

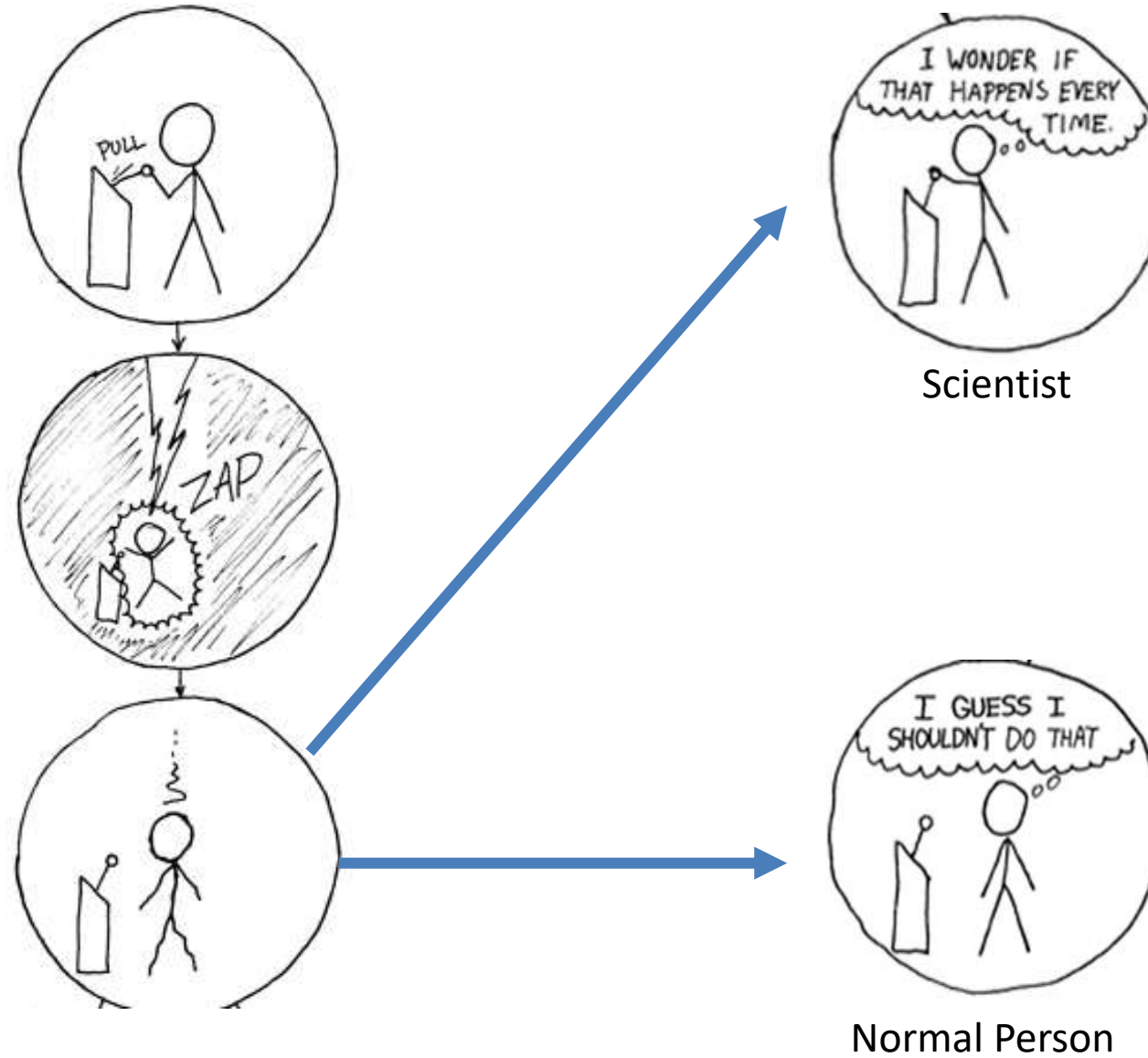
Cotton and Peanut Diseases & Management

Panhandle Row Crop Short Course, March 3rd, 2022

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Row Crops & Vegetables
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University of Florida



Scientist want to repeat things to know if they are true



**Success is when
it repeatedly
happens over
multiple years
or locations.**

What caused this in my Cotton?



Tip #1: Don't be late when managing a disease



It is not possible to get time back

Varietal selection will be key!

DP
1646 B2XF BRAND

Maturity Group

Mid-Full

Trait



Region: MIDSOUTH_SE

AGRONOMIC CHARACTERISTICS	
IRRIGATED	
DRYLAND	
SEED SIZE	5900
PLANT HEIGHT	MED-TALL
STORM RESISTANCE	5
BACTERIAL BLIGHT	MOD. RES.*
FUSARIUM	MS

What about Areolate Mildew and Target Spot?

Moisture, rain and rank growth promote foliar disease!

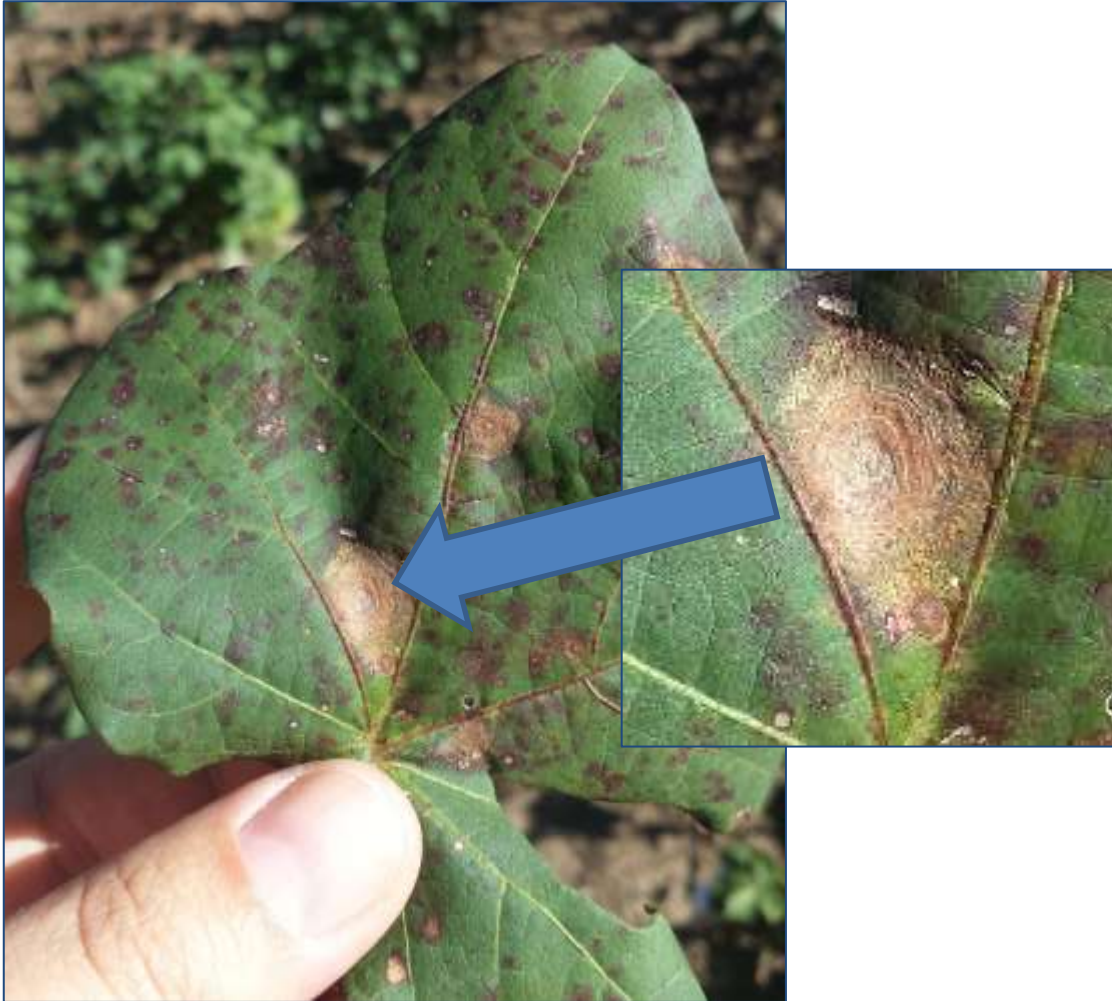
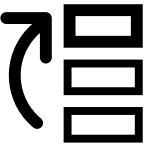


This can lead to defoliation!

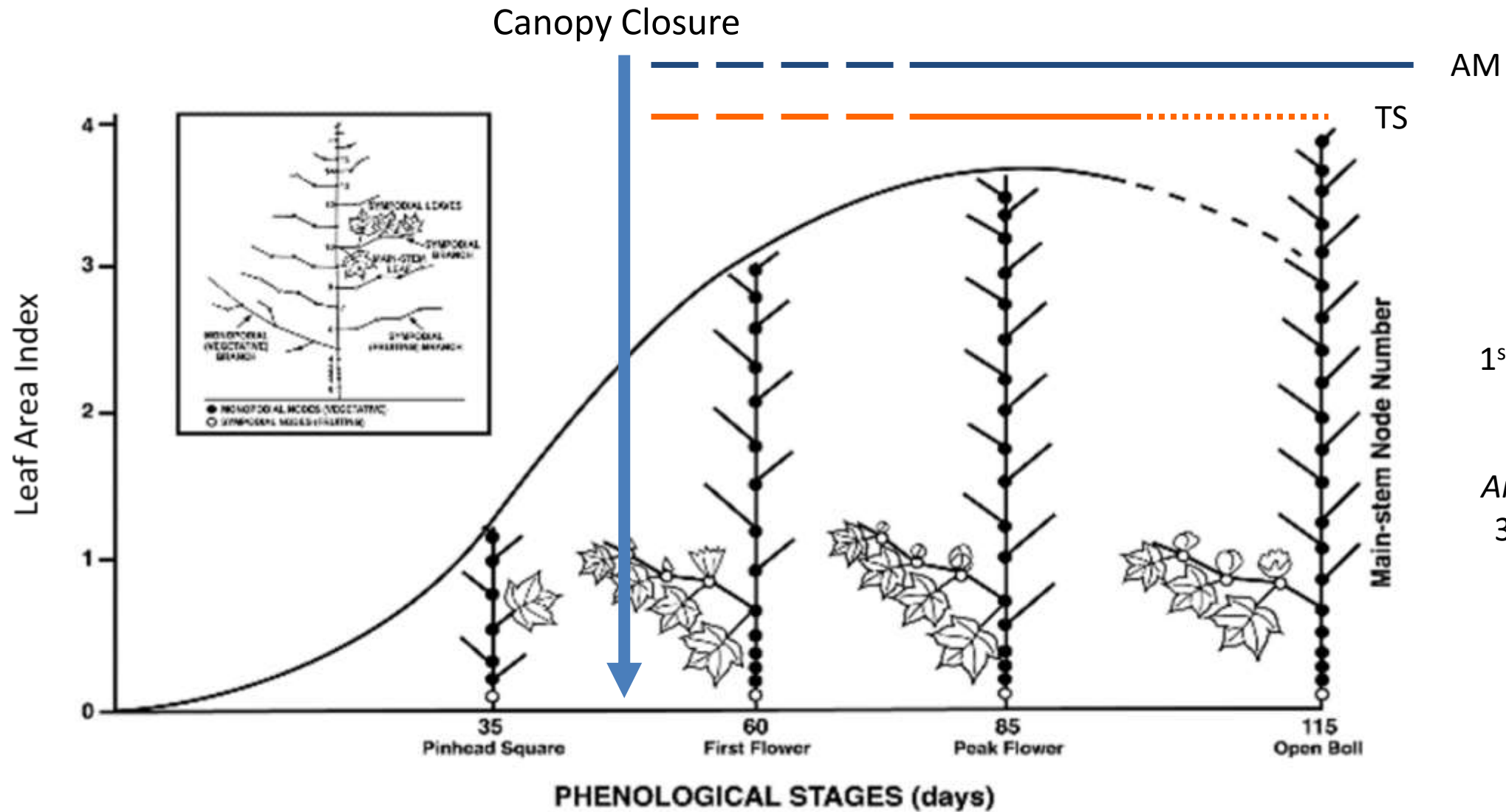
Tip #2: Tailor a fungicide program to meet your needs



Most wanted: Target spot and Areolate Mildew



Cotton has a window to apply for foliar diseases



Windows:

Target Spot
1st to 5th week of
bloom

Areolate Mildew
30 days before
defoliation

Fungicides available for Target Spot and Areolate Mildew

Target Spot (App by 3rd week Bloom)

- Priaxor (4 to 8 fl oz/A)
- Miravis Top (13.6 fl oz/A)
- Headline (6 to 12 fl oz/A)
 - Very good
 - TwinLine/Generics
- Quadris (6 to 9 fl oz/A)
 - Fair to good
 - Generics/Amistar Top

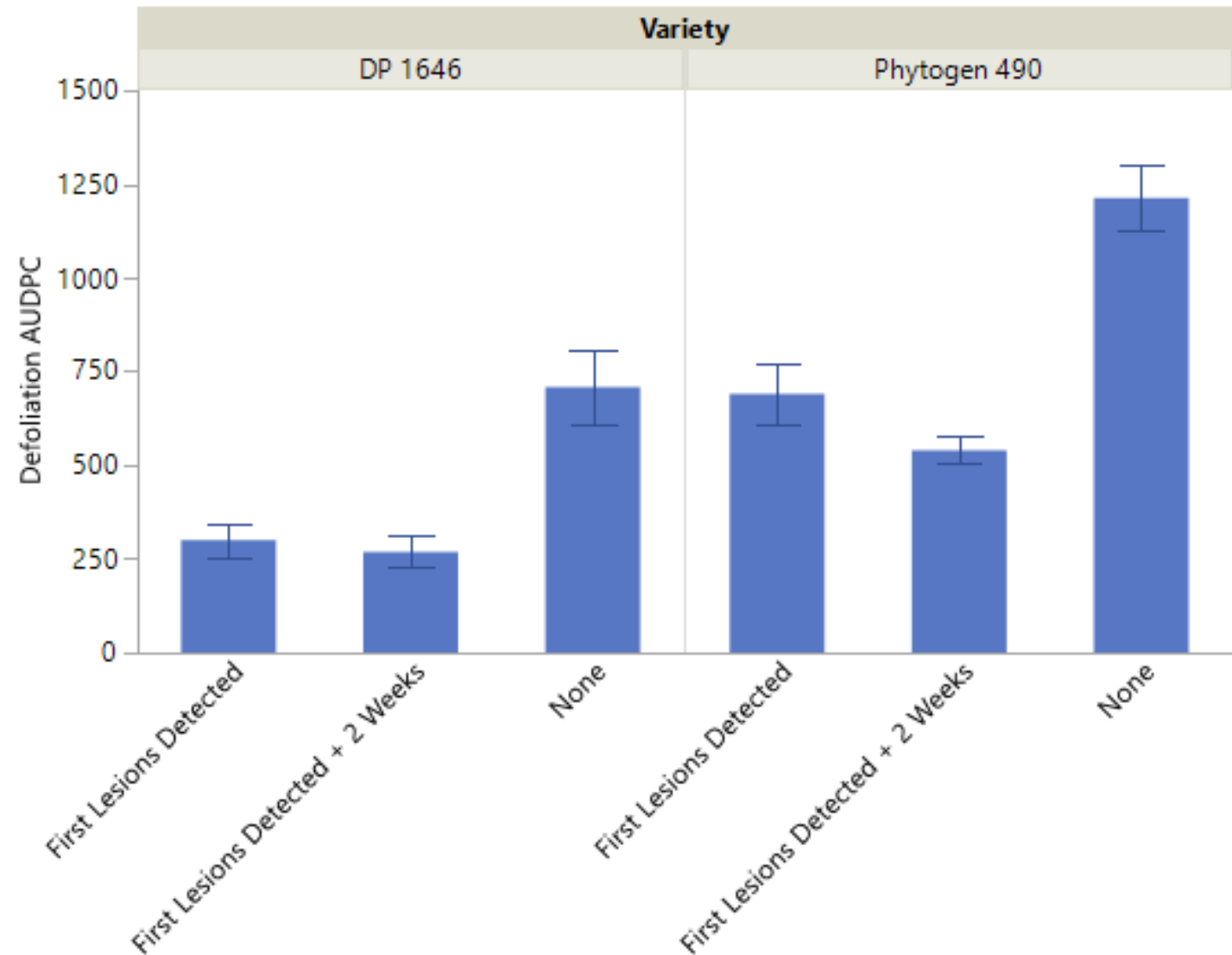
Areolate Mildew (No exact time)

- Quadris/Azoxystrobin
 - 6 to 9 fl oz/A
 - Amistar Top
- Headline/Pyraclostrobin
 - 6 to 12 fl oz/A
 - TwinLine
- Priaxor/Revytek is not labelled in FL

Should I do 1 or 2 sprays? Variety important...

Spray before 25%
defoliation is **CRITICAL**

Yield losses of 150 to 250
lb lint/acre



Watch for look-a-likes in the leaf spot complex!



Cercospora Leaf Spot



Anthracnose Leaf Spot



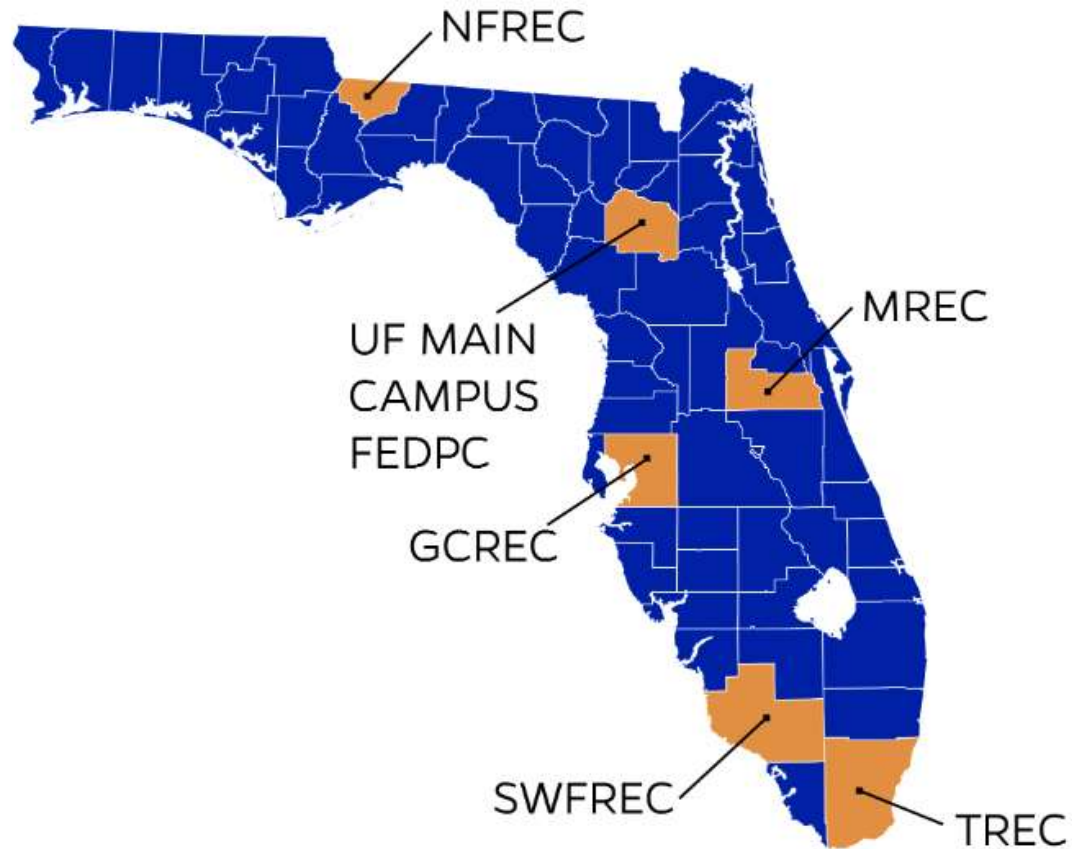
Stemphylium Leaf Spot

Spots develop throughout the canopy

Often found with nutrient stress (e.g. Postassium)

Fungicides are not economical, especially with nutrient problems

Identification is the key to management



Dr. Ian M. Small
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Which one is white mold (stem rot)?



Lesion leads to wilt/rot



Photo Credit: [Bob Kemerait](#); @bobkemerait

Tip #1: Don't be late when managing a disease



How can we help ourselves be on time? Peanut Rx

- Crop rotation
- Cultivar selection
- Seed treatments – Critical to plant stand establishment
- In-furrow products (Thimet, Proline and Velum)

		Leaf spot variety points			
Planting Date		15	20	25	30
Prior to May 1	0	40	45	50	55
May 1 to May 10	5	45	50	55	60
May 11-May 31	10	50	55	60	65
June 1-June 10	15	55	60	65	70
After June 10	15	55	60	65	70

Thimet, 3-year rotation,
Low disease

		Leaf spot variety points			
		15	20	25	30
		75	80	85	90
		80	85	90	95
		85	90	95	100
		90	95	100	105
		90	95	100	105

Zero rotation, High
disease in past

Low Risk

Moderate Risk

High Risk

If it is possible, crop rotation impacts are big

2020 PSREU

948 lb/A



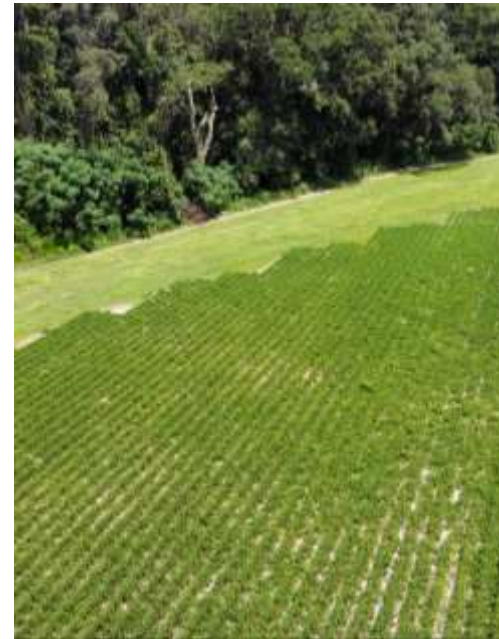
2021 PSREU

3326 lb/A



2021 NFREC-SV

819 lb/A



2021 NFREC-SV

5457 lb/A

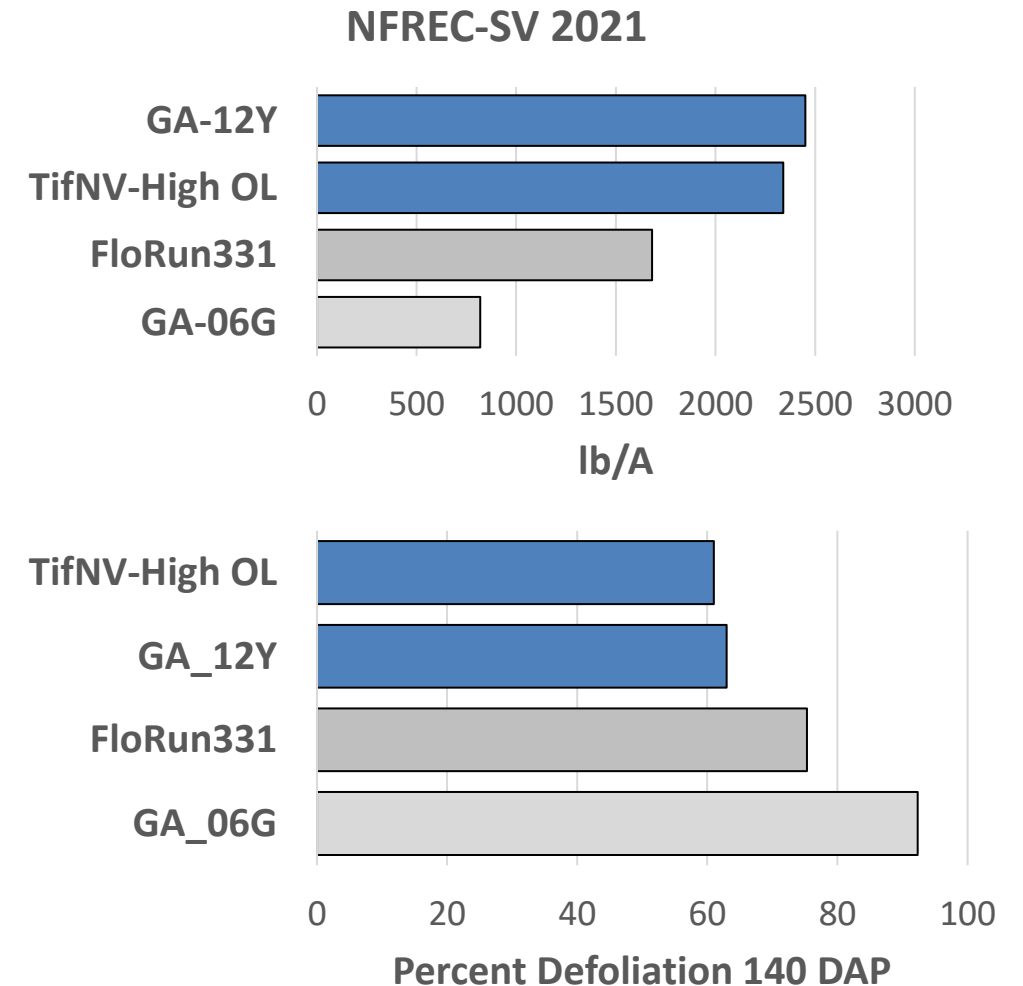


Rotation also delayed foliar disease onset until **80 days after planting or more**

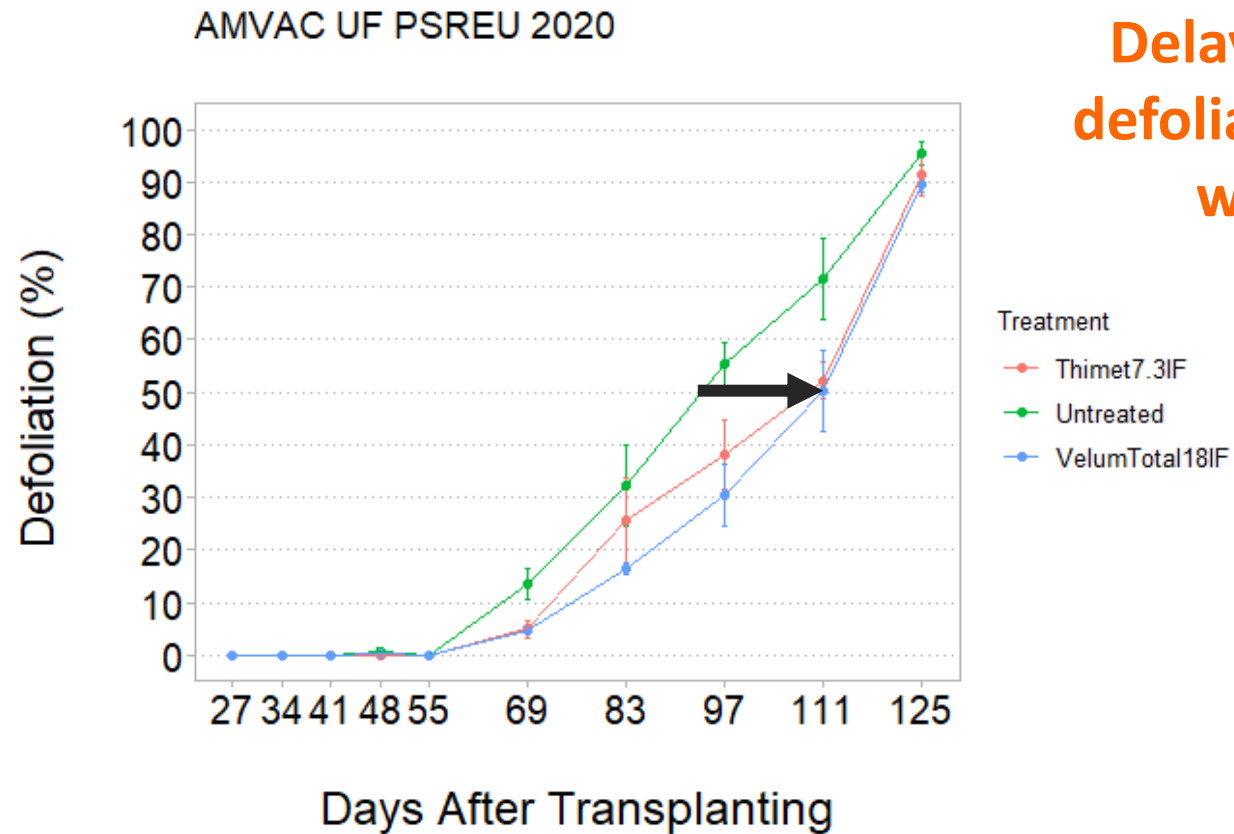
Resistant cultivars will delay/limit disease



Abound in-furrow used



Leaf spot diseases are slowed by in-furrow applications (Thimet® and Velum®)

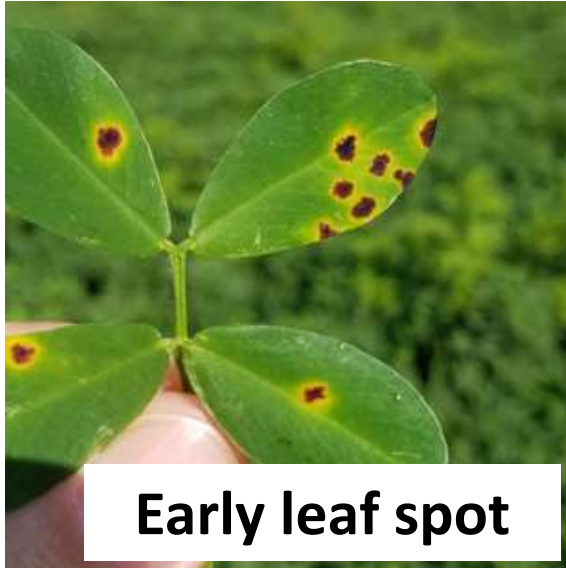


**Delayed 50%
defoliation by 2
weeks**

Tip #2: Tailor a fungicide program to meet your needs



Think about when the disease typically shows up



The Who, What, When and Where

- Which pathogen is present?
- What variety am I using (resistance or not)?
- When does it show up? (start 10 days before)
- Where should I be applying my fungicides?

Try to stay ahead of leaf spots



Teb. weak on LLS (add something)

Azoxystrobin weak (sulfur helps)

Newer leaf spot products work

Stay ahead of disease (e.g. Miravis)

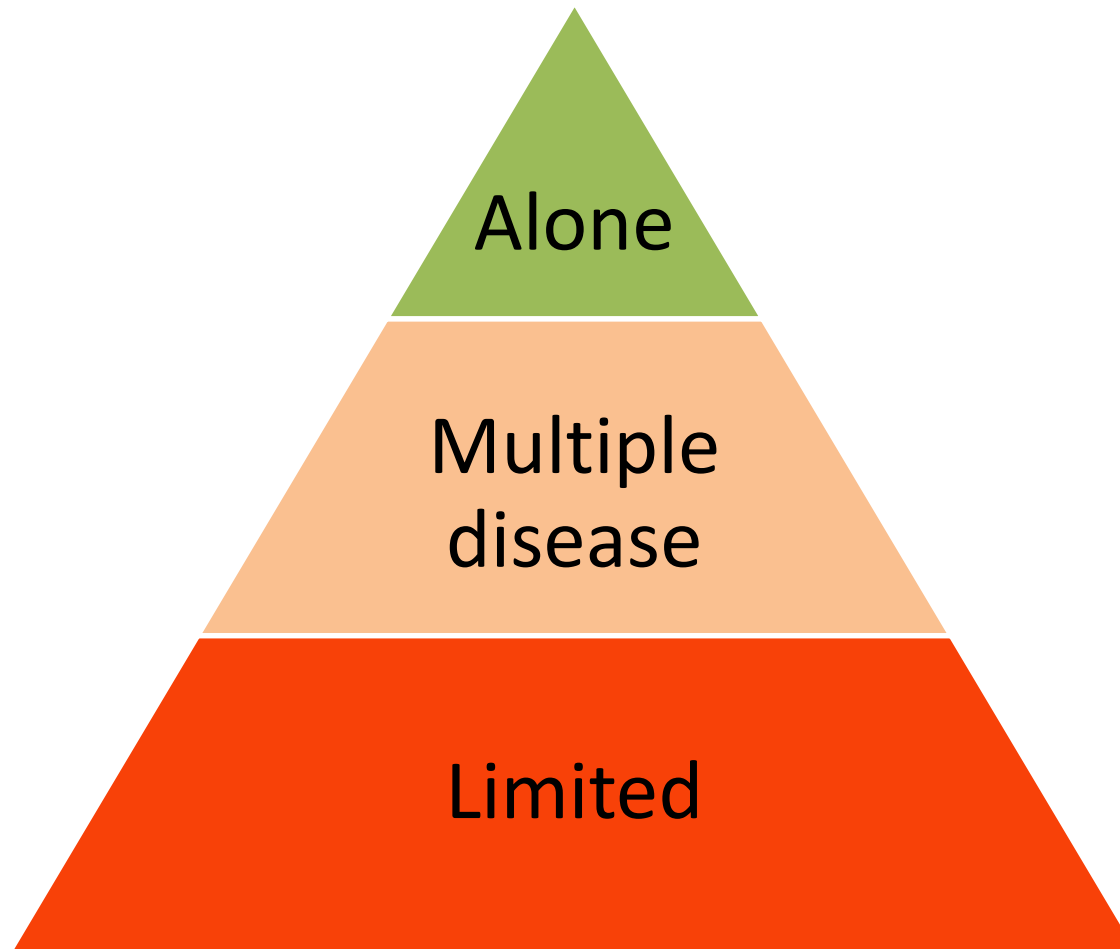
Provost Silver strong on ELS (75 & 105 DAP)

Sulfur 3 to 5 lbs/A can help

Follow Rx Recommendations



Stem rot management starts with cultivar selection



EXCALIA™
FUNGICIDE

CONVOY®
FUNGICIDE

Elatus®

PROPULSE

PROVOST®
SILVER

Fontelis®
FUNGICIDE

Tebuconazole
3.6F
Fungicide

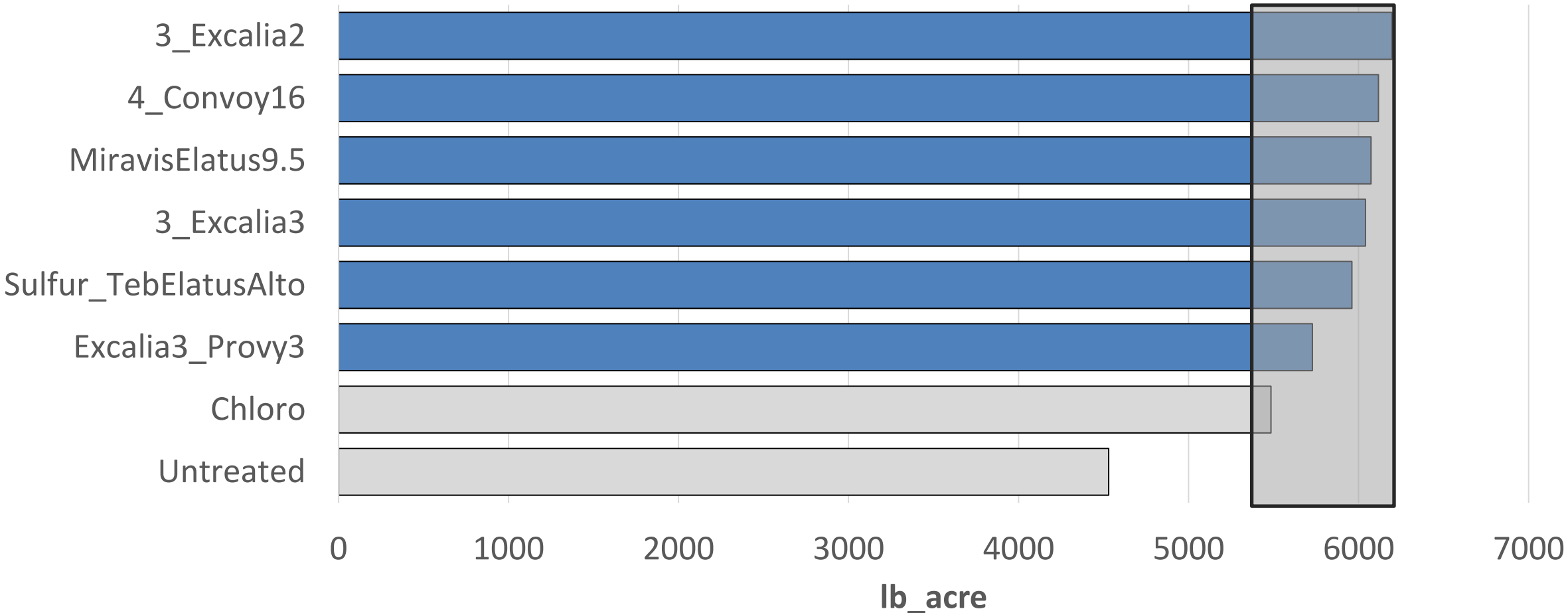
Abound®

Priaxor®
Xemium® Brand Fungicide

Foliar disease onset 90 DAP; comparing last 3 sprays.

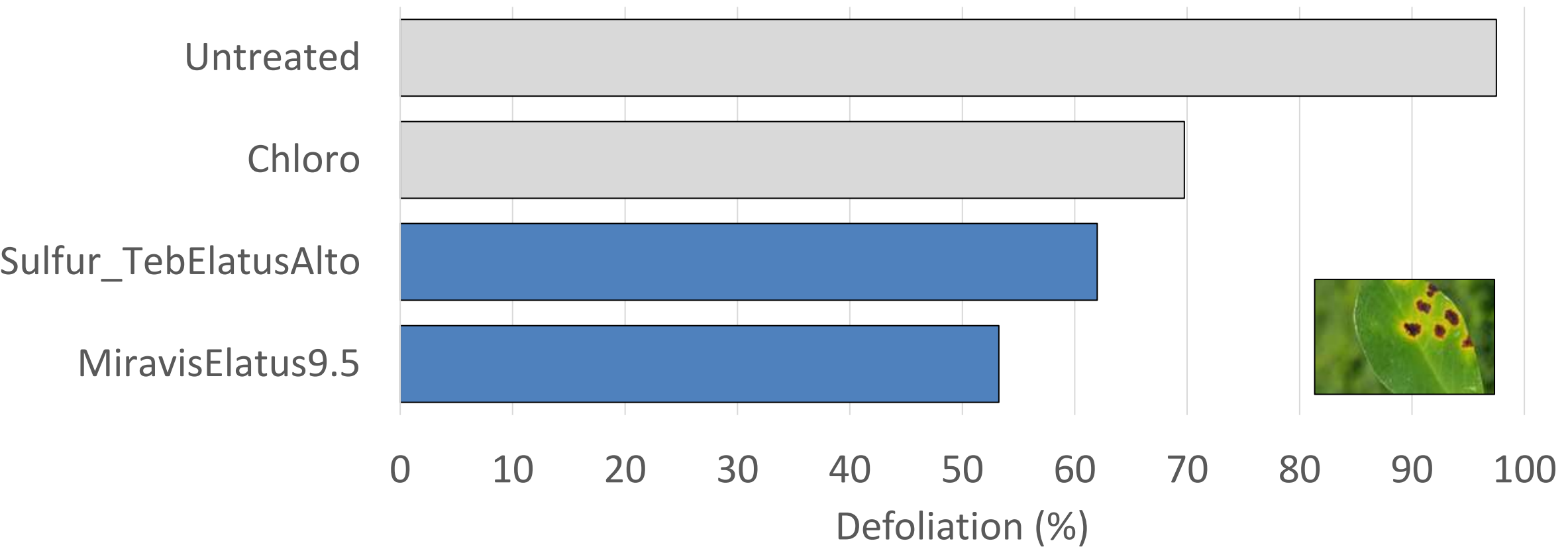
Cultivar: GA-06G

NFREC-SV



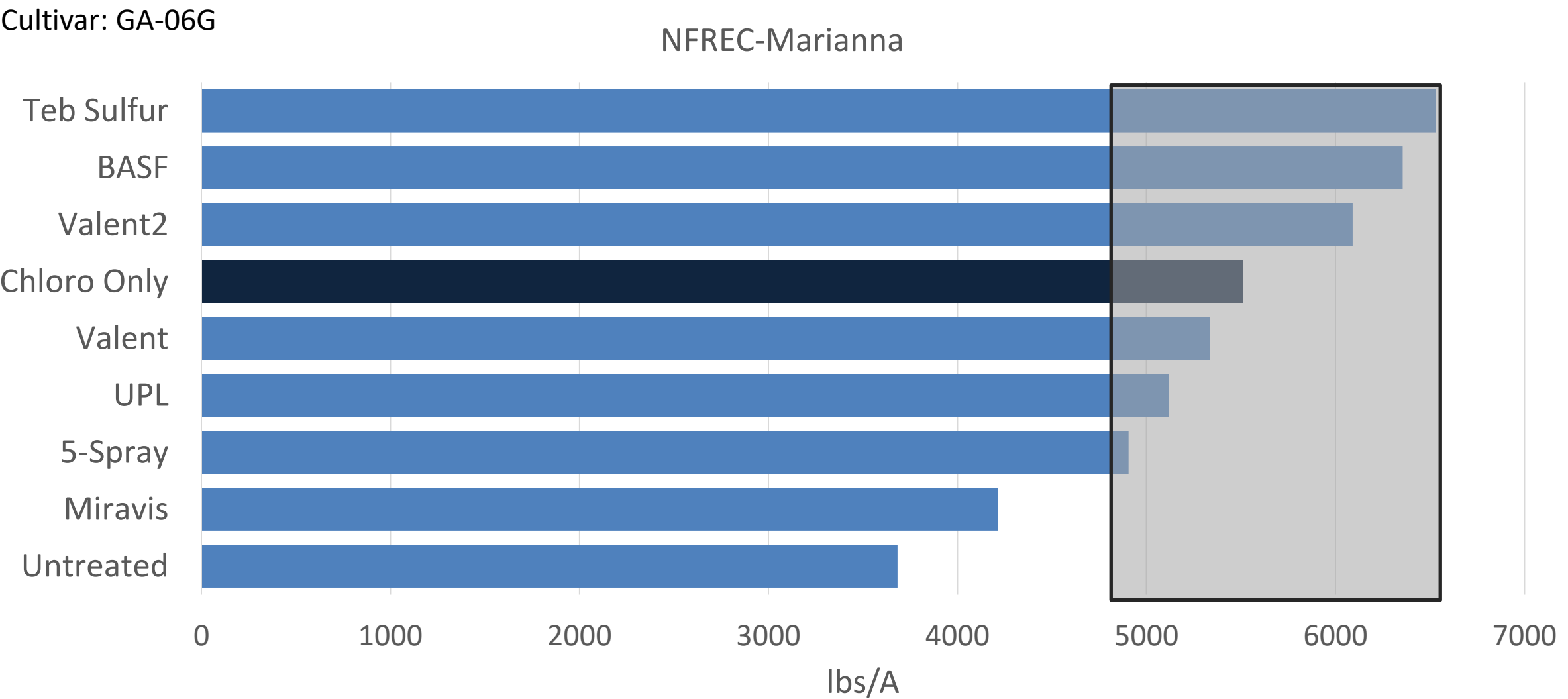
No soilborne disease observed; something was likely present given yield bumps.

Miravis reduced defoliation by 10%, no yield effect



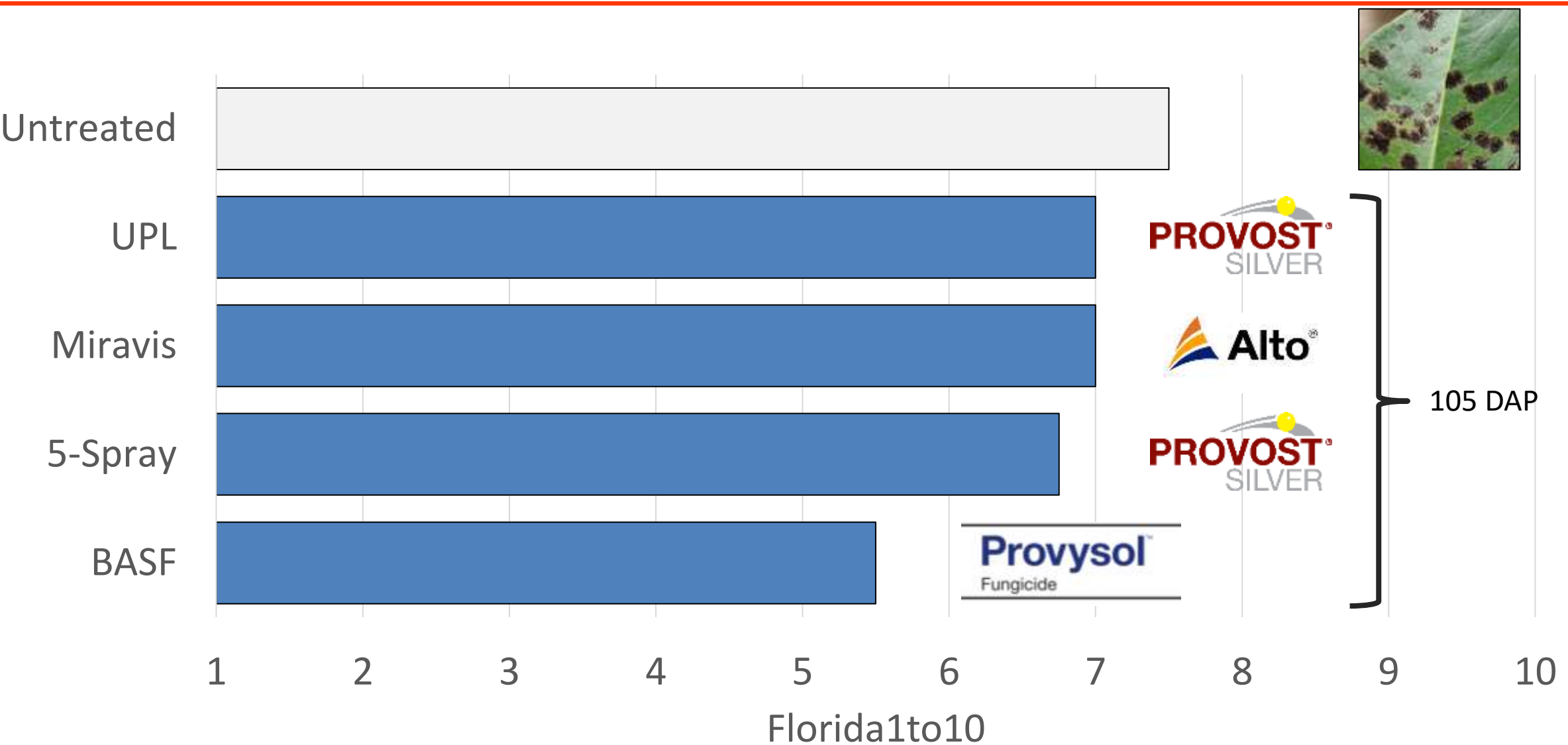
MiravisElatus9.5	3	Abound		Equus (24) + Teb (7.2)	Miravis (3.4) + Elatus (9.5)		Miravis (3.4) + Elatus (9.5)	Equus (16) + Alto (5.5)	Chloro (16)+Topsin (10 fl oz)
Sulfur_TebElatu sAlto	12	Abound		Teb (7.2) + Microthi (3 lb)	Miravis (3.4) + Elatus (9.5)		Microthi (3) + Elatus (9.5)	Microthi (3) + Alto (5.5)	Chloro (16)+Topsin (10 fl oz)

Late leaf spot was managed by Provysol and Teb+Sulfur



Variation in yields within treatments was typically 2,000 to 3,000 lb/A

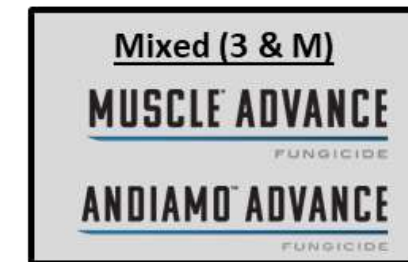
Provost Silver & Alto not strong on Late Leaf Spot



Tip#3: Have a good lists of backup products ready



Luckily, many products are available for management



General information about fungicide supply 2022



- Expense will likely increase
- Most products will be available
 - Acreage increase could change availability
 - Not expecting chlorothalonil shortage
- Tight supply possible for:
 - Pyraclostrobin (Headline)
 - Tebuconazole
 - Azoxystrobin (Abound)

Consider multinational companies' generic products as alternatives


CropLife

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CropLife 100: Find Out Who Made the List of the Top 100 U.S. Ag Retailers


Crop Protection Fares Well in '21, with a Caveat

By Jackie Pucci | January 24, 2022

According to the 2021 [CropLife 100 survey](#), the crop protection fared very well. Ag retailers registered the strongest growth in sales were up in the segment. Three-quarters of respondents said fungicides rose. Declines for each of the three categories were 15% of respondents.


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From a "top-down" company sales perspective, all indications are positive with all key companies including [Syngenta](#), [Bayer](#), [BASF](#), [Corteva](#) solid results for the first half, according to U.K. market research firm [Euromonitor](#).

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Coronavirus (COVID-19) statistics

Confirmed cases




Larger map

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Data is collected from multiple sources that update at different times and may not always align. Some locations may not provide complete information.

Daily new cases in China (mainland)


Click on the graph to see more



* Spikes reflect previously unreported cases

Data from: CDC · WHO · ECDC · Wikipedia · The New York Times · See full list

See results for

[COVID-19 pandemic \(Global Pandemic\)](#)

The 2019-20 coronavirus pandemic is an ongoing global

Consider mixing in sulfur to your program

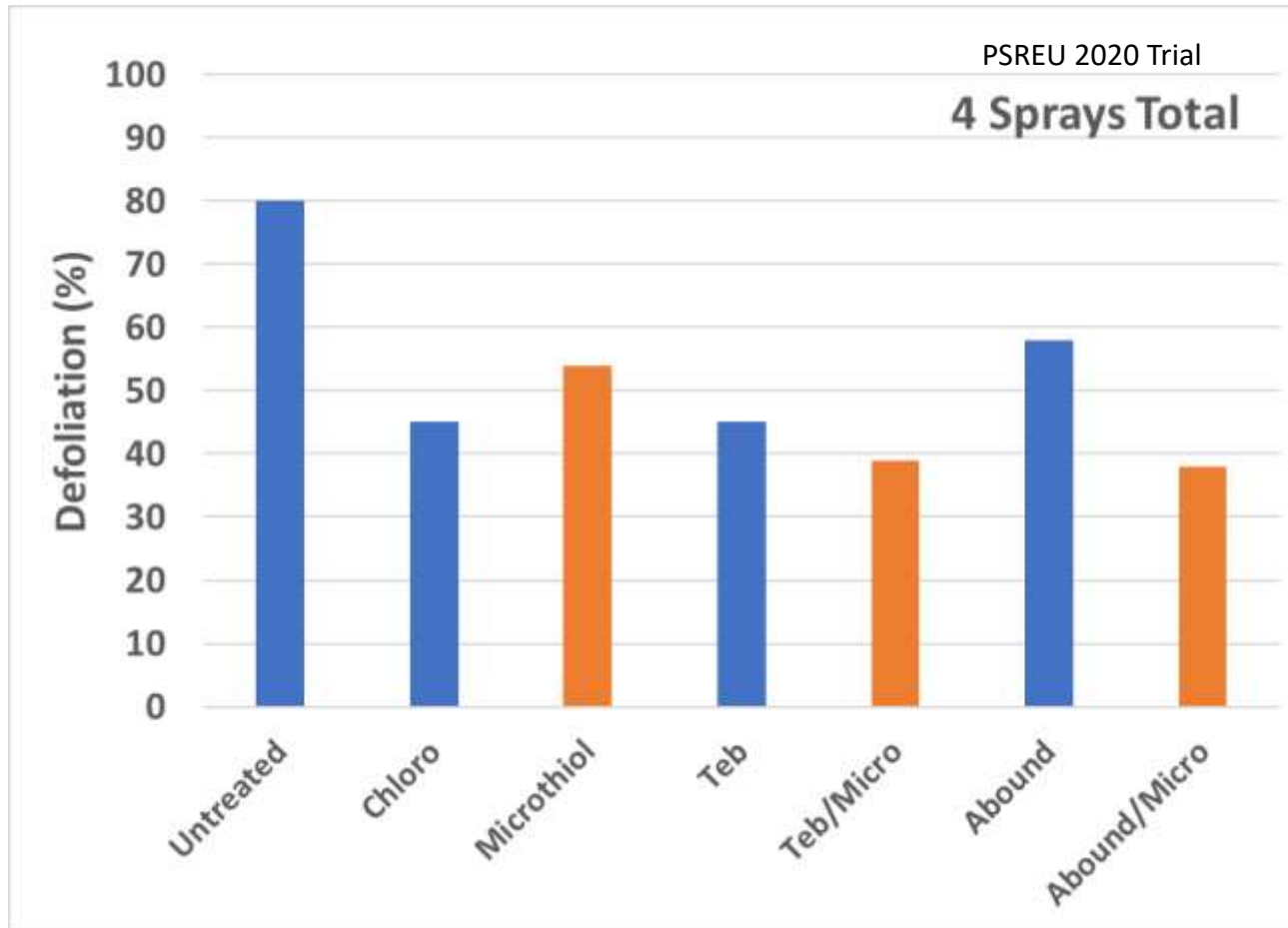
“Sulfur alone does not hold up like chlorothalonil does.”



Dr. A. Culbreath



Micronized sulfur has consistently worked



DMI (3) benefit needs more info

QoI (11) benefit is greater

Microthi™ better than untreated

Chlorothalonil alone holds up

3 lb might be too low

Other Micronized Sulfurs work too

No rust control apparent

Don't fall behind in disease management

1. Plan ahead and knowing your risk to help determine the inputs needed
2. Create a management program specific to your needs
3. Have a list of backups ready



Thank you for your support!



Thank you to you too!



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