

# Apron Seed Treatment on Soybeans

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## Objective

The objective of this research is to compare soybean yields using two rates of Apron fungicide seed treatment and a no-treatment control.

## Background

Cooperator:	Darke County Farm	Soil Test:	pH 7.0, P 16 ppm,
County:	Darke		K 170 ppm
Nearest town:	Greenville	Fertilizer:	0-46-0, 100 lbs/A
Soil Types:	Patton silty clay loam		0-0-60, 125 lbs/A
	Brookston silty clay loam	Herbicides:	PRE: Roundup (1 qt/A)
	Crosby silt loam		POST: Roundup (1 qt/A)
	Miami silt loam	Variety:	Northrup King S34-B2
Previous Crop:	Corn	Planting Date:	May 16, 2000
Drainage:	Subsurface	Planting Rate:	195,000 seeds/A
Tillage:	No-till	Row Width:	30 inches
		Harvest Date:	October 11, 2000

## Methods

One of the most yield-robbing diseases of soybeans is Phytophthora Root Rot. In soils where this is likely to be a problem (heavy, poorly drained soils), it is recommended that a resistant variety be used in combination with a seed treatment. The field where this trial was planted is not very well drained. The seed used in this trial contains the 1c gene and is rated 4 on a scale of 9 for field resistance; thus, the variety is only partially resistant to the disease.

There were four replications of three treatments: two rates of Apron fungicide and a control. Maxim, a seed-treatment fungicide to control soilborne and seed-borne diseases, at a rate of 0.08 oz. per 100 lbs. seed, was also added to the Apron-treated seed. The seed treatment was applied to the seed by Novartis prior to bagging. Experiment design was a complete randomized block design. Individual treatment plots were 12 rows (30 ft.) wide and 880 feet in length. Soybeans were planted with a Buffalo slot planter. Soybeans were uniform but somewhat slow to emerge and did not grow very rapidly during May and early June. There was not a significant amount of rainfall for two weeks after planting, but adequate soil moisture and subsequent rainfall permitted seeds to germinate and grow without too much stress throughout the growing season.

## Results

**Table 1. Seed Treatments.**

<b>Treatments</b>	<b>Yield (bu/A)</b>
Apron (0.41 oz./100 lb. seed)	44.5
Apron (0.16 oz./100 lb. seed)	45.9
No seed treatment	44.5
Significance P =0.05	NS
F <1, CV = 4.2%	

## Summary and Notes

In this particular trial, there was no benefit in using a seed treatment at either the high or low rate of Apron. This could have been due to a low amount of Phytophthora in the soil, partial disease resistance of the variety, or environmental conditions in that field this year that did not favor significant development of the disease.

For additional information, contact:

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