



Effect of eNhanCe Applied In-Furrow on Soil Test Values: Sulfur (20-1219)

Experiment Info:

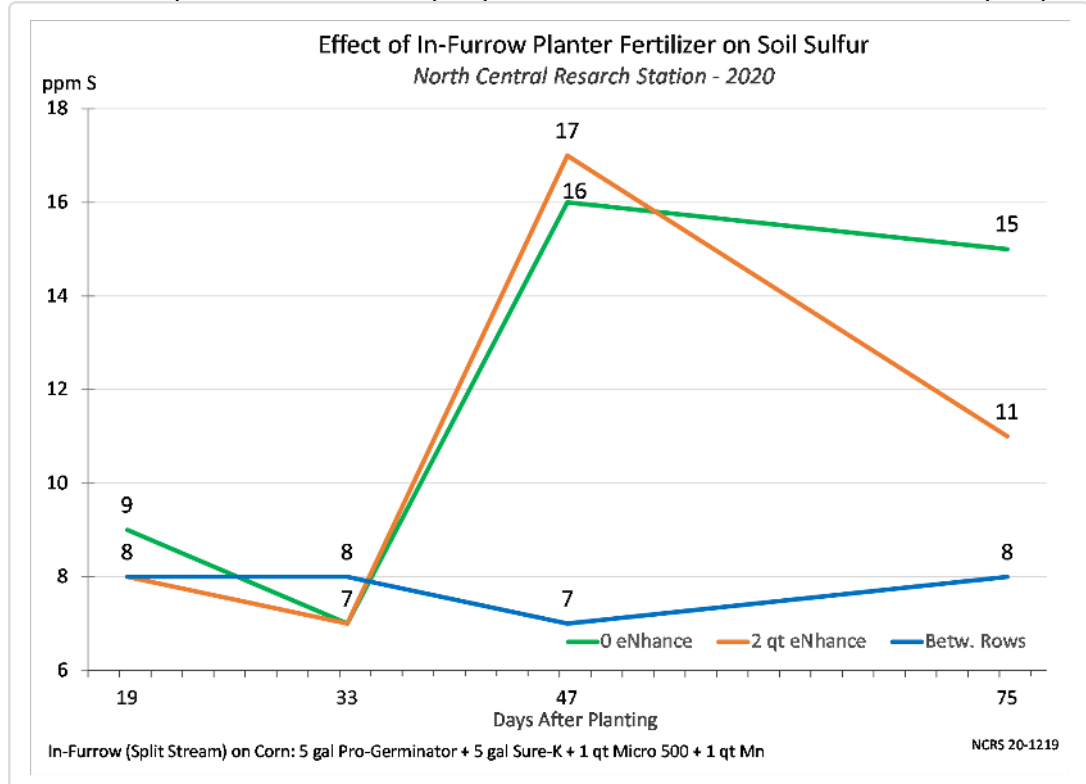
Planted:	5/7/2020
Harvest:	10/29/2020
Yield Goal:	175 bu/A
Target Fert.:	193-55-124
Variety:	P9998 AM
Population:	32,000
Row Width:	30"
Prev. Crop:	Corn
Plot Size:	15 x 172.5
Replications:	3

Soil Test Values (ppm):

pH:	7.6
CEC:	19.5
%OM:	7.8
Bray P1:	17
Bicarb P:	8
K:	95
S:	6
%K:	1.2
%Mg:	20.2
%Ca:	78.4
%H:	
Zn:	1.9
Mn:	1
B:	.5

Objective:

The fertilizer product eNhanCe has been demonstrated to be an effective sulfur additive to In-Furrow applications of planter fertilizers on corn. Even though it contains almost 9% sulfur (from ammonium-, zinc- and manganese sulfate) it is considered to be seed safe at recommended rates. In a previous report on this experiment, it was found that addition of eNhanCe to In-Furrow fertilizer did not affect soil pH. However, there were other soil test measurements taken to see if eNhanCe would have an effect, including soil test sulfur. In this experiment, two treatments were applied In-Furrow at planting: 1. Planter fertilizer alone and, 2. Planter fertilizer + 2 qt eNhanCe. The Planter Fertilizer was 5 gal/A Pro-Germinator + 5 gal/A Sure-K + 1 qt/A Micro 500 + 1 qt/A Manganese. Soil samples (6") were collected in the seed furrow or between the rows. The Between Row samples can serve as a Check. For the graph, the Between Row results from plots were very close, so averages are used. Ten soil samples were collected per plot from the same 35' section of each plot per date.



Conclusions:

- There was no difference seen in soil test sulfur between the two In-Furrow treatments and the Between Row samples for the first two dates. There was an identical increase in soil test sulfur by both In-Furrow treatments at the 47 day sample.
- This increase at 47 days was surprising. Research has shown that some mineral fertilizers can increase soil microbes. This could increase sulfur mineralization. An exciting concept.
- It would be thought that the 2 qt rate of 0.45 lb-S in a narrow band would show a difference in soil test sulfur, but there were almost identical levels, in ppm no less which is remarkable. See the report on Yield for this same experiment.