NORTH CAROLINA
MEASURED CROP PERFORMANCE
SOYBEAN
2015

North Carolina State University
College of Agriculture and Life Sciences
North Carolina Agricultural Research Service
Raleigh, North Carolina 27695
Steve Lommel, Director of Research

Crop Science Research Report No. 248
December 2015

http://www.ncovt.com

North Carolina Measured Crop Performance

Soybean 2015

Official Variety Testing Program

Department of Crop Science

North Carolina State University

Raleigh, North Carolina 27695-8604

Dr. Jim Dunphy
Interim Director

Johnny Denton, Phil Johnson, Dwight Parrish
Researchers

Joy Smith
Statistical Analyst, NCSU Statistical Laboratory

http://www.ncovt.com

SOYBEAN

There are many high-yielding soybean varieties available to the producer from which he may choose according to desired maturity date, lodging, pest resistance, etc. Information on the performance of commercial varieties and experimental lines grown in different locations in the state is provided in this report.

Entries: Experimental lines and commercial varieties developed by both public and private agencies are included in this program. Any individual or firm may make application for having entries included. A fee is charged on an entry basis. Personnel of the testing program may include entries about which further information is desired.

Test Locations: Five full season tests were located in the Coastal Plain and one test in the Piedmont. Three late planted tests were located in the Coastal Plain and one test in the Piedmont.

Data: Data were collected on yield, moisture, lodging, pod maturity, and plant height. Yields were calculated on plot weight and adjusted to 14% moisture. Lodging was scored on a scale of 1-5 with "1" being no lodging and "5" being completely lodged before harvest; this does not necessarily reflect harvest loss. Plant height was determined by measuring from the ground to the top of the plant prior to harvest.

Seasonal Conditions: Planting for all trials was on time. The season was characterized with above average rainfall at all locations throughout the growing season. Harvest was delayed at all locations due to continual wet conditions (Table 1). Columbus County (early plant) and Pasquotank County (late plant) was discarded due to excessive amounts of continuous rainfall. Union County (late plant) was discarded due to poor seed germination. Various maturity groups were lost (seed damage) due to excessive amounts of rainfall, mainly Groups IV, V Early and V late. All locations received an excessive amount of rainfall resulting in low yields.

Results: Soil test results are shown in Table 2. Roundup Ready, Liberty Link and Conventional beans were separated. Data for conventional varieties are shown by maturity, Tables A, B, C, 7, 15 and 19. Data for Liberty Link varieties are shown by maturity, Tables D, E, F and G. Data for Roundup Ready varieties are shown by maturity, Tables H, I, J, K, L, 21E, 21L, 23E, 23L, 24, 25E, 25L, 26, 27E, 27L, 28E, 28L, 29 AND 30.

Interpreting Data: Research has shown that the best data to use in selecting varieties are two-year, multi-location data, e.g. Tables 7,15,19, 21E, 21L, 23E, 23L, 25E, 25L, 27E, 27L, 28E, 28L and 29 . Data were good in terms of precision at locations reported.