

## Value of Pop Up Fertilizer on Corn

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### Objective

To evaluate the impact of applying pop-up, 9-19-9 fertilizer directly to the corn seed at planting, on grain yield and moisture, and initial plant stand.

### Background

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Cooperator:	Gerber Farms	Soil Test :	pH 6.5, P 53 ppm, K106 ppm
County :	Butler	Fertilizer:	See Methods
Township:	Wayne	Planting Date:	4/28/04
Drainage:	Somewhat poorly drained	Seeding Rate seeds/A:	33,000
Soil Type:	Raub & Fincastle silt loam	Row Width :	30 inch
Tillage:	Reduced Till	Herbicide rate/A:	Steadfast75 DF .75oz, Atrex 90DF 1 lb.
Previous Crop:	Soybeans	Harvest Date:	11/16/04
Hybrid:	Golden Harvest 9229		

### Methods

The study employed a randomized complete block design with three replications. Each plot was 20 foot wide and varied in length. 4 gallons of 9-19-9 (3-7-3) was applied with the corn seed at planting in the treated plots. All plots received 150 lbs. of 21-0-0-26 [ (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub> ] and 150 lbs. 0-0-60 in the fall prior to planting. Anhydrous ammonia was applied at the rate of 185 lbs N/ acre in the spring prior to planting.

Five weeks after planting, initial plant population was determined for each plot by counting plants in 1/1000 A. area in three different areas in each plot. Grain yield was measured by weighing the grain from the plot in a weigh-wagon and adjusting to 14.5% moisture.

### Results

**Table 1. Effect of Pop-up, 9-19-9 Fertilizer, Placed on Corn Seed on Initial Plant Stand, Grain Yield and Moisture**

Treatment	Initial Population Plants/ Acre	Yield Bu./A	Moisture %
No pop up treatment	31,916	207.1	15.86
Pop Up	32,250	208.9	15.90
	NS	NS	NS

## Summary

There was no significant difference in any of the parameters tested. Not using the pop-up fertilizer was the most cost effective.

## Acknowledgements

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