

Peanut Cultivar Response to the Number of Fungicide Sprays in a Medium to High Risk Situation Based on the 2019 Peanut Rx

GOMILLION* M.W., B.L. TILLMAN, and G. PERSON. University of Florida, Agronomy Department, NFREC, Marianna, FL, 32446.

Control of leafspot in peanut is affected by several factors including cultivar, crop rotation, irrigation, field history, and timely application of fungicides. This study was conducted to determine if there was genotype by fungicide interaction effect on pod yield and leaf spot disease ratings. Three different fungicide regimes of zero, four, and eight fungicide sprays were applied to the main plots where there were eight cultivars randomized in the sub-plots. The tests were conducted in Marianna, FL from 2016 through 2018. The four-spray regime began 45 days after planting and sprays were spaced 21 days apart, whereas the eight spray regime began about 30 days after planting with about 14 days between sprays. Both cultivar and fungicide regime, as well as the interaction between them affected pod yield. On average, pod yield was greater with four or eight fungicide sprays compared to none. However, there was no difference in pod yield between the four and eight spray regime. Some commercial cultivars, such as Flo-Run '331', Georgia-12Y, and TifNV High O/L, had similar pod yield in both four and eight spray regimes. In fact, all cultivars with Peanut Rx points of 20 or less for leaf spot had similar pod yield in four and eight-spray regimes. However, some commercial cultivars, such as TUFRunner '297' and TUFRunner '511' had lower yield in the four-spray regime than in the eight-spray regime. Both of these cultivars have leaf spot points of 25 or greater. This study was conducted in a situation that Peanut Rx would score as medium (60 points) to high risk (75 points) for leaf spot. The difference is exclusively related to cultivar, since all other factors were the same and included June planting, irrigation, and reduced tillage. This result suggests that cultivars with Peanut Rx scores of 20 or less have the genetic potential to maintain pod yield with as few as four timely fungicide applications given that other factors such as crop rotation and planting date are favorable to minimize risk of leaf spot. The results should hold up even better in low leaf spot risk situations afforded by planting before May 26 and with rotations greater than 2 years between peanut crops.