

**Report to the Georgia Agricultural Commodity Commission for Peanuts-2018
Adaptation of New Fungicides and Application Strategies for Control
of Early and Late Leaf Spot of Peanut**

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Since 2015, the strobilurin fungicides Headline, Abound, Flynt, and Approach alone have not performed as well 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. However, leaf spot control achieved with Provost (prothioconazole + tebuconazole) has also decreased in 2016-2018. Across trials in 2017-2018, addition of Microthiol Disperss sulfur at 5 lb/A significantly improved leaf spot control with either Provost or Alto, although the sulfur alone provided little leaf spot control. Mixtures of Priaxor micronized sulfur enhanced leaf spot control compared to Priaxor alone. Mixtures of HelmStar Plus with micronized sulfur resulted in leaf spot control that was superior to that of the chlorothalonil standard, whereas HelmStar alone provided by those fungicide mixtures.

In-furrow applications of the nematicide/fungicides Velum Total or Propulse provided extended control of late leaf spot compared to in-furrow applications of Proline, and better control of leaf spot than the Bravo standard through much of the season. Propulse was slightly better than Velum Total for leaf spot control.

The experimental fungicide “Miravis” shows great potential for improving leaf spot control in peanut. It was labeled and was used on a limited basis in the 2018 season. It is the most effective leaf spot fungicide ever 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.