Evaluation of Effects of Foliar Fungicide and Insecticide Applications on Soybean Yields

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Objective
To determine soybean yield response from fungicide and insecticide

Background
Crop Year: 2010
Location: Union Twp, Buckeye Lake
County: Licking County
Soil Type: Pewamo (silty clay loam)
          Bennington (silt loam)
Previous Crop: Soybeans
Fertilizer: 200 lbs/acre 0-0-61
Tillage: Spring primary & secondary
Planting Date: June 16, 2010
Seeding Rate: 170,000 seeds/ac 7.5 inch rows
Variety: Seed Consultants SC 9369
Herbicide: 1 qt 32% glyphosate
Harvest Date: October 28, 2010

Methods
This study was designed with two treatments and a control replicated three times in a randomized complete block design. The treatments consisted of a non-treated check and two foliar applied treatments. Treatments were:

1. Nontreated control
2. Quadris (10 oz/acre)
3. Quadris (10 oz/acre) + Perm-Up 3.2 EC (3 oz/acre)

The treatments were applied on July 15, 2010 to soybeans in growth stage R2. Applications were applied with 1 quart of glyphosate/acre and water as a carrier. Quadris is a foliar fungicide with an active ingredient Azoxystrobin. Perm-up is a foliar insecticide with an active ingredient Permethrin. Products were tank mixed where multiple products were used. Individual plot sizes were approximately one acre. Application was made by the cooperating farmer.

Insect and disease pressure was not noted during scouting at growth state R2. Yield measurements were made with a calibrated weigh wagon.
Results

Soybean Yield (bu/ac) Response to Fungicide and Insecticide Foliar Application

<table>
<thead>
<tr>
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<th>Yield (bu/ac)</th>
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<tbody>
<tr>
<td>Non-treated Check</td>
<td>45.7</td>
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<tr>
<td>Quadris (10 oz/ac) rate</td>
<td>46.5</td>
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<tr>
<td>Quadris (10 oz/ac) + Perm-Up (3 oz/ac) rate</td>
<td>47.4</td>
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<tr>
<td>LSD (0.05)</td>
<td>NS</td>
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<tr>
<td>CV %</td>
<td>4.75</td>
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Summary

None of the products produced a yield significantly greater than the untreated check. Rainfall in May caused wet field conditions leading to the relatively late planting date.

Acknowledgement

The authors would like to express appreciation to Rick Black for being the cooperating farmer and H.W. Martin and Son for supplying treatment products.

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