Georgia Peanut Commission
County Agent On-Farm Applied Research

Comparison and validation of conventional peanut irrigation scheduling and maturity vs. web-based PeantFarm Decision Aid.

This on farm trial will be conducted by Ray Hicks, Screven County Extension Coordinator, John Beasley, University of Georgia Extension Peanut Agronomist and numerous producers in Screven County.

Trial was initiated after planting in late April and early May. Four cooperators were utilized using multiple varieties and management practices. A record of rainfall was initiated in each field utilizing rain gauges that was recorded by producers. This data was feed into University of Florida's "Peanut Farm", a program developed by, Dr. Diane Rowland, peanut physiologist with the University of Florida. This program uses date from nearest weather station to record high and low temperatures and rainfall on a particular farm. A producer may also input their own date from an individual field if they have capabilities. The temperature data and rainfall is predicting adjusted growing degree days for maturity as well as the rainfall for scheduling irrigation needs.

With Screven County receiving and average of eight to ten inches of rainfall in each growing month the need for irrigation was not needed. This rainfall also slowed the accumulation of adjusted growing degree days, hence the peanuts matured at a slower pace. By using this model we were able to better predict maturity as compared to old method of 135 to 140 calendar days after planting.

Also Dr. Rowland is developing a computer program that utilizes digital imaging to predict maturity the same way as the peanut profile board that we use today. The peanuts are still

blasted to remove the outer skin, and then the hulls are placed on a scanner with saddle area face down. This image is then fed into a computer program and the percent dark hulls are read. After 20 samples that I ran from Screven County I found that I was, on average, five days ahead of normal hull blast and profile board method. I feel that this may have an advantage in that it takes the human error of darkness determination. But also a lot depends on sample preparations.

I do intend to continue both these trials this next planting year and hopefully get more data to validate these management practices.

I do want to thank the Georgia Peanut Commission for funding this research and feel that this is information that producers can utilize to improve their management practices.

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