21.1
MSU	E17203	2.4	Conv	DFender-N-I	R	R		57.1	61.5		57.4	31	1.3	39.1	20.3
MSU	E17227	2.3	Conv	DFender-N-I	1c	R		54.8	63.7		53.2	36	1.0	38.7	20.8
MSU	E17269	2.2	Conv	DFender-N-I	1k	R		56.7	64.4		59.6	35	1.3	38.3	20.0
MSU	E17275	2.2	Conv	DFender-N-I	1k	R		54.8	62.2		52.6	36	2.0	37.7	19.9
MSU	E17283	2.7	Conv	DFender-N-I	1k	R		57.1	63.7		58.9	33	1.3	40.1	19.7
MSU	E17506T	2.2	Conv	DFender-N-I	R	R		54.5	59.4		55.6	35	1.5	40.3	19.9
MSU	E17508	3.0	Conv	DFender-N-I	R	R		51.4	55.4		50.3	27	1.0	41.6	19.9
MSU	E17808-01	2.0	Conv	DFender-N-I	1c	R		46.9	53.2		47.2	37	1.5	40.5	21.1
MSU	E18024T	2.7	Conv	DFender-N-I	R	R		50.6			46.2	34	1.4	41.8	18.8
MSU	E18433	2.3	Conv	DFender-N-I	R	R		59.7	61.8		60.9	35	2.1	39.2	20.9
MSU	E18450	2.5	Conv	DFender-N-I	R	R		61.7	57.5		65.2	39	2.1	38.6	20.2
MSU	E18580	2.1	Conv	DFender-N-I	R	R		53.3	54.2		54.2	34	1.6	39.7	20.5
MSU	E18638T	2.0	Conv	DFender-N-I	R	R		55.0	57.2		57.2	35	1.6	40.6	19.8
Wellman Seeds	W 295	2.9	Conv	ENC	1c	R		55.7			55.6	38	1.1	39.6	20.2
Zeeland Farm Services	ZFS 1326	2.6	Conv	Ecl-US-Q, N, NemaShield	R	R		57.2	61.8	64.7	60.0	36	1.6	39.3	20.2
Zeeland Farm Services	ZFS 1821	2.1	Conv	Ecl-US-Q, N, NemaShield	1k	R		51.1	57.5	61.3	51.5	35	1.0	38.1	20.4
Zeeland Farm Services	ZFS 24019HO	2.4	Conv	Ecl-US-Q, N, NemaShield	R	R		52.7			48.1	33	1.1	42.5	20.6
Zeeland Farm Services	ZFS 2521HO	2.5	Conv	Untreated	R	R		53.5			53.3	34	1.3	41.7	20.1
Zeeland Farm Services	ZFS 2819HO	2.8	Conv	Ecl-US-Q, N, NemaShield	R	R		44.1			49.4	36	1.3	41.0	19.5
GRAND MEAN								55.8			55.7	35.7	1.4	39.8	20.2
Max.								63.7			62.3	42.4	2.4	42.6	21.4
Min.								44.1			38.7	27.4	1.0	37.7	18.7
LSD (0.05) CV (%)								6.3			9.6			6.2	
								8.7			10.4			6.6	

¹ Seed Treatment: See 'Seed Treatment' paragraph (under 'Using the Data') for product code

* High yield in plot

Top 1/3 of trial is Bold

Michigan State University varieties are experimental

SELECTING SOYBEAN VARIETIES

Mike Staton, MSU Extension Soybean Educator

The soybean varieties you select will significantly affect your income in 2021. Because of this, you should consider yield, maturity, pest and pathogen resistance, herbicide-tolerant traits, lodging and quality when selecting varieties.

Yield: Yield is one of the most important characteristics to consider when selecting soybean varieties. A long-term analysis of the yield data from the Michigan Soybean Performance Reports shows that selecting the highest yielding varieties can increase yields by 5 to 10 bushels per acre. A variety that performs well under ideal conditions may not yield as well as others when confronted with yield-limiting factors. Yield data collected from multiple locations and over several years will help you select the best adapted varieties for your farm.

Maturity: An analysis of soybean yield and maturity data from the 2009-2016 Michigan Soybean Performance Reports showed that maturity has little effect on soybean yields when the highest-yielding varieties are selected within the adapted maturity range for the area and planted in mid to late May. The analysis also showed that on average, soybean harvest operations are delayed by one day for each 0.1 increase in soybean maturity group. Planting varieties from a range of adapted soybean maturity groups is recommended.



phytophthora stem rot

Pest and pathogen resistance: Significant yield losses from soybean aphids, soybean diseases such as Phytophthora root and stem rot, white mold, sudden death syndrome and soybean cyst nematodes can be reduced by selecting resistant or tolerant varieties. In fact, variety selection is your best option for managing these pests and seed catalogs are excellent sources of information. Seed companies typically use a rating scale of 1 to 9 and producers need to be careful as 1 is excellent and 9 is poor in some catalogs, while in others it is the opposite. These ratings are useful when comparing varieties from a given company but not across companies.

Iowa State University conducts the most comprehensive soybean cyst nematode resistant variety trials in the U.S. Iowa State University Extension publication IPM 52, provides the source of soybean cyst nematode resistance, yield performance and soybean cyst nematode population suppression effects for all the entered varieties. The 2020 report will be available online at the Iowa State University SCN-Resistant Soybean Variety Trials website. The report should be transferable and useful on your farm provided the varieties tested are adapted to your farm and the soybean cyst nematode population type at the trials is similar to the soybean cyst nematode population type in your fields. Producers should rotate sources of soybean cyst nematode resistance and seed suppliers are an excellent source of information.

Herbicide-tolerant traits: Varieties having herbicide-resistant traits are an important tool for managing herbicide-resistant weeds such as waterhemp and marestail.

Lodging: Lodged soybean plants can increase harvest losses and significantly delay harvest operations and variety selection can help reduce lodging problems in productive fields.

Quality: Producers should also consider quality characteristics when selecting soybean varieties. Some of our leading export markets demand soybeans consisting of 19 percent oil and 35 percent protein. As global competition increases, Michigan soybean producers will need to meet this standard to maintain access to these markets.



soybean variety effect on lodging

TABLE 3. 2020 MICHIGAN CENTRAL ROUND-UP READY / Early Maturity, (1.3 - 2.2), SOYBEAN VARIETY TRIAL REPORT

										YIELD (BU/AC)									
										2020 AVERAGE									
BRAND	VARIETY	Maturity Group	Herb	TMT ¹	Phyto Res	SCN	2020 19-20		18-20		Allegan	Ingham	Saginaw	Height	Lodging	Protein	Oil		
							AVG	AVG	AVG	AVG									
Ag Armour	AA 1521 E3	1.5	E3	AA ELITE	1k	R	51.4	59.2	38.2	56.8	30	1.1	38.2	21.8					
Ag Armour	AA 2019 LL/GT27	2.0	LLGT27	AA ELITE	1k	R	59.9	65.4	52.5	61.8	33	1.0	37.3	22.1					
Ag Armour	AA 2021 E3	2.0	E3	AA ELITE	1k	R	56.2	64.6	47.4	56.7	30	1.2	36.1	22.2					
Credenz	CZ 1850GTL	1.8	LLGT27	ObviusPlus, P/V/I	1k	R3MR14	53.7	57.9	45.3	52.2	29	1.3	37.9	21.8					
Credenz	CZ 1859GTL	1.8	LLGT27	ObviusPlus, P/V/I	1k	R3MR14	52.6	58.33	42.5	51.1	31	1.0	37.1	22.5					
Credenz	CZ 2040GTL	2.0	LLGT27	ObviusPlus, P/V/I	1a	R3MR14	51.9	57.12	59.0	42.5	32	1.0	37.7	22.2					
Credenz	CZ 2230GTL	2.2	LLGT27	ObviusPlus, P/V/I	1a	R3MR14	58.0	66.4	49.6	58.0	35	1.5	39.2	21.6					
Dairyland	DS-1318E	1.3	E3	Lum, EG, L-2030-R, G, I, Inoc.	1c	R	51.0	59.6	37.4	55.9	32	1.0	38.0	21.0					
Dairyland	DS-1673E	1.6	E3	Lum, EG, L-2030-R, G, I, Inoc.	1k	R	50.8	58.0	46.1	48.4	29	1.1	37.7	21.8					
Dairyland	DS-2030E	2.0	E3	Lum, EG, L-2030-R, G, I, Inoc.	3a,1c	R	54.6	66.4	46.7	50.7	32	1.0	37.1	22.1					
Dairyland	DS-2112E	2.1	E3	Lum, EG, L-2030-R, G, I, Inoc.		R	56.7	68.7	43.7	57.8	32	1.2	37.1	22.4					
Dairyland	DS-2259E	2.2	E3	Lum, EG, L-2030-R, G, I, Inoc.		R	54.3	63.0	48.2	51.6	35	1.2	38.7	21.6					
Dairyland	E20-101E	2.0	E3	Lum, EG, L-2030-R, G, I, Inoc.		R	54.9	66.9	42.0	55.8	31	1.2	38.1	21.6					
DF Seeds	DF 3141 N E3	1.4	E3	DFender-N-I	1k	R	50.3	59.5	43.4	48.0	31	1.3	36.8	22.7					
DF Seeds	DF 3191 N E3	1.9	E3	DFender-N-I		R	52.8	63.8	45.0	49.6	30	1.1	37.3	21.5					
DF Seeds	DF 3211 N E3	2.1	E3	DFender-N-I	1k	R	53.8	66.5	45.5	49.3	31	1.1	35.9	22.2					
DF Seeds	DF 6131 N LLGT27	1.3	LLGT27	DFender-N-I	1k	R	52.9	67.0	41.4	50.4	31	1.1	38.8	22.7					
DF Seeds	DF 6161 N LLGT27	1.6	LLGT27	DFender-N-I	1k	R	^	69.6	39.9	^	29	1.3	38.4	22.8					
DF Seeds	DF 6191 N LLGT27	1.9	LLGT27	DFender-N-I		R	^	65.7	40.8	^	30	1.1	35.4	23.1					
DF Seeds	DF 6210 N LLGT27	2.1	LLGT27	DFender-N-I		R	52.8	56.62	63.9	44.1	50.3	31	1.0	39.0	21.5				
Dyna-Gro	S11EN40	1.1	E3	Eq plus Saitro	1c	R	49.8	57.8	39.4	52.3	30	1.0	37.9	21.0					
Dyna-Gro	S14EN90	1.4	E3	Eq plus Saitro	1c	R	51.3	56.5	58.0	42.6	53.3	33	1.0	39.7	21.5				
Dyna-Gro	S18XT38	1.8	RR2X	Eq plus Saitro	1a, 3a	MR	54.2	58.3	64.2	53.1	34	1.1	38.2	22.4					
Dyna-Gro	S19EN21	1.9	E3	Eq plus Saitro		R	58.8	*72.9	47.5	56.0	32	1.3	37.4	21.5					
Dyna-Gro	S19XT30	1.9	RR2X	Eq plus Saitro		MR	55.7	58.55	58.1	51.5	57.6	34	1.2	37.2	21.6				
Dyna-Gro	S21EN81	2.1	E3	Eq plus Saitro	1k	R	60.0	71.8	48.5	59.8	33	1.4	36.4	22.1					
Dyna-Gro	S21GL41	2.1	LLGT27	Eq plus Saitro		R	53.4	64.9	42.5	52.9	34	1.2	37.2	22.5					
Dyna-Gro	S21XT49	2.1	RR2X	Eq plus Saitro	1a, 3a	R	57.0	61.5	67.1	54.3	33	1.0	37.9	22.2					
Golden Harvest	GH1763E3	1.7	E3	CM, V/b, Saitro		R3MR14	53.4	59.5	51.2	49.5	30	0.9	36.7	22.3					
Golden Harvest	GH2011E3	2.0	E3	CM, V/b, Saitro	1c,3a	R3MR14	53.2	61.5	44.5	53.6	34	1.1	38.1	22.0					
Golden Harvest	GH2041X	2.0	RR2X	CM, V/b, Saitro	1c	R3MR14	58.3	60.27	64.5	67.7	52.5	32	1.2	39.6	21.5				
Golden Harvest	GH2230X	2.2	RR2X	CM, V/b, Saitro	1c	R3MR14	56.3	58.1	62.8	48.8	55.6	31	1.2	38.3	22.0				
Growmark	HS 21X90	2.1	RR2X	ACL	1c	R	52.7	55.97	58.3	44.1	55.8	32	1.1	38.2	20.6				
Growmark	HS 22X00	2.2	RR2X	ACL	1k	R	*60.5	68.4	49.6	*63.6	34	1.3	37.0	22.0					
LG Seeds	C1000RX	1.0	RR2X	AgriShield Max w/Saitro	3a	R	50.1	60.6	38.3	51.4	32	1.1	40.6	21.6					
LG Seeds	C1838RX	1.8	RR2X	AgriShield Max w/Saitro	3a,1a	R	59.8	61.55	67.1	69.7	51.3	35	1.0	38.7	22.0				
LG Seeds	LGS1550RX	1.5	RR2X	AgriShield Max w/Saitro	1c	R	53.9	62.0	44.9	54.7	30	1.1	38.3	22.2					
LG Seeds	LGS2007RX	2.0	RR2X	AgriShield Max w/Saitro	3a,1a	R	57.9	62.2	67.4	64.8	48.0	35	1.1	38.2	22.1				
Local Seed Company	LS1407E3	1.4	E3	Radius Premium	1k	R3,MR14	56.6	66.8	47.2	65.9	35	1.1	37.5	22.7					
Local Seed Company	LS1887X	1.8	RR2X	Radius Premium	3a,1a	MR3,MR14	52.3	57.02	62.0	44.0	50.8	35	1.1	37.4	22.3				
Local Seed Company	ZS1999GL	1.9	LLGT27	Radius Premium		R3,MR14	56.2	62.2	49.5	56.9	31	1.0	37.7	21.9					
M&W Seeds	M&W 20L69	2.0	GT27	Titan		R3,MR14	47.7	43.3	38.1	38.1	32	1.0	36.2	22.7					
M&W Seeds	M&W 21E26	2.1	E3	Titan		R3,MR14	56.4	66.7	48.5	54.0	33	1.0	38.2	22.0					
M&W Seeds	M&W MWX17E	1.7	E3	Titan	1k	R3,MR14	53.9	60.0	47.3	54.5	29	1.0	37.2	21.8					
MCIA	MCIA 2119 LL/GT27	2.2	LLGT27	CM		R	55.7	69.2	47.2	50.7	34	1.2	37.6	22.3					
NK Seeds	S14-U9X	1.4	RR2X	CM, V/b, Saitro		R	53.1	62.2	46.7	50.4	32	1.0	37.7	21.9					
NK Seeds	S15-3E3	1.5	E3	CM, V/b, Saitro	1c	R	55.3	59.7	48.9	57.3	31	1.0	38.3	22.2					
NK Seeds	S20-E3	2.0	E3	CM, V/b, Saitro	1c,3a	R	53.7	58.9	46.2	56.1	33	1.1	38.9	21.7					

TABLE 3. 2020 MICHIGAN CENTRAL ROUND-UP READY / Early Maturity, (1.3 - 2.2), SOYBEAN VARIETY TRIAL REPORT

YIELD (BU/AC)

2020 AVERAGE

BRAND	VARIETY	Maturity Group	Herb	TMT ¹	Phyto Res	SCN	2020 19-20 18-20					Oil		
							AVG	AVG	AVG	Allegan	Ingham		Saginaw	Height
NK Seeds	S20-J5X	2.0	RR2X	CM, Vlb, Saltro	1c	MR	56.7	65.0	50.5	54.6	33	1.2	39.2	21.7
NK Seeds	S22-E3	2.2	E3	CM, Vlb, Saltro	1k	R	54.5	62.9	46.4	54.1	33	1.3	37.6	21.8
Renk Seed	GENESIS G1450E	1.4	E3	Eclipse Trio	1k	R	49.6	56.8	45.1	47.0	31	1.2	36.9	22.6
Renk Seed	GENESIS G1650E	1.6	E3	Eclipse Trio	1k	R	52.7	60.3	43.1	54.6	29	1.2	37.3	21.8
Renk Seed	GENESIS G2150E	2.1	E3	Eclipse Trio, Saltro	1k	R	59.3	67.5	52.5	58.0	31	1.3	35.7	22.1
Renk Seed	GENESIS G2190GL	2.1	LLGT27	Eclipse Trio, Saltro		R	53.5	72.2	48.7	39.5	32	1.2	36.7	22.6
Renk Seed	RENK RS181NX	1.8	RR2X	Eclipse Trio	1c	R	54.5	63.2	46.2	54.0	35	1.0	37.6	22.4
Renk Seed	RENK RS150NX	1.5	RR2X	Eclipse Trio	1c	R	52.1	59.3	46.0	51.0	31	1.1	38.3	22.9
Rupp Seeds	RS 18XT17	1.8	RR2X	CM	1a,3a	R	57.7	60.33	67.2	*53.2	34	1.1	38.5	22.0
Rupp Seeds	RS 19EL37	1.0	E3	CM		R	^	^	48.0	54.0	30	1.3	37.8	21.3
Rupp Seeds	RS 20BG47	2.1	GT27	CM		R	50.2	64.0	44.7	41.8	33	1.0	36.1	22.9
Rupp Seeds	RS 21EL57	2.1	E3	CM	1k	R	^	^	50.1	55.0	31	1.3	37.0	22.0
Specialty Hybrids	2083R2X	2.0	RR2X	ACL, G	1a,3a	R3	57.6	61.3	68.2	51.1	33	1.0	37.7	22.1
Xitavo	XO 1761E	1.7	E3	ObviusPlus, P/V/I	testing	R3MR14	52.6	60.5	46.5	50.7	30	1.0	37.5	21.8
Xitavo	XO 1971E	1.9	E3	ObviusPlus, P/V/I	testing	R3MR14	51.5	52.9	42.9	58.7	31	1.0	37.1	21.5
Xitavo	XO 2181E	2.1	E3	ObviusPlus, P/V/I	testing	R3MR14	56.5	62.0	46.1	61.3	31	1.1	36.5	22.2
GRAND MEAN							54.5	63.9	46.1	53.6	32	1.1	37.7	22.0
Max.							60.5	72.9	53.2	63.6	35	1.5	40.6	23.1
Min.							47.7	52.9	37.4	38.1	29	0.9	35.4	20.6
LSD (0.05)							5.9	10.7	8.1	8.8				
CV (%)							10.2	10.0	10.6	9.9				

¹ Seed Treatment: See 'Seed Treatment' paragraph (under 'Using the Data') for product code

* High yield in plot

Top 1/3 of trial is Bold

^ data not available

TABLE 4. 2020 MICHIGAN CENTRAL ROUND-UP READY / Late Maturity, (2.3 - 3.1), SOYBEAN VARIETY TRIAL REPORT YIELD (BU/AC)

BRAND	VARIETY	Maturity Group	Herb	TMT	Phyto RES	SCN	2020 18-20					2020 AVERAGE				
							AVG	AVG	AVG	AVG	AVG	Saginaw	Ingham	Allegan	Height	Lodging
Ag Armour	AA 2321 E3	2.3	E3	AA ELITE	1k	R	50.5	47.0	53.2	47.0	51.3	31	1.0	37.4	22.0	
Credenz	CZ 2360GTLL	2.3	LLGT27	ObviusPlus, P/V/I	1k	R3MR14	56.0	60.8	63.3	47.4	57.4	36	1.1	37.2	22.1	
Credenz	CZ 2550GTLL	2.5	LLGT27	ObviusPlus, P/V/I	1a	R3MR14	54.1	60.1	58.7	49.2	54.5	36	1.3	39.7	20.6	
Credenz	CZ 2760GTLL	2.7	LLGT27	ObviusPlus, P/V/I	1a	R3MR14	57.3	62.4	60.7	54.2	57.1	35	1.5	37.3	22.4	
Credenz	CZ 2830GTLL	2.8	LLGT27	ObviusPlus, P/V/I	1k	R3MR14	57.0		54.9	53.0	63.1	34	1.1	38.2	21.7	
Credenz	CZ 2910GTLL	2.9	LLGT27	ObviusPlus, P/V/I	1a	R3MR14	54.0		49.7	53.1	59.3	34	1.3	35.5	20.2	
Credenz	CZ 3099GTLL	3.0	LLGT27	ObviusPlus, P/V/I	1k	R3MR14	49.4	57.2	46.7	47.8	53.8	40	1.3	40.3	19.9	
Dairyland	DS-2424E	2.4	E3	Lum, EG, L-2030-R, G, I, Inoc.	1k		52.5		57.3	48.3	51.9	34	1.3	36.7	22.3	
Dairyland	DS-2555E	2.5	E3	Lum, EG, L-2030-R, G, I, Inoc.	1c		55.1		57.0	49.7	58.5	34	1.2	39.6	20.9	
Dairyland	DS-2590E	2.5	E3	Lum, EG, L-2030-R, G, I, Inoc.	1k		51.6		47.7	49.6	57.5	36	1.4	38.4	20.7	
Dairyland	DS-2640E	2.6	E3	Lum, EG, L-2030-R, G, I, Inoc.	1k		52.5		57.9	47.7	52.0	35	1.4	37.7	21.8	
Dairyland	DS-2844E	2.8	E3	Lum, EG, L-2030-R, G, I, Inoc.	1k		56.6		58.5	54.8	56.5	35	1.3	39.7	20.3	
Dairyland	DS-2999E	2.9	E3	Lum, EG, L-2030-R, G, I, Inoc.	1k		52.2		51.5	53.1	51.9	35	1.2	37.7	20.9	
Dairyland	E24-201E	2.4	E3	Lum, EG, L-2030-R, G, I, Inoc.	1k		52.5		50.5	50.5	56.4	38	1.3	38.2	21.5	
DF Seeds	DF 3251 N E3	2.5	E3	DFender-N-I		R	56.3		57.6	53.7	53.7	38	1.4	37.6	22.2	
DF Seeds	DF 6241 N LLGT27	2.4	LLGT27	DFender-N-I	1k	R	58.8		60.2	55.7	60.5	35	1.1	38.5	21.2	
DF Seeds	DF 6269 N LLGT27	2.6	LLGT27	DFender-N-I	1c	R	54.0	61.1	53.6	50.6	57.8	37	1.8	38.3	21.5	
Dyna-Gro	S24EN50	2.4	E3	Eq plus Saltro		R	53.9		57.1	51.9	52.8	34	1.1	38.1	20.9	
Dyna-Gro	S25EN41	2.5	E3	Eq plus Saltro		R	56.8		57.1	51.8	61.5	37	1.4	37.1	22.4	
Dyna-Gro	S26GL30	2.6	LLGT27	Eq plus Saltro		R	58.9	61.2	59.3	52.3	65.1	39	1.3	38.5	22.1	
Dyna-Gro	S28XT58	2.8	RR2X	Eq plus Saltro	1c	R	60.1	64.1	63.2	55.1	62.0	39	1.3	39.3	20.2	
Dyna-Gro	SX20723EN	2.3	RR2X	Eq plus Saltro	1k	R	56.9		62.5	53.3	54.9	35	1.1	37.5	21.7	
Golden Harvest	GH2329X	2.3	RR2X	CM Vib Saltro	1c	MR1MR3	60.4		71.1	50.1	60.0	36	1.3	38.4	21.7	
Golden Harvest	GH2505E3	2.5	E3	CM Vib Saltro		MR	55.3		52.9	54.3	58.7	39	1.4	38.0	22.5	
Golden Harvest	GH2552X	2.5	RR2X	CM Vib Saltro	1c	MR3	55.2	59.9	52.6	54.3	58.8	40	1.7	39.0	21.4	
Golden Harvest	GH2610E3	2.6	E3	CM Vib Saltro	1k	R	56.6		56.5	58.4	55.0	35	1.3	37.2	22.0	
Golden Harvest	GH2788X	2.7	RR2X	CM Vib Saltro	1c	MR3MR14	57.8	60.7	61.9	54.2	57.4	35	1.3	39.1	21.3	
Golden Harvest	GH2818E3	2.8	E3	CM Vib Saltro	1k	R3MR14	56.5		59.3	52.0	58.2	36	1.2	38.4	21.7	
Growmark	HS 23E00	2.3	E3	ACL	1k	R	55.7		62.4	51.0	53.8	33	1.2	38.3	21.5	
Growmark	HS 24X80	2.4	RR2X	ACL	1c	R	55.5	61.0	56.0	51.9	58.5	33	1.3	39.3	20.6	
Growmark	HS 25E00	2.5	E3	ACL		R	55.9		56.3	56.9	54.4	37	1.4	38.4	22.1	
Growmark	HS 26B90	2.6	LLGT27	ACL		R	58.8	62.1	60.5	55.1	60.9	38	1.3	39.1	22.0	
Growmark	HS 28B00	2.8	LLGT27	ACL	1k	R	61.7		69.3	52.8	62.9	35	1.1	37.2	20.8	
LG Seeds	C2888RX	2.8	RR2X	AgriShield Max w/Saltro	1k	R	60.8	63.8	64.3	53.1	64.9	37	1.3	39.8	20.0	
LG Seeds	LGS2444RX	2.4	RR2X	AgriShield Max w/Saltro	1c	R	56.1	62.4	64.3	48.0	56.1	31	1.3	38.5	20.9	
Local Seed	LS3005E3	3.0	E3	Radius Premium	1a	R3,MR14	52.2		56.9	47.4	52.3	37	1.3	38.2	21.4	
Local Seed	ZS2898GL	2.8	LLGT27	Radius Premium		R3,MR14	58.9		65.2	54.1	57.4	35	1.4	37.8	22.5	
M&W Seeds	M&W 23T88	2.3	GT27	Titan		R3,MR14	53.2	58.5	62.7	43.4	53.4	35	1.2	37.3	22.4	
M&W Seeds	M&W 25E25	2.5	E3	Titan		R3,MR14	52.8		57.9	45.8	54.6	36	1.4	37.4	22.3	
M&W Seeds	M&W 26T32	2.6	GT27	Titan		R3,MR14	52.2	58.9	55.7	48.1	52.9	36	1.5	38.3	21.0	
MCIA	MCIA 2319 LL/GT27	2.3	LLGT27	CM		R	55.4	60.7	60.6	51.5	54.1	35	1.2	37.3	22.6	
MCIA	MCIA 2520 LL/GT27	2.5	LLGT27	CM		R	58.5		66.9	51.2	57.5	33	1.2	37.6	21.5	
MSU	E18450GT	2.5	RR1	DFender-N-I		R	51.6		57.9	42.3	54.5	41	1.9	36.6	21.2	
NK Seeds	S23-G5X	2.3	RR2X	CM Vib Saltro	1k	R	57.1		64.3	49.9	57.2	38	1.3	38.5	21.7	
Rupp Seeds	RS 23BG30	2.3	GT27	CM	1k	R	56.7	59.7	60.1	54.8	55.1	36	1.2	37.5	22.5	
Rupp Seeds	RS 23EL34	2.3	E3	CM	1k	R	53.2		63.5	46.1	50.0	32	1.2	37.9	21.8	

TABLE 4. 2020 MICHIGAN CENTRAL ROUND-UP READY / Late Maturity, (2.3 - 3.1), SOYBEAN VARIETY TRIAL REPORT
YIELD (BU/AC)

BRAND	VARIETY	Maturity Group	Herb	TMT*	Phyto RES	SCN	2020 19-20		2020 18-20		2020 AVERAGE				
							AVG	AVG	AVG	AVG	Ingham	Saginaw	Height	Lodging	Protein
Rupp Seeds	RS 25EL24	2.5	E3	CM		R	56.5	50.9	66.3	50.9	52.3	37	1.3	37.7	22.2
Specialty Hybrids	2583R2X	2.5	RR2X	ACL, G	1c	R3	59.7	62.0	62.6	52.1	64.4	38	1.3	37.4	21.0
Specialty Hybrids	2894R2X	2.8	RR2X	ACL, G	1c	R3	55.0	60.9	50.3	53.5	61.1	40	1.3	38.5	20.4
Specialty Hybrids	2983R2X	2.9	RR2X	ACL, G	1c	R3	59.8	62.8	70.1	59.1	59.6	40	1.4	37.4	20.4
Xitavo	XO 2391E	2.3	E3	ObviusPlus, P/V/I	testing	R3MR14	52.7		60.8	47.6	49.6	32	1.0	37.3	22.0
Xitavo	XO 2501E	2.5	E3	ObviusPlus, P/V/I	testing	R3MR14	57.0		56.6	56.1	58.3	36	1.2	37.3	22.5
Xitavo	XO 2711E	2.7	E3	ObviusPlus, P/V/I	testing	R3MR14	55.4		58.9	53.7	53.5	35	1.2	38.5	20.8
Xitavo	XO 2921E	2.9	E3	ObviusPlus, P/V/I	testing	R3MR14	51.5		51.0	48.7	54.9	34	1.0	37.6	20.8
Xitavo	XO 3131E	3.1	E3	ObviusPlus, P/V/I	testing	R3MR14	56.9		58.8	56.9	55.1	37	1.5	38.8	20.3
GRAND MEAN							55.6		58.6	51.6	56.7	36	1.3	38.1	21.4
Max.							61.7		71.1	59.1	65.1	41	1.9	40.3	22.6
Min.							49.4		46.7	42.3	49.6	31	1.0	35.5	19.9
LSD (0.05)							5.9		12.4	6.4	8.2				
CV (%)							10.1		12.7	7.5	8.7				

* Seed Treatment: See 'Seed Treatment' paragraph (under 'Using the Data') for product code

* High yield in plot

Top 1/3 of trial is Bold

TABLE 5. 2020 MICHIGAN SOUTHERN ZONE ROUND-UP READY / Early Maturity, (1.7 - 2.7), SOYBEAN VARIETY TRIAL REPORT

BRAND	VARIETY	Maturity Group	Herb	TMT ¹	Phyto Resist.	SCN	2020 18-20		2020 AVERAGE				
							AVG	AVG	Ingham	Lenawee	Height	Lodging	Protein
Ag Armour	AA 2521 E3	2.5	E3	AA ELITE		R	52.6	51.7	53.2	32	1.3	38.4	21.9
AGRA Solutions	KEY 1025GL	2.5	LLGT27	ENC		R	54.1	50.2	57.1	31	1.2	39.2	20.8
Credenz	CZ 2040GTL	2.0	LLGT27	ObviusPlus, PV//I	1a	R3MR14	45.6	49.9	42.3	30	1.2	37.9	22.1
Credenz	CZ 2121GTL	2.1	LLGT27	ObviusPlus, PV//I	testing	R3MR14	53.9	54.8	53.2	28	1.1	37.4	22.2
Credenz	CZ 2230GTL	2.2	LLGT27	ObviusPlus, PV//I	1a	R3MR14	53.8	55.7	52.3	31	1.3	40.4	21.0
Credenz	CZ 2360GTL	2.3	LLGT27	ObviusPlus, PV//I	1k	R3MR14	48.0	53.0	44.2	30	1.2	37.6	22.0
Credenz	CZ 2550GTL	2.5	LLGT27	ObviusPlus, PV//I	1a	R3MR14	56.4	55.8	56.8	32	1.2	38.6	20.8
Credenz	CZ 2760GTL	2.7	LLGT27	ObviusPlus, PV//I	1a	R3MR14	53.2	58.0	49.6	32	1.3	38.7	21.8
Dairyland	DS-2030E	2.0	E3	Lum, EG, L-2030-R, G, I, Inoc.	3a,1c		48.5	51.2	46.5	29	1.3	38.8	21.2
Dairyland	DS-2112E	2.1	E3	Lum, EG, L-2030-R, G, I, Inoc.			49.7	51.6	48.3	30	1.2	37.1	21.9
Dairyland	DS-2259E	2.2	E3	Lum, EG, L-2030-R, G, I, Inoc.			56.6	*62.3	52.3	34	1.3	39.0	21.3
Dairyland	DS-2424E	2.4	E3	Lum, EG, L-2030-R, G, I, Inoc.	1k		54.7	55.6	53.2	29	1.2	37.8	22.0
Dairyland	DS-2555E	2.5	E3	Lum, EG, L-2030-R, G, I, Inoc.	1c		52.9	55.6	50.9	31	1.3	39.5	20.8
Dairyland	DS-2590E	2.5	E3	Lum, EG, L-2030-R, G, I, Inoc.	1k		48.4	51.0	46.5	28	1.3	38.4	20.7
Dairyland	DS-2640E	2.6	E3	Lum, EG, L-2030-R, G, I, Inoc.	1k		52.0	56.9	48.3	30	1.2	37.8	21.6
Dairyland	E20-101E	2.0	E3	Lum, EG, L-2030-R, G, I, Inoc.			49.8	49.9	49.8	29	1.5	38.6	21.2
Dairyland	E24-201E	2.4	E3	Lum, EG, L-2030-R, G, I, Inoc.			55.4	55.1	55.7	33	1.3	37.6	21.5
DF Seeds	DF 3251 N E3	2.5	E3	DFender-N-I		R	53.0	54.8	51.6	31	1.4	38.0	21.8
DF Seeds	DF 3271 N E3	2.7	E3	DFender-N-I		R	50.3	48.4	51.7	32	1.3	37.9	20.6
DF Seeds	DF 6241 N LLGT27	2.4	LLGT27	DFender-N-I	1k	R	51.5	54.1	49.5	30	1.3	38.2	21.2
DF Seeds	DF 6269 N LLGT27	2.6	LLGT27	DFender-N-I	1c	R	47.0	48.4	45.9	31	1.3	37.8	21.4
Dyna-Gro	S24EN50	2.4	E3	Eq plus Saitro		R	48.2	51.2	46.0	31	1.3	38.0	21.0
Dyna-Gro	S25EN41	2.5	E3	Eq plus Saitro		R	54.0	58.3	50.7	32	1.3	38.6	21.7
Dyna-Gro	S26GL30	2.6	LLGT27	Eq plus Saitro		R	53.7	60.6	52.4	33	1.2	39.2	22.1
Dyna-Gro	SX20723EN	2.3	E3	Eq plus Saitro	1k	R	54.4	58.9	51.1	30	1.0	38.4	21.5
Golden Harvest	GH2610E3	2.6	E3	CM,Vib,Saitro	1k	R	55.7	56.5	55.1	30	1.2	37.2	21.8
Golden Harvest	GH2788X	2.7	RR2X	CM,Vib,Saitro	1c	MR3MR14	55.8	63.8	66.4	28	1.0	39.4	21.0
Growmark	HS 25E00	2.5	E3	ACL		R	54.3	60.0	50.0	33	1.3	37.8	21.7
Growmark	HS 26B90	2.6	LLGT27	ACL		R	50.8	51.1	50.5	32	1.3	39.4	21.4
LG Seeds	C1838RX	1.8	RR2X	AgriShield Max w/Saitro	3a,1a	R	53.7	62.2	56.0	31	1.2	38.6	22.1
LG Seeds	LGS2007RX	2.0	RR2X	AgriShield Max w/Saitro	3a,1a	R	55.2	64.0	67.9	32	1.0	38.4	22.0
LG Seeds	LGS2444RX	2.4	RR2X	AgriShield Max w/Saitro	1c	R	52.5	64.3	56.0	27	1.2	39.3	20.4
Local Seed Company	LS1887X	1.8	RR2X	Radius Premium	3a,1a	MR3,MR14	47.9	58.7	46.4	31	1.2	39.1	21.6
Local Seed Company	ZS1999GL	1.9	LLGT27	Radius Premium		R3,MR14	50.4	51.0	50.0	30	1.1	37.7	21.9
M&W Seeds	M&W 25E25	2.5	E3	Titan		R3,MR14	53.2	52.7	53.5	32	1.3	38.2	22.0
M&W Seeds	M&W 26T32	2.6	GT27	Titan		R3,MR14	54.1	62.8	57.2	32	1.2	39.6	20.6
M&W Seeds	M&W 2319 LL/GT27	2.3	LLGT27	CM		R	52.6	62.6	55.0	30	1.2	38.5	21.8
M&W Seeds	M&W 2520 LL/GT27	2.5	LLGT27	CM		R	53.1	52.2	50.8	32	1.3	37.9	21.1
MSU	E18450GT	2.5	RR1	DFender-N-I			52.3	50.5	53.7	39	1.7	37.3	21.0
NK Seeds	S23-G5X	2.3	RR2X	CM,Vib,Saitro	1k	R	54.8	54.9	54.7	32	1.3	39.1	21.4
NK Seeds	S25-V8X	2.5	RR2X	CM,Vib,Saitro	1c	MR	*57.9	58.9	57.1	35	1.3	39.1	21.1
NK Seeds	S26-E3	2.6	E3	CM,Vib,Saitro	1k	R	55.5	57.2	54.2	30	1.1	37.4	21.7
Renk Seed	GENESIS G2350E	2.3	E3	Eclipse Trio, Saitro	1k	R	51.9	50.5	52.9	30	1.1	38.0	21.5
Renk Seed	GENESIS G2550E	2.5	E3	Eclipse Trio, Saitro		R	55.8	55.4	56.1	33	1.5	38.5	21.7
Renk Seed	GENK RS250NX	2.5	RR2X	Eclipse Trio, Saitro	1k	R	51.9	62.7	52.0	31	1.1	37.7	20.7
Rupp Seeds	RS 25EL24	2.5	E3	CM		R	56.0	52.2	*58.8	32	1.4	37.3	22.1

TABLE 5. 2020 MICHIGAN SOUTHERN ZONE ROUND-UP READY / Early Maturity, (1.7 - 2.7), SOYBEAN VARIETY TRIAL REPORT

BRAND	VARIETY	Maturity Group	Herb	TMT ¹	Phyto Resist.	SCN	YIELD (BU/AC)								
							2020 AVG	19-20 AVG	18-20 AVG	Ingham	Lenawee	Height	Lodging	Protein	Oil
Specialty Hybrids	2083R2X	2.0	RR2X	ACL, G	1a,3a	R3	48.0	59.3	65.0	49.4	46.9	30	1.2	38.2	21.8
Specialty Hybrids	2583R2X	2.5	RR2X	ACL, G	1c	R3	51.5	61.1	55.7	55.7	48.4	32	1.3	38.6	20.6
Wellman Seeds	W 5926X	2.6	RR2X	ENC	1c	R	54.6	65.1	67.9	51.9	56.6	33	1.3	36.5	21.7
Wellman Seeds	W 6023E	2.3	E3	ENC		R	51.7	59.9		51.6	51.8	30	1.3	39.1	20.7
Wellman Seeds	W 6125E	2.5	E3	ENC		R	56.4			54.8	57.6	31	1.4	38.7	21.8
Xitavo	XO 2181E	2.1	E3	ObviusPlus, P/V/I	testing	R3MR14	49.2			53.3	46.2	28	1.3	37.1	21.6
Xitavo	XO 2391E	2.3	E3	ObviusPlus, P/V/I	testing	R3MR14	49.4			51.3	48.0	28	1.2	38.0	21.6
Xitavo	XO 2501E	2.5	E3	ObviusPlus, P/V/I	testing	R3MR14	50.3			55.6	46.4	31	1.2	37.4	22.1
Xitavo	XO 2711E	2.7	E3	ObviusPlus, P/V/I	testing	R3MR14	55.3			51.8	58.0	31	1.2	38.3	20.7
GRAND MEAN							52.5			53.8	51.6	31	1.2	38.3	21.4
Max.							57.9			62.3	58.8	39	1.7	40.4	22.2
Min.							45.6			48.4	42.3	27	1.0	36.5	20.4
LSD (0.06)							5.8			8.7	6.3				
CV (%)							7.8			8.4	7.3				

¹ Seed Treatment: See 'Seed Treatment' paragraph (under 'Using the Data') for product code

* High yield in plot

Top 1/3 of trial is Bold

TABLE 6. 2020 MICHIGAN SOUTHERN ZONE ROUND-UP READY / Late Maturity, (2.8 - 3.5), SOYBEAN VARIETY TRIAL REPORT

BRAND	VARIETY	Maturity Group	Herb	TMT ¹	Phyto Resist.	SCN	YIELD (BU/AC)				2020 AVERAGE			
							2020 AVG	19-20 AVG	18-20 AVG	Ingham	Lenawee	Height	Lodging	Protein
AGRA Solutions	KEY 1031GL	3.1	LLGT27	ENC	1c	R	53.9	65.3	50.6	57.1	32	1.0	37.6	20.3
Credenz	CZ 2830GTLL	2.8	LLGT27	ObviusPlus, P/V/I	1k	R3MR14	52.4		50.6	54.1	29	1.0	39.3	20.0
Credenz	CZ 2910GTLL	2.9	LLGT27	ObviusPlus, P/V/I	1a	R3MR14	58.3		55.9	60.6	32	1.0	36.6	20.8
Credenz	CZ 3099GTLL	3.0	LLGT27	ObviusPlus, P/V/I	1k	R3MR14	57.1	65.5	55.7	58.5	34	1.0	40.4	19.5
Credenz	CZ 3309GTLL	3.3	LLGT27	ObviusPlus, P/V/I	1a	R3MR14	55.6		54.9	56.2	36	1.0	39.4	20.2
Dairyland	DS-2844E	2.8	E3	Lum, EG, L-2030-R, G, I, Inoc.	1k		59.7		*62.2	57.2	30	1.0	38.5	20.1
Dairyland	DS-2999E	2.9	E3	Lum, EG, L-2030-R, G, I, Inoc.	1c		54.3		53.3	55.3	33	1.0	39.3	20.2
Dairyland	DS-3146E	3.1	E3	Lum, EG, L-2030-R, G, I, Inoc.	1c		52.1		49.2	54.9	32	1.0	37.3	20.8
DF Seeds	DF 3291 N E3	2.9	E3	DFender-N-I	R		58.6	68.1	55.2	61.9	32	1.0	39.1	20.9
DF Seeds	DF 6280 N LLGT27	2.8	LLGT27	DFender-N-I	R		53.9	62.2	52.8	54.9	31	1.0	39.4	21.3
Dyna-Gro	S28GL80	2.8	LLGT27	Eq plus Saltro	1c	R	56.8	69.3	59.3	54.3	35	1.0	39.6	19.6
Dyna-Gro	S28XT58	2.8	RR2X	Eq plus Saltro	1c	R	58.7	72.2	57.4	60.0	33	1.0	39.9	19.9
Dyna-Gro	S31EN91	3.1	E3	Eq plus Saltro	1c	R	56.1		55.7	56.5	33	1.0	37.9	20.7
Dyna-Gro	S31GL41	3.1	LLGT27	Eq plus Saltro	1c	R	56.2		55.8	56.6	34	1.0	39.2	19.7
Dyna-Gro	S32XS71	3.2	RR2X	Eq plus Saltro	1c	MR	56.3		56.3	56.2	30	1.0	37.7	21.6
Golden Harvest	GH2818E3	2.8	E3	CM,Vib,Saltro	1k	R3MR14	53.5		52.3	54.7	31	1.0	39.4	20.0
Golden Harvest	GH2981X	2.9	RR2X	CM,Vib,Saltro	1k	R3MR14	52.6		47.1	58.1	29	1.0	38.3	20.3
Growthark	HS 28B00	2.8	LLGT27	ACL	1k	R	55.1	63.9	53.3	56.9	30	1.0	37.9	20.5
Growthark	HS 28E90	2.8	E3	ACL	1k	R	55.0		55.0	60.0	34	1.0	41.3	19.9
Growthark	HS 30X00	3.0	RR2X	ACL	1c	R	57.5		54.6	56.0	32	1.0	37.9	20.7
Growthark	HS 31B00	3.1	LLGT27	ACL	1c	R	54.7	65.2	52.0	57.3	32	1.0	37.4	20.7
Growthark	HS 31E90	3.1	E3	ACL	1c	R	54.8	67.2	51.4	58.1	35	1.0	40.4	18.9
Growthark	HS 32X90	3.2	RR2X	ACL	1k	R	57.9	69.9	56.2	59.5	35	1.0	39.3	19.7
LG Seeds	C2888RX	2.8	RR2X	AgriShield Max w/Saltro	1k	R	56.3	68.6	56.7	55.8	34	1.0	40.0	19.8
LG Seeds	LG S3060RX	3.0	RR2X	AgriShield Max w/Saltro	1a	R	48.4		50.4	46.4	31	1.0	38.8	20.9
Local Seed Company	LS3005E3	3.0	E3	Radius Premium	1a	R3,MR14	56.3		55.6	56.9	30	1.4	37.6	20.9
Local Seed Company	LS3205GL	3.2	LLGT27	Radius Premium	1c	R3,MR14	55.6		51.1	60.0	33	1.0	39.5	19.8
Local Seed Company	LS3207XS	3.2	RR2X	Radius Premium	1c	MR3	57.3		56.8	57.7	33	1.0	39.0	21.5
Local Seed Company	Z52898GL	2.8	LLGT27	Radius Premium	1c	R3,MR14	53.9		48.9	58.8	34	1.0	39.1	20.3
Local Seed Company	Z53496GL	3.4	LLGT27	Radius Premium	1c	R3,MR14	59.5	68.8	55.1	63.8	31	1.0	39.0	21.7
M&W Seeds	M&W 28T76	2.8	GT27	Titan	1a	R3,MR14	51.1	63.0	49.4	52.7	31	1.0	38.1	20.4
M&W Seeds	M&W 29E85	2.9	E3	Titan	1k	R3,MR14	57.2		54.3	60.0	31	1.0	37.7	20.8
M&W Seeds	M&W 30L10	3.0	GT27	Titan	1c,3a	R3,MR14	55.8		53.2	58.4	30	1.0	39.4	21.3
MCIA	MCIA 2820 LL/GT27	2.8	LLGT27	CM	1c	R	55.2		53.8	56.5	31	1.0	38.0	21.4
NK Seeds	S28-E3	2.8	E3	CM,Vib,Saltro	1k	R	55.8		52.5	59.0	33	1.0	38.4	20.3
Renk Seed	GENESIS G3040E	3.0	E3	Eclipse Trio, Saltro	1k	R	57.0	69.9	54.2	59.7	31	1.0	38.8	20.2
Renk Seed	RENK RS280NX	2.8	RR2X	Eclipse Trio, Saltro	1c	R	*60.7		59.2	62.2	34	1.0	41.2	19.8
Renk Seed	RENK RS301NX	3.0	RR2X	Eclipse Trio, Saltro	1c,3a	R	55.7	67.0	53.2	58.2	32	1.0	38.8	21.9
Rupp Seeds	RS 28BG90	2.8	GT27	CM	1c	R	58.0	68.5	57.6	58.4	32	1.0	40.1	19.7
Rupp Seeds	RS 28XT37	2.8	RR2X	CM	1c	R	55.0		54.3	55.6	33	1.0	37.5	20.4
Rupp Seeds	RS 30EL18	3.0	E3	CM	1c	R	55.9		54.7	57.0	34	1.0	40.6	19.0
Rupp Seeds	RS 33XT32	3.3	RR2X	CM	1c	R	56.5	68.1	55.1	57.9	32	1.0	38.9	19.9
Specialty Hybrids	2894R2X	2.8	RR2X	ACL, G	1c	R3	60.2	70.1	55.0	*65.4	35	1.0	38.6	19.6
Specialty Hybrids	2983R2X	2.9	RR2X	ACL, G	1c	R3	59.2	67.6	56.5	61.8	34	1.0	38.5	20.2
Specialty Hybrids	3192R2X	3.1	RR2X	ACL, G	1a,seg3a	R1/R3	57.0		58.8	55.2	33	1.0	40.1	21.0
Wellman Seeds	W 4529	2.9	RR2	ENC	1a	R	57.1	66.0	54.7	59.5	33	1.0	40.6	20.6
Wellman Seeds	W 5928X	2.8	RR2X	ENC	3a,1c	R	57.1	66.0	54.7	59.5	33	1.0	40.6	20.6

TABLE 6. 2020 MICHIGAN SOUTHERN ZONE ROUND-UP READY / Late Maturity, (2.8 - 3.5), SOYBEAN VARIETY TRIAL REPORT

BRAND	VARIETY	Maturity		Herb	TMT ¹	Phyto Resist.	SCN	YIELD (BU/AC)								
		Group	RR2X					2020 AVG	18-20 AVG	2020 AVERAGE	Lenawee	Height	Lodging	Protein	Oil	
Wellman Seeds	W 5932X	3.2	RR2X	ENC		1c	R	56.0	66.1	67.6	50.9	61.1	39	1.0	40.3	19.5
Wellman Seeds	W 6032E	3.2	E3	ENC		1k	R	50.8	60.2		49.5	52.0	34	1.0	39.6	20.3
Wellman Seeds	W 6130E	3.0	E3	ENC			R	57.1			56.4	57.8	32	1.0	37.8	20.6
Wellman Seeds	W 6131E	3.1	E3	ENC			R	55.8			50.0	61.6	32	1.0	39.1	20.2
Wellman Seeds	W 6928E	2.8	E3	ENC		1k	R	56.1	64.2		52.8	59.3	31	1.0	38.4	21.2
Xitavo	XO 2921E	2.9	E3	ObviusPlus, P/V/I		testing	R3MR14	53.6			54.6	52.5	32	1.0	37.2	20.7
Xitavo	XO 3131E	3.1	E3	ObviusPlus, P/V/I		testing	R3MR14	58.4			58.8	57.9	35	1.0	39.0	19.9
Xitavo	XO 3341E	3.3	E3	ObviusPlus, P/V/I		testing	R3MR14	50.2			46.7	53.7	32	1.0	39.7	20.6
GRAND MEAN								55.8			54.1	57.6	32	1.0	38.9	20.4
Max.								60.7			62.2	65.4	39	1.4	41.3	21.9
Min.								48.4			46.7	46.4	29	1.0	36.6	18.9
LSD (0.05)								5.9			8.7	6.3				
CY (%)								8.2			9.7	6.5				

¹ Seed Treatment: See 'Seed Treatment' paragraph (under 'Using the Data') for product code

* High yield in plot

Top 1/3 of trial is Bold

INDEX FOR 2020 SOYBEAN VARIETY PERFORMANCE TRIALS

There were 196 varieties from 19 private seed companies entered in 5 county test sites in the 2020 Soybean Variety Performance Trials. **The first number within parentheses refer to the table in which the variety appears.** Company names used in association with variety numbers refer to the brand, and the numbers are the variety designation. **The SCN source of resistance if any, is listed in a second parentheses.** PI88788 is abbreviated as P8.

TABLE 1	TABLE 2	TABLE 3	TABLE 4	TABLE 5	TABLE 6
<u>Central</u>	<u>Southern</u>	<u>Central Early</u>	<u>Central Late</u>	<u>Southern Early</u>	<u>Southern Late</u>
<u>Conventional</u>	<u>Conventional</u>	<u>Roundup Ready</u>	<u>Roundup Ready</u>	<u>Roundup Ready</u>	<u>Roundup Ready</u>
Allegan	Ingham	Allegan	Allegan	Ingham	Ingham
Ingham	Lenawee	Ingham	Ingham	Lenawee	Lenawee
Saginaw	St. Joseph	Saginaw	Saginaw	St. Joseph	St. Joseph

AG ARMOUR

Ag Armour AA 1521 E3 (3) (P8)
 Ag Armour AA 1914 N (1) (P8)
 Ag Armour AA 2019 LL/GT27 (3) (P8)
 Ag Armour AA 2021 E3 (3) (P8)
 Ag Armour AA 2214 N (1)
 Ag Armour AA 2321 E3 (4) (P8)
 Ag Armour AA 2521 E3 (5) (P8)

Agra Solutions LLC

Agra Solutions KEY 1025GL (5) (P8)
 Agra Solutions KEY 1031GL (6) (P8)

AgReliant Genetics, LLC

LG Seeds C1000RX (3) (P8)
 LG Seeds C1838RX (3,5) (P8)
 LG Seeds C2300 (1,2) (P8)
 LG Seeds C2888RX (4,6) (P8)
 LG Seeds LGS1550RX (3) (P8)
 LG Seeds LGS1684 (1)
 LG Seeds LGS2007RX (3,5) (P8)
 LG Seeds LGS2010 (1,2) (P8)
 LG Seeds LGS2444RX (4,5) (P8)
 LG Seeds LGS2801 (2) (P8)
 LG Seeds LGS3060RX (6) (P8)

BASF

Credenz CZ 1850GTLL (3) (P8)
 Credenz CZ 1859GTLL (3) (P8)
 Credenz CZ 2040GTLL (3,5) (P8)
 Credenz CZ 2121GTLL (3,5) (P8)
 Credenz CZ 2230GTLL (3,5) (P8)
 Credenz CZ 2360GTLL (4,5) (P8)
 Credenz CZ 2550GTLL (4,5) (P8)
 Credenz CZ 2760GTLL (4,5) (P8)
 Credenz CZ 2830GTLL (4,6) (P8)
 Credenz CZ 2910GTLL (4,6) (P8)
 Credenz CZ 3099GTLL (4,6) (P8)
 Credenz CZ 3309GTLL (6) (P8)

Dairyland Seed

Dairyland DS-1318E (3) (P8)
 Dairyland DS-1673E (3) (P8)
 Dairyland DS-2030E (3,5) (P8)
 Dairyland DS-2112E (3,5) (P8)
 Dairyland DS-2259E (3,5) (P8)
 Dairyland DS-2424E (4,5) (Peking)
 Dairyland DS-2555E (4,5) (P8)
 Dairyland DS-2590E (4,5) (P8)
 Dairyland DS-2640E (4,5) (P8)
 Dairyland DS-2844E (4,6) (P8)
 Dairyland DS-2999E (4,6) (P8)
 Dairyland DS-3146E (6) (P8)
 Dairyland E20-101E (3,5)
 Dairyland E24-201E (4,5)

DF Seeds, LLC

DF Seeds DF 151 N (1) (P8)
 DF Seeds DF 155 F (1,2)
 DF Seeds DF 187 N (1) (P8)
 DF Seeds DF 201 N (1) (P8)
 DF Seeds DF 210 N (1) (Peking)
 DF Seeds DF 227 N (1) (P8)
 DF Seeds DF 231 N (1) (P8)
 DF Seeds DF 260 N (1,2) (P8)
 DF Seeds DF 3141 N E3 (3) (P8)
 DF Seeds DF 317 N (2) (P8)
 DF Seeds DF 3191 N E3 (3) (P8)
 DF Seeds DF 3211 N E3 (3) (P8)
 DF Seeds DF 3251 N E3 (4,5) (P8)
 DF Seeds DF 3271 N E3 (5) (P8)
 DF Seeds DF 3291 N E3 (6) (P8)
 DF Seeds DF 6131 N LLGT27 (3) (P8)
 DF Seeds DF 6161 N LLGT27 (3) (P8)
 DF Seeds DF 6191 N LLGT27 (3) (P8)
 DF Seeds DF 6210 N LLGT27 (3) (P8)
 DF Seeds DF 6241 N LLGT27 (4,5) (P8)
 DF Seeds DF 6269 N LLGT27 (4,5) (P8)
 DF Seeds DF 6280 N LLGT27 (6) (P8)

Dyna-Gro Seed, Nutrien Ag Solutions

Dyna-Gro S11EN40 (3) (P8)
 Dyna-Gro S14EN90 (3) (P8)
 Dyna-Gro S18XT38 (3) (P8)
 Dyna-Gro S19EN21 (3) (P8)
 Dyna-Gro S19XT30 (3) (P8)
 Dyna-Gro S21EN81 (3) (P8)
 Dyna-Gro S21GL41 (3) (P8)
 Dyna-Gro S21XT49 (3) (P8)
 Dyna-Gro S2207N (1) (P8)
 Dyna-Gro S2409N (1,2) (P8)
 Dyna-Gro S24EN50 (4,5) (P8)
 Dyna-Gro S25EN41 (4,5) (P8)
 Dyna-Gro S26GL30 (4,5) (P8)
 Dyna-Gro S28GL80 (6) (P8)
 Dyna-Gro S28XT58 (4,6) (P8)
 Dyna-Gro S2908N (2) (P8)
 Dyna-Gro S31EN91 (6) (P8)
 Dyna-Gro S31GL41 (6) (P8)
 Dyna-Gro S32XS71 (6) (P8)
 Dyna-Gro SX20723EN (4,5) (P8)

Garner Farms LLC

Denmark Diamond

Growmark, Inc.

Growmark HS 21X90 (3) (P8)
 Growmark HS 22X00 (3) (P8)
 Growmark HS 23E00 (4) (P8)
 Growmark HS 24X80 (4) (P8)
 Growmark HS 25E00 (4,5) (P8)
 Growmark HS 26B90 (4,5) (P8)
 Growmark HS 28B00 (4,6) (P8)
 Growmark HS 28E90 (6) (P8)
 Growmark HS 30X00 (6) (P8)
 Growmark HS 31B00 (6) (P8)
 Growmark HS 31E90 (6) (P8)
 Growmark HS 32X90 (6) (P8)

Golden Harvest

Golden Harvest GH1763E3 (3) (P8)
 Golden Harvest GH2011E3 (3) (P8)
 Golden Harvest GH2041X (3) (P8)
 Golden Harvest GH2230X (3) (P8)
 Golden Harvest GH2329X (4) (P189772)
 Golden Harvest GH2505E3 (4) (P8)
 Golden Harvest GH2552X (4) (P8)
 Golden Harvest GH2610E3 (4,5) (Peking)
 Golden Harvest GH2788X (4,5) (P8)
 Golden Harvest GH2818E3 (4,6) (P8)
 Golden Harvest GH2981X (6) (P8)

Local Seed Company

Local Seed Company LS1887X (3,5)
 Local Seed Company LS1407E3 (3)
 Local Seed Company LS3005E3 (4,6)
 Local Seed Company LS3205GL (6)
 Local Seed Company LS3207XS (6)
 Local Seed Company ZS1999GL (3,5)
 Local Seed Company ZS2898GL (4,6)
 Local Seed Company ZS3496GL (6)

M&W Seeds

M&W Seeds M&W 20L69 (3) (P8)
 M&W Seeds M&W 21E26 (3) (P8)
 M&W Seeds M&W 23T88 (4) (P8)
 M&W Seeds M&W 25E25 (4,5) (P8)
 M&W Seeds M&W 26T32 (4,5) (P8)
 M&W Seeds M&W 28T76 (6) (P8)
 M&W Seeds M&W 29E85 (6) (P8)
 M&W Seeds M&W 30L10 (6) (P8)
 M&W Seeds M&W MWX17E (3) (P8)

Michigan Crop Improvement Assn.

MCIA MCIA 2119 LL/GT27 (3)
 MCIA MCIA 2212LL (1)
 MCIA MCIA 2319 LL/GT27 (4,5)
 MCIA MCIA 2520 LL/GT27 (4,5)
 MCIA MCIA 2820 LL/GT27 (6)

Michigan State University

MSU E07158-T (1)
 MSU E11128T (1) (P8)
 MSU E12076T (1,2) (P8)
 MSU E12076T-03 (1,2) (P8)
 MSU E13268 (1,2)
 MSU E14077(1,2) (P8)
 MSU E15079T (1)
 MSU E15165T (1)
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 MSU E15345 (1,2) (P8)
 MSU E15346T (1)
 MSU E15349 (1)
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 MSU E15901 (1,2) (P8)
 MSU E16189 (2)
 MSU E16266 (1,2) (P8)

Michigan State University (continued)

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 MSU E16387 (1) (P8)
 MSU E16410 (1) (P8)
 MSU E16915 (2) (P8)
 MSU E17004 (2)
 MSU E17054 (1,2) (P8)
 MSU E17062 (2)
 MSU E17069 (2) (P8)
 MSU E17167 (2) (Peking)
 MSU E17181T (1)
 MSU E17184 (2) (P8)
 MSU E17203 (1,2) (P8)
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 MSU E17506T (1,2) (P8)
 MSU E17508 (2) (P8)
 MSU E17808-01 (1,2)
 MSU E18012 (1) (P8)
 MSU E18015 (1) (P8)
 MSU E18024T (1,2) (P8)
 MSU E18073 (1) (P8)
 MSU E18074 (1)
 MSU E18433 (1,2) (P8)
 MSU E18450 (1,2) (P8)
 MSU E18450GT (4,5) (P8)
 MSU E18580 (1,2) (P8)
 MSU E18610T (1) (P8)
 MSU E18638T (1,2) (P8)

NK Seeds

NK Seeds S14-U9X (3) (P8)
 NK Seeds S15-3E3 (3) (P8)
 NK Seeds S20-E3 (3) (P8)
 NK Seeds S20-J5X (3) (P8)
 NK Seeds S22-E3 (3) (P8)
 NK Seeds S23-G5X (4,5) (P189722)
 NK Seeds S25-V8X (5) (P8)
 NK Seeds S26-E3 (5) (Peking)
 NK Seeds S28-E3 (6) (P8)

Renk Seed

Renk Seed GENESIS G1450E (3) (P8)
 Renk Seed GENESIS G1650E (3) (P8)
 Renk Seed GENESIS G2150E (3) (P8)
 Renk Seed GENESIS G2190GL (3) (P8)
 Renk Seed GENESIS G2350E (5) (P8)
 Renk Seed GENESIS G2550E (5) (P8)
 Renk Seed GENESIS G3040E (6) (P8)
 Renk Seed RENK RS181NX (3) (P8)
 Renk Seed RENK RS150NX (3) (P8)
 Renk Seed RENK RS250NX (5) (P8)
 Renk Seed RENK RS280NX (6) (P8)
 Renk Seed RENK RS301NX (6) (P8)

Rupp Seeds, Inc.

Rupp Seeds RS 18XT17 (3) (P8)
 Rupp Seeds RS 19EL37 (3) (P8)
 Rupp Seeds RS 20BG47 (3) (P8)
 Rupp Seeds RS 21EL57 (3) (P8)
 Rupp Seeds RS 23BG30 (4) (P8)
 Rupp Seeds RS 23EL34 (4) (P8)
 Rupp Seeds RS 25EL24 (4,5) (P8)
 Rupp Seeds RS 28BG90 (6) (P8)
 Rupp Seeds RS 28XT37 (6) (P8)
 Rupp Seeds RS 30EL18 (6) (P8)
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Specialty Hybrids

Specialty Hybrids 2083R2X (3,5) (P8)
 Specialty Hybrids 2583R2X (4,5) (P8)
 Specialty Hybrids 2894R2X (4,6) (P8)
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 Specialty Hybrids 3192R2X (6) (Peking)

Wellman Seeds, Inc.

Wellman Seeds W 295 (2)
 Wellman Seeds W 4529 (6) (P8)
 Wellman Seeds W 5926X (5) (P8)
 Wellman Seeds W 5928X (6) (P8)
 Wellman Seeds W 5932X (6) (P8)
 Wellman Seeds W 6023E (5) (P8)
 Wellman Seeds W 6032E (6) (P8)
 Wellman Seeds W 6125E (5) (P8)
 Wellman Seeds W 6130E (6) (P8)
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 Wellman Seeds W 6928E (6) (P8)

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 Xitavo XO 1971E (3) (P8)
 Xitavo XO 2181E (3,5) (P8)
 Xitavo XO 2391E (4,5) (P8)
 Xitavo XO 2501E (4,5) (P8)
 Xitavo XO 2711E (4,5) (P8)
 Xitavo XO 2921E (4,6) (P8)
 Xitavo XO 3131E (4,6) (P8)
 Xitavo XO 3341E (6) (P8)

Zeeland Farm Services, Inc.

Zeeland Farm Services ZFS 1326 (1,2) (P8)
 Zeeland Farm Services ZFS 1721 (1) (P8)
 Zeeland Farm Services ZFS 1821 (1,2) (P8)
 Zeeland Farm Services ZFS 24019HO (1,2) (P8)
 Zeeland Farm Services ZFS 2521HO (1,2) (P8)
 Zeeland Farm Services ZFS 2819HO (1,2) (P8)



PO Box 287
Frankenmuth, Michigan 48734



The Soybean Checkoff
michigansoybean.org

Fellow Soybean Producers,

The selection of the best soybean varieties for your farm is likely to be the most critical decision to impact your soybean yields. To inform your decision, this report contains the most complete source of unbiased yield comparisons from across the state.

The investment of checkoff funds in this publication is an example of our mission to "Manage checkoff resources to increase return on investment for Michigan soybean farmers while enhancing sustainable soybean production". We feel confident in the value of this resource and hope that it proves as a valuable resource for your farm.

We wish you a safe and profitable 2021 season.

Sincerely,

Michigan Soybean Committee Directors

District #1 Dan Rajzer, Decatur
District #3 Laurie Isley, Palmyra
District #5 Mike Sahr, Saginaw
District #7 Steve Koeman, Hamilton

District #2 Pete Crawford, Dansville
District #4 Dennis Gardner, Croswell
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