

2023 Evaluation of Soybean Varieties, Jay, Florida

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This report includes the summary of the 2023 soybean large plot demonstration trial at West Florida Research and Education Center, Jay, Florida. It shows the performance of 7 soybean varieties in the Demonstration Trial (Table 1). This data represents only one year, results should be considered over several locations and years before conclusions are valid.

Table 1. Soybean Entries that were evaluated: (Brand/Variety/Maturity)

	Brand	Variety	Maturity Index
1	Armor	71-F12	7.1
2	Armor	62-D60	6.2
3	Syngenta	NK65-H5E3	6.5
4	Syngenta	NK69-Q4XF	6.9
5	Syngenta	NK72-B2XF	7.2
6	Asgrow	AG69XFO	6.9
7	Asgrow	AG71XF2	7.1

2023 Growing Conditions and Experimental Design:

The soil type was Red Bay sandy loam, and the study area was planted to peanuts in 2022. Fertilizer was applied according to soil test results (100 lb/A potash applied 30 June). Soybean varieties were planted on 7 June under strip tillage. The plots were 4 rows wide by 350 feet long with 36-in. row spacing. Standard practices for soybean production were followed throughout the season. Glyphosate herbicide (28 oz/A) and Dual Magnum (1.3pt/A) were applied at planting. One inch of irrigation was applied on 10 June and again on 30 June. On 18 August, Priaxor fungicide (6 oz/A) was applied. Grizzly Too insecticide (2 oz/A) was applied on 26 September. Soybeans were harvested on 8 December with a plot combine, percent moisture determined, and plot weights converted to bu/A yield.

The rainfall was above normal for June but well below normal for the rest of the growing season. The historic average rainfall for June through December is 42.47 inches, however in 2023, rainfall received was 27.5 inches. Weather data was obtained from Florida Automated Weather Network (FAWN) station located on Jay research farm (Table 2).

Table 2. Weather conditions during 2023 soybean trial.

Month	Total Rainfall (in)	Average minimum air temperature (°F)	Average maximum air temperature (°F)
June	9.28 in	64.0	95.7
July	3.3 in	69.4	96.0
August	1.64 in	66.8	101.0
September	4.23 in	32.0	95.4
October	1.18 in	42.2	87.1
November	4.1 in	30.6	81.9
December	3.77 in	47.9	66.4
Total	27.5		

Summary

Stand count for all varieties ranged from 5.4 to 6.6 plants per foot of row (78,300 to 95,700 plants/A) (Table 3).

62-D60, 69-Q4XF, AG69XFO all yielded over 25 bu/A while NK65-H5E3 produced less than 15 bu/A (Table 4). Yields were lower than normal for the area due to lack of rainfall during the growing season.

Table 3. Soybean emergence, Jay, FL 2023.

Company	Variety	Plants/ft*	Plants/A*
Armor	71-F12	6.6	95,700
Armor	62-D60	6	87,000
Syngenta	NK65-H5E3	5.7	82,650
Syngenta	NK69-Q4XF	6.5	94,250
Syngenta	NK72-B2XF	5.8	84,100
Asgrow	AG69XFO	5.4	78,300
Asgrow	AG71XF2	6.5	94,250

Table 4. Soybean Variety moisture and yield, Jay, FL 2023.

Company	Variety	Moisture (%)	Yield (bu/A)	Adjusted Yield (lb/A)*
Armor	71-F12	19.1	26.5	24.6
Armor	62-D60	16.5	29	27.8
Syngenta	NK65-H5E3	17	14.2	13.5
Syngenta	NK69-Q4XF	17.5	29.5	28
Syngenta	NK72-B2XF	17.6	22	20.8

Asgrow	AG69XFO	18.9	24.6	22.9
Asgrow	AG71XF2	18.2	27.9	26.2

*Adjusted to 13% moisture. Higher yielding varieties are in bold.