

2005 Louisiana Soybean Variety Performance Trials

Summary

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Performance of commercial soybean varieties are evaluated each year by Louisiana Agricultural Experiment Station (LAES) researchers. The purpose of the trials is to provide Louisiana growers and seedsmen with unbiased results on performance of commercial soybean varieties submitted for evaluation by private agencies. The data generated in these trials are used by the Louisiana Cooperative Extension Service for recommending varieties to producers.

The Louisiana Agricultural Experiment Station units cooperating in 2005 were the Dean Lee Research Station at Alexandria, the Northeast research Station at St. Joseph, the Macon Ridge Branch of the Northeast Research Station at Winnsboro, the Red River Research Station at Bossier City, The Rice Research station at Crowley, and the Iberia Research Station at Jeanerette. One-hundred and eighty-four soybean varieties or cultivars were tested in 2005. There were 16 varieties in the Maturity Group III Roundup-Ready test, 84 varieties in the Maturity Group IV Roundup-Ready test, 71 varieties in the Maturity Group V Roundup-Ready test, seven varieties in the Maturity Group VI Roundup-Ready test, one variety in the Maturity Group IV Conventional test, and five varieties or cultivars in the Maturity Group V Conventional test.

Not all tests were planted at all locations. Entries were evaluated at all locations in randomized complete block designs. Although not all variables were measured at all locations, the following variables are generally recorded; maturity (physiological or harvest), plant height, lodging, yield (bushels of soybean per acre calculated from plot weights and adjusted to 13% moisture), and moisture (moisture of grain when measuring plot weight). Pod height is sometimes measured. Salt damage is measured at the Macon Ridge Branch Station.

Yield and agronomic data were analyzed using statistical procedures from 'Agrobase 21' (software for managing variety tests and breeding programs) and checked using the Statistical Analyses System (SAS). Least significant differences (LSD) were computed using a one sided test at a probability level of 0.10. The coefficient of variation (CV) was determined for each test and measures the amount of variation not accounted for by differences in hybrids or replications. The CV is an indicator of how good or reliable the data from a test is.

All soybean variety tests were conducted in 38-inch row spacing on a Norwood silt loam soil at the Dean Lee Research Station in 2005. The site coordinator was Dr. Steven Moore who was assisted by Ms. Millie Deloach, Research Associate. The Maturity Group III Roundup Ready test was planted on March 30 and May 3. The Maturity Group IV Roundup Ready test was planted on April 8 and May 9. The Maturity Group V Roundup Ready test was planted on May 12. The Maturity Group VI Roundup Ready test was planted on May 12. The Maturity Group IV conventional test was planted on May 9. The Maturity Group V Conventional test was planted on May 12. Pesticides applied to one or more tests included Glyphosate.

All soybean variety tests were conducted in 38-inch row spacing on a Gigger silt loam soil at the Macon Ridge Branch of the Northeast Research Station in 2005. The site coordinator was Dr. Don Boquet, assisted by Mr. Jay Caylor, Research Associate. The Maturity Group III Roundup Ready test was planted on March 30 and May 2. The Maturity Group IV Roundup Ready test was planted on April 22. The Maturity Group V Roundup Ready test was planted on May 3. The Maturity Group VI Roundup Ready test was planted on May 3. The Maturity Group IV Conventional test was planted on April 25. The Maturity Group V Conventional test was planted May 3.

All soybean variety tests were conducted in 40-inch row spacing on a Sharkey clay soil at the Northeast Research Station in 2005 except for the Maturity Group V Roundup test where four rows spaced 16-inches apart were harvested. There were 32-inch tire spacings between the four harvested rows. The site coordinator was Dr. Ernie Clawson, assisted by Mr. Al Coco. The Maturity Group III Roundup Ready test was planted on April 21. The Maturity Group IV Roundup Ready test was planted on April 20. The Maturity Group V Roundup Ready test was planted on May 11 and 16. The Maturity Group VI Roundup Ready test was planted on May 17. The Maturity Group IV conventional test was planted on April 21, but replanted on May 16. The Maturity Group V conventional test was planted on May 16.

All soybean variety tests were conducted in 40-inch row spacing on a Latanier silty clay loam soil at the Red River Research Station in 2005. The site coordinator was Mr. Jose Liscano. The Maturity Group V Roundup Ready test, the Maturity Group VI Roundup Ready test, and the Maturity Group V Conventional test were planted on June 1. Pesticides applied to tests included Glyphosate, Reflex, Orthene and Larvin.

All soybean variety tests were conducted in 30-inch row spacing at the Rice Research Station in 2005. The site coordinator was Dr. Jason Bond, assisted by Mr. Ronald Regan, Associate. The Maturity Group IV Roundup Ready test was planted on April 27. The Maturity Group V Roundup Ready test was planted on June 3. The Maturity Group VI Roundup Ready test was planted on June 3.

All soybean variety tests were conducted in 36-inch row spacing at the Iberia Research Station in 2005. The site coordinator was Mr. John Richard. The Maturity Group III Roundup Ready test was planted on April 26 and the Maturity Group IV Roundup Ready test was planted on May 2. All plots maturing later than September 26 were affected by Hurricane Rita and had to be harvested in one direction. Pesticides applied to the test included Roundup weather Max, Mustang Max and Acephate.

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