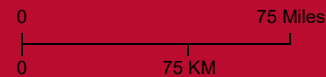


2023 Pecan Pathology Update

Andrew Sawyer, Area Pecan Agent
& Dr. Tim Brenneman, Pathologist



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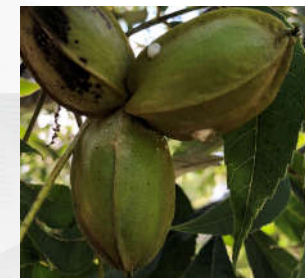
APRIL

MAY

JUNE

JULY

AUGUST



Pre – Pollination

Post – Pollination



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2022 Season

- Dry, hot Spring
- Wet summer

Tifton	# of Rainy Days
April	7
May	7
June	10
July	19
August	20

Tifton, GA

Scab Susceptibility Groups

Low	Moderate	Mod/High	High
Avalon	Creek	Caddo	Byrd
Elliott	Kiowa	Cape Fear	Carroll
Excel	Oconee	Huffman	Desirable
Kanza	Sumner	Schley	Morrill
Lakota	Zinner	Stuart	Pawnee
McMillan		Tanner	Treadwell
		Tom	
		Whiddon	

Scab Susceptibility Groups

Low	Moderate	Mod/High	High
0 – 3 sprays	5 – 7 sprays	← →	≥ 8 sprays
Kariza	Summer	Seney	Morrill
Lakota	Zinner	Stuart	Pawnee
McMillan	12 % OF VARIABLE COST BUDGET		Well
		Whiddon	



FRAC Code	common name	Trade Names
1	thiophanate-methyl	Topsin; T-methyl
3	fenbuconazole	Enable
3	metconazole	Quash
3	propiconazole	Orbit, Bumper, Propimax, Tilt
3	tebuconazole	Folicur, Monsoon, Orius, Tebuzol, Toledo
3	tetraconazole	Andiamo, Domark
3	mefentrifluconazole	Cevya
11		Abound, Azaka
11		Sovran, Narvos
11		Headline
11		Approach
30		Super Tin; Agri Tin
P7		K-Phite, Phiticide, Phostrol, ProPhyt, Rampart, Reliant, Topaz
U12		Elast
M		Ziram
3 + 1		Topsin XTR
3 + 7		Miravis Top
3 + 11		Quadris Top, Amistar Top
3 + 11		Topguard EQ
3 + 11	propiconazole + azoxystrobin	Quilt
3 + 11	tebuconazole + trifloxystrobin	Absolute
3 + 11	tebuconazole + azoxystrobin	Custodia, Helmstar
3 + 11	tetraconazole + azoxystrobin	Brixen
3 + 30	tetraconazole + TPTH	Minerva Duo
3 + P7	tebuconazole + phosphite	Viathon
3 + 46	difenoconazole + tea tree oil	Regev

Importance of FRAC Code

- Fungicide resistance management
- Best fit in spray program

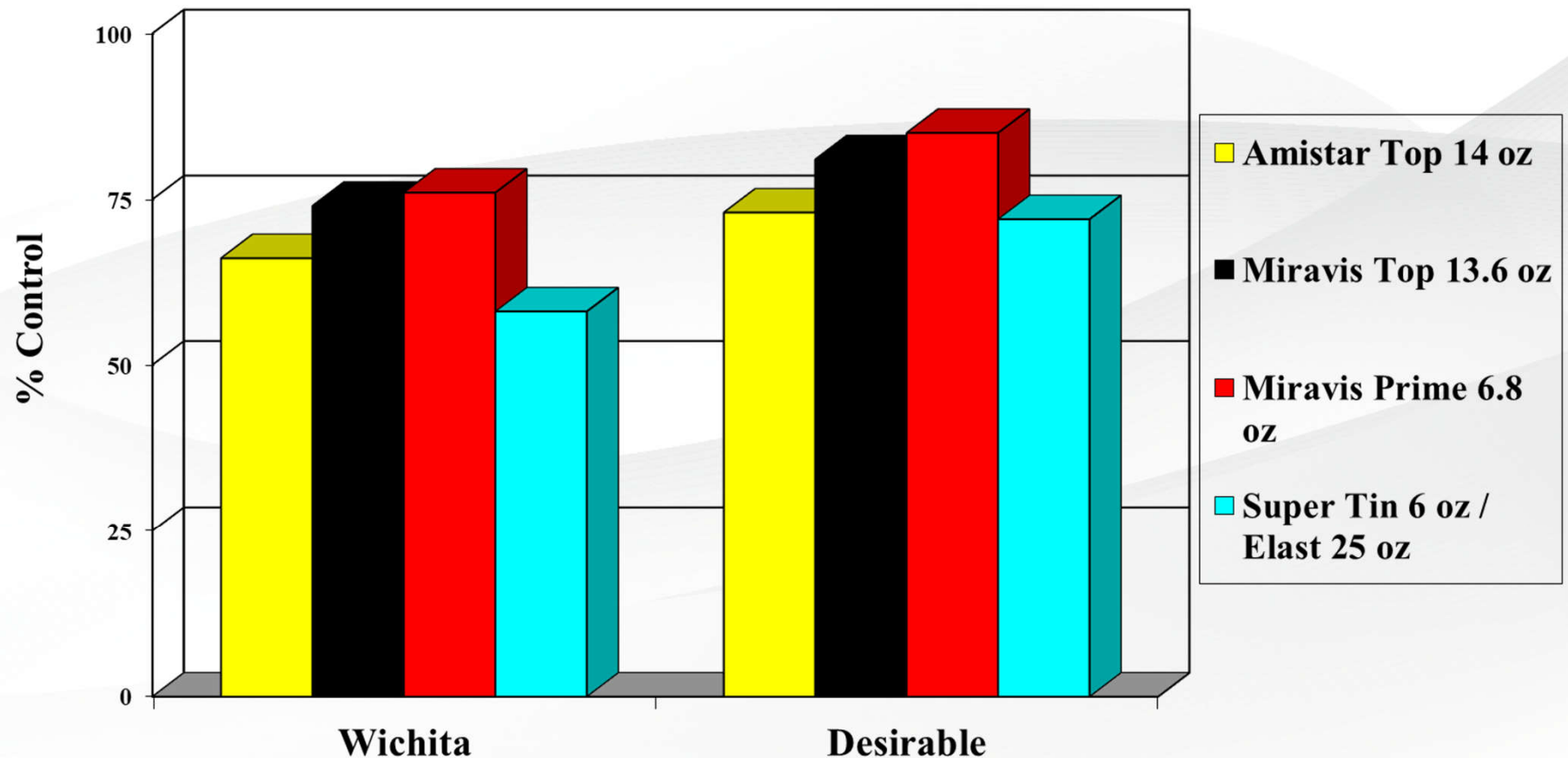
New Mode of Action for Pecans

PRODUCT	Group 3	Group 7	Group 11	Group 12
Amistar Top	Difenoconazole		Azoxystrobin**	
Miravis Top	Difenoconazole	Pydiflumetofen (Miravis)		
Miravis Prime		Pydiflumetofen (Miravis)		Fludioxonil

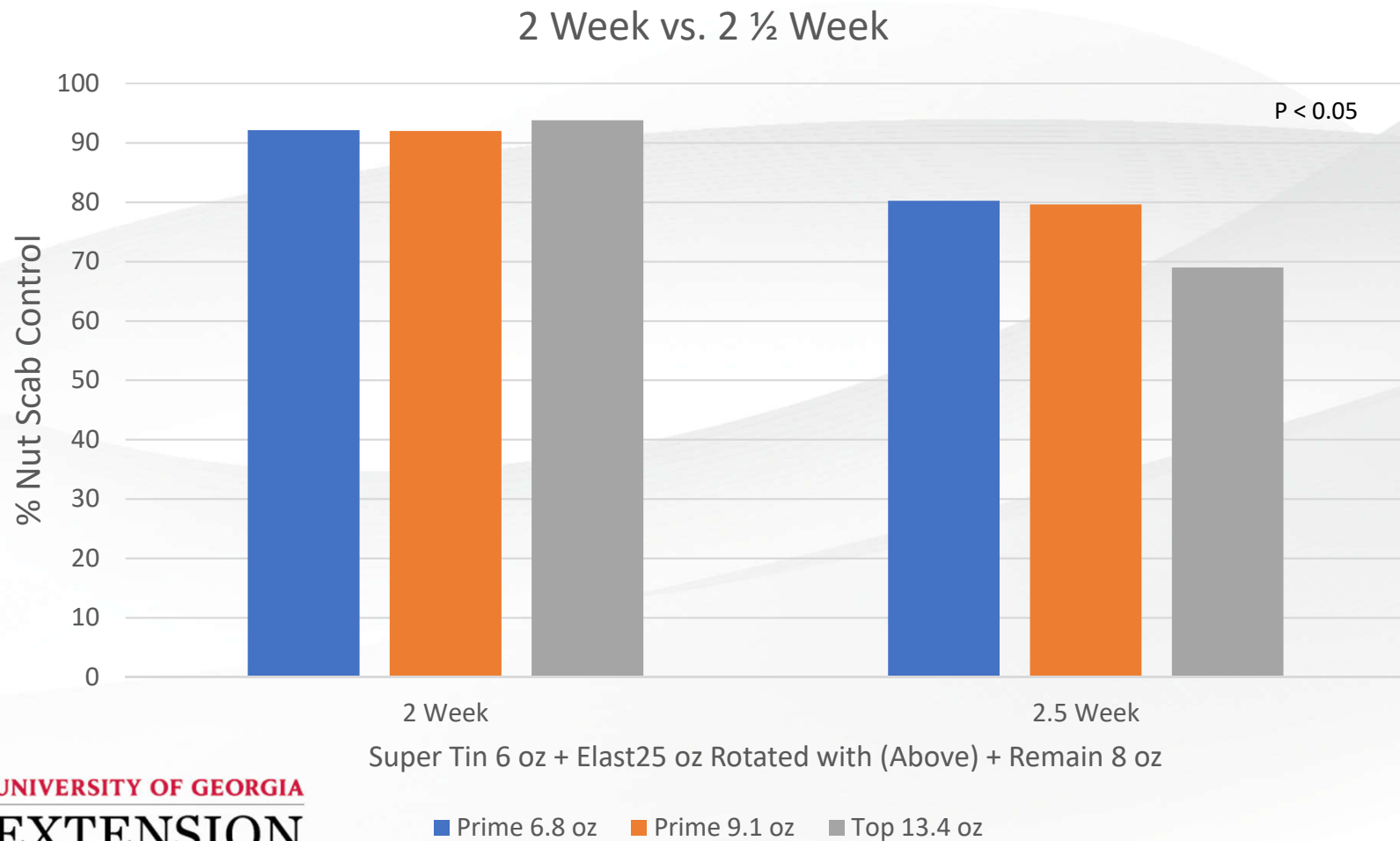


Nut Scab Control in Replicated Trials at UGA Ponder Farm

(Mean of 5 Trials, 2017 – 2021)



% Nut Scab Control at UGA Ponder Farm (Desirable, 2022)



Phosphite Use Recommendations

- Stand-alone use
 - Excellent control of leaf scab
 - Nut scab control is cultivar-dependent
 - Early sprays out-perform late sprays
- Rates: as recommended by UGA
 - Pre-pollination: min. of 4 pints (2 quarts)
 - Post-pollination: min. of 6 pints (3 quarts)

Pre-pollination

- Phosphite
- Groups 3+11

Post-pollination

- Elast
- Tin
- Miravis Top
- Group 3 + 11 (conditional)
- Phosphite (conditional)

Low Scab Potential (0-3)

- 1) Phosphite
or 11 + 3 ~ mid-April
- 2) Phosphite
or 11 + 3 ~ mid-to-late May
- 3) 11 + 3 mix
or Miravis Top ~ mid-late June

Moderate Scab Potential (5-7)

- | | | |
|---------------------------|-------------|------------------|
| 1) Phosphite | ~ mid April | |
| 2) Phosphite OR 11+3 | ~ mid May | Pre-pollination |
| <hr/> | | |
| 3) Miravis Top | ~ mid June | Post-pollination |
| 4) Elast+Tin OR phosphite | ~ late June | |
| 5) Miravis Top | ~ mid July | |
| 6) Tin OR Elast+Tin | ~ late July | |

High Scab Potential (≥ 8)

1) phosphite

2) phosphite

3) 11 + 3 mix

Pre-pollination

4) Miravis Top + phosphite

Post-pollination

5) Elast + Tin

6) Miravis Top

7) Elast + Tin

8) Miravis Top

Rainfast

- Nothing definitive
- Check labels

Class	Mobility	Rainfast
Phosphites	Highly systemic	½ day
Group 3 / 11	Some systemic	Several hrs – ½ day
Tin / Elast	None	24 hrs; rain in < 1 hr washes off

❖ **If you get rain within an hour of fungicide application, respray**



AU Pecan

- Pecan weather for the Southeast
- Fee for registration of a farm
- Provides advice on timing of fungicide spays based on recorded rainfall and the 5-day forecast
- www.awis.com or search “AU Pecan”

2022 Anthracnose



2022 Anthracnose

- Infection period in Spring
- Latent period of 6 – 9 weeks
- **Symptom expression results from tree stress**
 - Crop load
 - Environmental
- How important is fungicide?
- Manage
 - Crop load - Leaf N:K - Irrigation

Non-Bearing Pecans



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Year One

2-Year 'Caddo'

Treatment	Scab Incidence (%)	# Scab Lesions
2 Qt / A Every 3 Weeks	62.5a	3.0a
2 Qt / A Every 6 Weeks	40.0ab	1.9ab
4 Qt / A Every 3 Weeks	52.2a	1.9ab
4 Qt / A Every 6 Weeks	20.0b	0.5b
Control	67.0a	3.7a

P=<0.001

P=<0.001



Control – July 28, 2020

Year Two

3-Year 'Caddo'

Treatment	# Scab Lesions	% Leaf Scab
2 Qt / A Every 3 Weeks	11.6a	12.7a
2 Qt / A Every 6 Weeks	15.8a	15.0a
4 Qt / A Every 3 Weeks	10.5b	7.4b
4 Qt / A Every 6 Weeks	9.4b	10.2b
Control	14.8a	16.7a

P=0.018

P=0.031



September 17, 2021

Phosphite on Non-Bearing Trees

Low	Moderate	Mod/High	High
Avalon	Creek	Caddo	Byrd
Elliott	Kiowa	Cape Fear	Carroll
Excel	Oconee	Huffman	Desirable
Kanza	Sumner	Schley	Morrill
Lakota	Zinner	Stuart	Pawnee
McMillan		Tanner	Treadwell
		Tom	
		Whiddon	

Summary

- Stretch intervals on 'Desirable', 'Pawnee' Pre-Pollination
- Stretch intervals on 'Creek', 'Oconee', 'Sumner' Pre and Post Pollination
- Phosphites translocate, better early
- Low labeled rate of Miravis Prime sufficient except for high pressure
- Stick to full rate of Miravis Top
- AU Pecan for medium and small growers