

2020 AgXplore Foliar Fertilizers in Spring Wheat at Minot

TRT Product	Heading Date	NDVI	Plant Height	Lodging	Harvest Moisture	Test Weight	Grain Protein	Grain Yield
	DAP*	0-1	inches	0-9**	%	lbs/bu	%	bu/A
1 Untreated	56	0.74	27	0	12.8	61.3	13.3	64.5
2 16 oz/A NutriPak ¹ + 16 oz/A SulPak ² at 4 leaf <i>fb</i> 16 oz/A NutriPak + 16 oz/A SulPak at flag leaf	56	0.74	26	0	12.8	61.3	13.7	66.2
3 32 oz/A NitroUltra ³ + 16 oz/A SulPak at 4 leaf <i>fb</i> 16 oz/A SulPak at flag leaf	56	0.74	27	0	12.9	61.1	13.2	65.7
4 32 oz/A NitroElite ⁴ at 4 leaf	56	0.74	27	0	12.7	61.0	13.3	64.2
5 16 oz/A NutriPak at 4 leaf <i>fb</i> 16 oz/A NutriPak at flag leaf	56	0.76	26	0	13.1	61.6	13.6	69.4
6 32 oz/A NitroUltra at 4 leaf	56	0.74	26	1	13.1	61.5	13.4	64.6
7 16 oz/A SulPak at 4 leaf <i>fb</i> 16 oz/A SulPak at flag leaf	56	0.72	26	0	13.2	61.4	13.0	63.4
8 64 oz/A Octane ⁵ at 4 leaf	56	0.73	26	0	13.0	61.5	12.6	63.2
Trial Mean	56	0.74	26	0	12.9	61.3	13.3	65.1
C.V. %	1.4	4.4	5.4	112	4.7	1.0	5.4	9.5
LSD 0.05	NS	NS	NS	NS	NS	NS	NS	NS

*Days After Planting **Lodging: 0 = none, 9 = lying flat on ground

¹AgXplore NutriPak: 8-10-2

²AgXplore SulPak 17: 8-0-0-17S

³AgXplore NitroUltra: 10-0-0-0.05B-0.2Cu-0.2Fe-0.1Mn-0.1Mg-0.2Zn

⁴AgXplore NitroElite:

⁵AgXplore Octane: blend of complex carbohydrates and biologically derived metabolites

NS = no statistical difference between treatments.

Summary: The primary objective of this trial was to enhance grain protein content and overall plant vitality with various foliar fertilizer treatments. The trial was planted with 6 replications per treatment with SY Valda hard red spring wheat into no-till soybean stubble on May 6. 100 lbs/A urea (46-0-0) was applied in a mid-row band at planting and 50 lbs/A of MAP (11-52-0) was applied in the seed furrow at planting. Residual soil fertility levels at 0 - 24" were 67 lbs/A N (+ 40 lbs/A legume crop N credit), 38 ppm P and 398 ppm K. Soil is a Williams loam with a pH of 6.1. Foliar treatments were applied to 4 leaf wheat on June 8 and to flag leaf wheat on June 21. Fertilizer treatments were mixed with water and applied at a rate of 20 gallons/A with a CO₂ propelled backpack sprayer. The trial was harvested on August 24. The trial was provided with adequate nutrition at planting. NDVI ratings (leaf greenness) were obtained 5 days after flag leaf treatments, and ratings on all treatments were statistically similar. None of the foliar fertilizer treatments provided any enhancement to grain protein content or grain yield.