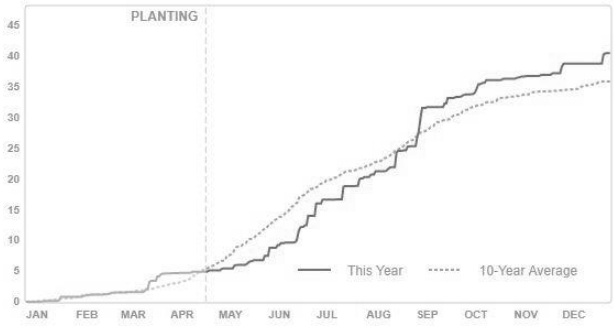
Corn Planted into Cereal Rye Cover Crop

Study ID: 0136109201802
County: Lancaster
Soil Type: silty clay loam; silt loam
Planting Date: 4/23/18
Harvest Date: 10/3/18
Population: 30,000
Hybrid: Dekalb® DKC 62-98
Reps: 8
Tillage: No-Till
Herbicides: ***Pre:*** Bicep II Magnum® ***Post:*** Roundup® and Callisto®
Foliar Insecticides: None
Foliar Fungicides: None

Fertilizer: 170 lb/ac NH3 fall applied and 5 gal/ac 10-34-0 starter with planting
Irrigation: None
Rainfall (in):



Introduction: The purpose of this study was to evaluate the impact of a rye cover crop on subsequent corn yield. There are two treatments, rye cover crop and a no cover crop control. Cereal rye was seeded at a rate of 40 lb/ac on November 1. Rye was terminated mid-May at about 1 foot tall. Starter fertilizer (5 gal/ac 10-34-0) was applied to the subsequent corn crop. Corn yield was evaluated.

Results:

	Moisture (%)	Yield† (bu/ac)	Marginal Net Return‡ ($/ac)
Check	15.5 B*	213 A	686.95 A
Cover Crop - Rye	15.9 A	208 B	656.99 B
P-Value	<0.0001	0.0099	0.0004

*Values with the same letter are not significantly different at a 90% confidence level.
†Bushels per acre corrected to 15.5% moisture.
‡Marginal net return based on $3.23/bu corn, $7.67/ac rye cover crop seed, and $6/ac for drilling cover crop.

Summary: The no cover crop control had a higher yield and net return than the rye cover crop treatment.

Sponsored by: University of Nebraska Lincoln

In Partnership with: Nebraska Corn Board; Nebraska Soybean Checkoff; Nebraska Corn Growers Association; Nebraska Dry Bean Commission