

Annual Research Report to Georgia Peanut Commission Board – 2008 Grant
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Peanut Fungicide Trials Using 2008 Peanut Disease Rx with Effectiveness of Headline (pyraclostrobin) in Soilborne Fungicide Programs

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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 that included a soilborne fungicide provided value to the grower comparable to full-season programs. Using the 2008 Peanut Disease Risk Index, we will plant our research plots in a field with low to moderate disease risk. This research is to find the effectiveness of Headline (pyraclostrobin) in soilborne fungicide programs in comparison to other commercial standard fungicide spray programs and “prescription” fungicide programs with soilborne disease a priority. The results will be reported in terms of disease control and final yields.

Methodology: A research trial was established 10 July 2008 on Kevin Shaw’s Riverbottom Farms in Lanier County, GA. Using the 2008 University of Georgia Fungal Disease Risk Index, the site was determined to be at low-to-moderate risk (non-irrigated, long rotation, twin-row minimum tillage, Georgia Green variety). The experimental design was a randomized complete block with large plots and four replications. Fungicide treatments included Folicur, Headline-Folicur, Artisan, Headline-Artisan, Abound, Provost, Evito and Chlorothalonil. Treatments were applied by the grower with a tractor sprayer applicator. The field was non-irrigated; fertility, weed and insect control, and harvest maturity followed recommendations from the UGA Cooperative Extension. Peanuts were inverted on 23 October and harvested on 7 November.

Results: Using the UGA 2008 Peanut Disease Rx Index, this site was determined to be a low-to-moderate risk field. Severity of leaf spot in this study was not statistically different among all treatments. There were numerical differences in white mold hits/200 ft. between treatments in the October 23 rating; however, none were statistically significant. There were significant differences in yields between treatments. Abound and Headline-Folicur programs were the top yielders at 5820 and 5684 pounds per acre. The next tier of treatments below the top yielders were Provost (5366), Folicur (5352), Evito (5310), Headline-Artisan (5270) and Artisan (5214). The lowest yielder was the Chlorothalonil (Bravo) treated plot (4918 lb/a) which received no soilborne fungicide sprays.

Peanut growers in Georgia can minimize losses from disease and maximize profits by: 1. using the UGA Fungal Disease Risk Index to find ways to reduce the risk of fungal diseases and 2. considering the selection of appropriate “prescription programs” which include a soilborne fungicide, but 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 2009, and at the County Peanut Production Meeting. This is an ongoing research project.