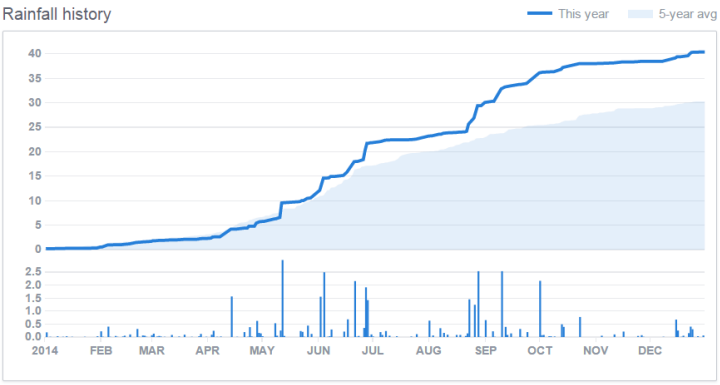
Nebraska On-Farm Research Network

Soybeans Planted into Grazed and Non-grazed Cover Crop

Study ID: 025155201401
County: Saunders
Soil Type: Yutan silty clay loam and Filbert and Tomek silt loam
Planting Date: 4/26/2014
Harvest Date: unknown
Population: 140,000
Row Spacing: 7.5”
Hybrid: NuPride 8261R
Reps: 3
Previous Crop: Wheat (Prior long term Corn/Soy)
Tillage: No-till
Insecticides/Fungicides: Leverage 360 2.8oz, StrategoYLD 4oz, R3 growth stage

Herbicides: Pre: Prowl 3pt, Enlite 2.8oz, 2,4-D 8oz, Roundup PowerMax 22oz, AMS 3#, 4/18/14
Post: 22 oz Roundup PowerMax, 8 oz SelectMax.
Irrigation: Pivot – 5 turns with 1.25” per turn. Total: 6.25”



Introduction: This study looked at the effects of a cover crop following wheat on the subsequent soybean yield. This study included three treatment: soybeans planted into wheat (check), soybeans planted following cover crop, and soybeans planted following a grazed cover crop. The cover crop used in this study was a mix of clover (1 lb/acre) , sordan 79 (1 lb/acre), oats (15 lb/acre), purple top turnips (2 lb/acre), and sunflower (2 lb/acre). It was seeded at 21#/acre into wheat stubble on August 19, 2013 and was winter killed. For the grazed treatment, cattle (1hd/acre) began grazing on November 12, 2013 and completed grazing on December 30, 2013 for a total of 48 days of grazing. Overall, ADG was 2.03 with total gain of 97 lbs/acre. Forage production was 1.08 tons/ac (dry matter). Soybeans were planted into all three treatments on April 26, 2014. Soybeans were replanted on May 21, 2014 due to 50% stand reduction (prior to replant the remaining first stand of soybeans was killed with Aim). Grain yield of soybeans planted into wheat stubble (check) and planted into grazed and non-grazed cover crop were compared in this study.

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Results:

	Yield† (bu/acre)	Net Return ‡
Check	64 A*	$643.80
CoverCrop	64 A	$601.73
Grazed Cover Crop	62 A	$765.53
P-Value	*0.4700*	--

†Bushels per acre corrected to 13% moisture.

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

‡Net return based on $10.00/bu. soybeans, $22/acre cover crop seed cost, and $13.37/acre drill application cost. Calf price in 2013 was $188.50 for 500-600 lb calves and $189.90 in December. With calves gaining 97 lb, there was a gain of $191 per calf (also $191 per acre). With cost of fencing and labor to provide water and check cattle at $12.50/calf the net income for the calves would be $178.50.)

Summary: There was no significant difference in yield of the soybeans planted into wheat stubble (check) and planted into grazed and non-grazed cover crop. With the additional income for the cattle, the grazed cover crop treatment was most profitable.

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