

Rust & Smut Causing Trouble

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Rust affected field of LCP 85-384





Rust Impact During 2006

- LCP 85-384 planted on 70% of acreage (322,000 acres).
- Survey on 5/11/06, 22% of fields with rust (101,200 acres) - would need early treatments.
- Rust spread to most 384 during June (~300,000 acres).
- 10% loss affecting 70% of acreage would cause \$20 million loss.

2006 Yield Loss due to Rust in LCP 85-384 Plant Cane

Treatment	Tons of cane per acre	Sugar per acre (lbs.)
No fungicides	28.2	7,011
Fungicides applied: April, May, & June	33.8	8,170



Fungicide Research During 2006

- Major rust epidemic offered big opportunity to conduct fungicide research.
- Two experiments begun in April; 5 treatments, up to 4 applications.
- Four experiments begun in June; variable treatments, 1-2 applications.

Fungicide Efficacy Test



Rust Infection in Spring Fungicide Efficacy Experiments

Treatment	St. Mary	Terrebonne
Non-treated control	14.3	27.1
Folicur	13.7	24.8
Headline + Folicur	2.4	10.1
Quadris	4.8	13.9
Quilt	4.2	13.3
Stratego	4.6	14.9

Cost Effective Fungicide Treatments

Fungicide	St. Mary		Terrebonne	
	> 1 ton of cane	> 1,000 lbs. sugar	> 1 ton of cane	> 1,000 lbs. sugar
Folicur	2	1	0	1
Headline + Folicur	4	5	5	5
Quadris	3	3	2	3
Quilt	2	2	0	3
Stratego	4	3	3	3

Rust severity in June start fungicide efficacy experiment.

Treatment	St. James	Rapides
Non-treated	5.0 A	6.2 A
Folicur 6 oz	2.5 B	3.9 B
Headline 6 oz	2.0 B	1.7 C
Headline 9 oz	2.0 B	1.5 C
Headline 12 oz	1.5 B	1.4 C
Headline+Folicur	1.4 B	1.4 C
Quadris 12 oz	2.4 B	1.5 C
Quilt 16 oz	2.1 B	1.6 C
Stratego 18 oz	2.5 B	2.0 C



June Start Fungicide Trial Results

- Fungicides reduced rust severity in three experiments.
- Rust spread was already decreasing due to hot weather.
- Yield increases not detected.
- Late starting epidemics may not need to be treated.



Current Fungicide Situation

- Some fungicides identified that reduce rust severity.
- Fungicide combinations provide best control.
- Multiple applications will be necessary to control rust during the spring.
- June start applications provide some control, but rust infection naturally slowed by hot weather.



Current Fungicide Situation

- Section 18 Emergency Use Label sought for three fungicide combinations: Headline + Caramba, Headline + Muscle, & Stratego.
- Results from 2006 positive, but more testing needed.
- BASF and Bayer interested in pursuing use labels.
- **At this time, nothing is labeled for use during 2007.**

What will happen in the future?

- Rust continues to be major problem.
- Rust returns to minor disease status.
- Rust becomes a cyclical problem.
- Determining factors: durability of new varieties, availability of fungicides, and the severity of winter freezes.
- Resistant varieties best rust control measure.

Will we see this during 2007?



Rust Epidemic During 2007?

- Much less LCP 85-384 plant cane.
- Fall inoculum levels less than in 2006.
- Rust observed in Ho 95-988 during fall.
- Early December freezes.
- More freezes to come?
- 2007 epidemic will probably be less severe than 2006 epidemic.
- Expect to be able to do some research.

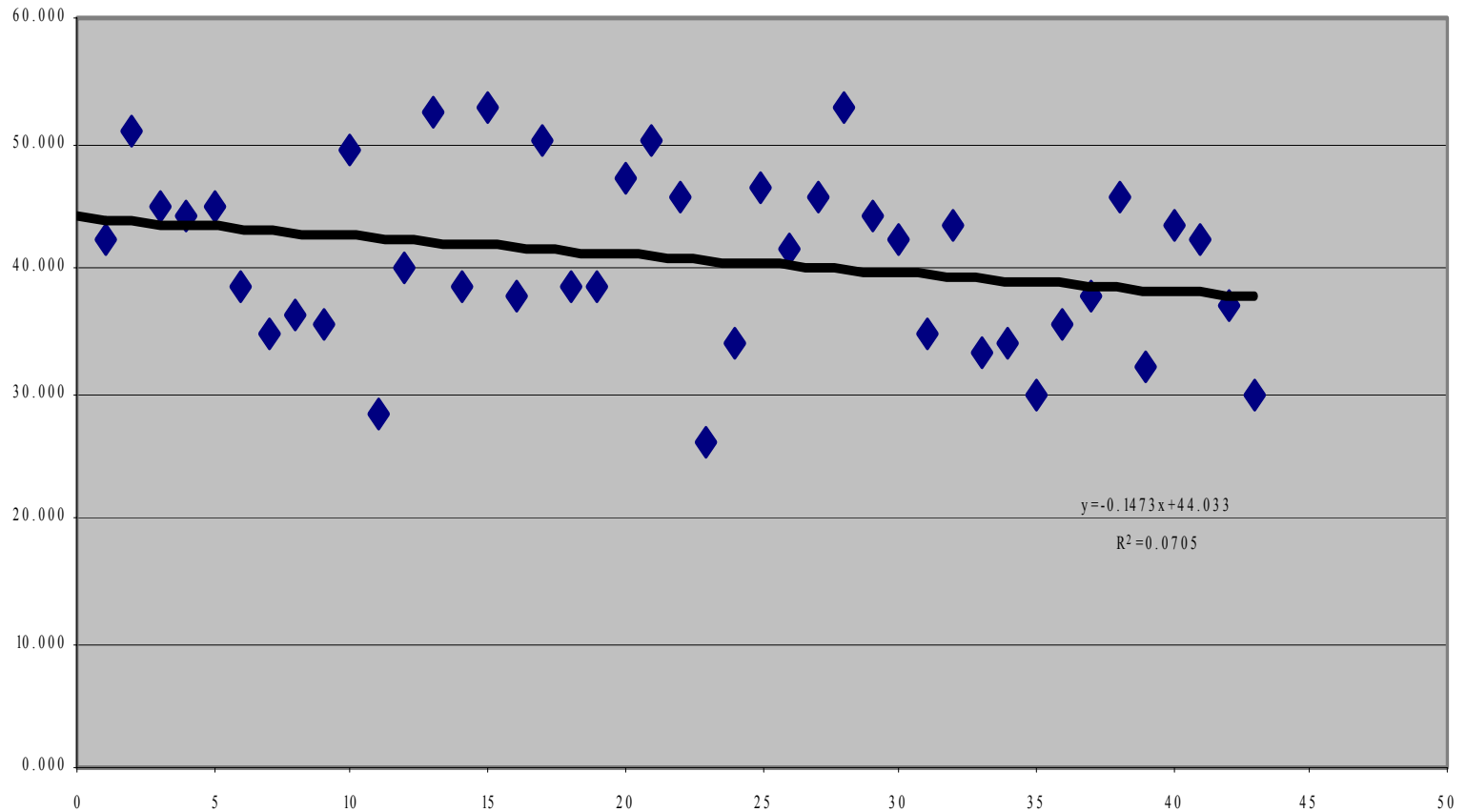
Is Smut a Threat to the New Varieties?



Is Smut a Threat to the New Varieties?

- Likely to see smut in Ho 95-988, L 97-128, L 99-226, & L 99-233.
- Conditions very favorable for smut increase during 2006.
- High levels of smut observed in some fields of L 97-128.
- Yield loss study conducted.

Effect of Smut on Tonnage Yield of L 97-128 during 2006





Conclusions:

- Smut can cause some yield loss.
- Still uncertain which varieties at greatest risk.
- We need the new varieties, & we need full productivity from them.
- Smut cannot be ignored.
- **Healthy seedcane program essential.**