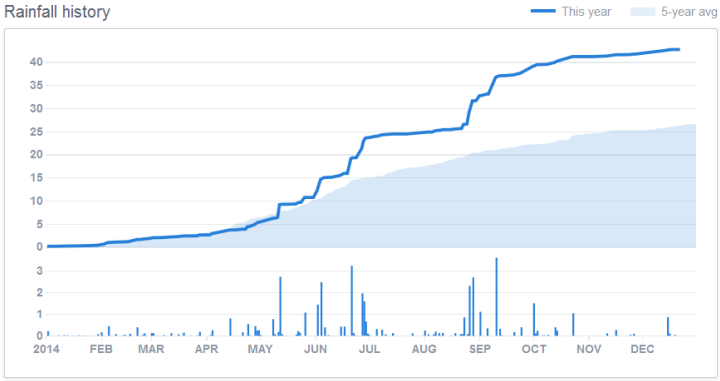
Nebraska On-Farm Research Network

Strip-till Fertilizer Placement in Soybeans

Study ID: 024155201401
County: Saunders
Soil Type: Aksarben silty clay loam
Planting Date: 5/6/2014
Harvest Date: 9/29/2014
Population: 140,000
Row Spacing: 30”
Hybrid: NK Brand 28-K1
Reps: 9
Soil Test Values: not available
Previous Crop: Corn
Tillage: Strip-till
Insecticides/Fungicides: CruiserMaxx seed treatment
3.2 oz/ac Indigo on 8/1/14
4 oz/ac Priaxor on 8/1/14

Herbicides:
Pre: 3 oz/ac Valor XLT mid-March
1 pt/ac 2,4-D LV6 mid-March
Post: 22 oz/ac Roudup PowerMAX mid-June
4 oz/ac Section mid-June
Irrigation: Pivot: July: 1.25” Aug: 3.75”



Introduction: Strip tillage is an agronomic practice that prepares the seedbed and offers the opportunity for nutrient placement. This grower typically supplies fertilizer at strip-till in the fall prior to corn production. The purpose of this study was to determine if placement of nutrients with strip-till prior to soybeans would have an impact on soybean yields. The check treatment was strip-tilled and no nutrients were applied. The strip-till plus nutrient treatment supplied 80 lb/ac 11-52-0, 20 lb/ac 0-0-60, and 5 lb/ac elemental sulfur at a depth of 6-8”. Strip-till implement shown in Figure 1.

Figure 1: Strip-till implement used for fertilizer application in this study.

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Results:

	Yield† (bu/acre)	Moisture (%)	Net Return ‡
Check (Strip-till, no nutrients)	75 B*	12.8 A	$750.00
Strip-till plus nutrients	79 A	12.8 A	$763.50
P-Value	*<0.0001*	*0.9146*	--

†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/bu soybean price and $26.50/ac fertilizer price.

Summary: The strip-till plus nutrients treatment resulted in significantly higher yields and higher net return than the check (strip-till with no nutrients).

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