

2013 SOYBEAN VARIETY DEMO, JAY, FLORIDA

Darcy E. P. Telenko, John Atkins, and Jennifer Bearden

This report includes the summary of the 2013 soybean variety demo in Jay, Florida. It shows the performance of thirteen soybean varieties. This data represents only one year and was not replicated, results should be considered over several locations and years before conclusions are valid.

Varieties that were evaluated:

- | | |
|--------------------|-------------|
| 1. CROPLAN R2C7622 | 8. AG 7733 |
| 2. CROPLAN R2C7390 | 9. AG 6732 |
| 3. NK 01KG118459 | 10. AG 6931 |
| 4. NK 02KG294306 | 11. AG 7231 |
| 5. NK BA046119 | 12. AG 7333 |
| 6. HBK R7028 | 13. AG 7502 |
| 7. HBK RY7523 | |

2013 Growing Conditions and Experimental Design

The soil type was a Red Bay sandy loam that had been fallow in 2012, but had a history of cotton and peanut production. Each soybean variety was planted on 3 Jun under conventional tillage. Plots were twelve, 280-ft rows with 36-in. row spacing. Standard practices for soybean production were followed throughout the season. Stealth at 1 qt/A was applied on 4 Jun for pre-plant weed control and Roundup at 22 oz/A on 17 Jun, 20 Jun, 27 Jun, and 31 Jun for post-emergence weed control. Growth regulator Radiate at 2 oz/A was applied on 31 Jul. Folicur 3.6 at 7.2 oz/A was applied on 31 Jun for disease control. Sherpa at 3.75 oz/A was applied on 27 Jun, Sniper at 6.4 oz/A on 16 Jul and 31 Jul and Intrepid at 6 oz/A on 6 Aug were applied for insect control, including kudzu bug which was found in the trial late June. Miller's hot sauce at 4 oz/A was applied on 20 Jun and 27 Jun to deter deer grazing. Soybeans were picked on 12 Dec and percent moisture for each variety was determined.

Rainfall in May, June and Oct was 7.1, 0.74, 4.21 in. below normal, respectively; rainfall in Jul, Aug, and Sep was 5.23, 1.37, and 3.65 in. above normal, respectively. Rainfall during the period totaled 33.23 in., which was 1.61 in. below normal. Weather data was obtained from Florida Automated Weather Network (FAWN) station located on Jay research farm and normal represents the mean for the past 54 years of records (Table 1).

Table 1. Weather conditions during 2013 in Jay, FL.

Month	Total rainfall (in.)	Average minimum air temperature (°F)	Average maximum air temperature (°F)
May	0.7 (7.1 below normal)	43.0	91.8
June	5.8 (0.7 below normal)	65.5	93.8
July	11.8 (5.2 above normal)	67.6	92.9
August	5.5 (1.4 above normal)	67.5	95.2
September	8.0 (3.7 above normal)	58.6	93.7
October	1.7 (4.2 below normal)	38.0	88.1

Summary

Stand counts ranged from 6.46 plants/ft (93,773 plants/A) to 7.34 plants/ft (106,586 plants/A) (Table 2). Total yield ranged from NK BA046119 at 1738 lb/A (29.0 bu/A) to CROPLAN R2C7390 4431 lb/A (73.9 bu/A) (Table 2). CROPLAN R2C7390, CROPLAN R2C7622, and AG 7231 were the highest yielding varieties of 73.9, 70.6, and 68.1 bu/A respectively (Table 2).

Table 2. Effect of variety on emergence and yield in soybean.

Variety	Plant			
	Plants/ft* (2 Aug)	population/A (2 Aug)	Yield lb/A (12 Dec)	Bu/A (12 Dec)
CROPLAN R2C7622.....	6.46	93,773	4238	70.6
CROPLAN R2C7390.....	6.96	101,054	4431	73.9
NK 01KG118459.....	6.86	99,579	2731	45.5
NK 02KG294306.....	7.06	102,529	2891	48.2
NK BA046119.....	6.86	99,579	1738	29.0
HBK R7028.....	7.16	104,004	3385	56.4
HBK RY7523.....	7.29	105,848	3503	58.4
AG 7733.....	6.73	97,735	4007	66.8
AG 6732.....	6.76	98,103	3274	54.6
AG 6931.....	7.04	102,160	3787	63.1
AG 7231.....	7.19	104,373	4084	68.1
AG 7333.....	7.34	106,586	3630	60.5
AG 7502.....	-	-	3720	62.0

* Determined from counts of twelve, one-meter segment per plot.

Yields are weights of soybeans with 13.5% moisture. One bushel equals 60 lbs. Soybeans were harvested on 12 Dec 2013.