

# Value of Pop Up Fertilizer on Corn

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## Objective

To evaluate the benefits of applying 9-19-9 fertilizer directly to the seeds as a pop-up fertilization program in corn. This was measured by comparison of initial stand and yield at harvest.

## Background

Cooperator:	Gerber Farms	Soil test:	pH 6.5, P 96ppm, K 122 ppm, CEC 11 meq/100g
County:	Butler	Fertilizer:	See Methods
Township:	Wayne	Planting date:	May 25, 2002
Drainage:	Somewhat poorly drained	Planting Rate:	33,000 seeds/A
Soil type:	Raub silt loam, Fincastle silt loam	Row width:	30 inch
Tillage:	Reduced till	Herbicide:	Bicep II Magnum 1 qt/A AAtrex 90 1 lb/A
Previous crop:	Soybeans	Harvest date:	October 17, 2002
Variety:	Golden Harvest 2495		

## Methods

Plots either received pop up application of 4 gallons of 9-19-9 (3.5-7.5-3.5 lb/ A) applied directly on the seed or they received no starter fertilizer. All plots also received 150 lb/ A of 21-0-0 and 150 lb/ A of 0-0-60 broadcast in the fall. All plots also received 185-lb/ A anhydrous ammonia preplant.

The stand counts were evaluated by counting plants with in 1/ 196 of an acre in three locations within each plot. The yield was determined by weighing all the corn from each 0.742-acre plot and adjusting to 14.5% moisture. Each plot was 30 feet wide.

The experiment design is a completely randomized block design with four replications.

## Results

**Table 1. Corn Plant Population and Yield.**

Treatment	Initial Population (plants/A)	Yield (bu/A)	Moisture (%)
No pop up	32,005	116.9	13.7
Pop up	32,250	120.4	13.9
LSD (0.05)	NS	NS	NS
F test	<1	<1	<1

## **Summary**

The cost of the pop-up treatment was \$9.00/ acre. While there was a measured increase in initial stand and yield for the pop-up treatment vs. no fertilizer, the differences were not statistically significant. This year yields were lower than expected. We may see a difference between treatments in a normal or better yielding year.

## **Acknowledgments**

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