

Brown Stripe, Mosaic, Stand Problems, and Billet Planting

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Plant Pathology and Crop Physiology

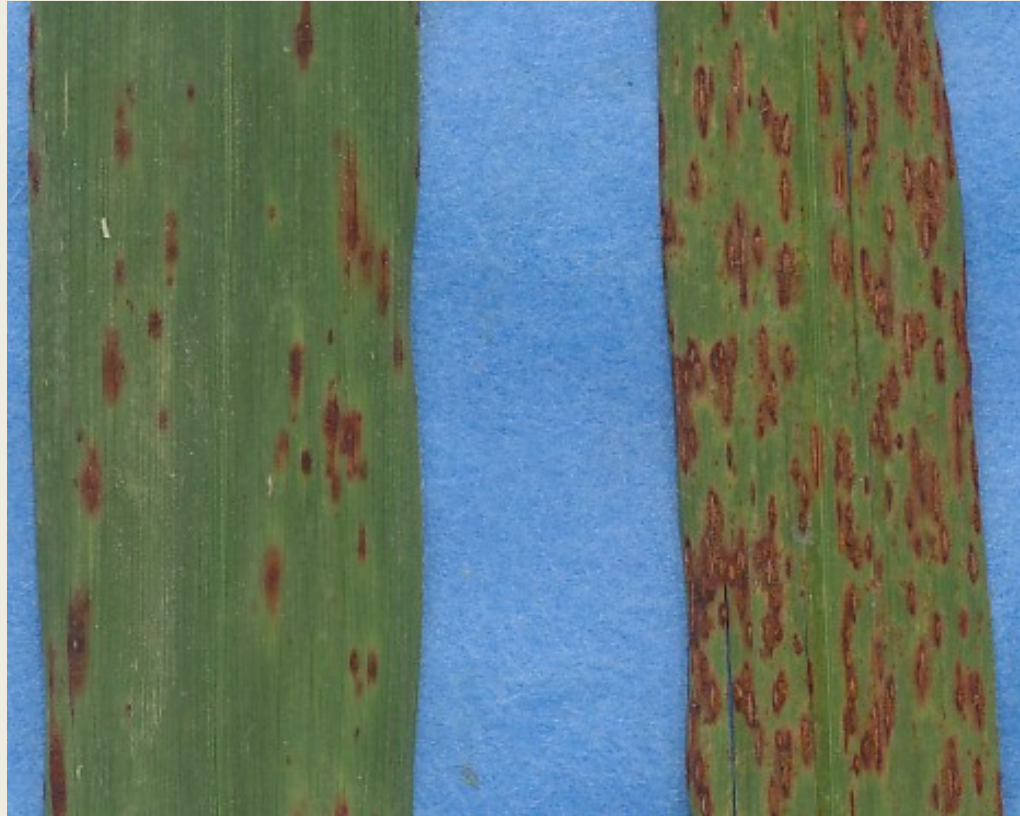


Brown Stripe (*Bipolaris*)



Looks like brown rust but no pustules on leaf underside and usually has yellow “halo” around lesions

Brown stripe in L 01-299

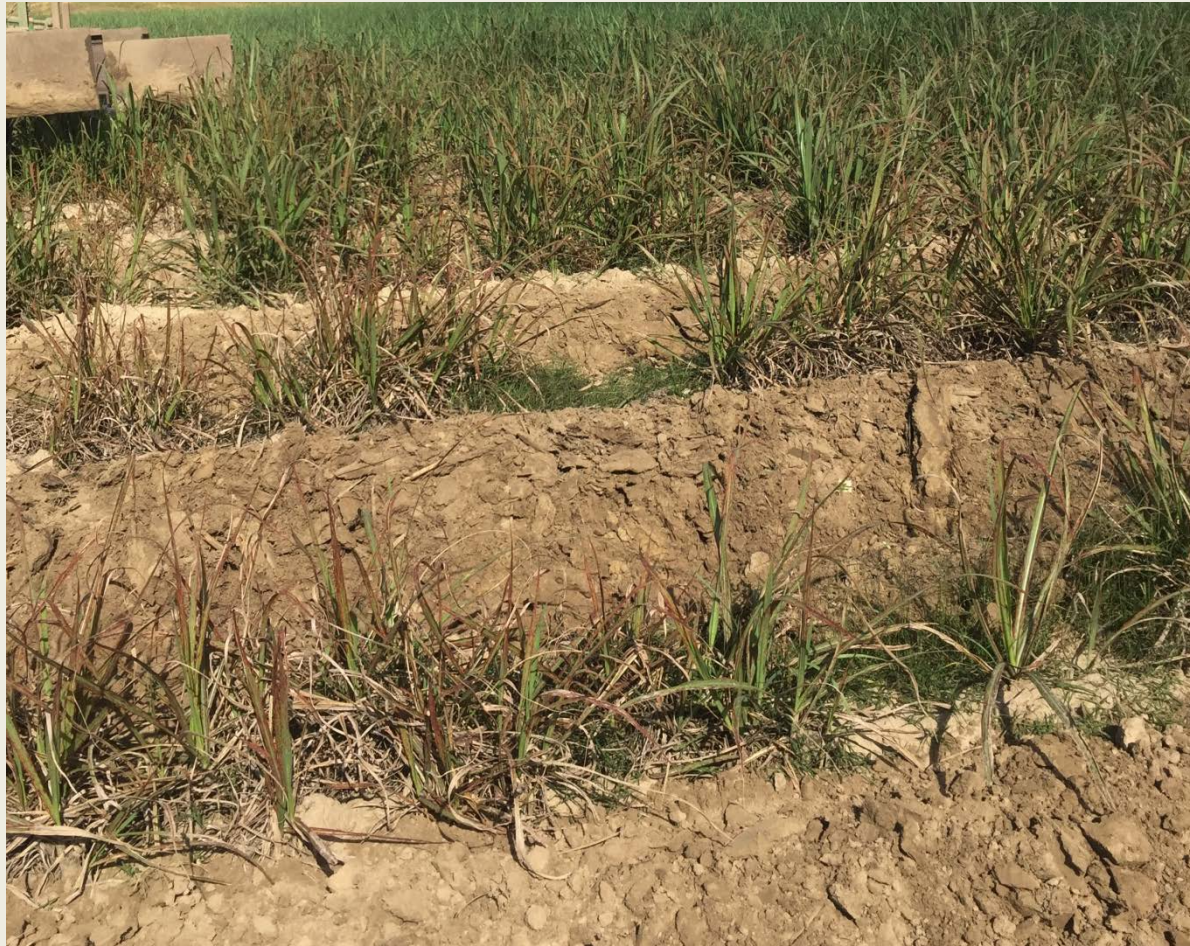


Compared to brown rust

Severe brown stripe symptoms?



Putting the hurt on 299



R. Viator image

Putting the hurt on 299



R. Viator images

What makes brown stripe severe?

- Low fertility
- Herbicide injury
- Cut for seed cane

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Most severe when crop producing early growth – mild winter and warm spring

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Need your observations

What about mosaic?



- Interspersed light and normal green colors
- See in young leaves in whorl
- **Much easier to see in May**

Mosaic in HoCP 09-804

- New, promising variety
- Mosaic detected at Secondary Stations in 2016



Change in infected plants in HoCP 09-804 first stubble

Location	2016 infection level	Change infected plants
Raceland	1.2%	+97%
Cedar Grove	1.3%	+70%
Alma	2.5%	+24%
Glendale	0.9%	-27%
Glenwood	1.4%	-32%
Little Texas	10.4%	-41%
Blackberry	0.5%	-62%

Screening breeding program parents for mosaic resistance



Rub juice from infected leaves onto leaves of parents

What happens now?

- Going forward with HoCP 09-804
- Paying attention
- Research and surveys
- Losing some good potential varieties
- Eliminating sources of susceptibility

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- **Should get back on top of situation**

How much of this did you see?



How much of this did you see?



Any pattern?

Stalk Rot



Stalk Rot



What is doing the dirty work?

Usual suspects

- Red rot
- Fusarium sett rot
- Pineapple disease
- Phytophthora seed piece rot

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New player in the game?

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**Widespread new disease
unlikely**

Winter kill to follow?



Winter kill to follow?



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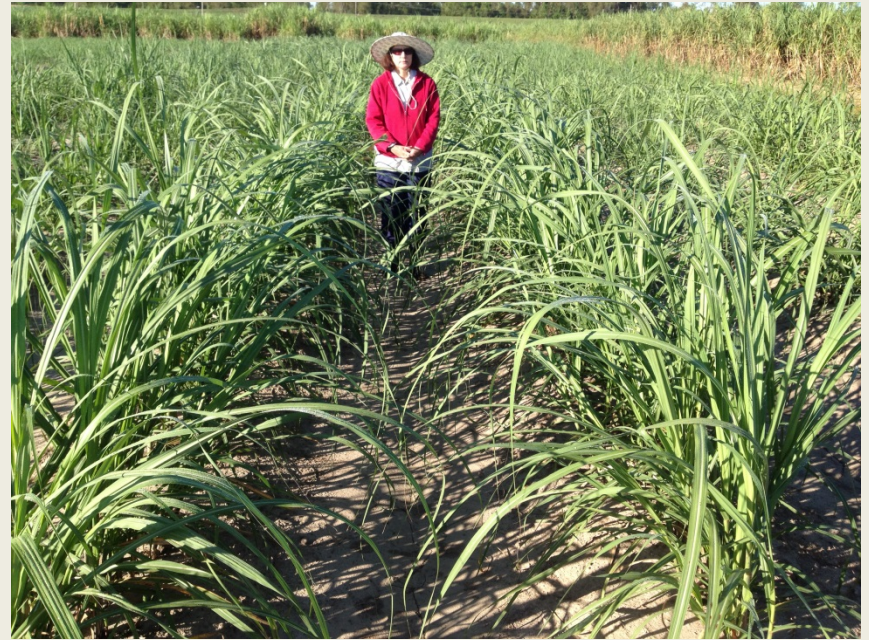
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What is going on with billet planting?

- Many new planters (>30)
- Long billets with little damage
- Seed treatment chemical work promising
- New potential chemical application method

Seed treatment chemicals continue to show promise



Improve stand establishment and increase stalk population

Seed treatment chemicals status

- Need both insecticide and fungicide
- Possible label for insecticide Platinum
- Cost?
- Application method?
- Need real-world field testing

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FMC 3Rive Technology



Foam: complete coverage with very little water

What's the situation?

- Lots of activity
- Billet performance has been good under stressful conditions
- More billets are going in the ground
- 2018 worst case scenario?