Effect of Quadris Applied on R3 Soybeans in a Modified Relay Intercrop System

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Objective

To evaluate grain yield response of modified relay intercropped soybeans to Quadris (azoxystrobin) fungicide applied at soybean growth stage R3.

Background

Crop Year: 2013 Row width: 10 inches Location: OSU Unger Farm Fertilizer (lbs N-P-K): 95-58-78 Crawford Soybean Planting Date: June 5, 2013 County/Town: Soil Type: Blount/Pewamo Soybean Variety: Pioneer P93Y24 Drainage: Seeding Rate: 225,000 seeds/acre **Systematic** Previous Crop: Wheat Herbicide (Post): 1 gt Glyphosate (7/22) Tillage: No – tillage Treatment Dates: July 26, 2013 Soil Test: pH 6.2, P 34 ppm, K 152 ppm Date of Harvest: October 29, 2013

SCN Count: (MRI area) 1160 eggs/100cc Rain fall: 25.57 inches (5/16-10/2)

Methods

Pioneer P93Y06 soybeans were planted at a rate of 225,000 seeds per acre on June 5, 2013 with a Great Plains 2010P, 10 inch precision drill. Wheat harvest occurred on July 15, 2013.

This study used a randomized complete block design with two treatments replicated 4 times to compare the treatment yield effect of Quadris at 6oz/acre and a control (no fungicide). Plots were treated on July 26, 2013 when soybeans were in the R3 growth stage. Each plot was sprayed with a CO₂ small plot sprayer calibrated to deliver 15 gallons per acre at 40 PSI. Plots were trimmed to 44 feet in average length. Plots were harvested on October 29, 2013 using a Kincaid 8-XP small plot combine harvesting the center five feet of each plot.

Treatment 1

- 1) Quadris at 6 oz/acre
- 2) Control (no fungicide)

Results

Table 1. MRI soybean yield (adjusted to 13% moisture)

Treatment	Mean yield (bu/acre)
Quadris	51.3
Control	56.2
E 254 MC, Duales E 16, CV 7.00	

F=2.54, NS; Prob>F=.16; CV =7.99

Summary

This study was conducted at OSU Unger Farm in north central Ohio where Modified Relay Intercropping (MRI) is practiced. In 2013 there was not a significant difference in soybean yield between the Quadris application and the control. Quadris cost \$15.70 per acre for the product and another \$10.00 for application and adjuvants for a total cost of \$25.70 per acre. Soybeans were \$12.87 at harvest; therefore it would take two bushels per acre to cover cost of fungicide and application.

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