



Effect of eNhance Applied In-Furrow on Soil Test Values: Phosphorus (20-1219)

Experiment Info:

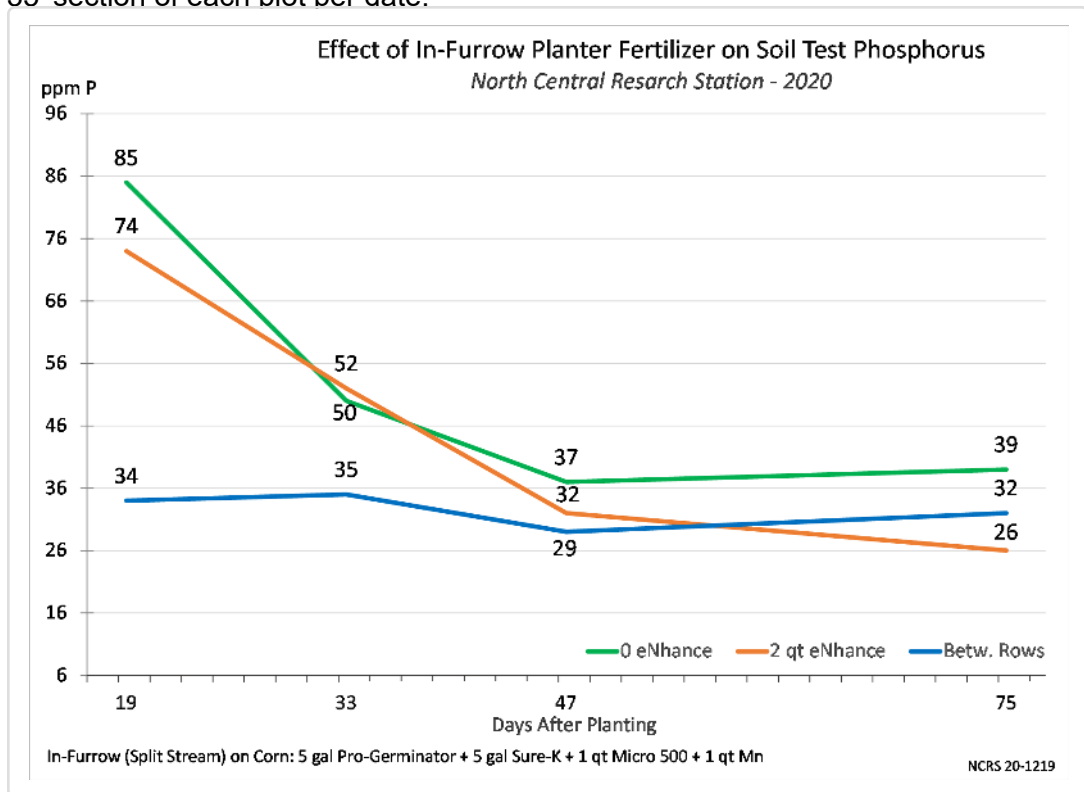
Planted:	5/7/2020
Harvest:	10/29/2020
Yield Goal:	175 bu/A
Target Fert.:	193-55-124
Variety:	P9998 AM
Population:	32,000
Row Width:	30"
Prev. Crop:	Corn
Plot Size:	15 x 172.5
Replications:	3

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 previous reports on this experiment, it was found that addition of eNhance to In-Furrow fertilizer did not affect soil pH or soil test sulfur level. However, there were other soil test measurements taken to see if eNhance would have an effect, including soil test phosphorus. 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:

- The two planter fertilizer treatments had higher P levels than did the Between Rows check at 19 and 33 days, but had decreased to similar levels at 47 and 75 days due to plant uptake.
- From this experiment, it is not known if the lower P level with eNhance at 75 days is a treatment effect. One could speculate that the eNhance increased P uptake by the plant. But additional testing is needed (with replications and tissue testing.)
- At this point it cannot be concluded that eNhance had an effect on soil test P. See the report on Yield for this same experiment.