

**Report to the Georgia Agricultural Commodity Commission for Peanuts-2021
Adaptation of New Fungicides and Application Strategies for Control
of Early and Late Leaf Spot of Peanut**

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When used alone, most sterol inhibiting fungicides (such as tebuconazole and cyproconazole) have also lost much of their efficacy against leaf spot. Across trials in 2017-2021, addition of Microthiol Disperss sulfur at 3.75 lb/A significantly improved leaf spot control with sterol inhibiting fungicides such as Umbra, Alto, or Tebuzol. Strobilurin fungicides, such as Abound and Headline likewise, have lost considerable efficacy for leaf spot when used alone. However, in 2019-2021 addition of sulfur or 1 pt of chlorothalonil greatly improved control with both these fungicides. In 2021, improvement in leaf spot control with Abound was observed with several liquid flowable and dry formulations of sulfur with particle size averaging ~3 microns. However, in 2020 and 2021, control was not enhanced with one formulation with larger particle size. Although sulfur alone does not provide adequate control of leaf spot, sulfur looks to be as good as or better than 1.0 pint of Bravo as a mixing partner with other fungicides from multiple modes of action.

In-furrow applications of the nematicide/fungicides Velum or Propulse have provided extended control of late leaf spot and should be able to replace the typical initial leaf spot fungicide spray in most cases. Velum Total was replaced by Velum Prime, but results in 2021 indicate that Velum Prime provides extended leaf spot control similar to what had been observed with Velum Total. In 2020-2021, foliar applications of Propulse provided leaf spot control for 21 days or more after application. In 2020, Propulse showed very strong residual activity against peanut rust as well, but rust did not occur in our plots in 2021.

The new SDHI fungicide “Miravis” continues to be a very effective leaf spot fungicide in most trials in our program. It does not provide white mold or rust control, but can be used in combination with other fungicides that provide control of those diseases. However, efficacy of Miravis was not as strong in 2021 and not as consistent as in previous years.

Provysol is a sterol inhibitor fungicide that provides much better leaf spot control than most other sterol inhibitor fungicides such as tebuconazole or cyproconazole. It shows potential to provide good leaf spot control and serve as a resistance management tool for use with SDHI fungicides or strobilurin fungicides. It should be an effective and versatile mixing partner for several different fungicides.

Excalia is a new SDHI fungicide that has excellent activity against white mold. Although it has moderate activity against both early and late leaf spot, it needs a mixing partner to provide adequate leaf spot control. Mixing Excalia with 1.0 to 1.5 pt of chlorothalonil or 2.5 lb or higher rates of a micronized sulfur fungicide greatly improved leaf spot control.