



Sugarcane Fungicide Solutions

**Louisiana Agricultural Technology &
Management Conference**

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Sugarcane Fungicide Solutions



EPA Registered

- Headline (strobilurin)
- Caramba (triazole)
- Headline AMP (strobilurin + triazole)



Pending EPA Registration

- Sercadis (carboxamide)
- Priaxor® (strobilurin + carboxamide)

For Control of Brown Rust and Orange Rust

Fungicide Comparisons



Characteristic		
Active Ingredients	Pyraclostrobin + Fluxapyroxad	Pyraclostrobin + Metconazole
Chemical Groups	Strobilurin + Carboxamide	Strobilurin + Triazole
Method of Control	Contact, preventative, curative	Contact, preventative, curative
Residual	28 days	21-28 days

Sugarcane Fungicide Rate Comparisons

Priaxor™

Xemium® Brand Fungicide

Comparable Rates				
Priaxor® Rate (fl oz/A)	=	Headline® fl oz/A	+	Xemium® fl oz/A
4	=	5.32	+	2.25
5	=	6.65	+	2.81
6	=	7.98	+	3.38
7	=	9.30	+	3.94
8	=	10.64	+	4.50

Headline AMP®

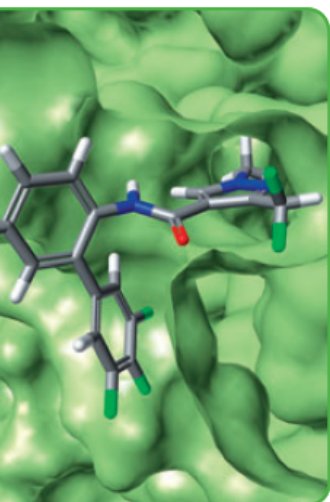
Fungicide

Comparable Rates				
Headline AMP® Rate (fl oz/A)	=	Headline® fl oz/A	+	Caramba® fl oz/A
10	=	5.8	+	6.1
12	=	7.0	+	7.4
14	=	8.2	+	8.6
16	=	9.3	+	9.8
18	=	10.5	+	11.0
20	=	11.7	+	12.3

For Control of Brown Rust and Orange Rust

Xemium® Fungicide

How it Works

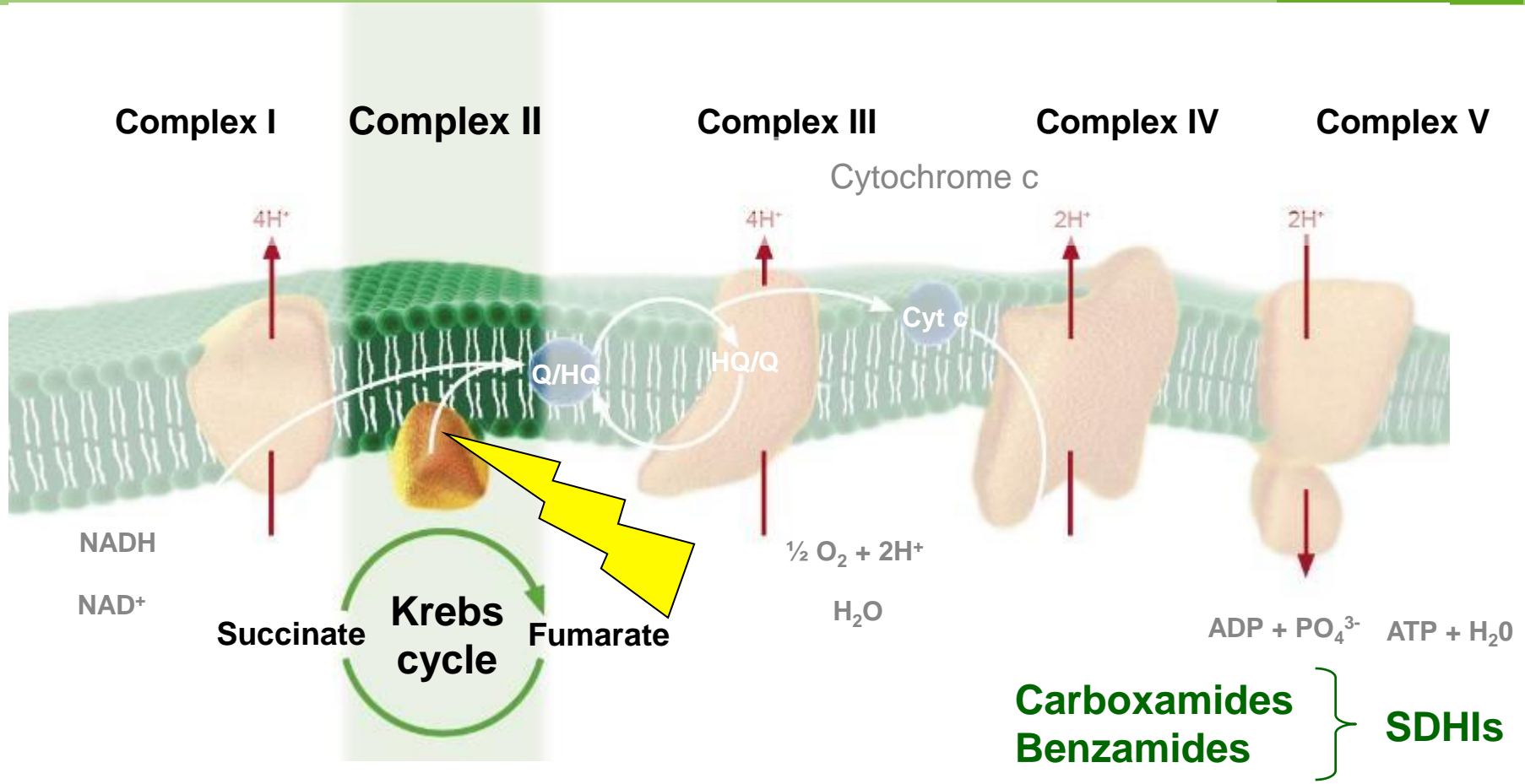


- **Xemium** very efficiently blocks the respiratory Complex II (= succinate dehydrogenase or SDH).
- This disrupts the energy supply and biosynthesis of essential building blocks.
- Growth of fungal cells is stopped.
- In combination with **Xemium's** systemicity, this results in preventative and curative activity.

A highly efficient SDHI with high mobility

Xemium[®] Fungicide

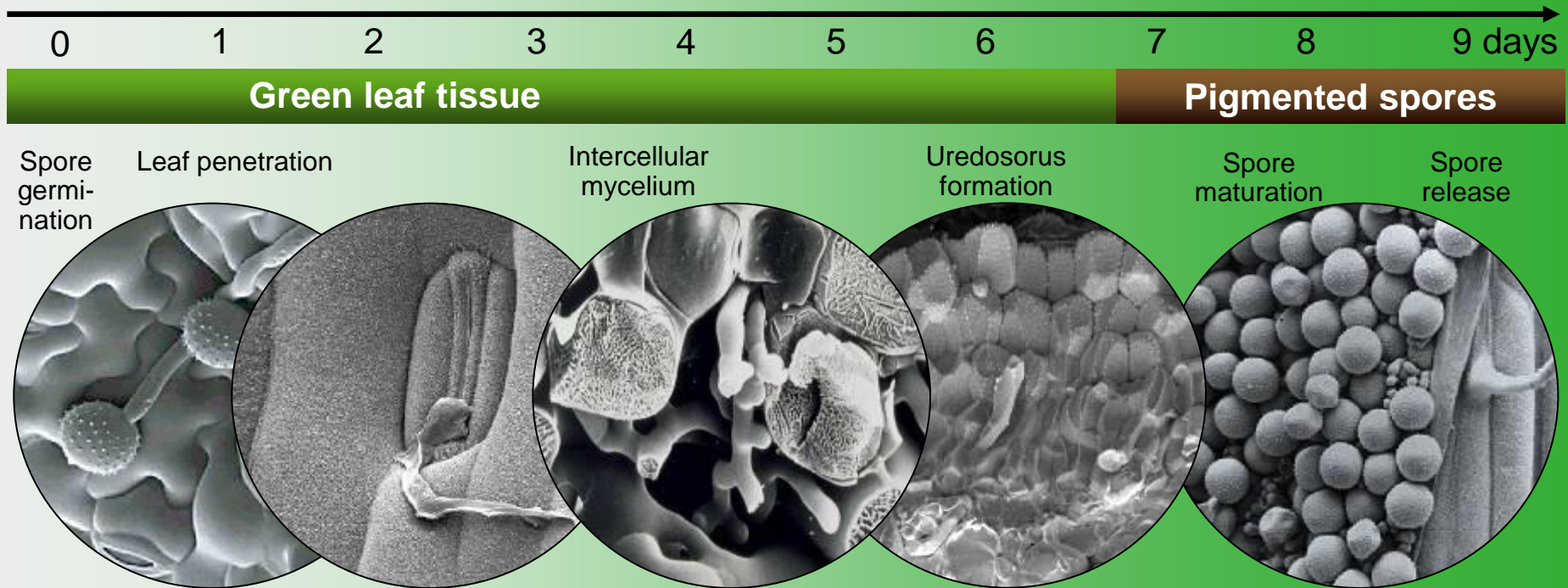
Targets the Mitochondrial Respiratory Chain



Complex II is the molecular target of SDHIs

Xemium® Fungicide

Effect on Brown Rust Development Stages



Preventative action (Days 0-7) | **Curative action** (Days 7-9)

Xemium® FUNGICIDE (Days 0-9) | *Puccinia triticina*

Previous Carboxamides (Days 0-4)

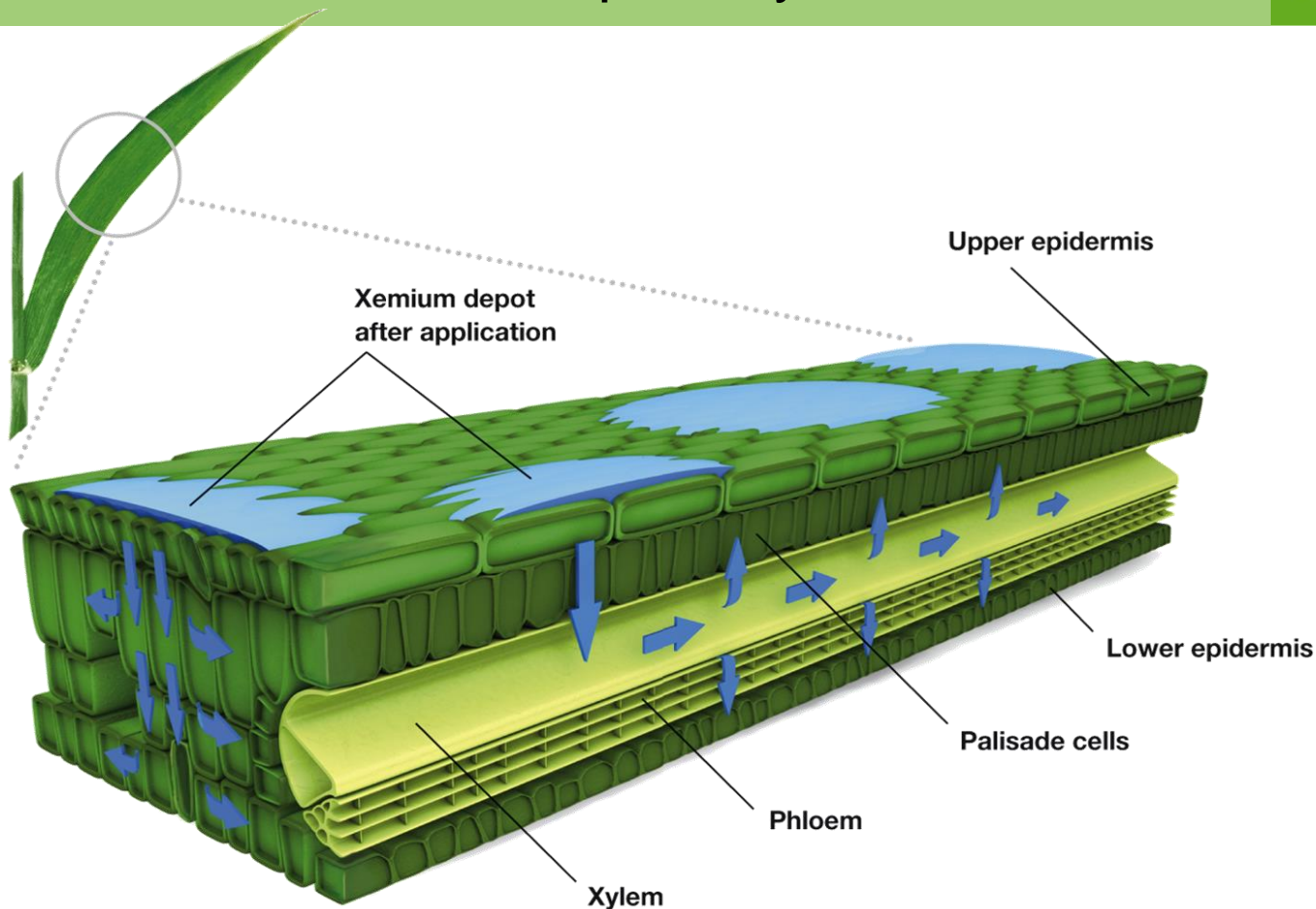
Triazoles (Days 0-7)

Strobilurins (Days 0-4)

INTERNAL

Xemium[®] Fungicide

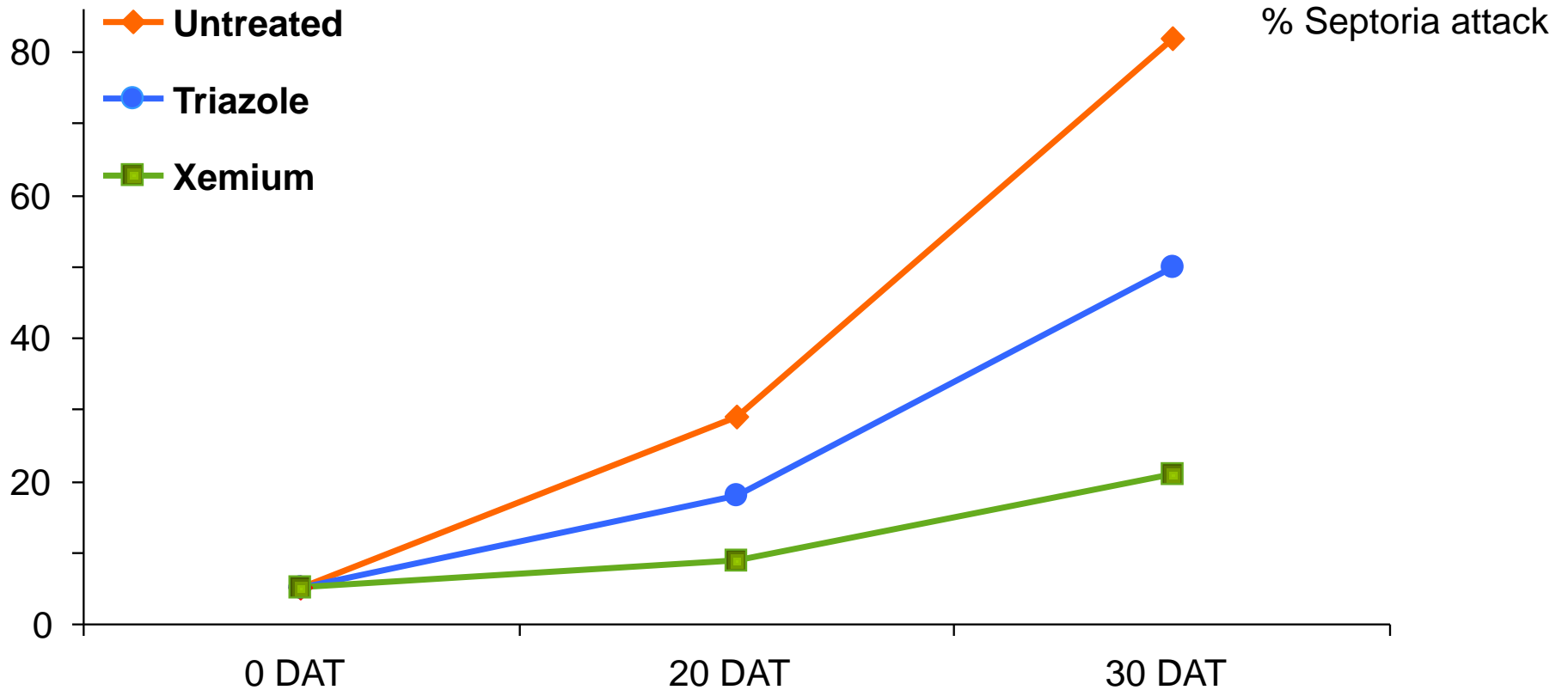
Targets the Mitochondrial Respiratory Chain



Adsorbed to waxy layer and evenly transported in leaves

Xemium[®] Fungicide

Continuous Protection Against *Septoria* - Field

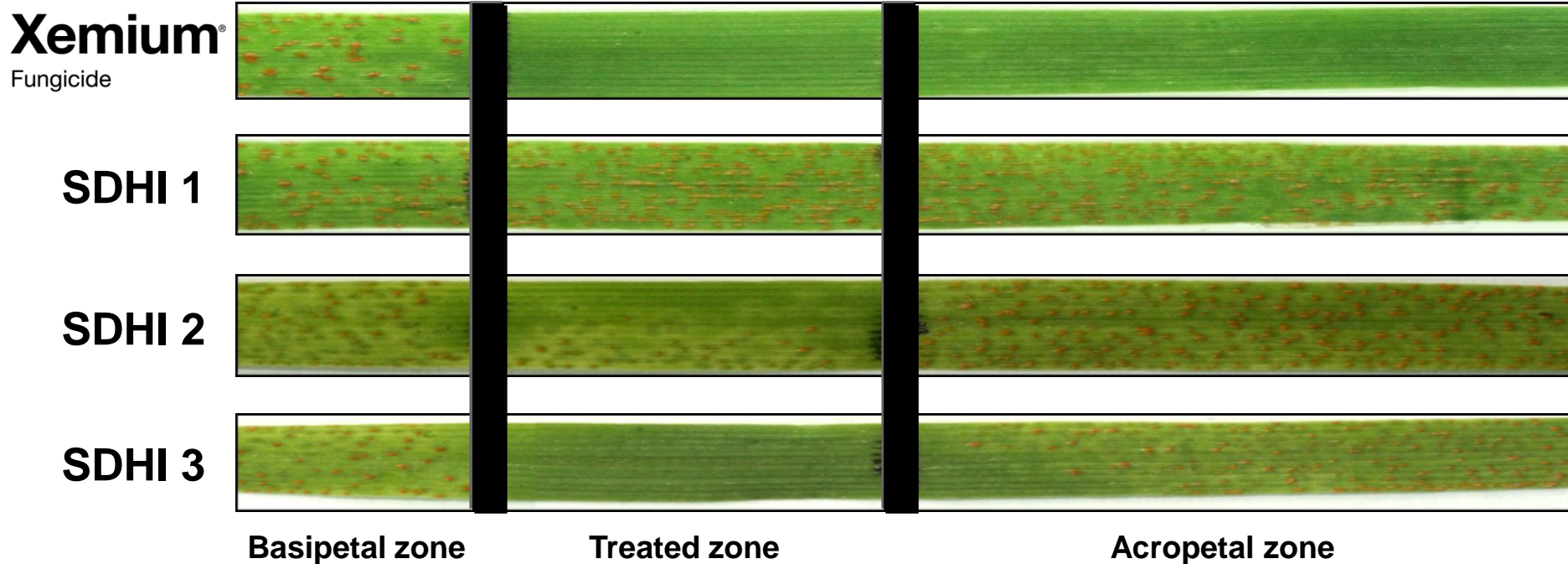


Field trial UK 2008: 5% initial attack; 1 application at GS 59; comparison of full dose rates. DAT = days after treatment

Curative activity confirmed in field trials

Xemium[®] Fungicide

Distribution in cereal leaves

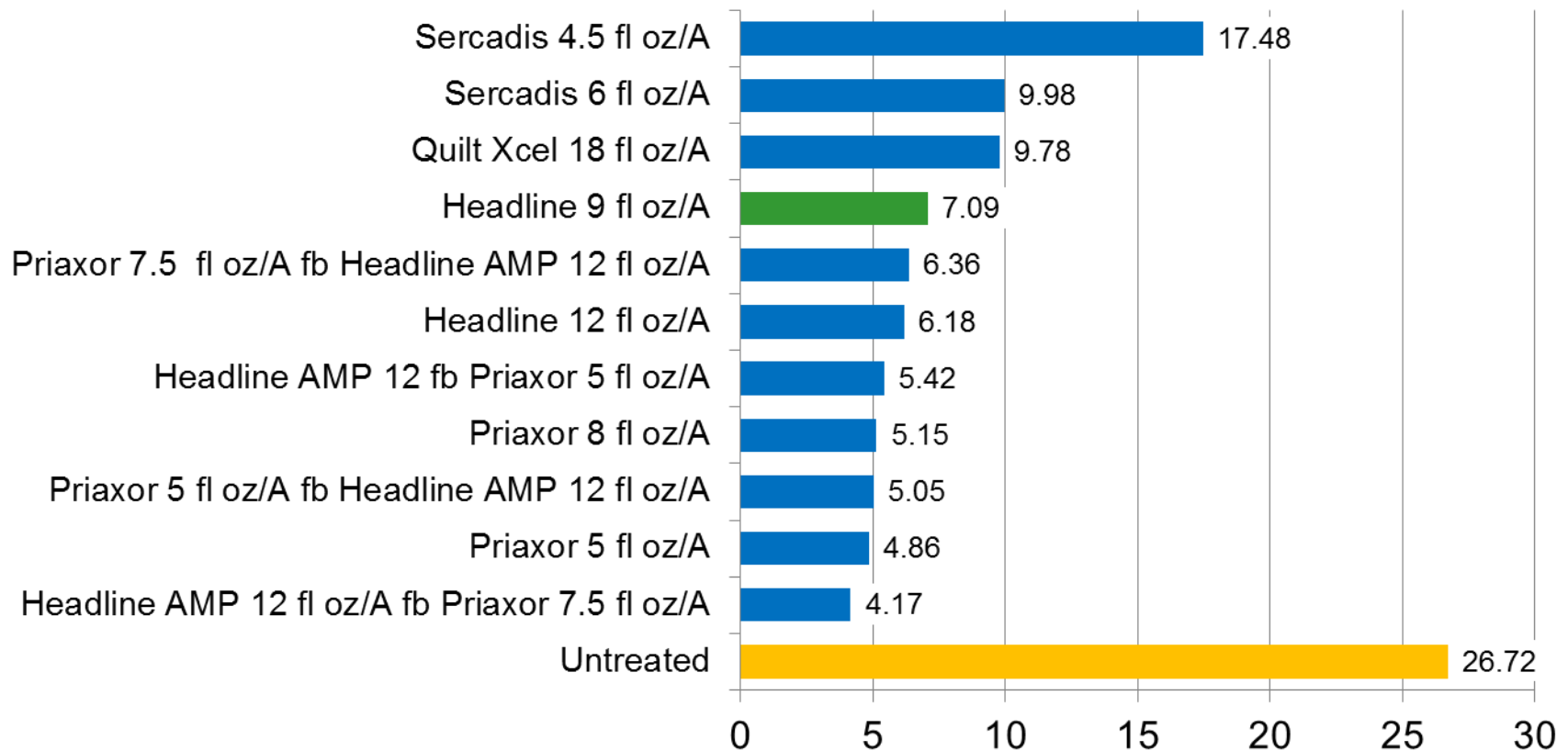


Brown rust 1 day preventative. Source: Dr. Speakman, APR/FM

Better acropetal mobility

2013 Sugarcane Fungicide Efficacy Brown Rust Control

% Lesions at 2 weeks after second application



Brown rust lesions on leaves were taken by image analysis, 3 reps.
Dr. Jeff Hoy, LSU Sugarcane Plant Pathologist

2013 Sugarcane Fungicide Study

Gravois Farms, Pailina, LA



Treatment	Cane Yield (Tons/A)	TRS Sugar (lb/Ton)	Sugar Yield (lb/A)
Untreated Check	42.5	198.4	8425
Headline 6 fl oz/A + Caramba 8 fl oz/A	42.7	198.7	8455
Headline 9 fl oz/A + Caramba 8 fl oz/A	42.6	194.1	8266
Headline 9 fl oz/A + Caramba 12 fl oz/A	43.2	198.3	8573
Quilt Xcel 16 fl oz/A	42.1	201.2	8485
	NS	NS	NS
F-Value	0.9663	0.9307	0.8522

2 reps.

2013 Brown Rust Fungicide Trial

LSU AgCenter (Mike Hebert), Gravois Farms

Thibodaux, LA

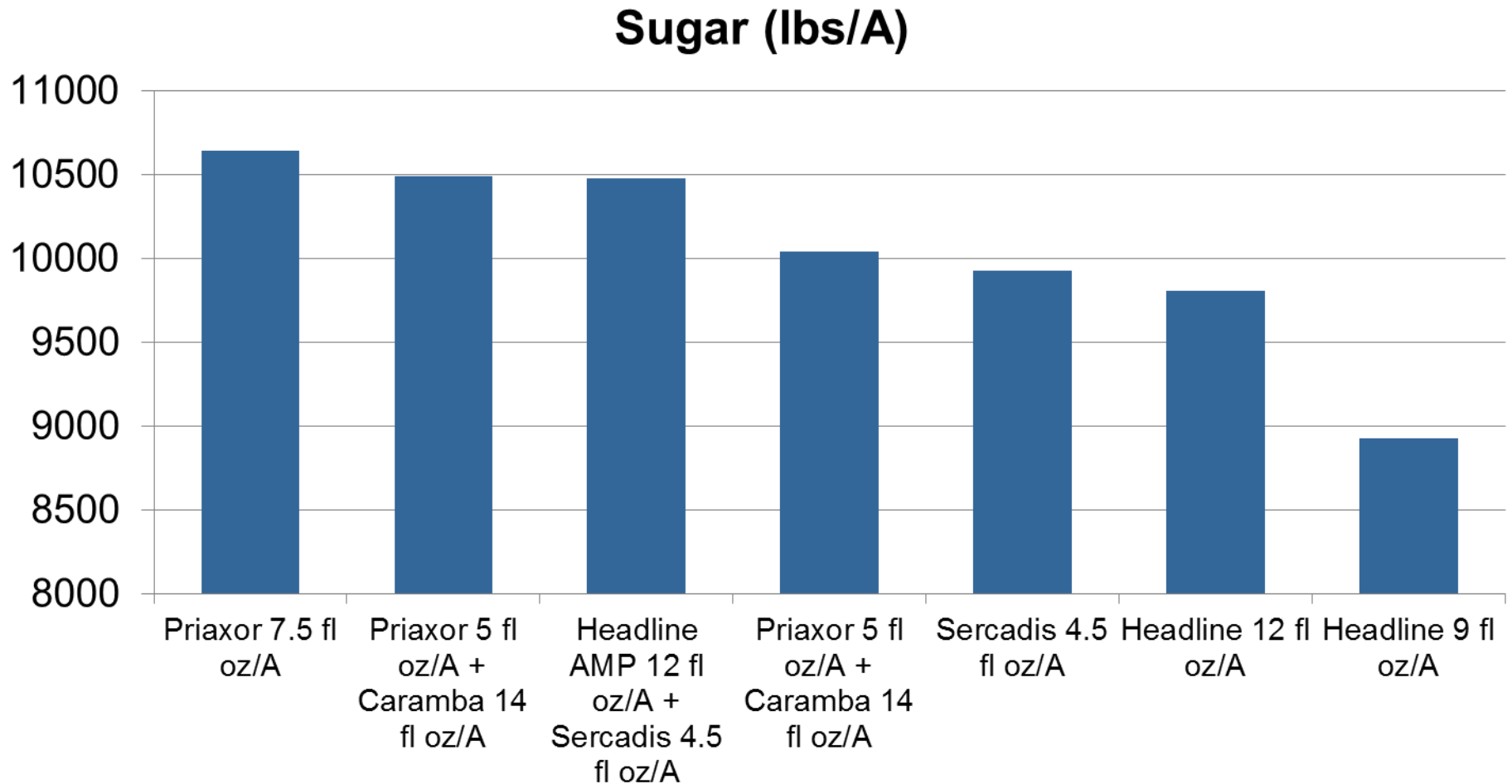


Treatment	Tonnage (T/A)	TRS (lb/T)	Sugar (lb/A)
Control (Check)	56.7abc	186.7ab	11,072a
Headline 6 oz. (1x)	49.4c	184.3ab	9,618a
Headline 6 oz. + Caramba 8 oz.	58.7ab	208.4a	11,862a
Headline 9 oz. + Caramba 8 oz.	59.9a	168.7b	10,193a
Headline 12 oz. + Caramba 8 oz.	53.5bc	188.9ab	10,094a
Quilt XL 16 oz.	60.0a	174.7b	10,445a

Numbers within a column that have the same letter are not significantly different ($P=0.05$). There were two replications for most treatments and each replication was sampled 4 times, so each mean is an average of eight values. Note that there was only one replication of the Control (check) and the Headline 6 oz. (1x) treatments so these means are an average of four values.

2012 Research Trial Comparing the Efficacy of BASF Fungicides

LSU AgCenter, St. Gabriel, LA



Sugarcane Priaxor 2012

Unt. vs Priaxor

 **BASF**
The Chemical Company





The Chemical Company