

# The Effect of Relative Maturity on Soybeans Grown in a Modified Relay Intercropping System

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## Objective

To evaluate yield response of Modified Relay Intercrop (MRI) soybeans over 3 relative maturity soybean varieties.

## Background

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Crop Year: 2014

Location: OARDC South Charleston

County/Town: Clark

Soil Type: Kokomo/Stawn-Crosby

Drainage: Systematic

Previous Crop: Soybeans

Tillage: No – tillage

Soil Test: pH 6.5, P (M3) 48 ppm, K 152 ppm

SCN # in area of plots: 60 eggs per 100cc

Row width: 15 inches

Fertilizer: (wheat & beans) 90-0-0

Wheat planting date: 10-1-13

Wheat Variety: Pioneer 25R39

Wheat Seeding Rate: 1 million sds/acre

MRI Soybean Planting Date: May 28, 2013

Soybean Varieties: See below

MRI Seeding Rate: 225,000 seeds/acre

Wheat harvest date: July 10, 2014

Date of MRI Soybean harvest: Oct. 28

Rainfall: 8.9 inches (from 6/1-9/1)

## Methods

Pioneer 29R37 soft red winter wheat was planted Oct. 1, 2013 in 15 inch rows at a rate of 1.0 million seeds per acre. Soybeans were interseeded into standing wheat with 15 inch row spacing on May 28 with a Great Plains units custom interseeder mounted on a 3 point hitch. Wheat was harvested on July 10, 2014 with a Kincaid small plot combine with a 2 meter header.

This study used a completely randomized design with three treatments replicated four times to compare yield across relative maturity. A small plot combine was used to harvest soybean plots on Oct. 28. Plot size averaged 80 inches by 40 feet.

### Treatments

- |              |                       |
|--------------|-----------------------|
| 1) NK S39-U2 | Relative maturity 3.9 |
| 2) NK S34-U2 | Relative maturity 3.4 |
| 3) NK S29-V2 | Relative maturity 2.9 |



## Results

Table 1. Moisture and Yield of Soybeans (Adjusted to 13.5% moisture)

Treatment	Ave. Moisture	Ave. Yield (bu/A)
NK S39-U2	14.4	45.0
NK S34-U2	15.0	49.3
NK S29-V2	14.4	46.7

F=.47, Not Significant; P>F=.64, CV = 11.7, LSD= 11

## Summary

There was a not a significant difference in yield among different maturity soybeans interseeded into wheat for this study conducted at OARDC South Charleston located in central Ohio.

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