

Report to the National Peanut Board

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2013 YEAR END REPORT

2013 Growing Season Report

- Peanut acreage decreased from 2012 from 104,995 to 78,225 harvested acres.
- ~78% Virginias and 22% runners with potential of more runners being grown in the future
- Extremely cool and wet through most of growing season. Some areas in South Carolina received more than 45 inches of rain in the months of June, July, and August.
- Extended planting season from Mid-April to Late June due to environmental conditions.
- Yields were below average (+/- 150 lbs per acre) for the state but Grades were 1 to 2 points better than normal with higher overall ELK percentages.
- Disease pressure was lower in 2013 than in previous years

1.) Disease Resistance Screen / PVQE Regional Project Results

Objective: The disease screen at the Edisto REC at Blackville, SC was conducted to evaluate resistance of experimental lines to the main diseases which plague the Carolinas and Virginia growers. The economically important diseases include but not limited to white mold (southern stem rot), late leaf spot, and tomato spotted wilt.

Ratings for soil disease (including white mold, CBR, and Rhizoctonia) were highly variable. All cultivars, except N10080oIJCL and N10070oI CLSmT, had lower percent TSWV compared to the NC-V 11 standard. Similar results were observed for White molds and Rhizoctonia where a majority of cultivars and lines had reduced levels of disease than the NC-V 11 standard. Leafspot severity was similar for all cultivars and lines tested. Overall leafspot disease was low in this trial. Bailey, N08082oIJCT, and GA 06G yielded numerically higher than the NC-V 11 standard.

2.) Uniform Peanut Performance Trial (UPPT) Results

Objective: In this national test, advanced but unreleased lines from public and private breeding programs across the peanut belt are being evaluated for agronomic performance, grade, oil and flavor characteristics. The purpose is to select lines for release with superior yield and grade performance. This test is performed using standard agronomic practices. Data from this site are a significant regional contribution to variety development.

Results from the South Carolina UPPT location showed two UF Lines (13302, and 13303), one Georgia line (GA 1027206), and two ARSOK lines (R35 and V30B) to be numerically similar in yield and in Grade to the leading commercial standards for Runner and Virginia type peanuts.

3.) South Carolina State Variety Challenge Summary Results

Objective: Variety tests were conducted to compare agronomic performance (yield, grade, disease resistance, harvest maturity) of released lines at Blackville and Florence under standard production practices. The purpose is to monitor the relative performance of newly released vs. standard virginia and runner varieties over the varying pest and environmental conditions of multiple sites and growing seasons.

Edisto REC, Blackville, SC

Runners: The highest yielding varieties were GA 06G and GA 12Y. Ga. Greener and TUFRunner 727 yields were abnormally low in this test which is uncharacteristic of this variety based on previous years.

In comparing the gross returns of all varieties, Ga. 06G, GA 12Y and Florunner 107 were higher compared to TUFRunner 727, Fla 07, GA 09B and Ga. Greener. Grades were similar among varieties tested.

Virginias: Bailey, CHAMPS, N08082oIJCT, Sullivan, Wynne, and Sugg had the highest returns compared to Gregory, Spain, and NC-V 11. GA 11J and Spain had the lowest yield, and consequently the lowest gross returns.

Bailey is still the leading favorite among growers due to its disease resistance package and high yield potential

PEEDEE REC, Florence, SC

The variety challenge at Florence did not show the same results as the trial at Blackville. This could be due to the excessive rains received during planting and early in the growing season.

Runners: GA Greener and GA 06G had numerically the highest yield. Ga Greener performed more traditionally at Pee Dee REC. Grades were not taken due to weather.

Virginias: Though no significant differences were detected, Bailey and CHAMPS had the highest yield. Ga. 11J did not perform as well in Florence or Blackville like in previous years. Grades were not taken weather.

4.) Development of Fungicide Programs for Resistant Varieties:

A reduced fungicide input test was conducted at Blackville to determine the feasibility of reducing production costs by exploiting resistance identified in varieties evaluated in the disease screen/PVQE project. Currently recommended and experimental fungicide programs along with reduced fungicide programs were evaluated to determine the most

profitable approach based on net return and maintaining a suitable margin of disease management on the resistant variety Bailey. This has been an ongoing project for several years to ensure the resistance and yield potential of Bailey can be sustained over several years and disease pressures.

As in previous tests, the untreated check had numerically the lowest yield compared to all other treatments, but soil disease ratings were similar. Some differences in leaf spot rating were evident, but defoliation was limited and this disease probably had little yield impact. Reduced cost 4-spray programs tested in 2013 produced equivalent yield and disease control to standard 5-spray programs. The most cost-effective program was a four-spray chlorothalonil (Bravo WS) + tebuconazole (Orius). There was an increase in leafspot disease in Bailey using the reduced schedule; therefore, the recommended reduced fungicide schedule was updated to add a more effective leaf spot fungicide at 60 DAP in the 2014 Production Guide.

5.) Precision Planting Technologies Trials Research plots will be established at the Pee Dee Research & Education Center near Florence, SC to evaluate the effect of row pattern and variety on yield. Two Virginia varieties (GA 11J and Bailey) and two runner (GA 09B and GA 12Y) varieties were planted in single and twin (38”) row patterns. All single row patterns yielded numerically higher than the twin row pattern. GA 12Y and GA 11J numerically out yielded Bailey and GA 09B.

Other trials were not completed due to loss of the precision AG Specialist early in the year.