Soybean Row Spacing (15" vs 30")

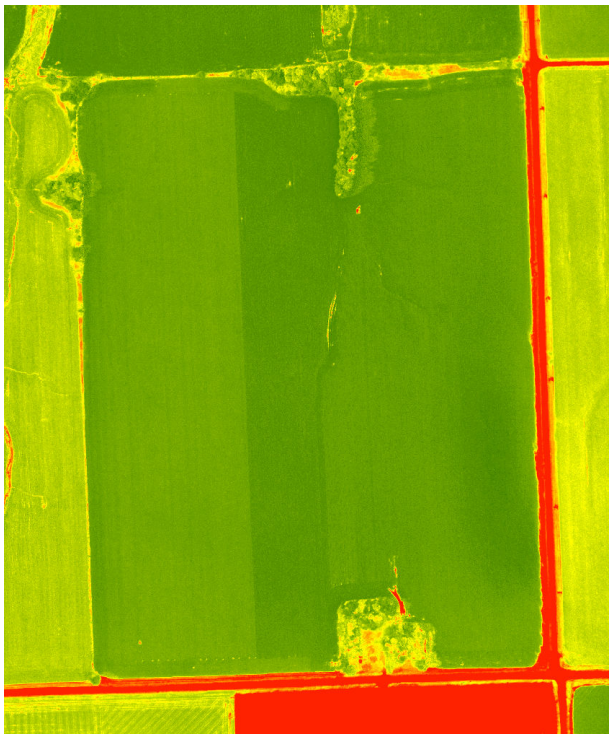
Report ID: 176155201501

This study was conducted as part of a multi-state on-farm research pilot project sponsored by the United Soybean Board. This report is adapted from the project and is reproduced with permission. This is a Soybean Crop Management - Row Spacing trial comparing 15" rows vs. 30" rows, located in Saunders County, Nebraska. The trial was established by planting with a 30" row planter and then double planting for the 15" treatments.

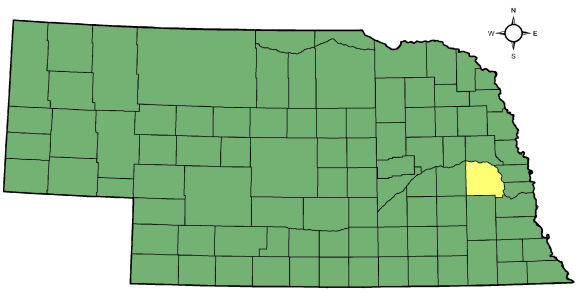
Aerial Imagery Flown August 26, 2015

Natural Color

0 250 500 1,000 Feet

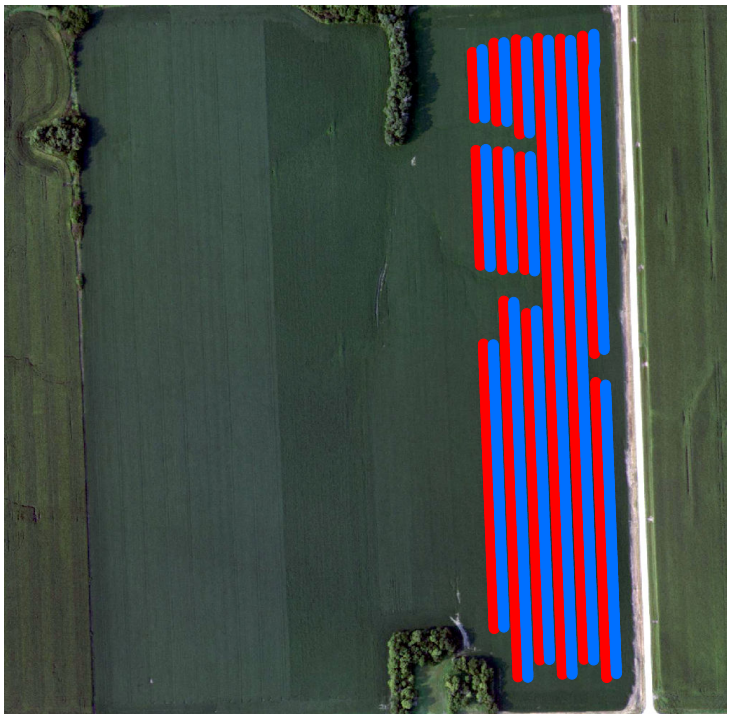


NDVI



Saunders County, NE

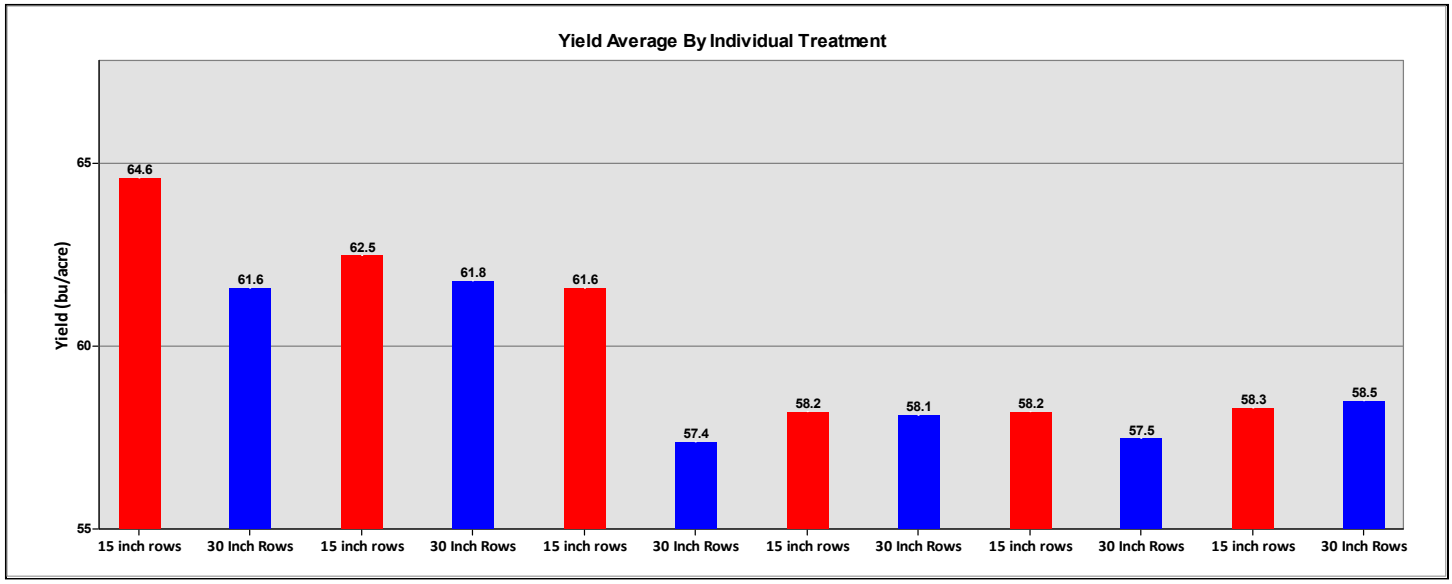
Treatment Layout and Results



Trial Type	Crop Management - Row Spacing
Trial Detail	15" rows vs 30" rows
Planting Date	6/2/2015
Harvest Date	10/12/2015

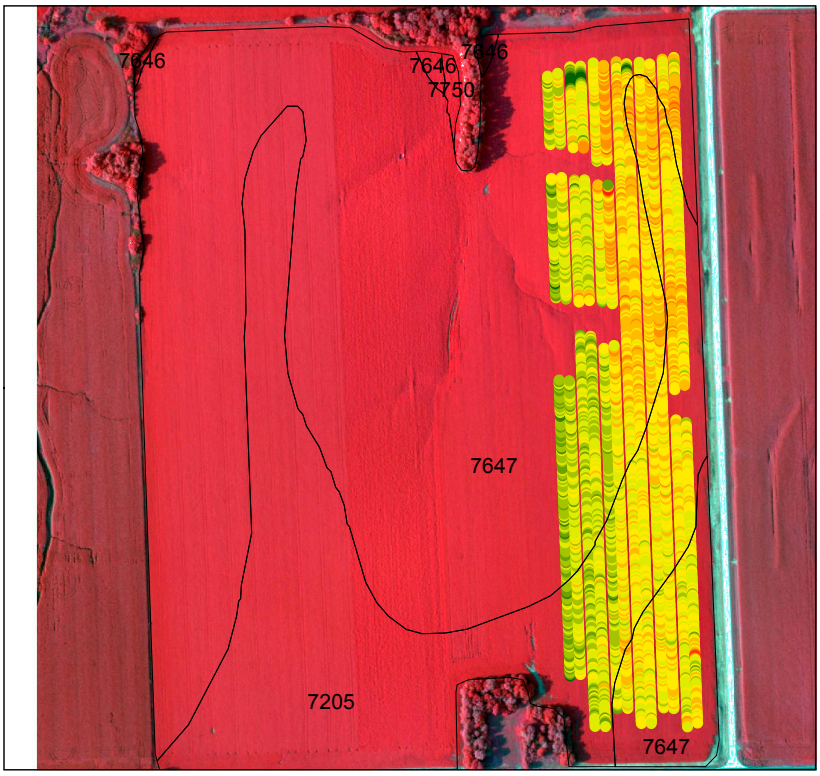
Treatment

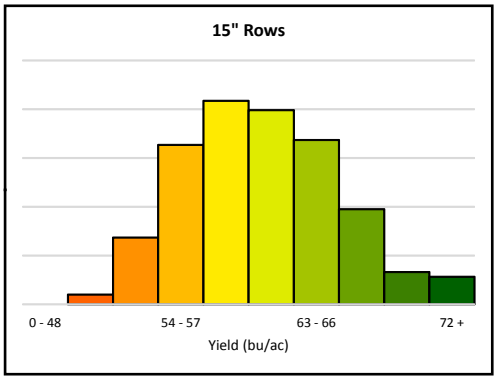
- 15 inch rows
- 30 Inch rows

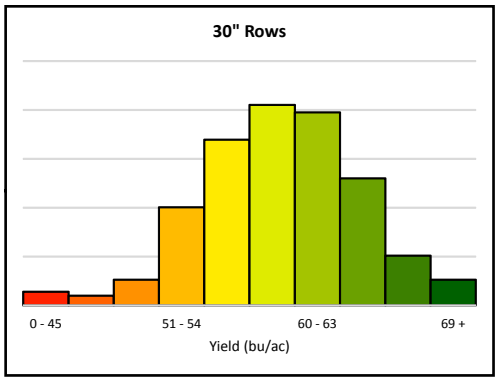


Treatment	15 inch rows	30 inch rows	
Yield Averages (bu/acre)	60.6	59.2	Yield difference is not statistically significant at 10% significance level.

Grain Yield with Soil Survey





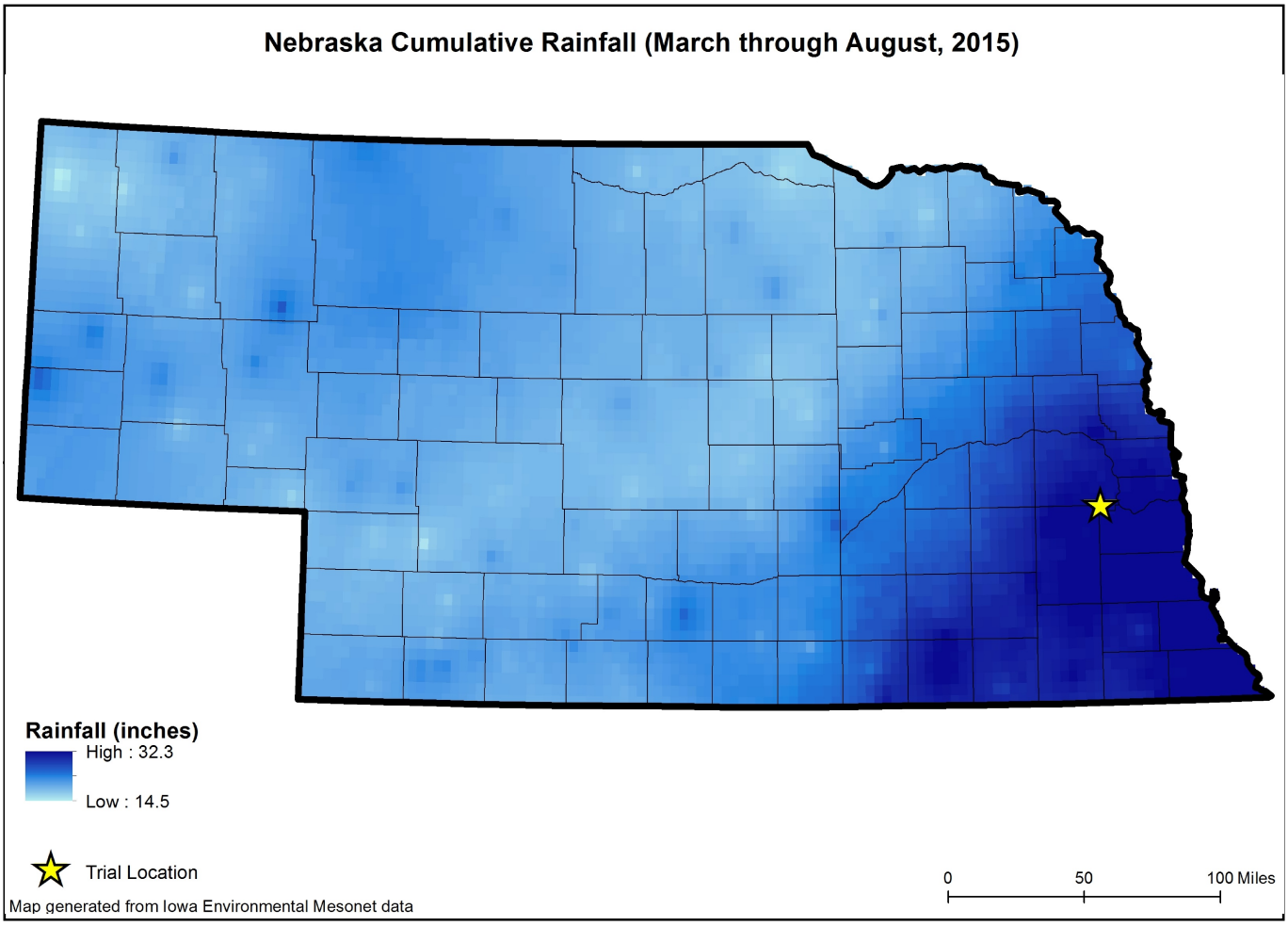


Yield By Treatment and Soil Map Unit						
Soil Map Unit	Map Symbol	Percent of Trial 15" rows	Percent of Trial 30" rows	Yield (bu/acre) 15" rows	Yield (bu/acre) 30" rows	Yield* Difference
Aksarben silty clay loam, 0 to 2 percent slopes	7205	36.3	38.2	59.9	58.9	1.0
Yutan, eroded-Aksarben silty clay loams, 2 to 6 percent slopes	7647	63.7	61.8	60.6	59.1	1.5

*Yield differences calculated for Soil Map Units that have relatively small areas might not be representitive of the treatments.

Harvest Variables and Rainfall

Harvest Variable	Treatment		Variable Differences
	15" rows	30" rows	
Combine Speed (mph)	4.3	4.4	0.1
Grain Moisture (%)	9.2	9.4	0.2



Additional information not included in the multi-state report:

Early (early July) and late (late September) stand counts were taken for 3 of the replications. Within each replication, 3 sub samples of data were collected. Plants were staked so that the same plants were counted at both early and late counting dates. Results in the table below show that at the early season stand count, the 15" row spacing had lower stand counts, but by later in the season this difference no longer existed. It was noted that the 15" row spacing treatment had slower emergence, particularly in areas where there was greater wheel traffic resulting from the planter doubling back to establish the 15" treatment.

	Early Season Stand Counts	Late Season Stand Counts
15"	112,889 B*	105,667 A
30"	120,000 A	111,222 A
P-Value	0.0903	0.3296

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