

## **Soybean Planting Date Study (2008-2009)**

The objective of this study was to evaluate the effects of earlier planting dates on yield.

Dr. Jim Specht-UNL: Research showed soybean nodes produced every 3.75 days once the plant reaches V1. Lose  $\frac{1}{4}$  to  $\frac{5}{8}$  bu/day for every day planted after May 1.

Tested by on-farm research producers 2008-2009.

**Picture Date: 6/26/2003**



**Picture Date: 6/24/2004**



Jim Specht says to take advantage of the sunlight ! The soybean field should be green to the eye by the 4<sup>th</sup> of July. June 21 is the longest day of the year, so you want the soybeans capturing as much light as possible by then.




UNIVERSITY OF <b>Nebraska</b> Lincoln		<b>EXTENSION</b>		<b>2008 Planting Date Yield Results</b>		
Producer	90 K	120 K	150 K	180 K	Yield (bu/acre)	
SCAL Early (April 29) 3 Reps	66.3	65.3	69.5	67.6	67.2	
SCAL Late (May 15) 3 Reps	65.0	70.3	62.7	65	65.8	
Casts Early (April 30) 3 Reps	67.1	68.4	69.3	68.7	68.4	
Casts Late (May 19) 3 Reps	64.6	65.9	67.1	67.3	66.2	
Average Early	66.7	66.9*	69.4	68.2	67.8	
Average Late	64.8	68.1	64.9	66.2	66.0	
George Early (April 23) 8 Reps			66.9		66.9	
George Late (May 14) 8 Reps			63.5		63.5	
Aspegren Early (April 30) 7 Reps			81.0		81.0	
Aspegren Late (May 19) 7 Reps			77.5		77.5	

\*The only time in which the late planting date outyielded the early was at 120K for both SCAL and the average of the early studies.

The first portion of this data was a planting date by planting population trial. In all cases, the early outyielded the late. The last two trials were planting date only trial at 150K planting population. In these trials, a fungicide+insecticide seed treatment was applied to both early and late planted plots. We were unsure how well the early planted would work with the cold, wet spring and rain occurring after the April planting date occurred with most of these plots-but the early still out-yielded the late in all these plots.



 <b>EXTENSION</b>		On-Farm Comparison Results		
2009 Soybean Planting Date				
Producer & Planting Date	Irrigated	Variety	Row Spacing	Yield
SCAL Early (April 27) (4 Reps)	Irrigated	Pioneer 93M11	30"	<b>70.2</b>
SCAL Late (May 18)	Irrigated	Pioneer 93M11	30"	<b>68.2</b>
Fillmore Co. Early (April 24) (4 Reps)	Irrigated	Pioneer M43	30"	<b>69.5</b>
Fillmore Co. Late (May 15)	Irrigated	Pioneer M43	30"	<b>68.4</b>
Seward Co. Early (April 24) (4 Reps)	Irrigated	NC+2A63	30"	<b>73.2</b>
Seward Co. Late (May 20)	Irrigated	NC+2A63	30"	<b>71.3</b>
York Co. Early (3 Reps)	Irrigated		30"	<b>59.1</b>
York Co. Late	Irrigated		30"	<b>58.6</b>
<b>Average Early</b>	<b>Irrigated</b>			<b>68.6*</b>
<b>Average Late</b>	<b>Irrigated</b>			<b>67.1</b>

**\*Combined data was statistically significant at 95% and 99% levels.**

2009 planting date data. Again, all the early planted out-yielded the late planted- but not by much in most cases. The goal according to Jim Specht is that you can gain more with early planting dates in a year with a warm spring.

There was no significant statistical difference between early and late planted yields in any individual study. However, the combined irrigated data showed a significant yield difference at both the 95 and 99% levels for the early vs. later planted fields. There was a large amount of yield variation due to location when the study locations were combined.



UNIVERSITY OF <b>Nebraska</b> Lincoln		<b>EXTENSION</b>			On-Farm Comparison Results	
Producer & Planting Date		Rainfed	Variety	Row Spacing	2009 Soybean Planting Date	
Yield						
SCAL Early (April 27) (4 Reps)		Rainfed	Pioneer 93M11	30"	<b>37.6</b>	
SCAL Late (May 18)		Rainfed	Pioneer 93M11	30"	<b>37.2</b>	
Saunders Co. Early (May 3) (6 Reps)		Rainfed	NC+2A63RR	15"	<b>66.6</b>	
Saunders Co. Late (May 21)		Rainfed	NC+2A63RR	15"	<b>65.1</b>	

**There was no statistically significant yield difference for either location.**

**There was a large amount of jackrabbit damage to the SCAL location near Clay Center. This area also received very little rainfall in 2009.**

The dryland field at South Central Ag Lab near Clay Center had serious jackrabbit damage and essentially no yield difference was observed. This area of Nebraska was very dry in 2009.



**2008-2009 Quad County Soybean Planting Date Study**

**Summary:** In all locations tested in 2008 and 2009, the early planted soybeans out-yielded the late planted soybeans from 1-4 bu/acre. This yield difference was not found to be statistically significant for any individual location. When the 2009 irrigated data was combined, the early yield was statistically significant at the 95% and 99% levels.

2008 was a cool, wet spring and 2009 was a warmer spring.

All seed, whether planted early or late, was treated with a fungicide + insecticide seed treatment. Producers planting soybeans in April should use a combined fungicide + insecticide seed treatment due to bean leaf beetles and seedling damping off diseases. If the cost for this seed treatment is \$9.50/acre, the producer would need a 1.1 bu/acre yield increase for early planted soybeans to break even (based on a \$9/bu soybean price). This study will be repeated in 2010.