

2010 Pecan Disease Management Update

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F4+F

Desirable in Late July

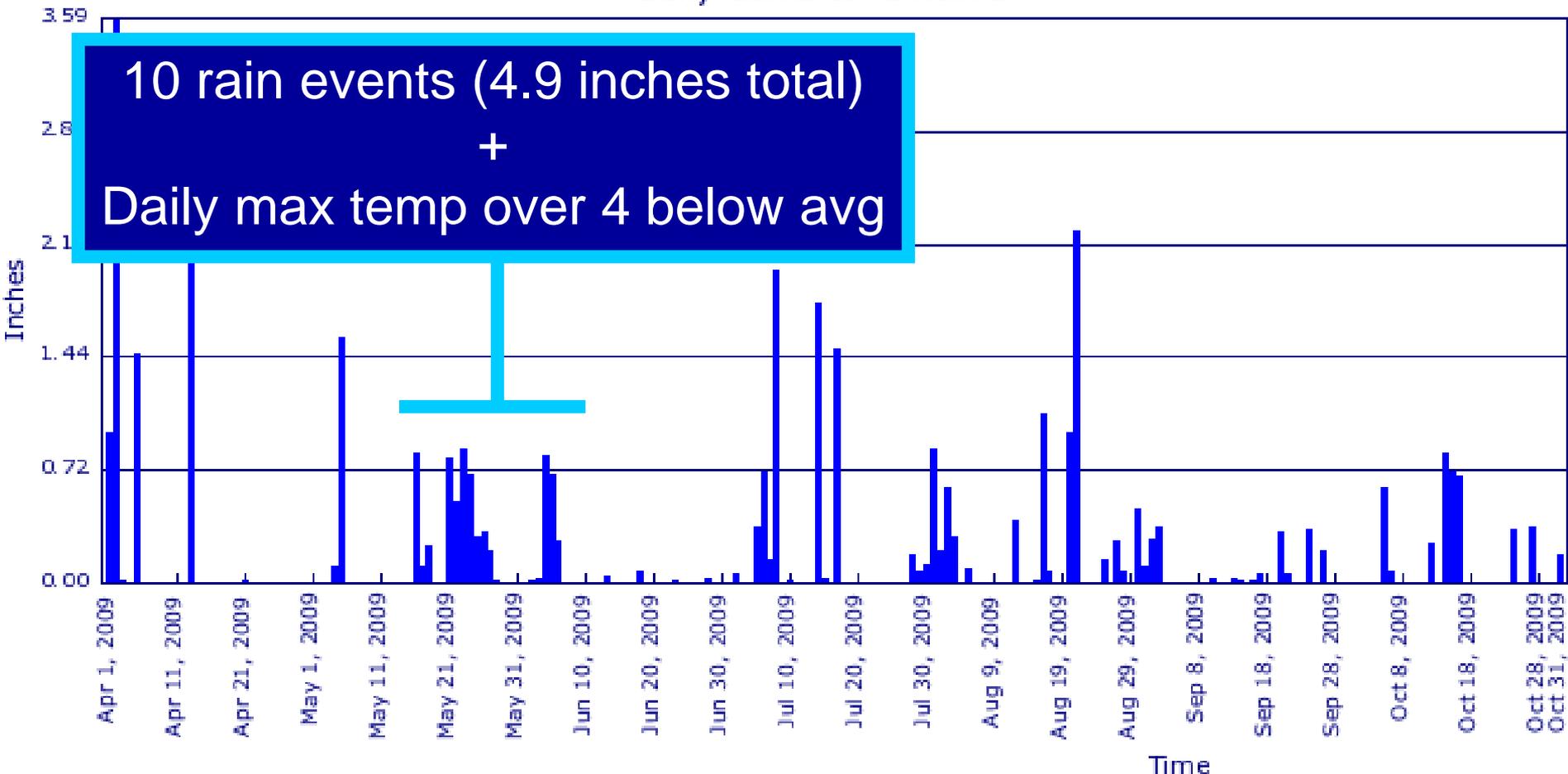


Variability in *Glomerella* Isolates



April-October Rainfall Tifton, 2009

Daily Cumulative Rainfall



Additional Observations

- Initial defoliation slowed considerably; some of the earliest affected trees put out new leaves
- By early October shuck decline was observed, primarily on Desirable. Usually in tops of trees (worse scab there also), often with significant crop load and even in heavily sprayed orchards.

Scab versus Anthracnose



More often at base
10/08/2007

Affect of Anthracnose on Nuts?

- Hand-harvested 177 Desirable nuts at shuck split in mid November
- Rated each one for % severity of anthracnose on shucks (ranged from 0-100% severity)
- Hand-shelled each nut and evaluated them for size, weight and color

Affects of Anthracnose on nut quality (Desirable, Tifton, 2009)

Correlation Coefficients
(All sig. $P < 0.01$)

-0.61

-0.47

-0.42

0.19

0.23

Kernel

%

%

%

%

Weight

Kernel

Gold

Dark

Wafers

Anthracnose Summary 2009

- Can be a significant problem on leaves & nuts
- Worse in crowded orchards with heavy crop load; cultivars vary in susceptibility, but none are immune
- Wet weather favors infection, but it has a long latent period
- Early season sprays are important
- Need more work on chemical control (>100 isolates collected for testing this winter) and epidemiology

2009 Overview

- **Higher disease pressure than in previous three years.**
- **Some downy spot**
- **Anthracnose**
- **Scab**



Demethylation Inhibitors (DMIs)

propiconazole

- Orbit
- Propimax
- Bumper
- Tilt
- *Stratego*
- *Quilt*

fenbuconazole

- Enable

tebuconazole

- Folicur
- Tebuzole
- Monsoon
- Orius
- Toledo

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<ul style="list-style-type: none">• Orbit• Propimax• Bumper• Tilt• Quilt• Stratego	<ul style="list-style-type: none">• Enable	<ul style="list-style-type: none">• Folicur• Tebuzole• Monsoon• Orius• Toledo

What about the rate?

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What about the timing?

Tebuzole & Super Tin Pack

Strobilurins

- | | |
|--------------------------|--------------------------------------|
| • azoxystobin | Abound
Heritage
Quilt |
| • kresoxim-methyl | Sovran |
| • pyraclostrobin | Headline |
| • trifloxystrobin | Stratego |

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What about the timing?

What resistance management?

- All classes of fungicide have some risk.
- Is it resistance or other factors?
 - Rotate mode of action
 - Tank Mixes
 - DO NOT OVER USE ANY ONE MODE OF ACTION.

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- Tank Mixes
- **DO NOT OVER USE ANY ONE MODE OF ACTION.**

	Chemical & Formulation	FRAC Code	Rate / Acre	Comments
leaf Scab; Downy Spot	propiconazole Orbit Propimax EC	3	8.0 fl oz	Do not apply more than 32 fl. oz of propiconazole per season.
	fenbuconazole Enable 2F	3	8.0 fl oz	Do not apply more than 48 fl oz per season.
	tebuconazole Folicur 3.6 F Tebuzole 3.6F	3	8.0 fl oz	Do not apply more than 32 fl. oz of propiconazole per season. For best results, tank mix with a surfactant.
	propiconazole + azoxystrobin Quilt	3 & 11	14 - 27.5 fl oz	DO NOT MAKE MORE THAN 2 SEQUENTIAL and 3 TOTAL APPLICATIONS OF GROUP 11 FUNGICIDES
	propiconazole + trifloxystrobin Stratego	3 & 11	10.0 fl oz	
	tebuconazole + trifloxystrobin Absolute 500 SC	3 & 11	5.0 fl oz	
	kersoxim-methyl Sovran	11	2.4 - 3.2 fl oz	
	pyraclostrobin Headline	11	6.0 - 7.0 fl oz	
	azoxystrobin Abound	11	6.0 - 12.0 fl oz	
	triphenyltin hydroxide Agri Tin Agri Tin Flowable Super Tin 80WP Super Tin 4L	30		For control of leaf scab, triphenyltin hydroxide (TPTH) should be tank mixed with a fungicide from Group 3 or dodine.