Nitrogen Comparisons in Hard Red Spring Wheat.

Hubbard Ag Science. Plaza, WA

Experiment Info:	
Planted:	4/16/201
Harvest:	9/1/2014
Yield Goal:	100
Target Fert.	90-0-0
Variety:	Jedd
Population:	90 lbs
Row Width:	7.5"
Prev. Crop:	wheat
Plot Size:	5' x 30'
Replications:	4

Soil Test Values (ppm):	
pH:	7.1
CEC:	17.1
%OM:	3.9
Bray P1:	
Bicarb P:	20
K:	672
S:	10
%K:	14.5
%Mg:	6915
%Ca:	1.9
%H:	
Zn:	1.9
Mn:	20
B:	0.64

Objective:

Compare different nitrogen treatments and additives for effects on yield of Hard Red Spring Wheat.

This experiment tested the effect of different nitrogen sources and additives for effects on yield of Hard Red Spring Wheat grown in the Palouse Region of the Pacific Northwest. The 2013 trial site was near Moscow, ID and the 2014 site was near Plaza, WA which is South of Spokane. The treatments were applied with tubes attached to a field cultivator such that the bands were 6" apart and 6" deep.

Nitrogen Fertilizer Comparisons in Spring Wheat

Hubbard Ag Science. Moscow, ID (2013) and Plaza, WA (2014)

	N treatment	gal/A	2013	2014	average
1	32%	26	76.8	82.8	**79.8**
2	32% + eNhance*	26	81.5	82.8	**82.15**
3	32% + CalSip	26 + 3	86	82	**84**
4	32%/eNhance* + CalSip	26 + 3	92.5	77.3	**84.9**
5	32% + eNhance* + accesS	26 + 3		74.3	
6	32% + accesS	26 + 3	85.3	76.3	**80.8**
7	32% + ATS	26 + 5.2	83.7	81	**82.35**
8	NF-13	24	86.8	81	**83.9**
9	NF-13	30		84.8	
10	NF-13 + CalSip	24 + 3	83.4	75.5	**79.45**
11	Aqua ammonia	59	85	82.5	**83.75**
12	32% + eNhance; N Response foliar at stem elong	26 + 3		81	
13	No N			67.5	

N recommendation: 90 lb-N/A. Data average of 4 replications.

Treatments were "shanked" in prior to planting with tillage tool. Bands were 6" apart and 6" deep.

14.5

Conclusions:

- In the 2013 experiment, there was a yield response with increasing amounts of the additives: eNhance, CalSip, and then both (see treatments 1-4). But not so in 2014. In fact the highest yielding treatment in 2013 was one of the lowest in 2014. Such is the plight of research sometimes. Soil tests at the two sites was similar, although the pH in 2013 was 6.1 compared to 7.1 in 2014, which may favor addition of CalSip.
- Yields were such in 2014 that no clear trends were observed.
- The two year average yield does show an advantage to the addition of eNhance and CalSip to 32% UAN alone.
- The test product NF-13 also resulted in yields that were higher than that of 32% UAN, and similar to that with aqua ammonia, which is a commonly used N source in this area.