2011 LEARNING CENTER at Scott, Mississippi DEMONSTRATION REPORT

ASGROW

Comparison of 30-Inch vs. 38-Inch Rows in Soybean

Twin row planting has been shown to have several potential benefits including maximizing light use and allowing for greater plant root development. Because of these potential benefits, an effort is being made to evaluate narrow row spacings that could optimize soybean yields and be compatible with cotton production.

Study Guidelines

In 2011, a study was conducted at the Scott Learning Center to evaluate narrow row spacing in soybeans. Four Asgrow® soybean brands (AG4303, AG4531, AG4730, and AG5606) were evaluated for yield in 38-inch twin row and 30-inch single row systems. Populations in both systems were 140,000 seeds per acre. Plots went in on May 1 and were harvested on September 3. Agronomic practices were in alignment with local standards.

Results and Discussion

In this study, 30-inch single rows yielded an average of 64 bushels per acre while 38-inch twin rows averaged 59 bushels per acre across the various brands. Single rows out-yielded twin rows by close to 5 bushels per acre. Three of the four soybean products in the study had greater yields in 30-inch single rows compared to 38-inch twin rows (Figure 1). Canopy closure in the 30-inch rows occurred at about the same time or a few days earlier than in the twin rows.

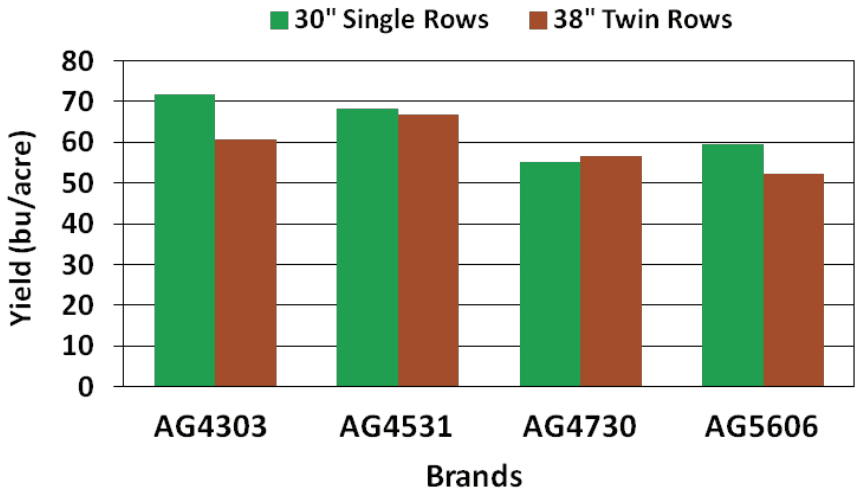

Figure 1. Average yields (bu/acre) of four soybean brands with different relative maturities planted in 30-inch single rows and 38-inch twin rows.

Summary

In this area, canopy closure generally occurs earlier in both 30-inch single rows and 38-inch twin rows compared to 38-inch single rows. There are several benefits to this including: better sunlight interception at earlier stages of plant growth, lower canopy and soil temperatures, and more efficient use of resources in the field.

Twin row systems appear to be an option for soybean production in the Mid-South and have the added benefit of being compatible with cotton production. One component not included in this study is the impact of drainage on soybean yield potential in narrower rows. Some southern growers are moving from flat planted, narrow row systems to 30-inch single row or 38-inch twin row bedded systems, based on drainage requirements.

References

L. Stalcup. Planting corn and soybeans in twin rows offers efficiency. Corn and Soybean Digest. Dec. 1, 2009. [Online] http://cornandsoybeandigest.com (Verified 11/1/11).

The information discussed in this report is from a non-replicated, one-year demonstration. This information piece is designed to report the results of this demonstration and is not intended to infer any confirmed trends. Please use this information accordingly.

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