



Bulloch County Extension

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I.) Title of Project

Comparison of 10 Peanut White Mold Fungicide Programs in Bulloch County, GA

II.) Principal Investigator and Cooperator

Bill Tyson, Bulloch County Cooperative Extension; Dr. Bob Kemerait, UGA Extension Peanut Pathologist; Amanda Smith, UGA Extension Economist; Brannen Family Farms (Jackie, Ryne, Jamie & Sean Brannen), Bulloch County farmers.

III.) Objective(s)

1. To collect large plot, on-farm, multi-year data on efficacy of fungicides on soilborne diseases of peanut. The data collected is of real importance to growers in Bulloch County and the southeast.
2. To compare efficacy of fungicide applications against leaf spot and stem rot (white mold).
3. Develop and conduct a relevant, timely soilborne peanut fungicide research trial that will provide data used by farmers statewide. The specific goals of the research trial will be to evaluate nine different fungicide treatments.

IV.) Plan of Action

The peanut fungicide trial was planted to GA-06G on 5 May 2023 and harvested on 9 October 2023. The trial contained four replications in a standard block design. The trial was irrigated and planted on 38" single row peanut spacing. Disease counts were taken for leaf spot and white mold for each of the fungicide treatments. County agent concluded the trial with harvest. Yield was determined by weighing each individual plot. The results are being used by the UGA Peanut Pathologist and county agent for presentation during county production meetings.

V.) Results

The white mold was not excessive in the 2023 peanut fungicide trial with white mold disease counts ranging from 3 to 9 hits per 200 row feet. There was a 435-pound per acre yield difference between the highest and lowest yielding fungicide programs. Leaf spot was well controlled in all fungicide programs. The Priaxor/Vantana/Tebuconazole/Bravo fungicide program was top yielder at 5792 pounds per acre. The highest ROI was produced by the Tebuconazole/Bravo fungicide program at \$947 per acre and the Absolute Max/Provost Silver/Elatus/Bravo had the lowest ROI which totaled \$816 per acre. There was a slight statistical difference in yield of the ten different fungicide programs. However, there was no statistical differences in white mold.

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Bulloch County Extension Irrigated Peanut Fungicide Trial

Cooperators: Jackie, Ryne, Jamie and Sean Brannen

Planted: 5 May 2023

Harvested: 9 October 2023

Variety: GA-06G



Date of Application	20-Jun-23	3-Jul-23	18-Jul-23	1-Aug-23	15-Aug-23	29-Aug-23	13-Sep-23
Days after Planting	46	59	74	88	102	116	131
Basic full season fungicide program	Bravo 1.5 pts	Tebuconazole 7.2 fl oz	Tebuconazole 7.2 fl oz	Tebuconazole 7.2 fl oz	Tebuconazole 7.2 fl oz	Bravo 1.5 pts	
Bayer	Absolute Max 3.5 fl oz	Provost Silver 13 fl oz	Elatus 7.3 oz	Provost Silver 13 fl oz	Elatus 7.3 oz	Provost Silver 13 fl oz	Bravo 1.5 pts
Nichino	Lucento 5.5 fl oz	Umbra 36 fl oz	Tebuconazole 7.2 fl oz	Umbra 36 fl oz	Tebuconazole 7.2 fl oz	Bravo 1.5 pts	
FMC	Lucento 5.5 fl oz	Convoy 32 fl oz	Lucento 5.5 fl oz	Elatus 9.5 oz	Provost Silver 13 fl oz	Bravo 1.5 pts	
ADAMA	Priaxor 6 fl oz	Vantana 16 fl oz	Tebuconazole 7.2 fl oz	Vantana 16 fl oz	Vantana 16 fl oz	Bravo 1.5 pts	
Corteva	Aproach Prima 6.8 fl oz	Fontelis 16 fl oz	Provost Silver 13 fl oz	Fontelis 16 fl oz	Provost Silver 16 fl oz	Tebuconazole 7.2 fl oz	Bravo 1.5 pts
Syngenta	Bravo 1.5 pts	Elatus 9.5 oz		Elatus 9.5 oz		Tebuconazole 7.2 fl oz	
BASF	Priaxor 6 fl oz	Elatus 9.5 oz	Provysol 3.0 fl oz	Elatus 9.5 oz	Provysol 3.0 fl oz	Provost Silver 13 fl oz	
Valent	Excalia 2 fl oz	Excalia 2 fl oz	Tebuconazole 7.2 fl oz	Excalia 2 fl oz	Provost Silver 13 fl oz	Bravo 1.5 pts	
Brannen Family Farms	Elatus 7.3 oz	Elatus 7.3 oz	Tebuconazole 7.2 fl oz	Elatus 7.3 oz	Convoy 24 fl oz	Tebuconazole 7.2 fl oz	Tebuconazole 7.2 fl oz
	Bravo 1 pt	Alto 5.5 fl oz	Bravo 1.5 pts	Alto 5.5 fl oz	Alto 5.5 fl oz	Bravo 1.5 pts	Bravo 1.5 pts

Company	Leafspot Rating	Avg. WM Hits/200 ft.	Yield @ 7% Moisture
ADAMA	1	3.50 A	5972 A
BASF	1.2	5.75 A	5960 A
Nichino	1	4.00 A	5760 AB
Brannen	1.5	3.25 A	5713 AB
Syngenta	2	2.75 A	5699 AB
Basic	2	2.75 A	5674 AB
Corteva	1	8.75 A	5602 AB
FMC	1.2	5.50 A	5588 AB
Valent	1.2	3.50 A	5519 AB
Bayer	2	9.00 A	5357 B

Summary 2023 Bulloch County Peanut Fungicide Trial

Maximum difference in average incidence in White Mold in this trial – 6.25/200 ft.

Maximum difference in average Yield in this trial – 615 lbs./A

Maximum difference in Profit/A in this trial – \$130.56

<u>TRMT</u>	<u>Fungicides</u>	<u>LS</u>	<u>Avg WM</u>	<u>Rank</u>	<u>Avg Yield/A</u>	<u>Rank</u>	<u>Fungicide + App Cost/A</u>	<u>Profit/A</u>	<u>Rank</u>
1	Tebuconazole 4x; Bravo 6x	2	2.75	1	5674 AB	6	\$60.13	\$947.01	1
2	Absolute Max 1x; Provost Silver 3X; Elatus 2x; Bravo 1X	2	9.0	8	5357 B	10	\$132.25	\$816.45	10
3	Lucento 1x; Umbra 2x; Tebuconazole 2x; Bravo 5x	1	4.0	4	5760 AB	3	\$121.77	\$900.63	4
4	Lucento 2x; Convoy 1x; Elatus 1x; Provost Silver 1x; Chlorothalonil 2x	1.2	5.5	5	5588 AB	8	\$139.76	\$852.11	9
5	Priaxor 1x; Vantana 3x; Tebuconazole 1x; Bravo 5x	1	3.50	3	5972 A	1	\$142.67	\$917.36	2
6	Aproach Prima 1x; Fontelis 2x; Provost Silver 2x; Tebuconazole 1x; Bravo 2x	1	8.75	7	5602 AB	7	\$132.25	\$862.10	7
7	Alto 1x; Elatus 2x; Miravis 2X; Tebuconazole 1x; Bravo 2x	2	2.75	1	5699 AB	5	\$120.22	\$891.36	5
8	Priaxor 1x; Provysol 2x; Elatus 2x; Provost Silver 1x; Tebuconazole 2x; Bravo 3x	1.2	5.75	6	5960 A	2	\$156.95	\$900.95	3
9	Excalia 3x; Provost Silver 1x; Tebuconazole 1x; Microthiol Sulfur 1x; Bravo 4x	1.2	3.50	3	5519 AB	9	\$115.09	\$864.53	6
10	Alto 3x; Elatus 3x; Convoy 1x; Tebuconazole 3x; Bravo 4x	1.5	3.25	2	5713 AB	4	\$152.77	\$861.28	8

Profit = USDA loan rate (\$355/ton) – (fungicide cost + application cost)