Multi-Year (2009-2012) Research of In-Furrow and Topical Prothioconazole Treatments on Severity of Cylindrocladium Black Rot and White Mold Diseases of Peanut.

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The impact of soilborne diseases on peanut production in Effingham County has been a problem that needs to be addressed with additional on-farm research. Peanut acreage has increased in the county over the past several years and the problems associated with peanut production have become more widespread, due in part to shorter rotations between peanut crops. The producers’ current best line of defense to combat these problems involves selection of more-resistant varieties, judicious use of fungicides, and soil fumigation with metam sodium to reduce severity of Cylindrocladium black rot (CBR). In on-farm research demonstrations, the effectiveness of prothioconazole (Proline) applied in-furrow at planting and over-the-top after emergence was evaluated for the management of peanut diseases. Provost (prothioconazole + tebuconazole) and Artisan (flutolanil + propiconazole)/chlorothalonil were evaluated with Proline (prothioconazole) to assess the best program for overall disease protection. Data collected in this study included severity of leaf spot diseases, White mold, and Cylindrocladium black rot. As an in-furrow fungicide with known activity against Cylindrocladium black rot and over-the-top activity against white mold may also improve seedling health as well, it was hoped that this practice would not only improve control of CBR and White mold, but possibly seedling disease and TSWV as well. Because use of prothioconazole is a relatively new practice for our peanut growers, there is a serious lack of data on this type of application in the southeast that has been collected in large-plot, on-farm trials. The data will exhibit the effectiveness of prothioconazole on improving control of CBR and White mold soilborne diseases that negatively impact yield and quality. This data played an important role in recommendations for the use of prothioconazole in Effingham County and the Southeast.