



Nebraska On-Farm Research Network

Corn Planted into Rye Cover Crop

Study ID: 006159201401

County: Seward

Soil Type: Hastings silty clay loam, Crete, Muir, Butler, and Coly-Hobbs silt loams

Planting Date: 4/22/2014

Harvest Date: 11/5/2014

Population: 34,000

Row Spacing: 30"

Hybrid: BigCob B14-84GT

Reps: 6

Previous Crop: Soybeans

Tillage: No-till

Herbicides: Pre: Balance Flex 5oz + Atrazine 1qt + Roundup PowerMAX 22oz -4/4/14

Post: Durango 32oz + Impact 1/2oz + Outlook 10oz 6/12/14

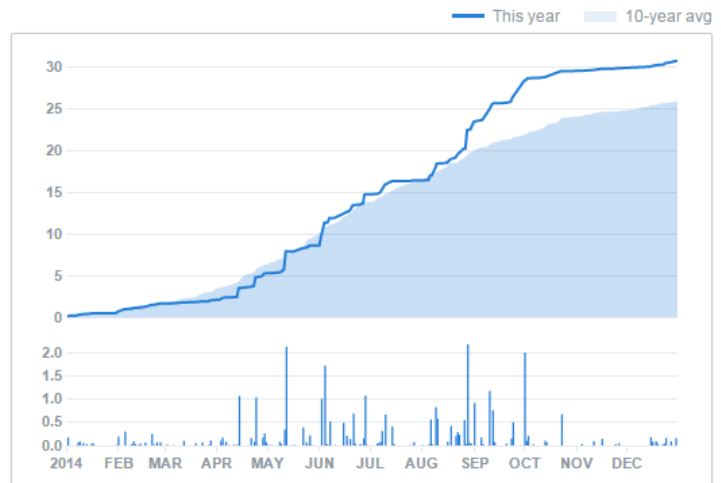
Insecticides/Fungicides: standard seed treatment

Fertilizer: 156 lbs 46-0-0, 3 lb Zn, 10 lb Sulfur, 6 gal 10-34-0

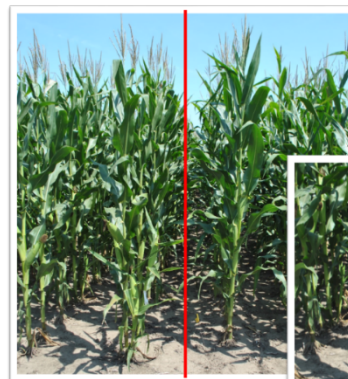
Note: May 11 tornado, May 26 hail.

Irrigation: Pivot

Rainfall:



Introduction: This study is looking at the effects of a cereal rye cover crop on the subsequent corn grain yield. The cereal rye was drilled at 40 lb/acre into soybean stubble on October 10, 2013 and was terminated with Balance Flex (5 oz/ac), Atrazine (1 qt/ac), and Roundup PowerMAX (22 oz/acre) on April 4, 2014. This herbicide program is the same that the grower used on all fields, so there was no additional cost for cover crop termination. Rye was 6-12" at termination. Corn was planted into the soybean stubble and cereal rye residue on April 22, 2014. The cover crop treatment is compared to planting into soybean stubble with no cover crop.



Line is between with Rye cover crop and without.
No visual difference on 8/14/14.



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Results:

	Yield† (bu/acre)	Net Return‡
Check	248 A	\$866.74
Rye	247 A	\$841.07
<i>P-Value</i>	0.2919	--

†Bushels per acre corrected to 15.5% moisture.

*Values with the same letter are not significantly different at a 90% confidence level.

‡Net return based on \$3.50/bu. corn, \$10.80/acre rye cover crop, and \$13.37/acre drill application cost (no additional cost for Rye termination since herbicide program was the same as what the grower normally used for a pre-emerge burndown).

Summary: There was no grain yield difference between the corn planted into the cereal rye residue and corn planted into soybean stubble. However, calculated net return was approximately \$26/acre less for the cereal rye cover crop.

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