

Evaluation of Peanut Rx Spray Programs for Peanut Disease Control in Southeast Alabama

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Twelve peanut Rx spray programs designed for low-, medium-, and high-risk fields were evaluated for their efficacy in controlling early leaf spot (*Passalora arachidicola*), late leaf spot (*Novopassalora personatum*), and white mold (*Athelia rolfsii*) in southeast Alabama at the Wiregrass Research and Extension Center (WGREC) in Headland, AL on 'Georgia-16HO' peanuts. Three spray programs containing chlorothalonil designed for low-, medium-, and high-risk fields were used as controls. Treatments were arranged in a randomized complete block design with six replications and peanuts were planted on May 28th, 2021. Leaf spot intensity was evaluated using the Florida 1-10 leaf spot scoring system. White mold incidence was assessed immediately after plot inversion by counting the number of disease loci per row. Yields were reported at 9.88% moisture.

Leaf spot severity was significantly lower for the twelve peanut Rx spray programs and the high-risk chlorothalonil spray program when compared to the nontreated control, which suffered considerable premature defoliation. Among the fungicide spray programs, the low-, medium-, and high-risk peanut Rx spray programs containing azoxystrobin + benzovindiflupyr + pydiflumetofen/chlorothalonil and the low-risk spray program containing tebuconazole + trifloxystrobin/tebuconazole + prothioconazole/chlorothalonil had significantly higher leaf spot severity when compared to the high-risk chlorothalonil only spray program. The lowest leaf spot defoliation values were observed with the low-, medium-, and high-risk peanut Rx spray programs containing chlorothalonil/flutolanil + flutriafol, the high-risk spray program containing fluxapyroxad + pyraclostrobin/chlorothalonil + tebuconazole/mefentrifluconazole + tebuconazole/chlorothalonil, and the medium- and high-risk spray programs containing tebuconazole + trifloxystrobin/tebuconazole + prothioconazole/azoxystrobin + benzovindiflupyr/chlorothalonil. All twelve spray programs significantly reduced white mold incidence and increased yield when compared to the nontreated control. The high-risk spray program containing tebuconazole + trifloxystrobin/tebuconazole + prothioconazole/azoxystrobin + benzovindiflupyr/chlorothalonil had the highest yields in this trial and was significantly higher than the chlorothalonil high-risk spray program. Yields among six additional peanut Rx spray programs were statistically similar to that observed with the chlorothalonil high-risk spray program. Thus, these results demonstrate the importance of utilizing the Peanut Rx guide to determine the risk of a field and select the best spray program to control leaf spot diseases.