



Evaluation of Additives to a Nitrogen Topdress Application on Winter Wheat (16-717)

Experiment Info:

Planted:	10/16/2015
Harvest:	7/1/2016
Yield Goal:	100 bu/A
Target Fert.:	120-153-93
Variety:	Red Devil
Population:	2 million
Row Width:	Drill
Prev. Crop:	soybeans
Plot Size:	15x210
Replications:	4
TD	4/18/2016

Soil Test Values (ppm):

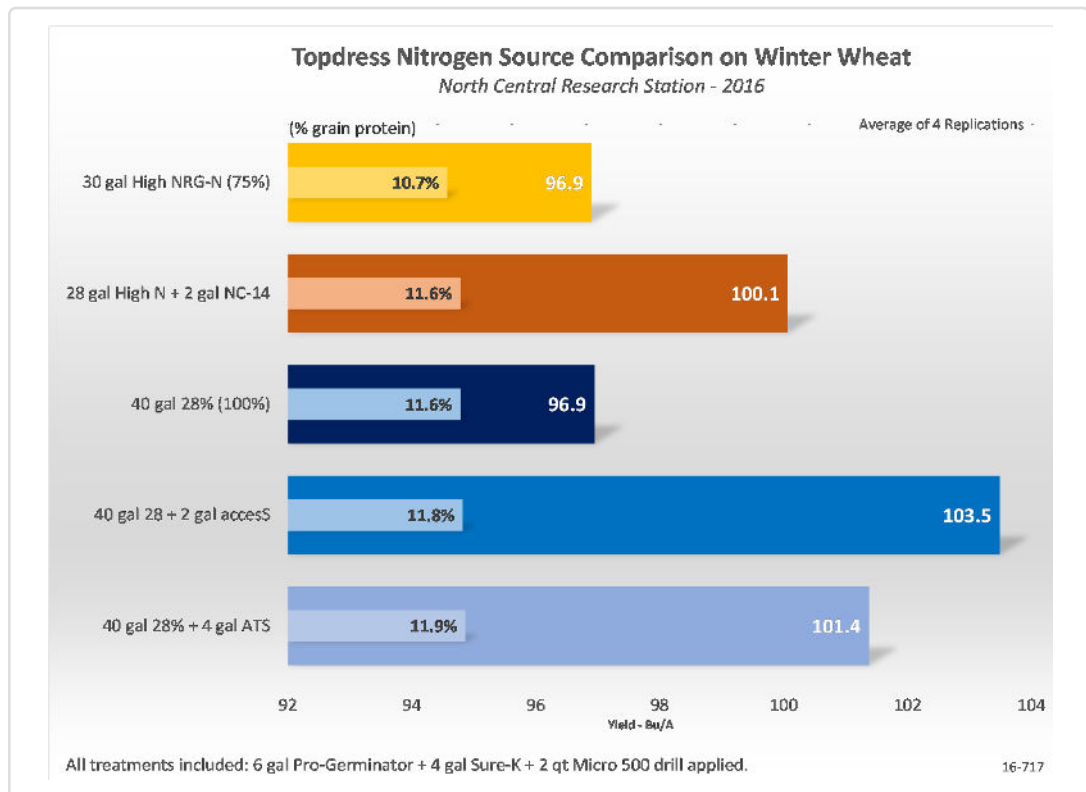
pH:	7.1
CEC:	17
%OM:	3.1
Bray P1:	7
Bicarb P:	7
K:	98
S:	17
%K:	1.5
%Mg:	22.9
%Ca:	75
%H:	
Zn:	.8
Mn:	2
B:	.6

Objective:

To evaluate additives to nitrogen topdress programs.

Sulfur continues to become a more valuable part of a crops fertilizer program. Conventionally, ammonium thiosulfate (ATS) has been added to a 28% UAN program to help address these sulfur needs. AgroLiquid can also address this sulfur need with many of its products, this experiment specifically looked at the use of accesS to help provide extra sulfur to a winter wheat crop. Additionally, AgroLiquid's High NRG-N offers a complete nitrogen product that also contains sulfur.

Another additive that has been talked about when it comes to a wheat crop is chloride. AgroLiquid's experimental product NC-14 is a combination of nitrogen and chlorine and was used a partial program in combination with High NRG-N at topdress. Yield results for these applications appear on the chart below.



LSD(0.05)7.2 LSD(0.1)6 LSD(0.2)4.6, CV: 6.1%

Conclusions:

- The stand alone products, High NRG-N and 28%, yielded the same at 96.9 bu/A.
- Replacing 2 gal of the High NRG-N program with NC-14, increased yield by 3 bu/A.
- The addition of sulfur, as accesS at 2 gal/A, provided the highest wheat yields at 103.5 respectively. Adding ATS at 4 gal/A yielded 101.4 bu/A.
- AgroLiquid's accesS continues to provide superior yields at lower application rates compared to ATS.
- Little difference was seen in grain protein analysis at harvest.