SOIL AND CROP SCIENCES
COLORADO STATE UNIVERSITY

2025 Starter Fertilizer Trials at Akron, Sheridan Lake, and Seibert

CROPS TESTING PROGRAM

Treatment	Rate/Acre	Application Type	Grain Yield[a]	Yield	Moisture	Test Weight	Population
			bu/ac	% of test avg.	percent	lb/bu	plants/ac
Akron (Starting soil N of 51 lb/ac and P of 18 lb/ac (low))							
Untreated	N/A	N/A	114	103%	8.3	58.2	23,445
Lumen @ 3 gal/ac	3.0 gal	In-Furrow	112	101%	8.2	57.5	23,021
10-34-0 @ 3.2 gal/acre	3.2 gal	Surface Band	112	101%	8.3	56.7	25,609
7-23-5 @ 5 gal/ac	5.0 gal	In-Furrow	109	98%	7.9	56.6	16,254
10-34-0 @ 3.2 gal/acre	3.2 gal	In-Furrow	105	95%	8.7	58.0	19,270
		Average	**111**	**100%**	**8.3**	**57.4**	**21,520**
		Coefficient of Variation (%)	**7.8**				
Sheridan Lake (Starting soil N of 180 lb/ac and P of 24 lb/ac (med))							
10-34-0 @ 3.2 gal/acre	3.2 gal	Surface Band	102	105%	11.5	60.4	33,934
Untreated	N/A	N/A	100	104%	11.7	60.9	35,592
7-23-5 @ 5 gal/ac	5.0 gal	In-Furrow	99	103%	11.3	60.8	32,890
Lumen + 7-23-5	1.5 gal + 2.5 gal	In-Furrow	96	100%	11.4	61.2	34,022
Lumen @ 3 gal/ac	3.0 gal	In-Furrow	93	96%	11.5	60.6	33,963
10-34-0 @ 3.2 gal/acre	3.2 gal	In-Furrow	88	91%	11.3	61.0	34,455
		Average	**96**	**100%**	**11.5**	**60.8**	**34,143**
		Coefficient of Variation (%)	**10.4**				
Seibert (Starting soil N of 110 lb/ac and P of 34 lb/ac (med))							
Lumen @ 3 gal/ac	3.0 gal	In-Furrow	84	107%	9.1	61.7	32,497
10-34-0 @ 3.2 gal/acre	3.2 gal	In-Furrow	80	103%	9.3	61.0	33,757
7-23-5 @ 5 gal/ac	5.0 gal	In-Furrow	79	102%	9.4	61.2	34,676
Lumen + 7-23-5	1.5 gal + 2.5 gal	In-Furrow	77	99%	9.2	60.4	30,768
Untreated	N/A	N/A	76	97%	9.2	60.3	34,996
10-34-0 @ 3.2 gal/acre	3.2 gal	Surface Band	72	92%	9.2	59.2	36,538
		Average	**78**	**100%**	**9.2**	**60.6**	**33,872**
		Coefficient of Variation (%)	**10.3**				

No statistical significance was found (P-values greater than 0.50)
[a]Yields corrected to 14% moisture.

Site Information - Akron

Collaborator: USDA-ARS Station
Planting Date: June 2, 2025
Harvest Date: November 15, 2025
Soil Type: Rago Silt Loam
Trial Comments: Trial was planted 1" deep into great moisture and received 15.0" of precipitation during the season. Weed control was excellent and there no pest or storm issues with the trial. M59GB57 was used for trial.

Site Information - Sheridan Lake

Collaborator: Scherler Farms
Planting Date: May 23, 2025
Harvest Date: October 31, 2025
Soil Type: Fort Collins sandy loam
GPS Coordinates: 38.5419698, -102.4591133
Trial Comments: Planted 1" deep into moisture. Average stands and emergence, partially due to heavy rain two weeks after planting. Heavy sandbur weed pressure, which was 70% controlled in harvested rows by pre-emerge herbicide, and a single application of glyphosate with a hooded sprayer. Trial average maturity date of Sept. 11th. Nearby weather station totals showed the trial received about 19.3 inches of rain from planting to harvest. M59GB57 was used for trial.

Site Information - Seibert

Collaborator: Tim Stahlecker
Planting Date: June 2, 2025
Harvest Date: November 17, 2025
Soil Type: Ascalon Sandy Loam
GPS Coordinates: 39.269712, -102.817357
Trial Comments: Trial was planted into great moisture. M59GB57 was used for trial.

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2024 Starter Fertilizer Trial at Akron

CROPS TESTING PROGRAM

Treatment	Rate/Acre	Application Type	Grain Yield[a]	Yield	Moisture	Weight	Population
			bu/ac	% of test avg.	percent	lb/bu	plants/ac
Akron (Starting soil N of 62 lb/ac and high level of P)							
Lumen @ 3 gal/ac	3.0 gal	In-Furrow	**160.4**	103%	10.9	56.0	24,800
10-34-0 @ 3.2 gal/acre	3.2 gal	In-Furrow	**159.7**	103%	10.5	56.5	26,100
10-34-0 @ 3.2 gal/acre	3.2 gal	Surface Band	154.6	99%	10.6	55.3	26,300
7-23-5 @ 5 gal/ac	5.0 gal	In-Furrow	152.8	98%	10.5	55.1	25,700
Untreated	N/A	N/A	149.7	96%	10.0	54.5	24,500
		Average	**155.4**	**100%**	**10.5**	**55.5**	**25,480**
		LSD (0.10)	**4**				
		Coefficient of Variation (%)	**2.2**				

[a]Yields corrected to 14% moisture.

Site Information - Akron

Collaborator:	USDA-ARS Station
Planting Date:	May 28, 2024
Harvest Date:	October 25, 2024
Soil Type:	Rago Silt Loam
Trial Comments:	Planted into excellent moisture into very heavy wheat residue. Average stands and emergence. Very timely and frequent rainfall allowed for excellent yield. No lodging noted at harvest. First frost date was Oct. 14th. Radar estimates showed the trial received 9.74 inches of rain from planting to harvest, and 18.57 inches since January 1st, which is 120% of the ten-year average (year-to-date). Weed control was excellent and there no pest or storm issues with the trial. M59GB57 was used for trial.

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