

Evaluating Alternatives to Chlorothalonil for Managing Peanut Diseases in Alabama

L. KAUR*, H. L. CAMPBELL, A. STRAYER-SCHERER, Auburn University, Department of Entomology and Plant Pathology, Auburn, AL; and C. PARKER, Wiregrass Research and Extension Center, Auburn University, Headland, AL.

Early Leaf Spot (*Passalora arachidicola*), Late Leaf Spot (*Nothopassalora personata*) and White Mold (*Sclerotium rolfsii*) are the most destructive, fungal diseases of peanuts in Alabama. These diseases are managed by fungicide spray programs that include one or more applications of the multi-site fungicide chlorothalonil to mitigate the development of fungicide resistance in the leaf spot pathogens. Chlorothalonil was recently banned by the European Union due to toxicity concerns, which could potentially impact US peanut production and export to EU. Thus, the goal of this study was to evaluate alternatives to chlorothalonil for leaf spot and white mold control. A total of 13 spray programs, including a nontreated control, were applied at two-week intervals containing one or more of the following fungicides (active ingredient; FRAC code): Abound (azoxystrobin; 11), Alto 100SL (cyproconazole; 3), CuproFix Ultra (copper sulfate; M1), Elast (dodine; U12), Elatus (azoxystrobin + benzovindiflupyr; 11+7), Fontelis (penthiopyrad; 7), Microthiol Disperss (sulfur; M2), Miravis (pydiflumetofen; 7), Muscle ADV (chlorothalonil + tebuconazole; M5+3), Oranil (chlorothalonil; M5), Provost Silver (prothioconazole + tebuconazole; 3 +3), Topguard EQ (azoxystrobin + flutriafol; 11 + 3), and Vacciplant (laminarin; P4). Spray programs were evaluated in a randomized complete block design consisting of six replications in Headland, Alabama. All spray programs significantly reduced leaf spot and white mold incidence when compared to the nontreated control. Six spray programs, Elast + Muscle ADV, Elast + Provost Silver, Elast + MTD/Muscle ADV, MTD + CuproFix Ultra + Vacciplant, CuproFix Ultra + MTD/Muscle ADV and Elast/ Topguard EQ + MTD, significantly reduced leaf spot severity when compared to the chlorothalonil only control. All the treatments provided similar control as chlorothalonil for white mold. These results indicate that at least six of the thirteen spray programs could serve as potential alternatives to chlorothalonil for leaf spot management.