



Evaluating Peanut Cultivars Using a Reduced Cost and a Premium Fungicide Program

¹Curry,* D.S., ²Kemerait, R.C., ³Brenneman, T.B., ⁴Riner, C.M., ⁵Hill, C.R., ⁶Thigpen, D.R.

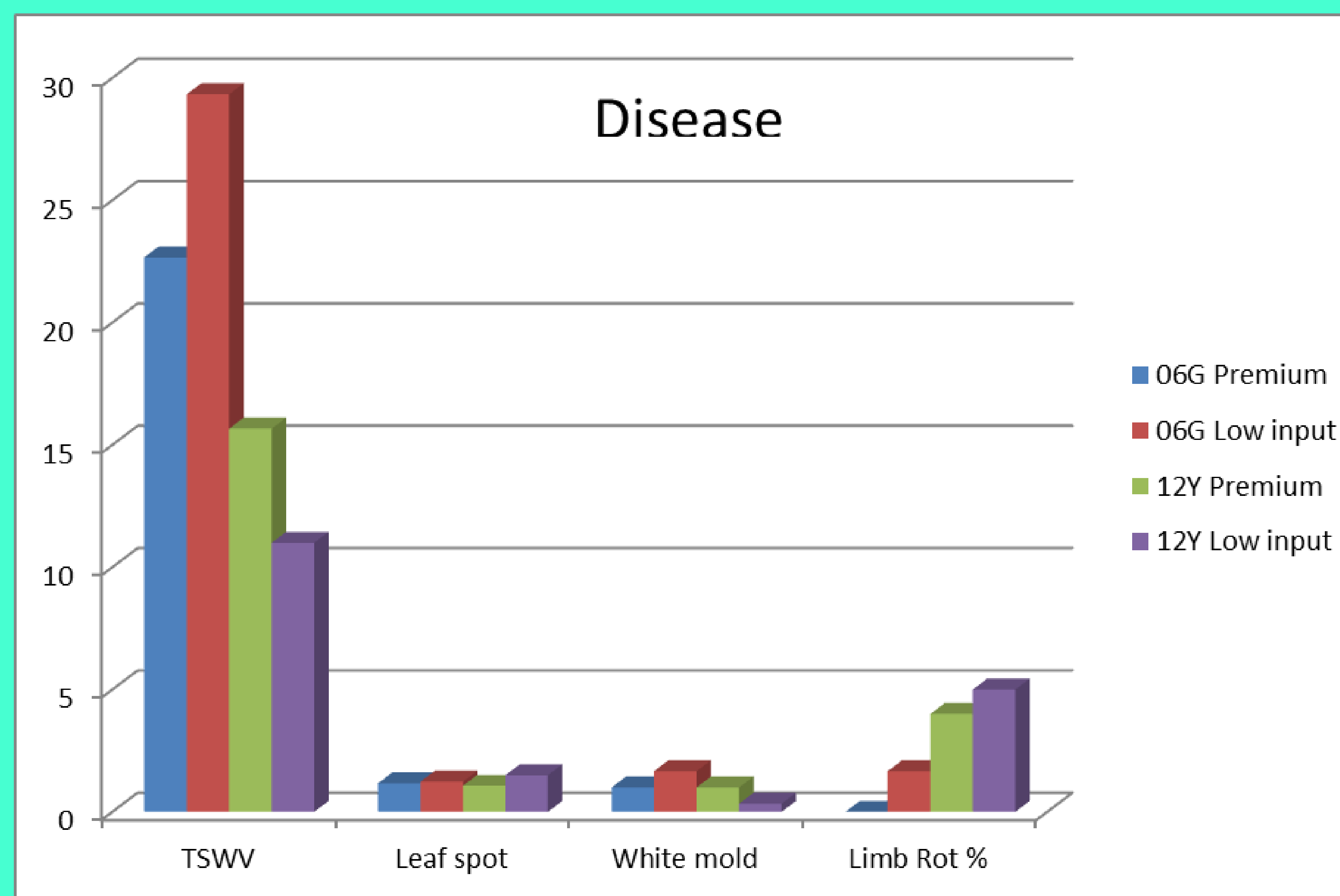
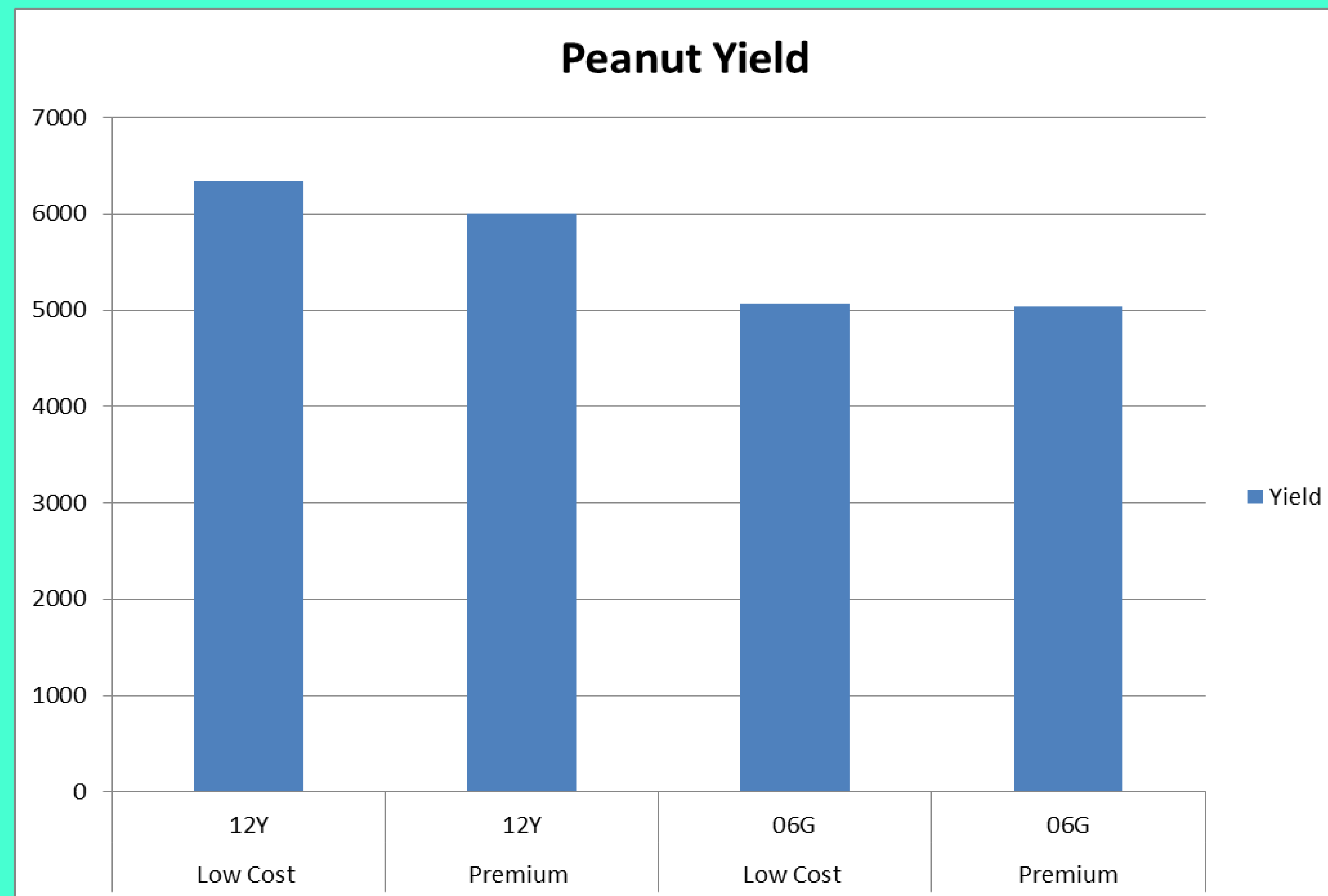
¹University of Georgia Extension, Appling County, Baxley, GA 31519, ²Dept. of Plant Pathology, University of Georgia, Tifton, GA, 31793, ³Dept. of Plant Pathology, University of Georgia, Tifton, GA, 31793, ⁴University of Georgia Extension, Vidalia Onion & Vegetable Research Center, Lyons, GA 30436, ⁵University of Georgia Extension, Vidalia Onion & Vegetable Research Center, Lyons, GA 30436, ⁶University of Georgia Extension, Vidalia Onion & Vegetable Research Center, Lyons, GA 30436

ABSTRACT

Sclerotium rolfsii and *Rhizoctonia solani* are soilborne pathogens that cause white mold and limb rot, major diseases in peanut production. The most effective control of these diseases has been with good crop rotation and fungicides. Fungicides cost Georgia's peanut farmers an estimated \$80 to \$100 per acre each year. Release of new varieties and promising fungicides could offer growers improved management options for white mold and limb rot. The objective of this research was to compare the economic return when either a reduced cost fungicide program or a premium fungicide program was applied to two different varieties (Georgia-06G and Georgia-12Y). The trial was established at the Vidalia Onion and Vegetable Research Center in Lyons, GA. The experimental design was a split-plot and each combination of treatments (fungicide program X variety) was replicated three times. Both programs included seven fungicide applications. The reduced cost treatment was developed around a 4-block tebuconazole (7.2 fl oz/A)/chlorothalonil (1.5 pt/A) program. The premium treatment was developed around a 3-block Fontelis (16 fl oz/A) program with a single application of tebuconazole/chlorothalonil as above. Peanuts were planted on May 20, dug on October 16 and harvested on October 22. Plots were rated for leaf spot, TSWV, Rhizoctonia limb rot, and white mold.

INTRODUCTION

Appling County lies in the Coastal Plain of southeastern Georgia. Peanut is an important crop for growers in this county and management of peanut disease is especially important.



	TSWV	Leaf Spot	White Mold	Limb Rot	Yield (lb/A)	Value (\$/A)
Premium	19.2	1.1	1.0	2.0	5522.0	966.0
Low	20.1	1.4	1.0	3.3	5703.0	998.0
LSD (P<0.05)	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
GA-06G	26.0	1.2	1.3	0.8	5054.0	884.0
GA-12Y	13.3	1.3	0.7	4.5	6171.0	1080.0
LSD (P<0.05)	9.0	n.s.	n.s.	n.s.	621.0	108.72

METHODS

Peanuts were sprayed 30 days after planting (DAP), 45 DAP, 60 DAP, 75 DAP, 90 DAP, 105 DAP, and 120 DAP with the fungicide. The premium program was Bravo, Bravo, Fontelis, Fontelis, Bravo + Tebuconazole, Bravo. The reduced cost program was Bravo, Bravo, Teb + Bravo, Teb + Bravo, Teb + Bravo, Teb + Bravo, Bravo. The previous crop was soybeans. Fertility and weed control was based on UGA Extension recommendations. The plot was irrigated 1 inch per week and increased to 2 inches per week after bloom and during pod fill.

RESULTS

The reduced cost fungicide program yielded the highest in both varieties.

12Y has been previously documented to have a high yield potential. 12Y also has a high susceptibility to *Rhizoctonia* limb rot. A premium fungicide program with 12Y could be a good investment. The premium fungicide programs had a lower percentage of limb rot, although this disease did not cause significant yield loss in this trial.

The highest yielding variety was 12Y sprayed with the reduced cost program. The lowest yielding was 06G sprayed with the premium program. The reduced cost program yielded only 24 lbs. more than the premium program in the 06G variety. The premium program had less white mold than the low input program in the 06G variety.

The premium fungicide program cost \$91.50 per acre while the low input fungicide program cost \$43.02 per acre. When subtracting only fungicide cost from \$350/ton/acre, the premium treatments had a value of \$874 and the low input had a value of \$954 per acre.

Under these conditions where white mold pressure is low and good rotations have been maintained, the reduced cost fungicide program would be the most profitable choice for growers.

