

2021 Michigan Soybean Performance Report



Harvesting Lenawee County Research Plot

Putting Your Checkoff To Work



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SOYBEAN
COMMITTEE**

The Soybean Checkoff
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The *2021 Michigan Soybean Performance Report* is a result of a cooperative effort of the soybean breeding program at Michigan State University, Michigan State University Extension and the Michigan Soybean Committee. This information will help you to make informed critical choices for your 2022 soybean crop. This data can be accessed electronically at www.varietytrials.msu.edu/soybean.

**MICHIGAN STATE
UNIVERSITY**

Extension

2021 MICHIGAN SOYBEAN PERFORMANCE REPORT

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This report provides information on the performance of Conventional and Roundup Ready soybean varieties in Michigan in 2021.

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

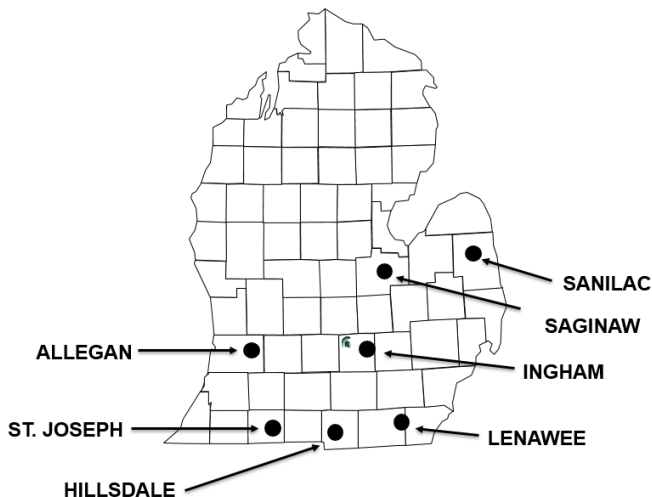
TESTING PROCEDURES

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

Twenty-one seed companies entered a total of 246 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).

2021 TEST SITE COUNTY LOCATIONS



TEST SITE INFORMATION

Lenawee County

Nearest city: Britton
Cooperator: David & Jason Woods
Planting date: 05/19/2021 conventional trials and 05/20/2021 for the Roundup trials
Harvest date: 11/07/2021 to 11/08/2021
Previous crop: Soybeans
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- 8 oz./A Cobra 20 oz./A Tapout
Roundup Ready Trials – 32 oz. /A Roundup PowerMax, 20 oz./A Tapout

Hillsdale County

Nearest city: Reading
Cooperator: Robert Lennard
Planting date: 05/21/2021
Harvest date: RR trials 10/01/2021, Conv. trials 11/10/2021
Previous crop: Corn
Soil type: Sandy loam
Fertilizer: 160# DAP 18-46-00, 230# Potash 00-00-60
Herbicides: Pre-emerge 12 oz. Authority MTZ, 1.5 pt. /A Medal II- Roundup PowerMax 32 oz. over the entire field.
Conventional trials - 8 oz./A Cobra, 20 oz./A Tapout
Roundup Ready Trials – 32 oz./A Roundup PowerMax, 20 oz./A Tapout

St. Joseph County - Irrigated

Nearest city: Mendon
Cooperator: Roger and Anne Gentz and Family
Planting date: 05/08/2021
Harvest date: 11/03/2021 to 11/05/2021
Previous crop: Hybrid Seed Corn
Soil type: Elston Sandy loam
Fertilizer: 250 #/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

Ingham County

Nearest city: Webberville
Cooperator: Walnut-Vu Farm
Planting date: 05-10-2021
Harvest date: 11/18/2021 to 11/19/2021
Previous crop: Corn
Soil type: Loam
Fertilizer: Grid Potash/ MAP
Herbicides: Pre-emerge Authority MTZ 16 oz./A, 1.5 pt./A Medal II 32 oz. Roundup PowerMax
Conventional Trials- 1 qt. Basagran, 5 oz./A Raptor 5 oz./A, 20 oz./A Tapout
Roundup Ready Trials – 32 oz./A Roundup PowerMax, 20 oz./A Tapout

Allegan County

Nearest city: Wayland
Cooperator: Ann & Jeremy Biesbrock
Planting date: 05-13-2021
Harvest Date: 11/05/2021 to 11/08/2021
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- 32 oz. / A Roundup PowerMax over the entire field.
Post-emerge:
Conventional Trials- 1 qt. Basagran, 5 oz./A, Raptor, 20 oz./A Tapout
Roundup Ready Trials – 32 oz./A Roundup PowerMax, 20 oz./A Tapout

Saginaw County

Nearest city: Saginaw
Cooperator: Tom Hoff
Planting date: 05/12/2021
Harvest date: 10/18/2021 to 10/20/2021
Previous crop: Corn
Soil type: Clay 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 Trials- 1 qt. Basagran, 5 oz./A Raptor, 20 oz./A Tapout
Roundup Ready Trials – 32 oz./A Roundup PowerMax 20 oz./A Tapout

Sanilac County

Nearest city: Sandusky
Cooperator: Gerstenberger Farms, Inc.
Planting date: 05/11/2021
Harvest date: 10/20/2021 to 10/22/2021
Previous crop: Sugar beets
Soil type: Parkhill
Fertilizer: none
Herbicides: Pre-emerge 1.5 pt. /A Medal II, 32 oz. Roundup PowerMax- over the entire field
Conventional Trials- 1 qt. Basagran, 20 oz./A Tapout
Roundup Ready Trials – 32 oz./A Roundup PowerMax 5 oz./A, 20 oz./A Tapout

GROWING CONDITIONS / COMMENTS

Dry weather during most of the planting season allowed for timely planting of the trials and farm fields, but delayed germination and activation of herbicides in some areas. All of the soybean performance trials were planted by May 21st. Heavy rain and wet weather in June ended the dry spell and continued through July. Enviro-weather data shows the MSU farm on campus received 1.12” of rain May 1st through June 20th, then received 10.04” of rain from June 20th through the end of July. While much of the state remained wet, an area on the west side of the state including the Allegan county location became dry during the late summer. Overall heat units were ahead of the long term average. The cold, wet

weather late in October made harvest particularly difficult as rains and dreary weather persisted through most of the state. The Mendon weather station (St. Joseph county) showed some amount of precipitation 25 days in October. The South zone Roundup Ready trials were not harvested at the Ingham county location due to wet weather. Data for the Central Conventional trial in the Sanilac and Allegan locations, and the South Conventional trial in St. Joseph were discarded because of variability.

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 2021. 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.

Protein and Oil Content: Protein and oil content of the seed was determined using near-infrared reflectance and is expressed on a **DRY MATTER** basis. The analysis was done on seed from all 4 replications from the Ingham location. Protein and oil data is not available for the southern zone Roundup Ready trials because they were not harvested from the Ingham county location due to wet soil conditions.

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

Some of the varieties in the conventional trials have special traits such as a specific oil profile, which growers can sell for premium prices. Talk to the seed dealer about premium varieties. Seed dealers and their contact information are listed in the 'Index of Varieties and the 'Directory of Companies'.

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.

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HERBICIDE TRAITS

The column in the chart labeled HERB contains the variety herbicide resistance.

- Conv=conventional
- LL=Liberty Link
- RR1=Roundup Ready
- RR2X=Roundup Ready 2 Extend
- XF=Extend Flex
- E3=Enlist E3
- GT27=Glyphosate Tolerant
- LLGT27=Liberty Link and Glyphosate Tolerant

SEED TREATMENT

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	Acceleron-Insecticide
• AA Elite	Ag Armour Elite
• AG-MX	Agri Max
• CM	Cruiser Maxx-Insecticide
• CM+VIB	Cruiser Maxx + Vibrance Insecticide/Fungicide
• DFender	Defender-Fungicide
• ECL-Trio	Eclipse Trio-Fungicide
• Ecl-US-Q	EclipseUS quad IM-Fungicide
• EG	EverGoEnergy-Fungicide
• Encase	Encase-Root growth
• EQ-VIP	Equity VIP-Insecticide/Fungicide
• G	Gaucho-Insecticide
• I	ILeVO (BayerCropScience) Nematicide
• N-H	Inhibit
• Lum	Lumisena-Fungicide
• N	NForce-Nitrogen Fixing Bacterium
• OBV	Obvius Plus-Fungicide
• P	Poncho-Insecticide/Nematicide
• Radius	Radius Premium-Herbicide
• SA	Saltro-Nematicide
• Titan	Titan-Insecticide
• UT	Untreated
• Vib	Vibrance Maxx-Fungicide
• V	Votivo-Insecticide/Nematicide

2021 DIRECTORY OF COMPANIES

BRAND	COMPANY NAME AND ADDRESS	BRAND	COMPANY NAME AND ADDRESS
AG ARMOUR	AG Armour Seeds Inc. 8236 N. Williams Rd. St. Johns, MI 48879 www.ag.armourseeds.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	NATURE'S GENETICS	Citizens LLC 421 N Cochran Ave. Charlotte, MI 48813 www.citizenselevator.com
DAIRYLAND	Dairyland Seed P.O. Box 958 West Bend, IN 53095 www.dairylandseed.com	NK SEEDS	Syngenta Seeds Inc. 2001 Butterfield Rd, Suite 1600 Downers Grove, IL 60515 www.syngenta-us.com/seeds/nk
DF SEEDS	DF Seeds, LLC P.O. Box 159 Dansville, MI 48819 www.dfseeds.com	RENK SEED	Renk Seed 6809 Wilburn Rd. Sun Prairie, WI 53590 www.renkseed.com
DYNA-GRO	Dyna-Gro Seed, Nutrien Ag Solutions 4648 S Garfield Rd. Auburn, MI 48611 www.dynagroseed.com	RUPP SEEDS	Rupp Seeds, Inc. 17919 Co. Rd. B Wauseon, OH 43567 www.ruppseeds.com
GOLDEN HARVEST	Syngenta Seeds Inc. 2001 Butterfield Rd, Suite1600 Downers Grove, IL 60515 www.goldenharvestseeds.com	SOUTHWEST	Southwest Seeds Inc. 19686 Scane Rd. Ridgetown, Ontario NOP 2C0 www.secan.com/members/southwest-seeds-inc
KEY	AGRA Solutions, LLC 23778 Jennings Delphos Rd. Delphos, OH 45833 www.agrasolutions.com	SPECIALTY HYBRIDS	Specialty Hybrids 306 N. Main Street Monticello, IN 47960 www.specialtyhybrids.com
LG SEEDS	LG Seeds 1122 E 169th Street Westfield, IN 46074 www.lgseeds.com	VIRTUE	GDM Seeds 3414 Big Pine Trail Champaign, IL 61822 www.virtueseeds.com
LOCAL SEED	Local Seed Company 802 Rozelle Street Memphis, TN 38104 www.localseed.com	WELLMAN SEEDS	Wellman Seeds, Inc. Jennings Delphos Rd. Delphos, OH 45833 www.wellmanseeds.com
M&W SEEDS	M&W Seeds 8443 Wilcox Rd. Eaton Rapids, MI 48827 www.mwseeds.com	XITAVO	Xitavo 103 Avenue D West Point, IA 52656 www.xitavosoybeanseed.com
		ZEELAND FARM SERVICES	Zeeland Farm Services 2525 84th Ave Zeeland, MI 49464 www.zfsinc.com

TABLE 1. 2021 MICHIGAN CENTRAL CONVENTIONAL SOYBEAN VARIETY TRIAL REPORT

BRAND	VARIETY	Maturity Group	Herb Tech	TMT'	Phyto Res	SCN Res	Aphid Res	YIELD (BU/AC)							
								20-21 AVG	19-21 AVG	Ingham	Saginaw	Height	Lodging	Protein	Oil
Ag Armour	AA 2214 N	2.2	Conv Ag Armour Elite		1a	R		77.2	66.5	84.8	69.5	40	2.6	42.9	19.8
Dairyland	DSR-3001	3.0	Conv EG,G,I,LUM		1c	R		79.1	70.1	83.3	74.9	45	2.1	42.8	20.9
DF Seeds	DF 151 N	1.5	Conv DFender-N-I		1k	R		79.8	62.1	86.8	72.8	37	2.6	41.7	20.7
DF Seeds	DF 155 F	2.5	Conv DFender-N-I		1k	MS		68.2	64.8	73.2	63.2	39	2.9	42.7	20.6
DF Seeds	DF 187 N	1.8	Conv DFender-N-I		1k	R		73.4	63.1	76.3	70.4	39	2.1	43.5	19.7
DF Seeds	DF 201 N	2.0	Conv DFender-N-I		1a	R		71.6	66.2	74.1	69.0	37	1.8	41.5	21.2
DF Seeds	DF 210 N	2.1	Conv DFender-N-I		1k	R		76.8	70.1	80.3	73.2	36	1.9	41.1	21.2
DF Seeds	DF 227 N	2.2	Conv DFender-N-I		1a	R		80.0	67.1	86.8	73.2	39	2.4	43.4	19.9
DF Seeds	DF 231 N	2.3	Conv DFender-N-I		1a	R		78.2	70.6	80.0	76.4	36	1.6	41.2	21.0
DF Seeds	DF 260 N	2.6	Conv DFender-N-I		1k	R		78.3	70.1	78.8	77.8	36	2.8	41.2	21.6
DF Seeds	DF 262 N F	2.6	Conv DFender-N-I		1k	R		62.8		64.4	61.2	36	2.5	45.4	19.1
Dyna-Gro	S2092N	2.0	Conv Equity VIP Saltro		1k	R		*83.9	71.2	89.7	78.1	32	1.6	40.7	21.7
Dyna-Gro	S2409N	2.4	Conv Equity VIP Saltro		1k	MR		79.4	70.2	83.0	75.8	36	1.8	42.1	20.6
GDM Seeds	V2122	2.1	Conv CM + Vib		3a			71.8		75.1	68.5	39	2.3	43.1	20.4
GDM Seeds	V2922	2.9	Conv CM + Vib		1k	R		77.5	68.1	76.3	*78.6	37	2.8	40.8	21.6
LG Seeds	C2300	2.3	Conv Agri Max w/Saltro		1a	R		77.3	66.8	79.0	75.5	39	2.6	42.5	20.2
LG Seeds	LGS1684	1.6	Conv Agri Max w/Saltro		1k	R		74.4		82.0	66.8	38	2.1	41.5	20.8
LG Seeds	LGS2020	2.0	Conv Agri Max w/Saltro		1k	R		83.8		*92.8	74.7	34	1.6	40.6	21.6
MClA	MClA 2212 LL	2.2	LL CM			R		71.3	44.7	78.3	64.3	38	2.1	43.1	20.7
MSU	E07158-T	2.3	Conv DFender-N-I					48.8	56.7	54.5	43.1	42	2.9	47.5	18.9
MSU	E1128T	2.5	Conv DFender-N-I			R		60.5	60.0	62.2	58.8	38	2.5	44.9	19.1
MSU	E12076T	2.9	Conv DFender-N-I			R		64.0	63.7	66.4	61.5	38	2.6	41.5	20.3
MSU	E12076T-03	2.2	Conv DFender-N-I			R		70.7	66.0	75.0	66.3	33	2.6	41.7	20.5
MSU	E13268	1.7	Conv DFender-N-I		1c			72.8	66.9	81.1	64.4	35	2.5	42.3	21.1
MSU	E14077	2.4	Conv DFender-N-I		1k	R		73.1	57.1	76.8	69.4	38	2.0	41.2	21.8
MSU	E15079T	2.2	Conv DFender-N-I					62.8	60.5	68.0	57.5	43	2.9	45.3	19.0
MSU	E15165T	2.0	Conv DFender-N-I		1c			69.6		77.2	62.0	36	2.5	45.3	19.4
MSU	E15338	1.5	Conv DFender-N-I					69.8	68.1	73.6	65.9	39	3.4	42.0	21.0
MSU	E15339	2.4	Conv DFender-N-I			R		77.9	66.5	78.9	76.9	42	3.5	41.8	21.4
MSU	E15345	2.7	Conv DFender-N-I			R		73.9	67.9	75.0	72.8	41	3.3	41.4	20.9
MSU	E15346T	1.6	Conv DFender-N-I					75.4	60.1	78.7	72.1	40	2.6	42.4	20.7
MSU	E15349	1.6	Conv DFender-N-I		1k			62.9	69.0	69.6	56.1	40	2.4	44.2	20.6
MSU	E15351	1.8	Conv DFender-N-I		1c	R		77.4	65.9	80.7	74.0	38	2.5	41.7	20.4
MSU	E15901	2.5	Conv DFender-N-I		1k	R		74.0	64.0	75.7	72.3	41	2.1	41.8	20.1
MSU	E16099	1.5	Conv DFender-N-I					70.1	63.5	75.2	64.9	39	2.8	42.9	20.5
MSU	E16266	2.6	Conv DFender-N-I		1k	R		72.3	63.3	71.9	72.6	39	2.0	42.4	20.8
MSU	E16346	1.8	Conv DFender-N-I					68.2	64.8	71	65.3	35	2.3	40.8	21.3
MSU	E16410	2.8	Conv DFender-N-I		3c	R		70.0	62.8	76.8	63.1	38	2.4	40.8	21.1
MSU	E17181T	2.0	Conv DFender-N-I					72.1	66.6	78	66.2	37	2.6	42.9	20.6
MSU	E17203	2.4	Conv DFender-N-I		1k	R		73.5	66.7	71.8	75.1	39	2.9	42.7	20.4
MSU	E17283	2.7	Conv DFender-N-I		1k	R		78.1	52.3	81.8	74.3	37	2.5	41.9	20.1
MSU	E17808-01	1.9	Conv DFender-N-I		1c			58.6	60.8	65.7	51.4	43	2.9	43.8	21.4
MSU	E18024T	2.7	Conv DFender-N-I			R		66.7	66.4	70.4	62.9	39	3.0	44.7	19.1

TABLE 1. 2021 MICHIGAN CENTRAL CONVENTIONAL SOYBEAN VARIETY TRIAL REPORT

BRAND	VARIETY	Maturity Group	Herb Tech	TMT [†]	Phyto Res	SCN Res	Aphid Res	YIELD (BU/AC)					
								2021 AVG	20-21 AVG	19-21 AVG	2021 AVERAGE		
MSU	E18450	2.5	Conv DFender-N-I		R			80.7	63.2	44	3.6	42.0	20.6
MSU	E18638T	2.0	Conv DFender-N-I		R			77.4	69.9	40	3.3	44.5	19.1
MSU	E19194	2.1	Conv DFender-N-I					79.8	59.3	45	1.3	41.6	20.2
MSU	E19288T	2.4	Conv DFender-N-I					63.3	61.2	41	3.4	44.5	19.1
MSU	E19312T	2.1	Conv DFender-N-I					73.7	64.6	41	2.5	44.3	19.6
MSU	E19314T	1.6	Conv DFender-N-I					66	61.3	36	2.6	43.7	19.2
MSU	E19323T	1.7	Conv DFender-N-I					69.9	67.0	39	2.8	43.8	19.4
MSU	E19327T	2.0	Conv DFender-N-I					67.3	62.2	37	2.8	43.9	19.6
MSU	E19412	2.4	Conv DFender-N-I					68.8	70.1	41	2.4	42.1	20.4
MSU	E19413	2.5	Conv DFender-N-I					72.4	62.5	43	3.5	41.9	20.3
MSU	E19689	2.1	Conv DFender-N-I					67.9	62.7	40	2.4	42.7	21.8
MSU	E19803-07	2.7	Conv DFender-N-I					60.4	52.5	34	2.0	42.8	21.0
Nature's Genetics	N.G. 1926	2.5	Conv					73.9	63.2	41	2.8	43.0	20.7
Nature's Genetics	N.G. 2.4	2.5	Conv					63.5	56.3	40	2.6	45.3	18.8
Southwest Seeds	AAC Wigle	2.2	Conv untreated		MR			70.2	68.1	38	1.8	46.3	18.1
Southwest Seeds	OAC Bruton	2.0	Conv Vibrance Maxx		MR			65.3	62.6	36	1.9	43.8	19.7
Zeeland Farm Services	ZFS 1721	1.7	Conv Ecl-US-Q, N, N-H		R			72.1	69.3	34	1.6	44.7	19.3
Zeeland Farm Services	ZFS 2221	2.2	Conv Ecl-US-Q, N, N-H		R			79.3	73.5	42	3.3	41.6	21.3
Zeeland Farm Services	ZFS 2222HO	2.2	Conv Ecl-US-Q, N, N-H		R			65	57.2	39	2.1	44.1	20.1
Zeeland Farm Services	ZFS 24019HO	2.4	Conv Ecl-US-Q, N, N-H		R			66.7	64.2	39	1.1	44.1	21.7
Zeeland Farm Services	ZFS 2521HO	2.5	Conv Ecl-US-Q, N, N-H		R			70.4	70.1	39	2.1	44.0	20.8
Zeeland Farm Services	ZFS 2721	2.7	Conv Ecl-US-Q, N, N-H		R			75.8	71.8	43	3.3	41.1	21.1
Zeeland Farm Services	ZFS 2819HO	2.8	Conv Ecl-US-Q, N, N-H		R			77.2	60.9	41	2.6	42.6	21.3
Zeeland Farm Services	e13H988	1.3	Conv untreated		R			63.4	57.8	30	1.1	44.2	21.7
GRAND MEAN								74.3	66.6	39	2.5	42.9	20.4
Max.								83.9	78.6	45	4.4	47.5	21.8
Min.								48.8	43.1	30	1.1	40.6	18.1
LSD (0.05)								5.4	7.3				
CV (%)								6.5	6.6				

[†] 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. 2021 MICHIGAN SOUTH CONVENTIONAL SOYBEAN VARIETY TRIAL REPORT

BRAND	VARIETY	Maturity Group	Herb Tech	TMT ¹	Phyto RES	SCN	Aphid Res	YIELD (BU/AC)									
								2021 AVERAGE									
								2021 AVG	20-21 AVG	19-21 AVG	Ingham	Hillsdale	Lenawee	Height	Lodging	Protein	Oil
Dairyland	DSR-3001	3.0	Conv	EG,G,I,LUM	1c	R		66.3	61.3	52.9	40	1.6	43.2	20.6			
DF Seeds	DF 155 F	2.5	Conv	DFender-N-I	1k	MS		63.1	56.8	53.0	36	2.1	43.7	20.5			
DF Seeds	DF 260 N	2.6	Conv	DFender-N-I	1k	R		67.0	59.3	60.5	34	2.6	41.8	21.4			
DF Seeds	DF 262 N F	2.6	Conv	DFender-N-I	1c	R		58.7	67.0	50.1	33	1.9	46.1	18.8			
DF Seeds	DF 282 N	2.8	Conv	DFender-N-I	1c	R		71.5	93.4	*61.2	34	1.5	41.9	21.0			
Dyna-Gro	S2409N	2.4	Conv	Equity VIP Salidro		MR		67.7	66.2	49.0	33	1.0	42.7	20.5			
Dyna-Gro	S2872N	2.8	Conv	Equity VIP Salidro	1c	R		72.3	63.7	57.5	34	1.4	41.9	21.2			
GDM Seeds	V2122	2.1	Conv	CM + Vib	3a	S		69.3	81.2	56.8	35	1.6	43.1	20.2			
GDM Seeds	V2922	2.9	Conv	CM + Vib	1k	R		69.5	77.6	*71.8	35	2.8	41.8	21.7			
LG Seeds	C2300	2.3	Conv	Agri Max w/Salidro	1a	R		68.3	63.0	53.9	37	2.3	43.5	19.9			
LG Seeds	LGS2020	2.0	Conv	Agri Max w/Salidro	k	R		72.9	67.5	55.3	32	1.9	41.8	21.6			
LG Seeds	LGS2801	2.8	Conv	Agri Max w/Salidro	1c	R		*73.1	65.9	59.2	36	1.1	42.0	21.1			
MSU	E12076T	2.9	Conv	DFender-N-I	1c	R		55.5	54.6	47.8	32	1.5	42.5	20.2			
MSU	E12076T-03	2.2	Conv	DFender-N-I	1c	R		67.3	60.8	56.4	33	1.9	42.8	20.2			
MSU	E13268	1.7	Conv	DFender-N-I	1c	R		62.5	59.3	52.2	32	2.0	42.9	20.9			
MSU	E14077	2.4	Conv	DFender-N-I	1k	R		63.2	60.4	49.5	35	2.0	42.8	21.1			
MSU	E15339	2.4	Conv	DFender-N-I	1k	R		62.0	58.5	54.6	39	3.4	42.3	21.0			
MSU	E15345	2.7	Conv	DFender-N-I	1c	R		67.5	63.4	59.5	36	3.4	41.8	20.8			
MSU	E15351	1.8	Conv	DFender-N-I	1c	R		64.8	59.7	50.2	34	2.3	42.4	20.1			
MSU	E15901	2.5	Conv	DFender-N-I	1k	R	R	64.8	60.8	56.9	36	1.6	43.1	19.8			
MSU	E16189	2.8	Conv	DFender-N-I	1c	R		63.9	59.5	52.1	40	2.5	43.0	19.8			
MSU	E16266	2.6	Conv	DFender-N-I	1k	R	R	62.2	58.2	52.4	35	1.3	42.9	20.8			
MSU	E16915	2.7	Conv	DFender-N-I	1k	R	R	60.4	61.2	43.8	36	2.0	43.3	19.7			
MSU	E17004	2.6	Conv	DFender-N-I	1c	R		60.8	57.3	45.0	35	2.1	43.1	20.4			
MSU	E17062	2.7	Conv	DFender-N-I	1c	R		65.9	61.4	57.1	38	2.9	43.8	20.2			
MSU	E17069	3.0	Conv	DFender-N-I		R		62.9	57.8	53.7	45	3.1	44.0	20.1			
MSU	E17203	2.4	Conv	DFender-N-I		R		64.9	61.0	54.4	35	3.0	43.0	20.3			
MSU	E17269	2.2	Conv	DFender-N-I	1k	R	R	62.7	59.7	47.3	37	2.5	41.8	20.8			
MSU	E17283	2.7	Conv	DFender-N-I	1k	R	R	66.8	62.0	56.7	36	2.0	43.4	19.8			
MSU	E18024T	2.7	Conv	DFender-N-I		R		55.5	53.0	46.7	35	2.3	45.0	19.2			
MSU	E18450	2.5	Conv	DFender-N-I		R		62.1	61.9	44.9	39	2.9	42.8	20.9			
MSU	E18638T	2.0	Conv	DFender-N-I		R		63.1	59.1	51.2	36	2.1	44.5	19.2			
MSU	E19194	2.1	Conv	DFender-N-I		R		63.2	78.4	45.1	41	1.1	42.0	20.5			
MSU	E19288T	2.4	Conv	DFender-N-I	1k	R	R	58.0	68.0	47.1	35	2.0	45.1	19.2			
MSU	E19312T	2.1	Conv	DFender-N-I		R		60.0	75.9	42.8	37	2.3	44.6	19.7			
MSU	E19314T	1.6	Conv	DFender-N-I		R		63.0	62.5	50.3	31	2.3	43.9	19.1			
MSU	E19323T	1.7	Conv	DFender-N-I		R		55.6	67.5	48.2	32	1.6	44.5	19.5			
MSU	E19327T	2.0	Conv	DFender-N-I		R		61.9	74.0	50.6	32	2.0	44.3	19.5			
MSU	E19412	2.4	Conv	DFender-N-I		R		65.7	71.9	59.8	38	2.1	43.6	19.8			
MSU	E19413	2.5	Conv	DFender-N-I		R		63.6	74.3	52.7	40	2.5	42.2	20.4			
MSU	E19689	2.1	Conv	DFender-N-I		R		57.9	69.1	46.6	35	2.0	43.6	21.5			
MSU	E19803-07	2.7	Conv	DFender-N-I		R		54.0	74.5	40.5	32	1.9	43.5	20.9			
Nature's Genetics	N.G. 1926	2.5	Conv					63.1	73.4	54.9	36	1.9	43.7	20.3			
Nature's Genetics	N.G. 2.4	2.5	Conv					48.6	69.6	37.2	34	1.8	45.5	19.0			
Southwest Seeds	AAC Wigle	2.2	Conv	untreated		MR		56.9	68.4	41.1	35	1.9	46.4	18.3			
Southwest Seeds	OAC Bruton	2.0	Conv	Vibrance Maxx		MR		50.4	64.9	36.5	31	1.3	44.5	19.7			
Wellman Seeds	W 295	2.5	Conv	ENCASE	1c			61.9	73.7	47.4	38	1.9	44.9	19.8			

TABLE 2. 2021 MICHIGAN SOUTH CONVENTIONAL SOYBEAN VARIETY TRIAL REPORT

BRAND	VARIETY	Maturity Group	Herb Tech	TMT ¹	Phyto RES	SCN	Aphid Res	YIELD (BU/AC)				2021 AVERAGE					
								2021 AVG	20-21 AVG	19-21 AVG	Ingham	Hillsdale	Lenawee	Height	Lodging	Protein	Oil
Zeeland Farm Services	ZFS 2221	2.2	Conv	Ecl-US-Q, N, N-H	R	R		65.2	54.1	56.3	80.1	62.2	53.4	37	3.1	42.5	21.0
Zeeland Farm Services	ZFS 2222HO	2.2	Conv	Ecl-US-Q, N, N-H	R	R		55.2	54.1	56.3	65.0	57.0	43.7	34	1.8	44.7	20.2
Zeeland Farm Services	ZFS 24019HO	2.4	Conv	Ecl-US-Q, N, N-H	R	R		55.6	54.1	56.3	67.7	58.8	40.2	36	1.1	45.1	21.4
Zeeland Farm Services	ZFS 2521HO	2.5	Conv	Ecl-US-Q, N, N-H	R	R		59.1	56.3	56.3	68.5	63.2	45.5	37	1.8	44.5	20.8
Zeeland Farm Services	ZFS 2721	2.7	Conv	Ecl-US-Q, N, N-H	R	R		66.0	50.2	50.2	73.8	64.0	60.3	36	3.0	41.8	20.9
Zeeland Farm Services	ZFS 2819HO	2.8	Conv	Ecl-US-Q, N, N-H	R	R		56.3	50.2	50.2	71.0	59.3	38.7	39	2.0	43.6	21.1
GRAND MEAN								62.8			75.3	60.0	49.3	35.6	2.2	43.4	20.3
Max.								73.0			95.9	71.8	61.2	44.6	3.6	46.4	21.7
Min.								49.9			64.5	39.0	36.5	30.9	1.0	41.8	18.3
LSD (0.05)								5.2			7.4	8.9	8.6				
CV (%)								8.6			5.8	8.8	10.5				

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

Michigan State University varieties are experimental



Planting yield trials with the research planter.

TABLE 3. 2021 MICHIGAN CENTRAL ROUND-UP READY / Early Maturity, (1.3 - 2.2), SOYBEAN VARIETY TRIAL REPORT

BRAND	VARIETY	Maturity Group	Herb	TMT ¹	Phyto Res	SCN	YIELD (BU/AC)									
							2021 AVG	20-21 AVG	19-21 AVG	Allegan	Ingham	Saginaw	Sanilac	Height	Lodging	Protein
Renk	GENESIS G2060E	2.0	E3	ECL-Tri, Saltro	1k	R	77.5	72.1	91.9	74.5	71.3	35	1.9	42.9	21.3	
Renk	GENESIS G2150E	2.1	E3	ECL-Tri, Saltro	1k	R	72.6	58.2	89.7	73.7	68.6	32	1.3	43	20.4	
Renk	GENESIS G2190GL	2.1	E3	ECL-Tri, Saltro		R	74.1	69.8	90.1	73.3	63.1	32	1.3	43.7	20.9	
Renk	GENESIS G2260E	2.2	E3	ECL-Tri, Saltro		R	70.6	59.7	88.2	68.8	65.6	32	1.3	43.3	20.3	
Renk	RENK RS212NXF	2.1	XF	ECL-Tri, Saltro	3a	R	69.2	63.2	83.9	70.8	58.8	33	1.7	44.3	20.3	
Renk	RENK RS219NX	2.1	RR2X	ECL-Tri, Saltro	1a ,3a	R	75.4	73.1	89.2	72.6	66.7	33	1.3	44.3	20.1	
Rupp	RS 18EL11	1.8	E3	AM-C		R	75.1	68.6	88.3	75.5	68.0	35	1.8	43.3	21	
Rupp	RS 20FX10	2.0	XF	AM-C	1c	R	67.9	60.3	77.2	70.1	63.9	32	1.2	44.1	20	
Rupp	RS 21EL57	2.1	E3	AM-C	1k	R	71.5	64.6	92.7	70.0	58.8	31	1.5	42.8	21.2	
Specialty	2194XF	2.1	XF	ACL	1c	R3	70.0	61.8	82.5	67.6	68.2	38	2.1	43	21.6	
Specialty	2204XF	2.2	XF	ACL	1c	R3	68.3	58.1	83.7	71.9	59.3	32	1.3	42.8	20.4	
Xitavo	XO 1372E	1.3	E3	P.V.I,Obv		R3MR14	73.1	56.2	93.0	75.5	67.8	30	1.5	43.4	21.6	
Xitavo	XO 1451E	1.4	E3	P.V.I,Obv	1k	R3MR14	71.9	64.5	89.6	70.1	63.2	34	1.8	43	21.9	
Xitavo	XO 1632E	1.6	E3	P.V.I,Obv	3a	R3MR14	74.1	64.2	90.5	70.8	70.9	32	1.8	42.4	21.4	
Xitavo	XO 1761E	1.7	E3	P.V.I,Obv	1k	R3MR14	70.6	62.8	86.5	73.8	59.4	30	1.1	43.3	20.9	
Xitavo	XO 1822E	1.8	E3	P.V.I,Obv	3a	R3MR14	72.7	64.0	86.4	72.2	68.3	32	2.1	44.1	20.9	
Xitavo	XO 1971E	1.9	E3	P.V.I,Obv		R3MR14	78.2	73.9	95.4	73.7	69.7	33	1.3	43.6	20.4	
Xitavo	XO 2181E	2.1	E3	P.V.I,Obv	1k	R3MR14	72.7	66.3	91.0	69.8	63.5	32	1.6	43	21.2	
Xitavo	XO 2282E	2.2	E3	P.V.I,Obv		R3MR14	71.7	65.6	86.5	70.8	63.9	32	1.3	42.9	20.4	
GRAND MEAN							72.2	67.0	87.0	72.1	66.2	33	1.5	43	21	
Max.							79.1	81.6	95.4	78.6	75.7	38	2.5	45	22	
Min.							63.5	50.0	72.0	64.1	55.9	30	1.0	42	20	
LSD (0.05)							5.9	10.3	7.7	6.6	10.8					
CV (%)							9.9	9.3	5.3	5.6	8.5					

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

^ data not available

Sanilac county rep 4 discarded because of bad spot in field



Planter is loaded for the next location

TABLE 4. 2021 MICHIGAN CENTRAL ROUND-UP READY / Late Maturity, (2.3 - 3.1), SOYBEAN VARIETY TRIAL REPORT
YIELD (BU/AC)

BRAND	VARIETY	Maturity Group	Herb	TMT ¹	Phyto RES	SCN	2021		20-21		19-21		2021 AVERAGE				
							AVG	CV	AVG	CV	AVG	CV	Allegan	Ingham	Saginaw	Sanliac	Height
GRAND MEAN							73.8		79.7	73.9	70.8	37	1.7	41.3	21.5		
Max.							80.0		86.5	81.6	80.9	43	2.8	43.2	22.6		
Min.							66.5		68.8	63.4	61.8	32	1.2	39.2	20.3		
LSD (0.05)							5.1		9.0	9.1	9.2						
CV (%)							8.4		8.8	7.4	7.8						

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



MSU campus field planted with light and dark soybean varieties using GPS guided precision planting.

TABLE 5. 2021 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	2021				2021 AVERAGE			
							AVG	AVG	AVG	AVG	AVG	AVG	AVG	AVG
AGRA Solutions Key	KEY 1226GL	2.6	GT27	ENCASE	1c	MR	61.5	58.3	62.7	67.1	33	1.5		
Credenz	CZ 2360GTLL	2.3	LLGT27	P,V,I,Obv	1k	R3MR14	66.8	62.2	67.7	74.9	34	1.4		
Credenz	CZ 2560GTLL	2.5	LLGT27	P,V,I,Obv	1a	R3MR14	61.3	57.3	59.5	70.9	33	1.6		
Credenz	CZ 2760GTLL	2.7	LLGT27	P,V,I,Obv	1a	R3MR14	66.5	64.5	65.8	73.5	34	1.8		
Dairyland	DSR-1707E	1.7	E3	EG,G,I,LUM	1k	R	60.8	59.9	60.0	66.7	31	2.0		
Dairyland	DSR-1820E	1.8	E3	EG,G,I,LUM	1k	R	60.1	60.4	61.2	63.2	28	1.3		
Dairyland	DSR-2030E	1.9	E3	EG,G,I,LUM	1c,3a	R	65.3	67.4	*73.3	59.8	30	2.4		
Dairyland	DSR-2040E	2.0	E3	EG,G,I,LUM	1k	R	63.0	61.7	67.3	64.4	29	1.2		
Dairyland	DSR-2112E	2.1	E3	EG,G,I,LUM	1k	R	63.9	63.4	64.9	67.8	33	1.5		
Dairyland	DSR-2222E	2.2	E3	EG,G,I,LUM	1c,3a	R	61.7	62.9	63.1	63.3	32	1.6		
Dairyland	DSR-2424E	2.4	E3	EG,G,I,LUM	1k	R	63.0	59.4	61.5	72.1	33	1.4		
Dairyland	DSR-2555E	2.5	E3	EG,G,I,LUM	1c	R	64.6	62.8	60.9	74.5	33	1.8		
Dairyland	DSR-2590E	2.5	E3	EG,G,I,LUM	1k	R	63.0	60.4	65.4	67.1	33	1.4		
Dairyland	DSR-2640E	2.6	E3	EG,G,I,LUM	1k	R	58.3	60.3	63.1	55.4	33	1.5		
DF Seeds	DF 3251 N E3	2.5	E3	DFENDER-N-I	1c	R	66.9	60.0	68.4	70.2	36	1.8		
DF Seeds	DF 6269 N LLGT27	2.6	GT27	DFENDER-N-I	1c	R	65.1	61.6	69.1	69.1	35	2.5		
Dyna-Gro	S23ES32	2.3	E3	Equity VIP Saitro	1k	R	62.5	67.4	60.7	64.1	34	1.4		
Dyna-Gro	S25EN02	2.5	E3	Equity VIP Saitro	1k	R	65.3	65.3	63.2	72.0	34	1.6		
Dyna-Gro	S25EN41	2.5	E3	Equity VIP Saitro	1c	R	70.9	62.4	70.0	79.7	36	1.9		
Dyna-Gro	S25XF71S	2.5	XF	Equity VIP Saitro	1c	R	65.0	60.9	61.9	76.4	33	1.3		
Golden Harvest	GH2505E3	2.5	E3	CM,Vib,Saitro	1c	MR	68.9	63.0	67.7	80.7	37	1.9		
Golden Harvest	GH2562XF	2.5	XF	CM,Vib,Saitro	1c	R3	69.9	67.5	71.1	75.7	35	2.2		
Golden Harvest	GH2722XF	2.7	XF	CM,Vib,Saitro	1c	MR3	*72.3	71.3	67.3	*83.2	37	1.8		
Golden Harvest	GH2788X	2.7	RR2X	CM,Vib,Saitro	1c	MR3MR14	67.7	61.7	66.6	76.9	32	1.4		
Local	IS1843E3	1.8	E3	Radius Premium	1c	R3	60.7	58.5	62.6	65.2	33	1.9		
Local	IS1929E3	1.9	E3	Radius Premium	1c	R3	63.5	63.1	63.2	68.6	29	1.3		
Local	IS2342E3	2.3	E3	Radius Premium	1k	R3,MR14	66.2	65.2	62.2	75.9	31	1.3		
Local	IS2748E3	2.7	E3	Radius Premium	1k	R3,MR14	61.0	62.0	59.4	65.5	33	1.4		
Local	LS1887X	1.8	RR2X	Radius Premium	1k	R3,MR14	62.1	55.0	56.9	69.1	35	1.6		
Local	LS2504XFS	2.5	XF/STS	Radius Premium	1c	R3,MR14	69.0	65.6	69.2	76.9	33	1.3		
M&W Seeds	M&W 23T88	2.3	GT27	Titan N-H	1k	R3,MR14	66.5	60.2	66.5	77.0	32	1.4		
M&W Seeds	M&W 24E44	2.4	E3	Titan N-H	1k	R3,MR14	62.5	58.9	62.4	69.9	32	1.6		
M&W Seeds	M&W 25E25	2.5	E3	Titan N-H	1k	R3,MR14	69.0	61.1	67.4	78.1	35	1.8		
MCIA	MCIA 2319 LL/GT	2.3	LL/GT	CM	1c	R	67.2	64.7	65.7	75.8	34	1.4		
MCIA	MCIA 2520 LL/GT	2.5	LL/GT	CM	1c	R	70.3	66.4	68.6	80.7	32	1.4		
MSU	E18450GT	2.5	RR1	DFender-N-I	1c	R	64.6	61.9	64.1	72.0	36	2.3		
MSU	E19495GT	2.5	RR1	DFender-N-I	1c	R	59.2	58.7	66.1	56.9	37	2.3		
MSU	E19497GT	1.5	RR1	DFender-N-I	1c	R	61.4	57.0	61.8	69.6	33	1.8		
MSU	E19517GT	2.9	RR1	DFender-N-I	1c	R	62.1	57.0	65.3	68.0	37	2.5		
NK	NK22-C4E3	2.2	E3	CM,Vib,Saitro	1c	R	59.5	60.4	62.3	60.2	33	1.5		
NK	NK24-G7E3	2.4	E3	CM,Vib,Saitro	1c,3a	R	63.7	62.8	62.9	70.1	31	1.4		
NK	NK25-C9XF	2.5	XF	CM,Vib,Saitro	1c	R	68.6	66.4	70.3	74.4	34	1.6		
RENK	GENESIS G2460ES	2.4	E3	ECL-Tri, Saitro	1k	R	61.0	60.3	62.1	64.8	33	1.8		

TABLE 5. 2021 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	2021		20-21		19-21		2021 AVERAGE				
							AVG	AVG	AVG	AVG	Hillsdale	Lenawee	St. Joseph	Height	Lodging		
RENK	GENESIS G2550E	2.5	E3	ECL-Tri, Saltro		R	70.5	63.2	*73.4	70.5	73.4	36	1.6				
RENK	RENK RS242NXF	2.4	XF	ECL-Tri, Saltro	1c	R	62.4		58.8	61.0	71.5	34	1.3				
Rupp	RS 25EL24	2.5	E3	AM-C		R	67.5	61.7	69.8	70.9	67.1	36	2.1				
Rupp	RS 26FX82	2.6	XF	AM-C		R	64.4		64.7	63.4	69.4	32	1.8				
Specialty	2704XF	2.6	XF	ACL	1c	R3	66.9		63.1	61.2	80.6	33	1.3				
Wellman	W 6125E	2.5	E3	ENCASE		R3,MR14	70.1	63.3	67.5	70.1	77.7	33	1.7				
Wellman	W 6224E	2.4	E3	ENCASE	1k	R3,MR14	63.3		60.6	62.2	71.3	32	1.4				
Wellman	W 6227E	2.7	E3	ENCASE	1c	R3,MR14	66.3		62.7	66.2	74.4	35	1.3				
Xitavo	XO 2181E	2.1	E3	P,V,I,Obv	1k	R3MR14	62.9	56.0	58.9	63.7	70.0	30	1.8				
Xitavo	XO 2282E	2.2	E3	P,V,I,Obv		R3MR14	63.1		59.1	64.4	69.8	30	1.6				
Xitavo	XO 2472E	2.4	E3	P,V,I,Obv	1k	R3MR14	62.7		64.5	61.7	66.1	33	1.5				
Xitavo	XO 2501E	2.5	E3	P,V,I,Obv		R3MR14	68.0	59.1	62.2	68.6	77.4	35	1.8				
GRAND MEAN																	
Max.							66.5		63.0	64.8	70.7	33	1.6				
Min.							72.3		73.4	73.3	83.2	37	2.5				
LSD (0.05)							58.3		57.0	56.9	55.4	28	1.2				
CV (%)							4.9		8.2	6.4	10.5						
							7.8		7.8	6.0	8.9						

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



Soybean plot in Saginaw, MI

TABLE 6. 2021 MICHIGAN SOUTHERN ZONE ROUND-UP READY / Late Maturity, (2.8 - 3.5), SOYBEAN VARIETY TRIAL REPORT
YIELD (BU/AC)

BRAND	VARIETY	Maturity Group	Herb	TMT ¹	Phyto Resist.	SCN	2020			2021 AVERAGE		
							AVG	AVG	AVG	Hillsdale	Lenawee	St. Joseph
Ag Armour	AA 2922 E3	2.9	E3	Ag Armour Elite	1k,3a	R3	68.7	60.9	73.2	72.1	32	1.4
AGRA Solutions Key	KEY 1031GL	3.1	GT27	ENCASE	1c	MR	67.4	60.7	66.0	73.9	36	1.8
Credenz	CZ 3099GTLL	3.0	LLGT27	P,V,I,Obv	1k	R3MR14	69.1	63.1	66.7	65.8	39	2.0
Credenz	CZ 3309GTLL	3.3	LLGT27	P,V,I,Obv	1a	R3MR14	72.9	64.3		79.4	41	1.6
Dairyland	DSR-2844E	2.8	E3	EG,G,I,LUM		R	70.4			72.4	35	1.5
Dairyland	DSR-2999E	2.9	E3	EG,G,I,LUM	1k	R	63.9			74.3	35	1.6
Dairyland	DSR-3146E	3.1	E3	EG,G,I,LUM	1k	R	70.5			71.0	38	1.6
Dairyland	DSR-3177E	3.1	E3	EG,G,I,LUM	1c	R	69.9			76.3	37	1.8
DF Seeds	DF 6280 N LLGT27	2.8	GT27	DFender-N-I		R	70.1	64.4	68.8	79.5	34	1.5
Dyna-Gro	S28EN22	2.8	E3	Equity VIP Saltro	1k,3a	MR	67.0			75.2	34	1.3
Dyna-Gro	S28XF92S	2.8	XF	Equity VIP Saltro	1c	R	72.4			78.7	37	1.8
Dyna-Gro	S29EN62	2.9	E3	Equity VIP Saltro	1k	R	70.7			73.4	34	1.6
Dyna-Gro	S31EN91	3.1	E3	Equity VIP Saltro	1c	R	71.7	65.2		76.7	37	2.0
Dyna-Gro	S31XF82	3.1	XF	Equity VIP Saltro	1c	R	66.3			71.1	40	1.6
Golden Harvest	GH2818E3	2.8	E3	CM,Vib,Saltro	1k	R3MR14	66.4	61.3		64.2	35	1.7
Golden Harvest	GH2872XF	2.8	XF	CM,Vib,Saltro	1k,3a	R3	73.0			71.1	38	1.5
Golden Harvest	GH2922E3	2.9	E3	CM,Vib,Saltro	1k,3a	R3	67.9			61.4	34	1.5
Local	IS3371E3	3.3	E3	Radius Premium		R3MR14	69.0			61.3	36	1.8
Local	LS3019XF	3.0	XF	Radius Premium	1c	R3MR14	68.0			59.9	39	1.7
M&W Seeds	M&W 28T76	2.8	GT27	Titan N-H		R3,MR14	67.8	63.7	68.5	70.3	33	1.7
M&W Seeds	M&W 29E72	2.9	E3	Titan N-H	1k	R3,MR14	69.3			63.0	32	1.3
M&W Seeds	M&W 30E66	3.0	E3	Titan N-H		R3,MR14	66.6			61.3	35	1.4
M&W Seeds	M&W 30L10	3.0	GT27	Titan N-H		R3,MR14	71.0	64.1		74.6	35	1.5
MCIA	MCIA 2820 LL/GT	2.8	LL/GT	CM		R	*76.5			69.1	36	1.4
NK	NK28-T3XF	2.8	XF	CM,Vib,Saltro		R	69.3			63.8	40	1.5
NK	NK29-A5E3	2.9	E3	CM,Vib,Saltro	1k,3a	MR	66.5			70.4	38	1.6
RENK	GENESIS G2960E	2.9	E3	ECL-Tri, Saltro	1k	R	70.7			63.6	33	1.3
RENK	RENK RS282NXF	2.8	XF	ECL-Tri, Saltro	1c	R	72.7			64.9	35	1.7
RENK	RENK RS322NXF	3.2	XF	ECL-Tri, Saltro	1c	R	69.2			61.6	36	1.4
Rupp	RS 28EL98	2.8	E3	AM-C	1k	R	69.5			63.8	32	1.5
Rupp	RS 31EL00	3.1	E3	AM-C	1a	R	72.0			*82.0	39	1.8
Specialty	2914XF	2.9	XF	ACL	1c	R3	67.2			58.8	38	1.5
Specialty	3015XF	3.0	XF	ACL	1c	R3	70.1			62.2	41	1.6
Specialty	3113XF	3.1	XF	ACL	1c,3a	R3	70.9			74.3	40	1.7
Wellman	W 4529	2.9	RR2	ENCASE		R3,MR14	64.3	60.7		67.9	35	1.5
Wellman	W 5928X	2.8	RR2X	ENCASE	1c	R3,MR14	66.1	61.6	66.0	77.5	37	2.5
Wellman	W 5932X	3.2	RR2X	ENCASE	1c	R3,MR14	70.3	63.2	67.5	81.1	38	2.0
Wellman	W 6131E	3.1	E3	ENCASE	1c	R3,MR14	65.0	60.4		76.9	36	2.0
Wellman	W 6230E	3.0	E3	ENCASE		R3,MR14	66.7			61.3	36	1.9
Wellman	W 7230XF	3.0	XF	ENCASE	1c	R3,MR14	70.9			63.6	41	2.0

TABLE 6. 2021 MICHIGAN SOUTHERN ZONE ROUND-UP READY / Late Maturity, (2.8 - 3.5), SOYBEAN VARIETY TRIAL REPORT
YIELD (BU/AC)

BRAND	VARIETY	Maturity		Phyto Resist.	SCN	2020		2021 AVERAGE		St. Joseph	Height	Lodging
		Group	Herb			AVG	AVG	Hillsdale	Lenawee			
Xitavo	XO 2832E	2.8	E3	P,V,I,Obv	R3MR14	69.7	62.3	75.6	71.2	32	1.5	
Xitavo	XO 2921E	2.9	E3	P,V,I,Obv	R3MR14	67.1	60.4	73.0	67.9	36	1.5	
Xitavo	XO 3131E	3.1	E3	P,V,I,Obv	R3MR14	71.0	64.7	76.9	70.2	37	1.9	
Xitavo	XO 3341E	3.3	E3	P,V,I,Obv	R3MR14	65.9	59.5	75.4	62.8	34	1.8	
GRAND MEAN						69.5	62.8	75.1	69.4	36	1.7	
Max.						76.5	71.1	82.0	79.1	41	2.5	
Min.						63.9	55.4	67.9	58.1	32	1.3	
LSD (0.05)						5.1	9.3	7.8	9.4			
CV (%)						7.7	8.9	6.3	8.1			

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

* High yield in plot

^ seed came after planting location

Top 1/3 of trial is Bold



Harvesting research plots with an Almaco small plot combine.

INDEX FOR 2021 SOYBEAN VARIETY PERFORMANCE TRIALS

There were 246 varieties from 21 private seed companies entered in seven county test sites in the 2021 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	Hillsdale	Allegan	Allegan	Hillsdale	Hillsdale
Ingham	Ingham	Ingham	Ingham	Ingham	Ingham
Saginaw	Lenawee	Saginaw	Saginaw	Lenawee	Lenawee
Sanilac	St. Joseph	Sanilac	Sanilac	St. Joseph	St. Joseph

Ag Armour Seeds

Ag Armour AA 1922 E3 (3) (P8)
 Ag Armour AA 2122 LL/GT27 (3) (P8)
 Ag Armour AA 2214 N (1)
 Ag Armour AA 2822 E3 (6) (P8)

AGRA Solutions, LLC

AGRA Solutions Key KEY 1031GL (6) (P8)
 AGRA Solutions Key KEY 1226GL (5) (P8)

BASF

Credenz CZ 1331GTLL (3) (P8)
 Credenz CZ 1660GTLL (3) (P8)
 Credenz CZ 2040GTLL (3) (P8)
 Credenz CZ 2360GTLL (4,5) (P8)
 Credenz CZ 2550GTLL (4,5) (P8)
 Credenz CZ 2760GTLL (4,5) (P8)
 Credenz CZ 3099GTLL (6) (P8)
 Credenz CZ 3309GTLL (6) (P8)

Dairyland Seed

Dairyland DSR-1290E (3) (P8)
 Dairyland DSR-1450E (3) (P8)
 Dairyland DSR-1673E (3) (P8)
 Dairyland DSR-1707E (3,5) (P8)
 Dairyland DSR-1820E (3,5) (P8)
 Dairyland DSR-2030E (3,5) (P8)
 Dairyland DSR-2040E (3,5) (P8)
 Dairyland DSR-2112E (3,5) (P8)
 Dairyland DSR-2222E (3,5) (PEKING)
 Dairyland DSR-2424E (4,5) (P8)
 Dairyland DSR-2555E (4,5) (P8)
 Dairyland DSR-2590E (4,5) (P8)
 Dairyland DSR-2640E (4,5) (P8)
 Dairyland DSR-2844E (4,6) (P8)
 Dairyland DSR-2999E (4,6) (P8)
 Dairyland DSR-3001 (1,2) (P8)
 Dairyland DSR-3146E (4,6) (P8)
 Dairyland DSR-3177E (4,6) (P8)

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 262 N F (1,2) (P8)
 DF Seeds DF 282 N (2) (P8)
 DF Seeds DF 3141 N E3 (3) (P8)
 DF Seeds DF 3172 N E3 (3) (P8)
 DF Seeds DF 3191 N E3 (3) (P8)
 DF Seeds DF 3211 N E3 (3) (P8)
 DF Seeds DF 3242 N E3 (4) (P8)
 DF Seeds DF 3251 N E3 (4,5) (P8)
 DF Seeds DF 6210 N LLGT27 (3) (P8)
 DF Seeds DF 6269 N LLGT27 (4,5) (P8)
 DF Seeds DF 6280 N LLGT27 (6) (P8)

Dyna-Gro Seed

Dyna-Gro S15XF82 (3) (P8)
 Dyna-Gro S17XF02 (3) (P8)
 Dyna-Gro S18EN52 (3) (P8)
 Dyna-Gro S19EN21 (3) (P8)
 Dyna-Gro S2092N (1) (P8)
 Dyna-Gro S21EN81 (3) (P8)
 Dyna-Gro S21XF61 (3) (P8)
 Dyna-Gro S21XF72 (3) (P8)
 Dyna-Gro S23ES32 (4,5) (P8)
 Dyna-Gro S2409N (1,2) (P8)
 Dyna-Gro S24XF12 (4) (P8)
 Dyna-Gro S25EN02 (4,5) (PEKING)
 Dyna-Gro S25EN41 (5) (P8)
 Dyna-Gro S25XF71S (4,5) (P8)
 Dyna-Gro S2872N (2) (P8)
 Dyna-Gro S28EN22 (6) (P8)
 Dyna-Gro S28XF92S (6) (P8)
 Dyna-Gro S29EN62 (6) (P8)
 Dyna-Gro S31EN91 (6) (P8)
 Dyna-Gro S31XF82 (6) (P8)
 Dyna-Gro SX21321EN (3) (P8)

GDM Seeds

GDM Seeds V2122 (1,2)
 GDM Seeds V2922 (1,2) (P8/PI437654)

Golden Harvest

Golden Harvest GH1762XF (3) (P8)
 Golden Harvest GH1802E3 (3) (P8)
 Golden Harvest GH1922E3 (3) (P8)
 Golden Harvest GH1932XF (3) (P8)
 Golden Harvest GH2011E3 (3) (P8)
 Golden Harvest GH2041X (3) (P8)
 Golden Harvest GH2102XF (3) (P8)
 Golden Harvest GH2292E3 (3) (P8)
 Golden Harvest GH2329X (4), (PI89772)
 Golden Harvest GH2505E3 (4,5) (P8)
 Golden Harvest GH2562XF (4,5) (P8)
 Golden Harvest GH2722XF (4,5) (P8)
 Golden Harvest GH2788X (5) (P8)
 Golden Harvest GH2818E3 (6) (P8)
 Golden Harvest GH2872XF (4,6) (P8)
 Golden Harvest GH2922E3 (6) (P8)

LG Seeds

LG C2300 (1,2) (P8)
 LG LGS1684 (1) (P8)
 LG LGS2020 (1,2) (P8)
 LG LGS2801 (2) (P8)

Local Seed Company

Local I1843E3 (3,5)
 Local IS1575E3 (3)
 Local IS1929E3 (3,5)
 Local IS2342E3 (4,5)
 Local IS2748E3 (5)
 Local IS3371E3 (6)
 Local LS1887X (3,5)
 Local LS2504XFS (5)
 Local LS3019XF (6)

M&W Seeds

M&W 21E26 (3) (P8)
M&W 22E63 (3,5) (P8)
M&W 23T88 (4,5) (P8)
M&W 24E44 (4,5) (P8)
M&W 25E25 (4,5) (P8)
M&W 28T76 (4,6) (P8)
M&W 29E72 (4,6) (P8)
M&W 30E66 (4,6) (P8)
M&W 30L10 (6) (P8)

Michigan Crop Improvement Association

MCIA 2212 LL (1)
MCIA 2221 LL/GT (3)
MCIA 2319 LL/GT (4,5)
MCIA 2520 LL/GT (4,5)
MCIA 2820 LL/GT (6)

Nature's Genetics

Nature's Genetics 1926 (1,2)
Nature's Genetics 2.4 (1,2)
Nature's Genetics 9425 (1,2)
Nature's Genetics 9430 (1,2)

NK Seeds

NK NK14-C7XF (3) (P8)
NK Nk14-W6E3 (3) (PEKING)
NK NK18-J7E3 (3) (P8)
NK NK21-H4XF (3) (P8)
NK NK22-C4E3 (3,5) (P8)
NK NK24-G7E3 (4,5) (P8)
NK NK25-C9XF (5) (P8)
NK NK28-T3XF (6) (P8)
NK NK29-A5E3 (6) (P8)

Renk Seed

GENESIS G1950E (3) (P8)
GENESIS G2060E (3) (P8)
GENESIS G2150E (3) (P8)
GENESIS G2190GL (3) (P8)
GENESIS G2260E (3) (P8)
GENESIS G2460ES (5) (P8)
GENESIS G2550E (5) (P8)
GENESIS G2960E (6) (P8)
RENK RS212NXF (3) (P8)
RENK RS219NX (3) (P8)
RENK RS242NXF (4,5) (P8)
RENK RS282NXF (6) (P8)
RENK RS322NXF (6) (P8)

Rupp Seeds, INC

Rupp RS 18EL11 (3) (P8)
Rupp RS 20FX10 (3) (P8)
Rupp RS 21EL57 (3) (P8)
Rupp RS 23EL34 (4) (P8)
Rupp RS 24FX70 (4) (P8)
Rupp RS 25EL24 (4,5) (P8)
Rupp RS 26FX82 (5) (P8)
Rupp RS 28EL98 (6) (P8)
Rupp RS 31EL00 (6) (P8)

Southwest Seeds Inc.

Southwest AAC Wigle (1,2) (P8)
Southwest OAC Bruton (1,2) (P8)

Specialty Hybrids

Specialty 2194XF (3) (P8)
Specialty 2204XF (3) (P8)
Specialty 2403XF (4) (P8)
Specialty 2504XF (4) (P8)
Specialty 2704XF (5) (P8)
Specialty 2914XF (6) (P8)
Specialty 3015XF (6) (P8)
Specialty 3113XF (6) (P8)

Wellman Seeds, Inc.

Wellman W 295 (2)
Wellman W 4529 (6) (P8)
Wellman W 5928X (6) (P8)
Wellman W 5932X (6) (P8)
Wellman W 6125E (5) (P8)
Wellman W 6131E (6) (P8)
Wellman W 6224E (5) (P8)
Wellman W 6227E (5) (P8)
Wellman W 6230E (6) (P8)
Wellman W 7230XF (6) (P8)

Xitavo

Xitavo XO 1372E (3) (P8)
Xitavo XO 1451E (3) (P8)
Xitavo XO 1632E (3) (P8)
Xitavo XO 1761E (3) (P8)
Xitavo XO 1822E (3) (P8)
Xitavo XO 1971E (3) (P8)
Xitavo XO 2181E (3,5) (P8)
Xitavo XO 2282E (3,5) (P8)
Xitavo XO 2472E (4,5) (P8)
Xitavo XO 2501E (5,4) (P8)
Xitavo XO 2832E (4,6) (P8)
Xitavo XO 2921E (4,6) (P8)
Xitavo XO 3131E (6) (P8)
Xitavo XO 3341E (6) (P8)

Zeeland Farm Services, Inc.

ZFS 1721 (1)
ZFS 2221 (1,2) (P8)
ZFS 2222HO (1,2)
ZFS 24019HO (1,2)
ZFS 2521HO (1,2)
ZFS 2721 (1,2) (P8)
ZFS 2819HO (1,2)
E13h988 (1)

Michigan State University

MSU E07158-T (1)
MSU E11128T (1)
MSU E12076T (1,2)
MSU E12076T-03 (1,2)
MSU E13268 (1,2)
MSU E14077 (1,2)
MSU E15079T (1)
MSU E15165T (1)
MSU E15338 (1)
MSU E15339 (1,2)
MSU E15345 (1,2)
MSU E15346T (1)
MSU E15349 (1)
MSU E15351 (1,2)
MSU E15901 (1,2)
MSU E16099 (1)
MSU E16189 (2)
MSU E16266 (1,2)
MSU E16346 (1)
MSU E16380 (1,2)
MSU E16410 (1)
MSU E16915 (2)
MSU E17004 (2)
MSU E17062 (2)
MSU E17069 (2)
MSU E17167 (2)
MSU E17181T (1)
MSU E17203 (1,2)
MSU E17269 (2)
MSU E17275 (1,2)
MSU E17283 (1,2)
MSU E17808-01 (1)
MSU E18024T (1,2)
MSU E18450 (1,2)
MSU E18450GT (4,5)
MSU E18638T (1,2)
MSU E19005 (1,2)
MSU E19056 (1,2)
MSU E19090 (1,2)
MSU E19194 (1,2)
MSU E19288T (1,2)
MSU E19312T (1,2)
MSU E19314T (1,2)
MSU E19323T (1,2)
MSU E19327T (1,2)
MSU E19412 (1,2)
MSU E19413 (2,4)
MSU E19495GT (4,5)
MSU E19497GT (3,5)
MSU E19517GT (4,5)
MSU E19689 (1,2)
MSU E19803-07 (1,2)



3055 W. M-21
St. Johns, MI 48879



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Fellow Soybean Producers,

The investment of checkoff funds in the Michigan State University soybean breeding program 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 that the breeding program creates including its soybean variety performance evaluation and hope that it is a valuable resource for your farm.

We wish you a safe and profitable 2022 season.

Sincerely,
Michigan Soybean Committee Directors

District #1 Dan Rajzer, Decatur
District #3 Laurie Isley, Palmyra
District #5 John Burk, Bay City
District #7 Seve Koeman, Hamilton

District #2 Pete Crawford, Dansville
District #4 Scott Wilson, Lexington
District #6 Mark Senk, Owosso