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PURPOSE: One Page Summary Randolph County Nighttime Fungicide Application
Test Trial

This is the first year of a three year replicated study. The study was performed on the farm of Clifford Rigsby on AT-215 peanuts. The field was selected from his irrigated farm. The main reason that we chose this field was that it had a history of disease over the last decade. The main reason for this is it had only a two year peanut rotation. Other reasons we chose this particular field was that the field had very few changes in soil type.

The actual fungicide program selected was a Tilt/Bravo and Abound program. The farmer made seven fungicide applications. All fungicide brands and rates were exactly the same. However the 3rd and 5th fungicide applications for half of the replications were applied at night. The farmer stated his applications were made from 9:00 P.M. to 12:00 A.M. The 3rd and 5th fungicide application is typically the time when fungicides designed to combat white mold and limb rot are applied. It is these two diseases along with leaf spot that this research effort was targeted. Typically, peanut plants lay down at night and the leaves fold. Four replications had fungicides applied at the normal time while four were applied at the designated evening time.

Unfortunately, after Hurricane Faye came into our area the peanut test plot area began to quickly deteriorate from *Rhizoctonia Solani* and ultimately late leaf spot. These two factors along with scheduling conflicts did not allow for Dr. Tim Brennaman or Dr. Bob Kemerait to do a thorough investigation of disease before and after digging. This was extremely unfortunate because we saw some dramatic yields differences in the two plots.

According to the farmer, the entire field averaged about 3700 lbs/A. The average of the four replications of regularly sprayed peanuts averaged 3752 lbs/A. The nighttime sprayed peanuts averaged 4867 lbs/A. This is a 1115 lbs/A difference in yield, which is extremely compelling. I have currently made plans to continue this research with this particular farm in hopes that some confirmation on the effectiveness of this hypothesis will be applicable in some situations in Randolph County. As I understand it, this particular year was not nearly as dramatic for nighttime sprays as the previous year. However, it is becoming more apparent that fields with a history of disease along with the right weather conditions could benefit from nighttime fungicide applications on peanuts. I would like to express my extreme gratitude toward the Georgia Peanut Commission for giving Extension agents this opportunity to perform research that could benefit our county, state and country.