

Annual Research Report to Georgia Peanut Commission Board – 2007 Grant
February 4, 2008

Peanut Fungicide Trials Using 2007 Peanut Disease Risk Index

Elvin L. Andrews Lanier CEC, Mickey O. Fourakers Lowndes CEC
Dr. Bob Kemerait, Extension Pathologist Peanuts

Objectives of Demonstration: Peanut growers must find acceptable means to optimize yields while minimizing costs associated with production. Research trials with reduced fungicide input programs in 2003 – 2005 that included a soilborne fungicide provided value to the grower comparable to full-season programs. Using the 2007 Peanut Disease Risk Index, we will plant our research project in a field with low to moderate disease risk. The objective of this research is to compare the newly labeled fungicide Provost at 8 oz. to other commercial standard fungicide spray programs. Spray programs will also compare full season fungicide spray programs to “prescription” fungicide spray programs with soil borne disease a priority. The results will be reported in terms of disease control, final yields and value to grower.

Methodology: A research trial was established 9 July 2007 on Kevin Shaw’s Riverbottom Farms in Lanier County, GA. Peanuts were inverted on 11 October and harvested on 16 October. Using the 2007 University of Georgia Fungal Disease Risk Index, the site was determined to be at low-to-moderate risk (irrigated, long rotation, twin-row minimum tillage, Georgia Green variety). The experimental design was a randomized complete block with large plots and four replications. Treatments were applied by the grower with a tractor sprayer applicator. The field was irrigated; fertility, weed and insect control, and harvest maturity followed recommendations from the UGA Cooperative Extension.

Results: Using the University of Georgia Fungal Disease Risk Index, this site in Lanier County was determined to be a low-to-moderate risk field. Severity of leaf spot in this study was similar among all treatments; no significant difference in treatments. There were numerical differences in white mold hits/200 ft. between treatments; none were statistically significant. There was no significant difference in yields between treatments. The final value of yields from six different programs demonstrated that reduced input programs which included soil borne fungicide were among the best value to the grower in moderate disease situations.

Peanut growers in Georgia can minimize losses from disease and maximize profits by: 1. using the University of Georgia Fungal Disease Risk Index to find ways to reduce the risk to fungal disease and 2. considering the selection of appropriate “prescription programs” which require fewer fungicide applications where risk is determined to be reduced.

Utilization of Data Collected: Field trials were viewed at a Lanier County In-field Peanut Meeting. Results were presented at the ANR County Agents Peanut Update Training, the Georgia Peanut Farm Show and Conference January 2008, and at the County Peanut Production Meeting. This is an ongoing research project.