

# Fungicide and Root Stimulator Application in V5 Corn

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## Objective

The objective of this research was to determine if the corn yield response to Stratego YLD (fungicide) and Radiate (root growth simulator) applied at the V5 growth stage was sufficient to offset the cost of applying these products.

## Background

Crop Year: 2017	Soil Test: pH 6.5, OM 2.7, CEC 17.5
Location: McKee Farms	P 43 M3, K 160 M3
County/Town: Ross/Chillicothe	Planting Date: 4-20-2017
Soil Type: Gessie Silt Loam	Treatment Date: 5-23-2017
Drainage: Systematic Clay Tile	Seeding Rate: 34,000
Previous Crop: Soybeans	Harvest Date: 10-31-2017
Tillage: Chisel Plow/Field Cultivator	

## Methods

The experimental design was a randomized complete block with three replications. Treatment strips were sprayed with a tank mix of the fungicide Stratego YLD (4 oz/ac) and the root growth stimulator Radiate (2 oz/ac) at V5. Control strips did not receive either the fungicide or growth stimulator. Each strip was 60 feet wide 1,000 feet long, with the center 30 feet harvested and measured. A second application of the fungicide was made to the whole field at VT.

## Results

Compared to the control, yield, adjusted for moisture (13.5%), showed an average increase of 6.95 bushel per acre with the treatment of Stratego YLD and Radiate applied at V5. Costs of the Stratego YLD was \$18.75 and Radiate \$3.67, for a total investment per acre of \$22.42. Using a \$3.75 corn price, the increase revenue was \$26.06 for a net gain of \$3.64 per acre.

Corn Yield (lbs/ac) Response to Stratego YLD and Radiate	
Treatment	Yield (lbs/A)
Control	223.48 <sup>A</sup>
Stratego YLD/Radiate	230.43 <sup>B</sup>
	<b>LSD (0.10)                      4.5</b>

## Summary

The field is located in a river flood plain that frequently has had high disease pressure in previous years. It is common for the fog to settle into the valley where this field lies. For that reason, the hypothesis was we would see a significant yield response with fungicide application. There were no additional charges for making the second fungicide application, since it was tank



mixed and applied with the second application of herbicides. Costs of the products were set at \$600 per gallon for Stratego YLD and \$235 per gallon for Radiate. Corn was valued at the farm gate at \$3.75 per bushel. The economic benefit to applying this treatment, although positive, was not very large and would disappear at lower corn prices.

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