

Full Season Soybean Performance in Centre County, 2023

Source	Entry	Maturity group	Traits	Seed treatment ¹	Yield, (bu/A) ²	Harvest moisture (%)	Test Weight (lb/bu)	Height (in.)	Lodging (0-5, 0=best)	Grain protein (%) ³	Grain oil (%) ³
Albert Lea	Blue River BR 3024 [30B4]	3	Conventional		85.2	10.9	56.2	33	0	18.1	33.4
Xitavo	XO 3014E	3	Enlist E3	Obvius Plus, Poncho/Votivo, ILEVO, Relenya	83.5	10.8	55.1	31	0	18.6	33.7
Nutrien/Dyna-Gro	Dyna-Gro S31EN91	3.1	Enlist E3	Equity VIP, Salstro, Vayantis	82.2	10.8	55.2	32	1	17.9	36.2
Growthmark FS	HiSoy HS 33E30	3.3	Enlist E3		81.6	11.1	55.1	31	0	18.4	34.4
Seed Consultants	SC7293E	2.9	Enlist E3	LumiGEN/ ILeVO	81.5	11.0	54.9	29	0	15.7	35.6
Seed Consultants	SC7372E	3.7	Enlist E3	LumiGEN/ ILeVO	81.2	10.8	55.5	31	0	18.6	35.1
Seed Consultants	SC7364E	3.6	Enlist E3	LumiGEN/ ILeVO	80.8	10.8	54.8	30	0	18.1	35.7
Xitavo	XO 3131E	3.1	Enlist E3	Obvius Plus, Poncho/Votivo, ILEVO, Relenya	80.7	10.8	55.2	34	1	17.9	36.1
Chemgro	Chemgro C3357E	3.3	Enlist E3	Chemgro gro-Tek	79.8	10.4	54.3	32	1	19.4	34.2
Seedway	SG 2923E3	2.9	Enlist E3/STS	Obtayne	79.4	10.9	55.7	31	0	18.7	34.4
Seed Consultants	SC7341E	3.4	Enlist E3/STS	LumiGEN/ ILeVO	79.3	10.6	54.8	32	0	18.9	34.4
Xitavo	XO 3224E	3.2	Enlist E3	Obvius Plus, Poncho/Votivo, ILEVO, Relenya	79.0	10.6	55.1	30	0	18.3	35.6
Channel	2824RFX	2.8	XtendFlex	ACCELERON F+I	78.8	10.8	54.6	25	0	17.9	35.5
Revere Seed	Revere 2424XF	2.4	XtendFlex	Radius Premium	78.6	10.9	54.6	31	0	18.0	34.9
Xitavo	XO 3752E	3.7	Enlist E3/STS	Obvius Plus, Poncho/Votivo, ILEVO, Relenya	78.3	10.5	54.0	33	0	17.8	34.7
Seedway	SG 3323E3	3.3	Enlist E3	Obtayne	78.1	10.9	55.3	29	0	18.8	34.9
Xitavo	XO 3483E	3.4	Enlist E3	Obvius Plus, Poncho/Votivo, ILEVO, Relenya	77.8	10.2	54.9	26	0	18.7	35.0
Xitavo	XO 3922E	3.9	Enlist E3	Obvius Plus, Poncho/Votivo, ILEVO, Relenya	77.8	11.0	55.6	27	0	18.0	34.9
Hubner	H35-31XF	3.5	XtendFlex	Acceleron	77.7	10.7	55.0	31	1	18.1	35.3
Channel	3124RFX	3.1	XtendFlex	ACCELERON F+I	77.3	10.7	54.7	31	0	18.1	34.4
Seedway	SG 3522E3	3.5	Enlist E3	Obtayne	77.3	11.2	55.8	35	0	18.1	35.5
Nutrien/Dyna-Gro	Dyna-Gro S29EN62	2.9	Enlist E3	Equity VIP, Salstro, Vayantis	77.3	10.9	54.9	26	0	18.9	33.9
Xitavo	XO 3651E	3.6	Enlist E3	Obvius Plus, Poncho/Votivo, ILEVO, Relenya	77.2	11.1	55.4	35	0	19.0	34.2
Revere Seed	Innotech 3750E3S	3.7	Enlist E3/STS	Radius Premium	77.2	10.7	54.7	32	2	18.9	34.2
Hubner	H32-53XF	3.2	XtendFlex	Acceleron	76.9	10.4	55.5	27	0	17.1	35.3
Seed Consultants	H3272E	2.8	Enlist E3	LumiGEN/ ILeVO	76.8	11.1	54.9	30	0	19.2	33.7
Revere Seed	Innotech 2818E3	2.8	Enlist E3	Radius Premium	76.7	11.2	54.3	30	0	19.2	34.5
Nutrien/Dyna-Gro	Dyna-Gro S25EN74	2.5	Enlist E3	Equity VIP, Salstro, Vayantis	76.6	11.0	55.1	29	1	19.4	33.9
Revere Seed	Innotech 3188E3S	3.1	Enlist E3/STS	Radius Premium	76.5	10.9	55.1	33	0	18.5	34.1
Nutrien/Dyna-Gro	Dyna-Gro S33XF62	3.3	XtendFlex	Equity VIP, Salstro, Vayantis	76.5	10.7	55.1	31	0	17.4	36.2
Xitavo	XO 2444E	2.4	Enlist E3	Obvius Plus, Poncho/Votivo, ILEVO, Relenya	76.2	10.7	55.2	27	0	20.1	33.4
Channel	2724RFX	2.7	XtendFlex	ACCELERON F+I	76.2	10.7	54.8	31	0	18.3	35.7
Hubner	H38-43XF	3.8	XtendFlex	Acceleron	76.1	10.7	55.4	33	0	17.5	33.5
Revere Seed	Revere 3908XFS	3.9	XtendFlex/STS	Radius Premium	75.9	11.0	55.8	35	0	17.5	35.7
Seedway	SG 3142XTF	3.1	XtendFlex	Obtayne	75.9	10.8	55.0	30	0	18.3	34.4
Lakeview Farm	LVF2849	2.8	Conventional	EclipseUS Quad-R IM SDS 75	75.5	11.3	55.0	27	0	19.9	32.9
Nutrien/Dyna-Gro	Dyna-Gro S33EN42	3.3	Enlist E3	Equity VIP, Salstro, Vayantis	75.5	11.1	55.0	32	0	19.9	33.0
Xitavo	XO 2613E	2.6	Enlist E3	Obvius Plus, Poncho/Votivo, ILEVO, Relenya	75.4	10.9	55.2	29	2	19.0	34.1
Seed Consultants	SC7322E	3.2	Enlist E3	LumiGEN/ ILeVO	75.3	11.0	55.0	30	0	17.8	36.5
Albert Lea	Blue River BR 3418N	3.4	Conventional		75.0	10.7	55.9	30	0	18.4	34.4
Lakeview Farm	LVF3831	3.8	Conventional	EclipseUS Quad-R IM SDS 75	75.0	10.7	55.6	27	0	18.3	33.9
Chemgro	Chemgro C3054E	3	Enlist E3	Chemgro gro-Tek	74.6	10.8	54.6	30	0	17.9	35.4
Channel	3424RFX	3.4	XtendFlex	ACCELERON F+I	74.6	10.9	55.4	33	0	17.1	36.0
Xitavo	XO 2832E	2.8	Enlist E3	Obvius Plus, Poncho/Votivo, ILEVO, Relenya	74.5	11.4	55.2	25	0	18.1	35.6
Channel	2924RFX	2.9	XtendFlex	ACCELERON F+I	74.5	10.6	54.7	37	1	18.7	33.9
Revere Seed	Revere 2835XF	2.8	XtendFlex	Radius Premium	74.3	11.2	54.9	27	0	18.9	35.4
Purdue Agribusiness	P26ILO23	2.6	Conventional		74.3	11.1	55.4	27	0	15.3	37.0
Lakeview Farm	LVF3648	3.6	Conventional	EclipseUS Quad-R IM SDS 75	74.1	11.1	55.4	30	0	16.9	37.2
Lakeview Farm	LVF3530	3.5	Conventional	EclipseUS Quad-R IM SDS 75	73.6	10.9	54.9	31	1	18.8	34.1
Chemgro	Chemgro C2756E	2.7	Enlist E3	Chemgro gro-Tek	73.4	11.6	54.6	30	0	19.3	33.6
Channel	3624RFX	3.6	XtendFlex	ACCELERON F+I	73.2	10.7	55.0	34	0	18.1	35.4
Hubner	H36-32XF	3.6	XtendFlex	Acceleron	73.1	11.1	55.0	35	0	17.6	33.6
Revere Seed	Innotech 3309E3S	3.3	Enlist E3/STS	Radius Premium	72.7	11.0	55.5	25	0	18.9	34.7
Lakeview Farm	LVF3332B	3.3	Conventional	EclipseUS Quad-R IM SDS 75	72.0	11.4	54.9	32	2	18.8	35.8
Hubner	H28-63XF	2.8	XtendFlex	Acceleron	71.9	10.8	54.8	36	0	18.3	35.6
Revere Seed	Innotech 3961E3S	3.9	Enlist E3/STS	Radius Premium	71.7	11.1	55.2	31	0	18.3	37.0
Lakeview Farm	LVF3949	3.9	Conventional	EclipseUS Quad-R IM SDS 75	71.3	10.7	55.1	35	0	18.0	35.0
Chemgro	Chemgro C3357E	3.3	Enlist E3	Chemgro gro-Tek	71.3	10.9	55.2	30	0	18.6	34.1
Lakeview Farm	LVF3641	3.6	Conventional	EclipseUS Quad-R IM SDS 75	70.8	11.0	55.4	29	0	18.9	35.1
Albert Lea	Blue River BR 29DC5	2.9	Conventional		70.7	10.9	54.9	32	1	18.5	34.5
Lakeview Farm	LVF3653B	3.6	Conventional	EclipseUS Quad-R IM SDS 75	70.6	11.3	55.6	26	0	18.7	34.7
Purdue Agribusiness	P24ILO22	2.4	Conventional		70.6	11.0	54.7	22	0	16.1	34.2
Hubner	H33-52XF	3.3	XtendFlex	Acceleron	70.5	11.0	55.3	30	0	18.3	35.4
Purdue Agribusiness	P29ILO22	2.9	Conventional		69.1	11.2	55.6	30	0	15.6	35.0
Purdue Agribusiness	P30ILO22	3	Conventional		69.0	11.1	55.4	29	0	16.0	34.7
Lakeview Farm	LVF3039	3	Conventional	EclipseUS Quad-R IM SDS 75	69.0	11.0	54.4	33	0	19.0	35.4
Purdue Agribusiness	P23ILO23	2.3	Conventional		68.8	10.8	55.2	30	0	16.4	35.7
Albert Lea	Blue River BR 3923 [39R4]	3.9	Conventional		68.6	11.2	56.6	31	0	18.4	33.5
Lakeview Farm	LVF2630	2.6	Conventional	EclipseUS Quad-R IM SDS 75	68.4	11.4	55.3	29	0	18.1	35.0
Mean					75.5	10.9	55.1	30.4	0.2	18.2	34.8
LSD(0.05)					18.0	0.9	1.3				
LSD(0.2)					16.6	0.9	1.2				
CV%					7.7	2.8	0.7				

¹ As reported by seed source. If blank, not reported.

² Yield adjusted to 13% moisture. Bold and italicized values are not significantly different from the top yielding entry at LSD = 0.2



Production Details	
Location:	Russell E. Larson Agricultural Research Center (Centre County)
Previous crop	Wheat
Tillage	No-till
Row spacing	30 inches
Planted plot size	4 rows x 20 feet in length
Seeding rate ¹	165,000 seeds/acre
Planting date	5/24/2023
Harvest date	11/15/2023
Soil texture	Silt Loam (Hagerstown Soil type)
Burndown Herbicide	5/10/2023, 32oz/A Round-Up Powermax, 1oz/A Sharpen, AMS
Residual Herbicide	6/7/2023, 2.5pt/A Antares Complete, 16 oz/A Clethodim 2E, 32 oz/A Glyphosate
Post Herbicide	7/31/2023, 5oz/A Raptor, 7oz/A Assure II
Weather data	https://newa.cornell.edu/all-weather-data-query

¹ The same seeding rate was used for all plots. Differences in seed sizes were considered. We assume that germination rates are high and not significantly different across varieties.

Notes: The 2023 growing season started out extremely dry at planting thru mid June. This led to delayed germination until we had significant rainfall. Plots looked good mid-season despite this rough start. Temperatures in August and September were cooler than usual and led to less growing degree days accumulated in these months (almost 10% less than the 15-year average). As a result, grain drydown took longer than usual. Despite cooler temperatures, we had little rain in October-November, which allowed us to harvest the soybeans soon after they reached harvest maturity.