Topdress Nitrogen Sources Comparison 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

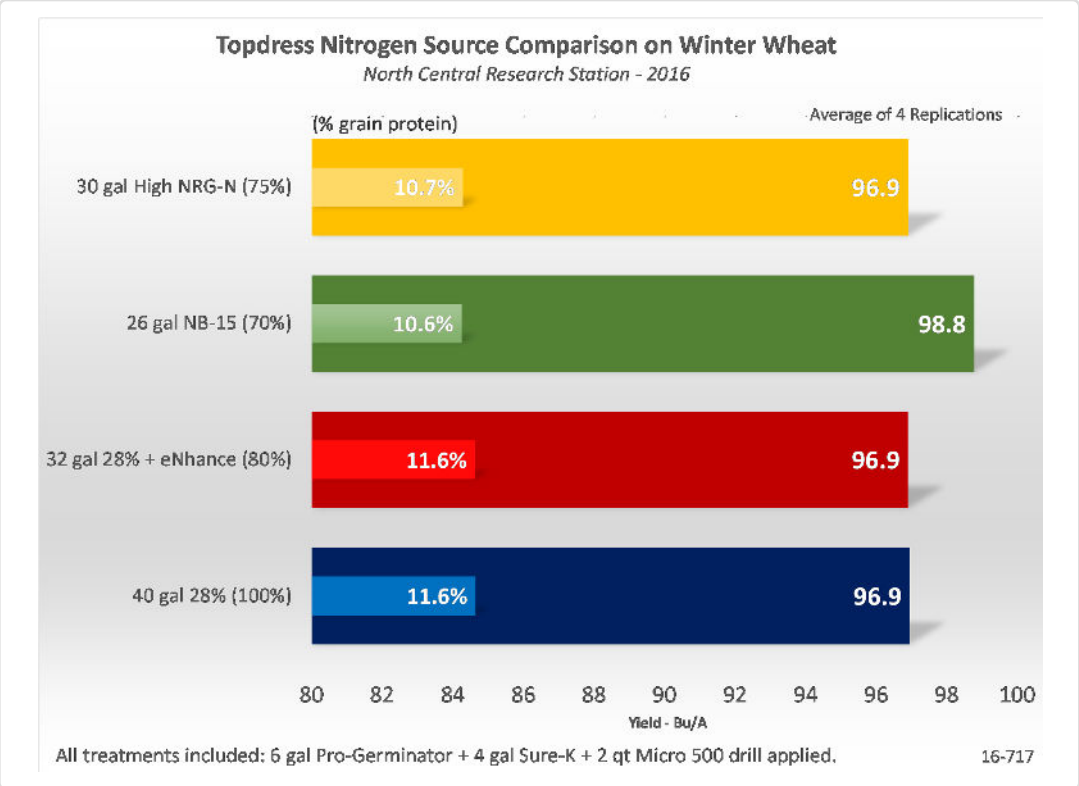
Soil Test Values (ppm):	
pH:	7.1
CEC:	17
%OM:	3.1
Bray P1:	7
Bicarb P:	7
K:	98
S:	17
%K:	1.5
%Mg:	22.9
%Ca:	75
%H:	
Zn:	.8
Mn:	2
B:	.6

Objective:

Evaluate the effects nitrogen source has on winter wheat yield and percent protein.

This trial evaluated four different nitrogen solution products applied at topdress on winter wheat. A reduced rate, based on local recommendations, of High NRG-N, 28% + eNhance and experimental product NB-15 were compared to a full nitrogen rate of 28% UAN. All treatments were applied at a rate to provide 120 pounds of nitrogen per acre. Fertilizer was applied in spring as the wheat was coming out of dormancy.

Although in Michigan, there is no premium for winter wheat based on protein levels, samples were collected and sent in to analyze its content. Results for these and yield appear on the chart below.



LSD(0.2) 4.6, CV: 6.1%

Conclusions:

- The recommended rates of the three currently marketed products had a four replication average of exactly the same yield at 96.9 bu/A.
- The experimental product, NB-15 provided nearly 2 bushels per acre more yield compared to the other nitrogen sources.
- Although all treatments yielded similar, there was a 1% difference in protein. There is a correlation between nitrogen content and protein and it appears in this work, that the more actual nitrogen applied the higher the protein level.