

**Report to the Georgia Agricultural Commodity Commission for Peanuts-2019
Adaptation of New Fungicides and Application Strategies for Control
of Early and Late Leaf Spot of Peanut**

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In recent years, multiple strobilurin fungicides such as Headline and Abound have not performed as well for leaf spot control as in previous years. However, Priaxor, which includes pyraclostrobin is comparable to or better than Bravo for leaf spot control, and both are superior to Headline alone. Elatus, which includes azoxystrobin + solatenol, has performed much better for leaf spot control under heavy late-season pressure in fields where full rates of Abound alone provided little control. Resistance to the strobilurin fungicides has not been confirmed, but is strongly suspected. The mixture of fungicides with two different modes of action, such as those used in Priaxor or Elatus may help prolong the efficacy of a fungicide even when resistant populations of leaf spot fungi develop to one of the fungicides in the mixture.

With the exception of prothioconazole, available sterol inhibiting fungicides (such as tebuconazole and cyproconazole) have also lost much of their efficacy against leaf spot. Across trials in 2017-2019, addition of Microthiol Disperss sulfur at 5 lb/A significantly improved leaf spot control with sterol inhibiting fungicides such as Alto, Tebuzol, or Provost, and in 2019 both Abound and Headline although the sulfur alone provided little leaf spot control. In 2019, improvement in leaf spot control with Tebuzol, Headline, and Abound was observed with a liquid flowable formulation of sulfur. Although sulfur alone would 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. I

In-furrow applications of the nematicide/fungicides Velum Total 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. Foliar applications of Propulse provided leaf spot control for 21 days or more after application.

The new SDHI fungicide “Miravis” shows great activity against leaf spot in peanut. It was labeled in 2018, and continues to be the most effective leaf spot fungicide evaluated in our program. It does not provide white mold control, but can be used in combination with other fungicides that provide white mold control. Miravis has exceptional residual control, with an application capable of providing 30 days of protection.

Provysol is a new generation 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.