

## **Assessment of Peanut Fungicide Programs on Yield and Profitability and Reinforcing the Importance of Timely Fungicide Applications in Mitchell County, Georgia for 2021**

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In 2018, peanut diseases were reported to reduce crop value by 16.1% and to cost Georgia farmers \$160.7 million in terms of management expenses and value of lost yield. White Mold (*Sclerotium rolfsii*) is one of the most destructive diseases that peanut growers face in southwestern Georgia. Leaf spot diseases (*Passalora arachidicola* and *Nothopassalora personata*) are also a chronic problem. Producers in Mitchell County have many fungicide options, but programs vary greatly in cost and efficacy. Since 2017, Mitchell County Extension has conducted annual large-plot, on-farm field trials in commercial peanut fields. The objective of these trials is to evaluate and compare newer fungicide programs to older standards to provide local growers with additional unbiased, research-based data in order to make the best decision for their own operations. Each field trial is planted to a randomized complete block design with three replications. Plots are twelve rows wide by the length of the field, and the center six rows are harvested for yield. Plots are assessed for severity of leaf spot and incidence of white mold immediately prior to harvest. Treatment means are separated using Fisher's Protected LSD and average adjusted revenue is calculated using revenue based on yield and adjusted for the average fungicide and application costs of each treatment. This study also reflects the importance of timely fungicide applications on profitability. During the 2021 crop year, the grower was delayed due to weather on the main field while the research plots were sprayed according to the prescribed fungicide application schedule. This delay increased white mold and leaf spot incidence outside the research plot area and reduced the grower's yield by nearly 2,000 lb/ac. This also reduced profitability for the grower because the average adjusted revenue was down nearly \$300/ac compared to the average adjusted revenues for the research plots. Results from these trials are used by peanut producers in Mitchell County and surrounding counties to make fungicide selections for future crops and to reinforce the importance of timely application of fungicides.