Effect of Quadris on Soybean Gain Yield

Jason Hartschuh, OSU Extension Crawford Country, Agricultural and Natural Resources
Program Coordinator
Steve Prochaska, Ohio State University Extension Field Specialist, Agronomic Crops

Objective
To evaluate yield response of soybeans to Quadris (azoxystrobin) when applied at soybean growth stage R3/R4.

Background
Crop Year: 2013
Location: OSU Unger Farm
County: Crawford
Soil Type: Blount/Pewamo
Drainage: Systematic
Previous Crop: Corn
Tillage: No – tillage
Soil Test: pH 5.9, P 34 ppm, K 146 ppm
SCN Count 1: 0 eggs per 100cc (drained)

Soybean Planting Date: May 16, 2013
Soybean Variety: Pioneer P93Y06
Herbicide: 3.5 oz Canopy, 1 qt glyphosate
Herbicide (Post): 1 qt glyphosate 2 times
Treatment Date: July 25 2013
Soybean Seeding rate: 168,000 seeds/acre
Date of Harvest: October 2, 2013
Rain fall: 25.57 inches (5/16-10/2)

Methods
Pioneer P93Y06 soybeans containing SCN resistance PI88788 were planted at a rate of 168,000 seeds per acre on May 16th with a Great Plains 2010P, 10 inch precision drill. The following herbicides were applied on April 24: Canopy at a rate of 3.5 oz/acre with 1 quart/acre glyphosate. Postemergence weed control was accomplished with two applications of 1 quart of glyphosate/acre, applied on June 18 and July 22. SCN samples were taken in October.

This study used a randomized complete block design with 4 replications. Quadris applied at 6 oz/acre at growth stage R3 was compared to an untreated control. Each plot was sprayed with a CO2 small plot sprayer calibrated to deliver 15 gallons per acre at 40 PSI on July 25. Plots were 10 feet wide and 40 feet long but were trimmed to 35 feet in length. Plots were harvested on October 2nd using a Hege 140 small plot combine harvesting the center five feet of the plot and the entire 35 foot length.

Treatments
1) Quadris 6 oz/acre
2) Control (no fungicide application)
Results

Table 1. Soybean yield adjusted to 13.5 % moisture

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Mean yield (bu/acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quadris 6 oz/acre</td>
<td>55.7</td>
</tr>
<tr>
<td>Control</td>
<td>54.4</td>
</tr>
<tr>
<td>F=.14, P&gt;F=.72, NS; CV =9.0, S=4.62</td>
<td></td>
</tr>
</tbody>
</table>

There was no significant difference in yield between the two treatments. Quadris cost $15.70 per acre for the product and another $10.00/acre for application and adjuvants for a total cost of $25.70 per acre. Soybeans were $12.23/bushel at harvest. Thus, it would have taken 2.1 bushels per acre to cover costs of material and application resulting in a net loss from this practice without disease pressure present.

Acknowledgement

The authors express appreciation to Chuck Smith for his cooperation and aid in the planting of this trial.

For more information, contact:
Name: Steve Prochaska
Address: 222 W. Center St.
Marion, Ohio 43302
prochaska.1@osu.edu

For more information, contact:
Name: Jason Hartschuh
Address: 112 East Mansfield Street
Suite 303
Bucyrus, Ohio 44820
hartschuh.11@osu.edu