

# Corn Planter Fertilizer Placement (14-311)

### Experiment Info:

# : Objective:

To compare fertilizer placement options and their effect on corn yield.

5/6/2014 Planted: 10/20/2014 Harvest: 200 bu/A Yield Goal: Target Fert.: 220-44-103 **DKC 53-56 RIB** Variety: 38,000 Population: Row Width: 30" Prev. Crop: Soybeans Plot Size: 15x180/210/130 Replications: 5 Liquid BC: 5/9/2014 6/10/2014 Sidedress:

Soil Test Values (ppm):	
pH:	7.6
CEC:	6.2
%OM:	1.4
Bray P1:	21
Bicarb P:	8
K:	68
S:	9
%K:	2.8
%Mg:	16.1
%Ca:	80.3
%H:	0
Zn:	0.9
Mn:	4
B:	0.5

What is the best fertilizer placement option for the phosphorus and potassium needs of corn? All three treatments in the chart below received 4 gal/A of Pro-Germinator + 7 gal/A of Sure-K + 2 qt/A of Micro 500 placed in different locations. When nutrients are placed in a band close to the seed the greatest benefit can be achieved. Roots do not need to grow through a huge soil profile to find what they are looking for. Pro-Germinator, Sure-K and Micro 500 are very safe to place in-furrow next to the seed. This placement gives the new seedling the nutrients it needs right from the start. A quicker growing plant can translate into healthier plants and increased yields.

All treatments were sidedressed with High NRG-N and yields appear in the chart below.



#### LSD(0.2) 15.9, CV: 13.7%

## Conclusions:

- A significant yield advantage was realized between spring broadcast and in-furrow placement of phosphorus and potassium.
- In-furrow fertilizer placement gives plants a quick healthy start to provide yield gains above other placement options.
- A 2x2 band of fertilizer is always the safest place to apply higher rates or planter programs that contain nitrogen, sulfur or other products that may not be seed safe.
- The cool and very wet season contributed to yields below the yield goal.