

Cook County Peanut Fungicide Trial for Control of White Mold
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Introduction

White mold, caused by the fungal pathogen *Sclerotium rolfsii*, is a major disease affecting peanuts in Cook County. If left unchecked, it can completely destroy fields of peanuts when weather conditions are favorable. In normal years white mold will cause approximately a 20% loss in yield, even when fungicide programs are utilized. It was observed during the 2005 growing season that the fungicide Artisan (flutolanil + propiconazole) seemed to be more efficacious against white mold than other fungicides. During 2006, a peanut fungicide trial was conducted to assess reduced-input fungicide programs with different rotation schemes, and their affect on development of white mold. Although not replicated, the area in the field where Artisan was applied had a much lower incidence of white mold than in areas where other fungicides labeled for white mold control were applied. In 2007 a replicated trial was conducted to evaluate the efficacy of Artisan fungicide compared with other fungicide programs.

Materials and Methods

A field trial was established on the Everett Franks Farm in Cook County. The field was planted to cotton in 2005 and 2006. The experimental design was a randomized complete block with three replications. Plots were 12 rows wide by the length of the field. The variety 'Georgia-O2C' was planted on 10 May and dug on 1 October. Plots were rated on 1 October for leaf spot and TSWV and on 2 October for white mold after the peanuts were dug. The plots were taken to yield. Fungicide treatments included:

- 1.) **6 sprays:** Headline (9 fl oz/A) + 4-Block Provost (8 fl oz/A) + Bravo (1.5 pt/A, last spray)
- 2.) **6 sprays:** Headline (9 fl oz/A) + 4-Block Tebuzol (7.2 fl oz/A.) + Bravo (1.5 pt/A, last spray)
- 3.) **5 sprays:** Headline (9 fl oz/A) + Artisan (26 oz.) + Headline (9 oz.) + Artisan/Bravo (16 fl oz/A + 1.0 pt/A) + Artisan/Bravo (16 fl oz/A + 1.0 pt/A)
- 4.) **5 sprays:** Headline (9 fl oz/A) + 4-Block Artisan/Bravo (16 fl oz/A + 1.0 pt/A)

Results

Table 1. Results from 2007 Cook County peanut fungicide study.

Treatment	Spotted Wilt	Leaf spot	White mold	Yield
	%	(FLA 1-10 scale)	(Hits)	(lb/A)
4-block PROVOST	8.7 a	2.2 b	68.0 a	3830.0 a
4-block Tebuzol	6.7 a	2.2 b	61.3 a	3946.0 a
Artisan-Headline- Artisan/Bravo	6.3 a	3.3 a	44.7 a	4185.0 a
4-block Artisan/Bravo	7.0 a	2.8 ab	35.7 a	4001.7 a

Note: Data analyzed using Fisher's protected LSD where $p \leq 0.05$; numbers followed by the same letter are not statistically different.

Conclusions

The level of tomato spotted wilt was low in this trial, in part because the variety Georgia-02C was planted. Leaf spot was slightly more severe in the Artisan programs, likely because these treatments did not receive a final application of Bravo (1.5 pt/A). There were no statistically significant differences in yield; however plots treated with Artisan had numerically less white mold than did plots treated with Provost or Tebuzol. Yields were not statistically different among treatments; however slightly higher where Artisan was used.

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