

2023 Performance Summary, Syngenta Data Eastern North Dakota and Minnesota

Variety	2023 Yield bu/ac								Test Wt. lbs/bu	Protein %	Heading 1-9	Height 1-9
	Avg.	Casselton, ND	McVille, ND	Park River, ND	Valley City, ND	Crookston, MN	Glyndon, MN	Warren, MN				
SY Valda	87.8	114.0	94.6	68.4	104.5	67.9	78.4	86.7	60.0	14.5	5	5
AP Smith	83.9	109.7	83.2	81.2	93.6	63.5	76.0	80.4	61.0	15.3	6	4
SY 611 CL2	83.2	115.1	90.5	72.0	86.8	60.6	74.6	82.8	61.2	15.5	5	4
AP Murdock	82.4	114.1	86.6	67.7	94.0	53.7	75.3	85.7	61.3	15.0	4	4
AP Gunsmoke CL2	81.9	107.6	87.4	71.1	87.8	64.2	67.7	87.5	60.3	15.4	5	5
SY Ingmar	79.9	102.5	90.5	67.5	86.1	62.2	72.8	77.8	61.2	15.6	5	5
Knudson	79.8	109.2	87.8	64.7	94.1	50.1	67.0	85.9	60.3	15.2	5	6
SY Longmire	77.6	108.1	83.3	56.0	81.3	67.2	66.3	81.1	60.3	15.6	5	5
WB9606	91.9	120.0	102.8	80.2	107.5	64.1	77.4	91.4	62.0	14.2	5	6
MN-Rothsay	91.0	114.5	98.0	76.9	104.2	66.3	84.2	92.8	61.3	15.2	5	5
WB9719	90.2	119.2	98.5	76.5	99.6	66.5	79.3	91.5	61.0	14.8	6	5
Faller	89.7	111.3	96.6	64.6	105.1	75.7	72.6	102.2	60.1	14.3	6	7
Shelly	89.5	118.1	96.4	67.0	100.8	66.8	81.6	95.8	61.2	15.0	6	5
WB9590	88.0	115.1	96.9	73.4	106.3	66.3	70.7	87.5	61.2	15.5	4	4
MN-Torgy	87.8	116.6	77.4	64.0	104.2	73.3	79.9	99.5	61.7	15.5	6	6
LCS Cannon	82.2	106.3	97.4	73.8	83.8	57.0	74.9	82.1	63.1	14.9	2	5
ND Frohberg	81.9	109.2	89.3	71.2	98.5	56.5	67.5	81.0	60.8	15.7	5	6
Mean	88.7	118.1	95.3	74.7	100.7	64.7	76.3	91.1	60.6	14.8		
LSD (5%)	6.1	8.7	9.9	13.7	12.6	9.7	10.8	13.4	1.5	0.5		
CV (%)	6.3	3.6	5.1	9.0	6.1	7.4	6.9	7.3	1.8	3.2		
No. of Locs.	7								7	7		

Numbers in **bold type** are in the top yielding group and considered statistically similar.

Numerical ratings: Heading: 1 = early; Height: 1 = short; Lodging: 1 = no lodging; Disease 1 = tolerant

These agronomic assessments are made by Syngenta scientists and reflect each variety's relative performance within these characteristics through the 2023 crop year. Specific conditions may cause variations within those characteristics. These relative protection values are based on current pest and disease populations. These have been known to shift periodically and may cause changes in specific evaluations. Resistance to many other diseases and pests is sensitive to environmental conditions, plant development stages and the presence and intensity of other diseases which may result in specific evaluation inconsistencies. This chart is updated annually to reflect the most current trends.

Three-Year Performance Summary, Syngenta Data (2021-2023) Eastern North Dakota and Minnesota

Variety	Yield Average bu/ac			Protein % 3-yr Avg	Economic Return ¹			Agronomics and Disease				
	3-yr	2-yr	2023		\$/Bu	Gross \$/A	Rank	Heading 1-9	Height 1-9	Lodging 1-9	BLS 1-9	FHB 1-9
SY Valda	82.8	83.6	87.8	14.5	6.51	538.8	8	5	5	5	4	4
SY 611 CL2	80.8	81.2	83.2	15.3	6.88	556.0	2	5	4	4	4	3
AP Smith	78.9	80.6	83.9	15.2	6.84	539.4	7	6	4	2	3	4
AP Murdock	78.3	79.7	82.4	14.9	6.70	524.8	10	4	4	4	4	4
AP Gunsmoke CL2	76.6	76.8	81.9	15.2	6.84	524.4	11	5	5	3	5	4
SY Ingmar	76.5	77.5	79.9	15.6	7.06	539.8	5	5	5	3	3	3
SY Longmire	74.4	75.0	77.6	15.4	6.95	517.1	13	5	5	5	4	5
Knudson	71.8	73.6	79.8	15.2	6.86	492.6	14	5	6	6	—	5
WB9606	86.6	87.2	91.9	14.2	6.39	552.8	3	5	6	—	—	—
Shelly	83.6	84.8	89.5	14.5	6.55	547.0	4	6	5	6	5	4
Faller	82.8	83.3	89.7	14.4	6.49	537.2	9	6	7	7	3	3
MN-Torgy	81.8	82.9	87.8	15.5	7.01	573.2	1	6	6	4	3	—
LCS Cannon	77.7	78.5	82.2	15.0	6.74	524.1	12	2	5	4	4	3
ND Frohberg	77.6	77.7	81.9	15.4	6.96	539.6	6	5	6	—	—	—
MN-Rothsay	—	83.9	91.0	—	—	—	—	5	5	3	3	—
Mean	80.8	82.0	88.7	14.8								
LSD (5%)	4.0	4.5	6.1	0.4								
CV (%)	7.1	7.3	6.3	3.3								
No. of Locs.	16	14	7	14								

Numbers in **bold type** are in the top yielding group and considered statistically similar.

Numerical ratings: Heading: 1= early; Height: 1 = short; Lodging: 1 = no lodging; Disease 1 = tolerant

2021 Locations: Crookston and Glyndon, MN

2022 Locations: McVile, Thompson, and Park River, ND; Warren, MN

2023 Locations: Casselton, McVile, Park River, and Valley City, ND; Crookston, Glyndon, and Warren, MN

¹ Economic return calculated using October local cash grain price of \$6.29 for 14% protein and 10-yr avg MGE protein discount/premium up to 16% protein (Mendota Wheat & Milling Associates, 2023).

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