



# Interaction Between Row Planting Position and Fertilizer Applications ( 17-716 )

## Experiment Info:

Planted: 5/27/2017

Harvest: 10/20/2017

Yield Goal: 60 bu/A

Target Fert.: 0-83-169

Variety: 23LF32

Population: 140,000

Row Width:

Prev. Crop: Corn

Plot Size: 15x210

Replications: 4

## Soil Test Values (ppm):

pH: 7.2

CEC: 13.8

%OM: 3

Bray P1: 8

Bicarb P: 7

K: 71

S: 16

%K: 1.3

%Mg: 21.8

%Ca: 76.3

%H:

Zn: .8

Mn: 3

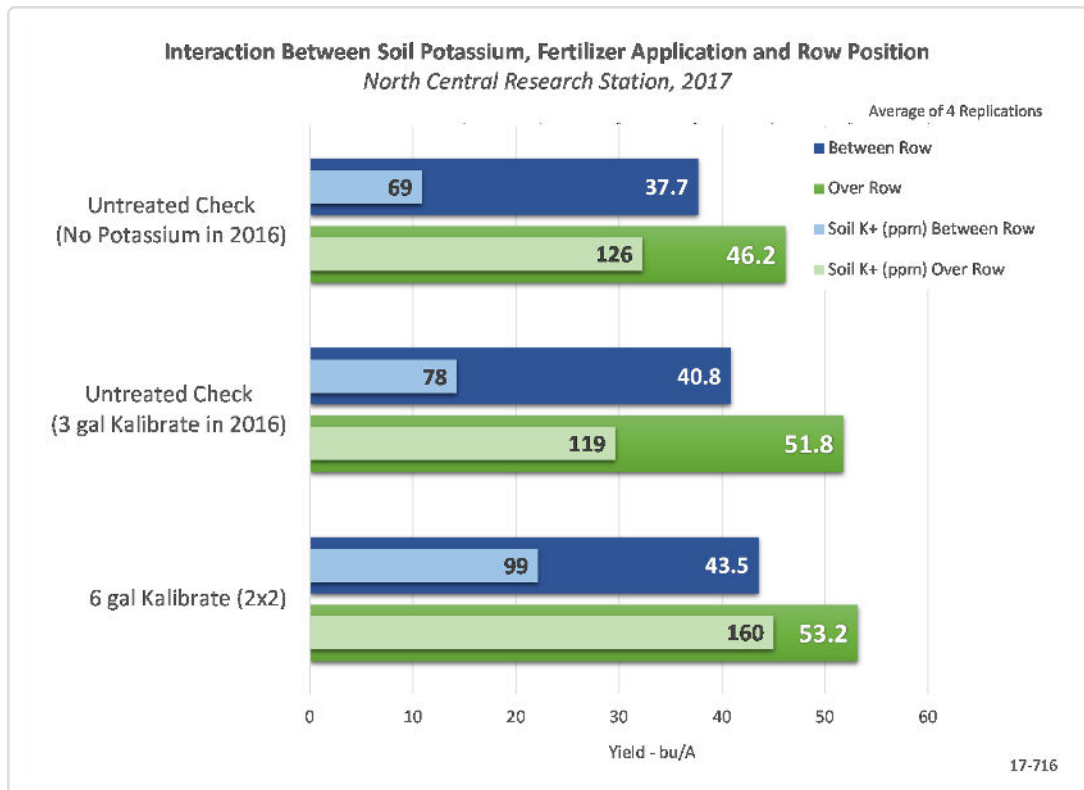
B: .6

## Objective:

To determine the effects row planting position has on soybean yield.

Past observations at the NCRS found differences in crop yield where soybean rows were positioned over previous crops row or between previous crops rows. This trial was established to evaluate the difference in crop yield and soil potassium levels when soybeans were planted in these two positions. Additional, comparison were made between three different fertilizer programs: (1) No potassium in 2016 or 2017, (2) 3 gal Sure-K in-furrow in 2016 and no potassium in 2017, and (3) 3 gal Sure-K in-furrow in 2016 and 6 gal Sure-K 2x2 in 2017.

For this project, Dr. Massri monitored soil potassium levels within the soybean row to help determine if there was a correlation between row position and fertilizer program. Soil potassium levels found in July along with soybean yield appear on the chart below. More details on Dr. Massri's work can be found in the report on soybean row placement.



Yield: LSD(0.2)4.8, CV:14.9%

## Conclusions:

- Highest yield was achieved with a planter application of 6 gal/A Kalibrate this year when soybeans were planted over last year's corn rows.
- In all cases, soybeans planted over old corn rows yielded higher, around 10 bu/A, than those planted between the rows. Work will continue to help determine what is aiding in the higher yield. In addition, soil potassium levels in season, were also higher.
- The higher the soil potassium level, the higher the soybean yield.