

**Experiment Info:**

Planted: 5/7  
Variety: DKC53-78  
Population: 31,500  
Row Spacing: 30"  
Previous Crop: Corn  
Plot Size: 15'x300'  
Replications: 2  
Sidedress: 6/6  
Harvested: 10/15

**Soil Test Values (ppm):**

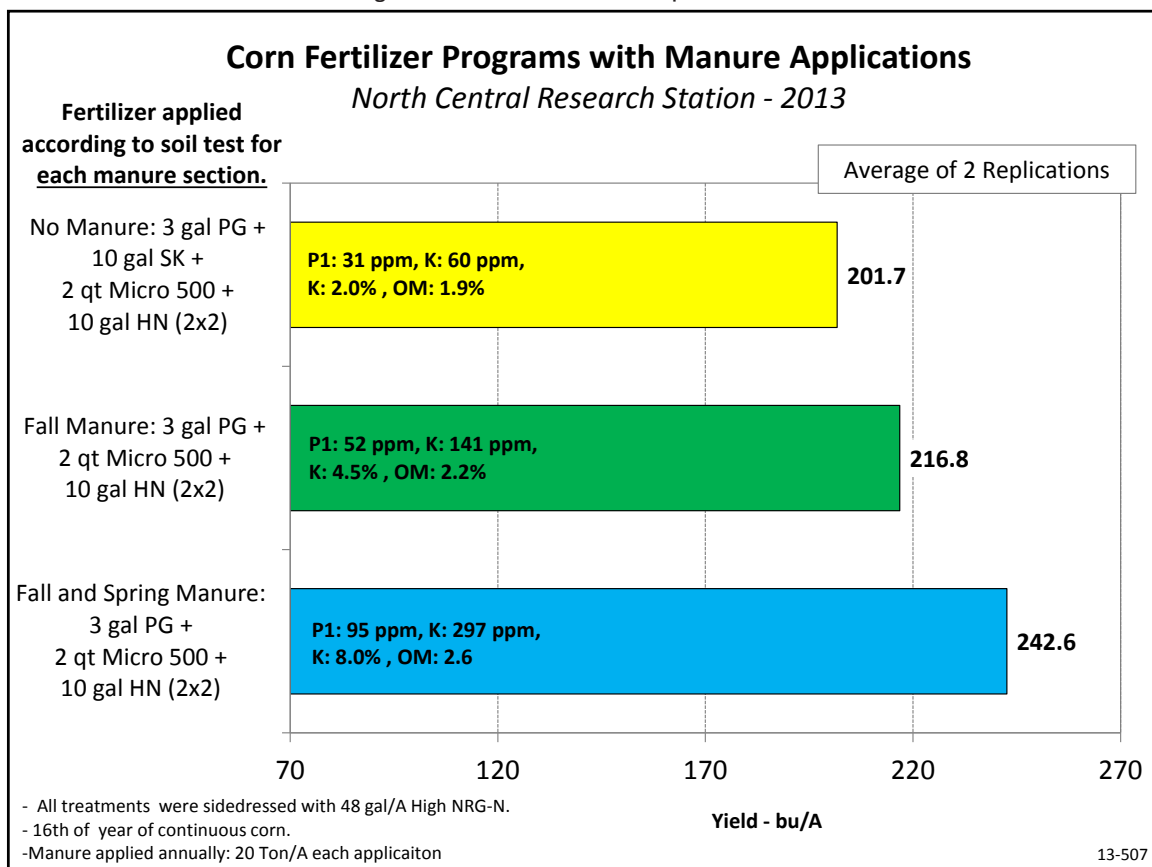
See Report

Yield Goal: 200 bu  
Target  
Fertilizer Rate: see report

**Objective:**

To compare nutrient programs when used in combination with and without manure applications.

The North Central Research Station has applied dairy manure to areas of this particular field for 16 straight years. The crop for the previous 15 years has been continuous corn. The experiment is divided into 4 sections, 2 sections have no manure applied, 1 section receives a 20 ton/A application in the fall and the fourth section receives an application in the fall and spring for a 40 ton/A total. Fall applications are chisel plowed into the soil, while spring applications are applied to spring tilled soil and then tilled with a soil finisher for soil incorporation. Soil samples were taken again last fall to continually observe the changes in soil tests. All treatment rates follow soil test recommendations with the exception of phosphorus. According to soil test recommendations additional phosphorus fertilizer is not recommended in any of the sections. However, in corn, past research has proven that available phosphorus close to the seed at planting time in the cooler soils will give a stronger plant, increased growth and limit phosphorus deficiency symptoms. Therefore, the standard recommendation of 3 gal/A of Pro-Germinator (PG) was used in the planter fertilizer. The remaining nutrients include 2 qt/A of Micro 500 + 10 gal/A of High NRG-N (HN) all applied 2x2. The no manure section also received 10 gal/A of Sure-K (SK) in the planter fertilizer to meet the recommendation.



**Conclusions:**

- Significantly higher yields were achieved with the use of manure. Fall and spring applications resulted in a 40+ bu/A increase over the no manure treatments.
- Organic matter, Phosphorus and Potassium levels all increase with the use of manure.
- Maintain accurate soil tests and follow recommendations for supplemental nutrient application. Most likely potassium usage can be reduced.
- Micro nutrients and some Phosphorus are still needed for corn.