

Evaluation of Optimum Peanut Rotation Length as Affected by the Presence or Absence of Soybean in Rotation

Jason Sarver

2014 Research Report

Research work completed from beginning of season to April 30, 2015

Research work related to this project was initiated at the Mississippi State University North Farm in Starkville, MS in 2014. Georgia-06G peanut was seeded on May 8 in 38 inch single rows. Plots are six rows wide and 35 feet long. The decision to use six-row plots was made to attempt to eliminate any edge effects associated with smaller plots and to negate any slight shifts in exact plot locations from year to year. Seed was treated with Dynasty fungicide and Vault liquid inoculant was placed in furrow to ensure proper inoculation. Upon emergence, stand counts were taken on all plots. The decision was made to leave all non-peanut plots fallow in order to make the time between peanut crops the ultimate determining factor on yield, disease incidence, and quality in the final year of the study.

Prowl and Dual herbicides were applied prior to planting. Postemergence herbicide application included Basagran (32 oz/A), Select (16 oz/A), and crop oil (32 oz/A) on June 20; and Cadre (4 oz/A) and crop oil (32 oz/A) on July 1. Fungicide applications included Chlorothalonil (24 oz/A) on June 24 and July 25; as well as Provost (10.7 oz/A) on July 7 and August 6. Disease pressure was very low throughout the season.

Plots were dug on September 22. Harvest stand counts were taken after digging but prior to harvest. Plots were harvested on September 25 with a KMC two-row peanut combine with a bagging attachment. Bags were weighed in order to determine yield.

After the harvest season, yield was determined based on weights of plot bags. Plot sample bags were weighed both green and dry in order to determine moisture content of weighed plots. This gives us the ability to accurately report yield in a manner similar to what is reported by buying points to growers. Grading equipment was located and acquired and samples (minus moisture due to lack of accuracy at this point) will be graded when equipment is delivered and set up. Throughout the fall, winter, and spring season, I have traveled to

numerous meetings and have reported on 2014 findings. Although findings are limited due to the overall longer-term nature of this project, growers, consultants, and extension personnel have expressed great interest in the findings of this project.