

# **Factors Influencing Seed Treatment Efficacy**

**Blake Wilson**

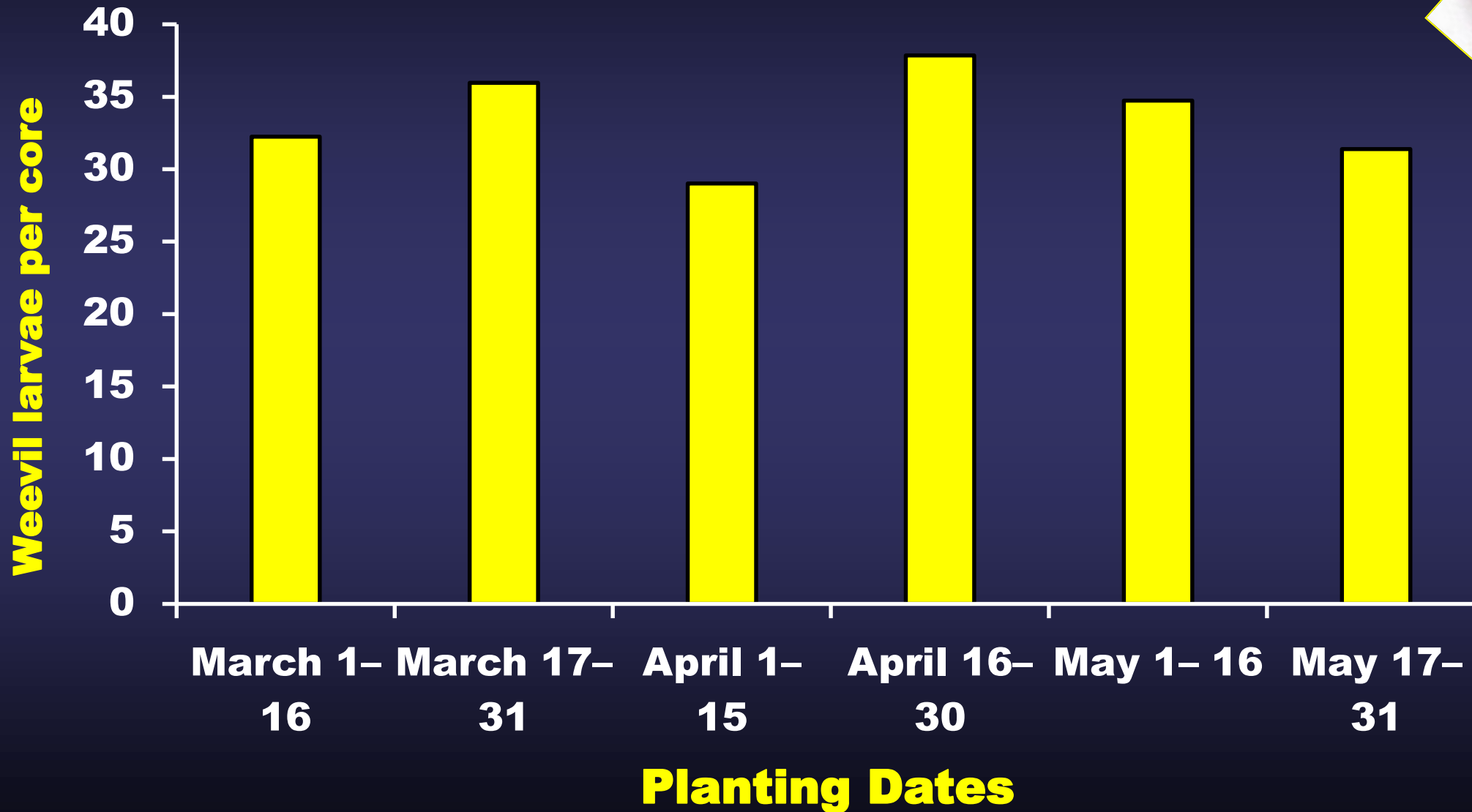
**Louisiana Agricultural Technology and Management  
Conference**

**Marksville, LA**

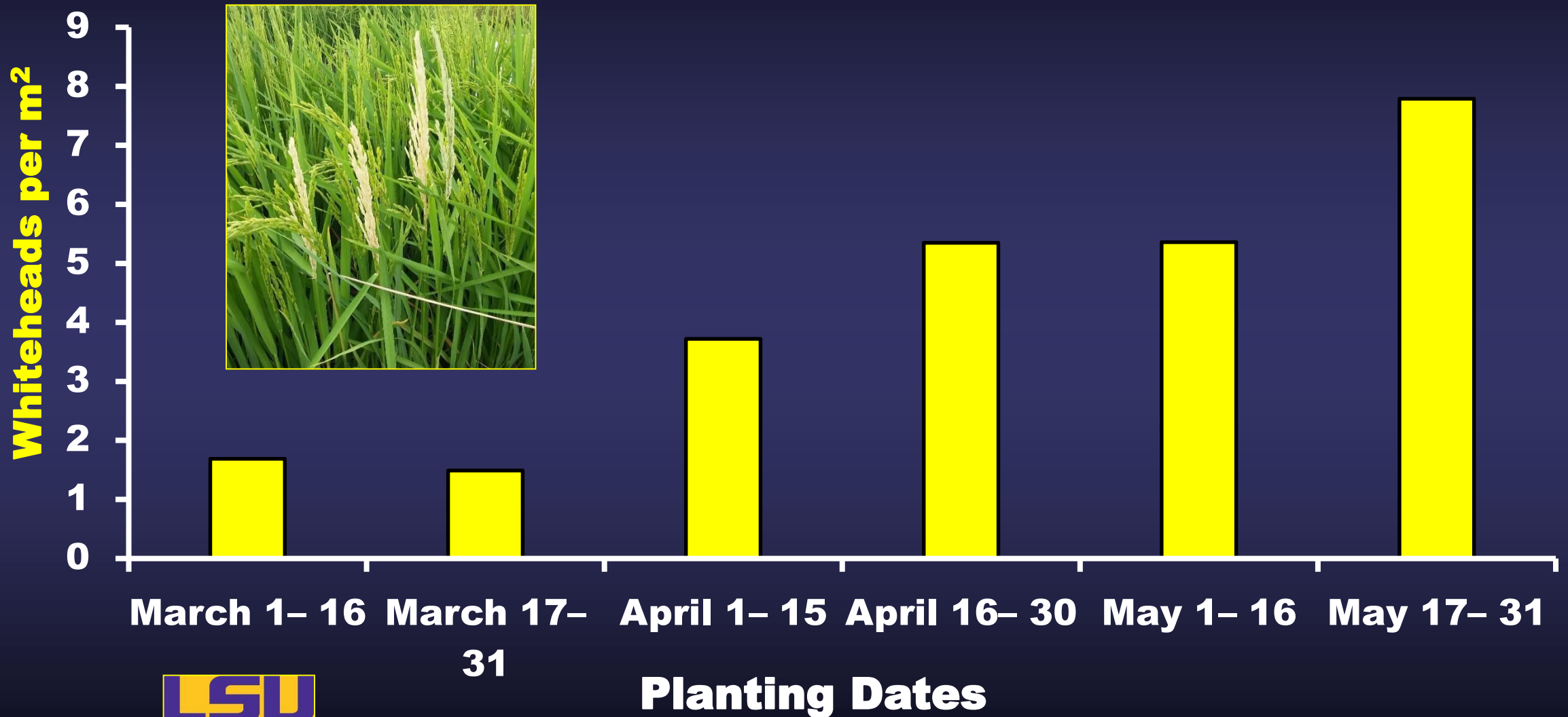
**February 10, 2023**

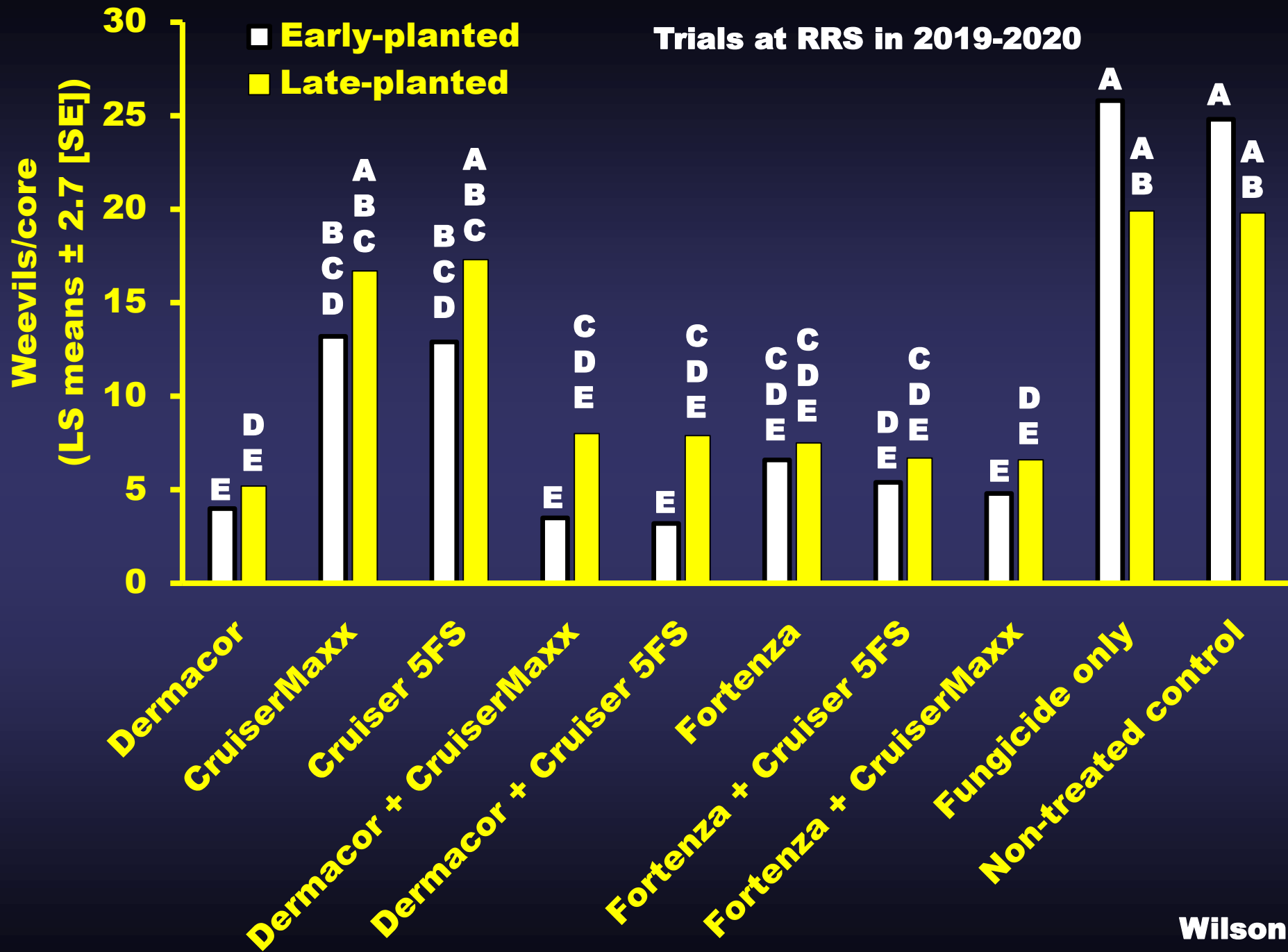


# Weevil infestations did not vary across planting dates (3 year field study, 2018-2020)

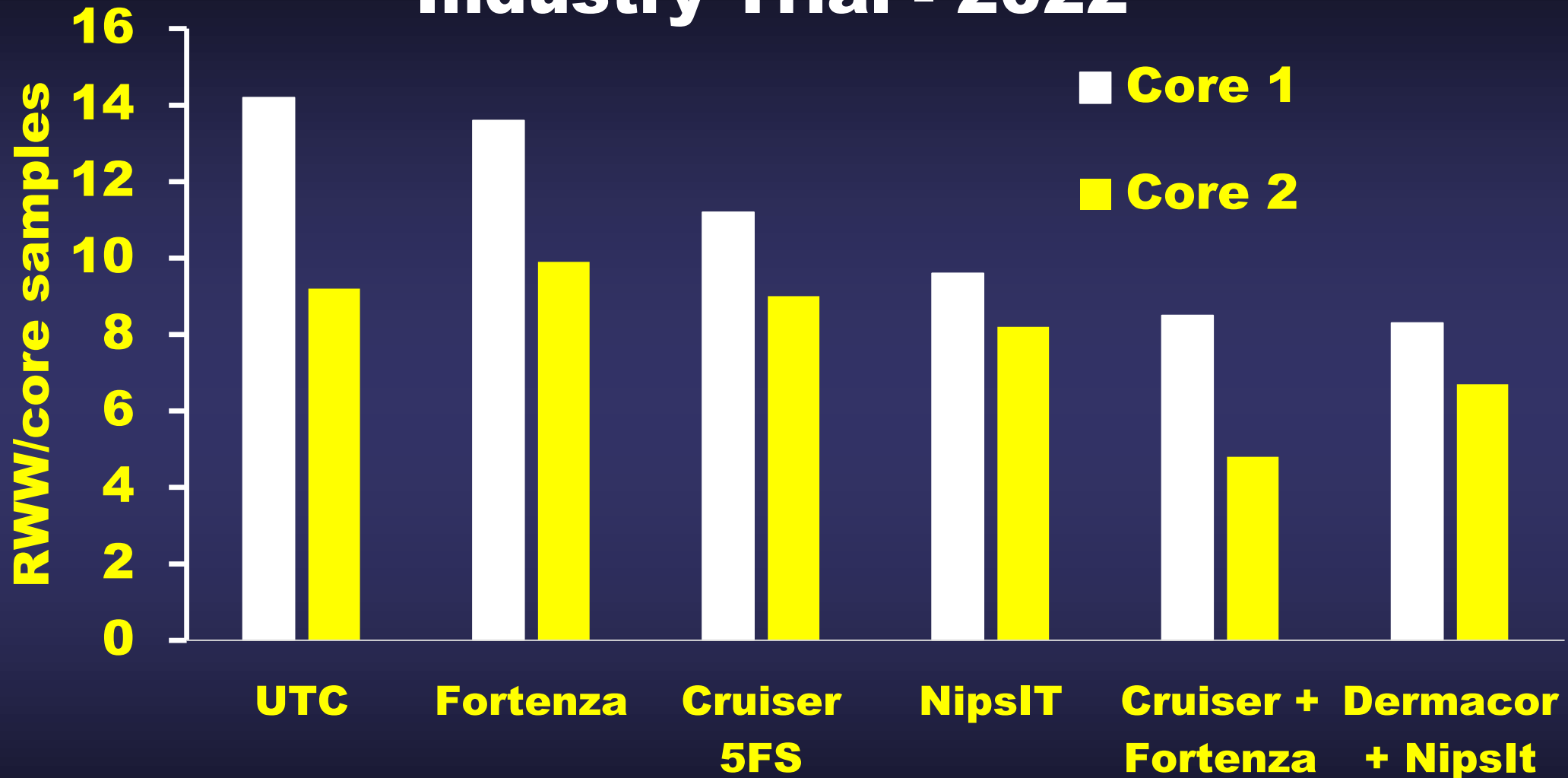


# Stemborer injury (whiteheads) increased at later planting dates





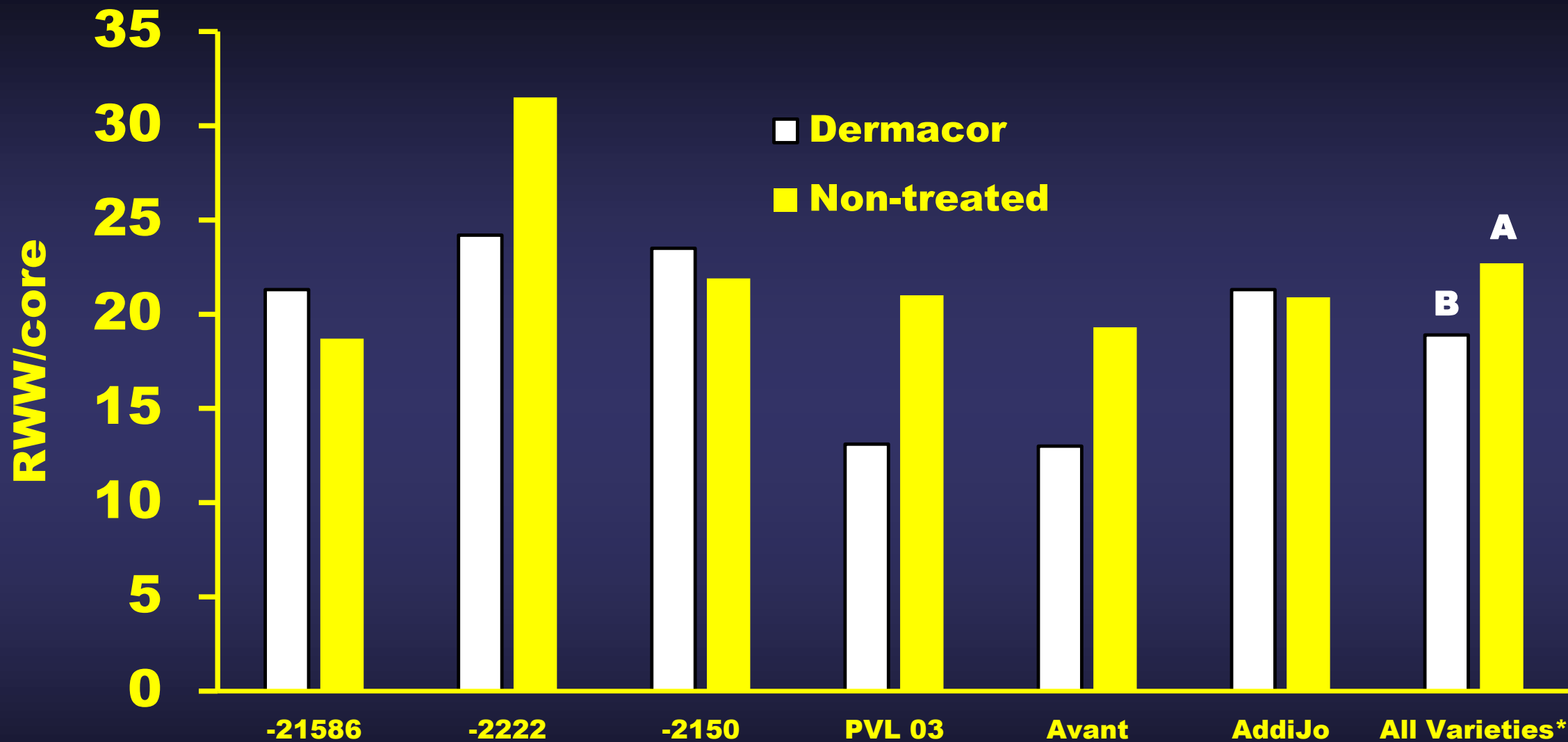
# Seed Treatment Efficacy Concerns Industry Trial - 2022



**Planted 29 April**  
**Flushed 18 May**

**No significant effect ( $P > 0.0$ ) at either date.**

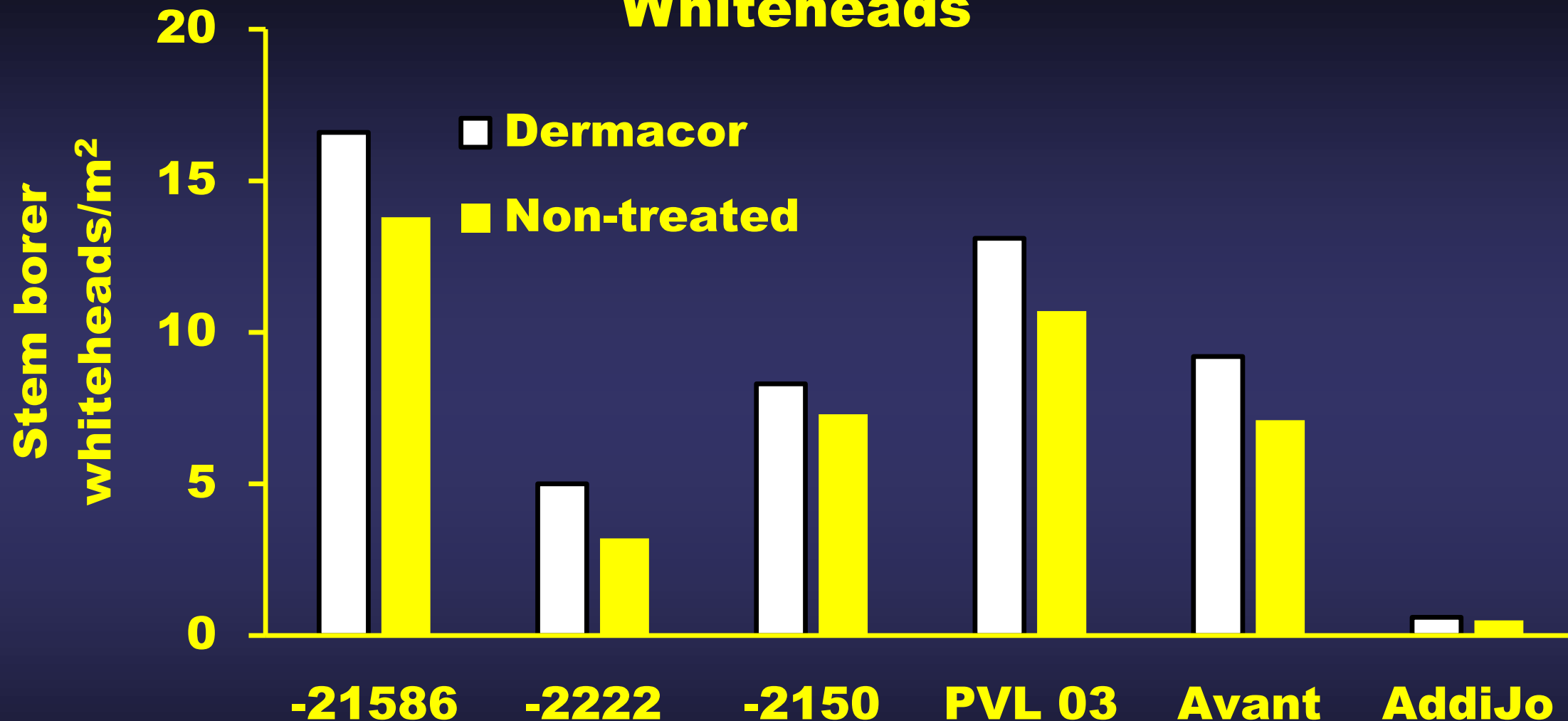
# Varietal Resistance Trial – RRS 2022



Planted 20 May  
Flushed 10 May and 22 May

Variety:  $F = 7.61$ ,  $df = 5, 48$ ,  $P < 0.001$   
Seed treatment:  $F = 8.61$ ,  $df = 1, 48$ ,  $P = 0.005$   
Var\*Trt:  $F = 1.66$ ,  $df = 5, 48$ ,  $P = 0.163$

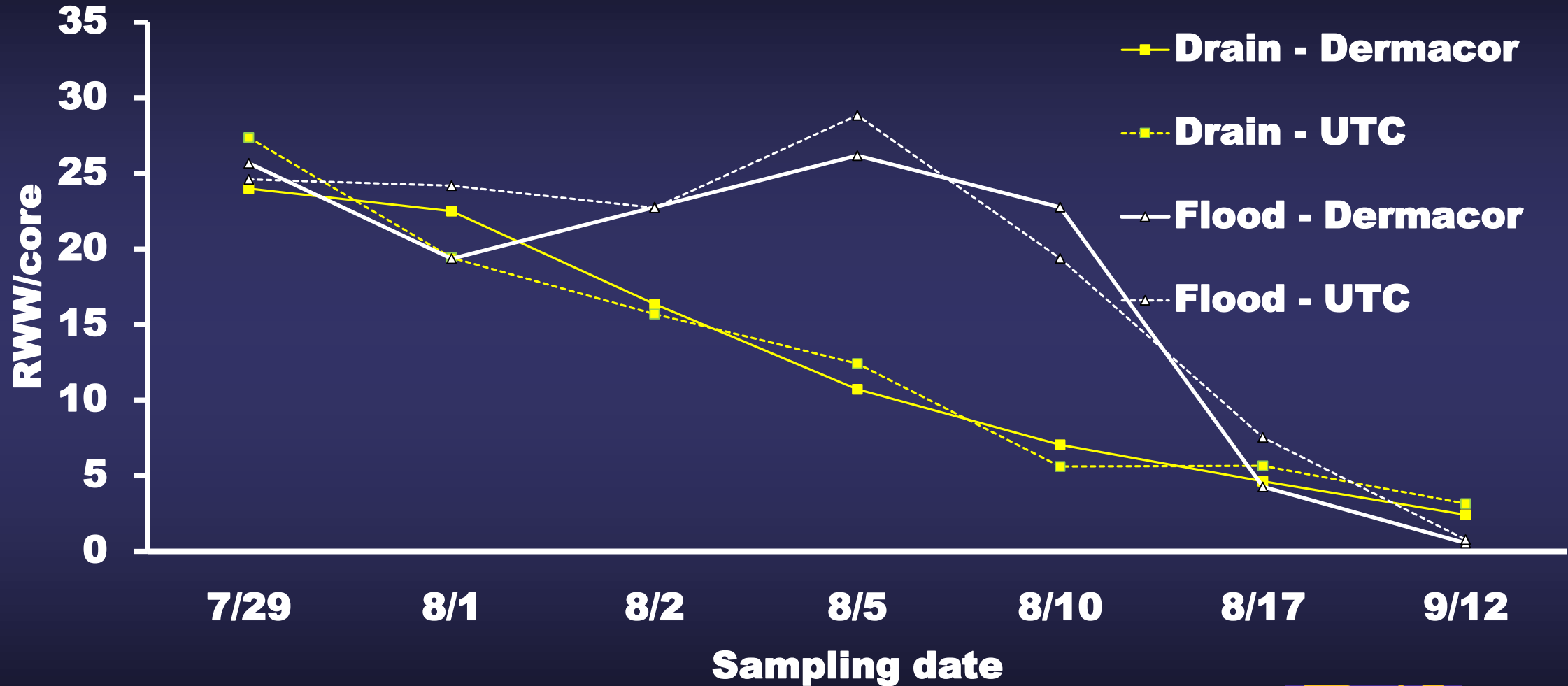
# Whiteheads



Planted 20 May  
Flushed 10 June and 22 June

Variety:  $F = 45.1$ ,  $df = 5, 48$ ,  $P < 0.112$   
Seed treatment\*:  $F = 6.97$ ,  $df = 1, 48$ ,  $P < 0.011$   
Var\*Trt:  $F = 0.37$ ,  $df = 5, 48$ ,  $P = 0.866$

# Draining to Control RWW



Planted: 7 June  
Flushed: 22 June, 6 July





# **Stem Borer Control Failures Late-planted, Dermacor-treated**



# Stem Borer Control Failures Late-planted, Dermacor-treated



# Should we be concerned?

**Observations do not suggest resistance.**

**Reduced efficacy seen in multiple pests and active chemicals.**

**Poor seed applications?**

**Possible, but not likely**

# Environmental Influences on efficacy

Treatment	% RWW control relative to UTC		
	No flush	1 flush	2 flushes
Mean*	46%	35%	32%

**\*Mean of Dermacor, Cruiser, and NipsIt**

**MS State Trials (Adams et al. 2015)  
Stoneville, MS 2011-2012  
May planted**

# **Environmental Influences on efficacy**

- **Heat**
- **Growth rate**
- **Water use (flushing)**
- **Flood timing**
- **Pest pressure**

# Seed Treatment Considerations

**Consider combinations in late-planted rice**

**Dermacor + Cruiser or NipsIt**

**Fortenza + Cruiser**

**Check treated rice for root health**

**Check for whiteheads**

**Consider foliar applications?**



**Thank you!**

**Questions?**



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