

Assessment Of Inpyrfluxam As A Component of a Program for Management Peanut Diseases.

R.C. KEMERAIT JR.*, T.B. BRENNEMAN, A.K. CULBREATH, Department of Plant Pathology, The University of Georgia, Tifton, GA 31793, H. SANDERS, Valent, San Ramon, CA

Leaf spot (*Passalora arachidicola* and *Nothopassalora personata*) and stem rot (*Sclerotium rolfsii*) are among the most important diseases of the peanut crop in the southeastern United States. Inpyrfluxam (FRAC Group 7) is a new active ingredient for management of stem rot that will be a component of a total disease management program. The objective of this study was to compare efficacy of ipyrfluxam (2.0, 2.65, 3.0, and 4.0 fl oz/A) to flutolanil (16 and 32 fl oz/A), solatenol (7.3 and 9.5 fl oz/A), and penthiopyrad (16 fl oz/A) when each is integrated into a complete fungicide program. Results from studies conducted at the University of Georgia's Tifton Campus and Attapulgus Research and Education Center between 2018 and 2020 are reported. Trials were planted to 'Tifguard' or 'Georgia-06G' and managed according to guidelines from UGA Extension. The experimental design in each trial was a randomized complete block with four replications. Fungicides were applied with a CO₂ backpack sprayer at 15 gal/A. Plots were assessed for leaf spot (Florida 1-10 scale) and stem rot (reported as hits per plot) severity prior to harvest and were taken to yield (reported in lbs/A). Data were analyzed using ANOVA and Fisher's protected LSD.

In 2018, leaf spot ratings, stem rot ratings, and yield from the untreated control were 6.8, 4.8, and 5076, respectively. Leaf spot ratings, white mold ratings, and yield from treatments that included inpyrfluxam ranged from 3.5 to 3.8, 1.0 to 3.3, and 5624 to 6356, respectively. Ratings from treatments that included flutolanil, solatenol, or penthiopyrad ranged from 2.9 to 3.9, 0.8 to 4.3, and 5611 to 6192, respectively. In 2019, leaf spot ratings, stem rot ratings, and yield from the untreated control were 6.3, 16.5, and 3892, respectively. Leaf spot ratings, stem rot ratings, and yield from treatments that included inpyrfluxam ranged from 3.0 to 3.5, 2.8 to 4.2, and 4824 to 5330, respectively. Ratings from treatments that included flutolanil or solatenol ranged from 3.2 to 4.4, 3.2 to 9.2, and 5071 to 5352, respectively. From trials reported here, fungicide programs that include inpyrfluxam are at least as effective as programs that include flutolanil, solatenol, or penthiopyrad for management of leaf spot diseases, stem rot, and for protecting yield.