# New Developments in Billet Planting

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# Billets suffer more from any problem

Combination of multiple environmental stress factors interacting with stalk rot pathogens

# Red rot is coming for your billets!



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(If given the chance)

## Possible solutions??

- Avoidance
- Direct control

# How can we avoid rotting?

- Prevent physical damage
- Prevent environmental stress
- Promote good growth

# How can we directly control stalk rot?

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Seed treatment chemicals

#### **Chemical Seed Treatments 2021**

Platinum (thiamethoxam)

**Topguard Terra** (flutriafol)

Quilt Xcel (azoxystrobin+propiconazole)

**Trivapro** (propiconazole+azoxystrobin+benzovindiflupyr)

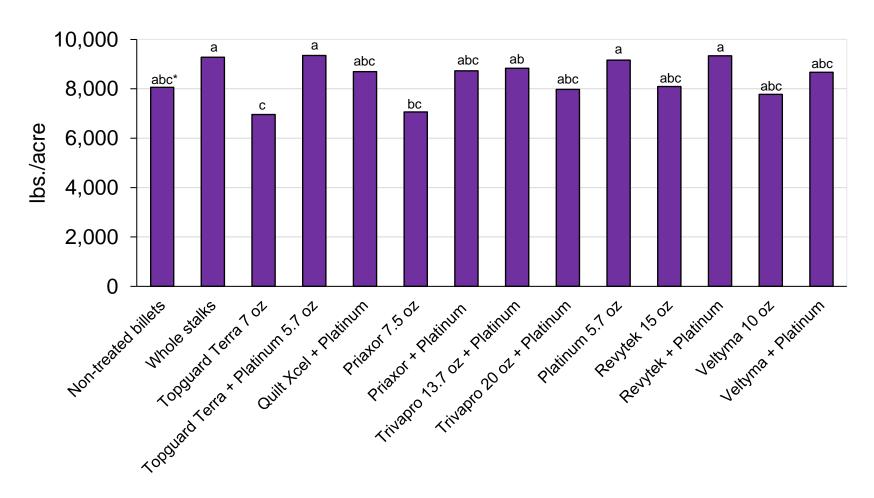
Veltyma (mefentrifluconazole+pyraclostrobin)

Revytek (Veltyma+ fluxapyroxad)

**Priaxor** (pyraclostrobin+fluxapyroxad)

#### **Chemical Seed Treatment - SRS**

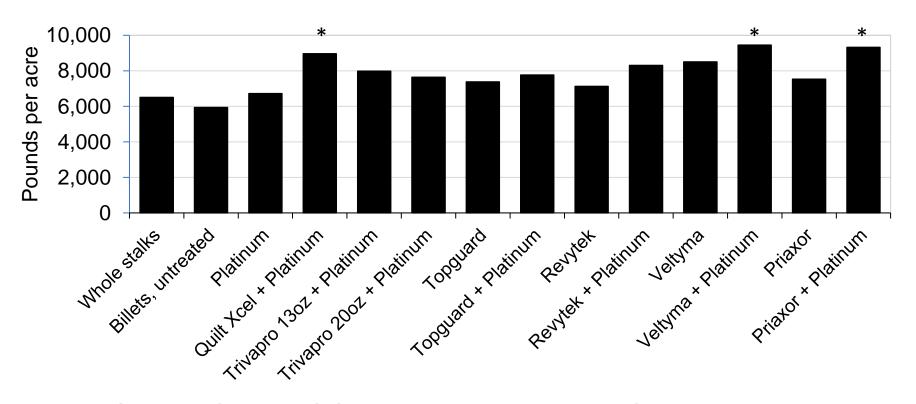
#### **Sucrose**



<sup>\*</sup>Bars followed by the same letter were not significantly different (P>0.05).

#### **Chemical Seed Treatment - Houma**

#### **Sucrose**



<sup>\*</sup>Bars with an asterisk are statistically greater than the untreated billet control at the 5% level.

As in past, fungicide + platinum insecticide increased yields compared to untreated billets.

# Greenhouse experiment



for 6 weeks

### Greenhouse experiment results



**Billet not treated** 



Billet treated with insecticide



**Billet treated with fungicides** 



Billet treated with combination of fungicides and insecticide

## Sterilized soil — inoculated billets

Treatment	Internode rot 1	Internode rot 2	Node rot
Non-treated	5.3 a	1.1 a	1.4 a
Fungicides	3.8 b	0.9 a	0.4 c
Insecticide	5.1 a	1.1 a	0.8 b
Fungicides + insecticide	2.1 c	0.2 b	<b>0.1</b> c

### On-farm test plant cane results from 2021

Treatment	Tons of cane per acre	Pounds of sugar per acre
Non-treated billets	39.4	7,430
Platinum alone	40.3	7,599
Quilt Xcel plus Platinum	43.7	8,220

(Fungicide applied by dip in Traube planter and insecticide applied by spray on covering tool)

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Third consecutive season with yield increase provided by application on-farm

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Fungicide alone can help

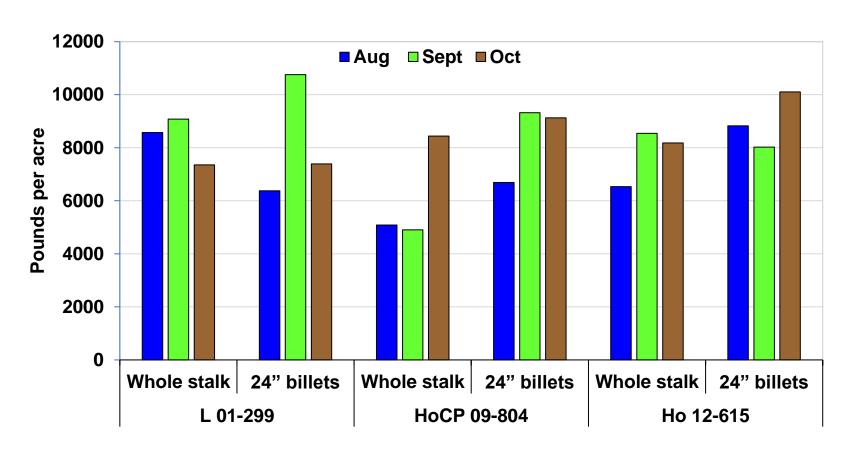
# Labeled fungicides

Fungicide	Suggested rate
Quilt Xcel	20 oz
Priaxor	9 oz
Revytek	12 oz

Need complete, thorough coverage (30-40 gal water per acre)

#### Date of planting x cultivar billet study





No significant differences detected at the 5% level of significance.

## Checklist for success

- ✓ Healthy seedcane
- ✓ Plant mid to late season
- ✓ Plant 3-4 eye billets with minimal damage
- ✓ Plant into good moisture
- ✓ Enough seed evenly planted
- ✓ Apply fungicide
- ✓ Cover well
- ✓ Provide good weed control and drainage

# Every year is different

- Have seen how billets do in widely varying conditions
- More stress means greater chance of adverse effects on stand and yield
- This season will be yet another different story line
- Late planting (during harvest) with shorter billets
- Very curious to see what the outcome is this spring

# Has the future arrived??



Billets here we come!