

2006 Louisiana Soybean Variety Performance Trials

Summary

**Steve Moore, Don Boquet, Blair Buckley, Ernie Clawson, Dustin Harrell,
John Richard, Millie Deloach, Jay Caylor, Colleen Cookson and Ronald Regan.**

Performance of commercial soybean varieties is 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 2006 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. Two-hundred and one soybean varieties were tested in 2006. There were 19 varieties in the Maturity Group III Roundup-Ready test, 99 varieties in the Maturity Group IV Roundup-Ready test, 79 varieties in the Maturity Group V Roundup-Ready test, and 4 varieties in the Maturity Group VI Roundup-Ready test.

All maturity groups were planted at all locations except for the Rice research Station where the Maturity Group III test was not planted. 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. Cercospora leaf blight was measured at the Northeast Research Station.

Yield and agronomic data were analyzed using statistical procedures from 'ARM' (software for managing variety tests). Least significant differences (LSD) were computed using a one sided test at a probability level of 0.05. 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 2006. The site coordinator was Dr. Steven Moore who was assisted by Ms. Millie Deloach. The Maturity Group III Roundup Ready test was planted on March 27 and April 28. The Maturity Group IV Roundup Ready test was planted on May 4. The Maturity Group V Roundup Ready test was planted on May 16. The Maturity Group VI Roundup Ready test was planted on May 16.

All soybean variety tests were conducted in 40-inch row spacing on a Gigger silt loam soil at the Macon Ridge Branch of the Northeast Research Station in 2006. The site coordinator was Dr. Don Boquet assisted by Mr. Jay Caylor. The Maturity Group III test was planted on March 28

and April 20. The Maturity Group IV Roundup Ready test was planted on April 20. The Maturity Group V test was planted on April 28. The Maturity Group VI test was harvested but discarded due to low yield. The cause of low yield is undetermined and could be a pathological or physiological malady. Investigators will be on the lookout to see if the problem is repeated in 2007.

All soybean variety tests were conducted on a Sharkey clay soil at the Northeast Research Station in 2006. The Maturity Group III and IV tests were planted using a 40-inch row spacing. The Maturity Group V and VI tests contained eight rows. The four middle rows harvested were on 16 inch spacing. There were two 32-inch rows on either side of the four middle rows. This may approximate leaving out one row for each tractor tire. The Maturity Group III test was planted May 16. The Maturity Group IV test was planted May 4. The Maturity Group V test was planted May 18. The Maturity Group VI test was planted May 18. The site coordinator was Dr. Ernie Clawson assisted by Mr. Al Coco.

All soybean variety tests were conducted in 40-inch row spacing on a Moreland silty clay loam at the Red River Research Station in 2006. The site coordinator was Dr. Blair Buckley assisted by Ms. Colleen Cookson. The Maturity Group III test was planted on May 3. The Maturity Group IV test was planted on May 5. The Maturity Group V and VI tests were planted on May 11.

All soybean variety tests were conducted in 30-inch row spacing on a Crowley silt loam soil at the Rice Research Station in 2006. The site coordinator was Dr. Dustin Harrell assisted by Mr. Ronald Regan. The Maturity Group IV, V, and VI tests were planted on May 17. Moisture availability effected planting date.

All soybean variety tests were conducted in 36-inch row spacing on a Baldwin silty clay loam soil at the Iberia Research Station in 2006. The site coordinator was Mr. John Richard. The Maturity Group III test was planted on April 26. The Maturity Group IV test was planted on May 4. The Maturity Group V test was planted on May 10. The Maturity Group VI test was planted on May 15 and replanted June 20. The Maturity group VI test was lost due to rainfall and insects.

Louisiana State University Agricultural Center

William B. Richardson, Chancellor

Louisiana Agricultural Experiment Station

David Boethel, Vice Chancellor and Director

Louisiana Cooperative Extension Service

Paul D. Coreil, Vice Chancellor and Director