AgriLIFE EXTENSION
Texas A&M System

THIRTY-ONE SOYBEAN VARIETIES PLANTED ON THREE DATES OVER A FIVE WEEK PERIOD

Duane Kainer, Cooperator (2009)
Joe D. Janak, Jr., Stephen Biles and James Grichar
County Extension Agent - Ag/NR, Calhoun, Refugio &
Victoria Extension IPM Agent and Texas AgriLife Research,
Research Scientist, respectively.
Victoria County, Texas

SUMMARY:

In an evaluation of thirty-one soybean varieties planted on three different dates each about two weeks apart, yields were increased slightly as the season progressed but then fell as the planting season extended and soil moisture was minimal. Yields for the earliest planting (March 23) ranged from 6.5 – 25.6 bu/a for an average of 21.4 bu/a. Yields for the second planting (April 6) ranged from 0 – 29.1 bu/a for an average of 21.9 bu/a. Yields for the last planting (April 21) ranged from 0 – 23.7 bu/a for an average of 16.1 bu/a. Over all plantings, yields ranged from 2.2 – 26.1 bu/a averaging 19.8 bu/a.

OBJECTIVE:

To determine the optimum yield, planting time and profitability for various soybean varieties and new experimental lines.

MATERIALS and METHODS:

Thirty-one different soybean varieties were planted at three different dates (March 23, April 6, and April 21, 2009). Seeding rate was 10 seeds per foot and all were planted with a Monosem vacuum planter on 38 inch rows. Seeds were inoculated with Nitragin inoculant. Plots were 30 feet long with two rows per variety. Grain sorghum was planted as last year's crop. No soybeans have ever been planted on this land.

No fertilizer was applied to this demonstration. The following herbicides were applied: Boundary at 1 qt/ac was applied to the first replication at planting. Pursuit at 4 oz/ac, was applied to the second and third rep at planting and Cobra at 12.5 oz/ac was applied to all plots as the season progressed. The soybeans were treated with 2 oz/ac of Baythroid insecticide for stink bugs on June 5, 2009.

RESULTS and DISCUSSIONS:

All three planting dates had sufficient soil moisture initially and the soybeans grew well from the start although moisture became limited as the season progresses. Soybeans were harvested with a two row combine. Yields were fair to good for the earlier planted soybeans but they diminished due to minimal soil moisture near the later planting date and thereafter through maturity later in the summer.

ACKNOWLEDGMENTS:

Appreciation is expressed to contributing seed companies, James Grichar, Texas Ag. Experiment Station, Research Scientist and Duane Kainer, cooperator. Additional appreciation goes to Texas Ag. Experiment Station personnel who assisted including: A.J. Jaks, Kevin Brewer, Bill Klesel, and Dwayne Drozd.

Table 1. Evaluation of soybeans varieties, harvest date and yield as compared to planting dates. Duane Kainer, Cooperator, Victoria County, TX 2009.

VARIETY*	**Harvest Date as Influenced by Planting Date**			**Yield in BU/A as Influenced by Planting Date**			**Overall Average Yield BU/A**
Planting Dates	**3/23**	**4/6**	**4/21**	**3/23**	**4/6**	**4/21**	
DK 5068RR	7/13	7/27	8/10	25.6	29.1	23.7	26.1
CROPLAN 4955RR	7/13	7/27	8/10	23.4	26.8	22.7	24.3
NKS 49W6RR	7/13	7/27	8/10	24.7	28.7	19.1	24.2
AG 5304RR	7/13	7/27	8/10	24.5	26.8	20.4	23.9
DP 4888RR	7/13	7/27	8/10	23.7	25.6	22.3	23.9
TV 46R19RR	7/9	7/22	8/5	22.4	25.5	22	23.3
NKS 48C9RR	7/9	7/22	8/5	23.6	24.3	21.5	23.1
DK 4866RR	7/9	7/22	8/5	21.3	24.7	21.8	22.6
DP 5335RR	7/9	7/13	8/10	24.3	23.7	19.6	22.5
NKS 51T8RR	7/13	7/27	8/10	21.1	23.9	21.6	22.2
AG 4907RR	7/9	7/22	8/5	21.3	24.8	20.2	22.1
HBK 494	7/13	7/27	8/5	22.8	24.2	19.2	22.1
HBK 5025	7/22	7/27	8/10	25.0	23.6	17.5	22.0
PIONEER 95Y20RR	7/9	7/27	8/10	20.9	23.0	19.6	21.2
PIONEER 94Y90RR	7/9	7/27	8/5	22.5	21.8	18.7	21.0
HBK 5425RR	7/22	8/5	8/24	24.3	26.4	11.4	20.7
HBK 4926	7/13	7/27	8/10	22.5	20.9	18.6	20.7
CROPLAN 4998RR	7/13	7/27	8/10	21.0	21.6	18.6	20.4
AG 5803RR	7/22	8/5	8/24	24.8	23.3	12.8	20.3
DG 37P49RR	-	7/27	8/10	19.2	22.0	19.0	20.1
TV 49R17RR	7/9	7/22	8/5	17.7	21.0	21.0	19.9
TV 55R15RR	7/13	7/27	8/18	25.2	23.2	10.1	19.5
HBK 5941	7/27	8/10	8/24	24.3	20.9	12.5	19.2
HBK 5123RR	7/13	7/27	8/18	21.9	23.8	10.9	18.9
TV 54R28RR	7/9	7/22	8/10	21.1	20.6	14.3	18.7
DG 36Y48RR	-	7/13	8/10	19.2	19.8	16.0	18.3
AG 5606RR	7/22	8/5	8/18	22.9	22.8	9.0	18.2
AG 5503RR	7/9	7/13	8/18	18.6	21.3	14.2	18.0
VERNAL	8/5	8/10	8/24	18.8	17.7	9.5	15.3
RIO 8360	8/10	8/18	8/24	14.6	9.7	7.9	10.7
RIO 8325	8/10	8/24	-	16.0	10.1	0	8.7
RIO 8364	8/18	-	-	6.5	0	0	2.2
Average Yield by Planting Date				***21.4***	***21.9***	***16.1***	***19.8***
LSD (0.05)							*2.3*

* Conventional varieties are in BOLDFACE. Blank columns means soybean variety not planted at that date/location.

Table 2. Soybean variety yields from three locations as compared to planting dates. Jackson, Wharton, and Victoria Counties, TX 2009.

	WHARTON			VICTORIA			JACKSON
VARIETY*	March 24	April 7	April 24	March 23	April 6	April 21	March 26
	Bu/A						
AG 4907RR	25.4	19.6	8.8	21.3	24.8	20.2	13.6
AG 5304RR	28.3	18.3	10.0	24.5	26.8	20.4	
AG 5503RR	22.5	20.2	6.9	18.6	21.3	14.2	11.2
AG 5606RR	22.4	15.0	6.4	22.9	22.8	9.0	
AG 5803RR	22.6	15.7	5.8	24.8	23.3	12.8	
CROPLAN 4955RR	25.4	17.2	4.5	23.4	26.8	22.7	15.7
CROPLAN 4998RR	26.6	19.3	10.4	21.0	21.6	18.6	16.0
DG 31R54RR		14.5	0				
DG 32P48RR		14.3	10.8				
DG 36C44RR		15.4	0				
DG 36Y48RR	19.2	14.7	0	19.2	19.8	16.0	13.5
DG 37P49RR	27.5	17.9	8.1	19.2	22.0	19.0	14.8
DK 4866RR	25.1	17.8	10.0	21.3	24.7	21.8	12.9
DK 5068RR	26.4	18.4	10.0	25.6	29.1	23.7	
DP 4888RR	26.1	18.8	10.4	23.7	25.6	22.3	17.5
DP 5335RR	29.2	23.6	11.5	24.3	23.7	19.6	16.5
HBK 494	22.5	18.2	10.0	22.8	24.2	19.2	16.4
HBK 4926	20.5	12.3	7.3	22.5	20.9	18.6	16.0
HBK 5025	25.2	17.4	6.5	25.0	23.6	17.5	17.0
HBK 5941	11.7	10.6	0	24.3	20.9	12.5	
HBK 5123RR	16.3	12.8	0	21.9	23.8	10.9	15.7
HBK 5425RR	20.6	18.8	2.7	24.3	26.4	11.4	16.3
NKS 48C9RR	25.5	19.6	-	23.6	24.3	21.5	16.8
NKS 49W6RR	28.0	20.1	8.1	24.7	28.7	19.1	15.3
NKS 51T8RR	25.6	19.8	11.9	21.1	23.9	21.6	17.3
PIONEER 94Y90RR	21.9	15.4	11.5	22.5	21.8	18.7	17.8
PIONEER 95Y20RR	16.8	13.8	11.1	20.9	23.0	19.6	17.5
RIO 8315	0	0	0	0	0	0	0
RIO 8325	10.0	7.7	0	16.0	10.1	0	
RIO 8360	9.8	9.7	5.8	14.6	9.7	7.9	
RIO 8364	0	0	0	6.5	0	0	0
TV 46R19RR	23.8	16.3	8.8	22.4	25.5	22.0	
TV 49R17RR	19.8	14.0	0	17.7	21.0	21.0	14.3
TV 54R28RR	31.1	20.1	7.3	21.1	20.6	14.3	16.6
TV 55R15RR	25.2	21.3	10.0	25.2	23.2	10.1	19.2
VERNAL	8.8	9.2	0	18.8	17.7	9.5	
LSD (0.05)	2.2			2.3			1.4

* Conventional varieties are in BOLDFACE. Plot size at Wharton and Victoria County locations was 2 rows wide by 30 ft long. Plot size at Jackson County was 2 rows wide by 78 ft long. At all locations there were 3 reps. Blank columns means soybean variety not planted at that date/location.