SOYBEAN DISEASE MANAGEMENT

2009 Louisiana
Agricultural Technology
& Management Conference
February 11-13, 2009

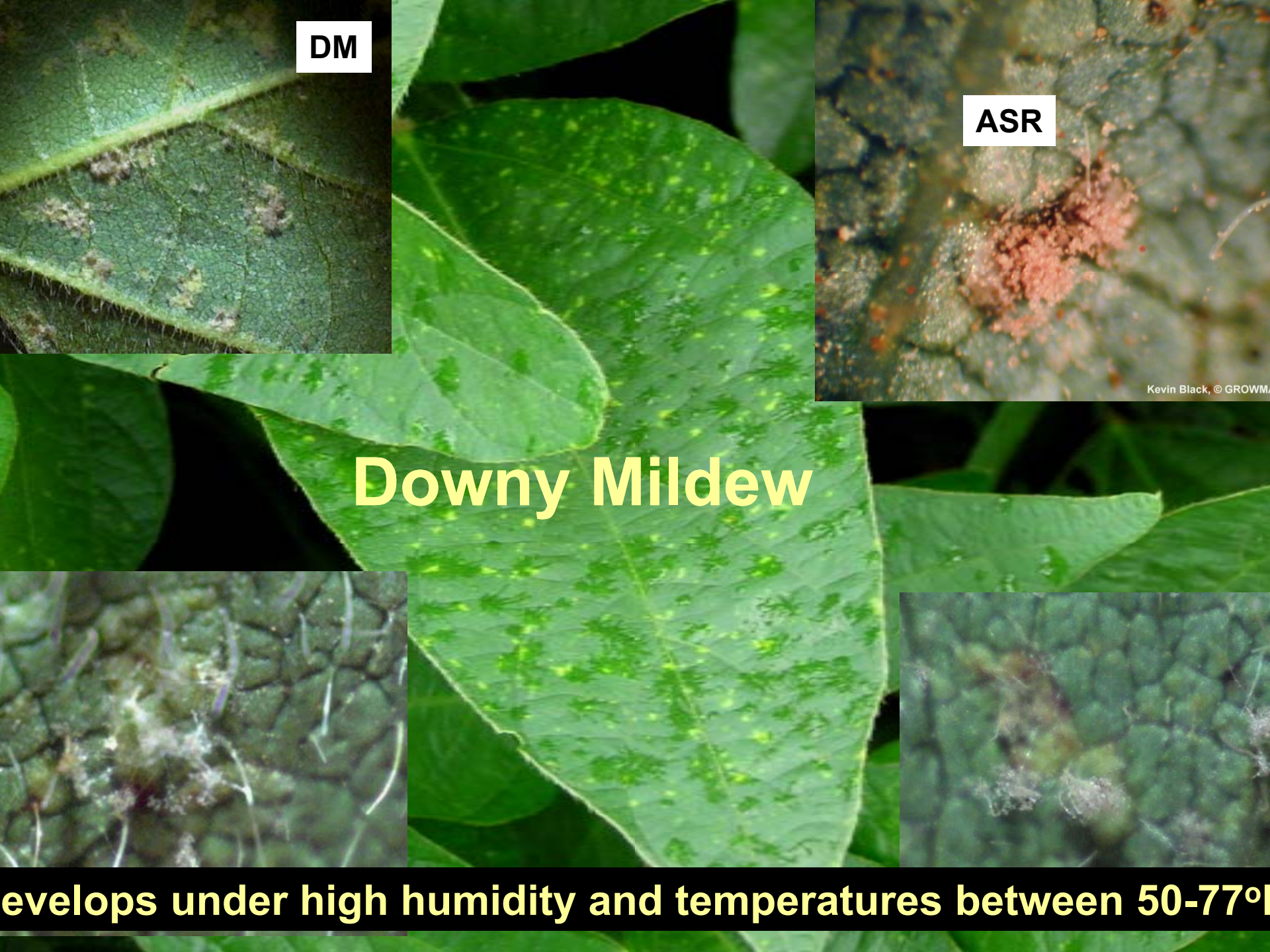
LSU AgCenter
Research & Extension

Developing An Effective Disease Management Program

- Disease I.D.
- Genetic Resistance
- Cultural Practices
- Fungicides

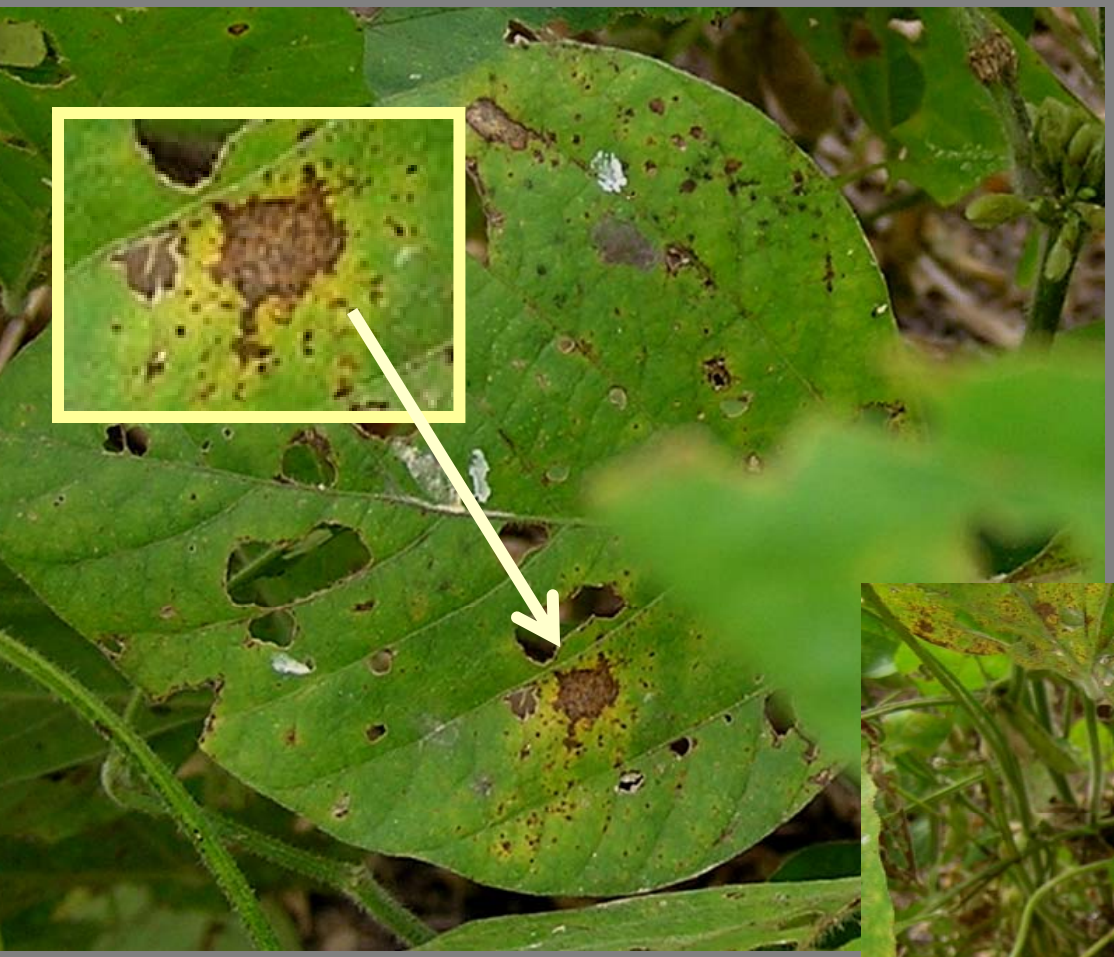
Cercospora Blight
Purple Seed Stain

Salt Injury


DM
ASR
Kevin Black, © GROWM
Downy Mildew
evelops under high humidity and temperatures between 50-77°

Develops under warm, wet weather

Frog Eye



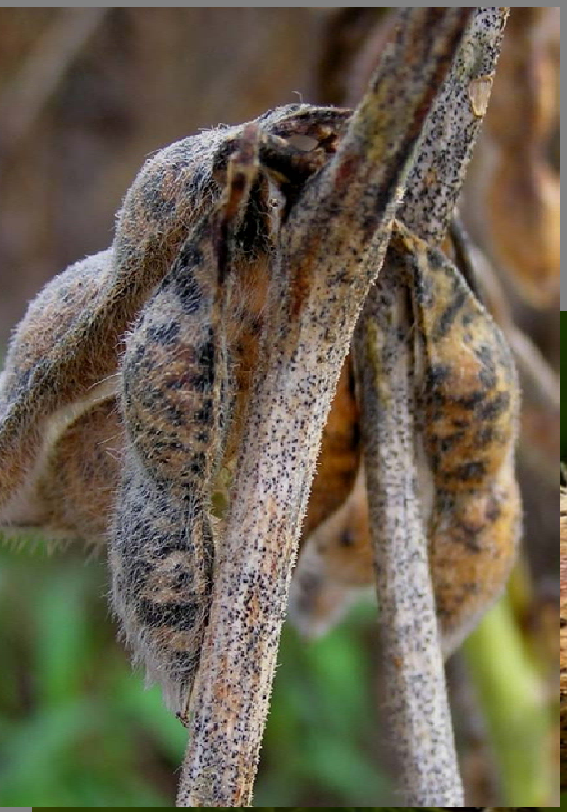
Soybean Rust

Soybean Rust

Aerial Blight

Aerial Blight

Pod and Stem Diseases
Favored by Warm Wet Weather



Red Crown Rot

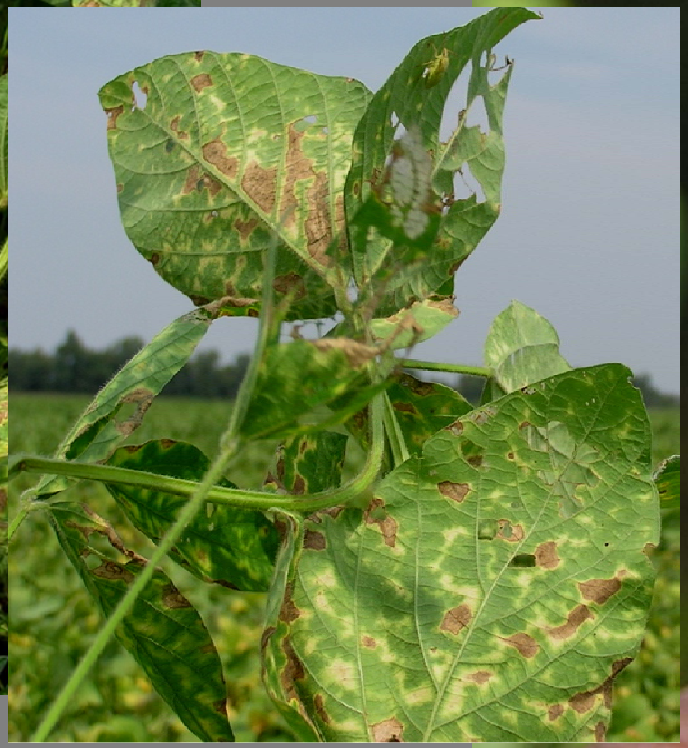
Foliar Symptoms

Neocosmospora vasinfecta

***N. vasinfecta* perithecia**

***C. parasiticum* perithecia**

Sudden Death



Bacterial Pustule

Favored by wet weather
and
gher temperatures (86-91ºF)

Root-Knot Nematode

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VARIETY EVALUATIONS

CHOOSE VARIETIES TESTED IN YOUR AREA OF THE STATE!!!!

Variety Evaluations

Variety	Jeff Davis CB (1-9)	Macon Ridge CB (1-9)
Delta King 5161	2	8.3
Dyna-Gro 33B52	7	8.3
Asgrow 5903	4	7.8
Terral 56R12	3	8.5

Allen Hogan, County Agen

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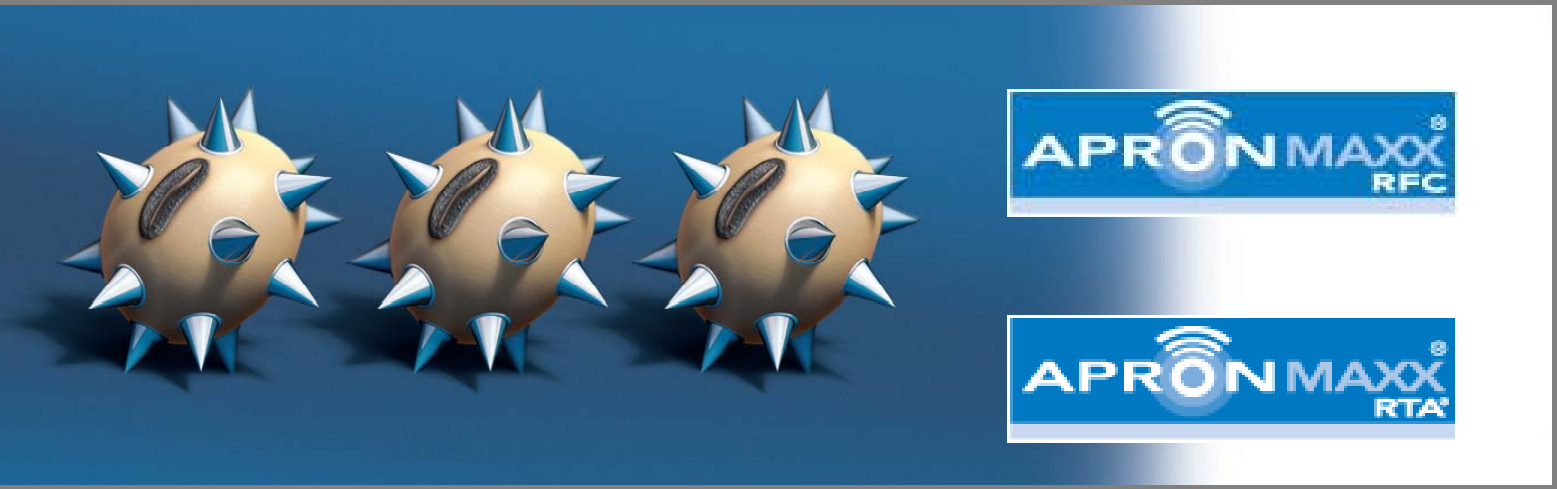
Fungicide Seed Treatments



LOUISIANA
Fungicide Seed Trt Sum 2003-07

Some seed treatments had a slight improvement on emergence (Pythium/Phytophthora)

Minimal or no impact on final stand establishment

Seed treatments did not improve yield in Louisiana

Most beneficial when conditions are not favorable for soybean germination and establishment

- **Poorly-drained soils**
- **Cool weather**
- **Poor seed quality**

2007 Berken Farms

eatment (fl oz/A)	Appl	6-Sep AB 1-9	6-Sep CB 1-9	6-Sep % PD	ASR Inc	ASR Se
ontreated	--	8	5	40	90	15
opsin M (20) *fb* Quadris (6)	R3 R5	5	2	5	100	30
opguard (7 fl oz)	R3	7	4	5	0	
ratego (10 fl oz)	R3	5	4	5	45	5
uadris (6) + opguard (7)	R3	2	4	5	0	

2007 Berken Farms

eatment (fl oz/A)	Appl	ASR Inc	ASR Sev	AB (1-9)	Yield (bu/A)
lontreated	--	90	15	8	37
opsin M (20) *fb* Quadris (6)	R3 R5	100	30	5	47
opguard (7)	R3	0	0	7	43
trategó (10)	R3	45	5	5	47
leadline (6) + olicur (3)	R3	40	2	2	47
leadline (6) + omark (3)	R3	0	0	6	43

Concordia Parish

DP 5915 8-Apr / 30 Sep

atment (Rate/A)	Appl	13-Sep CB 1-9	1-Sep FE 1-9	% Def	Test wt	Yiel bu/
ontreated	--	7.0	3.0	100	56	35
eadline (6.2 fl oz)	R4	4.0	2.3	50	54	42
uadris (6.2 fl oz)	R4	5.2	2.8	75	56	40
uadris (3.0 fl oz) + Topsin-M (0.5 lb)	R4	5.0	2.8	75	55	40
M 85 (0.6 lb)	R4	5.8	3.2	80	57	36
opsin-M (0.75 lb)	R4	5.0	2.5	95	56	38

RMSB040

Greening Effect Strobilurins

APPLICATION TIMING

R1 (1st Flower): Too Early, EXCEPT Aerial Blight or Soybean Rust

R3 (Pod Initiation): Best on Foliar Diseases

R4 (Pod Elongation): Pod and Foliar Diseases, Residual could run out

R5 (Seed Initiation): Best on Pod diseases

Fungicide Rating

Product	CB	FE	AB	PD	SB
eadline	G	G	F/G	G	S
Quadris	F/G	F/G	G	G	S
opsin M	G	G	S	F	NA
omark	?	?	NA	F	G
olicur	?	?	NA	?	G
unch	?	?	NA	?	G

G=Good, F=Fair, S=Suppressive (Poor), NA=No Activity

Fungicide Rating

Product	CB	FE	AB	PD	SB
Topguard	?	?	NA	F/G?	G
Tilt, Propimax	?	?	NA	?	F/G
Bumper	?	?	NA	?	F/G
Stratego	F	F	F	F/G	F/G
Quilt	F/G	?	F/G	F	F/G

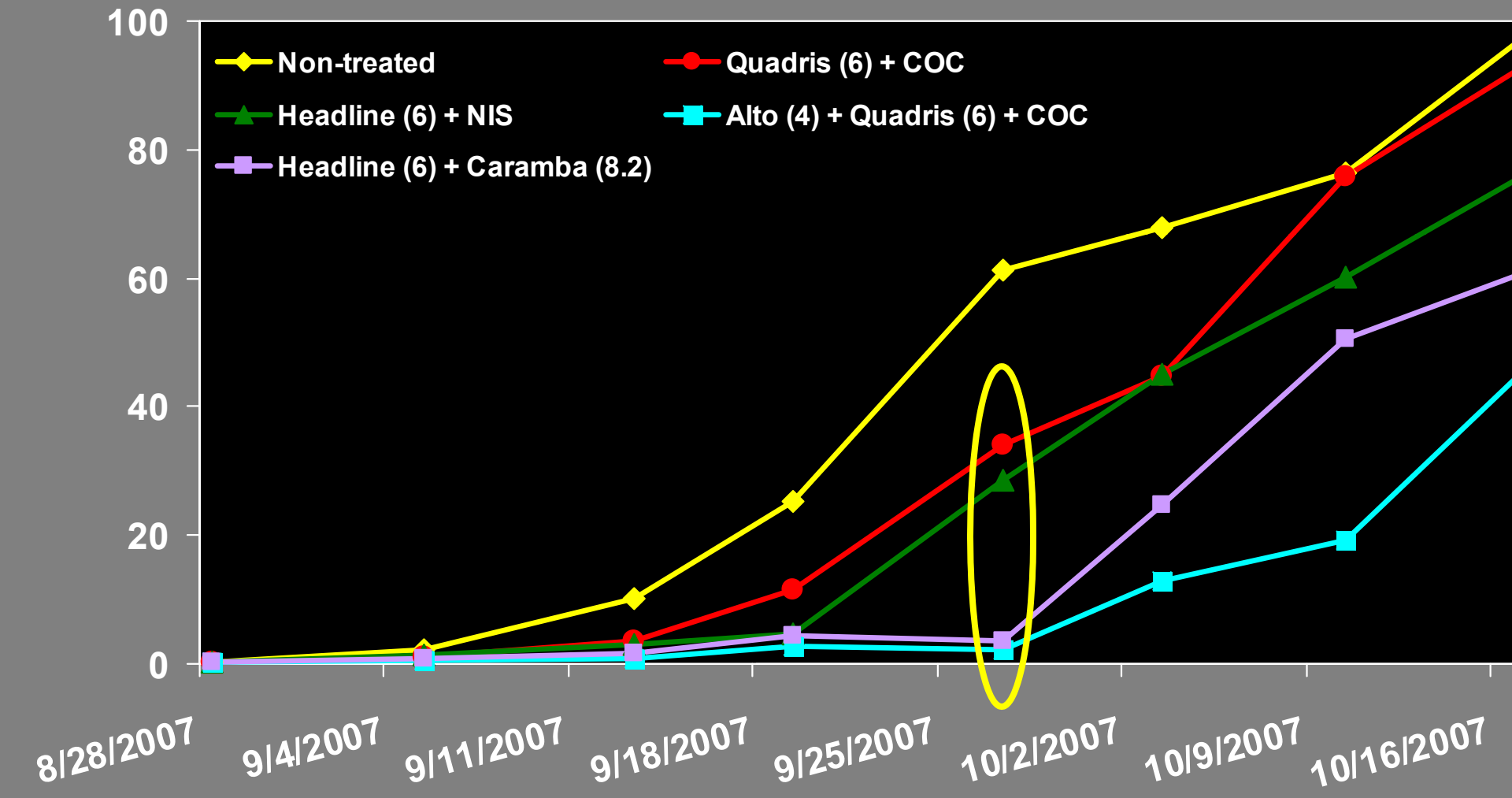
G=Good, F=Fair, S=Suppressive (Poor), NA=No Activity

??? Residual Activity ???

??? How Long ???

Breakdown

SBR Disease Progress 2007



Non-treated

Quadris 6 fl oz/A

Non-treated

Quadris 6 fl oz/A
Alto 4.0 fl oz/A

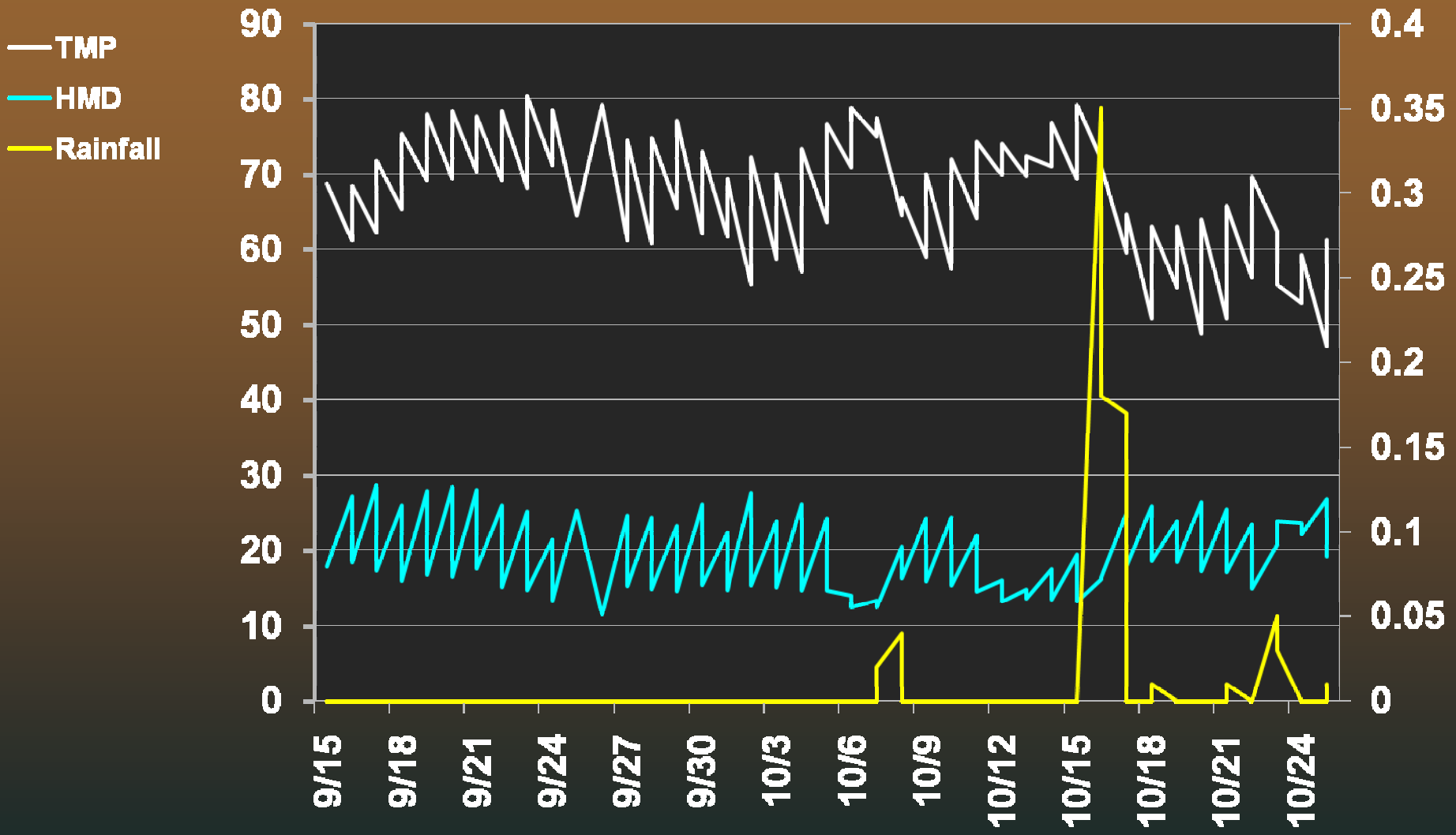
Thank You!!!!

- Producers
- Co-workers

LSU AgCenter
Research & Extension

Thanks for Your Time

2008 Weather Data



2006 Wild Farms Demonstration

eatment oz of product/A)	GS @ Appl[1]	Sep-18 AB (0-9)	Sep-18 CB (0-9)	Sep-25 ASR %Inc	Oct-9 Yield (bu/A
ntreated #2	--	7	4	100.0	54.8
ntreated #1	--	5	5	95.0	57.1
ilt 1.67SC (14.0) + Quadris 2.08SC (2.0) [1]	R4	1	3	10.0	63.0
redo 2EC (7.0)	R4	5	4	0.0	60.3
mark 1.9ME (5.0)	R4	6	2	0.0	62.5
licur 3.6F (4.0)	R4	6	5	0.0	58.0
licur 3.6F (3.1) + Headline 2.08EC (4.7)	R4	3	3	0.0	62.6

[1] 1% Crop Oil Concentrate

Allen Hogan / Tim Wil

2007 Berken Farms

atment (fl oz/A)	Appl	6-Sep			ASR	
		AB 1-9	CB 1-9	FE 1-9	Inc	Se
ontreated	--	8	5	3	90	1
psin M (20)	R3					
fb Quadris (6)	R5	5	2	2	100	3
pguard (7)	R3	7	4	3	0	
ratego (10)	R3	5	4	4	45	
eadline (6) + licur (3)	R3	2	3	3	40	
eadline (6) + mark (3)	R3	6	4	3	0	
uadris (6) + mark (3)	R3	2	4	3	0	
uadris (6.2) + pguard (7)	R3	2	4	2	0	

Summary

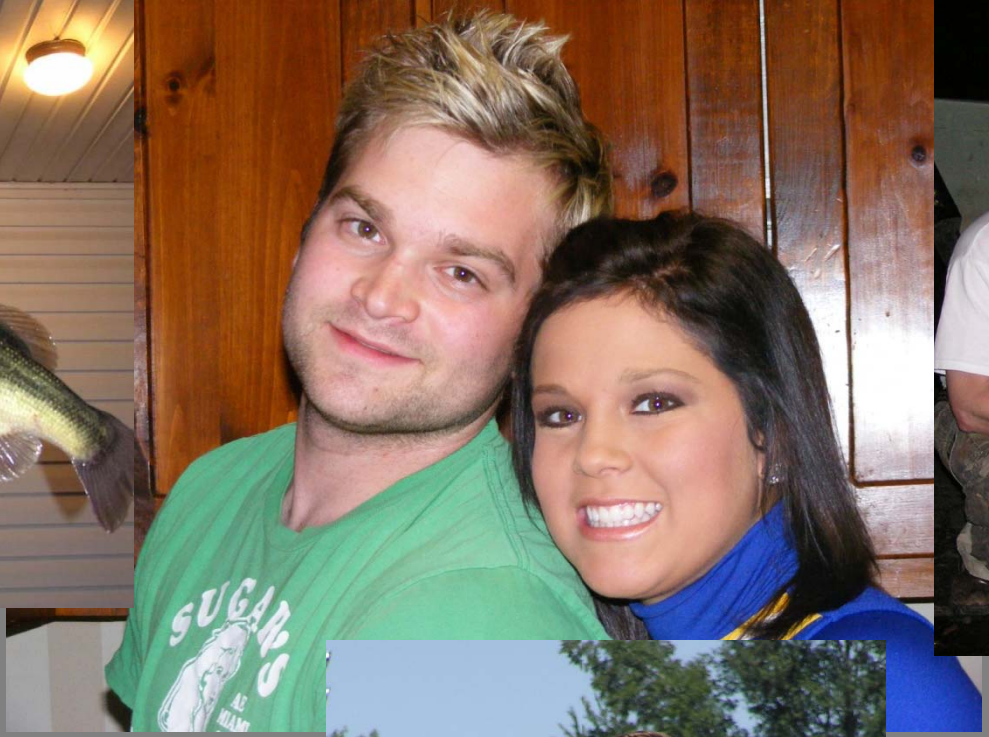
I. Genetic Resistance Best Defense
II. New Fungicides Show Promise
III. More Green Stems in Soybean Treated with a Fungicide
IV. Differences Among Classes
    i. Strobilurins (broad spectrum)
    ii. Topsin M (NO SBR)
    iii. Triazoles (SBR and maybe??)

Summary

V. Triazoles Best for SBR
   - Triazoles not equal

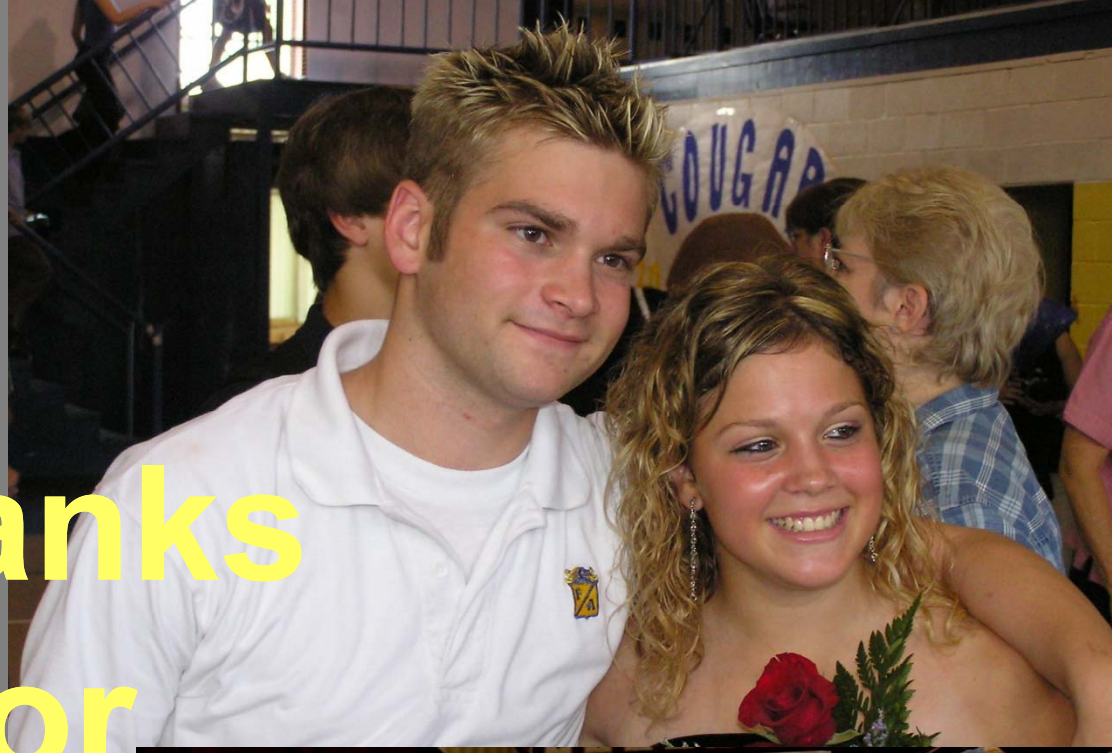
VI. Timing important for SBR
   - Before SBR is present

VII. Application Timing
   - R1 vs R3 vs R5 or combinations
   - R3 maybe best all around ???


SUGARS

2007 Berken Farms

atment (fl oz/A)	Appl	6-Sep			ASR	
		AB 1-9	CB 1-9	FE 1-9	Inc	Se
ontreated	--	8	5	3	90	1
psin M (20)	R3					
fb Quadris (6)	R5	5	2	2	100	3
pguard (7 fl oz)	R3	7	4	3	0	
ratego (10 fl oz)	R3	5	4	4	45	
eadline (6) + licur (3)	R3	2	3	3	40	
eadline (6) + mark (3)	R3	6	4	3	0	
uadris (6) + mark (3)	R3	2	4	3	0	
uadris (6.2) + pquard (7)	R3	2	4	2	0	



Thanks for Your Time