

Effect of Oil Seed Radish on Wheat Yield

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Objective

To evaluate wheat yield response to a fall planting of oil seed radish into drilled wheat.

Background

Crop Year: 2011

Location: OSU Unger Farm

County/Town: Crawford

Soil Type: Blount

Drainage: Systematic

Previous Crop: soybeans

Tillage: No – tillage

Soil Test: pH 6.8, P 23 ppm, K 124 ppm

Wheat Planting Date: Sept. 30, 2010

Wheat Variety: Pioneer 25R62

Radish planted 10/4/2010 @ 10.5 pds/acre

Row width; 10 inches

Fertilizer: For wheat and soybeans, 107-81-75

Wheat Seeding Rate 1.4 million seeds/acre

Wheat Harvest Date: July 6, 2011

Methods

Pioneer 25R62 soft red winter wheat was planted Sept. 30, 2010 in 10 inch rows with a Great Plains drill at a rate of 1.4 million seeds per acre. Daikon oil seed radish was planted into wheat at a rate of 10.6 lbs/acre using a calibrated spinner spreader on Oct. 4, 2010. Final radish plant population in the treatment plots was 0.6 plants per square foot (data taken with wire frame thrown 3 times and plant number averaged on 11/26/2010). This study used a randomized complete block design with two treatments replicated 3 times to compare planting of oil seed radish into wheat versus wheat not planted with radish over yield. A small plot combine was used to harvest plots on Nov. 18, 2011. Plot size was 5 by 45 feet.

Treatments

- 1) Planting of radish into wheat
- 2) Control

Results

Table 1. Moisture and Yield of 25R62 Wheat

Treatment	Ave. Moisture	Ave. Yield (bu/A)
Radish / wheat	10.6	82.7
Control	10.7	90.7
LSD (P=0.05)		NS
CV(%)		2.9

Summary

Radish does not overwinter in north central Ohio. Therefore, to further test this observation, trials were established Oct. 4, 2010 in winter wheat. There was not a significant difference in yield between wheat seeded with oil seed radish and wheat not seeded. Why would radish be expected to be a benefit? Explanation of this maybe helpful.

Acknowledgement

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