

All-Season Test
Maturity Group 0.8 - 1.7
 S2023MNCECV

Top 30 of 36
 For Gross Income (Sorted by Yield), (8) Replication Average

Company/Brand	Product/Brand	Technol.†	RM	SCN	Yield Bu/A ↓	Protein (%)	Oil (%)	Moisture %	Lodging %	Gross Income \$/Acre	Rank	Glencoe	Hector	Lafayette *	Lafayette West REJECTED
STINE	17EE32 §	E3	1.7	R	63.4			12.6	0	808	7	55.8	65.3	69.1	57.1
VIRTUE	V1821 §	CONV	1.8	NA	61.6			12.5	0	939	1	56.6	59.4	68.7	34.9
VIKING BLUE RIVER	1718N	CONV	1.7	MR	61.5			12.4	0	938	2	64.2	53.5	66.9	34.8
GOLDEN HARVEST	GH1323XF §	RXF	1.3	R	60.3			12.4	0	769	8	64.3	47.5	69.2	42.2
ASGROW	AG16XF3 §	RXF	1.6	R	59.7			12.2	0	761	10	58.1	56.7	64.4	37.3
VIKING BLUE RIVER	1223N	CONV	1.2	MR	57.8			12.1	0	883	3	57.1	57.7	58.8	27.1
GOLDEN HARVEST	GH0933E3 §	E3	0.9	R	56.6			12.4	0	722	18	53.5	54.9	61.4	37.1
VIKING BLUE RIVER	0821N	CONV	0.8	MR	56.1			12.4	1	856	4	58.9	48.6	61.0	21.6
PIONEER	P18A82 §	CONV	18.0	R	55.9			12.4	0	853	5	56.0	54.0	57.8	41.1
STINE	10EF23 §	E3	1.0	R	55.9			12.3	0	713	21	49.1	57.6	61.0	37.1
STINE	14EG32 §	E3	1.4	R	55.8			12.3	0	712	22	51.9	57.0	58.7	37.1
ASGROW	AG15XF2 §	RXF	1.5	R	54.9			12.4	0	701	25	52.5	60.0	52.4	41.1
STINE	08EG62 §	E3	0.8	R	54.0			12.0	0	688	28	54.0	51.4	56.6	26.1
SEVITA	BARTON	CONV	1.4	R	53.6			12.3	2	817	6	51.4	49.1	60.3	41.1
GRAIN MILLERS	GSP 1.5 EXP	CONV	1.5	R	50.0			12.2	0	763	9	56.7	34.5	58.9	41.1
GRAIN MILLERS	GSP 17	CONV	1.7	S	49.6			12.4	0	756	11	55.6	49.8	43.5	37.1
SEVITA	ALINOVA	CONV	1.5	R	49.5			12.1	0	754	12	55.9	42.3	50.2	37.1
PIONEER	P11A50 §	CONV	1.1	R	49.4			12.1	0	754	13	55.1	37.6	55.6	41.1
SEVITA	FINCH	CONV	0.9	S	48.8			12.4	0	745	14	46.2	40.1	60.3	37.1
PIONEER	P15A20 §	CONV	1.5	R	48.7			12.5	0	742	15	53.4	49.5	43.1	41.1
VIKING BLUE RIVER	1700N	CONV	1.7	NA	48.1			12.0	0	734	16	54.1	38.1	52.1	37.1
SEVITA	SVX23T1S62	CONV	1.5	R	48.0			12.4	0	731	17	49.7	43.1	51.1	41.1
DF SEEDS	DF 123	CONV	1.2	S	47.1			12.4	0	719	19	46.6	45.1	49.8	37.1
SB&B FOODS	SB700	CONV	0.7	S	46.9			12.4	2	716	20	54.2	31.3	55.3	17.1
BRUSHVALE	BS1512 §	CONV	1.4	NA	46.3			12.5	2	705	23	52.0	27.5	59.2	17.1
SB&B FOODS	SB19	CONV	1.9	S	46.1			12.5	0	702	24	53.9	43.9	40.3	27.1
BRUSHVALE	BS1146 §	CONV	1.2	R	45.8			12.3	0	698	26	51.8	34.1	51.5	37.1
SB&B FOODS	SB49	CONV	0.4	R	45.4			12.2	1	692	27	52.4	36.0	47.8	30.1
SEVITA	PROSEEDS SKYLINE	CONV	1.1	R	44.4			12.1	1	678	29	51.9	35.6	45.9	23.9
MNCIA	M10-238-2036 (MN1510HO) GC	CONV	1.5	NA	44.3			12.1	0	676	30	48.8	39.0	45.2	23.5

Yield variability from weed pressure and DC



Averages =	50.7	na	na	12.3	0	734	52.8	44.9	54.4	34.5
LSD (0.10) =	6.3	na	na	ns	ns		5.3	5.8	9.3	11.7
LSD (0.25) =	3.3	na	na	ns	ns		2.8	3.0	4.8	6.1

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Prev. years average yield for region: new region

Yield & Income Factors: Base Moisture = 13.0% Shrink = 1.0 Drying = \$0.02 Prices: GMO = \$12.75; non-GMO = \$15.25

† See last page for abbreviation descriptions. Dark colored row identifies the check product found in early- and full-season tests. **Bold** yields are significantly above test average by LSD(0.10). **Italicized** brands exceed the grain moisture limit for this test. **ns** = column values not significantly different. § Links to product's results at www.firstseedtests.com. Oil & Protein values average of 1 sample per location. * 2 reps for the site.

2023 Soybeans - Minnesota Central Conventional Specialty [MNCECV]

All-Season Test Products (36 Total)

Company/Brand	Product/Brand	Technology	SCN	RM	Seed Treat.
Asgrow	AG09XF3 §	RXF	R	0.9	ACi,IL
Asgrow	AG15XF2 §	RXF	R	1.5	ACi,IL
Asgrow	AG16XF3 §	RXF	R	1.6	ACi,IL
Brushvale	BS1146 §	CONV	R	1.2	NA
Brushvale	BS1512 §	CONV	NA	1.4	NA
DF Seeds	DF 123	CONV	S	1.2	DFender
DF Seeds	DF EX23C1.01	CONV	S	1.0	DFender
DF Seeds	DF EX23C1.02	CONV	S	1.0	DFender
Golden Harvest	GH0933E3 §	E3	R	0.9	CMB-APX,SA
Golden Harvest	GH1323XF §	RXF	R	1.3	CMB-APX,SA
Grain Millers	GSP 1.5 EXP	CONV	R	1.5	Untreated
Grain Millers	GSP 17	CONV	S	1.7	Untreated
MNCIA	M10-238-2036 (MN1510HO) GC	CONV	NA	1.5	Treated
Pioneer	P11A50 §	CONV	R	1.1	Lum, LumT, IL
Pioneer	P11T36E §	E3	NA	1.1	Lum, LumT, IL
Pioneer	P15A20 §	CONV	R	1.5	Untreated
Pioneer	P18A82 §	CONV	R	18.0	Lum, LumT, IL
SB & B Foods	SB1270	CONV	S	1.2	Untreated
SB & B Foods	SB19	CONV	S	1.9	Untreated
SB & B Foods	SB49	CONV	R	0.4	Untreated
SB & B Foods	SB700	CONV	S	0.7	Untreated
Sevita	ALINOVA	CONV	R	1.5	F,I,SA
Sevita	BARTON	CONV	R	1.4	F,I,SA
Sevita	FINCH	CONV	S	0.9	F,I,SA
Sevita	ODESSA	CONV	S	1.1	F,I,SA
Sevita	PROSEEDS SKYLINE	CONV	R	1.1	ViT,Va,Sa
Sevita	SVX23T1S62	CONV	R	1.5	F,I,SA
Stine	08EG62 §	E3	R	0.8	ACi
Stine	10EF23 §	E3	R	1.0	NA
Stine	14EG32 §	E3	R	1.4	ACi
Stine	17EE32 §	E3	R	1.7	ACi
Viking Blue River	0821N	CONV	MR	0.8	Untreated
Viking Blue River	1223N	CONV	MR	1.2	Untreated
Viking Blue River	1700N	CONV	NA	1.7	Untreated
Viking Blue River	1718N	CONV	MR	1.7	Untreated
Virtue	V1821 §	CONV	NA	1.8	NA

Footnotes and Abbreviations Descriptions

Brand Footnotes

CK	Identifies a check product included in early- and full-season tests.
GC	Grower Comparison product included by FIRST when space permits.
§	United Soybean Board sponsored entry

Soybean Cyst Nematode (SCN) Resistance Rating

S	susceptible
MR	moderate resistance
R	resistant
n/a	info unavailable

Soybeans Technologies

CONV	Conventional
E3	Enlist E3®
RXF	XtendFlex®

Soybeans Seed Treatments*

NA	Not Available
ACi	Acceleron® Standard Insecticide-Fungicide
ACi,IL	Acceleron® Standard Insecticide-Fungicide, ILeVO
CMB-APX,SA	CruiserMaxx® APX with Saltro®
DFender	DFender (Legacy Seeds)
F,I,SA	Fungicide, Insecticide, Saltro®
Lum, LumT, IL	LumiGEN™, LumiTreo, ILEVO
Treated	Treated, unspecified
Untreated	No seed treatment
ViT,Va,Sa	Vibrance® Trio, Vayantis, Saltro

* Seed treatments may include unspecified plant health promoting components.

Table 8. Central district, 2023 district and single-location means. Early-season test, MG ≤ 2.7.

Company	Entry	MG	Herb Tech	District Means				Single Location Yield				
				Yield Bu/A	Dist Yield Rank	CW Yield	CE Yield	Missouri Valley	Glidden	Ames	Keystone	Clarence
Dyna-Gro	S25EN74	2.5	E3	65.2	1	60.7	73.3	50.2	60.8	71.5	62.1	79.5
Virtue	V2922	2.9	Conv	64.5	2	63.2	66.4	56.9	65.8	66.2	60.7	73.2
Nutech/G2 Genetics	27N03E	2.7	E3	64.1	3	58.8	67.9	55.5	56.7	66.8	61.8	79.4
Renk	G2480E	2.4	E3	63.8	4	59.4	69.7	48.7	59.3	70.9	59.2	79.8
Latham	L 2551	2.5	E3	63.5	5	59.5	70.2	51.2	57.7	71.9	60.1	76.4
Viking	27B4	2.7	Conv	63.2	6	60.0	69.3	49.1	60.1	70.9	53.4	82.0
Nutech/G2 Genetics	24N05E	2.4	E3	63.2	7	61.3	67.0	53.8	59.0	67.8	58.9	76.4
Renk	G2570ES	2.5	E3	62.7	8	58.7	68.8	51.5	57.1	66.2	55.6	83.4
Golden Harvest	GH2544XF	2.5	RR2XF	62.4	9	59.8	66.8	49.4	60.6	67.9	56.7	77.7
P3 Genetics	2325E	2.5	E3	61.9	10	55.3	66.9	49.9	55.1	63.8	54.9	84.2
Asgrow	AG27XF3	2.7	RR2XF	61.1	11	58.8	66.4	49.7	54.1	69.4	58.3	73.8
Pioneer	P25A16E	2.5	E3	61.0	12	58.8	63.9	54.3	56.0	65.7	55.0	74.2
Latham	L 2262	2.2	E3	60.9	13	57.5	65.8	48.5	58.5	67.0	54.4	75.4
Viking	2418N	2.4	Conv	60.3	14	56.9	65.8	43.7	60.6	64.9	54.7	77.6
Asgrow	AG26XF3	2.6	RR2XF	60.2	15	56.3	66.3	50.0	55.9	62.1	54.6	77.4
Asgrow	AG27XF4	2.7	RR2XF	60.1	16	56.0	64.4	47.2	55.2	69.6	53.1	76.1
P3 Genetics	2326E	2.6	E3	60.0	17	56.1	66.8	45.2	55.3	70.0	53.0	76.5
Xitavo	XO 2444E	2.4	E3	60.0	18	55.5	66.9	46.3	54.3	67.6	51.7	80.2
Dyna-Gro	S25XF64	2.6	RR2XF	59.4	19	56.9	65.5	41.7	59.9	67.6	48.5	78.2
Latham	L 2379	2.3	E3	59.2	20	57.5	64.7	47.4	56.9	67.0	50.8	72.9
Nutech/G2 Genetics	27N06E	2.7	E3	58.8	21	56.1	65.6	41.8	55.4	68.9	50.8	76.0
Xitavo	XO 2613E	2.6	E3	58.7	22	55.4	63.8	47.5	53.2	64.3	53.4	74.8
Golden Harvest	GH2674E3	2.6	E3	58.6	23	54.8	65.3	47.7	52.4	63.4	51.9	78.0
Xitavo	XO 2501E	2.5	E3	58.6	24	55.2	63.2	54.8	50.8	58.1	51.8	78.7
Cornelius	CB25XF99	2.5	RR2XF	58.6	25	55.6	65.3	46.3	52.8	67.6	48.6	77.5
Asgrow	AG24XF3	2.3	RR2XF	58.3	26	55.3	64.8	44.8	56.2	65.1	51.3	74.9
Pioneer	P23A40E	2.3	E3	58.3	27	55.7	64.0	45.3	56.2	66.3	52.8	70.3
Blue River	2702	2.7	Conv	58.3	28	54.2	65.8	43.8	56.2	64.0	54.5	72.7
Renk	G2780E	2.7	E3	58.1	29	53.6	63.8	43.7	54.5	62.0	52.6	77.7
Nutech/G2 Genetics	25N04E	2.5	E3	57.7	30	55.2	63.9	46.4	53.3	63.9	52.6	72.2
Cornelius	CB27XF72	2.7	RR2XF	57.6	31	52.7	64.9	41.0	53.4	65.5	52.7	74.8
Renk	G2550E	2.5	E3	57.5	32	53.0	62.3	45.9	52.6	61.0	50.0	77.5
Dyna-Gro	S26XF42	2.6	RR2XF	56.9	33	55.0	63.2	48.0	53.6	64.2	45.7	72.9
Xitavo	XO 2323E	2.3	E3	56.4	34	54.4	59.8	48.1	54.1	58.8	48.3	72.2
Experiment Mean				60.3				48.1	56.3	66.1	53.9	76.6
Minimum Mean				56.4				41.0	50.8	58.1	45.7	70.3
Maximum Mean				65.2				56.9	65.8	71.9	62.1	84.2
LSD(0.25)				2.1				4.3	3.3	3.5	2.7	3.5
Coefficient of Variability				6.4				9.8	6.4	5.6	5.4	5.2

Table 6. North district, 2023 district and single-location means. Early-season test, MG ≤ 2.2.

Company	Entry	MG	Herb Tech	District Means				Single Location Yield				
				Yield Bu/A	Dist Yield Rank	NW Yield	NE Yield	Sutherland	Corwith	Alexander	Marble Rock	Oelwein
P3 Genetics	2325E	2.5	E3	73.6	1	69.0	75.3	71.0	64.5	71.8	97.4	64.4
Cornelius	CB22XF52	2.2	RR2XF	73.1	2	69.4	79.7	68.0	60.5	79.4	97.6	59.6
Cornelius	CB18XF88	1.8	RR2XF	70.6	3	66.7	76.4	64.2	59.1	74.4	92.7	60.9
Viking	2155N	2.1	Conv	70.6	4	65.9	73.9	71.3	60.1	66.0	91.6	65.0
Viking	2022N	2.0	Conv	70.4	5	66.2	74.1	65.8	63.2	68.5	93.6	58.9
Nutech/G2 Genetics	20N05E	2.0	E3	70.2	6	66.2	74.5	69.8	59.8	68.7	94.4	56.5
Golden Harvest	GH2292E3	2.2	E3	70.0	7	64.7	74.1	68.6	60.5	66.4	94.8	60.1
Xitavo	XO 1822E	1.8	E3	69.8	8	64.6	74.7	68.8	60.3	63.7	95.7	58.9
Dyna-Gro	S19XF62	1.9	RR2XF	69.7	9	67.6	75.1	64.7	59.6	74.6	93.9	57.0
LOYAL BRAND	L2150E	2.1	E3	68.6	10	63.2	75.2	63.6	51.1	73.4	90.6	62.1
P3 Genetics	2218E	1.8	E3	68.6	11	63.2	74.2	67.6	53.8	71.8	92.0	58.1
P3 Genetics	2322E	2.2	E3	68.5	12	64.3	72.2	67.8	57.0	70.3	89.4	58.4
Asgrow	AG20XF4	2.0	RR2XF	68.4	13	66.7	71.5	63.5	61.7	76.6	86.9	55.5
Xitavo	XO 1632E	1.6	E3	68.4	14	65.0	76.4	65.6	54.1	72.7	93.2	57.8
LOYAL BRAND	L1950E	1.9	E3	68.4	15	60.8	75.4	65.4	49.0	69.8	94.1	61.5
Dyna-Gro	S20EN84	2.0	E3	68.2	16	62.1	75.7	64.0	52.5	70.2	93.8	60.7
Xitavo	XO 2181E	2.1	E3	68.2	17	64.4	71.4	64.3	61.9	67.0	92.2	55.7
Latham	L 2031	2.0	E3	68.2	18	67.2	72.6	64.3	56.2	73.1	88.9	58.4
Virtue	V2122	2.1	Conv	67.3	19	65.6	69.6	73.9	54.1	65.5	89.0	54.5
Renk	G2180E	2.1	E3	66.7	20	60.2	74.9	55.9	54.9	70.2	90.7	62.1
Golden Harvest	GH1973E3S	1.9	E3S	66.7	21	62.2	71.1	63.7	56.9	64.6	89.1	59.9
Renk	RS214NXF	2.1	RR2XF	66.6	22	62.2	70.6	63.7	58.6	62.8	88.2	59.3
P3 Genetics	2216E	1.6	E3	66.5	23	61.3	74.2	61.1	51.7	68.7	95.9	55.6
Renk	G1980E	1.9	E3	66.2	24	62.4	70.9	68.7	53.8	64.9	88.4	55.0
Golden Harvest	GH2004XF	2.0	RR2XF	66.1	25	64.0	70.1	64.8	55.4	66.6	86.2	58.1
Nutech/G2 Genetics	18N03E	1.8	E3	66.1	26	62.2	72.4	66.1	53.1	67.0	89.0	56.6
Pioneer	P18A73E	1.8	E3	65.9	27	62.4	72.5	61.0	57.8	70.9	85.6	54.6
Pioneer	P21A53E	2.1	E3	65.4	28	61.0	66.2	64.0	53.6	68.2	87.3	55.2
Asgrow	AG16XF3	1.4	RR2XF	65.1	29	61.5	70.4	63.5	53.7	70.1	85.8	54.3
P3 Genetics	2421E	2.1	E3	64.8	30	59.5	69.5	55.3	58.4	66.2	87.7	57.4
Cornelius	CB16XF21	1.6	RR2XF	64.8	31	60.4	69.0	66.6	50.2	63.9	87.8	54.9
P3 Genetics	2320E	2.0	E3	64.4	32	59.5	66.7	62.6	54.7	62.6	87.7	54.5
Latham	L 1947	1.9	E3	64.2	33	58.2	70.3	64.2	48.6	63.8	91.3	54.6
Nutech/G2 Genetics	16N04E	1.6	E3	64.1	34	62.2	69.9	60.0	55.0	67.4	83.9	54.4
Xitavo	XO 1971E	1.9	E3	63.7	35	60.6	67.7	57.2	54.5	65.9	85.2	56.4
Nutech/G2 Genetics	22N03E	2.2	E3	63.4	36	58.7	68.0	63.3	56.8	58.1	84.2	54.1
Experiment Mean				67.5				64.8	56.3	68.5	90.4	57.8
Minimum Mean				63.4				55.3	48.6	58.1	83.9	54.1
Maximum Mean				73.6				73.9	64.5	79.4	97.6	65.0
LSD(0.25)				2.5				4.4	4.1	4.7	4.5	3.8
Coefficient of Variability				6.7				7.0	7.5	7.5	5.2	7.2

Table 7. North district, 2023 district and single-location means. Full-season test, MG > 2.2.

Company	Entry	MG	Herb Tech	District Means				Single Location Yield				
				Yield Bu/A	Dist Yield Rank	NW Yield	NE Yield	Sutherland	Corwith	Alexander	Marble Rock	Oelwein
Latham	L 2551	2.5	E3	75.9	1	75.4	79.3	75.9	65.8	81.1	96.2	60.2
Dyna-Gro	S25EN74	2.5	E3	75.4	2	71.6	80.6	67.4	66.9	80.1	95.1	66.0
Asgrow	AG27XF4	2.7	RR2XF	74.9	3	72.7	77.7	73.6	67.1	78.4	86.1	67.0
Asgrow	AG27XF3	2.7	RR2XF	73.3	4	68.9	80.0	70.3	64.0	74.0	93.9	65.7
Nutech/G2 Genetics	27N03E	2.7	E3	73.0	5	70.9	78.5	69.3	61.5	78.6	90.3	64.4
Viking	27B4	2.7	Conv	72.9	6	66.8	72.3	75.1	63.8	65.2	94.5	64.1
Golden Harvest	GH2674E3	2.6	E3	72.8	7	70.9	74.5	76.8	64.1	69.5	89.4	62.1
Latham	L 2262	2.2	E3	72.8	8	69.6	77.6	66.7	63.4	74.5	99.6	59.2
Renk	G2480E	2.4	E3	72.7	9	68.4	75.6	71.0	65.8	72.0	93.0	63.8
Renk	G2570ES	2.5	E3	72.3	10	68.8	77.9	68.3	61.5	74.9	94.9	64.7
Nutech/G2 Genetics	27N06E	2.7	E3	72.1	11	66.7	78.0	70.5	58.0	72.9	93.4	64.7
P3 Genetics	2424E	2.4	E3	72.0	12	68.3	74.3	73.2	64.8	69.2	91.3	59.5
Nutech/G2 Genetics	24N05E	2.4	E3	71.7	13	66.6	72.0	71.2	64.8	68.3	96.2	58.9
LOYAL BRAND	L2550E	2.5	E3	71.6	14	67.9	73.3	71.0	57.4	74.4	91.2	62.7
Golden Harvest	GH2313XF	2.3	RR2XF	71.1	15	69.0	75.5	70.9	60.4	76.5	88.9	59.8
Viking	2340KN	2.3	Conv	71.0	16	65.8	77.3	63.3	59.1	77.6	90.6	63.1
Viking	2418N	2.4	Conv	70.6	17	62.8	79.7	59.8	56.4	75.3	97.9	64.1
Renk	G2550E	2.5	E3	70.3	18	65.3	74.6	70.4	54.7	72.8	88.2	63.6
Pioneer	P25A16E	2.5	E3	69.9	19	65.7	73.4	65.5	63.4	69.3	88.8	60.8
Xitavo	XO 2501E	2.5	E3	69.8	20	66.2	71.6	69.9	60.8	67.8	90.1	58.5
Xitavo	XO 2444E	2.4	E3	69.6	21	65.0	72.3	69.2	58.5	70.6	90.8	57.5
Xitavo	XO 2613E	2.6	E3	69.4	22	64.4	71.6	69.5	58.5	71.0	87.2	59.2
Asgrow	AG24XF3	2.3	RR2XF	68.8	23	64.1	71.9	65.6	59.7	69.0	91.7	57.5
Pioneer	P23A40E	2.3	E3	68.0	24	64.7	72.1	70.6	56.8	66.5	87.1	59.9
Nutech/G2 Genetics	25N04E	2.5	E3	66.9	25	65.1	69.9	62.9	55.8	73.5	85.5	56.8
Asgrow	AG26XF3	2.6	RR2XF	66.6	26	61.7	70.8	63.5	56.0	64.7	88.7	61.4
Latham	L 2379	2.3	E3	66.4	27	63.2	72.4	63.7	52.6	69.7	85.2	61.2
Dyna-Gro	S25XF64	2.6	RR2XF	65.4	28	59.3	70.9	66.1	52.6	55.0	89.0	62.9
Xitavo	XO 2323E	2.3	E3	65.4	29	61.3	68.2	65.4	57.7	63.4	88.9	52.1
Cornelius	CB23XF63	2.3	RR2XF	64.1	30	60.0	71.3	53.7	53.5	70.7	88.6	52.7
Experiment Mean				70.6				68.3	60.2	71.6	91.1	61.1
Minimum Mean				64.1				53.7	52.6	55.0	85.2	52.1
Maximum Mean				75.9				76.8	67.1	81.1	99.6	67.0
LSD(0.25)				2.5				4.5	4.1	4.8	4.5	3.7
Coefficient of Variabili				6.8				7.2	7.6	7.7	5.3	7.2

Table 11. South district, 2023 district and single-location means. Full-season test, MG > 3.2.

Company	Entry	MG	Herb Tech	District Means				Single Location Yield				
				Yield Bu/A	Dist Yield Rank	SW Yield	SE Yield	Lewis	Corning	Milo	Batavia	Crawfordsville
Renk	G3880E	3.8	E3	75.1	1	68.6	80.8	69.4	63.1	73.4	79.2	89.9
Dyna-Gro	S33EN42	3.3	E3	73.8	2	68.3	76.0	76.0	63.4	67.4	78.8	83.3
Xitavo	XO 3752E	3.7	E3	73.6	3	69.3	77.6	72.3	61.3	72.6	78.7	82.7
P3 Genetics	2337E	3.7	E3	73.5	4	67.6	76.0	70.9	64.5	69.6	79.1	84.3
Blue River	3418N	3.4	Conv	73.2	5	68.9	79.6	68.7	62.1	74.1	79.5	83.4
Cornelius	CB37XF70	3.7	RR2XF	73.0	6	66.9	77.6	71.0	64.7	67.4	74.2	87.4
Dyna-Gro	S37XF33	3.7	RR2XF	72.9	7	66.1	77.2	66.8	63.6	70.6	76.6	85.7
Nutech/G2 Genetics	37N03E	3.7	E3	72.8	8	67.6	77.8	68.0	62.5	72.5	76.4	85.8
Asgrow	AG33XF3	3.3	RR2XF	71.9	9	65.4	78.9	62.8	65.5	69.4	78.9	84.7
Dyna-Gro	S35XF44	3.5	RR2XF	71.6	10	64.3	74.7	60.7	68.9	64.3	79.5	84.4
Renk	RS353NXF	3.5	RR2XF	71.6	11	66.1	77.2	59.3	65.4	69.1	76.0	85.9
Xitavo	XO 3483E	3.4	E3	71.2	12	66.9	77.4	69.1	59.9	69.7	74.3	84.5
P3 Genetics	2239E	3.9	E3	71.0	13	65.8	72.9	69.8	61.5	65.9	74.7	81.2
Nutech/G2 Genetics	39N07E	3.9	E3	70.4	14	65.9	75.7	66.9	58.3	72.1	75.1	79.0
Nutech/G2 Genetics	33N04E	3.3	E3	70.4	15	64.0	74.5	70.8	55.3	68.0	77.8	80.9
Nutech/G2 Genetics	34N02E	3.4	E3	70.0	16	64.2	74.8	67.9	57.9	69.3	75.6	81.2
P3 Genetics	2433E	3.3	E3	69.8	17	64.0	73.1	67.1	59.3	66.4	71.6	83.7
Blue River	39R4	3.9	Conv	69.7	18	66.3	71.9	72.1	59.6	66.9	68.0	82.0
Pioneer	P37A18E	3.7	E3	69.4	19	64.7	75.7	63.4	57.6	69.2	75.2	79.6
Xitavo	XO 3651E	3.6	E3	68.7	20	61.3	72.6	68.4	54.2	64.1	73.3	82.1
Xitavo	XO 3803E	3.8	E3	68.5	21	64.1	71.4	68.3	59.6	62.7	72.4	80.1
Pioneer	P35T15E	3.5	E3	68.4	22	63.0	72.1	68.1	55.5	63.6	74.2	81.3
Asgrow	AG37XF3	3.7	RR2XF	67.9	23	61.5	72.5	59.6	60.4	65.0	71.7	82.4
Nutech/G2 Genetics	36N04E	3.6	E3	67.7	24	64.1	69.8	66.8	59.6	63.5	69.9	77.5
Asgrow	AG35XF4	3.5	RR2XF	65.5	25	61.1	71.3	60.9	55.9	61.5	70.4	77.9
Experiment Mean				70.9				67.4	60.8	67.9	75.2	82.9
Minimum Mean				65.5				59.3	54.2	61.5	68.0	77.5
Maximum Mean				75.1				76.0	68.9	74.1	79.5	89.9
LSD(0.25)				2.2				2.8	3.5	4.0	2.7	3.5
Coefficient of Variability				5.1				3.8	6.1	6.5	3.7	4.9



**THE OHIO STATE
UNIVERSITY**

COLLEGE OF FOOD, AGRICULTURAL,
AND ENVIRONMENTAL SCIENCES

The 2023 OHIO SOYBEAN PERFORMANCE TRIALS

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INTRODUCTION

The purpose of the Ohio Soybean Performance Trials is to evaluate soybean varieties for yield and other agronomic characteristics. This evaluation gives soybean producers comparative information for selecting the best varieties for their unique production systems.

FIELD PLOT DESIGN

The entries for each test site were planted in a randomized complete block design. Each entry was replicated four times and planted in plots 28 ft long and 5 ft wide containing four rows seeded at 15-inch row width. Seeding rate was 150,000 seeds per acre. Corn was the previous crop at all locations, except C2 where the previous crop was soybean. All locations were no-till except the N2 and S2 locations, which were planted into a stale seedbed. Farmer cooperators sprayed pre-emergence herbicides (varied by location). All locations were sprayed post-emergence with First Rate, Flexstar, and Select Max.

METHOD OF CONDUCTING TRIALS

Entries in Trials. Performance of entries in The Ohio Soybean Performance Trials are published if seed will be available to Ohio soybean producers for the following planting season. All 2023 entries were submitted voluntarily by seed companies. Entry fee charges were paid per entry and region.

Test by Maturity and Type. Varieties were grouped, tested, and analyzed by maturity (early and late). Conventional (CV), Enlist (EN), and XtendFlex (XF) varieties were tested in the same block to allow for head-to-head comparisons. Varieties are comparable within a location and maturity grouping (early or late). Conventional herbicides were sprayed on all entries. Use the table below to find varieties by region and maturity.

2023 Tables by Region and Maturity Grouping		
North	Early (1.9-3.1)	Table 3
	Late (3.2-3.9)	Table 4
Central	Early (2.4-3.3)	Table 5
	Late (3.4-4.2)	Table 6
South	Early (2.5-3.6)	Table 7
	Late (3.7-4.3)	Table 8

MEASUREMENTS AND RECORDS

Relative Maturity. Relative maturity (RM) is a rating designed to account for all of the factors that affect maturity date and includes variety, planting date, weather, and latitude. Maturity is defined as the “95% brown pods” stage. A variety with a RM rating of 3.5 should reach the 95% brown pod stage 5 days later than a variety with a rating of 3.0. RM was submitted by seed companies.

Lodging Score. There was no lodging in 2023.

Seed Size is reported as number of seeds per pound. Seed size was determined from varieties grown at the C2 location.

Yield. Each soybean variety was harvested when the moisture content was between 8 and 14 percent and yields reported in bushels per acre at 13 percent moisture.

Protein, Oil %. Analysis was determined by near infrared transmittance technology. The test was performed using a Foss NIR whole grain analyzer and is reported at 13 percent moisture. Protein and oil were determined from varieties grown at the C2 location.

LSD. A Least Significant Difference (LSD) for yield was computed for each location and maturity grouping. LSDs are reported in bushels per acre at 13 percent moisture. Yields of two varieties within a location and maturity grouping are significantly different 90% of the time if their yields differ by more than the LSD value shown for that maturity group. A double asterisk (**) is used to denote the variety with the highest yield within a location and maturity grouping. A single asterisk (*) is used to denote varieties with yield not statistically different than the highest yielding variety.

DATA USE. Inclusion of entries in the Ohio Soybean Performance Trials does not constitute an endorsement of a particular entry by the Ohio State University, Ohio Agricultural Research and Development Center, or Ohio State University Extension.



Table 1: The 2023 Ohio Soybean Performance Trials, Site Descriptions

	N1	N2	C1	C2	S1	S2
	Henry Co.	Sandusky Co.	Mercer Co.	Union Co.	Preble Co.	Clinton Co.
Soil texture	Clay	Clay loam	Clay loam	Clay loam	Clay loam	Silty clay loam
Organic matter (%)	3.5	2.4	2.5	2.8	3.1	3.3
Soil pH	6.4	6.1	7.1	6.9	6.7	6.4
Soil Test P-Mehlich (ppm)	33	21	60	24	55	64
Soil Test K (ppm)	180	105	132	94	153	169
Plant date	5-15-2023	5-10-2023	5-17-2023	5-23-2023	5-11-2023	5-18-2023
Harvest date	10-18-2023	10-11-2023	10-24-2023	10-19-2023 (early) 10-26-2023 (late)	10-25-2023	10-13-2023

Table 2. Directory by Company Listed by Variety/Brand, Maturity Rating, and Type

Physical characteristics and yield data for a variety can be located using the table number(s) associated with each entry in this directory.

Variety	RM	Type	Table #	Variety	RM	Type	Table #	Variety	RM	Type	Table #
Advanced Genetics, Inc.				Dyna-Gro Seed				Golden Harvest			
11491 Foundation Rd.			740-893-2501	717 Robinson Rd SE			740-207-0182	2001 Butterfield Rd, STE 1600			800-652-7333
Croton, OH 43013			advancedgeneticsinc.com	Washington CH, OH 43160			dynagroseed.com	Downer's Grove, IL 60515			goldenharvestseeds.com
AGI 3725AE	2.5	EN	3	S25EN74	2.5	EN	3	GH2814E3S	2.8	EN	3, 5
AGI 3727AE	2.7	EN	3	S26EN53	2.6	EN	3	GH2922E3	2.9	EN	3, 5
AGI 3728AE	2.8	EN	3	S29EN62	2.9	EN	3, 5	GH3043E3S	3.0	EN	5
AGI 3729AE	2.9	EN	3, 5	S31EN14	3.1	EN	3, 5	GH3373E3S	3.3	EN	4, 5, 7
AGI 3730AE	3.0	EN	3, 5	S31EN91	3.1	EN	3, 5	GH3693E3S	3.6	EN	6, 7
AGI 3731AE	3.1	EN	3, 5	S33EN42	3.3	EN	4, 5, 7	GH3774E3	3.7	EN	8
AGI 3733AE	3.3	EN	4, 5, 7	S35ES82	3.5	EN	6, 7	GH3994E3	3.9	EN	8
AGI 3734AE	3.4	EN	4, 6, 7	S37ES52	3.7	EN	4, 6, 8	Growmark, Inc./FS HISOY			
AGI 3735AE	3.5	EN	4, 6, 7	S40EN54	4.0	EN	8	1701 Towanda Ave.			309-557-6399
AGI 3737AE	3.7	EN	4, 6, 8	Ebberts Field Seeds Inc.				Bloomington, IL 61701			growmark.com
AGI 3738AE	3.8	EN	4, 6, 8	6840 N State Route 48			937-473-2521	HS 23E10	2.3	EN	3
AGI 3738BE	3.8	EN	6, 8	Covington, OH 45318			ebbertsseeds.com	HS 26E20	2.6	EN	3, 5
AGI 3739AE	3.9	EN	6, 8	E2170 E3	2.1	EN	3	HS 28E10	2.8	EN	3, 5
AGI 3740AE	4.0	EN	6, 8	E2570 E3	2.5	EN	3	HS 28F30	2.8	XF	3, 5
AGI 3743AE	4.3	EN	8	E2980 E3	2.9	EN	3, 5	HS 29F10	2.9	XF	3, 5
Bayer Crop Science				303XF	3.0	XF	3, 5	HS 31E20	3.1	EN	3, 5
800 North Lindbergh Blvd			800-768-6387	E3171 E3	3.1	EN	3, 5	HS 34F30	3.4	XF	4, 6
St. Louis, MO 63167			dekalbasgrowdeltapine.com	E3380 E3	3.3	EN	4, 5, 7	HS 35E10	3.5	EN	4, 6
AG24XF3	2.4	XF	3, 5	E3370 E3	3.3	EN	4, 5, 7	HS 37E10	3.7	EN	4, 6
AG26XF3	2.6	XF	3, 5	333XF	3.3	XF	4, 5, 7	HS 38E20	3.8	EN	4, 6
AG27XF3	2.7	XF	3, 5, 7	G3480E	3.4	EN	4, 6	Luckey Farmers, LLC			
AG28XF3	2.8	XF	3, 5, 7	E3580 E3	3.5	EN	4, 6, 7	1200 W. Main St, PO Box 217			419-287-3275
AG30XF2	3.0	XF	3, 5, 7	E3760 E3	3.7	EN	4, 6, 8	Woodville, OH 43469			luckeyfarmers.com
AG32XF2	3.2	XF	4, 5, 7	E3880 E3	3.8	EN	4, 6, 8	Gro-Mor EXP622E52	2.5	EN	3
AG33XF3	3.3	XF	4, 6, 7	384XF	3.8	XF	4, 6, 8	Gro-Mor EXP21E13	3.1	EN	3
AG35XF1	3.5	XF	4, 6, 7	GDM Seeds				Gro-Mor EXP03E43	3.4	EN	4
AG38XF1	3.8	XF	4, 6, 8	3414 Big Pine Trail			217-560-6374	NK Seeds			
AG39XF3	3.9	XF	4, 6, 8	Champaign, IL 61822			gdmseeds.com	2001 Butterfield Rd STE 1600			260-433-4135
AG43XF2	4.3	XF	8	EXPERIMENTAL 6	2.2	EN	3	Downer's Grove, IL 60515			syngenta-us.com/seeds/nk
Blue River/Albert Lea Seed House				EXPERIMENTAL 1	2.7	EN	3	NK28-B9D3S	2.8	EN	5
1414 W. Main St, PO Box 1327			800-352-5247	EXPERIMENTAL 2	2.9	EN	3, 5	NK30-B2E3	3.0	EN	5
Albert Lea, MN 46007			alseed.com	EXPERIMENTAL 3	3.2	EN	4, 5, 7	NK36-H9E3S	3.6	EN	6, 7
BR 2702	2.7	CV	3	EXPERIMENTAL 4	3.4	EN	6, 7	NK37-C1E3	3.7	EN	8
BR 29DC5	2.9	CV	3	EXPERIMENTAL 5	4.0	EN	8	NK39-J2E3	3.9	EN	8
BR 30B4	3.0	CV	3, 5	Seed Consultants, Inc.				648 Miami Trace Rd.			800-708-2676
BR 3418N	3.4	CV	4, 6	Washington CH, OH 43160			seedconsultants.com	SC7293E™	2.9	EN	3, 5
BR 3923	3.9	CV	6	3414 Big Pine Trail			217-560-6374	SC7311E™	3.1	EN	3, 5
BR 42D40	4.2	CV	6	Champaign, IL 61822			donmarioseeds.com	SC7332E™	3.3	EN	4, 5, 7
DONMARIO Seeds				DM39E03	3.9	EN	4, 6, 8	SC7341E™	3.4	EN	4, 6, 7
3414 Big Pine Trail			217-560-6374	SC7364E™							
Champaign, IL 61822			donmarioseeds.com								

Table 2. Directory by Company Listed by Variety/Brand, Maturity Rating, and Type, CONTINUED

Physical characteristics and yield data for a variety can be located using the table number(s) associated with each entry in this directory.

Variety	RM	Type	Table #	Variety	RM	Type	Table #	Variety	RM	Type	Table #
Seedway 1734 Railroad Place Hall, NY 14463 800-836-3710 seedway.com				The Ohio State University 2021 Coffey Rd. Columbus, OH 43210 Columbus, OH 43210				Williamsfield Seed Company 1122 Knox Hwy 18 Williamsfield, IL 61489 bairdseedcompany.com 309-569-0008			
SG 2923E3	2.9	EN	3	HM14-3614-4	3.6	CV	6	WSC 8300NY	2.6	CV	3, 5
SG 3323E3	3.3	EN	4	HM18-19023	3.8	CV	6	WSC 2967NY	3.2	CV	5
SG 3327XTF	3.3	XF	4	HM18-18047	3.9	CV	6	WSC 1217N	3.3	CV	5
SG 3522E3	3.5	EN	4	HM18-21128	4.0	CV	6	WSC 3496NY	3.4	CV	6
Shur Grow 6239 St Rt 187 Mechanicsburg, OH 43044 heritagecooperative.com 800-231-7333				The Scoular Company 5750 Greenville Falls-Clayton Rd Covington, OH 45318 937-473-2025 scoular.com				Xitavo Soybean Seed 103 Avenue D West Point, IA 52656 xitavosoybeanseed.com 419-561-7008			
SG2554E	2.5	EN	3, 5, 7	SCI29776	2.9	CV	3, 5, 7	XO 2323E	2.3	EN	3
SG2753E	2.7	EN	3, 5, 7	SCI30061	3.0	CV	3, 5, 7	XO 2444E	2.4	EN	3
SG3053E	3.0	EN	3, 5, 7	SCI33225	3.3	CV	4, 5, 7	XO 2613E	2.6	EN	3, 5
SD3284E	3.2	EN	4, 5, 7	SCM34311	3.5	CV	4, 6, 7	XO 2832E	2.8	EN	3, 5
SG3254E	3.2	EN	4, 5, 7	Virtue Seeds 3414 Big Pine Trail Champaign, IL 61822 217-560-6374 virtueseeds.com			XO 2963E	2.9	EN	3, 5	
SG33EXP	3.3	EN	4, 5, 7	V2922	2.9	CV	3, 5, 7	XO 3014E	3.0	EN	3, 5, 7
SG3454E	3.4	EN	4, 6, 7	V3623	3.6	CV	4, 6, 7	XO 3131E	3.1	EN	3, 5, 7
SG3652E	3.6	EN	4, 6, 7	Wellman Seeds, Inc. 23778 Jennings Delphos Rd Delphos, OH 45833 800-717-7333 wellmanseeds.com			XO 3224E	3.2	EN	4, 5, 7	
SG3784E	3.7	EN	4, 6, 8	W 6319E	1.9	EN	3	XO 3483E	3.4	EN	4, 6, 7
SG3853E	3.8	EN	4, 6, 8	W 6125E	2.5	EN	3	XO 3651E	3.6	EN	4, 6, 7
Stewart Seeds 306 N Main St Monticello, IN 47960 800-365-7333 stewartseeds.com				W 6330E	3.0	EN	3, 5	XO 3752E	3.7	EN	4, 6, 8
2964XF	2.9	XF	3	W 6133E	3.3	EN	4, 5	XO 3803E	3.8	EN	4, 6, 8
3144XF	3.1	XF	3	W 6335E	3.5	EN	4, 6	XO 3992E	3.9	EN	6, 8
3843XF	3.8	XF	4, 6, 8	W 6339E	3.9	EN	8	XO 4084E	4.0	EN	8
4053XF	4.0	XF	6, 8								

TABLE 3: The 2023 Ohio Soybean Performance Trials, North Region - Early Varieties (RM 1.9-3.1)

Entry		Seed & Plant Characteristics				North Region Yield (bu/ac)			
Variety	Brand/Company Name	Type	Seed Treatment	RM	N1	N2	'23 Mean	'22-'23 Mean	
AG27XF3	Asgrow	XF	Acceleron	2.7	84.9*	92.1*	88.5		
SC7311E™	Seed Consultants, Inc.	EN	LumiGen, ILeVO	3.1	87.1*	89.1*	88.1	90.2	
GH2814E3S	Golden Harvest	EN	CruiserMaxx, Saltro	2.8	83.0	93.0**	88.0		
SG2554E	Shur Grow	EN	Warden CX II	2.5	85.4*	88.4*	86.9		
SG 2923E3	Seedway	EN	Obtayn	2.9	89.0*	80.0	84.5		
HS 28E10	Growmark, Inc.	EN	Acceleron I+F, Saltro	2.8	82.6	86.3	84.5	87.1	
E3171 E3	Ebberts Field Seeds	EN	Ebberts Complete	3.1	82.7	85.7	84.2		
S25EN74	Dyna-Gro Seed	EN	Equity VIP, Saltro, Vayantis	2.5	79.6	88.3*	84.0		
303XF	Ebberts Field Seeds	XF	Ebberts Complete	3.0	85.0*	82.8	83.9	88.9	
XO 3131E	Xitavo Soybean Seed	EN	Obvius Plus, Poncho/Votivo, ILeVO, Relenya	3.1	83.5*	84.3	83.9	90.2	
SG3284E	Shur Grow	EN	Warden CX II	3.2	84.3*	82.8	83.6		
S31EN91	Dyna-Gro Seed	EN	Equity VIP, Saltro, Vayantis	3.1	75.8	91.1*	83.5	87.7	

NOTE: North Region, Early Variety Trial Results are Continued on the Next Page.

TABLE 3: The 2023 Ohio Soybean Performance Trials, North Region - Early Varieties (RM 1.9-3.1)
CONTINUED FROM PREVIOUS PAGE

Entry		Seed & Plant Characteristics			North Region Yield (bu/ac)			
Variety	Brand/Company Name	Type	Seed Treatment	RM	N1	N2	'23 Mean	'22-'23 Mean
BR 30B4	Blue River	CV	None	3.0	91.1**	75.6	83.4	
AG30XF2	Asgrow	XF	Acceleron	3.0	82.6	82.8	82.7	83.9
AG28XF3	Asgrow	XF	Acceleron	2.8	82.0	82.7	82.4	
E2980 E3	Ebberts Field Seeds	EN	Ebberts Complete	2.9	79.7	85.0	82.4	
SC7293E™	Seed Consultants, Inc.	EN	LumiGen, ILeVO	2.9	80.0	84.3	82.2	
E2570 E3	Ebberts Field Seeds	EN	Ebberts Complete	2.5	80.2	83.8	82.0	
HS 28F30	Growmark, Inc.	XF	Acceleron I+F, Saltro	2.8	75.8	85.7	80.8	
HS 29F10	Growmark, Inc.	XF	Acceleron I+F, Saltro	2.9	82.3	78.9	80.6	82.5
W 6125E	Wellman Seeds, Inc.	EN	Encase	2.5	75.1	85.8	80.5	80.8
HS 31E20	Growmark, Inc.	EN	Acceleron I+F, Saltro	3.1	77.1	83.0	80.1	84.6
BR 29DC5	Blue River	CV	None	2.9	76.7	82.9	79.8	
XO 2832E	Xitavo Soybean Seed	EN	Obvius Plus, Poncho/Votivo, ILeVO, Relenya	2.8	75.1	84.4	79.8	85.9
Gro-Mor EXP622E52	Luckey Farmers, LLC	EN	None	2.5	78.5	82.9	79.4	
AG24XF3	Asgrow	XF	Acceleron	2.4	81.5	77.0	79.3	
S29EN62	Dyna-Gro Seed	EN	Equity VIP, Saltro, Vayantis	2.9	80.3	78.0	79.2	84.4
AGI 3731AE	Advanced Genetics, Inc.	EN	Cruiser Maxx APX	3.1	82.4	75.7	79.1	
EXPERIMENTAL 2	GDM Seeds	EN	CruiserMaxx APX	2.9	77.3	80.8	79.1	
EXPERIMENTAL 1	GDM Seeds	EN	CruiserMaxx APX	2.7	75.0	82.6	78.8	
XO 3014E	Xitavo Soybean Seed	EN	Obvius Plus, Poncho/Votivo, ILeVO, Relenya	3.0	76.5	80.4	78.5	
XO 2444E	Xitavo Soybean Seed	EN	Obvius Plus, Poncho/Votivo, ILeVO, Relenya	2.4	79.1	77.5	78.3	
3144XF	Stewart Seeds	XF	Acceleron	3.1	78.6	77.5	78.1	
W 6330E	Wellman Seeds, Inc.	EN	Encase	3.0	81.8	74.1	78.0	84.0
HS 26E20	Growmark, Inc.	EN	Acceleron I+F, Saltro	2.6	78.2	77.4	77.8	83.1
AGI 3730AE	Advanced Genetics, Inc.	EN	CruiserMaxx APX	3.0	80.4	75.1	77.8	
AGI 3725AE	Advanced Genetics, Inc.	EN	CruiserMaxx APX	2.5	74.4	81.0	77.7	
SG3053E	Shur Grow	EN	Warden CX II	3.0	81.9	73.5	77.7	83.8
AGI 3729AE	Advanced Genetics, Inc.	EN	CruiserMaxx APX	2.9	78.1	77.1	77.6	
HS 23E10	Growmark, Inc.	EN	Acceleron I+F, Saltro	2.3	82.7	71.6	77.2	
Gro-Mor EXP21E13	Luckey Farmers, LLC	EN	None	3.1	76.0	78.3	77.2	
V2922	Virtue Seeds	CV	CruiserMaxx APX	2.9	73.8	80.3	77.1	82.7
AGI 3727AE	Advanced Genetics, Inc.	EN	CruiserMaxx APX	2.7	70.2	83.8	77.0	
XO 2613E	Xitavo Soybean Seed	EN	Obvius Plus, Poncho/Votivo, ILeVO, Relenya	2.6	76.7	77.2	77.0	80.1
EXPERIMENTAL 6	GDM Seeds	EN	CruiserMaxx APX	2.2	74.2	79.6	76.9	
AG26XF3	Asgrow	XF	Acceleron	2.6	76.0	77.6	76.8	
Gro-Mor EXP03E43	Luckey Farmers, LLC	EN	None	3.4	75.8	77.8	76.8	
GH2922E3	Golden Harvest	EN	CruiserMaxx, Saltro	2.9	76.3	77.1	76.7	79.4
WSC 8300NY	Williamsfield Seed Company	CV	Eclipse US Trio	2.6	74.5	78.0	76.3	
BR 2702	Blue River	CV	None	2.7	76.3	75.1	75.7	
2964XF	Stewart Seeds	XF	Acceleron	2.9	76.8	74.0	75.4	
XO 2323E	Xitavo Soybean Seed	EN	Obvius Plus, Poncho/Votivo, ILeVO, Relenya	2.3	71.1	79.6	75.4	
E2170 E3	Ebberts Field Seeds	EN	Ebberts Complete	2.1	69.7	80.4	75.1	
SCI30061	The Scoular Company	CV	None	3.0	75.7	72.0	73.9	
XO 2963E	Xitavo Soybean Seed	EN	Obvius Plus, Poncho/Votivo, ILeVO, Relenya	2.9	74.8	72.8	73.8	80.5
S26EN53	Dyna-Gro Seed	EN	Equity VIP, Saltro, Vayantis	2.6	67.3	79.5	73.4	79.5
SG2753E	Shur Grow	EN	Warden CX II	2.7	69.3	77.2	73.3	76.1
S31EN14	Dyna-Gro Seed	EN	Equity VIP, Saltro, Vayantis	3.1	63.0	83.3	73.2	
SCI29776	The Scoular Company	CV	None	2.9	70.7	74.5	72.6	
W 6319E	Wellman Seeds, Inc.	EN	Encase	1.9	73.2	71.9	72.6	75.9
AGI 3728AE	Advanced Genetics, Inc.	EN	ProTec S4	2.8	61.2	73.2	67.2	
				Min	1.9	61.2	71.6	67.2
				Max	3.1	91.1	93.0	88.5
				Mean	2.8	77.8	80.4	79.1
				LSD (0.1)		7.6	6.2	
				CV		8.3	6.6	

**Highest yielding variety; *Varieties with yield not statistically different than the highest yielding variety. Please note: Minimum, maximum, and mean include data for experimental soybean varieties that are not published in this bulletin.

TABLE 4: The 2023 Ohio Soybean Performance Trials, North Region - Late Varieties (RM 3.2-3.9)

Entry		Seed & Plant Characteristics			North Region Yield (bu/ac)			
Variety	Brand/Company Name	Type	Seed Treatment	RM	N1	N2	'23 Mean	'22-'23 Mean
E3760 E3	Ebberts Field Seeds	EN	Ebberts Complete	3.7	95.5**	83.4*	89.5	93.3
HS 37E10	Growmark, Inc.	EN	Acceleron I+F, Saltro	3.7	89.9	87.7**	88.8	90.4
XO 3483E	Xitavo Soybean Seed	EN	Obvius Plus, Poncho/Votivo, ILeVO, Relenya	3.4	88.9	87.6*	88.3	89.0
SG3652E	Shur Grow	EN	Warden CX II	3.6	89.6	86.6*	88.1	
AG35XF1	Asgrow	XF	Acceleron	3.5	91.0*	84.6*	87.8	87.1
XO 3752E	Xitavo Soybean Seed	EN	Obvius Plus, Poncho/Votivo, ILeVO, Relenya	3.7	90.5*	84.1*	87.3	89.3
384XF	Ebberts Field Seeds	XF	Ebberts Complete	3.8	85.9	87.2*	86.6	
S37ES52	Dyna-Gro Seed	EN	Equity VIP, Saltro, Vayantis	3.7	89.3	82.0	85.7	89.3
SC7364E™	Seed Consultants, Inc.	EN	LumiGen, ILeVO	3.6	86.3	84.1*	85.2	
XO 3224E	Xitavo Soybean Seed	EN	Obvius Plus, Poncho/Votivo, ILeVO, Relenya	3.2	83.1	87.0*	85.1	
AG33XF3	Asgrow	XF	Acceleron	3.3	86.8	83.1*	85.0	
E3880 E3	Ebberts Field Seeds	EN	Ebberts Complete	3.8	88.2	79.5	83.9	
E3580 E3	Ebberts Field Seeds	EN	Ebberts Complete	3.5	85.8	81.8	83.8	
SG 3327XTF	Seedway	XF	Obtayn	3.3	86.7	80.5	83.6	
E3380 E3	Ebberts Field Seeds	EN	Ebberts Complete	3.3	81.3	85.6*	83.5	
E3370 E3	Ebberts Field Seeds	EN	Ebberts Complete	3.3	85.6	81.0	83.3	86.7
SG3454E	Shur Grow	EN	Warden CX II	3.4	82.2	84.1*	83.2	
S33EN42	Dyna-Gro Seed	EN	Equity VIP, Saltro, Vayantis	3.3	84.5	81.7	83.1	86.6
HS 35E10	Growmark, Inc.	EN	Acceleron I+F, Saltro	3.5	84.2	82.0	83.1	87.0
333XF	Ebberts Field Seeds	XF	Ebberts Complete	3.3	82.8	83.3*	83.1	83.5
SG3254E	Shur Grow	EN	Warden CX II	3.2	81.4	84.5*	83.0	
HS 34F30	Growmark, Inc.	XF	Acceleron I+F, Saltro	3.4	80.5	85.3*	82.9	
EXPERIMENTAL 3	GDM Seeds	EN	CruiserMaxx APX	3.2	82.2	83.2*	82.7	
SG3853E	Shur Grow	EN	Warden CX II	3.8	87.9	77.2	82.6	
3843XF	Stewart Seeds	XF	Acceleron	3.8	82.1	82.8*	82.5	85.9
SG 3323E3	Seedway	EN	Obtayn	3.3	82.7	81.9	82.3	
AGI 3734AE	Advanced Genetics, Inc.	EN	CruiserMaxx APX	3.4	83.4	80.9	82.2	
SG33EXP	Shur Grow	EN	Warden CX II	3.3	86.2	78.1	82.2	
AGI 3733AE	Advanced Genetics, Inc.	EN	ProTec S4	3.3	84.2	80.0	82.1	
AG39XF3	Asgrow	XF	Acceleron	3.9	80.0	84.2*	82.1	
SC7332E™	Seed Consultants, Inc.	EN	LumiGen, ILeVO	3.3	81.6	82.5	82.1	84.6
SC7341E™	Seed Consultants, Inc.	EN	LumiGen, ILeVO	3.4	87.4	76.5	82.0	84.9
AG32XF2	Asgrow	XF	Acceleron	3.2	83.1	80.5	81.8	81.5
GH3373E3S	Golden Harvest	EN	CruiserMaxx APX, Saltro	3.3	84.3	79.2	81.8	83.5
XO 3803E	Xitavo Soybean Seed	EN	Obvius Plus, Poncho/Votivo, ILeVO, Relenya	3.8	83.2	80.3	81.8	
SG3784E	Shur Grow	EN	Warden CX II	3.7	87.7	74.1	80.9	
AG38XF1	Asgrow	XF	Acceleron	3.8	83.7	77.4	80.6	82.2
HS 38E20	Growmark, Inc.	EN	Acceleron I+F, Saltro	3.8	83.6	77.4	80.5	85.0
AGI 3735AE	Advanced Genetics, Inc.	EN	CrusierMaxx APX	3.5	79.7	79.5	79.6	
BR 3418N	Blue River	CV	None	3.4	84.2	74.4	79.3	
SG 3522E3	Seedway	EN	Obtayn	3.5	79.5	76.9	78.2	84.4
DM39E03	DONMARIO Seeds	EN	CrusierMaxx APX	3.9	82.0	72.9	77.5	
V3623	Virtue Seeds	CV	CruiserMaxx APX	3.6	80.0	73.9	77.0	
G3480E	Ebberts Field Seeds	EN	Ebberts Complete	3.4	78.6	75.3	77.0	
SCI33225	The Scoular Company	CV	None	3.3	81.7	70.0	75.9	
AGI 3738AE	Advanced Genetics, Inc.	EN	CruiserMaxx APX	3.8	75.6	75.6	75.6	
XO 3651E	Xitavo Soybean Seed	EN	Obvius Plus, Poncho/Votivo, ILeVO, Relenya	3.6	76.7	74.0	75.4	83.1
SCM34311	The Scoular Company	CV	None	3.4	73.6	69.4	71.5	
AGI 3737AE	Advanced Genetics, Inc.	EN	ProTec S4	3.7	74.3	62.4	68.4	
			Min	3.2	73.6	62.4	68.4	
			Max	3.9	95.5	87.7	89.5	
			Mean	3.5	83.7	80.1	82.0	
			LSD (0.1)		5.0	5.0		
			CV		5.1	5.3		

**Highest yielding variety; *Varieties with yield not statistically different than the highest yielding variety. Please note: Minimum, maximum, and mean include data for experimental soybean varieties that are not published in this bulletin.

TABLE 5: The 2023 Ohio Soybean Performance Trials, Central Region - Early Varieties (RM 2.4-3.3)

Entry		Seed & Plant Characteristics			Central Region Yield (bu/ac)			
Variety	Brand/Company Name	Type	Seed Treatment	RM	C1	C2	'23 Mean	'22-'23 Mean
BR 30B4	Blue River	CV	None	3.0	74.4	85.3**	79.9	
NK28-B9E3S	NK Seeds	EN	CruiserMaxx APX, Saltro	2.8	76.3*	78.8*	77.6	
S33EN42	Dyna-Gro Seed	EN	Equity VIP, Saltro, Vayantis	3.3	72.0	79.7*	75.9	69.1
303XF	Ebberts Field Seeds	XF	Ebberts Complete	3.0	75.6	75.4	75.5	67.1
E2980 E3	Ebberts Field Seeds	EN	Ebberts Complete	2.9	73.6	76.7	75.2	
GH2814E3S	Golden Harvest	EN	CruiserMaxx, Saltro	2.8	71.4	78.7*	75.1	
W 6330E	Wellman Seeds, Inc.	EN	Encase	3.0	81.4**	68.5	75.0	64.7
XO 3131E	Xitavo Soybean Seed	EN	Obvius Plus, Poncho/Votivo, ILeVO, Relenya	3.1	75.0	74.7	74.9	67.6
E3370 E3	Ebberts Field Seeds	EN	Ebberts Complete	3.3	73.6	75.0	74.3	64.9
AG27XF3	Asgrow	XF	Acceleron	2.7	73.0	75.0	74.0	
SG3254E	Shur Grow	EN	Warden CX II	3.2	71.5	74.7	73.1	
V2922	Virtue Seeds	CV	CruiserMaxx APX	2.9	75.8*	69.7	72.8	68.5
XO 3014E	Xitavo Soybean Seed	EN	Obvius Plus, Poncho/Votivo, ILeVO, Relenya	3.0	74.7	69.0	71.9	
E3380 E3	Ebberts Field Seeds	EN	Ebberts Complete	3.3	74.4	69.2	71.8	
XO 3224E	Xitavo Soybean Seed	EN	Obvius Plus, Poncho/Votivo, ILeVO, Relenya	3.2	74.4	68.0	71.2	
S31EN91	Dyna-Gro Seed	EN	Equity VIP, Saltro, Vayantis	3.1	75.4	66.9	71.2	64.6
AGI 3733AE	Advanced Genetics, Inc.	EN	ProTec S4	3.3	71.8	70.0	70.9	
SG3284E	Shur Grow	EN	Warden CX II	3.2	76.0*	65.5	70.8	
SC7311E™	Seed Consultants, Inc.	EN	LumiGen, ILeVO	3.1	75.1	66.3	70.7	63.3
AGI 3730AE	Advanced Genetics, Inc.	EN	CruiserMaxx APX	3.0	69.5	70.8	70.2	
SCI33225	The Scoular Company	CV	None	3.3	75.5	64.3	69.9	
HS 31E20	Growmark, Inc.	EN	Acceleron I+F, Saltro	3.1	73.7	66.0	69.9	65.2
AG32XF2	Asgrow	XF	Acceleron	3.2	70.7	67.9	69.3	61.3
AGI 3731AE	Advanced Genetics, Inc.	EN	CruiserMaxx APX	3.1	77.2*	61.4	69.3	
GH3373E3S	Golden Harvest	EN	CruiserMaxx APX, Saltro	3.3	68.1	70.1	69.1	63.2
AG28XF3	Asgrow	XF	Acceleron	2.8	69.1	68.5	68.8	
333XF	Ebberts Field Seeds	XF	Ebberts Complete	3.3	76.5*	61.0	68.8	62.7
SG3053E	Shur Grow	EN	Warden CX II	3.0	73.3	63.6	68.5	63.8
HS 29F10	Growmark, Inc.	XF	Acceleron I+F, Saltro	2.9	68.9	67.8	68.4	61.0
WSC 1217N	Williamsfield Seed Company	CV	Eclipse US Trio	3.3	70.1	66.6	68.4	62.7
SCI29776	The Scoular Company	CV	None	2.9	68.7	67.6	68.2	
E3171 E3	Ebberts Field Seeds	EN	Ebberts Complete	3.1	72.5	63.2	67.9	
SC7293E	Seed Consultants, Inc.	EN	LumiGen, ILeVO	2.9	68.0	67.6	67.8	
SG2554E	Shur Grow	EN	Warden CX II	2.5	69.8	65.4	67.6	
HS 28E10	Growmark, Inc.	EN	Acceleron I+F, Saltro	2.8	69.4	65.4	67.4	62.7
SC7332E	Seed Consultants, Inc.	EN	LumiGen, ILeVO	3.3	71.8	60.3	66.1	61.6
SCI30061	The Scoular Company	CV	None	3.0	66.2	64.9	65.6	
EXPERIMENTAL 2	GDM Seeds	EN	CruiserMaxx APX	2.9	68.5	61.6	65.1	
WSC 8300NY	Williamsfield Seed Company	CV	Eclipse US Trio	2.6	65.1	65.0	65.1	
XO 2832E	Xitavo Soybean Seed	EN	Obvius Plus, Poncho/Votivo, ILeVO, Relenya	2.8	66.4	62.9	64.7	60.4
AG30XF2	Asgrow	XF	Acceleron	3.0	67.8	60.9	64.4	61.2
AG33XF3	Asgrow	XF	Acceleron	3.3	68.1	60.4	64.3	
AGI 3729AE	Advanced Genetics, Inc.	EN	CruiserMaxx APX	2.9	66.0	62.0	64.0	
XO 2613E	Xitavo Soybean Seed	EN	Obvius Plus, Poncho/Votivo, ILeVO, Relenya	2.6	66.7	60.2	63.5	
S29EN62	Dyna-Gro Seed	EN	Equity VIP, Saltro, Vayantis	2.9	69.3	57.1	63.2	59.4
WSC 2967NY	Williamsfield Seed Company	CV	Eclipse US Trio	3.2	72.2	54.1	63.2	
EXPERIMENTAL 3	GDM Seeds	EN	CruiserMaxx APX	3.2	66.7	59.4	63.1	
XO 2963E	Xitavo Soybean Seed	EN	Obvius Plus, Poncho/Votivo, ILeVO, Relenya	2.9	66.9	58.3	62.6	59.5
S31EN14	Dyna-Gro Seed	EN	Equity VIP, Saltro, Vayantis	3.1	64.2	60.7	62.5	
GH2922E3	Golden Harvest	EN	CruiserMaxx, Saltro	2.9	68.6	55.9	62.3	58.0
AG24XF3	Asgrow	XF	Acceleron	2.4	70.0	54.2	62.1	
HS 26E20	Growmark, Inc.	EN	Acceleron I+F, Saltro	2.6	62.6	60.6	61.6	58.4
SG2753E	Shur Grow	EN	Warden CX II	2.7	70.5	52.2	61.4	
W 6133E	Wellman Seeds, Inc.	EN	Encase	3.3	70.3	51.0	60.7	
SG33EXP	Shur Grow	EN	Warden CX II	3.3	68.5	52.1	60.3	
HS 28F30	Growmark, Inc.	XF	Acceleron I+F, Saltro	2.8	72.0	47.4	59.7	

NOTE: Central Region, Early Variety Trial Results are Continued on the Next Page.

TABLE 5: The 2023 Ohio Soybean Performance Trials, Central Region - Early Varieties (RM 2.4-3.3)
CONTINUED FROM PREVIOUS PAGE

Entry		Seed & Plant Characteristics			Central Region Yield (bu/ac)			
Variety	Brand/Company Name	Type	Seed Treatment	RM	C1	C2	'23 Mean	'22-'23 Mean
AG26XF3	Asgrow	XF	Accelaron	2.6	67.3	52.0	59.7	
NK30-B2E3	NK Seeds	EN	CruiserMaxx APX, Saltro	3.0	63.2	54.2	58.7	56.8
GH3043E3S	Golden Harvest	EN	CruiserMaxx APX, Saltro	3.0	61.1	54.0	57.6	
				Min	2.4	61.1	47.4	57.6
				Max	3.3	81.4	85.3	79.9
				Mean	3.0	70.6	64.6	67.7
				LSD (0.1)		5.7	7.8	
				CV		6.9	10.3	

**Highest yielding variety; *Varieties with yield not statistically different than the highest yielding variety. Please note: Minimum, maximum, and mean include data for experimental soybean varieties that are not published in this bulletin.

TABLE 6: The 2023 Ohio Soybean Performance Trials, Central Region - Late Varieties (RM 3.4-4.2)

Entry		Seed & Plant Characteristics			Central Region Yield (bu/ac)			
Variety	Brand/Company Name	Type	Seed Treatment	RM	C1	C2	'23 Mean	'22-'23 Mean
XO 3752E	Xitavo Soybean Seed	EN	Obvius Plus, Poncho/Votivo, ILeVO, Relenya	3.7	77.9*	81.7**	79.8	70.8
S37ES52	Dyna-Gro Seed	EN	Equity VIP, Saltro, Vayantis	3.7	75.9*	80.9*	78.4	70.8
E3760 E3	Ebberts Field Seeds	EN	Ebberts Complete	3.7	77.2*	79.4*	78.3	72.1
384XF	Ebberts Field Seeds	XF	Ebberts Complete	3.8	78.0*	76.0*	77.0	
HS 37E10	Growmark, Inc.	EN	Accelaron I+F, Saltro	3.7	76.0*	76.0*	76.0	70.0
W 6335E	Wellman Seeds, Inc.	EN	Encase	3.5	78.1**	72.6	75.4	
SG3652E	Shur Grow	EN	Warden CX II	3.6	74.9*	73.1	74.0	66.6
HS 34F30	Growmark, Inc.	XF	Accelaron I+F, Saltro	3.4	73.7*	72.9	73.3	
V3623	Virtue Seeds	CV	CruiserMaxx APX	3.6	75.4*	70.3	72.9	
GH3693E3S	Golden Harvest	EN	CruiserMaxx APX, Saltro	3.6	76.4*	68.1	72.3	
NK36-H9E3S	NK Seeds	EN	CruiserMaxx APX, Saltro	3.6	73.2*	71.1	72.2	66.2
E3580 E3	Ebberts Field Seeds	EN	Ebberts Complete	3.5	73.2*	71.0	72.1	
3843XF	Stewart Seeds	XF	Accelaron	3.8	69.5	73.5	71.5	68.2
XO 3483E	Xitavo Soybean Seed	EN	Obvius Plus, Poncho/Votivo, ILeVO, Relenya	3.4	75.0*	65.9	70.5	
HS 35E10	Growmark, Inc.	EN	Accelaron I+F, Saltro	3.5	70.5	70.0	70.3	67.0
AG39XF3	Asgrow	XF	Accelaron	3.9	70.4	70.0	70.2	
WSC 3496NY	Williamsfield Seed Company	CV	Eclipse US Trio	3.4	78.1*	61.8	70.0	
XO 3803E	Xitavo Soybean Seed	EN	Obvius Plus, Poncho/Votivo, ILeVO, Relenya	3.8	74.7*	64.9	69.8	67.5
SG3454E	Shur Grow	EN	Warden CX II	3.4	75.1*	64.2	69.7	
SC7364E	Seed Consultants, Inc.	EN	LumiGen, ILeVO	3.6	68.1	70.7	69.4	
HM18-19023	The Ohio State University	CV	None	3.8	72.4*	66.1	69.3	
SG3853E	Shur Grow	EN	Warden CX II	3.8	69.8	68.3	69.1	66.0
BR 3418N	Blue River	CV	None	3.4	75.9*	62.1	69.0	
SG3784E	Shur Grow	EN	Warden CX II	3.7	76.8*	61.0	68.9	
AGI 3738AE	Advanced Genetics, Inc.	EN	CruiserMaxx APX	3.8	70.5	65.6	68.1	
4053XF	Stewart Seeds	XF	Accelaron	4.0	66.4	69.2	67.8	66.1
S35ES82	Dyna-Gro Seed	EN	Equity VIP, Saltro, Vayantis	3.5	75.5*	59.0	67.3	62.6
SC7341E™	Seed Consultants, Inc.	EN	LumiGen, ILeVO	3.4	67.6	66.7	67.2	62.9
AGI 3738BE	Advanced Genetics, Inc.	EN	CruiserMaxx APX	3.8	70.4	63.7	67.1	
AG38XF1	Asgrow	XF	Accelaron	3.8	72.2*	61.4	66.8	62.9
XO 3651E	Xitavo Soybean Seed	EN	Obvius Plus, Poncho/Votivo, ILeVO, Relenya	3.6	70.2	63.3	66.8	62.0
BR 42D40	Blue River	CV	None	4.2	70.4	62.7	66.6	
BR 3923	Blue River	CV	None	3.9	67.6	64.7	66.2	
AGI 3734AE	Advanced Genetics, Inc.	EN	CruiserMaxx APX	3.4	75.7*	56.5	66.1	
G3480E	Ebberts Field Seeds	EN	Ebberts Complete	3.4	67.4	63.8	65.6	
HS 38E20	Growmark, Inc.	EN	Accelaron I+F, Saltro	3.8	66.4	64.2	65.3	66.0
AGI 3739AE	Advanced Genetics, Inc.	EN	ProTec S4	3.9	70.9	58.9	64.9	

NOTE: Central Region, Late Variety Trial Results are Continued on the Next Page.

TABLE 6: The 2023 Ohio Soybean Performance Trials, Central Region - Late Varieties (RM 3.4-4.2)
CONTINUED FROM PREVIOUS PAGE

Entry		Seed & Plant Characteristics			Central Region Yield (bu/ac)			
Variety	Brand/Company Name	Type	Seed Treatment	RM	C1	C2	'23 Mean	'22-'23 Mean
DM39E03	DONMARIO Seeds	EN	CruiserMaxx APX	3.9	67.8	61.1	64.5	
E3880 E3	Ebberts Field Seeds	EN	Ebberts Complete	3.8	71.0	57.3	64.2	
HM18-18047	The Ohio State University	CV	None	3.9	68.6	59.7	64.2	
AG35XF1	Asgrow	XF	Accelaron	3.5	63.6	62.9	63.3	61.2
AGI 3735AE	Advanced Genetics, Inc.	EN	CruiserMaxx APX	3.5	67.4	59.1	63.3	
HM18-21128	The Ohio State University	CV	None	4.0	61.2	62.0	61.6	
EXPERIMENTAL 4	GDM Seeds	EN	CruiserMaxx APX	3.4	71.6*	50.7	61.2	
AGI 3737AE	Advanced Genetics, Inc.	EN	ProTec S4	3.7	68.0	52.9	60.5	
AGI 3740AE	Advanced Genetics, Inc.	EN	CruiserMaxx APX	4.0	66.4	53.5	60.0	
SCM34311	The Scoular Company	CV	None	3.4	64.6	53.9	59.3	
XO 3922E	Xitavo Soybean Seed	EN	Obvius Plus, Poncho/Votivo, ILeVO, Relenya	3.9	65.5	50.1	57.8	
HM17-07093	The Ohio State University	CV	None	4.0	58.4	53.4	55.9	
HM14-3614-4	The Ohio State University	CV	None	3.6	52.6	41.1	46.9	
				Min	3.4	52.6	41.1	46.9
				Max	4.2	78.1	81.7	79.8
				Mean	3.7	70.5	64.5	68.6
				LSD (0.1)		6.5	6.0	
				CV		7.9	8.0	

**Highest yielding variety; *Varieties with yield not statistically different than the highest yielding variety. Please note: Minimum, maximum, and mean include data for experimental soybean varieties that are not published in this bulletin.

TABLE 7: The 2023 Ohio Soybean Performance Trials, South Region - Early Varieties (RM 2.5-3.6)

Entry		Seed & Plant Characteristics			South Region Yield (bu/ac)	
Variety	Brand/Company Name	Type	Seed Treatment	RM	S2	'22-'23 Mean
E3580 E3	Ebberts Field Seeds	EN	Ebberts Complete	3.5	96.2**	
AG35XF1	Asgrow	XF	Accelaron	3.5	96.0*	85.1
AG27XF3	Asgrow	XF	Accelaron	2.7	94.4*	
XO 3224E	Xitavo Soybean Seed	EN	Obvius Plus, Poncho/Votivo, ILeVO, Relenya	3.2	94.3*	
V2922	Virtue Seeds	CV	CruiserMaxx APX	2.9	94.0*	82.7
XO 3483E	Xitavo Soybean Seed	EN	Obvius Plus, Poncho/Votivo, ILeVO, Relenya	3.4	93.2*	82.9
SG3254E	Shur Grow	EN	Warden CX II	3.2	93.1*	
E3380 E3	Ebberts Field Seeds	EN	Ebberts Complete	3.3	91.3*	
SC7364E™	Seed Consultants, Inc.	EN	LumiGen, ILeVO	3.6	91.0*	
E3370 E3	Ebberts Field Seeds	EN	Ebberts Complete	3.3	89.9*	81.3
SG2554E	Shur Grow	EN	Warden CX II	2.5	89.4*	
AG33XF3	Asgrow	XF	Accelaron	3.3	89.1*	
SG3652E	Shur Grow	EN	Warden CX II	3.6	88.6*	
SG33EXP	Shur Grow	EN	Warden CX II	3.3	88.0	
SC7341E™	Seed Consultants, Inc.	EN	LumiGen, ILeVO	3.4	87.8	79.2
XO 3131E	Xitavo Soybean Seed	EN	Obvius Plus, Poncho/Votivo, ILeVO, Relenya	3.1	87.8	79.2
GH3693E3S	Golden Harvest	EN	CruiserMaxx APX, Saltro	3.6	87.3	
NK36-H9E3S	NK Seeds	EN	CruiserMaxx APX, Saltro	3.6	87.1	81.2
W 6335E	Wellman Seeds, Inc.	EN	Encase	3.5	86.9	
AG30XF2	Asgrow	XF	Accelaron	3.0	86.7	79.0
SC7332E™	Seed Consultants, Inc.	EN	LumiGen, ILeVO	3.3	86.4	80.5
SG3454E	Shur Grow	EN	Warden CX II	3.4	86.4	
SG3284E	Shur Grow	EN	Warden CX II	3.2	85.8	
V3623	Virtue Seeds	CV	CruiserMaxx APX	3.6	85.5	
AGI 3733AE	Advanced Genetics, Inc.	EN	ProTec S4	3.3	85.4	
XO 3651E	Xitavo Soybean Seed	EN	Obvius Plus, Poncho/Votivo, ILeVO, Relenya	3.6	85.3	79.7
S35ES82	Dyna-Gro Seed	EN	Equity VIP, Saltro, Vayantis	3.5	85.2	

NOTE: South Region, Early Variety Trial Results are Continued on the Next Page.

TABLE 7: The 2023 Ohio Soybean Performance Trials, South Region - Early Varieties (RM 2.5-3.6)
CONTINUED FROM PREVIOUS PAGE

Variety	Entry Brand/Company Name	Seed & Plant Characteristics			South Region Yield (bu/ac)	
		Type	Seed Treatment	RM	S2	'22-'23 Mean
S33EN42	Dyna-Gro Seed	EN	Equity VIP, Saltro, Vayantis	3.3	84.8	77.1
XO 3014E	Xitavo Soybean Seed	EN	Obvius Plus, Poncho/Votivo, ILeVO, Relenya	3.0	84.8	
GH3373E3S	Golden Harvest	EN	CruiserMaxx APX, Saltro	3.3	84.5	79.0
W 6133E	Wellman Seeds, Inc.	EN	Encase	3.3	83.7	
AGI 3735AE	Advanced Genetics, Inc.	EN	CruiserMaxx APX	3.5	82.4	
SCI33225	The Scoular Company	CV	None	3.3	82.0	
AG28XF3	Asgrow	XF	Acceleron	2.8	81.1	
EXPERIMENTAL 3	GDM Seeds	EN	CruiserMaxx APX	3.2	80.9	
AGI 3734AE	Advanced Genetics, Inc.	EN	CruiserMaxx APX	3.4	80.5	
333XF	Ebberts Field Seeds	XF	Ebberts Complete	3.3	80.0	77.2
AG32XF2	Asgrow	XF	Acceleron	3.2	79.5	73.6
EXPERIMENTAL 4	GDM Seeds	EN	CruiserMaxx APX	3.4	77.3	
SCM34311	The Scoular Company	CV	None	3.4	76.6	
SG3053E	Shur Grow	EN	Warden CX II	3.0	75.0	
SG2753E	Shur Grow	EN	Warden CX II	2.7	71.0	
SCI29776	The Scoular Company	CV	None	2.9	69.9	
SCI30061	The Scoular Company	CV	None	3.0	68.0	
			Min	2.5	68.0	
			Max	3.6	96.2	
			Mean	3.3	85.3	
			LSD (0.1)		8.1	
			CV		6.8	

There was severe hail damage at the 2023 S1 location (Preble County) in July, causing approximately 90% defoliation. Due to the damage, soybean yield is not reported for the early trial at this location.

**Highest yielding variety; *Varieties with yield not statistically different than the highest yielding variety. Please note: Minimum, maximum, and mean include data for experimental soybean varieties that are not published in this bulletin.

TABLE 8: The 2023 Ohio Soybean Performance Trials, South Region - Late Varieties (RM 3.7-4.3)

Variety	Entry Brand/Company Name	Seed & Plant Characteristics			South Region Yield (bu/ac)			
		Type	Seed Treatment	RM	S1	S2	'23 Mean	'22-'23 Mean
384XF	Ebberts Field Seeds	XF	Ebberts Complete	3.8	75.4**	90.3*	82.9	
NK40-P5E3	NK Seeds	EN	CruiserMaxx APX, Saltro	4.0	68.5	90.9**	79.7	
AG38XF1	Asgrow	XF	Acceleron	3.8	68.6	88.2*	78.4	76.0
AGI 3739BE	Advanced Genetics, Inc.	EN	ProTec S4	3.8	65.6	88.0*	76.8	
NK39-J2E3	NK Seeds	EN	CruiserMaxx APX, Saltro	3.9	62.6	89.6*	76.1	
3843XF	Stewart Seeds	XF	Acceleron	3.8	68.2	83.9	76.1	76.7
SG3853E	Shur Grow	EN	Warden CX II	3.8	63.8	86.3*	75.1	
AG43XF2	Asgrow	XF	Acceleron	4.3	64.7	85.2*	75.0	74.8
XO 3803E	Xitavo Soybean Seed	EN	Obvius Plus, Poncho/Votivo, ILeVO, Relenya	3.8	62.7	85.6*	74.2	71.8
W 6339E	Wellman Seeds, Inc.	EN	Encase	3.9	65.6	82.5	74.1	
E3760 E3	Ebberts Field Seeds	EN	Ebberts Complete	3.7	62.8	84.4*	73.6	
GH3774E3	Golden Harvest	EN	CruiserMaxx APX, Saltro	3.7	66.4	80.1	73.3	
NK37-C1E3	NK Seeds	EN	CruiserMaxx APX, Saltro	3.7	62.4	84.1*	73.3	
EXPERIMENTAL 5	GDM Seeds	EN	CruiserMaxx APX	4.0	64.6	81.6	73.1	
XO 3752E	Xitavo Soybean Seed	EN	Obvius Plus, Poncho/Votivo, ILeVO, Relenya	3.7	64.5	81.7	73.1	74.5
E3880 E3	Ebberts Field Seeds	EN	Ebberts Complete	3.8	59.8	85.8*	72.8	
S40EN54	Dyna-Gro Seed	EN	Equity VIP, Saltro, Vayantis	4.0	63.2	82.3	72.8	
XO 4084E	Xitavo Soybean Seed	EN	Obvius Plus, Poncho/Votivo, ILeVO, Relenya	4.0	60.1	85.0*	72.6	
S37ES52	Dyna-Gro Seed	EN	Equity VIP, Saltro, Vayantis	3.7	63.4	81.4	72.4	75.7
AGI 3740AE	Advanced Genetics, Inc.	EN	CruiserMaxx APX	4.0	59.4	84.8*	72.1	
GH3994E3	Golden Harvest	EN	CruiserMaxx APX, Saltro	3.9	59.3	84.1*	71.7	
4053XF	Stewart Seeds	XF	Acceleron	4.0	69.5*	72.8	71.2	72.5
SG3784E	Shur Grow	EN	Warden CX II	3.7	57.4	83.5	70.5	
AGI 3739AE	Advanced Genetics, Inc.	EN	ProTec S4	3.9	59.4	79.6	69.5	
AGI 3743AE	Advanced Genetics, Inc.	EN	CruiserMaxx APX	4.3	63.3	75.6	69.5	

NOTE: South Region, Late Variety Trial Results are Continued on the Next Page.

TABLE 8: The 2023 Ohio Soybean Performance Trials, South Region - Late Varieties (RM 3.7-4.3)
CONTINUED FROM PREVIOUS PAGE

Entry		Seed & Plant Characteristics			South Region Yield (bu/ac)			
Variety	Brand/Company Name	Type	Seed Treatment	RM	S1	S2	'23 Mean	'22-'23 Mean
AG39XF3	Asgrow	XF	Acceleron	3.9	57.3	81.6	69.5	
AGI 3738AE	Advanced Genetics, Inc.	EN	CruiserMaxx APX	3.8	58.6	78.3	68.5	
XO 3922E	Xitavo Soybean Seed	EN	Obvius Plus, Poncho/Votivo, ILeVO, Relenya	3.9	56.6	77.1	66.9	68.9
DM39E03	DONMARIO Seeds	EN	CruiserMaxx APX	3.9	58.6	74.5	66.6	
AGI 3737AE	Advanced Genetics, Inc.	EN	ProTec S4	3.7	51.4	77.0	64.2	
				Min	3.7	51.4	72.8	64.2
				Max	4.3	75.4	90.9	82.9
				Mean	3.9	63.1	82.5	72.8
				LSD (0.1)		6.2	6.8	
				CV		8.3	5.8	

**Highest yielding variety; *Varieties with yield not statistically different than the highest yielding variety. Please note: Minimum, maximum, and mean include data for experimental soybean varieties that are not published in this bulletin.

TABLE 9: Seed characteristics (seeds/lb, % protein, and % oil) from seed collected at the Union County location, 2023.

Entry						Entry							
Variety		RM	Type	Seeds/lb	% Protein	% Oil	Variety		RM	Type	Seeds/lb	% Protein	% Oil
Advanced Genetics, Inc.						Dyna-Gro Seed							
AGI 3725AE		2.5	EN	3131	32.6	20.9	S25EN74		2.5	EN	3355	31.7	20.7
AGI 3727AE		2.7	EN	3251	34.7	19.4	S26EN53		2.6	EN	2886	34.8	19.2
AGI 3728AE		2.8	EN	—	—	—	S29EN62		2.9	EN	—	—	—
AGI 3729AE		2.9	EN	3452	32.8	20.4	S31EN14		3.1	EN	2808	31.4	20.2
AGI 3730AE		3.0	EN	3095	33.8	18.5	S31EN91		3.1	EN	2840	34.7	18.7
AGI 3731AE		3.1	EN	3007	30.8	20.5	S33EN42		3.3	EN	2945	34.1	19.5
AGI 3733AE		3.3	EN	3095	33.8	19.2	S35ES82		3.5	EN	2729	34.4	18.5
AGI 3734AE		3.4	EN	3081	35.3	19.4	S37ES52		3.7	EN	2676	34.6	19.3
AGI 3735AE		3.5	EN	2948	34.7	18.4	S40EN54		4.0	EN	2910	34.3	18.5
AGI 3737AE		3.7	EN	—	—	—	Ebberts Field Seed Inc.						
AGI 3738AE		3.8	EN	3642	36.3	17.0	E2170 E3		2.1	EN	2546	33.8	20.7
AGI 3738BE		3.8	EN	2589	33.0	19.4	E2570 E3		2.5	EN	2650	33.5	19.4
AGI 3739AE		3.9	EN	—	—	—	E2980 E3		2.9	EN	2849	33.9	18.6
AGI 3740AE		4.0	EN	2861	34.9	18.0	303XF		3.0	XF	2536	35.5	17.9
AGI 3743AE		4.3	EN	2861	33.4	18.7	E3171 E3		3.1	EN	2935	33.6	19.7
Bayer Crop Science						E3380 E3							
AG24XF3		2.4	XF	2344	34.9	19.5	E3370 E3		3.3	EN	2702	35.1	19.2
AG26XF3		2.6	XF	—	—	—	333XF		3.3	XF	2832	35.4	17.8
AG27XF3		2.7	XF	2826	33.5	19.1	G3480E		3.4	EN	2774	31.8	20.3
AG28XF3		2.8	XF	2826	35.0	19.1	E3580 E3		3.5	EN	2987	33.8	18.8
AG30XF2		3.0	XF	2814	36.0	18.3	E3760 E3		3.7	EN	—	—	—
AG32XF2		3.2	XF	2980	34.2	18.0	E3880 E3		3.8	EN	2785	35.0	18.2
AG33XF3		3.3	XF	2904	34.4	19.1	384XF		3.8	XF	2743	33.4	19.2
AG35XF1		3.5	XF	—	—	—	GDM Seeds						
AG38XF1		3.8	XF	2855	35.0	17.7	EXPERIMENTAL 6		2.2	EN	—	—	—
AG39XF3		3.9	XF	3017	33.7	18.2	EXPERIMENTAL 1		2.7	EN	3020	34.4	19.4
AG43XF2		4.3	XF	2980	34.2	18.6	EXPERIMENTAL 2		2.9	EN	3401	33.7	20.0
Blue River/Albert Lea Seed House						EXPERIMENTAL 3							
BR 2702		2.7	CV	2541	35.5	19.5	EXPERIMENTAL 4		3.2	EN	2820	35.3	19.4
BR 29DC5		2.9	CV	2780	34.4	19.2	EXPERIMENTAL 5		3.4	EN	2993	35.4	19.4
BR 30B4		3.0	CV	2320	33.7	18.3	Golden Harvest						
BR 3418N		3.4	CV	2898	33.7	19.4	GH2814E3S		2.8	EN	—	—	—
BR 3923		3.9	CV	2716	35.1	18.2	GH2922E3		2.9	EN	3274	33.8	19.5
BR 42D40		4.2	CV	2929	35.4	18.5	GH3043E3S		3.0	EN	2829	33.3	19.2
DONMARIO Seeds						GH3373E3S							
DM39E03		3.9	EN	2873	36.1	18.0	GH3693E3S		3.3	EN	3405	34.2	18.6
							GH3774E3		3.6	EN	2788	31.2	20.4
							GH3994E3		3.7	EN	3251	32.8	19.2
									3.9	EN	—	—	—

**TABLE 9: Seed characteristics (seeds/lb, % protein, and % oil) from seed collected at the Union County location, 2023.
CONTINUED FROM PREVIOUS PAGE**

Entry			Seed Quality			Entry			Seed Quality			% Oil
Variety	RM	Type	Seeds/lb	% Protein	% Oil	Variety	RM	Type	Seeds/lb	% Protein	% Oil	% Oil
Growmark, Inc./FS HiSOY						Stewart Seeds						
HS 23E10	2.3	EN	2777	34.3	19.3	2964XF	2.9	XF	2945	35.0	18.3	
HS 26E20	2.6	EN	2948	33	19.9	3144XF	3.1	XF	3095	33.3	18.9	
HS 28E10	2.8	EN	2948	33.9	19	3843XF	3.8	XF	3262	33.3	18.2	
HS 28F30	2.8	XF	3000	33.3	19.8	4053XF	4.0	XF	2951	33.5	18.4	
HS 29F10	2.9	XF	—	—	—	The Ohio State University						
HS 31E20	3.1	EN	2892	34.3	19.0	HM14-3614-4	3.3	CV	4821	34.2	17	
HS 34F30	3.4	XF	—	—	—	HM18-19023	3.8	CV	2165	36.3	18.1	
HS 35E10	3.5	EN	3050	32.8	20.0	HM18-18047	3.9	CV	2051	37.1	17.5	
HS 37E10	3.7	EN	2879	31.6	20.4	HM18-21128	4.0	CV	2527	38.1	17.5	
HS 38E20	3.8	EN	2634	34.5	18.7	HM17-07093	4.0	CV	—	—	—	
Lucky Farmers, LLC						The Scoular Company						
Gro-Mor EXP622E52	2.5	EN	3205	33.5	20.2	SCI29776	2.9	CV	2849	38.1	19.7	
Gro-Mor EXP21E13	3.1	EN	2929	33.2	20.1	SCI30061	3.0	CV	3145	36.0	20.2	
Gro-Mor EXP03E43	3.4	EN	2624	34.8	19.4	SCI33225	3.3	CV	3208	37.1	19.1	
NK Seeds						SCM34311	3.4	CV	3666	38.8	18.9	
NK28-B9D3S	2.8	EN	2757	35.2	18.5	Virtue Seed						
NK30-B2E3	3.0	EN	2876	35.2	18.2	V2922	2.9	CV	—	—	—	
NK36-H9E3S	3.6	EN	2808	33.7	19.5	V3623	3.6	CV	2518	36.0	18.0	
NK37-C1E3	3.7	EN	3117	34.3	18.5	Wellman Seeds Inc.						
NK39-J2E3	3.9	EN	2684	34.7	18.4	W 6319E	1.9	EN	2634	32.7	20.4	
NK40-P5E3	4.0	EN	2729	34.9	18.7	W 6125E	2.5	EN	2800	32.5	20.8	
Seed Consultants, Inc.						W 6330E	3.0	EN	2974	34.2	19.3	
SC7293E™	2.9	EN	3017	33.5	19.7	W 6133E	3.3	EN	3017	33.6	19.6	
SC7311E™	3.1	EN	2974	34.9	18.3	W 6335E	3.5	EN	—	—	—	
SC7332E™	3.3	EN	2945	35.7	18.3	W 6339E	3.9	EN	—	—	—	
SC7341E™	3.4	EN	2974	32.7	20.0	Williamsfield Seed Company						
SC7364E™	3.6	EN	2855	34.5	18.9	WSC 8300NY	2.6	CV	3409	34.5	18.2	
Seedway						WSC 2967NY	3.2	CV	—	—	—	
SG 2923E3	2.9	EN	2961	34.2	18.6	WSC 1217N	3.3	CV	—	—	—	
SG 3323E3	3.3	EN	2895	32.8	19.3	WSC 3496NY	3.4	CV	3000	34.8	18.3	
SG 3327XTF	3.3	XF	2858	35.8	17.6	Xitavo Soybean Seed						
SG 3522E3	3.5	EN	—	—	—	XO 2323E	2.3	EN	3138	34.8	19.1	
Shur Grow						XO 2444E	2.4	EN	2472	33.6	20.1	
SG2554E	2.5	EN	2832	33.9	19.4	XO 2613E	2.6	EN	2993	34.2	19.4	
SG2753E	2.7	EN	2984	32.3	19.9	XO 2832E	2.8	EN	—	—	—	
SG3053E	3.0	EN	3110	32.5	20.1	XO 2963E	2.9	EN	3220	33.1	20.1	
SD3284E	3.2	EN	2663	35.3	19.3	XO 3014E	3.0	EN	3044	33.5	19	
SG3254E	3.2	EN	2948	31.2	19.7	XO 3131E	3.1	EN	2904	34.9	18.5	
SG33EXP	3.3	EN	3085	35.3	19.3	XO 3224E	3.2	EN	2785	33.8	19	
SG3454E	3.4	EN	2932	34.1	18.6	XO 3483E	3.4	EN	—	—	—	
SG3652E	3.6	EN	—	—	—	XO 3651E	3.6	EN	—	—	—	
SG3784E	3.7	EN	2814	35.0	18.1	XO 3752E	3.7	EN	2624	34.9	19.3	
SG3853E	3.8	EN	2663	32.4	19.5	XO 3803E	3.8	EN	—	—	—	
						XO 3992E	3.9	EN	2883	34.6	18.3	
						XO 4084E	4.0	EN	2702	34.5	18.9	

—Grain sample was not collected due to combine malfunction.



**SOUTH DAKOTA
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College of Agriculture, Food
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South Dakota State University Extension
South Dakota Agricultural Experiment Station at SDSU

2023 South Dakota Conventional Soybean Variety Trial Results Alexandria

Jonathan Kleinjan | SDSU Extension Agronomist
Kevin Kirby | Agricultural Research Manager
Shawn Hawks | Agricultural Research Manager

Location: 5 1/2 miles north and 1 1/2 miles east of Alexandria in Hanson County, SD
43.745496°, -97.762325°

Cooperator: Jared Schultz

Soil Type: Prosper-Stickney complex, 0-2% slopes

Fertilizer: none

Previous crop: corn

Tillage: no-till

Row spacing: 30 inches

Seeding Rate: 150,000/acre

Herbicide: Fall pre: 3 oz/acre flumioxazin
Pre: 32 oz/acre Roundup Powermax + 8 oz/acre sulfentrazone & imazethapyr +
4 oz/acre metribuzin
Post: 14 oz/acre fomesafen + 16 oz/acre metolachlor + 10 oz/acre clethodim

Insecticide: none

Date seeded: 5/22/2023

Date harvested: 10/23/2023

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2023 South Dakota Conventional Soybean Variety Trial Results Alexandria

**SOUTH DAKOTA STATE
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Table 1. Conventional soybean performance results (average of 4 replications - **Maturity Groups I**) at Alexandria, SD.

Variety Information		Agronomic Performance			
Brand	Variety	Maturity Rating	Yield (bu/ac@13%)	Moisture (%)	Lodging Score (1-5)*
MN AES	MN1807CN	1.8	52.1	13.6	1.0
LG Seeds	LGS1684	1.6	51.8	13.8	1.0
Miller Hybrids	1938	1.9	46.9	12.8	1.0
Viking Seed	VK 1718N	1.7	46.5	13.8	1.0
Richland IFC	MK146	1.1	44.7	14.4	1.0
SD AES	BROOKINGS	1.7	42.9	14.0	1.0
Check	AG15XF2	1.5	41.0	13.7	1.0
Richland IFC	MK808CN	0.8	37.5	14.4	1.0
Brushvale Seed	BS1940	1.9	34.7	13.9	1.0
Trial Average			43.3	13.8	1.0
LSD (0.05)†			3.5	0.6	-
C.V.‡			5.7	-	-

* Lodging Score (1 = no lodging to 5 = flat on the ground)

† Yield or moisture value required (\geq LSD) to determine if varieties are significantly different from one another.

‡ C.V. is a measure of variability or experimental error, 15% or less is acceptable.



2023 South Dakota Conventional Soybean Variety Trial Results Alexandria

**SOUTH DAKOTA STATE
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Table 2. Conventional soybean performance results (average of 4 replications - **Maturity Group II**) at Alexandria, SD.

Variety Information		Agronomic Performance			
Brand	Variety	Maturity Rating	Yield (bu/ac@13%)	Moisture (%)	Lodging Score (1-5)*
Virtue	V2922	2.9	58.4	13.3	1.0
Miller Hybrids	2738	2.7	49.4	13.1	1.0
Virtue	V2122	2.1	48.0	13.4	1.0
Viking Seed	VK 2418N	2.4	46.3	13.2	1.0
Viking Seed	VK 2340KN	2.3	45.3	13.6	1.0
Viking Seed	VK 2022N	2.0	44.6	12.7	1.0
Viking Seed	VK 2155N	2.1	42.5	13.2	1.0
Check	AG15XF2	1.5	42.0	13.2	1.0
Miller Hybrids	2508	2.5	41.0	13.0	1.0
LG Seeds	LGS2020	2.0	39.5	12.7	1.0
Richland IFC	MK373	2.0	39.5	12.8	1.0
LG Seeds	LGS2329	2.3	38.5	13.8	1.0
Miller Hybrids	2238	2.2	37.3	13.8	1.0
Trial Average			44.0	13.2	1.0
LSD (0.05)†			3.1	0.4	-
C.V.‡			4.9	-	-

* Lodging Score (1 = no lodging to 5 = flat on the ground)
 † Yield or moisture value required (≥LSD) to determine if varieties are significantly different from one another.
 ‡ C.V. is a measure of variability or experimental error, 15% or less is acceptable.



**SOUTH DAKOTA
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South Dakota State University Extension
South Dakota Agricultural Experiment Station at SDSU

2023 South Dakota Conventional Soybean Variety Trial Results Brookings

Jonathan Kleinjan | SDSU Extension Agronomist
Kevin Kirby | Agricultural Research Manager
Shawn Hawks | Agricultural Research Manager

Location: 3 miles north of Brookings (57006) in Brookings County, SD
44.362528°, -96.792450°

Cooperator: SDSU Felt Family Research Farm

Soil Type: Vienna-Brookings complex, 0-2% slopes

Fertilizer: none

Previous crop: corn

Tillage: conventional

Row spacing: 30 inches

Seeding Rate: 150,000/acre

Herbicide: Pre: 1 pt/acre Dual II Magnum
Post: 12 oz/acre Volunteer + 1 pt/acre Ultra Blazer

Insecticide: none

Date seeded: 5/17/2023

Date harvested: 10/17/2023

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2023 South Dakota Conventional Soybean Variety Trial Results Brookings

**SOUTH DAKOTA STATE
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Table 1. Conventional soybean performance results (average of 4 replications - **Maturity Groups 0 & I**) at Brookings, SD.

Variety Information		Agronomic Performance			
Brand	Variety	Maturity Rating	Yield (bu/ac@13%)	Moisture (%)	Lodging Score (1-5)*
Viking Seed	VK 0821N	0.8	76.9	10.6	2.3
Ag Performance	AP 720	1.0	75.8	10.5	2.0
Viking Seed	VK 1223N	1.2	72.3	10.3	1.3
Miller Hybrids	1938	1.9	67.8	10.1	2.8
Viking Seed	VK 1518N	1.5	67.4	10.4	1.0
LG Seeds	LGS1684	1.6	67.2	10.4	1.5
Check	AG15XF2	1.5	65.6	10.5	2.5
Miller Hybrids	1538	1.5	64.4	10.4	1.8
Brushvale Seed	BS1799	1.5	64.1	10.3	1.5
Ag Performance	AP 1321	1.3	63.9	10.6	2.0
SD AES	BROOKINGS	1.7	63.3	10.7	2.5
Ag Performance	AP 1621	1.6	63.2	10.5	2.3
Brushvale Seed	BS91614	1.0	63.0	10.3	1.0
Virtue	V1621	1.6	62.8	10.0	1.0
Brushvale Seed	BS1940	1.9	62.2	10.3	1.5
Viking Seed	VK 1718N	1.7	60.6	10.3	1.0
Richland IFC	MK146	1.1	60.0	10.3	1.3
Richland IFC	MK41	1.1	59.6	10.5	3.5
Richland IFC	MK0603	0.6	57.6	10.7	3.5
Richland IFC	MK808CN	0.8	57.2	11.0	3.3
MN AES	MN1807CN	1.8	56.1	10.7	2.0
Richland IFC	MK1023	1.0	55.7	10.5	1.8
Richland IFC	MK1423	1.4	52.5	10.4	1.8
Richland IFC	MK9103	1.3	44.5	10.2	2.3
Richland IFC	SABLE	1.2	43.8	10.1	3.8
Richland IFC	DECKER	1.0	43.3	9.7	1.5
Richland IFC	MK9102	1.2	42.9	10.5	3.0
Richland IFC	MK9101	1.1	41.8	10.9	2.5
Trial Average			59.9	10.4	2.0
LSD (0.05)†			3.2	0.2	-
C.V.‡			3.8	-	-

* Lodging Score (1 = no lodging to 5 = flat on the ground)

† Yield or moisture value required (\geq LSD) to determine if varieties are significantly different from one another.

‡ C.V. is a measure of variability or experimental error, 15% or less is acceptable.



**SOUTH DAKOTA STATE
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2023 South Dakota Conventional Soybean Variety Trial Results Brookings

Table 2. Conventional soybean performance results (average of 4 replications - **Maturity Group II**) at Brookings, SD.

Variety Information		Agronomic Performance			
Brand	Variety	Maturity Rating	Yield (bu/ac@13%)	Moisture (%)	Lodging Score (1-5)*
Check	AG15KF2	1.5	63.6	10.4	1.0
Viking Seed	VK 2022N	2.0	60.4	10.5	1.0
LG Seeds	LGS2020	2.0	59.8	10.2	1.0
Virtue	V2122	2.1	58.4	10.6	1.0
Miller Hybrids	2238	2.2	56.6	10.4	1.0
Virtue	V2922	2.9	55.2	10.3	1.0
LG Seeds	LGS2329	2.3	53.9	11.0	1.0
Richland IFC	MK373	2.0	53.2	10.7	1.0
Viking Seed	VK 2155N	2.1	51.2	10.6	1.0
Trial Average			56.9	10.5	1.0
LSD (0.05)†			2.0	0.6	-
C.V.‡			2.4	-	-

* Lodging Score (1 = no lodging to 5 = flat on the ground)

† Yield or moisture value required (\geq LSD) to determine if varieties are significantly different from one another.

‡ C.V. is a measure of variability or experimental error, 15% or less is acceptable.



**SOUTH DAKOTA
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South Dakota State University Extension
South Dakota Agricultural Experiment Station at SDSU

2023 South Dakota Conventional Soybean Variety Trial Results South Shore

Jonathan Kleinjan | SDSU Extension Agronomist
Kevin Kirby | Agricultural Research Manager
Shawn Hawks | Agricultural Research Manager

Location: 8.5 miles west of South Shore in Codington County, SD
45.105924°, -97.096977°

Cooperator: SDSU Northeast Research Farm

Soil Type: Kranzburg-Brookings silty clay loams, 0-2% slopes

Fertilizer: none

Previous crop: corn

Tillage: conventional

Row spacing: 30 inches

Seeding Rate: 150,000/acre

Herbicide: Pre: 1 pt/acre Dual II Magnum + 8 oz/Antares
Post: 12 oz/acre Tapout

Insecticide: none

Date seeded: 5/19/2023

Date harvested: 10/19/2023

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2023 South Dakota Conventional Soybean Variety Trial Results South Shore

**SOUTH DAKOTA STATE
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Table 1. Conventional soybean performance results (average of 4 replications - **Maturity Groups 0 & I**) at South Shore, SD.

Variety Information		Agronomic Performance			
Brand	Variety	Maturity Rating	Yield (bu/ac@13%)	Moisture (%)	Lodging Score (1-5)*
Ag Performance	AP 1621	1.6	64.6	14.2	1.0
Miller Hybrids	1538	1.5	62.7	14.0	1.0
SD AES	BROOKINGS	1.7	62.2	15.0	1.0
Virtue	V1621	1.6	61.2	14.0	1.0
Check	AG15XF2	1.5	60.3	14.4	1.0
Ag Performance	AP 1321	1.3	59.6	14.6	1.0
Viking Seed	VK 1518N	1.5	58.5	14.1	1.0
Richand IFC	MK146	1.1	54.0	14.7	1.0
Viking Seed	VK 0821N	0.8	53.9	15.3	1.0
MN AES	MN1807CN	1.8	53.5	14.2	1.0
Brushvale Seed	BS1799	1.5	53.0	14.7	1.0
Viking Seed	VK 1223N	1.2	52.7	14.4	1.0
Brushvale Seed	BS91614	1.0	50.8	15.4	1.0
Ag Performance	AP 720	1.0	49.5	14.9	1.0
Richand IFC	MK0603	0.6	48.4	15.6	2.0
Richand IFC	MK1023	1.0	46.7	16.4	1.0
Richand IFC	MK9101	1.1	46.5	11.5	1.0
Richand IFC	MK808CN	0.8	44.9	16.5	1.3
Richand IFC	MK41	1.1	43.9	15.4	1.5
Richand IFC	MK9102	1.2	43.5	14.2	2.0
Richand IFC	MK1423	1.4	43.3	15.9	1.0
Richand IFC	MK9103	1.3	42.5	13.2	1.5
Richand IFC	DECKER	1.0	37.4	13.3	1.3
Richand IFC	SABLE	1.2	36.3	13.8	1.5
Trial Average			51.8	14.5	1.1
LSD (0.05)†			8.8	0.4	-
C.V.‡			6.5	-	-

* Lodging Score (1 = no lodging to 5 = flat on the ground)

† Yield or moisture value required (\geq LSD) to determine if varieties are significantly different from one another.

‡ C.V. is a measure of variability or experimental error, 15% or less is acceptable.

2023 Soybean Test Results

Region 1

COMPANY	NAME	Herbicide Trait ¹	ST ²	Regional Results		Freeport Yield bu/a	Dekalb Yield bu/a	2 yr Avg Yield bu/a	3 yr Avg Yield bu/a	Regional	
				Yield bu/a	Maturity Date					Protein @ 13%	Oil @ 13%
Early MG: 1.8-2.6											
Baird Seed	Illini 1845NY	CV	B	68.5	9/19	60.3	76.7			32.6	21.6
Baird Seed	Illini 2351NY	CV	B	69.2	9/26	64.6	73.8			34.3	20.5
Blue River	O.2418N	CV		74.7	9/25	63.1	86.2	76.7	79.0	34.1	20.5
Burrus	2335E	EN	BS	75.4	9/23	67.4	83.3			33.7	21.6
Burrus	2681E	EN	BS	75.0	9/27	64.8	85.1			32.6	22.1
Cornelius	CB25XF99	RF	Bs	74.7	9/24	66.5	83.0	78.4		33.5	20.5
DeReadt	2424E3	EN	B	72.2	9/23	65.0	79.4			33.3	21.0
DeReadt	2621E3	EN	B	73.7	9/24	66.7	80.8	75.6	77.1	33.3	20.8
DeReadt	2624E3	EN	B	73.7	9/26	63.3	84.1			33.1	21.4
DONMARIO	DM24E23	EN	B	75.4	9/22	63.0	87.9	78.5		33.2	21.1
Dyna-Gro	S25XF64	RF	Bs	69.7	9/25	61.2	78.3			33.0	20.6
Dyna-Gro	S26EN53	EN	Bs	74.4	9/23	67.9	80.9	77.3		34.1	20.5
GENESIS	G2480E	EN	BS	77.2	9/24	69.3	85.0			33.8	20.9
GENESIS	G2570ES	EN	BS	77.3	9/22	73.5	81.0	81.2		34.0	21.0
Lakeview Farms	LVF2630	CV	BN	70.6	9/24	64.4	76.8	72.5	75.1	34.2	19.9
NuTech	24N05E	E3		76.0	9/24	67.1	84.9			33.0	21.0
NuTech	25N04E	E3		74.1	9/24	62.4	85.8	77.2		33.7	20.9
P3 Genetics	2325E	EN	Bs	72.6	9/25	66.4	78.7			33.4	21.2
P3 Genetics	2326E	EN	Bs	75.4	9/27	67.5	83.2	79.5		33.3	21.3
P3 Genetics	2424E	EN	Bs	76.9	9/22	69.6	84.3			33.6	20.9
RENK	RS214NXF	RF	BS	73.3	9/29	65.7	80.9			33.9	20.7
Stone Seed	2XF2241	RF	Be	73.7	9/24	66.7	80.7	77.6	78.0	33.2	21.4
Stone Seed	2XF2554	RF	Be	73.2	9/25	64.9	81.5			33.7	20.7
Xitavo	XO 2323E	EN	Be	71.1	9/23	59.0	83.2	75.7		34.1	21.4
Xitavo	XO 2444E	EN	Be	72.8	9/24	64.7	80.9			33.3	21.2
Xitavo	XO 2613E	EN	Be	77.4	9/22	68.5	86.3	79.4		34.2	20.4
AVERAGE				73.8	9/24	65.9	81.8			33.6	20.9
L.S.D. 25% LEVEL				3.7		3.8	3.4			0.5	0.3
COEFF. OF VAR. (%)				7.4		6.0	4.3			2.0	2.1

2023 Soybean Test Results

Region 1

COMPANY	NAME	Herbicide Trait ¹	ST ²	Regional Results		Freeport Yield bu/a	Dekalb Yield bu/a	2 yr Avg Yield bu/a	3 yr Avg Yield bu/a	Regional	
				Yield bu/a	Maturity Date					Protein @ 13%	Oil @ 13%
Late MG: 2.7-3.6											
Blue River	BR 29DC5	CV		70.2	10/3	61.8	78.5			34.8	20.0
Blue River	BR 30B4	CV		75.7	10/3	66.1	85.2			33.4	20.0
Blue River	O.2702	CV		75.4	10/4	68.4	82.5	75.9		35.2	20.6
Blue River	O.3418N	CV		78.5	10/6	74.5	82.4	79.4		33.0	20.5
Burrus	DM28E52	EN	BS	75.3	10/2	71.2	79.5	80.5		33.8	20.4
Cornelius	CB27XF72	RF	Bs	69.5	10/2	58.1	80.9			34.6	20.6
DeReadt	2923E3	EN	B	74.2	10/1	63.2	85.1	77.0		32.9	21.4
DONMARIO	DM27E34	EN	B	76.7	10/1	66.1	87.3			34.3	21.1
Dyna-Gro	S29EN62	EN	Bs	75.8	9/27	69.0	82.5	77.8		33.5	20.4
Dyna-Gro	S31EN14	EN	Bs	79.2	10/2	70.8	87.5			32.4	21.0
GENESIS	G2780E	EN	BS	67.5	10/3	61.1	73.9			33.6	20.8
Lakeview Farms	LVF2849	CV	BN	79.7	10/2	71.4	87.9	77.0	77.9	32.7	21.8
Lakeview Farms	LVF3039	CV	BN	72.2	9/30	66.2	78.2	74.2	74.8	34.2	21.0
Lakeview Farms	LVF3332B	CV	BN	72.8	10/3	65.7	79.9	74.2		34.6	20.3
Lakeview Farms	LVF3641	CV	BN	73.0	10/2	70.0	76.0	72.3		32.0	21.6
NuTech	27N05E	E3		74.2	10/1	63.4	85.0			34.4	21.0
NuTech	29N02E	E3		75.2	10/2	66.6	83.8	80.2	81.0	32.6	21.8
NuTech	31N07E	E3		74.7	10/5	64.1	85.2			33.7	20.9
NuTech	34N02E	E3		75.4	10/2	67.3	83.5	78.5		33.8	20.7
P3 Genetics	1928E	EN	Bs	72.9	10/3	62.1	83.7			33.3	21.6
P3 Genetics	2429E	EN	Bs	81.3	10/2	73.1	89.6			32.9	21.0
Viking	VK 27B3	CV		74.5	10/3	67.9	81.1			33.6	20.7
Xitavo	XO 2832E	EN	Be	77.4	10/2	69.8	84.9	80.4		34.0	20.5
Xitavo	XO 2963E	EN	Be	72.6	10/1	64.9	80.3	76.6		33.4	21.0
Xitavo	XO 3014E	EN	Be	77.7	10/2	72.6	82.8			32.8	20.9
Xitavo	XO 3224E	EN	Be	80.9	10/1	70.9	90.9			32.0	21.2
	AVERAGE			75.3	10/2	67.6	82.9			33.5	20.9
	L.S.D. 25% LEVEL			4.1		3.7	3.3			0.5	0.3
	COEFF. OF VAR. (%)			8.0		5.8	4.2			2.3	2.2

¹Herbicide Trait- CV = No Trait, EN= 2,4-D, glufosinate and glyphosate, LL = glufosinate, RF= dicamba, glufosinate and glyphosate, RL= alufosinate and alvphosate, RR = alvphosate, RX = dicamba and alvphosate, ST= STS, O= Other

²ST- U= Untreated, F=Funaicide, Fe= Funaicide + Illevo, B= Funaicide + Insecticide, Be= Funaicide + Insecticide + Illevo, Bs= Funaicide +

Location	Freeport	DeKalb
County	Stephenson	DeKalb
Site Location	Click to see map	Click to see map
Host	Highland Community Collage	John and Jim Boesche
Soil type	Fayette silt loam	Drummer silty clay loam
Planting date	May 17, 2023	May 17, 2023
Harvest date	October 9, 2023	October 10, 2023

Pesticides

PRE	Authority Supreme	Authority Supreme
POST	Flex Star and First Rate	Flexstar and First Rate
Fungicide	None	Yes

Spring	Field cultivator	Field cultivator
Fall	None	Chisel
Latitude	42.28843372	41.86379437
Longitude	-89.681558	-88.80358563

RainFall

April	2.0	2.8
May	2.3	1.5
June	2.1	1.1
July	5.3	5.9
August	0.9	2.6
September	5.3	2.5
Total	17.9	16.4

**2023 Soybean Test Results
Region 2**

COMPANY	NAME	Herbicide Trait ¹	ST ²	Regional Results		Monmouth Yield bu/a	Goodfield Yield bu/a	2 yr Avg Yield bu/a	3 yr Avg Yield bu/a	Regional		
				Yield bu/a	Maturity Date					Protein @ 13%	Oil @ 13%	
Early MG: 2.6-3.2												
Baird Seed	Illini 2600NY	CV	B	65.4	9/25	67.2	63.5	70.8			34.7	19.9
Baird Seed	Illini 2812Na	CV	B	72.9	9/26	73.7	72.2				35.0	20.6
Burrus	3159E	EN	BS	71.8	9/30	73.2	70.5				33.0	21.1
Cornelius	CB29XF44	RF	Bs	71.5	9/30	72.1	70.9				35.3	20.2
Dyna-Gro	S2872N	CV	Bs	78.1	9/30	78.8	77.5	81.0	77.6		33.0	21.1
Dyna-Gro	S29EN62	EN	Bs	70.6	9/25	78.0	63.1	76.2	72.3		34.4	20.3
Dyna-Gro	S31EN14	EN	Bs	67.4	9/27	63.9	70.9				32.8	21.2
GENESIS	G2780E	EN	BS	73.8	9/27	77.2	70.3				34.6	20.6
GENESIS	G3171ES	EN	BS	68.3	9/30	73.8	62.7				33.4	20.9
Jacobson	3020	CV		65.9	9/25	64.6	67.1				34.1	20.5
Lakeview Farms	LVF2630	CV	BN	63.0	9/22	64.6	61.4	68.5	64.8		35.2	19.8
Lakeview Farms	LVF2849	CV	BN	70.5	9/27	64.8	76.2	75.2	71.5		33.6	21.8
Lakeview Farms	LVF3039	CV	BN	74.6	9/27	72.6	76.5	75.8	71.9		34.2	20.9
NuTech	29N02E	E3		69.8	9/27	72.2	67.4	74.8	71.3		33.1	21.8
NuTech	31N07E	E3		78.1	9/27	80.6	75.7				33.8	21.3
P3 Genetics	2331E	EN	Bs	73.8	9/29	77.0	70.7	77.1			33.5	21.0
Public	Dwight	CV	B	61.0	9/27	57.8	64.2	62.4	58.5		35.5	19.9
Public	Jack	CV	B	55.5	9/27	54.1	56.8	59.4	55.8		35.0	20.3
RENK	RS304NXF	RF	BS	72.8	9/29	74.0	71.7				35.0	20.3
Stone Seed	2XF3144	RF	Be	75.0	10/2	76.5	73.6				34.3	19.9
Sun Prairie	SP28E34	EN	B	71.5	9/24	71.2	71.9				34.6	20.8
Sun Prairie	SP29E33	EN	B	71.6	9/26	73.2	70.0	76.1			33.9	21.2
Sun Prairie	SP30E34	EN	B	63.0	9/27	63.0	63.0				33.6	20.9
Xitavo	XO 2613E	EN	Be	66.6	9/22	68.7	64.5	73.2			34.4	20.2
Xitavo	XO 2832E	EN	Be	73.3	9/26	76.9	69.6	77.6			34.5	20.5
Xitavo	XO 2963E	EN	Be	73.0	9/28	75.9	70.1	77.3			34.1	20.9
Xitavo	XO 3014E	EN	Be	72.0	9/29	75.7	68.3				33.2	20.8
Xitavo	XO 3224E	EN	Be	74.4	9/30	74.9	73.9				33.5	20.9
	AVERAGE			70.6	9/27	71.4	69.7				34.2	20.7
	L.S.D. 25% LEVEL			4.7		5.2	4.2				0.4	0.3
	COEFF. OF VAR. (%)			9.8		7.7	6.3				2.3	1.8

**2023 Soybean Test Results
Region 2**

COMPANY	NAME	Herbicide Trait ¹	ST ²	Regional Results		Monmouth Yield bu/a	Goodfield Yield bu/a	2 yr Avg Yield bu/a	3 yr Avg Yield bu/a	Regional	
				Yield bu/a	Maturity Date					Protein @ 13%	Oil @ 13%
Late MG: 3.3-4.2											
Blue River	BR 3923	CV		67.5	10/1	63.8	71.2			34.9	20.1
Blue River	BR 42D40	CV		74.4	10/6	73.1	75.7			35.4	19.7
Burrus	DM34E11	EN	BS	72.2	10/4	73.3	71.1			33.1	21.0
Dyna-Gro	S35XF44	RF	Bs	71.0	10/2	69.5	72.6			34.9	20.6
Dyna-Gro	S37ES52	EN,ST	Bs	72.5	10/4	72.0	73.0	78.2		34.2	21.2
GENESIS	G3460E	EN	BS	74.9	9/30	75.1	74.7			33.8	21.5
Jacobson	3222	CV		68.7	10/6	71.9	65.5			33.8	20.6
Jacobson	3722	CV		71.2	10/3	69.6	72.7			33.8	21.7
Jacobson	3922	CV		69.7	10/6	66.9	72.4			34.1	20.5
Jacobson	5905	EN		69.8	10/4	69.6	70.0			33.2	21.0
Jacobson	5909	EV		63.1	10/7	60.8	65.4			34.9	19.4
Lakeview Farms	LVF3332B	CV	BN	69.5	10/2	63.6	75.4	73.2		35.0	20.5
Lakeview Farms	LVF3530	CV	BN	73.6	10/1	74.8	72.3	75.5	70.0	33.2	21.6
Lakeview Farms	LVF3641	CV	BN	72.4	10/2	74.6	70.3	76.1	69.7	32.4	21.6
Lakeview Farms	LVF3653B	CV	BN	69.0	10/4	70.2	67.8			33.8	20.9
Lakeview Farms	LVF3831	CV	BN	70.3	10/2	70.5	70.2			33.7	20.7
Lakeview Farms	LVF3949	CV	BN	61.3	10/3	63.8	58.7			34.8	20.4
NuTech	34N02E	E3		75.5	10/3	74.9	76.0	80.6		34.5	20.7
NuTech	36N04E	E3		71.4	10/4	69.0	73.9			33.9	20.2
NuTech	37N03E	E3		76.2	10/3	76.1	76.4			34.5	20.8
NuTech	39N07E	E3		70.8	9/29	72.0	69.7			34.4	20.4
P3 Genetics	2433E	EN	Bs	67.7	9/28	72.8	62.7			33.6	20.8
RENK	RS353NXF	RF	BS	72.5	10/2	68.0	77.0			34.9	20.7
Stone Seed	2XF3352	RF	Be	74.4	10/1	74.3	74.5	77.9	72.9	34.2	20.2
Stone Seed	2XF3644	RF	Be	72.5	9/28	73.7	71.3			34.5	20.7
Sun Prairie	SP35E34	EN	B	70.8	9/28	70.6	71.0			33.5	20.5
Xitavo	XO 3483E	EN	Be	75.6	10/3	73.9	77.4	78.4		34.5	20.9
Xitavo	XO 3752E	EN	Be	75.5	10/4	76.3	74.6	80.3		34.2	21.1
AVERAGE				71.1	10/2	71.0	71.2			34.1	20.7
L.S.D. 25% LEVEL				4.1		3.8	4.0			0.4	0.2
COEFF. OF VAR. (%)				8.6		5.6	6.0			1.7	1.7

¹Herbicide Trait- CV = No Trait, EN= 2,4-D, glufosinate and glyphosate, LL = glufosinate, RF= dicamba, glufosinate and glyphosate, RL= glufosinate and glyphosate, RR = glyphosate, RX = dicamba and glyphosate, ST= STS, O= Other

²ST- U= Untreated, F=Fungicide, Fe= Fungicide + Illevo, B= Fungicide + Insecticide, Be= Fungicide + Insecticide + Illevo, Bs= Fungicide + Insecticide + Salto, NA= Information not Available

	Monmouth	Goodfield
Location	Warren	Tazewell
County		
Site Location	Click to see map	Click to see map
Host	Greg Steckel	Dan and Jason Magarity
Soil type	Sabbe silty clay loam	Catlin silt loam
Planting date	May 9, 2023	May 18, 2023
Harvest date	October 23, 2023	October 4, 2023

Pesticides

PRE	Zidua Pro	Authority Supreme
POST	First Rate, Warrant and Fusilade II	Flexstar, Select
Fungicide	None	Yes

Tillage

Spring	Field cultivate	Field cultivator
Fall	Disk ripper	Inline ripper
Latitude	40.9266349	40.66052155
Longitude	-90.72567743	-89.3873659

RainFall

April	2.4	1.6
May	1.4	3.3
June	3.6	3.4
July	5.6	3.8
August	3.9	3.1
September	2.2	4.8
Total	20.1	20.0

2023 Soybean Field Crop Trials Results

Minnesota Agricultural Experiment Station and the College of Food, Agricultural and Natural Resource Sciences

Each year Minnesota Agricultural Experiment Station scientists conduct performance tests of appropriately adapted public and private soybean entries. Companies are charged a fee for each entry they enter to partially cover the costs of conducting these tests. One of the stipulations of the testing program is that the company is marketing or intends to begin marketing the entry in the next growing season. This information is also available electronically at soybeans.umn.edu and varietytrials.umn.edu/soybean.

As ever, it is hard to generalize the weather for the growing season across the whole state. For the most part, 2023 started with ample moisture in the spring followed by dry and hot weather for most of the summer. Precipitation arrived for most places too late in the fall during harvest. We were able to get all of our testing locations planted in between rainfall events in May. We achieved good stand establishment, and the moisture available in the soil from the spring

rainfalls helped our fields get off to a quick start, resulting in average to good yields at all locations. An exception was our Morris location which was lost due to poor stand establishment caused by excessively dry conditions at planting. Another item to note is that because of the lack of rainfall during much of the season, our Becker location was irrigated on a weekly basis. This amount of irrigation, particularly during seed fill, produced larger seeds, biasing the seed size of many of our small-seeded specialty varieties.

Tables 1 to 4 provide results from tests of available conventional, special purpose, and transgenic entries adapted to the far northern, northern, central, and southern production zones. The map shows test locations and zone boundaries. All of these tests were planted between May 6 and May 26 at planting rates listed below.

Herbicides were used as necessary for good weed control. Row spacings were 24 inches at Crookston, 6



Locations of 2023 soybean trials.

inches at Roseau and 30 inches at all other locations. Plots were machine harvested using a small plot combine.

Tables 5 to 10 provide characteristics and performance data from special-purpose soybean entry tests. These tests were conducted to provide reliable data for growers who are interested in producing special-purpose soybeans, which are typically grown under contract.

Location	Planting date	Seeding rate per acre	Harvest date	Latitude	Longitude	Soil type	Drainage	Previous crop
Becker	15-May	174,000	11-Oct	45.347142	-93.853407	Mosford sandy loam	Good to excellent	Corn
Crookston	19-May	221,000	13-Oct	47.818224	-96.613323	Hegne silty clay	Poor	Wheat
Glyndon	22-May	167,000	14-Oct	46.905200	-96.610010	Fargo silty clay	Good	Corn
Lamberton	24-May	174,000	18 & 21-Oct	44.239034	-95.307135	Normania loam	Good	Corn
Roseau	24-May	174,000	13-Oct	48.8475	-95.787222	Clay loam	Adequate	Soybean
Rosemount	6-May	174,000	3-Oct	44.706979	-93.101039	Waukegan silt loam	Good	Corn
Sleepy Eye	26-May	174,000	21-Oct	44.211213	-94.665582	Canisteo clay, Clarion Loam	Excellent	Corn
Shelly	21-May	174,000	14-Oct	47.426389	-96.831694	Beardon silt loam	Good	Corn
Thief River Falls	19-May	174,000	12-Oct	48.128273	-96.242684	NA	NA	Wheat
Waseca	22-May	174,000	5 & 11-Oct	44.077017	-93.536694	Nicollet clay loam	Adequate	Corn

Table 11 displays results from greenhouse tests conducted by the Nematology Laboratory at the University of Minnesota Southern Research and Outreach Center in Waseca, MN. All submitted entries were grown in soil inoculated with an HG type 7 (race 6) population of soybean cyst nematode in 2023. A subset of entries with non-88788 sources of resistance were tested using HG type 2 (race 1).

To better understand and use the data provided in these tables, please carefully read the following additional information.

Seed Treatments and Transgenic Traits

Entrants were allowed to enter treated seed in 2022. The type of seed treatment, as provided by the originator, is designated as follows:

AC = Accelaron
 AMS = Agrishield Max + Saltro
 CMV = Cruiser Maxx + Vibrance
 EVSV = Equity VIP, Saltro,
 Vayantis
 OPVRI = Obvius Plus, Poncho/
 Votivo, Relenya, ILEVO
 PS = Peterson Select

Research indicates that under some conditions seed treatments can affect the final yield. The exact situations are not always clear but when comparing entries note if a seed treatment was used on the seed being tested.

In some tables the transgenic trait is indicated in a separate column using the following designations:

CV = conventional variety (non-transgenic)
 E3 = Enlist E3 (glyphosate, glufosinate and 2,4-D tolerant)
 LLGT27 = glyphosate, glufosinate, and HPPD/Group 27 herbicide tolerant
 XF = Xtendflex (dicamba, glyphosate and glufosinate tolerant)

Relative Maturity and Calendar Dates of Maturity

Soybeans are photoperiod sensitive; that is, they respond to changing day length. The actual calendar date of maturity achievement is affected by latitude. Each entry has a narrow range (about 100 miles) of north-south adaptation. Soybean yield and quality are best achieved when physiological maturity occurs before a hard frost. Maturity is determined visually by noting the calendar date when 95 percent of the pods show their genetically programmed mature color. The dates for 2023 are provided in the tables under the column heading “Maturity Date”. Harvest dates are typically 7 to 14 days later depending upon drying conditions. Almost all entries were essentially mature before a hard frost.

Relative maturity ratings are also provided for each entry. These ratings consist of a number for the maturity group designations (000, 00, 0, 1, 2) followed by a decimal and another number, ranging from 0-9, which indicates a ranking within each maturity group. For example the entry MN0101 indicates a 0.1, making it an early group 0, while MN0901, with a 0.9 rating, is the latest group 0. The values for public entries are developed after observing them for several years in many locations. Relative maturity ratings for private entries in these tables were provided by their originators and were developed in a similar manner.

Yield

Because maturity is a very important attribute, entries are ordered in the tables according to their actual 2023 calendar date of maturity for where maturity date data was available. Otherwise they are ordered by their reported relative maturity.

Later maturing entries usually can be expected to have higher yields than earlier maturing types. If you

wish to compare yields, do so only between entries with similar calendar dates of maturity, usually within 3 to 5 days. More reliable comparisons can be made using yields from several consecutive years. All yield determinations were made from replicated tests harvested with a plot combine. Multi-location data are necessary for determining true differences between varieties, and therefore only multi-location averages are reported in this report, but data for individual locations can be found at <https://varietytrials.umn.edu/soybean>.

The yield information is presented as a percent of the mean of the test. The actual mean value is given at the bottom of each table. Values over 100 indicate the entry had a yield greater than the mean while those less than 100 have a yield less than the mean.

LSD values associated with data in these tables are measures of variability within the trials. The LSD numbers beneath the yield columns indicate whether the difference between yields is due to genetics or other factors, such as environmental variation and measurement error. If yield differences between two entries equals or exceeds the LSD value, the higher-yielding entry probably was superior in yield. A difference less than the LSD value is probably due to environmental and/or measurement variation. The LSD values are given on the percent of mean data, not the actual yields. A 25% level of significance is used in all tables contained in this report. This means that there is a 25% probability that yield differences exceeding the stated LSD are not true yield differences.

Chlorosis

Iron deficiency chlorosis (IDC) is a yield-limiting condition of soybeans grown in alkaline soils with high calcium carbonate or calcium sulfate ions present, making iron unavailable and causing soybean plants to turn

yellow. This yellowing is visually scored on a 1 to 5 scale, where 1 indicates no yellowing and 5 indicates severe yellowing and necrosis that may even include death of the plant.

Research has shown that for every unit increase in chlorosis, a 20% reduction in yield may occur. For example, a plot rated as a 3 may yield 20% less than a plot given a rating of 2. All IDC ratings in tables are from tests conducted on high lime (high pH) soils in Crookston, MN in 2023.

Comparing chlorosis scores of entries allows you to estimate how well they perform relative to each other. Actual chlorosis ratings can vary depending on the specific site, year of test, and location in the field. Because of this high level of variability, it is usually very difficult to identify the best performing entries. Varieties should be compared for IDC ratings relative to one another within a single trial only and not across trials. Producers with a known history of IDC problems should at least avoid entries with the most severe (4 or 5) IDC ratings. Different organizations may use different scales or descriptions. The below table provides some general rules for a trial with moderate stress able to produce ratings ranging from 1 to 5.

Numerical Score	Rating
1 to 2	Tolerant (T)
2.1 to 3	Moderately Tolerant (MT)
3.1 to 4	Moderately Susceptible (MS)
4.1 to 5	Susceptible (S)

Protein and Oil

Protein and oil values were determined from mature seed using near-infrared reflectance spectroscopy. **The tabled values are for the 2023 season only.** Protein and oil results are presented on a percent of the mean for each test. The actual mean values, expressed on a 13% moisture basis, are given at the bottom of each table. Values over 100 indicate the protein and/or oil contents

of the entry are greater than the mean value while those less than 100 have protein and/or oil contents less than the mean. Absolute values of protein and oil can vary from year to year. The following formula is used to adjust the protein and oil values to another moisture basis.

$$\frac{100 - \text{desired moisture}}{87} \times \text{protein or oil value given in the table}$$

The value of a bushel of soybeans (APV) based on its oil and protein content can be calculated by:

$$APV = 60 \left[Po(X) + \frac{Pm(Y)}{.44} \right]$$

Where:

APV = Approximate value of a bushel of soybeans
 Po = soybean oil price (in \$ per pound)
 Pm = price of 44% meal (in \$ per pound)*
 X = oil content at 13% moisture (in decimals)
 Y = protein content at 13% moisture (in decimals)

And:

$$\frac{\text{*price of meal \$ / ton}}{2,000} = \$ / \text{pound}$$

The value of an acre of soybeans can be calculated by multiplying the APV by the yield in bushels per acre.

Phytophthora

Phytophthora root rot is a soil-borne disease that occurs in heavy wet soils. Infection generally occurs during germination. Phytophthora root rot can cause significant yield reductions if susceptible varieties are planted in poorly drained, infested fields. Variety selection is the best defense against this yield reducing pathogen. There are many known pathotypes (races) of this fungus, and therefore it is important to know which are present in a particular field. Genes can be incorporated into varieties to provide resistance to races present in a field. Soybean varieties that have specific resistance genes (or gene) provide some level of protection, but race-specific resistance genes

do not guarantee protection against infection and yield loss because so many different races exist. Research indicates that Rps3a and Rps6 provide the broadest protection to Phytophthora races currently present in soybean fields in the Midwest.

Some published information refers to Phytophthora “tolerance” or “field resistance”, which is not race-specific and should not be confused with race-specific resistance. It is possible that a certain level of field tolerance can provide yield protection even when the race-specific genes are not effective. Reliable tests for tolerance have not yet been fully developed.

Tables included in this report indicate which race-specific Phytophthora gene or genes is/are present in each entry. This information was provided by the originator. A “S” indicates a variety is expected to be susceptible to all races. A “-” indicates that a Phytophthora gene was not specified by the originator.

Soybean Cyst Nematode

Soybean Cyst Nematode (SCN) is a microscopic round worm that infects and reproduces in soybean roots. It was first identified in Minnesota in 1978 and is now known to occur in most Minnesota counties where soybeans are grown. Both the area of infestation and number of nematodes per unit of soil appear to be increasing. Several races of this pest are known to occur in Minnesota. When SCN numbers are high (> than 5,000 eggs/100 cc soil), significant yield losses can occur. Rotations to non-host crops and planting of resistant varieties can assist in reducing nematode populations as well as reducing the SCN’s impact on yield.

The source for SCN resistance for each entry was provided by the originator. In Table 11 the resistance ratings were given based on a greenhouse bioassay with five replicates using an HG Type 7 (Race

6) SCN population. Each container (one plant) was inoculated with 4000 SCN eggs. After 30 days a female index (FI) was calculated for each entry using Lee 74 as the susceptible check. $FI = (\# \text{ of cysts on entry} / \# \text{ of cysts on Lee 74}) \times 100$. If the FI was < 10%, an entry was considered R. If the FI was 10 – 30%, it was considered MR. If the FI was 30-60%, it was considered MS, and greater than 60% S. These are fairly arbitrary cutoffs, and thus it is important to look at the actual FI values to judge the level of resistance. Comparison to varieties known to have a good level of resistance is also advisable.

For proper management of fields with SCN, it is recommended that entries with an R rating be planted. If the SCN population numbers are relatively low (<1500 eggs/100 cm³) an entry with an MR rating might be considered. Entries with S and MS ratings should not be considered for planting in fields where SCN is present at levels greater than 200 eggs/100 cm³. Some entries are rated as tolerant, however no data from the northern United States has verified the usefulness of tolerant entries in maintaining yield and reducing SCN numbers.

Management information is available online at soybeans.umn.edu or from the Minnesota Soybean Research and Promotion Council, 1-507-388-1635, mnsoybean.org.

White Mold

White mold, also known as Sclerotinia stem rot, develops in infested fields when high relative humidity and moderate temperatures occur during soybean flowering. Planting less susceptible entries in wider row spacings or at lower populations is the most effective method of reducing the severity of white mold. Accurate ratings for resistance to white mold are difficult to obtain because both infection and disease

development are dependent on weather conditions. Because of this variability, performance can change significantly among locations and years depending on the interaction of plant development, precipitation, relative humidity, and temperature. White mold severity also tends to be greater if lodging occurs. Growers concerned about performance in the presence of white mold should select varieties that show consistently less white mold during several years of testing.

Brown Stem Rot

Brown stem rot (BSR) is a fungal disease that can cause yield losses in certain situations. The disease occurs most frequently when soybeans follow soybeans but can occur where soybeans are planted every other year. Resistant entries, or longer rotations, assist in the management of this disease. Some information refers to “tolerance” or “field resistance.” Reliable tests for tolerance or field resistance have not yet been developed.

Special-Purpose Entries

There continues to be interest in producing soybeans with special characteristics important to specialty food product manufacturers, such as tofu, natto, miso, and soy milk. Soybean scientists previously developed some of these special-purpose entries, which were general releases, but more recently entries have been released under exclusive or nonexclusive licenses to specific companies who then contract with growers for production. For further information visit the Minnesota Crop Improvement Association website at mncia.org or telephone number 612-625-7766.

Authors and Researchers

Authors of this soybean report are: A. Lorenz, S. Naeve, and S. Bhusal.

Michael Leiseth, David Bundy, Gary Reid, Tom Hoverstad, Travis Vollmer, and Donn Vellekson supervised test plot establishment and management.

Special thanks are due to Chris Goblirsch of Riverton Research Inc. for planting, managing, and harvesting the Glyndon location.

We appreciate our farm cooperators who provided access to on-farm land. The farm cooperators in 2023 were Gabriel Carlson (Thief River Falls), David Swanson (Moorhead), David and Craig Swenson (Shelly), and Rob Goblirsch (Sleepy Eye).

Names and email addresses of seed company representatives that entered varieties into the 2023 trials.

Company	Rep Name	Contact Email
Albert Lea Seed/Viking Seed	Jake Hansen	jake@alseed.com
Anderson Seeds	Kelsey (Anderson) Henke	kelsey.anderson528@gmail.com
BASF/MS Technologies	Nick Weidenbenner	nick.weidenbenner@basf.com
Bayer Crop Science/Asgrow	Austin Carlson	Austin.carlson@bayer.com
Brushvale Seed, Inc.	Travis Meyer	travis@brushvalseed.com
Dyna-Gro Seed	Tom Head	Tom.head@nutrien.com
GDM Seeds	Grant Schmiege	gschmiege@gdmseeds.com
LG Seeds	Tim Beninga	tim.beninga@lgseeds.com
Minnesota Ag Experiment Station (Minnesota AES)	Carl Anfinson	carl.anfinson@mncia.org
Peterson Farms Seed	Alex Amderson	alex@petersonfarmsseed.com
Proseed, Inc.	Karmen Hardy	karmen.hardy@proseed.net
Richland IFC, Inc.	Paul Meindl	paul@richlandifc.com

Table 1. Performance and characteristics of transgenic, conventional and special-purpose soybean entries evaluated in the far northern zone. Trials were conducted in Crookston, Thief River Falls, and Roseau.

Entry	Originator	Maturity Rating	Maturity Date	Yield % of Mean		Phyto. Gene	Chlorosis Score	Seed Treat.	Trans. Trait	
				2023	% of Mean					
PXC00799	Proseed	00.7	9/11	91	111	90	S	2.3	CMV	CV
LGS0125XF	LG Seeds	0.1	9/12	101	97	105	Rps1c	2.0	AMS	XF
PXC00899	Proseed	00.8	9/12	81	104	99	Rps1c	2.3	CMV	CV
Hana	Peterson Farms Seed	00.9	9/13	78	108	94	S	2.3	PS	CV
LGS00719XF	LG Seeds	00.7	9/14	95	98	104	Rps1c	3.3	AMS	XF
XF 30-092N	Proseed	00.9	9/14	108	98	103	Rps1c	2.0	CMV	XF
LGS0139XF	LG Seeds	0.1	9/15	102	98	102	Rps1c	1.8	AMS	XF
XF 40-12N	Proseed	0.1	9/15	105	98	102	Rps1c	2.0	CMV	XF
XO 0213E	MS Technologies	0.2	9/18	96	98	102	Rps1a+Rps3a	2.0	OPVRI	E3
LGS00901E3	LG Seeds	00.9	9/19	115	98	101	Rps3a	2.3	AMS	E3
XO 0094E	MS Technologies	00.9	9/19	107	98	101	-	2.3	OPVRI	E3
XO 0234E	MS Technologies	0.2	9/20	108	99	100	Rps3a	2.0	OPVRI	E3
LGS0105E3	LG Seeds	0.1	9/22	117	98	101	Rps3a	1.8	AMS	E3
EL 40-093N	Proseed	00.9	9/22	100	101	96	Rps3a	2.0	CMV	E3
EL 40-13N	Proseed	0.1	9/26	95	96	100	Rps3a	2.0	CMV	E3
Mean			9/17	44 bu/a	34.3%	18.9%		2.2		
LSD 25%			2.3d	7%	2%	2%		0.5		

LSD numbers beneath yield columns indicate whether the difference between yield is due to genetics or other factors, such as variations in environment.

If a yield difference between two entries equals or exceeds the LSD value, the higher yielding entry probably was superior in yield.

A difference less than the LSD value is likely due to environmental factors.

-indicates "not specified".

Maturity date data collected from all locations.

Table 2. Performance and characteristics of transgenic, conventional and special-purpose soybean entries evaluated in the northern zone. Trials were conducted in Crookston, Shelly, and Glyndon.

Entry	Originator	Maturity Rating	Maturity Date	Yield % of Mean		% of Mean		Phyto. Gene	Chlorosis Score	Seed Treat.	Trans. Trait
				2022	2023	Protein	Oil				
XO 0311E	MS Technologies	0.3	9/14	95	99	100	100	S	1.5	OPVRI	E3
S04K9	Syngenta	0.4	9/16		96	110	96	-	2.8	None	CV
M13-257047	Minnesota AES	0.5	9/16		94	103	103	Rps1a	2.5	None	CV
Viking I Blue River 0821N	Albert Lea Seed House	0.8	9/19		96	99	99	S	1.8	None	CV
LGS0444XF	LG Seeds	0.4	9/19		108	101	99	Rps1c	1.0	AMS	XF
LGS0323E3	LG Seeds	0.3	9/19		82	98	101	Rps3a	2.3	AMS	E3
LGS0550E3	LG Seeds	0.5	9/19	98	101	101	101	Rps3a	2.3	AMS	E3
LGS0405E3	LG Seeds	0.4	9/20		96	97	104	Rps1c	1.8	AMS	E3
M15-105140	Minnesota AES	0.5	9/20		97	100	99	Rps1c+Rps3a	1.3	None	CV
LGS0701XF	LG Seeds	0.7	9/21		113	100	98	Rps3a	2.5	AMS	XF
XO 0554E	MS Technologies	0.5	9/22		110	97	102	Rps1k+Rps3a	2.3	OPVRI	E3
M13-118036	Minnesota AES	0.8	9/22		111	99	98	S	2.0	None	CV
XO 0602E	MS Technologies	0.6	9/23	104	100	99	97	S	2.5	OPVRI	E3
XO 0993E	MS Technologies	0.9	9/24		92	95	104	Rps3a	2.8	OPVRI	E3
LGS0822E3	LG Seeds	0.8	9/25		102	101	99	Rps1c+Rps3a	1.8	AMS	E3
Mean			9/20	58 bu/a	50 bu/a	33.5%	19.1%		2.1		
LSD 25%			1.1d	3%	6%	1%	1%		0.4		

LSD numbers beneath yield columns indicate whether the difference between yield is due to genetics or other factors, such as variations in environment.

If a yield difference between two entries equals or exceeds the LSD value, the higher yielding entry probably was superior in yield.

A difference less than the LSD value is likely due to environmental factors.

-indicates "not specified"

Maturity date data collected from all locations.

Table 3. Performance and characteristics of transgenic, conventional and special-purpose soybean entries evaluated in the central zone. Trial was conducted in Becker and Rosemount.

Entry	Originator	Maturity Rating	UAS Mat. Date*	Yield % of Mean		% of Mean		Phyto. Gene	Chlorosis Score	Seed Treat.	Trans. Trait
				2022	2023	Protein	Oil				
M13-118036	Minnesota AES	0.8	9/07	96	99	100	98	S	2.0	None	CV
Viking 1223N	Albert Lea Seed House	1.2	9/08	92	108	96	102	S	3.3	None	CV
M13-250056	Minnesota AES	0.8	9/08	127	106	100	102	Rps1c	2.8	None	CV
VikingBlue River 0821N	Albert Lea Seed House	0.8	9/09	113	97	99	100	S	1.8	None	CV
P11A50	Pioneer	1.1	9/11		94	104	101	-	2.5	None	CV
XO 0993E	MS Technologies	0.9	9/12	114	100	99	104	Rps3a	3.3	OPVRI	E3
AG11XF4	Asgrow	1.1	9/13		96	100	100	Rps1c	1.3	AC	XF
XO 1133E	MS Technologies	1.1	9/13		96	102	98	S	2.0	OPVRI	E3
M13-250046	Minnesota AES	1.6	9/13	115	99	103	99	Rps1c	1.5	None	CV
VikingBlue River 1518N	Albert Lea Seed House	1.5	9/14	86	83	100	96	S	1.8	None	CV
AG09XF3	Asgrow	0.9	9/15	113	98	97	93	Rps1c	2.0	AC	XF
XO 1372E	MS Technologies	1.3	9/15	107	93	100	103	S	2.5	OPVRI	E3
NK14-W6E3	MS Technologies	1.4	9/15		102	100	102	-	3.0	-	-
XO 1761E	MS Technologies	1.7	9/15	115	101	101	99	Rps1k	2.5	OPVRI	E3
AG13XF4	Asgrow	1.3	9/16		94	98	104	Rps1c	2.3	AC	XF
CZ 1660 GTLL	MS Technologies	1.6	9/16	104	99	100	101	Rps1k	2.8	-	LLGT27
P17A87E	MS Technologies	1.7	9/16		110	101	98	-	2.0	-	-
XO 1632E	MS Technologies	1.6	9/16	124	107	98	102	Rps3a	3.0	OPVRI	E3
VikingBlue River 1718N	Albert Lea Seed House	1.7	9/17	103	101	100	101	Rps1k	2.0	None	CV
XO 1404E	MS Technologies	1.4	9/17		105	104	97	Rps1c	2.0	OPVRI	E3
XO 1212E	MS Technologies	1.2	9/17	101	107	103	98	Rps1c	1.8	OPVRI	E3
Viking 2022N	Albert Lea Seed House	2.0	9/19		106	98	101	Rps1k	2.8	None	CV
Mean			9/14	56 bu/a	70 bu/a	34.3%	19.8%		2.3		
LSD 25%			1.7d	6%	6%	2%	3%		0.4		

LSD numbers beneath yield columns indicate whether the difference between yield is due to genetics or other factors, such as variations in environment.

If a yield difference between two entries equals or exceeds the LSD value, the higher yielding entry probably was superior in yield.

A difference less than the LSD value is likely due to environmental factors.

- indicates "not specified."

Maturity date data collected from all locations.

Table 4. Performance and characteristics of transgenic, conventional and special-purpose soybean entries evaluated in the southern zone. Trials were conducted in Lamberton, Waseca, and Sleepy Eye.

Entry	Originator	Mat. Rating	Mat. Date	Yield % of Mean		% of Mean		Phyto. Gene	Chlorosis Score	Seed Treat.	Trans. Trait
				2022	2023	Protein	Oil				
M13-250046	Minnesota AES	1.6	9/16	91	82	101	100	Rps1c	2.0	None	CV
NK14-W6E3	MS Technologies	1.4	9/17		101	100	102	-	2.8	-	-
S16EN42	Dyna-Gro Seed	1.6	9/20		112	101	99	Rps3a	2.5	EVS	E3
XO 1632E	MS Technologies	1.6	9/21	104	100	100	100	Rps3a	2.8	OPVRI	E3
A151E3	Anderson Seeds	1.5	9/21	99	105	100	101	Rps3a	2.8	None	E3
MN1807CN	Minnesota AES	1.8	9/21	93	85	102	102	Rps1c	2.5	None	CV
XO 1404E	MS Technologies	1.4	9/22		104	104	98	Rps1c	2.0	OPVRI	E3
A172E3	Anderson Seeds	1.7	9/22	100	99	101	100	Rps1k	2.8	None	E3
P17A87E	MS Technologies	1.7	9/22		100	102	98	-	2.8	-	-
V1621	GDM Seeds	1.6	9/23		103	100	96	Rps1k	2.0	CMV	CV
NK18-J7E3	MS Technologies	1.8	9/23		98	99	101	-	2.3	-	-
XO 1822E	MS Technologies	1.8	9/23	107	105	101	99	Rps3a	3.0	OPVRI	E3
S21EN81	Dyna-Gro Seed	2.1	9/23		104	99	100	Rps1k	2.5	EVS	E3
V1821	GDM Seeds	1.8	9/23		100	98	97	Rps1c	2.0	CMV	CV
XO 2181E	MS Technologies	2.1	9/23	103	100	101	99	Rps1k	3.3	OPVRI	E3
VikingBlue River 1718N	Albert Lea Seed House	1.7	9/23	102	102	98	101	Rps1k	2.3	None	CV
XO 1971E	MS Technologies	1.9	9/23	102	100	100	99	S	3.0	OPVRI	E3
P21A53E	MS Technologies	2.1	9/23		100	97	103	-	3.5	-	-
Viking 2022N	Albert Lea Seed House	2.0	9/23	111	101	98	102	Rps1k	3.0	None	CV
V2122	GDM Seeds	2.1	9/24	108	99	103	102	S	2.0	CMV	CV
A182E3	Anderson Seeds	1.8	9/24	105	97	98	102	Rps1k	2.5	None	E3
A203E3	Anderson Seeds	2.0	9/24		103	101	103	Rps1a+Rps3a	2.8	None	E3
AG19XF3	Asgrow	1.9	9/24	104	104	99	102	Rps1c	2.3	AC	XF
A1923XF	Anderson Seeds	1.9	9/25		112	98	101	S	3.3	None	XF
M13-262053	Minnesota AES	1.9	9/25		99	98	101	Rps1a	2.0	None	CV
S20EN84	Dyna-Gro Seed	2.0	9/25		101	96	105	Rps1k	1.8	EVS	E3
VikingBlue River 2418N	Albert Lea Seed House	2.4	9/26	106	99	101	100	Rps1c	1.8	None	CV
AG20XF4	Asgrow	2.0	9/27		101	99	94	Rps1c	2.8	AC	XF
AG21XF2	Asgrow	2.1	9/27		100	103	96	Rps3a	2.8	AC	XF
XO 2282E	MS Technologies	2.2	9/27	102	94	99	101	S	2.8	OPVRI	E3
AG22XF3	Asgrow	2.2	9/27	103	99	102	99	Rps1c	3.3	AC	XF
Viking 2340KN	Albert Lea Seed House	2.3	9/27	105	96	98	99	Rps1k	2.3	None	CV
XO 2323E	MS Technologies	2.3	9/28	106	101	101	100	Rps1c	2.5	OPVRI	E3
XO 2444E	MS Technologies	2.4	9/28		97	101	100	Rps1a	2.5	OPVRI	E3
VikingBlue River 2155N	Albert Lea Seed House	2.1	9/28	95	99	98	96	S	2.3	None	CV
Mean			9/24	82 bu/a	78 bu/a	34.3%	19.8%		2.6		
LSD 25%			1.0d	3%	3%	2%	2%		0.5		

LSD numbers beneath yield columns indicate whether the difference between yield is due to genetics or other factors, such as variations in environment.

If a yield difference between two entries equals or exceeds the LSD value, the higher yielding entry probably was superior in yield.

A difference less than the LSD value is likely due to environmental factors.

-indicates "not specified"

Maturity date data collected from all locations.

Table 5. Characteristics of special-purpose soybean entries evaluated in the northern zone. Trials were conducted in Crookston, Shelly and Glyndon.

Entry	Originator	Mat Rating	Mat Date	Special			Seeds/lb	Trans. Trait
				Characteristics	Hilum Color	Phyto. Gene		
PXC00999	Proseed	00.9	9/08	Protein	Yellow	S	2,612	CV
Hana	Peterson Farms Seed	00.9	9/11	Protein	Yellow	S	2,722	CV
M15-220021	Minnesota AES	0.3	9/14	Soymilk	Yellow	S	3,636	CV
MK0249	Richland IFC	0.2	9/15	Natto	Yellow	S	4,413	CV
MK009	Richland IFC	00.9	9/15	Natto	Yellow	S	5,543	CV
M15-236022	Minnesota AES	0.3	9/17	Natto	Yellow	Rps1a	4,686	CV
BS01739	Brushvale Seed, Inc.	0.5	9/18	Soymilk	Yellow	S	3,157	CV
M13-171089	Minnesota AES	0.3	9/18	Natto	Yellow	Rps1a	5,754	CV
M13-172108	Minnesota AES	0.5	9/19	Natto	Yellow	S	4,888	CV
SB0512	SINNER BROS	0.5	9/19	Natto	Yellow	-	4,888	CV
PXC05992	Proseed	0.5	9/20	Protein	Yellow	Rps3a	2,250	CV
MK0603	Richland IFC	0.6	9/21	Sprouts	Yellow	S	5,051	CV
MK808CN	Richland IFC	0.8	9/22	Natto	Yellow	Rps1c	3,157	CV
PXC0899	Proseed	0.8	9/23	Protein	Yellow	Rps1c+Rps3a	2,568	CV

Table 6. Performance and characteristics of special-purpose soybean entries evaluated in the northern zone. Trials were conducted in Crookston, Shelly and Glyndon.

Entry	Originator	Mat Date	% of Mean			Chlorosis Score
			Yield	Protein	Oil	
PXC00999	Proseed	9/08	102	101	101	2.8
Hana	Peterson Farms Seed	9/11	104	107	97	3.0
M15-220021	Minnesota AES	9/14	104	101	106	1.5
MK0249	Richland IFC	9/15	90	95	104	1.8
MK009	Richland IFC	9/15	88	98	98	2.3
M15-236022	Minnesota AES	9/17	97	102	100	1.5
BS01739	Brushvale Seed, Inc.	9/18	100	104	97	2.0
M13-171089	Minnesota AES	9/18	92	99	101	2.0
M13-172108	Minnesota AES	9/19	103	100	100	2.0
SB0512	SINNER BROS	9/19	94	99	96	1.8
PXC05992	Proseed	9/20	109	104	98	1.8
MK0603	Richland IFC	9/21	96	98	97	2.0
MK808CN	Richland IFC	9/22	105	95	107	2.3
PXC0899	Proseed	9/23	114	99	98	2.0
Mean		9/17	44 bu/a	34.1%	18.5%	2.1
LSD 25%		1.7d	4%	1%	2%	0.4

LSD numbers beneath yield columns indicate whether the difference between yield is due to genetics or other factors, such as variations in environment.

If a yield difference between two entries equals or exceeds the LSD value, the higher yielding entry probably was superior in yield.

A difference less than the LSD value is likely due to environmental factors.

Maturity date data collected from all locations.

Table 7. Characteristics of special-purpose soybean entries evaluated in the central zone. Trials were conducted in Becker and Rosemount.

Entry	Originator	Mat Rating	Mat Date	Special			Seeds/lb	Trans. Trait
				Characteristics	Hilum Color	Phyto. Gene		
MK41	Richland IFC	1.2	9/03	Tofu	Yellow	S	2,470	CV
MK1016	Richland IFC	1.0	9/06	Natto	Yellow	-	4,941	CV
MK0603	Richland IFC	0.6	9/08	Sprouts	Yellow	S	4,456	CV
MK1023	Richland IFC	1.0	9/08	Natto	Yellow	S	4,413	CV
MK808CN	Richland IFC	0.8	9/08	Natto	Yellow	Rps1c	2,674	CV
M15-236026	Minnesota AES	0.8	9/09	Natto	Yellow	Rps1a	3,666	CV
MN-Decker	Richland IFC	1.0	9/09	Black	Black	S	2,755	CV
M15-221092	Minnesota AES	1.2	9/09	Soymilk	Yellow	S	2,772	CV
MN-Sable	Richland IFC	1.2	9/10	Black	Black	S	2,539	CV
BS91614	Brushvale Seed, Inc.	1.0	9/11	Tofu	Yellow	S	2,627	CV
BS91615	Brushvale Seed, Inc.	1.2	9/11	Tofu	Yellow	S	2,554	CV
M13-172108	Minnesota AES	0.5	9/11	Natto	Yellow	S	4,209	CV
MK1423	Richland IFC	1.4	9/11	Natto	Yellow	S	4,288	CV
M14-250018	Minnesota AES	1.5	9/11	Soymilk/Tofu	Yellow	S	2,066	CV
MK9103	Richland IFC	1.3	9/12	Black	Black	S	1,976	CV
M13-170064	Minnesota AES	1.0	9/12	Natto	Yellow	S	4,500	CV
MK9102	Richland IFC	1.2	9/13	Black	Black	S	1,976	CV
Skyline	Sevita International	1.1	9/13	Tofu	Yellow	Rps1a+Rps3a	2,431	CV
MK146	Richland IFC	1.2	9/13	Tofu	Yellow	S	2,405	CV
Viking Blue River 1700N	Albert Lea Seed House	1.7	9/17	Protein	Yellow	S	2,738	CV
MK373	Richland IFC	2.0	9/18	Tofu	Yellow	S	2,296	CV
MK9101	Richland IFC	1.1	9/19	Black	Black	S	2,095	CV

Table 8. Performance and characteristics of special-purpose soybean entries evaluated in the central zone. Trial was conducted in Becker and Rosemount.

Entry	Originator	Mat Date	% of Mean			Chlorosis
			Yield	Protein	Oil	Score
MK41	Richland IFC	9/03	102	103	98	2.3
MK1016	RICHLAND	9/06	82	99	100	2.0
MK0603	Richland IFC	9/08	74	95	94	2.0
MK1023	Richland IFC	9/08	81	94	101	2.0
MK808CN	Richland IFC	9/08	116	96	106	2.3
M15-236026	Minnesota AES	9/09	92	99	103	2.0
MN-Decker	Richland IFC	9/09	89	103	94	1.0
M15-221092	Minnesota AES	9/09	115	101	99	1.3
MN-Sable	Richland IFC	9/10	79	101	98	1.3
BS91614	Brushvale Seed, Inc.	9/11	124	101	107	2.0
BS91615	Brushvale Seed, Inc.	9/11	119	99	102	2.5
M13-172108	Minnesota AES	9/11	96	96	104	1.8
MK1423	Richland IFC	9/11	103	91	103	2.8
M14-250018	Minnesota AES	9/11	110	104	101	2.0
MK9103	Richland IFC	9/12	101	105	96	2.0
M13-170064	Minnesota AES	9/12	86	101	99	2.3
MK9102	Richland IFC	9/13	101	101	100	1.3
Skyline	Sevita International	9/13	109	103	102	3.5
MK146	Richland IFC	9/13	112	102	101	2.3
Viking Blue River 1700N	Albert Lea Seed House	9/17	115	101	99	3.0
MK373	Richland IFC	9/18	94	102	95	1.0
MK9101	Richland IFC	9/19	101	102	97	2.0
Mean		9/17	44 bu/a	34.1%	18.5%	2.1
LSD 25%		1.7d	4%	1%	2%	0.4

LSD numbers beneath yield columns indicate whether the difference between yield is due to genetics or other factors, such as variations in environment.

If a yield difference between two entries equals or exceeds the LSD value, the higher yielding entry probably was superior in yield.

A difference less than the LSD value is likely due to environmental factors.

Maturity date data collected from both locations.

Table 9. Characteristics of special-purpose soybean entries evaluated in the southern zone. Trials were conducted in Lamberton, Waseca and Sleepy Eye.

Entry	Originator	Mat Rating	Mat Date	Special Characteristics	Hilum Color	Phyto. Gene	Seeds/lb	Trans. Trait
MK41	Richland IFC	1.2	9/10	Tofu	Yellow	S	2,239	CV
M15-221092	Minnesota AES	1.2	9/14	Soymilk	Yellow	S	2,877	CV
Skyline	Sevita International	1.1	9/16	Tofu	Yellow	Rps1a+3a	2,307	CV
MK1423	Richland IFC	1.4	9/17	Natto	Yellow	S	4,836	CV
MK146	Richland IFC	1.2	9/18	Tofu	Yellow	S	2,431	CV
M14-250018	Minnesota AES	1.4	9/19	Soymilk\Tofu	Yellow	S	2,144	CV
Candor	Sevita International	1.9	9/20	Tofu	Yellow	Rps3a	1,863	CV
M13-266011	Minnesota AES	1.6	9/20	Soymilk	Yellow	S	2,250	CV
M14-122035	Minnesota AES	1.9	9/22	Soymilk	Yellow	S	2,612	CV
M13-172117	Minnesota AES	1.8	9/22	Natto	Yellow	Rps1a	4,413	CV
Viking\Blue River IAS19C3	Albert Lea Seed House	2.1	9/25	Protein	Yellow	S	2,738	CV
MK373	Richland IFC	2.0	9/25	Tofu	Yellow	S	1,976	CV
Viking e24Y002	Albert Lea Seed House	2.4	9/27	Protein	Yellow	Rps1k	2,554	CV

Table 10. Performance and characteristics of special-purpose soybean entries evaluated in the southern zone. Trials were conducted in Lamberton, Waseca, and Sleepy Eye.

Entry	Originator	Mat Date	% of Mean			Chlorosis Score
			Yield	Protein	Oil	
MK41	Richland IFC	9/10	98	103	98	2.5
M15-221092	Minnesota AES	9/14	97	101	101	1.0
Skyline	Sevita International	9/16	93	102	103	3.8
MK1423	Richland IFC	9/17	89	91	103	3.0
MK146	Richland IFC	9/18	101	103	100	2.5
M14-250018	Minnesota AES	9/19	97	103	101	1.5
Candor	Sevita International	9/20	106	102	98	3.3
M13-266011	Minnesota AES	9/20	106	101	100	1.8
M14-122035	Minnesota AES	9/22	106	97	105	1.3
M13-172117	Minnesota AES	9/22	91	96	98	2.0
Viking\Blue River IAS19C3	Albert Lea Seed House	9/25	114	97	101	1.2
MK373	Richland IFC	9/25	98	101	95	1.8
Viking e24Y002	Albert Lea Seed House	9/27	104	101	96	1.0
Mean		9/20	70 bu/a	35.6%	19.2%	2.1
LSD 25%		1.1d	3%	1%	1%	0.4

LSD numbers beneath yield columns indicate whether the difference between yield is due to genetics or other factors, such as variations in environment.

If a yield difference between two entries equals or exceeds the LSD value, the higher yielding entry probably was superior in yield.

A difference less than the LSD value is likely due to environmental factors.

Maturity date data collected from all locations.

Table 11. Results of soybean cyst nematode greenhouse bioassay performed on soybean entries grown in 2023.

Entry	Originator	SCN Resistance Source ¹	Greenhouse Test HG Type 7 (Race 6)		Greenhouse Test HG Type 2 (Race 1)	
			FI	SCN Rating ²	FI	SCN Rating ²
Viking 1223N	Albert Lea Seed House	PI 88788	9.3	R		
Viking 2022N	Albert Lea Seed House	PI 88788	8.5	R		
Viking 2340KN	Albert Lea Seed House	Peking	3.9	R	2.0	R
VikingBlue River 0821N	Albert Lea Seed House	PI 88788	8.7	MR		
VikingBlue River 1518N	Albert Lea Seed House	PI 88788	91.9	S		
VikingBlue River 1718N	Albert Lea Seed House	PI 88788	21.5	MR		
VikingBlue River 2155N	Albert Lea Seed House	PI 88788	86.8	S		
VikingBlue River 2418N	Albert Lea Seed House	PI 88788	13.9	MR		
A151E3	Anderson Seeds	PI 88788	11.1	MR		
A172E3	Anderson Seeds	Peking	2.2	R	1.2	R
A182E3	Anderson Seeds	PI 88788	10.1	MR		
A1923XF	Anderson Seeds	PI 88788	9.2	R		
A203E3	Anderson Seeds	PI 88788	20.0	MR		
AG09XF3	Asgrow	PI 88788	0.0	R		
AG11XF4	Asgrow	PI 88788	0.0	R		
AG13XF4	Asgrow	PI 88788	0.3	R		
AG19XF3	Asgrow	PI 88788	0.1	R		
AG20XF4	Asgrow	PI 88788	0.0	R		
AG21XF2	Asgrow	PI 88788	0.0	R		
AG22XF3	Asgrow	PI 88788	0.0	R		
S16EN42	Dyna-Gro Seed	PI 88788	11.7	MR		
S20EN84	Dyna-Gro Seed	Peking	22.8	MR		
S21EN81	Dyna-Gro Seed	PI 88788	13.0	MR		
V1621	GDM Seeds	PI 88788	13.3	MR		
V1821	GDM Seeds	PI 88788	8.4	R		
V2122	GDM Seeds	None	77.8	S		
LGS00719XF	LG Seeds	None	74.0	S		
LGS00901E3	LG Seeds	PI 88788	19.4	MR		
LGS0105E3	LG Seeds	PI 88788	11.6	MR		
LGS0125XF	LG Seeds	PI 88788	13.0	MR		
LGS0139XF	LG Seeds	PI 88788	14.4	MR		
LGS0323E3	LG Seeds	PI 88788	13.0	MR		
LGS0405E3	LG Seeds	Peking	90.7	S	21.9	MR
LGS0444XF	LG Seeds	PI 88788	21.3	MR		
LGS0550E3	LG Seeds	PI 88788	17.4	MR		
LGS0701XF	LG Seeds	PI 88788	21.2	MR		
LGS0822E3	LG Seeds	PI 88788	14.3	MR		
XO 0094E	MS Technologies	-	0.9	R		
XO 0213E	MS Technologies	None	0.5	R		
XO 0234E	MS Technologies	PI 88788	0.2	R		
XO 0311E	MS Technologies	PI 88788	0.0	R		
XO 0554E	MS Technologies	PI 88788	0.0	R		
XO 0602E	MS Technologies	PI 88788	0.0	R		
XO 0993E	MS Technologies	Peking	0.0	R	0.1	R
XO 1133E	MS Technologies	PI 88788	0.2	R		
XO 1212E	MS Technologies	PI 88788	0.2	R		
XO 1372E	MS Technologies	PI 88788	0.0	R		
XO 1404E	MS Technologies	PI 88788	0.0	R		
XO 1632E	MS Technologies	PI 88788	0.1	R		
XO 1761E	MS Technologies	PI 88788	0.1	R		
XO 1822E	MS Technologies	PI 88788	0.0	R		
XO 1971E	MS Technologies	PI 88788	0.0	R		
XO 2181E	MS Technologies	PI 88788	0.1	R		
XO 2282E	MS Technologies	PI 88788	0.0	R		
XO 2323E	MS Technologies	PI 88788	0.0	R		
XO 2444E	MS Technologies	PI 88788	0.1	R		
Hana	Peterson Farms Seed	None	83.3	S		
EL 40-093N	Proseed	PI 88788	19.2	MR		
EL 40-13N	Proseed	Peking	13.6	MR	1.4	R
PXC00799	Proseed	None	129.7	S		
PXC00899	Proseed	PI 88788	57.2	MS		
XF 30-092N	Proseed	PI 88788	14.9	MR		
XF 40-12N	Proseed	None	14.9	MR		

¹ Resistance source provided by originator. - indicates SCN source not specified by provider.

² SCN resistance rating: R = resistant (FI less than or equal to 10%); MR = moderately resistant (FI 11-30%); MS = moderately susceptible (FI 31-60%); S = susceptible (FI greater than 60%).

Female index (FI) was calculated using Williams 82 as the susceptible check.



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WISCONSIN 2023

Soybean Variety Performance Trials

Department of Plant and Agroecosystem Sciences, College of Agricultural and Life Sciences, University of Wisconsin-Madison





2023 Wisconsin Soybean Performance Trials

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The Wisconsin Soybean Performance Trials are conducted each year with the producer's needs in mind. Our objective is to give producers the information to select varieties that will satisfy their specific goals and are most likely to perform best under their management practices.

How the entries were tested

Seed companies, private breeders and University research and Extension specialists voluntarily submitted any number of entries they wished. Most of these entries are commercially available, but experimental varieties were also tested. Several additional commercial and public cultivars were included for comparison.

Tests were conducted using conventional, reduced tillage or no-till practices. All performance trials were planted at 160,000 seeds/A in 15" rows. Tests were conducted using a randomized complete block design with four replicates. Table 1 also lists the herbicides used for weed control.

Growing conditions

Wisconsin soybean growers experienced below average growing conditions across much of the state in 2023. Normal precipitation in April and May coupled with average temperatures led to normal soybean planting timing. Statewide drought-like conditions and above normal temperatures were a significant challenge to the 2023 soybean crop. The 2023 pro-

jected statewide average soybean yield is 44.0 bu/A, down 10 bu/A from 2022. Production is expected to be at 91.1 million bushels, down 22% from 2022.

Source: October 12, 2023 NASS report, www.nass.usda.gov

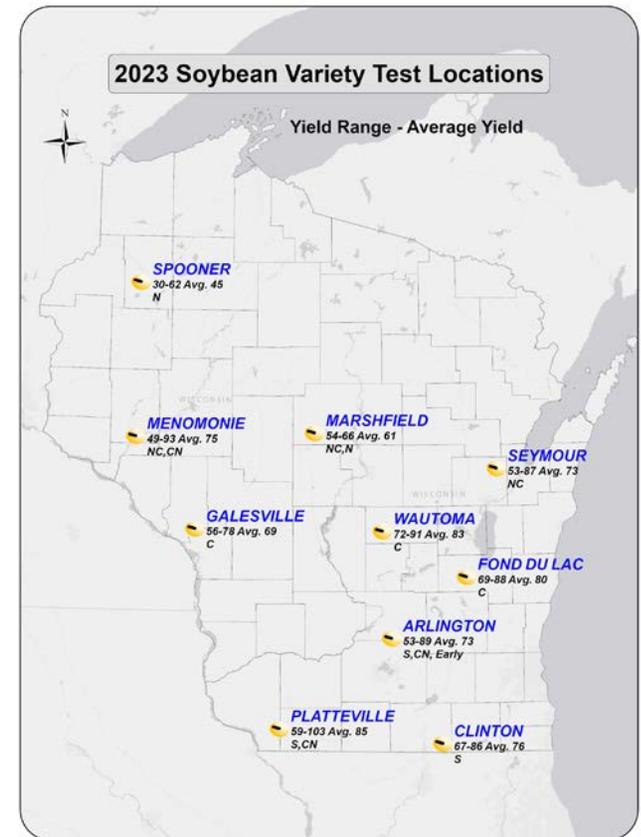
Statewide crop conditions were rated at about 53% good to excellent for most of the season. As of October 30th, 77% of the WI soybean crop had been harvested, which is 2 days ahead of the average. The Seymour site was rated for white mold and the glyphosate tolerant trial in Arlington was excluded from the southern region multi-test average yield due to high field variability from drought conditions.

How performance was measured

Yield: Plots were weighed, and moisture was determined in the field using electronic equipment on the plot harvester. Yields are reported in bushels (60 pounds/bushel) per acre at 13% moisture content.

Lodging: Lodging scores were based on the average erectness of the main stem of plants at maturity (1 = all plants erect, 2 = slight lodging, 3 = plants lodged at 45-degree angle, 4 = severe lodging, 5 = all plants flat).

Maturity: An entry was considered mature when at least 95% of the pods had turned their mature color or a killing frost occurred. Seven to ten days of drying weather are generally required before soybeans are ready to harvest. Variety performance is presented by brand, and then from earliest to latest maturity based on company supplied variety information.



Protein and oil

Seed samples from all varieties grown in select locations were collected and analyzed using a near infrared transmittance (NIRT) grain analyzer to determine grain composition. Our goal in providing this information is to increase soybean value transparency so producers can consider the protein and oil content of varieties planted as well as the yield. The factor that influences protein the most and that is under control of a producer is variety selection. Data from the Wisconsin Soybean Variety Tests indicates that proper variety selection can result in 200 more pounds per acre of protein and oil without compromising grain yield.

Common Diseases of Wisconsin Soybean

Phytophthora Root and Stem Rot (PRSR)

(caused by *Phytophthora sojae*)

There are many races of *P. sojae*. Resistance genes are incorporated into varieties (see Table 10) to provide complete or partial resistance to this organism as follows:

Gene Races

Rps1-a 1, 2, 10, 11, 13-18, 24

Rps1-b 1, 3-9, 13-15, 17, 18, 21, 22

Rps1-c 1-3, 6-11, 13, 15, 17, 21, 23, 24

Rps1-k 1-11, 13-15, 17, 18, 22, 24

Rps3-a 1-5, 8, 9, 11, 13, 14, 16, 18, 23, 25

Rps4 1-4, 10, 12, 16, 18-21, 25

Rps6 1-4, 10, 12, 14-16, 18-21, 25

Selection of soybean varieties with the appropriate resistance gene is paramount for its control. The population of the PRSR pathogen can be a single race or mixed races in the field. The last time a survey of *Phytophthora* races was done in Wisconsin (over 15 years ago), it was noted that the *Rps* 1-k resistance gene should be effective on about 99% of the acres in the state. Due to heavy use of the *Rps* 1-k resistance gene, we believe that the population in the state has shifted. We are seeing that resistance readily overcome. Unfortunately, most of the varieties currently grown in the state have this resistance. A recent Check of the soybean variety trials 2022 show that out of 265 varieties tested 25% had no PRSR resistance gene, 2% had *Rps* 1-a, 29% *Rps* 1-c, 26% *Rps* 1-k, 9% *Rps* 3-a, and 9% had multi-genes. We are actively working with the Wisconsin Soybean Marketing Board to understand what the current population looks like. However, it is too early to tell what the races are pri-

marily in our fields. Moving forward, perhaps choosing *Rps* 3-a or mixed gene varieties could help.

Other things you can do for PRSR are to open the rotation between soybean crops and improve drainage in fields that are typically saturated for long periods of time. Adjusting variety choice can help too. Seed treatment fungicides can also be used. However, remember that the seed treatment is only going to be effective for the first 30 days or so after planting. After that we have to rely on varietal resistance to manage this problem. The information shown in Table 10 is based on information supplied by public breeders or companies that are releasing or marketing the variety. It is advised to consider *Phytophthora* resistance carefully as there was moderate incidence and severity of PRSR in Wisconsin in 2023.

White Mold (caused by *Sclerotinia sclerotiorum*)

The white mold fungus infects through the flowers during early reproductive growth; symptoms are delayed until early pod formation, and plant death is evident as the crop progresses towards maturity. White mold was a moderate issue in some fields across Wisconsin in 2023, especially those that were planted to known susceptible varieties. The reaction of soybean varieties to the white mold pathogen is expressed as plant mortality in the presence of high white mold pressure and reduced grain yield when incidence is above 10%. Varieties that express 25% or less plant incidence generally yield well in the presence of white mold. However, for every 10% increase in white mold incidence at the R7 growth stage, one can expect yield to be reduced 2-5 bu/A.

Soybean Cyst Nematode (*Heterodera glycines*)

Soybean cyst nematode (SCN) has gained significant importance as a yield-limiting pathogen in

Wisconsin. A major concern is that growers are not aware of its presence on their farms. SCN can cause severe stunting and chlorosis of soybean plants, but these symptoms are not always common; SCN can also cause major yield loss without obvious symptoms. The most common “symptom” caused by SCN is a yield decline over years even though best crop management practices are used. Significant advances have been made to improve varieties for resistance to SCN. High yield performance in the presence of SCN is an excellent strategy to help select varieties that are resistant or tolerant in SCN infested fields. Watch for white mold when SCN resistant varieties are planted for the first time in SCN infested fields. SCN can suppress dense crop canopies required for white mold to develop. Many SCN resistant varieties are also resistant to brown stem rot. Free SCN soil testing for growers is available through a grant from the Wisconsin Soybean Marketing Board. For testing kits please email: freescntest@mailplus.wisc.edu. For more information on SCN please visit: <https://www.thescncoalition.com/partners/university-partners/university-wisconsin-madison>

Brown Stem Rot (caused by *Cadophora gregata*)

Brown stem rot (BSR) is an important disease of soybean to consider in Wisconsin. BSR can occasionally be found in fields in Wisconsin where susceptible varieties are planted and/or where there were short rotations between soybean crops. External symptoms of BSR are not observed until after pod development begins. There are examples where fields have both BSR and sudden death syndrome, which can make diagnoses difficult since foliar symptoms are similar. There are two pathotypes of the pathogen that cause BSR. The defoliating pathotype causes more severe internal stem discoloration and defoliation of leaves, compared with the

non-defoliating pathotype that only causes internal stem symptoms. The non-defoliating pathotype may be becoming more prevalent, so be sure to cut soybean stems to identify symptoms if you notice plants that are unthrifty, stunted, or yellowing prematurely. Select resistant varieties if BSR has been a problem in the field. Some SCN-resistant soybean varieties are also resistant to BSR.

Sudden Death Syndrome

(caused by *Fusarium virguliforme*)

Sudden death syndrome (SDS) incidence was low in 2023 in Wisconsin. SDS is caused by a fungus. If SCN and SDS are both diagnosed in the same field, damage to the soybean crop can be significant. However, recent studies in Wisconsin suggest that the presence of SCN does not always mean SDS will also be found. The primary symptom of SDS is sudden leaf yellowing and browning during early pod development followed by leaf drop. Leaf symptoms of SDS and BSR can be similar, so be sure to cut soybean stems to rule out browning of the internal stem (pith) to confirm SDS. SDS resistance information is available on tech data sheets from seed companies. Several seed treatments are available on the market that have excellent efficacy against SDS. Contact your seed dealer for details and limitations of these products.

Soybean viruses and insects

Soybean aphids were localized again in 2023; whereas spider mite infestations were a greater issue across WI due to elevated drought conditions. Those growers that did not manage aphids or spider mites accrued significant yield loss. The bean leaf beetle was observed in low numbers in the southern counties. Soybean growers and agronomic advisors need to carefully monitor early season bean leaf beetle populations again in 2024. The virus situation in fields also needs to be assessed; virus-infected soy-

bean plants commonly produce discolored seed. Late season bean leaf beetle infestation can cause extensive feeding injury to pods, thus combining with *Bean pod mottle virus* to reduce seed yield and quality. Evidence is increasing that soybean varieties differ in the ability to yield in the presence of insects and associated viruses. In 2023, symptoms of *Tobacco streak virus* (TSV) were occasionally observed in soybean fields. To a lesser extent symptoms of *Alfalfa mosaic virus* (AMV) were also observed. Symptoms of *Soybean vein necrosis virus* (SVNV) were more prevalent in Wisconsin in 2023 than in 2022 but did not cause any yield reductions.

What the results mean

The performance of a variety may vary from year to year, even at the same location. Multiple tests over two or more years more accurately predict the variety performance. When selecting varieties, consider maturity, herbicide tolerance, disease resistance, and grain composition in addition to yield.

Small differences in yield may not be significant. The yield of any two entries may differ because of chance factors (such as differences in fertility, moisture availability and diseases) even though the two entries do not have inherently different yielding abilities. As an aid in determining true differences in yield, the Least Significant Difference (LSD) statistic is used. If the difference between varieties is greater than the tabulated LSD value, then the entries are said to be “significantly different.” The probability of a mean difference being greater than the LSD by chance is 1 out of 10 for the 0.10 LSD value. Data that is not significant is indicated by NS.

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Figure 1. Average performance of E3 and XF soybean varieties in Wisconsin in 2023.

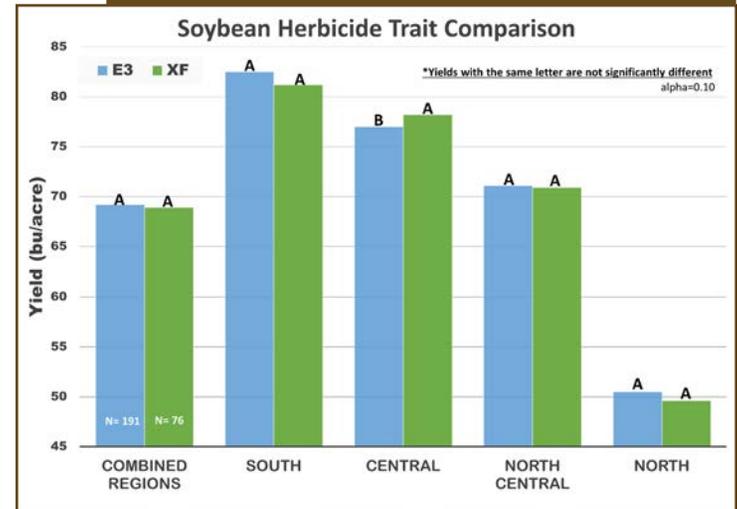


TABLE 1. General Information on the 2023 Soybean Trials

Location: Trial	Cooperators	Row Spacing (in.)	Tillage	Soil Test Results					Pesticide Applications		Dates		Average Yield (bu/A)		
				Soil Texture	pH	OM (%)	P (ppm)	K (ppm)	Pre-emergent / Pre-plant	Post-emergent	Planting	Harvest	2023	2022	2022-23
Arlington: Glyphosate Tolerant	Mike Bertram	15	no-till	Plano silt loam	7.2	3.3	41	116	2,4-D, glyphosate, Medal II, Sonic	glyphosate	11-May	19-Oct	70	84	77
Arlington: Conventional Herbicide	Mike Bertram	15	no-till	Plano silt loam	7.2	3.3	41	116	2,4-D, glyphosate, Medal II, Sonic	--	11-May	19-Oct	72	67	70
Arlington: Early Maturity	Mike Bertram	15	no-till	Plano silt loam	7.2	3.3	41	116	2,4-D, glyphosate, Medal II, Sonic	glyphosate	11-May	3-Oct	77	--	77
Clinton: Glyphosate Tolerant	Gary Sommers, Matt Rehberg	15	no-till	Ogle silt loam	6.2	5.0	147	428	2,4-D, metolachlor, Sonic	glufosinate, glyphosate, Select Max, Warrant	5-May	18-Oct	76	82	79
Fond du Lac: Glyphosate Tolerant	Ed Montsma	15	no-till	Virgil silt loam	6.0	3.8	55	187	Authority First, Dual II Magnum, glyphosate	glyphosate, Select Max	12-May	18-Oct	80	78	79
Galesville: Glyphosate Tolerant	Ken Congdon	15	no-till	Festina silt loam	6.4	3.9	117	206	Authority First, Dual II Magnum, glyphosate	Flexstar, glyphosate, Warrant	4-May	10-Oct	69	81	75
Wautoma: Glyphosate Tolerant	Sara Stelter	15	conventional	Richford loamy sand	5.9	2.1	181	267	Dual II Magnum	glyphosate, Warrant	3-May	11-Oct	83	61	72
Marshfield: Glyphosate Tolerant (North Central)	Ashley Blackburn	15	no-till	Withee silt loam	7.0	4.3	39	317	Authority First, Dual II Magnum, glyphosate	glyphosate	18-May	10-Oct	60	62	61
Marshfield: Glyphosate Tolerant (North)	Ashley Blackburn	15	no-till	Withee silt loam	7.0	4.3	39	317	Authority First, Dual II Magnum, glyphosate	glyphosate	18-May	9-Oct	61	56	59
Menomonie: Glyphosate Tolerant	Tony Mellenthin, Jerry Clark	15	no-till	Meridian silt loam	6.4	2.3	53	135	Authority First, Dual II Magnum, glyphosate	glufosinate, glyphosate, Select Max, Warrant	4-May	10-Oct	80	51	66
Menomonie: Conventional Herbicide	Tony Mellenthin, Jerry Clark	15	no-till	Meridian silt loam	6.4	2.3	53	135	Authority First, Dual II Magnum, glyphosate	Flexstar, Select Max	4-May	10-Oct	69	48	59
Platteville: Glyphosate Tolerant	Schweigert Family Farms	15	no-till	Tama silt loam	6.5	4.4	84	414	glyphosate, Zidua Pro	--	5-May	4-Oct	89	87	88
Platteville: Conventional Herbicide	Schweigert Family Farms	15	no-till	Tama silt loam	6.5	4.4	84	414	glyphosate, Zidua Pro	--	5-May	4-Oct	81	81	81
Seymour: Glyphosate Tolerant	Mike Maass	15	conventional	Onaway sandy loam	7.1	3.2	80	197	Authority First, Dual II Magnum	glyphosate, Select Max	16-May	9-Oct	73	80	77
Spooner: Glyphosate Tolerant (Dryland)	Phil Holman	15	conventional	Antigo silt loam	6.4	2.3	27	125	--	Charger Max, glyphosate, Select Max	25-May	10-Oct	37	56	47
Spooner: Glyphosate Tolerant (Irrigated)	Phil Holman	15	conventional	Cress sandy loam	6.0	2.3	26	79	--	glyphosate, Pursuit	24-May	10-Oct	52	60	56

TABLE 2. 2023 Southern Region Glyphosate Tolerant Soybean Trial (1 of 4)

Brand	Entry	Herbicide Trait ¹	Maturity Group	Maturity Date ²	2023 2-Test Average ³		2023 Yields			2023 Composition ²		2022 3-Test Average		2022 Composition ²	
					Yield (bu/A)	Lodging (1-5)	Arlington (bu/A)	Clinton (bu/A)	Platteville (bu/A)	Protein (%)	Oil (%)	Yield (bu/A)	Lodging (1-5)	Protein (%)	Oil (%)
Alloy	A23E33	E3	2.3	1-Oct	85	1.0	66	*80	90	35.5	19.1	--	--	--	--
Alloy	A26E33	E3	2.6	1-Oct	77	1.0	*69	70	83	32.6	20.3	--	--	--	--
Asgrow	AG20XF1	XF	2.0	1-Oct	80	1.0	*70	74	86	34.6	19.2	73	1.4	33.6	18.7
Asgrow	AG21XF2	XF	2.1	25-Sep	*87	1.0	*73	*79	*96	35.1	19.5	--	--	--	--
Asgrow	AG23XF3	XF	2.3	1-Oct	81	1.0	*69	70	92	33.5	20.1	--	--	--	--
Asgrow	AG27XF3	XF	2.7	8-Oct	*87	1.0	67	*83	91	32.9	19.8	--	--	--	--
Burrus	2096E	E3	2.0	1-Oct	*87	1.0	68	*79	*96	33.3	20.4	*86	1.4	32.0	19.8
Burrus	2335E	E3	2.3	1-Oct	*87	1.0	*73	*82	93	33.3	20.5	--	--	--	--
Burrus	2681E	E3	2.6	8-Oct	83	1.0	*73	*79	87	32.7	20.7	--	--	--	--
Cornelius	CB23XF63	XF	2.3	1-Oct	80	1.0	65	76	83	34.8	19.3	--	--	--	--
Cornelius	CB25XF99	XF	2.5	1-Oct	79	1.0	*69	73	86	34.2	19.2	82	1.6	32.7	19.0
Cornelius	CB27XF72	XF	2.7	1-Oct	81	1.0	*75	74	89	35.0	19.4	--	--	--	--
Cornelius	CB29XF44	XF	2.9	1-Oct	77	1.0	*72	72	82	34.4	19.0	--	--	--	--
Dairyland	DSR-2188E	E3	2.1	26-Sep	78	1.0	*70	72	84	32.6	20.9	82	1.5	32.3	20.2
Dairyland	DSR-2310E	E3	2.3	1-Oct	76	1.0	61	72	80	35.5	19.7	--	--	--	--
Dairyland	DSR-2444E	E3	2.4	1-Oct	*88	1.0	*70	*84	92	33.7	19.3	--	--	--	--
Dairyland	DSR-2562E	E3	2.5	1-Oct	77	1.0	65	71	84	34.2	19.5	79	1.0	32.6	18.9
Dairyland	DSR-2691E	E3	2.6	1-Oct	84	1.0	63	77	91	34.0	19.6	--	--	--	--
Dairyland	DSR-2717E	E3	2.7	1-Oct	*90	1.0	*76	*84	*97	32.6	20.5	*88	1.2	32.0	20.0
DONMARIO	DM 24E23	E3	2.4	1-Oct	83	1.0	*69	76	89	33.9	19.6	79	1.3	32.8	18.8
DONMARIO	DM 27E34	E3	2.7	1-Oct	*90	1.0	*70	*86	94	33.9	19.8	--	--	--	--
DONMARIO	DM 28E52	E3	2.8	5-Oct	*92	1.0	*70	*82	*103	34.0	19.2	*90	1.3	32.9	18.7
Dyna-Gro	S20EN84	E3	2.0	1-Oct	77	1.0	67	71	82	32.7	21.0	--	--	--	--
Dyna-Gro	S21EN81	E3	2.1	1-Oct	79	1.0	*74	74	84	32.6	20.6	*92	1.4	31.8	20.1
Dyna-Gro	S25EN74	E3	2.5	5-Oct	85	1.0	*76	*79	90	32.0	20.8	--	--	--	--
Dyna-Gro	S25XF64	XF	2.5	1-Oct	78	1.0	*69	68	87	33.9	19.3	--	--	--	--
Dyna-Gro	S26EN53	E3	2.6	1-Oct	83	1.0	*70	74	92	33.6	19.7	83	1.8	33.0	19.4

TABLE 2. CONTINUED. 2023 Southern Region Glyphosate Tolerant Soybean Trial (2 of 4)

Brand	Entry	Herbicide Trait ¹	Maturity Group	Maturity Date ²	2023 2-Test Average ³		2023 Yields			2023 Composition ²		2022 3-Test Average		2022 Composition ²	
					Yield (bu/A)	Lodging (1-5)	Arlington (bu/A)	Clinton (bu/A)	Platteville (bu/A)	Protein (%)	Oil (%)	Yield (bu/A)	Lodging (1-5)	Protein (%)	Oil (%)
FS HiSOY	HS 12F30	XF	1.2	22-Sep	75	1.0	*71	68	83	34.2	19.9	--	--	--	--
FS HiSOY	HS 18E30	E3	1.8	1-Oct	79	1.0	*73	75	83	31.7	20.6	--	--	--	--
FS HiSOY	HS 18F20	XF	1.8	1-Oct	82	1.0	*72	74	90	32.8	20.3	78	1.6	32.1	19.9
FS HiSOY	HS 21E20	E3	2.1	1-Oct	81	1.0	68	76	85	34.0	19.7	--	--	--	--
FS HiSOY	HS 23E10	E3	2.3	1-Oct	81	1.0	*73	72	89	32.5	20.9	83	1.7	31.0	20.8
FS HiSOY	HS 24E30	E3	2.4	1-Oct	83	1.0	*72	76	89	35.1	18.8	--	--	--	--
FS HiSOY	HS 24F00	XF	2.4	1-Oct	79	1.0	*70	69	90	35.3	19.0	82	1.3	34.3	18.6
FS HiSOY	HS 25E30	E3	2.5	8-Oct	*87	1.0	*71	*80	*95	32.9	20.5	--	--	--	--
FS HiSOY	HS 26E20	E3	2.6	1-Oct	84	1.0	*71	77	91	32.8	20.5	--	--	--	--
FS HiSOY	HS 28E10	E3	2.8	1-Oct	*89	1.0	*77	*82	*96	33.9	19.4	*89	1.1	32.8	19.0
FS HiSOY	HS 28F30	XF	2.8	1-Oct	85	1.0	*70	76	93	33.6	19.8	--	--	--	--
Genesis	G2480E	E3	2.4	25-Sep	82	1.0	*71	75	90	34.1	20.3	--	--	--	--
Genesis	G2570ES	E3	2.5	1-Oct	*88	1.0	*69	*81	*95	33.3	20.1	*87	1.8	32.4	19.3
Genesis	G2780E	E3	2.7	1-Oct	85	1.0	*72	73	*96	33.4	20.0	--	--	--	--
Golden Harvest	GH2463E3 Brand	E3	2.4	1-Oct	*86	1.0	68	74	*98	33.8	19.9	--	--	--	--
Golden Harvest	GH2674E3 Brand	E3	2.6	1-Oct	80	1.0	*69	72	88	32.3	19.9	--	--	--	--
Golden Harvest	GH2884XF Brand	XF	2.8	8-Oct	79	1.0	*75	71	87	33.5	19.7	--	--	--	--
Jung	1245XF	XF	2.4	1-Oct	82	1.0	*73	78	86	32.7	19.8	--	--	--	--
Jung	1254XF	XF	2.5	1-Oct	83	1.0	62	73	94	34.6	19.4	85	1.3	33.0	19.2
Jung	1255XF	XF	2.5	1-Oct	*86	1.0	68	*79	94	33.3	20.1	--	--	--	--
Jung	1274XF	XF	2.7	1-Oct	78	1.0	*70	70	85	35.2	19.0	--	--	--	--
Jung	1287XF	XF	2.8	9-Oct	80	1.0	*73	75	84	33.5	19.6	--	--	--	--
LG Seeds	LGS2001E3	E3	2.0	1-Oct	78	1.0	*71	72	84	31.9	20.5	--	--	--	--
Loyal Brand	L1950E	E3	1.9	25-Sep	84	1.0	*76	77	91	32.9	20.4	--	--	--	--
Loyal Brand	L2130E	E3	2.1	1-Oct	83	1.0	*79	78	88	32.3	20.9	*90	1.3	31.8	20.3
Loyal Brand	L2150E	E3	2.1	25-Sep	78	1.0	*71	72	85	35.0	19.7	83	1.9	33.8	18.6
Loyal Brand	L2550E	E3	2.5	1-Oct	*86	1.0	64	*81	91	33.0	20.2	85	1.8	32.4	19.4

TABLE 2. CONTINUED. 2023 Southern Region Glyphosate Tolerant Soybean Trial (3 of 4)

Brand	Entry	Herbicide Trait ¹	Maturity Group	Maturity Date ²	2023 2-Test Average ³		2023 Yields			2023 Composition ²		2022 3-Test Average		2022 Composition ²	
					Yield (bu/A)	Lodging (1-5)	Arlington (bu/A)	Clinton (bu/A)	Platteville (bu/A)	Protein (%)	Oil (%)	Yield (bu/A)	Lodging (1-5)	Protein (%)	Oil (%)
NK	NK19-T8E3S	E3	1.9	25-Sep	79	1.0	68	69	89	33.5	20.4	*87	1.7	33.3	19.3
NK	NK20-K2XF	XF	2.0	1-Oct	81	1.0	*70	76	86	32.9	20.8	--	--	--	--
NK	NK21-C2E3	E3	2.1	1-Oct	84	1.0	*75	76	93	34.2	19.7	--	--	--	--
NK	NK24-A2E3S	E3	2.4	26-Sep	83	1.0	*69	75	92	33.2	20.2	*87	1.8	32.9	19.1
NK	NK26-M6E3	E3	2.6	1-Oct	*87	1.0	65	*81	92	32.6	19.9	--	--	--	--
NK	NK28-B9E3S	E3	2.8	1-Oct	76	1.0	61	74	78	32.4	19.9	--	--	--	--
NK	NK28-P6XF	XF	2.8	1-Oct	80	1.0	*76	77	83	33.2	19.7	--	--	--	--
O'Brien	O'SOY2024EL-3	E3	2.0	1-Oct	83	1.0	*70	75	92	33.4	20.3	--	--	--	--
O'Brien	O'SOY2523EL-3	E3	2.5	1-Oct	84	1.0	*76	75	94	33.2	20.1	--	--	--	--
P3 Genetics	2322E	E3	2.2	25-Sep	76	1.0	59	71	81	35.2	19.4	85	1.7	33.7	19.1
P3 Genetics	2424E	E3	2.4	1-Oct	85	1.0	*76	78	92	33.0	19.7	--	--	--	--
P3 Genetics	2325E	E3	2.5	1-Oct	84	1.0	*78	*80	89	33.3	20.1	--	--	--	--
P3 Genetics	2326E	E3	2.6	5-Oct	79	1.0	66	72	85	33.3	20.3	*87	1.4	32.2	19.7
P3 Genetics	2429E	E3	2.9	1-Oct	80	1.0	66	77	82	32.8	19.7	--	--	--	--
Renk	RS253NXF	XF	2.5	1-Oct	83	1.0	*77	78	89	34.3	19.0	84	1.7	32.5	19.1
Stine	17EE32	E3	1.7	22-Sep	77	1.0	65	67	86	33.8	20.4	--	--	--	--
Stine	19EE62	E3	1.9	1-Oct	78	1.0	*75	74	83	32.8	20.4	*88	1.4	31.7	20.0
Stine	22EF23	E3	2.2	1-Oct	76	1.0	68	73	80	33.9	19.9	--	--	--	--
Stine	23EE06	E3	2.3	1-Oct	84	1.0	68	76	92	34.8	19.6	--	--	--	--
Stine	24EG23	E3	2.4	1-Oct	83	1.0	*70	78	88	32.6	19.9	--	--	--	--
Stine	25FD02	XF	2.5	1-Oct	83	1.0	66	*79	88	35.1	19.2	--	--	--	--
Stine	29EF02	E3	2.9	8-Oct	79	1.0	*75	73	85	33.0	19.6	--	--	--	--
Tracy	2253E	E3	2.2	5-Oct	83	1.0	*71	*79	87	35.2	19.7	--	--	--	--
Tracy	2453E	E3	2.4	1-Oct	80	1.0	*70	73	86	33.0	20.2	--	--	--	--
Tracy	2454E	E3	2.4	26-Sep	*87	1.0	*73	77	*96	32.8	19.9	--	--	--	--
Tracy	2654E	E3	2.6	1-Oct	80	1.0	67	75	85	32.6	20.5	--	--	--	--

TABLE 2. CONTINUED. 2023 Southern Region Glyphosate Tolerant Soybean Trial (4 of 4)

Brand	Entry	Herbicide Trait ¹	Maturity Group	Maturity Date ²	2023 2-Test Average ³		2023 Yields			2023 Composition ²		2022 3-Test Average		2022 Composition ²		
					Yield (bu/A)	Lodging (1-5)	Arlington (bu/A)	Clinton (bu/A)	Platteville (bu/A)	Protein (%)	Oil (%)	Yield (bu/A)	Lodging (1-5)	Protein (%)	Oil (%)	
Xitavo	XO 1822E	E3	1.8	25-Sep	77	1.0	*71	67	88	33.9	20.2	--	--	--	--	
Xitavo	XO 2181E	E3	2.1	1-Oct	85	1.0	*72	*83	87	32.7	20.8	*91	1.5	31.8	20.1	
Xitavo	XO 2282E	E3	2.2	1-Oct	78	1.0	*70	76	81	33.6	20.1	*88	1.3	32.5	19.5	
Xitavo	XO 2323E	E3	2.3	1-Oct	78	1.0	68	78	79	34.5	19.8	79	2.2	33.1	19.2	
Xitavo	XO 2444E	E3	2.4	1-Oct	78	1.0	*70	70	87	33.4	19.9	--	--	--	--	
Xitavo	XO 2501E	E3	2.5	1-Oct	*86	1.0	65	*83	90	33.0	21.0	85	2.1	31.8	20.5	
Xitavo	XO 2613E	E3	2.6	1-Oct	78	1.0	*75	78	79	33.8	19.6	*86	1.5	33.1	19.2	
Xitavo	XO 2832E	E3	2.8	5-Oct	*91	1.0	*72	78	*103	33.5	19.7	*93	1.5	33.3	18.7	
Xitavo	XO 2963E	E3	2.9	1-Oct	84	1.0	64	76	93	33.0	19.8	85	2.0	32.1	19.5	
				Mean	30-Sep	82	1.0	70	76	89	33.6	19.9	84	1.6	32.8	19.4
				LSD (0.10)	--	6	--	10	7	8	0.6	0.3	4	NS	0.5	0.4

*Yields preceded by an asterisk are not significantly different (0.10 level) than the highest yielding cultivar.

¹ Herbicide Trait : XF = dicamba/glufosinate/glyphosate, E3 = glufosinate/glyphosate/2,4-D

² Maturity date, protein, and oil determined at the Arlington site.

³ Due to high field variability at the Arlington location from drought conditions, only Clinton and Platteville were included in the multi-test yield average.

Results that are shaded provide the best estimate of relative variety performance.

TABLE 3. 2023 Central Region Glyphosate Tolerant Soybean Trial (1 of 4)

Brand	Entry	Herbicide Trait ¹	Maturity Group	Maturity Date ²	2023 3-Test Average		2023 Yields			2023 Composition ²		2022 3-Test Average ³		2022 Composition ⁴	
					Yield (bu/A)	Lodging (1-5)	Fond du Lac (bu/A)	Galesville (bu/A)	Wautoma (bu/A)	Protein (%)	Oil (%)	Yield (bu/A)	Lodging (1-5)	Protein (%)	Oil (%)
Alloy	A16E34	E3	1.4	2-Oct	76	1.0	77	70	81	31.3	20.6	--	--	--	--
Apex	AE1930	E3	1.9	2-Oct	74	1.0	79	66	78	30.6	20.8	73	1.0	29.7	21.1
Apex	AE2220	E3	2.2	2-Oct	76	1.0	79	69	80	31.1	20.6	*74	1.1	31.4	20.9
Asgrow	AG15XF2	XF	1.5	25-Sep	76	1.0	74	*73	81	30.3	20.5	*74	1.0	30.2	20.6
Asgrow	AG18XF1	XF	1.8	2-Oct	*81	1.0	*80	*73	*91	30.8	20.6	*76	1.0	30.7	20.9
Asgrow	AG20XF1	XF	2.0	5-Oct	*78	1.0	*84	67	83	32.8	19.6	69	1.0	31.5	20.5
Asgrow	AG21XF2	XF	2.1	2-Oct	*82	1.0	*83	*78	*84	32.7	20.1	*75	1.0	31.4	20.8
BioGene	BG9164E3	E3	1.6	27-Sep	67	1.0	72	56	74	31.1	21.0	--	--	--	--
Dairyland	DSR-1505E	E3	1.5	20-Sep	*79	1.0	77	71	*90	33.4	19.7	*74	1.0	33.8	19.5
Dairyland	DSR-1788E	E3	1.7	27-Sep	77	1.0	*80	69	*84	33.1	20.7	--	--	--	--
Dairyland	DSR-1919E	E3	1.9	2-Oct	74	1.0	74	68	81	29.8	21.3	72	1.0	30.0	21.5
Dairyland	DSR-2188E	E3	2.1	2-Oct	77	1.0	79	71	82	30.0	21.2	*75	1.0	31.0	21.1
Dairyland	DSR-2310E	E3	2.3	7-Oct	73	1.0	69	66	83	32.8	20.1	--	--	--	--
Dairyland	DSR-2444E	E3	2.4	2-Oct	*81	1.0	*87	68	*89	30.5	20.1	--	--	--	--
Dyna-Gro	S16EN42	E3	1.6	27-Sep	*80	1.0	*80	71	*89	32.0	20.5	--	--	--	--
Dyna-Gro	S20EN84	E3	2.0	2-Oct	77	1.0	*80	70	81	30.4	21.3	--	--	--	--
Dyna-Gro	S20EN92	E3	2.0	2-Oct	*79	1.0	*85	68	83	31.6	20.4	*80	1.0	32.4	20.6
Dyna-Gro	S21EN81	E3	2.1	2-Oct	*80	1.0	*85	66	*90	29.6	21.3	*78	1.0	29.0	21.6
FS HiSOY	HS 12F30	XF	1.2	22-Sep	77	1.0	73	70	*89	32.6	20.2	--	--	--	--
FS HiSOY	HS 18E30	E3	1.8	2-Oct	77	1.0	*82	69	79	29.6	20.9	--	--	--	--
FS HiSOY	HS 18F20	XF	1.8	27-Sep	77	1.0	*80	71	81	31.1	20.5	*75	1.0	31.1	20.7
FS HiSOY	HS 21E20	E3	2.1	2-Oct	*79	1.0	*85	67	*86	31.3	20.4	--	--	--	--

TABLE 3. CONTINUED. 2023 Central Region Glyphosate Tolerant Soybean Trial (2 of 4)

Brand	Entry	Herbicide Trait ¹	Maturity Group	Maturity Date ²	2023 3-Test Average		2023 Yields			2023 Composition ²		2022 3-Test Average ³		2022 Composition ⁴	
					Yield (bu/A)	Lodging (1-5)	Fond du Lac (bu/A)	Galesville (bu/A)	Wautoma (bu/A)	Protein (%)	Oil (%)	Yield (bu/A)	Lodging (1-5)	Protein (%)	Oil (%)
FS HiSOY	HS 23E10	E3	2.3	2-Oct	*79	1.0	*83	71	82	29.9	21.1	*76	1.2	28.9	22.1
FS HiSOY	HS 24E30	E3	2.4	5-Oct	77	1.0	*84	*73	73	32.4	19.9	--	--	--	--
FS HiSOY	HS 24F00	XF	2.4	2-Oct	73	1.0	*82	65	73	33.0	19.5	*80	1.0	32.1	20.0
Genesis	G1950E	E3	1.9	27-Sep	*78	1.0	*85	69	79	30.8	20.5	*74	1.0	32.0	20.2
Genesis	G2180E	E3	2.1	2-Oct	75	1.0	*80	67	80	31.7	20.8	--	--	--	--
Genesis	G2480E	E3	2.4	24-Sep	*78	1.0	*86	67	80	31.5	20.1	--	--	--	--
Golden Harvest	GH1614E3 Brand	E3	1.6	22-Sep	71	1.0	73	62	77	31.6	20.3	--	--	--	--
Golden Harvest	GH1973E3 Brand	E3	1.9	2-Oct	74	1.0	71	65	*87	30.6	20.6	--	--	--	--
Golden Harvest	GH2004XF Brand	XF	2.0	2-Oct	*78	1.0	78	71	*86	30.4	21.0	--	--	--	--
Golden Harvest	GH2292E3 Brand	E3	2.2	2-Oct	*81	1.0	*86	*72	*86	31.7	20.0	*75	1.0	33.2	19.9
Jung	1205XF	XF	2.0	7-Oct	*81	1.0	*86	*72	*85	30.2	20.1	--	--	--	--
Jung	1215XF	XF	2.1	2-Oct	77	1.0	*83	70	77	32.1	20.5	--	--	--	--
Jung	1227XF	XF	2.2	2-Oct	*78	1.0	*86	65	81	31.6	20.4	68	1.0	30.5	21.0
Legacy Seeds	LS124-23	XF	1.2	27-Sep	69	1.0	70	66	72	32.9	20.1	--	--	--	--
Legacy Seeds	LS154-22	XF	1.5	27-Sep	*80	1.0	*80	69	*89	31.1	20.7	*75	1.0	30.2	21.0
Legacy Seeds	LS174-23	XF	1.7	27-Sep	73	1.0	78	68	73	31.1	21.1	--	--	--	--
Legacy Seeds	LS184-21	XF	1.8	2-Oct	*79	1.0	*82	*73	81	31.0	20.6	72	1.0	30.4	21.2
Legacy Seeds	LS194-23	XF	1.9	2-Oct	*81	1.0	*84	*74	*84	30.5	20.7	--	--	--	--
LG Seeds	LGS1385XF	XF	1.3	25-Sep	*81	1.0	*83	*75	*85	32.9	19.8	--	--	--	--
LG Seeds	LGS1939E3	E3	1.9	2-Oct	74	1.0	75	60	*89	30.5	20.5	*77	1.0	30.9	20.7
LG Seeds	LGS2001E3	E3	2.0	2-Oct	*80	1.0	*82	*72	*87	30.1	20.6	--	--	--	--
LG Seeds	LGS2025XF	XF	2.0	7-Oct	76	1.0	75	*75	80	32.3	20.1	73	1.0	32.5	20.4

TABLE 3. CONTINUED. 2023 Central Region Glyphosate Tolerant Soybean Trial (3 of 4)

Brand	Entry	Herbicide Trait ¹	Maturity Group	Maturity Date ²	2023 3-Test Average		2023 Yields			2023 Composition ²		2022 3-Test Average ³		2022 Composition ⁴	
					Yield (bu/A)	Lodging (1-5)	Fond du Lac (bu/A)	Galesville (bu/A)	Wautoma (bu/A)	Protein (%)	Oil (%)	Yield (bu/A)	Lodging (1-5)	Protein (%)	Oil (%)
Loyal Brand	L1540E	E3	1.5	27-Sep	*78	1.0	*82	68	*85	31.5	20.7	*76	1.0	31.1	20.8
Loyal Brand	L1660E	E3	1.6	27-Sep	*78	1.0	78	*74	81	31.9	20.6	--	--	--	--
Loyal Brand	L1730E	E3	1.7	27-Sep	*81	1.0	*84	*72	*86	31.6	20.5	71	1.0	33.4	19.9
Loyal Brand	L1950E	E3	1.9	2-Oct	*79	1.0	*80	65	*90	30.5	20.5	68	1.0	29.6	21.2
Loyal Brand	L2130E	E3	2.1	25-Sep	*78	1.0	*81	66	*86	30.0	21.1	*75	1.0	30.1	21.2
Loyal Brand	L2150E	E3	2.1	27-Sep	75	1.0	*80	63	83	32.7	20.0	*75	1.1	32.9	19.9
NK	NK11-A4E3	E3	1.1	22-Sep	*81	1.0	*81	*74	*87	31.5	20.9	--	--	--	--
NK	NK11-U2XF	XF	1.1	22-Sep	*80	1.0	*80	*75	*85	32.3	20.4	--	--	--	--
NK	NK16-Z6E3	E3	1.6	27-Sep	75	1.0	76	66	82	31.0	20.4	--	--	--	--
NK	NK18-D1XF	XF	1.8	27-Sep	77	1.0	*80	*73	77	32.6	20.6	--	--	--	--
NK	NK19-T8E3S	E3	1.9	27-Sep	74	1.0	75	63	*86	31.0	20.7	71	1.0	31.7	20.5
NK	NK20-K2XF	XF	2.0	27-Sep	*78	1.0	79	*72	83	31.1	20.7	--	--	--	--
NK	NK21-C2E3	E3	2.1	2-Oct	*83	1.0	*83	*77	*88	31.7	20.0	--	--	--	--
NK	NK24-A2E3S	E3	2.4	2-Oct	*80	1.0	*86	69	*86	31.0	20.4	*79	1.2	30.5	20.7
O'Brien	O'SOY1524EL-3	E3	1.5	27-Sep	73	1.0	70	66	82	31.9	20.5	--	--	--	--
O'Brien	O'SOY2024EL-3	E3	2.0	2-Oct	73	1.0	79	64	77	29.8	20.8	--	--	--	--
O'Brien	O'SOY2523EL-3	E3	2.5	2-Oct	*81	1.0	*88	65	*89	30.9	20.5	--	--	--	--
Renk	RS194XF	XF	1.9	2-Oct	*83	1.0	*86	*76	*86	31.2	20.5	--	--	--	--
Stine	15EE32	E3	1.5	27-Sep	76	1.0	*83	65	80	31.5	20.6	--	--	--	--
Stine	17EE32	E3	1.7	2-Oct	*78	1.0	79	68	*87	31.1	20.7	--	--	--	--
Stine	19EC12	E3	1.9	27-Sep	*80	1.0	*80	70	*91	29.8	21.2	*75	1.0	30.0	21.1
Stine	19EE62	E3	1.9	27-Sep	77	1.0	78	65	*87	30.3	20.6	*79	1.1	30.2	20.9
Stine	22EF23	E3	2.2	2-Oct	*80	1.0	*83	70	*88	31.6	20.4	--	--	--	--

TABLE 3. CONTINUED. 2023 Central Region Glyphosate Tolerant Soybean Trial (4 of 4)

Brand	Entry	Herbicide Trait ¹	Maturity Group	Maturity Date ²	2023 3-Test Average		2023 Yields			2023 Composition ²		2022 3-Test Average ³		2022 Composition ⁴		
					Yield (bu/A)	Lodging (1-5)	Fond du Lac (bu/A)	Galesville (bu/A)	Wautoma (bu/A)	Protein (%)	Oil (%)	Yield (bu/A)	Lodging (1-5)	Protein (%)	Oil (%)	
Tracy	1654E	E3	1.6	27-Sep	77	1.0	79	*73	78	31.7	20.7	--	--	--	--	
Tracy	1854E	E3	1.8	27-Sep	76	1.0	*82	64	83	30.3	21.2	--	--	--	--	
Tracy	2153E	E3	2.1	2-Oct	71	1.0	79	62	72	33.1	19.7	--	--	--	--	
Xitavo	XO 1133E	E3	1.1	25-Sep	71	1.0	72	63	77	31.2	20.2	--	--	--	--	
Xitavo	XO 1212E	E3	1.2	27-Sep	75	1.0	*81	66	80	33.4	20.0	73	1.0	32.6	20.6	
Xitavo	XO 1372E	E3	1.3	22-Sep	76	1.0	78	65	*84	30.8	21.5	68	1.0	29.3	21.9	
Xitavo	XO 1404E	E3	1.4	27-Sep	73	1.0	76	67	77	31.7	20.3	--	--	--	--	
Xitavo	XO 1632E	E3	1.6	27-Sep	*80	1.0	*82	*72	*86	32.4	20.0	--	--	--	--	
Xitavo	XO 1822E	E3	1.8	27-Sep	*79	1.0	74	*73	*90	31.7	20.4	72	1.0	30.9	21.0	
Xitavo	XO 2181E	E3	2.1	2-Oct	*80	1.0	*82	70	*89	30.2	20.9	71	1.0	29.9	21.2	
Xitavo	XO 2282E	E3	2.2	2-Oct	*80	1.0	*84	68	*89	31.0	20.5	*76	1.1	31.4	20.8	
Xitavo	XO 2323E	E3	2.3	2-Oct	*79	1.0	*84	71	81	31.4	20.1	73	1.2	31.2	20.8	
Xitavo	XO 2444E	E3	2.4	7-Oct	*79	1.0	*81	71	*85	30.7	20.4	--	--	--	--	
				Mean	29-Sep	77	1.0	80	69	83	31.3	20.5	73	1.0	31.3	20.8
				LSD (0.10)	--	5	--	8	6	7	0.8	0.4	6	--	0.9	0.4

* Yields preceded by an asterisk are not significantly different (0.10 level) than the highest yielding cultivar.

¹ Herbicide Trait : XF = dicamba/glufosinate/glyphosate, E3 = glufosinate/glyphosate/2,4-D

² Maturity date, protein, and oil determined at the Fond du Lac site in 2023.

³ The three locations in 2022 included Fond du Lac, Galesville, and Hancock.

⁴ Protein and oil determined at the Hancock site in 2022.

Results that are shaded provide the best estimate of relative variety performance.

TABLE 4. 2023 North Central Region Glyphosate Tolerant Soybean Trial (1 of 3)

Brand	Entry	Herbicide Trait ¹	Maturity Group	Maturity Date ²	2023 3-Test Average		2023 Yields				2023 Composition ²		2022 3-Test Average		2022 Composition ²	
					Yield (bu/A)	Lodging (1-5)	Marshfield (bu/A)	Menomonie (bu/A)	Seymour (bu/A)	WM% ³	Protein (%)	Oil (%)	Yield (bu/A)	Lodging (1-5)	Protein (%)	Oil (%)
Alloy	A16E34	E3	1.4	25-Sep	*74	1.0	*63	*84	74	20	35.0	18.3	--	--	--	--
Apex	AE1220	E3	1.2	25-Sep	71	1.0	61	75	76	15	36.2	18.2	*67	1.0	34.3	19.2
Apex	AE1410	E3	1.4	18-Sep	70	1.0	59	77	74	13	34.1	19.0	*68	1.0	32.2	20.2
Apex	AE1710	E3	1.7	20-Sep	72	1.0	*64	79	74	15	34.5	18.3	*68	1.0	32.6	19.5
Asgrow	AG11XF4	XF	1.1	18-Sep	68	1.0	59	77	68	39	35.0	18.2	--	--	--	--
Asgrow	AG15XF2	XF	1.5	25-Sep	72	1.0	56	*83	75	15	35.4	17.9	*68	1.0	32.1	19.4
Asgrow	AG18XF1	XF	1.8	28-Sep	70	1.0	60	81	69	35	35.0	18.3	*67	1.0	31.8	19.9
Asgrow	AG20XF1	XF	2.0	1-Oct	72	1.0	58	*87	71	20	34.6	18.3	--	--	--	--
BioGene	BG9124E3	E3	1.2	11-Sep	69	1.0	59	72	76	3	35.5	18.5	--	--	--	--
BioGene	BG9164E3	E3	1.6	25-Sep	67	1.0	54	77	68	20	34.4	19.0	--	--	--	--
Dairyland	DSR-0757E	E3	0.7	11-Sep	65	1.0	58	71	66	29	34.0	18.9	53	1.0	31.2	20.2
Dairyland	DSR-0920E	E3	0.9	20-Sep	70	1.0	*62	75	72	40	35.9	18.1	63	1.0	33.9	18.9
Dairyland	DSR-1290E	E3	1.2	11-Sep	*76	1.3	*64	82	*82	8	33.9	18.8	63	1.0	31.0	20.6
Dairyland	DSR-1450E	E3	1.4	20-Sep	*76	1.0	*65	*89	75	28	34.3	18.9	65	1.0	31.9	20.4
Dairyland	DSR-1505E	E3	1.5	20-Sep	*73	1.0	61	80	77	14	36.8	17.4	*68	1.0	34.2	18.8
Dairyland	DSR-1788E	E3	1.7	20-Sep	71	1.0	59	81	72	16	36.7	18.1	--	--	--	--
Genesis	G1260E	E3	1.2	25-Sep	*74	1.0	*65	77	79	0	36.1	18.3	*67	1.0	34.5	19.1
Genesis	G1560E	E3	1.5	20-Sep	*73	1.0	61	*87	71	40	35.8	17.8	*69	1.0	32.7	19.7
Genesis	G1760E	E3	1.7	20-Sep	66	1.0	59	78	61	83	36.1	17.5	65	1.0	32.1	20.0
Golden Harvest	GH1472E3 Brand	E3	1.4	18-Sep	72	1.0	*63	*83	71	41	36.6	17.9	65	1.0	33.4	19.6
Golden Harvest	GH1534E3 Brand	E3	1.5	18-Sep	70	1.0	59	78	73	17	34.3	18.7	--	--	--	--
Golden Harvest	GH1762XF Brand	XF	1.7	20-Sep	*76	1.0	*62	*93	72	23	34.9	18.4	65	1.0	33.1	19.4
Jung	1105XF	XF	1.0	18-Sep	*73	1.0	59	82	77	4	35.6	18.1	--	--	--	--
Jung	1123XF	XF	1.2	18-Sep	69	1.0	*62	74	72	9	34.7	18.8	--	--	--	--
Jung	1156XF	XF	1.5	20-Sep	*73	1.0	59	80	*80	9	35.7	17.8	--	--	--	--
Jung	1194XF	XF	1.9	25-Sep	71	1.0	56	*86	71	27	34.4	18.9	--	--	--	--

TABLE 4. CONTINUED. 2023 North Central Region Glyphosate Tolerant Soybean Trial (2 of 3)

Brand	Entry	Herbicide Trait ¹	Maturity Group	Maturity Date ²	2023 3-Test Average		2023 Yields				2023 Composition ²		2022 3-Test Average		2022 Composition ²	
					Yield (bu/A)	Lodging (1-5)	Marshfield (bu/A)	Menomonie (bu/A)	Seymour (bu/A)	WM% ³	Protein (%)	Oil (%)	Yield (bu/A)	Lodging (1-5)	Protein (%)	Oil (%)
Legacy Seeds	LS124-23	XF	1.2	18-Sep	71	1.0	57	*83	73	2	35.2	18.3	--	--	--	--
Legacy Seeds	LS154-22	XF	1.5	25-Sep	72	1.0	60	81	75	31	34.7	18.4	64	1.0	31.5	20.0
Legacy Seeds	LS174-23	XF	1.7	20-Sep	68	1.0	58	76	71	26	34.7	18.7	--	--	--	--
Legacy Seeds	LS184-21	XF	1.8	25-Sep	68	1.0	57	*84	63	35	34.9	18.6	65	1.0	31.8	20.0
Legacy Seeds	LS194-23	XF	1.9	1-Oct	*74	1.0	*62	*85	74	40	33.8	18.7	--	--	--	--
LG Seeds	LGS1551E3	E3	1.5	25-Sep	71	1.0	59	82	71	23	34.1	18.8	--	--	--	--
LG Seeds	LGS1585XF	XF	1.5	25-Sep	71	1.0	61	78	75	35	33.9	18.7	*66	1.0	33.2	19.1
LG Seeds	LGS1832E3	E3	1.8	25-Sep	*73	1.0	*62	*83	73	12	33.1	19.5	--	--	--	--
Loyal Brand	L1160E	E3	1.1	18-Sep	68	1.0	*62	61	78	1	35.7	18.6	--	--	--	--
Loyal Brand	L1230E	E3	1.2	11-Sep	*79	1.3	61	*87	*87	5	33.3	19.1	64	1.0	31.0	20.6
Loyal Brand	L1260E	E3	1.2	18-Sep	70	1.0	60	74	74	8	35.1	18.6	--	--	--	--
Loyal Brand	L1540E	E3	1.5	20-Sep	*73	1.0	60	82	76	58	35.5	18.0	*70	1.0	32.5	19.9
Loyal Brand	L1660E	E3	1.6	25-Sep	72	1.2	59	79	78	14	35.1	18.2	--	--	--	--
Loyal Brand	L1730E	E3	1.7	25-Sep	*74	1.0	*62	82	78	22	34.3	18.5	*67	1.0	32.1	19.7
Loyal Brand	L1950E	E3	1.9	25-Sep	69	1.0	60	75	72	4	34.5	18.3	64	1.0	31.3	20.2
NK	NK11-A4E3	E3	1.1	20-Sep	71	1.0	60	75	79	3	34.1	19.1	--	--	--	--
NK	NK11-U2XF	XF	1.1	18-Sep	*75	1.0	59	*88	78	10	37.1	17.7	--	--	--	--
NK	NK16-Z6E3	E3	1.6	20-Sep	70	1.0	61	75	72	38	35.5	18.1	--	--	--	--
NK	NK18-D1XF	XF	1.8	25-Sep	68	1.0	54	*85	65	35	35.7	18.6	--	--	--	--
O'Brien	O'SOY1524EL-3	E3	1.5	25-Sep	*74	1.0	60	81	*82	13	35.0	18.3	--	--	--	--
O'Brien	O'SOY2024EL-3	E3	2.0	1-Oct	69	1.0	57	77	72	14	33.4	18.9	--	--	--	--
Renk	RS153NXF	XF	1.5	20-Sep	*73	1.0	*62	81	76	11	34.6	18.7	*66	1.0	31.5	20.0
Stine	11EC02	E3	1.1	18-Sep	*75	1.7	*64	80	*81	14	34.0	18.9	*68	1.0	31.2	20.6
Stine	15EE32	E3	1.5	25-Sep	69	1.0	59	80	69	38	36.1	17.5	--	--	--	--
Stine	17EE32	E3	1.7	20-Sep	64	1.0	56	*84	53	76	36.1	17.7	*71	1.0	32.4	19.8

TABLE 4. CONTINUED. 2023 North Central Region Glyphosate Tolerant Soybean Trial (3 of 3)

Brand	Entry	Herbicide Trait ¹	Maturity Group	Maturity Date ²	2023 3-Test Average		2023 Yields				2023 Composition ²		2022 3-Test Average		2022 Composition ²		
					Yield (bu/A)	Lodging (1-5)	Marshfield (bu/A)	Menomonie (bu/A)	Seymour (bu/A)	WM% ³	Protein (%)	Oil (%)	Yield (bu/A)	Lodging (1-5)	Protein (%)	Oil (%)	
Xitavo	XO 0993E	E3	0.9	11-Sep	67	1.0	57	75	69	9	35.7	18.2	59	1.0	32.3	20.2	
Xitavo	XO 1133E	E3	1.1	20-Sep	65	1.0	60	78	57	43	35.3	17.6	--	--	--	--	
Xitavo	XO 1212E	E3	1.2	25-Sep	*73	1.0	*64	79	78	4	35.7	18.3	62	1.0	34.4	19.0	
Xitavo	XO 1372E	E3	1.3	18-Sep	*76	1.2	*64	81	*82	24	34.4	19.0	65	1.0	31.8	20.4	
Xitavo	XO 1404E	E3	1.4	20-Sep	66	1.0	57	71	69	23	35.2	18.0	--	--	--	--	
Xitavo	XO 1632E	E3	1.6	20-Sep	70	1.0	58	*87	65	68	35.5	18.0	*71	1.0	32.8	19.7	
Xitavo	XO 1822E	E3	1.8	25-Sep	68	1.3	57	*83	65	73	35.4	17.8	*70	1.0	32.0	19.8	
				Mean	21-Sep	71	1.0	60	80	73	24	35.0	18.4	64	1.0	32.5	19.7
				LSD (0.10)	--	6	NS	3	10	7	24	0.6	0.3	5	--	0.5	0.2

* Yields preceded by an asterisk are not significantly different (0.10 level) than the highest yielding cultivar.

¹ Herbicide Trait : XF = dicamba/glufosinate/glyphosate, E3 = glufosinate/glyphosate/2,4-D

² Maturity date, protein, and oil determined at the Marshfield site.

³ WM% = White mold expressed as percent of diseased plants.

Results that are shaded provide the best estimate of relative variety performance.

TABLE 5. 2023 Northern Region Glyphosate Tolerant Soybean Trial (1 of 2)

Brand	Entry	Herbicide Trait ¹	Maturity Group	2023 3-Test Average			2023 Yields			2023 Composition ²		2022 3-Test Average		2022 Composition ²	
				Maturity Date	Yield (bu/A)	Lodging (1-5)	Marshfield (bu/A)	Spooner Dryland (bu/A)	Spooner Irrigated (bu/A)	Protein (%)	Oil (%)	Yield (bu/A)	Lodging (1-5)	Protein (%)	Oil (%)
Apex	AE0720	E3	0.7	23-Sep	51	1.0	*66	*39	49	35.3	18.0	60	1.0	33.5	19.0
Apex	AE0930	E3	0.9	24-Sep	51	1.0	57	*47	48	34.9	18.7	--	--	--	--
Apex	AE1040	E3	1.0	28-Sep	50	1.0	60	*42	49	34.5	18.5	--	--	--	--
Apex	AE1220	E3	1.2	2-Oct	*53	1.0	*63	*42	54	36.1	18.4	*61	1.0	34.4	19.1
Asgrow	AG07XF4	XF	0.7	27-Sep	51	1.0	*63	36	52	35.3	18.4	--	--	--	--
Asgrow	AG08XF4	XF	0.8	25-Sep	49	1.0	*63	36	49	34.7	19.1	--	--	--	--
Asgrow	AG09XF3	XF	0.9	28-Sep	51	1.0	61	*39	52	34.2	18.0	58	1.0	31.7	19.2
Asgrow	AG11XF4	XF	1.1	29-Sep	50	1.0	58	*41	51	35.1	18.2	--	--	--	--
Dairyland	DSR-0757E	E3	0.7	30-Sep	49	1.0	62	32	53	33.7	19.2	56	1.0	30.8	20.3
Dairyland	DSR-0920E	E3	0.9	30-Sep	*54	1.0	*64	*46	52	35.6	18.6	59	1.0	34.1	19.1
Dairyland	DSR-1290E	E3	1.2	29-Sep	*57	1.0	*64	*44	*62	34.1	19.2	--	--	--	--
Genesis	G0880E	E3	0.8	24-Sep	50	1.0	57	*41	51	35.6	18.5	--	--	--	--
Genesis	G1260E	E3	1.2	3-Oct	52	1.0	*64	*40	51	36.2	18.3	--	--	--	--
Golden Harvest	GH1194E3 Brand	E3	1.1	1-Oct	50	1.0	59	34	56	34.3	19.1	--	--	--	--
Jung	1072R2X	RR2X	0.7	24-Sep	50	1.0	*63	38	50	34.1	18.9	58	1.0	32.1	19.6
Jung	1073XF	XF	0.7	26-Sep	47	1.0	58	31	53	35.4	18.9	--	--	--	--
Jung	1093XF	XF	0.9	28-Sep	50	1.0	59	37	54	35.3	18.9	--	--	--	--
Jung	1104XF	XF	1.0	29-Sep	49	1.0	59	38	50	36.3	18.3	58	1.0	33.7	19.8
Legacy Seeds	LS124-23	XF	1.2	28-Sep	46	1.0	60	32	47	36.0	18.1	--	--	--	--
Legacy Seeds	LS154-22	XF	1.5	2-Oct	52	1.0	61	*40	55	34.6	18.7	--	--	--	--
LG Seeds	LGS1043E3	E3	1.0	1-Oct	48	1.0	59	35	51	35.8	17.6	--	--	--	--
LG Seeds	LGS1385XF	XF	1.3	1-Oct	52	1.0	59	*43	53	34.9	18.2	*61	1.0	33.5	19.2

TABLE 5. CONTINUED. 2023 Northern Region Glyphosate Tolerant Soybean Trial (2 of 2)

Brand	Entry	Herbicide Trait ¹	Maturity Group	2023 3-Test Average			2023 Yields			2023 Composition ²		2022 3-Test Average		2022 Composition ²	
				Maturity Date	Yield (bu/A)	Lodging (1-5)	Marshfield (bu/A)	Spooner Dryland (bu/A)	Spooner Irrigated (bu/A)	Protein (%)	Oil (%)	Yield (bu/A)	Lodging (1-5)	Protein (%)	Oil (%)
Loyal Brand	L0860E	E3	0.8	23-Sep	51	1.0	59	*41	53	35.8	18.2	--	--	--	--
Loyal Brand	L1050E	E3	1.0	1-Oct	51	1.0	62	38	53	35.8	17.5	59	1.0	33.0	19.1
Loyal Brand	L1160E	E3	1.1	26-Sep	50	1.0	60	36	53	34.8	19.0	--	--	--	--
Loyal Brand	L1230E	E3	1.2	29-Sep	52	1.0	*64	36	56	33.8	19.1	*61	1.0	30.5	20.9
Loyal Brand	L1260E	E3	1.2	26-Sep	49	1.0	58	*40	49	35.4	18.7	--	--	--	--
NK	NK03-J1XF	XF	0.3	21-Sep	48	1.0	*63	30	51	34.7	19.1	--	--	--	--
NK	NK04-A9E3	E3	0.4	23-Sep	48	1.0	*63	31	52	35.1	18.3	--	--	--	--
NK	NK07-B1XF	XF	0.7	26-Sep	51	1.0	61	37	54	32.9	19.3	--	--	--	--
NK	NK07-G5E3	E3	0.7	26-Sep	48	1.0	57	34	52	34.6	18.5	--	--	--	--
NK	NK11-A4E3	E3	1.1	2-Oct	52	1.0	*63	36	*57	33.8	19.3	--	--	--	--
NK	NK11-U2XF	XF	1.1	29-Sep	50	1.0	60	38	53	37.7	17.5	--	--	--	--
Stine	08EC32	E3	0.8	26-Sep	49	1.0	61	34	51	35.9	18.4	--	--	--	--
Stine	10EF23	E3	1.0	25-Sep	48	1.0	57	34	52	35.4	18.4	--	--	--	--
Stine	11EC02	E3	1.1	28-Sep	*55	1.0	*66	*42	56	33.5	19.3	*65	1.0	30.9	20.6
Xitavo	XO 0554E	E3	0.5	29-Sep	48	1.0	59	32	54	34.2	19.1	--	--	--	--
Xitavo	XO 0602E	E3	0.6	25-Sep	51	1.0	*65	36	53	35.5	17.9	--	--	--	--
Xitavo	XO 0993E	E3	0.9	25-Sep	48	1.0	58	34	52	35.7	18.5	58	1.0	32.4	20.0
Xitavo	XO 1133E	E3	1.1	1-Oct	49	1.0	59	37	50	35.6	17.5	--	--	--	--
Xitavo	XO 1212E	E3	1.2	3-Oct	51	1.0	*63	37	54	36.7	18.1	--	--	--	--
Mean				27-Sep	50	1.0	61	37	52	35.1	18.5	58	1.0	33.0	19.5
LSD (0.10)				--	4	--	3	8	5	0.6	0.4	4	--	0.5	0.2

* Yields preceded by an asterisk are not significantly different (0.10 level) than the highest yielding cultivar.

¹ Herbicide Trait : RR2X = dicamba/glyphosate, XF = dicamba/glufosinate/glyphosate, E3 = glufosinate/glyphosate/2,4-D

² Protein and oil determined at the Marshfield site.

Results that are shaded provide the best estimate of relative variety performance.

TABLE 6. 2023 Southern Conventional Soybean Trial

Brand	Entry	Herbicide Trait ¹	Maturity Group	Maturity Date ²	2023 2-Test Average		2023 Yields		2023 Composition ²		2022 2-Test Average		2022 Composition ²	
					Yield (bu/A)	Lodging (1-5)	Arlington (bu/A)	Platteville (bu/A)	Protein (%)	Oil (%)	Yield (bu/A)	Lodging (1-5)	Protein (%)	Oil (%)
Blue River/Viking	BR 1718N	CN	1.7	1-Oct	76	1.0	76	77	32.4	20.4	*84	1.3	32.8	19.9
Blue River/Viking	BR 2155N	CN	2.1	1-Oct	*85	1.1	79	*91	34.8	18.8	*82	2.3	33.3	18.2
Blue River/Viking	BR 2418N	CN	2.4	1-Oct	84	1.0	80	*88	33.6	19.1	77	1.8	32.4	19.0
Blue River	BR 2702	CN	2.7	1-Oct	76	1.2	71	82	35.2	19.9	70	2.6	34.0	19.9
Legacy Seeds	DF 187 N	CN	1.8	1-Oct	77	1.0	72	83	34.6	19.0	71	2.4	34.9	18.5
Legacy Seeds	LS191-23C	CN	1.9	1-Oct	80	1.0	73	*86	33.1	20.0	--	--	--	--
Legacy Seeds	LS231-21C	CN	2.3	5-Oct	81	1.0	77	84	33.3	20.1	*79	1.4	31.8	19.7
Public	MN1410	CN	1.4	20-Sep	68	1.6	61	75	34.7	20.4	67	2.4	34.7	19.6
Public	W19-2484	CN	1.5	26-Sep	56	1.4	53	60	36.4	18.3	60	2.1	35.4	18.6
Public	W19-1190	CN	2.5	1-Oct	60	1.0	61	59	35.0	18.6	62	1.8	34.3	18.6
Public	W16-5282B	CN	2.6	1-Oct	74	1.0	75	73	35.7	18.7	68	1.8	34.9	19.1
Public	W19-11321 ³	CN	2.8	1-Oct	62	1.5	58	65	.	.	56	2.9	.	.
SB&B	SB1270	CN	1.2	19-Sep	75	1.1	73	78	35.0	19.9	70	2.1	33.9	19.8
SB&B	SB19	CN	1.5	19-Sep	72	2.2	68	77	34.4	19.8	65	2.4	33.8	19.2
Viking	VK 2022N	CN	2.0	1-Oct	83	1.0	75	*91	32.1	20.7	*88	1.5	32.2	20.5
Viking	VK 2340KN	CN	2.3	27-Sep	81	1.0	74	*88	32.7	20.4	76	1.5	32.4	20.1
Viking	VK 2724	CN	2.7	1-Oct	83	1.0	75	*90	32.7	19.7	--	--	--	--
Virtue	V1821	CN	1.8	23-Sep	74	1.0	70	78	34.2	19.5	78	1.3	33.5	19.2
Virtue	V2122	CN	2.1	25-Sep	77	1.0	71	83	33.8	20.2	75	1.8	32.7	20.5
Virtue	V2922	CN	2.9	1-Oct	*91	1.5	*89	*92	32.4	20.7	--	--	--	--
Check	12238	E3	1.9	24-Sep	82	1.0	78	*87	32.6	20.4	--	--	--	--
Check	11953	E3	2.1	23-Sep	83	1.0	77	*88	32.1	20.7	*88	1.6	31.9	20.5
Check	12169	E3	2.2	1-Oct	78	1.0	75	80	33.2	20.0	--	--	--	--
Results that are shaded provide the best estimate of relative variety performance.			Mean	28-Sep	76	1.2	72	81	33.8	19.8	74	1.9	33.6	19.5
			LSD (0.10)	--	6	NS	7	8	0.6	0.3	13	NS	0.6	0.4

* Yields preceded by an asterisk are not significantly different (0.10 level) than the highest yielding cultivar. ¹ Herbicide Trait : CN = conventional, E3 = glufosinate/glyphosate/2,4-D

² Maturity date, protein, and oil determined at the Arlington site. ³ This variety has a black seed coat, therefore we were unable to determine protein and oil content with our NIR.

TABLE 7. 2023 North Central Conventional Soybean Trial

Brand	Entry	Herbicide Trait ¹	Maturity Group	2023 Menomonie					2022 Menomonie			
				Maturity Date	Yield (bu/A)	Lodging (1-5)	Protein (%)	Oil (%)	Yield (bu/A)	Lodging (1-5)	Protein (%)	Oil (%)
Blue River/Viking	BR 0821N	CN	0.8	21-Sep	69	2.3	34.3	19.2	47	1.0	31.0	20.7
Blue River	BR 1202N	CN	1.2	14-Sep	62	1.0	35.1	19.8	49	1.0	33.9	19.2
Blue River/Viking	BR 1518N	CN	1.5	14-Sep	63	1.6	35.2	18.7	*50	1.0	31.4	20.1
Blue River/Viking	BR 1718N	CN	1.7	19-Sep	52	2.0	33.1	18.9	*58	1.0	30.2	20.6
Legacy Seeds	LS121-22C	CN	1.2	14-Sep	80	1.0	32.5	20.1	*53	1.0	29.1	21.0
Legacy Seeds	LS151-21C	CN	1.5	23-Sep	79	1.0	32.6	19.5	*50	1.0	30.2	20.4
Legacy Seeds	DF 187 N	CN	1.8	4-Oct	*82	1.0	34.9	18.5	*52	1.0	31.7	19.8
Legacy Seeds	LS191-23C	CN	1.9	21-Sep	76	1.0	32.9	19.8	--	--	--	--
Public	MN1410	CN	1.4	18-Sep	53	3.5	35.2	19.5	45	1.0	31.7	21.0
Public	W19-2484	CN	1.5	30-Sep	61	1.0	36.1	18.1	--	--	--	--
SB&B	SB49	CN	0.4	12-Sep	66	2.3	38.5	18.1	35	1.0	35.1	19.5
SB&B	SB700	CN	0.7	16-Sep	63	3.8	34.5	19.5	36	1.0	34.5	19.7
SB&B	SB1270	CN	1.2	18-Sep	67	2.8	34.8	19.5	45	1.0	32.0	20.6
SB&B	SB19	CN	1.5	12-Sep	49	3.3	34.5	19.0	49	1.0	31.7	19.9
Viking	VK 1223N	CN	1.2	14-Sep	79	1.8	32.1	20.1	*50	1.0	29.0	21.0
Check	12170	E3	1.1	16-Sep	*88	3.5	32.0	20.6	--	--	--	--
Check	12041	E3	1.6	23-Sep	79	1.0	33.4	20.1	--	--	--	--
Check	12043	E3	1.8	21-Sep	*82	1.5	33.3	20.0	--	--	--	--
			Mean	18-Sep	69	2.0	34.2	19.4	48	1.0	32.0	20.3
			LSD (0.10)	--	7	1.0	0.7	0.3	8	--	1.2	0.5

* Yields preceded by an asterisk are not significantly different (0.10 level) than the highest yielding cultivar.

¹ Herbicide Trait : CN = conventional, E3 = glufosinate/glyphosate/2,4-D

Results that are shaded provide the best estimate of relative variety performance.

TABLE 8. 2023 Arlington Early Maturity Group Soybean Trial

Brand	Entry	Herbicide Trait ¹	Maturity Group	2023 Arlington				
				Maturity Date	Yield (bu/A)	Lodging (1-5)	Protein (%)	Oil (%)
BioGene	BG9124E3	E3	1.2	19-Sep	75	1.0	33.8	20.3
Legacy Seeds	LS124-23	XF	1.2	23-Sep	76	1.0	33.8	19.8
Legacy Seeds	LS154-22	XF	1.5	26-Sep	*78	1.0	32.7	20.0
Loyal Brand	L1050E	E3	1.0	15-Sep	*83	1.0	33.5	19.6
Loyal Brand	L1230E	E3	1.2	15-Sep	*80	1.0	33.4	20.3
Loyal Brand	L1260E	E3	1.2	15-Sep	68	1.0	34.1	20.3
Stine	10EF23	E3	1.0	13-Sep	72	1.0	33.6	20.4
Stine	11EC02	E3	1.1	19-Sep	*86	1.0	33.3	20.1
Xitavo	XO 0602E	E3	0.6	20-Sep	*78	1.0	34.9	18.9
Xitavo	XO 0993E	E3	0.9	11-Sep	66	1.0	33.2	20.5
Xitavo	XO 1133E	E3	1.1	20-Sep	*84	1.0	33.6	19.5
Xitavo	XO 1212E	E3	1.2	25-Sep	*78	1.0	35.5	18.9
Xitavo	XO 1372E	E3	1.3	22-Sep	*81	1.0	33.3	20.5
Xitavo	XO 1404E	E3	1.4	22-Sep	76	1.0	34.6	19.0
Mean				18-Sep	77	1.0	33.8	19.9
LSD (0.10)				--	9	--	0.7	0.3

* Yields preceded by an asterisk are not significantly different (0.10 level) than the highest yielding cultivar.

¹ Herbicide Trait : XF = dicamba/glufosinate/glyphosate, E3 = glufosinate/glyphosate/2,4-D

Results that are shaded provide the best estimate of relative variety performance.

TABLE 8.
2023 Seed Source for
Soybean Entries

Brand	Company	Phone Number	Website
Alloy	Bayer Crop Science	(715) 495-7246	www.agseedselect.com
Apex	Brunner Seed Inc.	(715) 672-5887	www.brunnerseed.com
Asgrow	Bayer Crop Science	(715) 495-7246	www.agseedselect.com
BioGene	Van Treeck's Seed Farm	(920) 467-2422	www.biogeneseeds.com
Blue River	Albert Lea Seed	(800) 352-5247	www.alseed.com
Burrus	Burrus Bros & Associated Growers	(815) 338-1141	www.burrusseed.com
Cornelius	Cornelius Seed	(563) 542-0975	www.corneliusseed.com
Dairyland	Dairyland Seed	(217) 972-9839	www.dairylandseed.com
DONMARIO	Burrus Bros & Associated Growers	(815) 338-1141	www.burrusseed.com
Dyna-Gro	Dyna-Gro Seed	(217) 343-3630	www.dynagroseed.com
FS HiSOY	GROWMARK, Inc.	(815) 866-1447	www.growmark.com
Genesis	MS Technologies	(608) 513-0293	www.renkseed.com
Golden Harvest	Golden Harvest	(402) 429-9063	www.goldenharvestseeds.com
Jung	Bayer Crop Science	(515) 205-3354	www.jungseedgenetics.com
Legacy Seeds	Legacy Seeds Inc.	(715) 538-3238	www.legacyseeds.com
LG Seeds	LG Seeds	(608) 606-4551	www.lgseeds.com
Loyal Brand	MS Technologies	(715) 538-3238	www.legacyseeds.com
NK	Syngenta	(715) 307-8452	www.nksoybeans.com
O'Brien	O'Brien Hybrids	(608) 576-3685	www.obrienhybrids.com
P3 Genetics	MS Technologies	(563) 542-0975	www.corneliusseed.com
Public	WI Foundation Seeds	(608) 846-3761	www.wisconsinfoundationseeds.wisc.edu
Renk	Renk Seed	(608) 513-0293	www.renkseed.com
SB&B	SB&B Foods Inc.	(715) 928-1623	www.sb-b.com
Stine	Stine Seed Company	(608) 387-3954	www.stinseed.com
Tracy	Tracy Seeds, LLC	(608) 289-1082	www.tracyseeds.com
Viking	Albert Lea Seed	(800) 352-5247	www.alseed.com
Virtue	GDM Seeds	(605) 291-9551	www.virtueseeds.com
Xitavo	MS Technologies	(309) 212-5454	www.xitavosoybeanseed.com

TABLE 9. 2023 Temperature and Precipitation Summary

Trial Location	Average Mean Temperature (° F)					Total Precipitation (inches)						
	May	June	July	August	September	May	June	July	August	September		
Arlington		58.8	68.8	71.1	69.5	65.5		1.0	0.9	4.9	4.1	1.8
	Departure	1.3	1.3	0.1	0.5	4.1	Departure	-3.2	-4.2	0.8	0.3	-1.6
Clinton		58.1	67.4	70.0	68.7	63.8		2.8	1.4	5.0	2.8	4.9
	Departure	0.0	-0.7	-1.4	-0.7	1.3	Departure	-1.5	-4.0	1.3	-1.4	1.0
Fond du Lac		57.2	67.5	71.4	69.4	64.4		1.6	2.9	5.6	3.6	2.0
	Departure	1.3	1.5	1.2	1.0	3.5	Departure	-1.8	-1.5	2.0	0.1	-1.2
Galesville (Trempealeau)		60.5	71.0	71.6	72.3	66.2		2.0	2.8	4.0	1.4	3.6
	Departure	1.7	2.6	-0.8	2.1	3.7	Departure	-2.4	-1.5	-0.7	-2.7	-0.2
Marshfield		56.2	67.1	68.4	68.0	62.6		3.0	2.4	3.6	2.1	3.7
	Departure	0.5	1.6	-1.3	0.5	3.3	Departure	-1.2	-2.4	-0.2	-1.9	-0.2
Menomonie		58.5	69.6	69.3	69.1	64.6		1.6	2.1	6.1	4.1	4.3
	Departure	2.2	3.3	-1.3	0.8	4.4	Departure	-3.0	-3.1	2.1	0.1	0.6
	Irrigation						Irrigation	--	--	3.0	3.7	2.2
Platteville (Lancaster)		60.2	69.4	71.0	71.0	65.1		3.4	1.6	5.2	1.7	3.1
	Departure	2.1	1.6	-0.4	1.5	3.2	Departure	-1.0	-4.3	0.2	-2.2	-1.0
Seymour (Green Bay)		57.6	67.7	71.3	68.6	64.6		1.3	3.6	3.0	3.2	0.5
	Departure	1.1	1.3	0.8	0.0	3.6	Departure	-2.0	-0.5	-0.6	-0.2	-2.7
Spooner*		58.7	68.6	68.4	67.0	63.2		0.7	2.3	1.2	3.5	4.8
	Departure	3.5	3.7	-0.6	-0.1	4.4	Departure	-3.4	-1.9	-2.8	-0.4	1.2
	Irrigation						Irrigation	0.4	2.5	2.0	1.5	--
Wautoma* (Hancock)		56.6	68.8	69.1	68.8	64.5		2.0	3.4	2.7	2.5	3.5
	Departure	0.0	2.5	-1.0	0.5	4.1	Departure	-2.2	-1.6	-1.4	-1.5	0.2
	Irrigation						Irrigation	0.4	1.4	1.8	2.4	1.6

* Irrigation applied at Menomonie, Spooner (irrigated sand trial), and Wautoma.
 Source: Midwestern Regional Climate Center; Long term normals from 1991 to 2020 used for departure data.

TABLE 10. 2023 Characteristics of Soybean Varieties (1 of 9)

Brand	Entry	Maturity Group	Herbicide Trait ¹	Performance Shown in Table(s)	Seed Treatment(s)	SCN Source ²	PRR Genes ³	Color ⁴			
								Flower	Pubescence	Pod	Hilum
Alloy	A16E34	1.4	E3	3,4	Acceleron F/I, ILEVO	PI 88788	Rps 1-k	P	G	BR	IB
Alloy	A23E33	2.3	E3	2	Acceleron F/I, ILEVO	PI 88788	Rps 1-c, Seg 3-a	W	G	T	BF
Alloy	A26E33	2.6	E3	2	Acceleron F/I, ILEVO	PI 88788	Rps 1-k	P	BR	T	IB
Apex	AE0720	0.7	E3	5	Brute 4000S, Heads Up	PI 88788	--	P	G	T	BF
Apex	AE0930	0.9	E3	5	Brute 4000S, Heads Up	Peking	Rps 3-a	P	G	--	BF
Apex	AE1040	1.0	E3	5	Brute 4000S, Heads Up	--	--	--	--	--	--
Apex	AE1220	1.2	E3	4,5	Brute 4000S, Heads Up	PI 88788	Rps 1-c	P	G	--	IB
Apex	AE1410	1.4	E3	4	Brute 4000S, Heads Up	PI 88788	Rps 1-k	P	G	BR	IB
Apex	AE1710	1.7	E3	4	Brute 4000S, Heads Up	PI 88788	Rps 1-k	P	G	BR	IB
Apex	AE1930	1.9	E3	3	Brute 4000S, Heads Up	PI 88788	Rps 1-k	P	LTW	--	BL
Apex	AE2220	2.2	E3	3	Brute 4000S, Heads Up	PI 88788	--	W	G	T	BF
Asgrow	AG07XF4	0.7	XF	5	Acceleron F/I, ILEVO	PI 88788	Rps 3-a	P	LTW	BR	BL
Asgrow	AG08XF4	0.8	XF	5	Acceleron F/I, ILEVO	PI 88788	Rps 1-c	P	G	BR	IB
Asgrow	AG09XF3	0.9	XF	5	Acceleron F/I, ILEVO	PI 88788	Rps 1-c	P	TW	BR	BL
Asgrow	AG11XF4	1.1	XF	4,5	Acceleron F/I, ILEVO	PI 88788	Rps 1-c	P	LTW	T	BL
Asgrow	AG15XF2	1.5	XF	3,4	Acceleron F/I, ILEVO	PI 88788	Rps 1-c	P	G	BR	IB
Asgrow	AG18XF1	1.8	XF	3,4	Acceleron F/I, ILEVO	PI 88788	--	P	G	T	BF
Asgrow	AG20XF1	2.0	XF	2,3,4	Acceleron F/I, ILEVO	PI 88788	Rps 1-c	P	G	T	G
Asgrow	AG21XF2	2.1	XF	2,3	Acceleron F/I, ILEVO	PI 88788	Rps 3-a	P	LTW	T	BR
Asgrow	AG23XF3	2.3	XF	2	Acceleron F/I, ILEVO	PI 88788	Rps 1-c	P	G	BR	IB
Asgrow	AG27XF3	2.7	XF	2	Acceleron F/I, ILEVO	PI 88788	Rps 1-c	P	G	BR	IB
BioGene	BG9124E3	1.2	E3	4	Arma	Peking	Rps 3-a	P	G	T	BF
BioGene	BG9164E3	1.6	E3	3,4	Arma	Peking	Rps 1-k Rps-6	P	LTW	T	BR
Blue River/Viking	BR 0821N	0.8	CN	7	none	PI 88788	--	P	LTW	T	BR
Blue River	BR 1202N	1.2	CN	7	none	PI 88788	Rps 1-k	W	TW	BR	BR

All characteristic information is provided by the originator.

¹ Herbicide Trait : CN = conventional, RR2X = dicamba/glyphosate, XF = dicamba/glufosinate/glyphosate, E3 = glufosinate/glyphosate/2,4-D

² Source of SCN Resistance.

³ PRR= Phytophthora Root Rot Resistance: PRR Genes listed designate resistance to PRR Races.

⁴ BL= Black, BF = Buff, BR= Brown, CL=Clear, G= Gray, IB= Imperfect Black, IY= Imperfect Yellow, LTW= Light Tawny, M= Mixed, P= Purple, T= Tan, TW= Tawny, W=White, Y= Yellow.

TABLE 10. CONTINUED. 2023 Characteristics of Soybean Varieties (2 of 9)

Brand	Entry	Maturity Group	Herbicide Trait ¹	Performance Shown in Table(s)	Seed Treatment(s)	SCN Source ²	PRR Genes ³	Color ⁴			
								Flower	Pubescence	Pod	Hilum
Blue River/Viking	BR 1518N	1.5	CN	7	none	PI 88788	--	P	LTW	BR	BR
Blue River/Viking	BR 1718N	1.7	CN	6,7	none	PI 88788	Rps 1-k	M	LTW	T	BR
Blue River/Viking	BR 2155N	2.1	CN	6	none	PI 88788	--	M	LTW	T	BR
Blue River/Viking	BR 2418N	2.4	CN	6	none	PI 88788	Rps 1-c	P	LTW	BR	BL
Blue River	BR 2702	2.7	CN	6	none	--	--	W	LTW	BR	BR
Burrus	2096E	2.0	E3	2	Burrus PowerShield	PI 88788	Rps 1-k	P	LTW	BR	BL
Burrus	2335E	2.3	E3	2	Burrus PowerShield	PI 88788	Rps 1-a, 3-a	P	LTW	T	BL
Burrus	2681E	2.6	E3	2	Burrus PowerShield	Peking	Rps 1-k	P	LTW	T	BL
Cornelius	CB23XF63	2.3	XF	2	Profit Guard Plus	PI 88788	Rps 1-a, 1-c	--	--	--	--
Cornelius	CB25XF99	2.5	XF	2	Profit Guard Plus	PI 88788	Rps 1-c	--	--	--	--
Cornelius	CB27XF72	2.7	XF	2	Profit Guard Plus	PI 88788	Rps 1-c	--	--	--	--
Cornelius	CB29XF44	2.9	XF	2	Profit Guard Plus	PI 88788	Rps 1-c	--	--	--	--
Dairyland	DSR-0757E	0.7	E3	4,5	LumiGEN, ILEVO	--	Rps 1-c	P	LTW	BR	BR
Dairyland	DSR-0920E	0.9	E3	4,5	LumiGEN, ILEVO	--	--	P	G	T	IB
Dairyland	DSR-1290E	1.2	E3	4,5	LumiGEN, ILEVO	PI 88788	--	P	G	BR	IB
Dairyland	DSR-1450E	1.4	E3	4	LumiGEN, ILEVO	PI 88788	--	P	G	BR	IB
Dairyland	DSR-1505E	1.5	E3	3,4	LumiGEN, ILEVO	PI 88788	Rps 1-k	P	LTW	BR	BR
Dairyland	DSR-1788E	1.7	E3	3,4	LumiGEN, ILEVO	PI 88788	Rps 1-k	P	LTW	BR	BR
Dairyland	DSR-1919E	1.9	E3	3	LumiGEN, ILEVO	Peking	Rps 1-k	P	LTW	BR	BL
Dairyland	DSR-2188E	2.1	E3	2,3	LumiGEN, ILEVO	Peking	Rps 1-k	P	LTW	T	BR
Dairyland	DSR-2310E	2.3	E3	2,3	LumiGEN, ILEVO	PI 88788	Rps 1-k	P	LTW	BR	BR
Dairyland	DSR-2444E	2.4	E3	2,3	LumiGEN, ILEVO	Peking	Rps 1-k	P	LTW	BR	BR
Dairyland	DSR-2562E	2.5	E3	2	LumiGEN, ILEVO	PI 88788	Rps 1-k	P	LTW	BR	BL
Dairyland	DSR-2691E	2.6	E3	2	LumiGEN, ILEVO	PI 88788	Rps 1-k, 3-a	W	LTW	T	BL
Dairyland	DSR-2717E	2.7	E3	2	LumiGEN, ILEVO	Peking	Rps 1-k	P	LTW	T	BL

All characteristic information is provided by the originator.

¹ Herbicide Trait : CN = conventional, RR2X = dicamba/glyphosate, XF = dicamba/glufosinate/glyphosate, E3 = glufosinate/glyphosate/2,4-D

² Source of SCN Resistance.

³ PRR= Phytophthora Root Rot Resistance: PRR Genes listed designate resistance to PRR Races.

⁴ BL= Black, BF = Buff, BR= Brown, CL=Clear, G= Gray, IB= Imperfect Black, IY= Imperfect Yellow, LTW= Light Tawny, M= Mixed, P= Purple, T= Tan, TW= Tawny, W=White, Y= Yellow.

TABLE 10. CONTINUED. 2023 Characteristics of Soybean Varieties (3 of 9)

Brand	Entry	Maturity Group	Herbicide Trait ¹	Performance Shown in Table(s)	Seed Treatment(s)	SCN Source ²	PRR Genes ³	Color ⁴			
								Flower	Pubescence	Pod	Hilum
DONMARIO	DM 24E23	2.4	E3	2	Burrus PowerShield	PI 88788	Rps 1-k	P	LTW	BR	BL
DONMARIO	DM 27E34	2.7	E3	2	Burrus PowerShield	PI 88788	Rps 1-c	P	LTW	BR	BL
DONMARIO	DM 28E52	2.8	E3	2	Burrus PowerShield	PI 88788	Rps 1-k	P	G	BR	IB
Dyna-Gro	S16EN42	1.6	E3	3	Equity VIP, Saltro, Vayantis	PI 88788	Rps 3-a	P	G	T	BF
Dyna-Gro	S20EN84	2.0	E3	2,3	Equity VIP, Saltro, Vayantis	Peking	Rps 1-k	P	LTW	T	BR
Dyna-Gro	S20EN92	2.0	E3	3	Equity VIP, Saltro, Vayantis	PI 88788	Rps 1-c	P	G	BR	IB
Dyna-Gro	S21EN81	2.1	E3	2,3	Equity VIP, Saltro, Vayantis	PI 88788	Rps 1-k	P	G	BR	IB
Dyna-Gro	S25EN74	2.5	E3	2	Equity VIP, Saltro, Vayantis	Peking	Rps 1-k	P	LTW	T	BL
Dyna-Gro	S25XF64	2.5	XF	2	Equity VIP, Saltro, Vayantis	PI 88788	Rps 1-c	P	G	BR	IB
Dyna-Gro	S26EN53	2.6	E3	2	Equity VIP, Saltro, Vayantis	PI 88788	Rps 1-c	P	G	T	BF
FS HiSOY	HS 12F30	1.2	XF	2,3	Acceleron F/I, Saltro	PI 88788	Rps 1-c	P	G	T	BF
FS HiSOY	HS 18E30	1.8	E3	2,3	Acceleron F/I, Saltro	Peking	Rps 1-k	P	G	T	BF
FS HiSOY	HS 18F20	1.8	XF	2,3	Acceleron F/I, Saltro	PI 88788	--	P	G	T	BF
FS HiSOY	HS 21E20	2.1	E3	2,3	Acceleron F/I, Saltro	PI 88788	Rps 1-c	P	LTW	T	BL
FS HiSOY	HS 23E10	2.3	E3	2,3	Acceleron F/I, Saltro	PI 88788	Rps 1-k	W	G	T	BF
FS HiSOY	HS 24E30	2.4	E3	2,3	Acceleron F/I, Saltro	PI 88788	Rps 1-c	P	LTW	BR	BL
FS HiSOY	HS 24F00	2.4	XF	2,3	Acceleron F/I, Saltro	PI 88788	Rps 1-c	P	G	T	BF
FS HiSOY	HS 25E30	2.5	E3	2	Acceleron F/I, Saltro	Peking	Rps 1-k	P	LTW	T	BL
FS HiSOY	HS 26E20	2.6	E3	2	Acceleron F/I, Saltro	PI 88788	Rps 1-k	P	G	T	IB
FS HiSOY	HS 28E10	2.8	E3	2	Acceleron F/I, Saltro	PI 88788	Rps 1-k	P	G	BR	IB
FS HiSOY	HS 28F30	2.8	XF	2	Acceleron F/I, Saltro	PI 88788	--	P	LTW	BR	BL
Genesis	G0880E	0.8	E3	5	EclipseUS Trio	Peking	Rps 3-a	P	G	BR	BF
Genesis	G1260E	1.2	E3	4,5	EclipseUS Trio	PI 88788	Rps 1-c	P	G	T	IB
Genesis	G1560E	1.5	E3	4	EclipseUS Trio	PI 88788	Rps 3-a	P	G	T	BF
Genesis	G1760E	1.7	E3	4	EclipseUS Trio	PI 88788	Rps 3-a	P	G	T	BF

All characteristic information is provided by the originator.

¹ Herbicide Trait : CN = conventional, RR2X = dicamba/glyphosate, XF = dicamba/glufosinate/glyphosate, E3 = glufosinate/glyphosate/2,4-D

² Source of SCN Resistance.

³ PRR= Phytophthora Root Rot Resistance: PRR Genes listed designate resistance to PRR Races.

⁴ BL= Black, BF = Buff, BR= Brown, CL=Clear, G= Gray, IB= Imperfect Black, IY= Imperfect Yellow, LTW= Light Tawny, M= Mixed, P= Purple, T= Tan, TW= Tawny, W=White, Y= Yellow.

TABLE 10. CONTINUED. 2023 Characteristics of Soybean Varieties (4 of 9)

Brand	Entry	Maturity Group	Herbicide Trait ¹	Performance Shown in Table(s)	Seed Treatment(s)	SCN Source ²	PRR Genes ³	Color ⁴			
								Flower	Pubescence	Pod	Hilum
Genesis	G1950E	1.9	E3	3	EclipseUS Trio	PI 88788	Rps 1-k	P	LTW	BR	BL
Genesis	G2180E	2.1	E3	3	EclipseUS Trio, Saltro	PI 88788	Rps 1-a, 3-a	P	G	BR	BF
Genesis	G2480E	2.4	E3	2,3	EclipseUS Trio, Saltro	PI 88788	Rps 1-k	W	G	BR	BF
Genesis	G2570ES	2.5	E3	2	EclipseUS Trio, Saltro	PI 88788	Rps 1-a	P	G	BR	BF
Genesis	G2780E	2.7	E3	2	EclipseUS Trio	PI 88788	Rps 1-a	P	G	BR	IB
Golden Harvest	GH1194E3 Brand	1.1	E3	5	CruiserMaxx APX, Saltro	PI 88788	Rps 1-k, 3-a	W	G	T	BF
Golden Harvest	GH1472E3 Brand	1.4	E3	4	CruiserMaxx APX, Saltro	Peking	Rps 1-c, 3-a	P	G	T	BF
Golden Harvest	GH1534E3 Brand	1.5	E3	4	CruiserMaxx APX, Saltro	Peking	Rps 1-k	P	G	BR	IB
Golden Harvest	GH1614E3 Brand	1.6	E3	3	CruiserMaxx APX, Saltro	Peking	Rps 1-c, 3-a	P	G	T	IB
Golden Harvest	GH1762XF Brand	1.7	XF	4	CruiserMaxx APX, Saltro	PI 88788	Rps 1-c	P	LTW	BR	BR
Golden Harvest	GH1973E3 Brand	1.9	E3	3	CruiserMaxx APX, Saltro	Peking	Rps 1-k	P	G	BR	IB
Golden Harvest	GH2004XF Brand	2.0	XF	3	CruiserMaxx APX, Saltro	PI 88788	Rps 1-c	W	LTW	BR	BL
Golden Harvest	GH2292E3 Brand	2.2	E3	3	CruiserMaxx APX, Saltro	PI 88788	Rps 1-c	P	G	BR	IB
Golden Harvest	GH2463E3 Brand	2.4	E3	2	CruiserMaxx APX, Saltro	PI 88788	Rps 1-a	P	G	BR	BF
Golden Harvest	GH2674E3 Brand	2.6	E3	2	CruiserMaxx APX, Saltro	PI 88788	Rps 1-c	W	G	T	BF
Golden Harvest	GH2884XF Brand	2.8	XF	2	CruiserMaxx APX, Saltro	PI 88788	Rps 1-c	P	LTW	T	BL
Jung	1072R2X	0.7	RR2X	5	Acceleron F/I, ILEVO	PI 88788	Rps 1-c	P	LTW	BR	BL
Jung	1073XF	0.7	XF	5	Acceleron F/I, ILEVO	PI 88788	Rps 1-c, 3-a	P	TW	BR	BL
Jung	1093XF	0.9	XF	5	Acceleron F/I, ILEVO	PI 88788	Seg. Rps 1-c	P	LTW	BR	BL
Jung	1104XF	1.0	XF	5	Acceleron F/I, ILEVO	PI 88788	--	P	LTW	T	BL
Jung	1105XF	1.0	XF	4	Acceleron F/I, ILEVO	PI 88788	Rps 1-c	P	G	BR	IB
Jung	1123XF	1.1	XF	4	Acceleron F/I, ILEVO	PI 88788	Rps 1-c	P	G	BR	IB
Jung	1156XF	1.5	XF	4	Acceleron F/I, ILEVO	PI 88788	--	W	TW	BR	BL
Jung	1194XF	1.9	XF	4	Acceleron F/I, ILEVO	PI 88788	Rps 1-c	P	G	BR	IB
Jung	1205XF	2.0	XF	3	Acceleron F/I, ILEVO	PI 88788	Rps 1-c	P	G	BR	IB

All characteristic information is provided by the originator.

¹ Herbicide Trait : CN = conventional, RR2X = dicamba/glyphosate, XF = dicamba/glufosinate/glyphosate, E3 = glufosinate/glyphosate/2,4-D

² Source of SCN Resistance.

³ PRR= Phytophthora Root Rot Resistance: PRR Genes listed designate resistance to PRR Races.

⁴ BL= Black, BF = Buff, BR= Brown, CL=Clear, G= Gray, IB= Imperfect Black, IY= Imperfect Yellow, LTW= Light Tawny, M= Mixed, P= Purple, T= Tan, TW= Tawny, W=White, Y= Yellow.

TABLE 10. CONTINUED. 2023 Characteristics of Soybean Varieties (5 of 9)

Brand	Entry	Maturity Group	Herbicide Trait ¹	Performance Shown in Table(s)	Seed Treatment(s)	SCN Source ²	PRR Genes ³	Color ⁴			
								Flower	Pubescence	Pod	Hilum
Jung	1215XF	2.1	XF	3	Acceleron F/I, ILEVO	PI 88788	--	P	LTW	T	BL
Jung	1227XF	2.2	XF	3	Acceleron F/I, ILEVO	PI 88788	Rps 1-c	P	G	BR	G
Jung	1245XF	2.4	XF	2	Acceleron F/I, ILEVO	PI 88788	Rps 1-c	P	G	BR	IB
Jung	1254XF	2.5	XF	2	Acceleron F/I, ILEVO	PI 88788	Rps 1-c	P	G	T	G
Jung	1255XF	2.5	XF	2	Acceleron F/I, ILEVO	PI 88788	Rps 1-c, Seg 3-a	P	G	BR	IB
Jung	1274XF	2.7	XF	2	Acceleron F/I, ILEVO	PI 88788	--	P	G	BR	BL
Jung	1287XF	2.8	XF	2	Acceleron F/I, ILEVO	PI 88788	--	P	G	BR	IB
Legacy Seeds	LS121-22C	1.2	CN	7	L-Coat Total	PI 88788	--	P	LTW	T	BL
Legacy Seeds	LS124-23	1.2	XF	3,4,5	L-Coat Total	PI 88788	Rps 1-c	P	G	T	BF
Legacy Seeds	LS151-21C	1.5	CN	7	L-Coat Total, Saltro	PI 88788	Rps 1-k	P	LTW	T	BR
Legacy Seeds	LS154-22	1.5	XF	3,4,5	L-Coat Total	PI 88788	--	P	G	T	IB
Legacy Seeds	LS174-23	1.7	XF	3,4	L-Coat Total	PI 88788	Rps 1-a	P	G	T	BF
Legacy Seeds	LS184-21	1.8	XF	3,4	L-Coat Total	PI 88788	--	P	G	T	BF
Legacy Seeds	DF 187 N	1.8	CN	6,7	L-Coat Total, Saltro	PI 88788	Rps 1-k	M	G	T	CL
Legacy Seeds	LS191-23C	1.9	CN	6,7	L-Coat Total	PI 88788	Rps 1-c	W	LTW	T	BL
Legacy Seeds	LS194-23	1.9	XF	3,4	L-Coat Total	--	Rps 1-c	P	LTW	T	BL
Legacy Seeds	LS231-21C	2.3	CN	6	L-Coat Total	PI 88788	Rps 1-a	P	LTW	BR	BL
LG Seeds	LGS1043E3	1.0	E3	5	AgriShield Max, Saltro	PI 88788	Rps 1-c, 3-a	P	G	T	IB
LG Seeds	LGS1385XF	1.3	XF	3,5	AgriShield Max, Saltro	PI 88788	Rps 1-c, 3-a	P	LTW	BR	BR
LG Seeds	LGS1551E3	1.5	E3	4	AgriShield Max, Saltro	Peking	Rps 1-k	P	G	BR	IB
LG Seeds	LGS1585XF	1.5	XF	4	AgriShield Max, Saltro	PI 88788	Rps 3-a	P	LTW	BR	BR
LG Seeds	LGS1832E3	1.8	E3	4	AgriShield Max, Saltro	Peking	Rps 1-k	P	LTW	BR	BL
LG Seeds	LGS1939E3	1.9	E3	3	AgriShield Max, Saltro	PI 88788	Rps 1-k	P	LTW	BR	BL
LG Seeds	LGS2001E3	2.0	E3	2,3	AgriShield Max, Saltro	Peking	Rps 1-k	P	G	T	BF
LG Seeds	LGS2025XF	2.0	XF	3	AgriShield Max, Saltro	PI 88788	Rps 1-c	P	G	T	G

All characteristic information is provided by the originator.

¹ Herbicide Trait : CN = conventional, RR2X = dicamba/glyphosate, XF = dicamba/glufosinate/glyphosate, E3 = glufosinate/glyphosate/2,4-D

² Source of SCN Resistance.

³ PRR= Phytophthora Root Rot Resistance: PRR Genes listed designate resistance to PRR Races.

⁴ BL= Black, BF = Buff, BR= Brown, CL=Clear, G= Gray, IB= Imperfect Black, IY= Imperfect Yellow, LTW= Light Tawny, M= Mixed, P= Purple, T= Tan, TW= Tawny, W=White, Y= Yellow.

TABLE 10. CONTINUED. 2023 Characteristics of Soybean Varieties (6 of 9)

Brand	Entry	Maturity Group	Herbicide Trait ¹	Performance Shown in Table(s)	Seed Treatment(s)	SCN Source ²	PRR Genes ³	Color ⁴			
								Flower	Pubescence	Pod	Hilum
Loyal Brand	L0860E	0.8	E3	5	L-Coat Total	Peking	Rps 3-a	P	G	T	BF
Loyal Brand	L1050E	1.0	E3	5	L-Coat Total, Heads Up	PI 88788	--	P	G	T	IB
Loyal Brand	L1160E	1.1	E3	4,5	L-Coat Total	Peking	Rps 3-a	P	G	T	BF
Loyal Brand	L1230E	1.2	E3	4,5	L-Coat Total, Saltro	PI 88788	Rps 1-c	P	G	BR	IB
Loyal Brand	L1260E	1.2	E3	4,5	L-Coat Total	Peking	Rps 3-a	P	G	T	BF
Loyal Brand	L1540E	1.5	E3	3,4	L-Coat Total, Saltro	PI 88788	Rps 3-a	P	G	T	BF
Loyal Brand	L1660E	1.6	E3	3,4	L-Coat Total	PI 88788	--	P	G	BR	IB
Loyal Brand	L1730E	1.7	E3	3,4	L-Coat Total, Saltro	PI 88788	Rps 1-k	P	G	BR	IB
Loyal Brand	L1950E	1.9	E3	2,3,4	L-Coat Total, Saltro	PI 88788	Rps 1-k	P	LTW	BR	BL
Loyal Brand	L2130E	2.1	E3	2,3	L-Coat Total	PI 88788	Rps 1-k	P	G	BR	IB
Loyal Brand	L2150E	2.1	E3	2,3	L-Coat Total, Saltro	Peking	Rps 1-c	P	G	T	IB
Loyal Brand	L2550E	2.5	E3	2	L-Coat Total, Saltro	PI 88788	Rps 1-a	P	G	BR	BF
NK	NK03-J1XF	0.3	XF	5	Cruiserm maxx APX, Saltro	--	Rps 3-a	P	LTW	T	G
NK	NK04-A9E3	0.4	E3	5	Cruiserm maxx APX, Saltro	PI 88788	Rps 1-c	P	G	T	Y
NK	NK07-B1XF	0.7	XF	5	Cruiserm maxx APX, Saltro	PI 88788	Rps 3-a	W	LTW	T	BL
NK	NK07-G5E3	0.7	E3	5	Cruiserm maxx APX, Saltro	Peking	Rps 1-k, 3-a	P	G	T	BF
NK	NK11-A4E3	1.1	E3	3,4,5	Cruiserm maxx APX, Saltro	PI 88788	Rps 1-k, 3-a	W	G	T	BF
NK	NK11-U2XF	1.1	XF	3,4,5	Cruiserm maxx APX, Saltro	PI 88788	Rps 3-a	P	LTW	T	BL
NK	NK16-Z6E3	1.6	E3	3,4	Cruiserm maxx APX, Saltro	Peking	Rps 1-c, 3-a	P	G	T	IB
NK	NK18-D1XF	1.8	XF	3,4	Cruiserm maxx APX, Saltro	PI 88788	Rps 1-k, 3-a	P	LTW	T	BL
NK	NK19-T8E3S	1.9	E3	2,3	Cruiserm maxx APX, Saltro	Peking	Rps 1-k	P	G	BR	IB
NK	NK20-K2XF	2.0	XF	2,3	Cruiserm maxx APX, Saltro	PI 88788	Rps 1-c	W	LTW	BR	BL
NK	NK21-C2E3	2.1	E3	2,3	Cruiserm maxx APX, Saltro	PI 88788	Rps 1-c	P	G	BR	IB
NK	NK24-A2E3S	2.4	E3	2,3	Cruiserm maxx APX, Saltro	PI 88788	Rps 1-a	P	G	BR	BF
NK	NK26-M6E3	2.6	E3	2	Cruiserm maxx APX, Saltro	PI 88788	Rps 1-c	W	G	T	BF

All characteristic information is provided by the originator.

¹ Herbicide Trait : CN = conventional, RR2X = dicamba/glyphosate, XF = dicamba/glufosinate/glyphosate, E3 = glufosinate/glyphosate/2,4-D

² Source of SCN Resistance.

³ PRR= Phytophthora Root Rot Resistance: PRR Genes listed designate resistance to PRR Races.

⁴ BL= Black, BF = Buff, BR= Brown, CL=Clear, G= Gray, IB= Imperfect Black, IY= Imperfect Yellow, LTW= Light Tawny, M= Mixed, P= Purple, T= Tan, TW= Tawny, W=White, Y= Yellow.

TABLE 10. CONTINUED. 2023 Characteristics of Soybean Varieties (7 of 9)

Brand	Entry	Maturity Group	Herbicide Trait ¹	Performance Shown in Table(s)	Seed Treatment(s)	SCN Source ²	PRR Genes ³	Color ⁴			
								Flower	Pubescence	Pod	Hilum
NK	NK28-B9E3S	2.8	E3	2	Cruisermaxx APX, Saltro	PI 88788	Rps 1-c	P	G	BR	IB
NK	NK28-P6XF	2.8	XF	2	Cruisermaxx APX, Saltro	PI 88788	Rps 1-c	P	LTW	T	BL
O'Brien	O'SOY1524EL-3	1.5	E3	3,4	EclipseUS Quad	PI 88788	Rps 3-a	P	G	BR	IB
O'Brien	O'SOY2024EL-3	2.0	E3	2,3,4	EclipseUS Quad	PI 88788	Rps 1-k	P	LTW	BR	BL
O'Brien	O'SOY2523EL-3	2.5	E3	2,3	EclipseUS Quad	PI 88788	Rps 1-a	P	G	BR	BF
P3 Genetics	2322E	2.2	E3	2	Profit Guard Plus	PI 88788	--	--	--	--	--
P3 Genetics	2424E	2.4	E3	2	Profit Guard Plus	PI 88788	Rps 1-k	--	--	--	--
P3 Genetics	2325E	2.5	E3	2	Profit Guard Plus	PI 88788	Rps 1-a	--	--	--	--
P3 Genetics	2326E	2.6	E3	2	Profit Guard Plus	PI 88788	Rps 1-k	--	--	--	--
P3 Genetics	2429E	2.9	E3	2	Profit Guard Plus	PI 88788	--	--	--	--	--
Public	MN1410	1.4	CN	6,7	Acceleron F/I, ILEVO	--	--	W	G	BR	BF
Public	W19-2484	1.5	CN	6,7	none	--	--	P	TW	TW	BL
Public	W19-1190	2.5	CN	6	none	--	--	P	LTW	LTW	CL
Public	W16-5282B	2.6	CN	6	none	--	--	P	LTW	LTW	BL
Public	W19-11321	2.8	CN	6	none	--	--	P	TW	TW	BL(BL seed coat)
Renk	RS153NXF	1.5	XF	4	EclipseUS Trio	PI 88788	--	P	G	T	BL
Renk	RS194XF	1.9	XF	3	EclipseUS Trio	PI 88788	--	P	LTW	T	BL
Renk	RS253NXF	2.5	XF	2	EclipseUS Trio, Saltro	PI 88788	Rps 1-c	P	G	BR	IB
SB&B	SB49	0.4	CN	7	CruiserMaxx	PI 88788	Rps 1-c	P	G	T	Y
SB&B	SB700	0.7	CN	7	CruiserMaxx	--	Rps 1-c	P	LTW	BR	IY
SB&B	SB1270	1.2	CN	6,7	CruiserMaxx	--	--	P	G	T	Y
SB&B	SB19	1.5	CN	6,7	CruiserMaxx	--	--	P	G	T	Y
Stine	08EC32	0.8	E3	5	SoyStar Elite, Saltro	PI 88788	Rps 1-c, 3-a	P	G	--	IB
Stine	10EF23	1.0	E3	5	SoyStar Elite, Saltro	Peking	Rps 3-a	P	G	--	BF
Stine	11EC02	1.1	E3	4,5	SoyStar Elite, Saltro	PI 88788	--	P	G	--	IB

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¹ Herbicide Trait : CN = conventional, RR2X = dicamba/glyphosate, XF = dicamba/glufosinate/glyphosate, E3 = glufosinate/glyphosate/2,4-D

² Source of SCN Resistance.

³ PRR= Phytophthora Root Rot Resistance: PRR Genes listed designate resistance to PRR Races.

⁴ BL= Black, BF = Buff, BR= Brown, CL=Clear, G= Gray, IB= Imperfect Black, IY= Imperfect Yellow, LTW= Light Tawny, M= Mixed, P= Purple, T= Tan, TW= Tawny, W=White, Y= Yellow.

TABLE 10. CONTINUED. 2023 Characteristics of Soybean Varieties (8 of 9)

Brand	Entry	Maturity Group	Herbicide Trait ¹	Performance Shown in Table(s)	Seed Treatment(s)	SCN Source ²	PRR Genes ³	Color ⁴			
								Flower	Pubescence	Pod	Hilum
Stine	15EE32	1.5	E3	3,4	SoyStar Elite, Saltro	PI 88788	Rps 3-a	P	G	--	BF
Stine	17EE32	1.7	E3	2,3,4	SoyStar Elite, Saltro	PI 88788	Rps 3-a	P	G	--	BF
Stine	19EC12	1.9	E3	3	SoyStar Elite, Saltro	PI 88788	Rps 1-k	P	G	--	IB
Stine	19EE62	1.9	E3	2,3	SoyStar Elite, Saltro	PI 88788	Rps 1-k	P	LTW	--	BL
Stine	22EF23	2.2	E3	2,3	SoyStar Elite, Saltro	PI 88788	Rps 1-c	P	LTW	--	BL
Stine	23EE06	2.3	E3	2	SoyStar Elite, Saltro	PI 88788	HRps 3-a, Rps 1-c	W	G	--	BF
Stine	24EG23	2.4	E3	2	SoyStar Elite, Saltro	PI 88788	Rps 1-k	W	G	--	BF
Stine	25FD02	2.5	XF	2	SoyStar Elite, Saltro	PI 88788	Rps 1-c	P	LTW	--	BL
Stine	29EF02	2.9	E3	2	SoyStar Elite, Saltro	PI 88788	--	P	G	--	IB
Tracy	1654E	1.6	E3	3	Intego Suite, N-Force	--	Rps 1-k	P	LTW	BR	BL
Tracy	1854E	1.8	E3	3	Intego Suite, N-Force	--	Rps 1-k	P	LTW	BR	BL
Tracy	2153E	2.1	E3	3	Intego Suite, N-Force	Peking	Rps 1-c	P	G	T	IB
Tracy	2253E	2.2	E3	2	Intego Suite, N-Force	--	Rps 1-k	P	LTW	T	BL
Tracy	2453E	2.4	E3	2	Intego Suite, N-Force	--	Rps 1-a	P	G	T	BF
Tracy	2454E	2.4	E3	2	Intego Suite, N-Force	--	Rps 1-k	P	LTW	BR	BL
Tracy	2654E	2.6	E3	2	Intego Suite, N-Force	--	Rps 1-k	P	LTW	BR	BL
Viking	VK 1223N	1.2	CN	7	none	PI 88788	--	P	LTW	T	BL
Viking	VK 2022N	2.0	CN	6	none	PI 88788	Rps 1-k	P	LTW	T	BL
Viking	VK 2340KN	2.3	CN	6	none	Peking	Rps 1-k	P	G	T	BF
Viking	VK 2724	2.7	CN	6	none	PI 88788	Rps 1-c	W	LTW	T	BL
Virtue	V1821	1.8	CN	6	CruiserMaxx APX	PI 88788	Rps 1-c	P	G	BR	Y
Virtue	V2122	2.1	CN	6	CruiserMaxx APX	--	Rps 3-a	W	T	T	BL
Virtue	V2922	2.9	CN	6	CruiserMaxx APX	PI 88788/PI 437654	Rps 1-k	P	G	T	BF
Xitavo	XO 0554E	0.5	E3	5	Obvius Plus, Poncho/Votivo, Relenya, ILEVO	PI 88788	Rps 1-k, 3-a	P	G	T	IB
Xitavo	XO 0602E	0.6	E3	5	Obvius Plus, Poncho/Votivo, Relenya, ILEVO	PI 88788	--	P	G	T	BF

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¹ Herbicide Trait : CN = conventional, RR2X = dicamba/glyphosate, XF = dicamba/glufosinate/glyphosate, E3 = glufosinate/glyphosate/2,4-D

² Source of SCN Resistance.

³ PRR= Phytophthora Root Rot Resistance: PRR Genes listed designate resistance to PRR Races.

⁴ BL= Black, BF = Buff, BR= Brown, CL=Clear, G= Gray, IB= Imperfect Black, IY= Imperfect Yellow, LTW= Light Tawny, M= Mixed, P= Purple, T= Tan, TW= Tawny, W=White, Y= Yellow.

TABLE 10. CONTINUED. 2023 Characteristics of Soybean Varieties (9 of 9)

Brand	Entry	Maturity Group	Herbicide Trait ¹	Performance Shown in Table(s)	Seed Treatment(s)	SCN Source ²	PRR Genes ³	Color ⁴			
								Flower	Pubescence	Pod	Hilum
Xitavo	XO 0993E	0.9	E3	4,5	Obvius Plus, Poncho/Votivo, Relenya, ILEVO	Peking	Rps 3-a	P	G	T	BF
Xitavo	XO 1133E	1.1	E3	3,4,5	Obvius Plus, Poncho/Votivo, Relenya, ILEVO	PI 88788	--	P	G	T	IB
Xitavo	XO 1212E	1.2	E3	3,4,5	Obvius Plus, Poncho/Votivo, Relenya, ILEVO	PI 88788	Rps 1-c	P	G	T	IB
Xitavo	XO 1372E	1.3	E3	3,4	Obvius Plus, Poncho/Votivo, Relenya, ILEVO	PI 88788	--	P	G	BR	IB
Xitavo	XO 1404E	1.4	E3	3,4	Obvius Plus, Poncho/Votivo, Relenya, ILEVO	PI 88788	Rps 1-c	P	G	T	IB
Xitavo	XO 1632E	1.6	E3	3,4	Obvius Plus, Poncho/Votivo, Relenya, ILEVO	PI 88788	Rps 3-a	P	G	T	BF
Xitavo	XO 1822E	1.8	E3	2,3,4	Obvius Plus, Poncho/Votivo, Relenya, ILEVO	PI 88788	Rps 3-a	P	G	T	BF
Xitavo	XO 2181E	2.1	E3	2,3	Obvius Plus, Poncho/Votivo, Relenya, ILEVO	PI 88788	Rps 1-k	P	G	BR	IB
Xitavo	XO 2282E	2.2	E3	2,3	Obvius Plus, Poncho/Votivo, Relenya, ILEVO	PI 88788	--	P	G	T	BF
Xitavo	XO 2323E	2.3	E3	2,3	Obvius Plus, Poncho/Votivo, Relenya, ILEVO	PI 88788	Rps 1-c	P	LTW	T	BL
Xitavo	XO 2444E	2.4	E3	2,3	Obvius Plus, Poncho/Votivo, Relenya, ILEVO	PI 88788	Rps 1-a	P	G	BR	BF
Xitavo	XO 2501E	2.5	E3	2	Obvius Plus, Poncho/Votivo, Relenya, ILEVO	PI 88788	--	P	G	BR	IB
Xitavo	XO 2613E	2.6	E3	2	Obvius Plus, Poncho/Votivo, Relenya, ILEVO	PI 88788	Rps 1-c	P	G	T	BF
Xitavo	XO 2832E	2.8	E3	2	Obvius Plus, Poncho/Votivo, Relenya, ILEVO	PI 88788	Rps 1-k	P	G	BR	IB
Xitavo	XO 2963E	2.9	E3	2	Obvius Plus, Poncho/Votivo, Relenya, ILEVO	Peking	Rps 1-k	P	G	T	IB

All characteristic information is provided by the originator.

¹ Herbicide Trait : CN = conventional, RR2X = dicamba/glyphosate, XF = dicamba/glufosinate/glyphosate, E3 = glufosinate/glyphosate/2,4-D

² Source of SCN Resistance.

³ PRR= Phytophthora Root Rot Resistance: PRR Genes listed designate resistance to PRR Races.

⁴ BL= Black, BF = Buff, BR= Brown, CL=Clear, G= Gray, IB= Imperfect Black, IY= Imperfect Yellow, LTW= Light Tawny, M= Mixed, P= Purple, T= Tan, TW= Tawny, W=White, Y= Yellow.

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