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

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2015 Research Report
Final Report for work completed during the 2015 growing season

Research work related to this project was initiated at the Mississippi State University North Farm in Starkville, MS in 2015. Peanut cultivar Georgia-06G was seeded on May 7 in 38 inch single rows. Plots are six rows wide and 35 feet long. Seed was treated with Dynasty fungicide. Optimize liquid inoculant (14 oz/acre) and Thimet 20G (5 lb/acre) were applied in-furrow at the time of planting. Prowl (32 oz/acre), Strongarm (0.45 oz/acre) and Valor (3 oz/acre) were applied immediately after planting of peanuts. Volunteer (8 oz/acre) herbicide plus crop oil concentrate (32 oz/acre) were applied on July 22. Fungicide applications included Echo (24 oz/acre) on June 7 and June 22. A medium-risk disease control program was used throughout the season. Stand counts were taken upon emergence in all plots.

Liberty-link cotton and soybean were also planted in their respective plots within the rotation. Liberty (24 oz/A) was applied postemergence to both crops.

Peanut plots were dug on September 18 and harvested on September 22. Because this project is designed as a long-term rotation to determine the effects of different rotation lengths in the presence of absence of soybean, data will not be complete until following the fifth season. Having said that, there were some comparisons that were able to be made this season. Four treatments received peanuts. One of the treatments followed a 2014 peanut crop, while the remaining three were planted into areas which were fallow in the 2014 season. Those plots following peanut averaged 4,188 lb/acre, while those following the fallow areas average 4,493 lb/acre. While these results are preliminary to the overall project goals, they provide early information to Mississippi growers regarding the effect of growing continuous peanuts.