Plant Bug Management in Pre-blooming ThryvOn Cotton

Ben Thrash











Current Recommendations for TPB Pre-bloom

- Current threshold 8-12 TPB Adults per 100 sweeps
- 5-15% square loss tends to improve yields

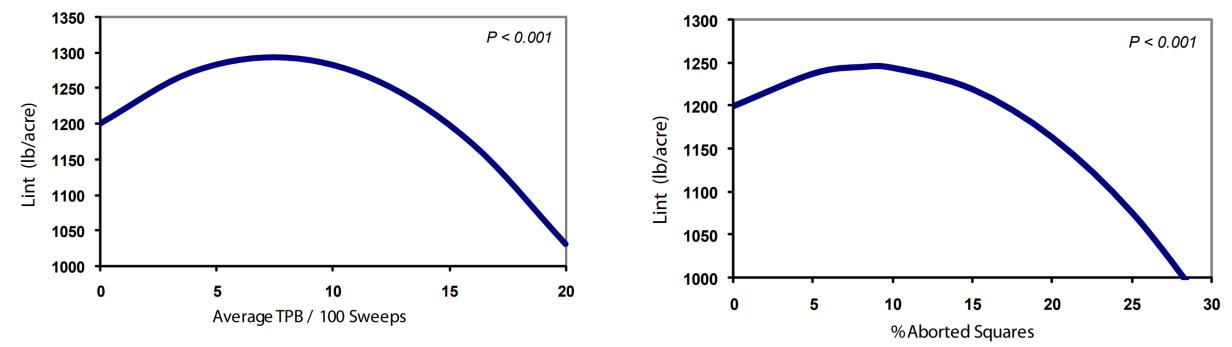


Figure 7. Regression analysis of yield response vs. average prebloom plant bug density across all 33 test locations.

Figure 8. Regression analysis of yield response vs. average prebloom square loss across all 33 test locations.

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TPB Adults 4-10x threshold

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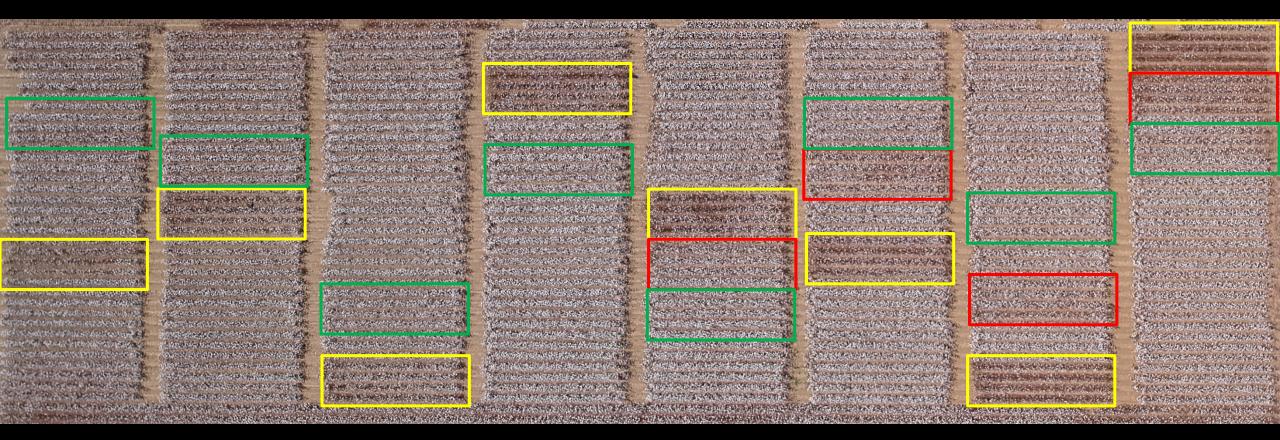
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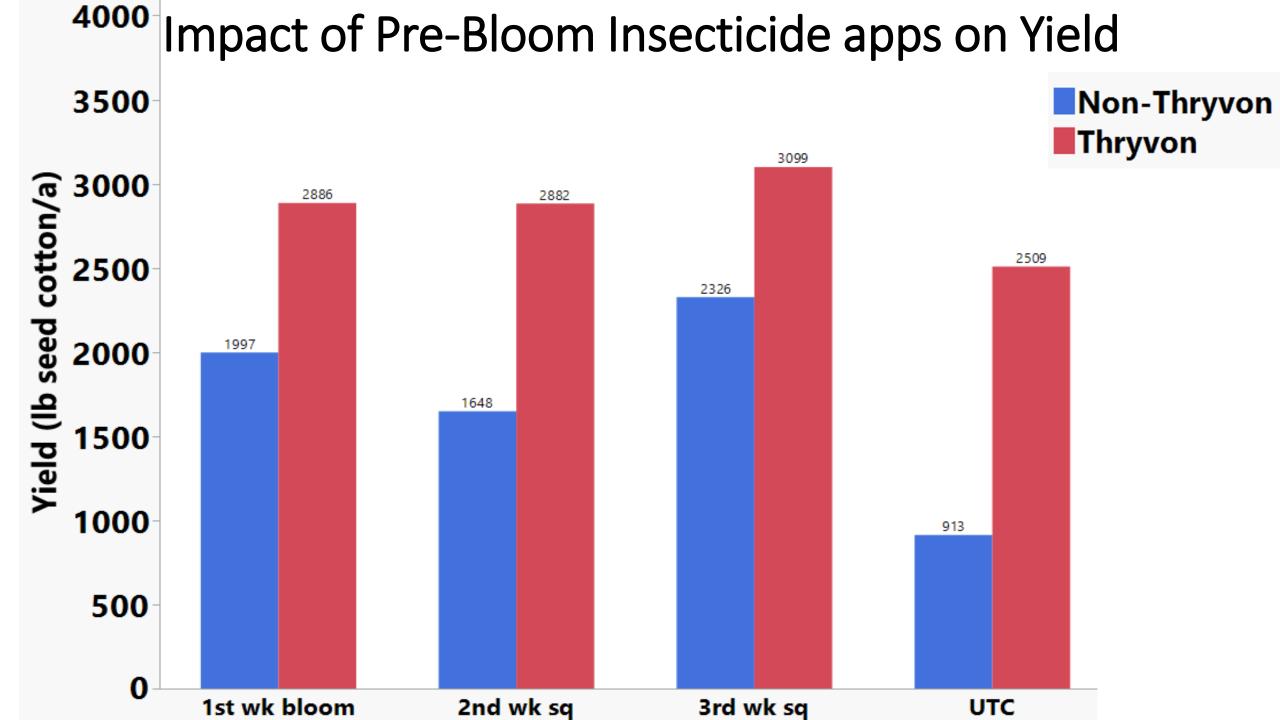
Non-ThryvOn with 3 post bloom apps

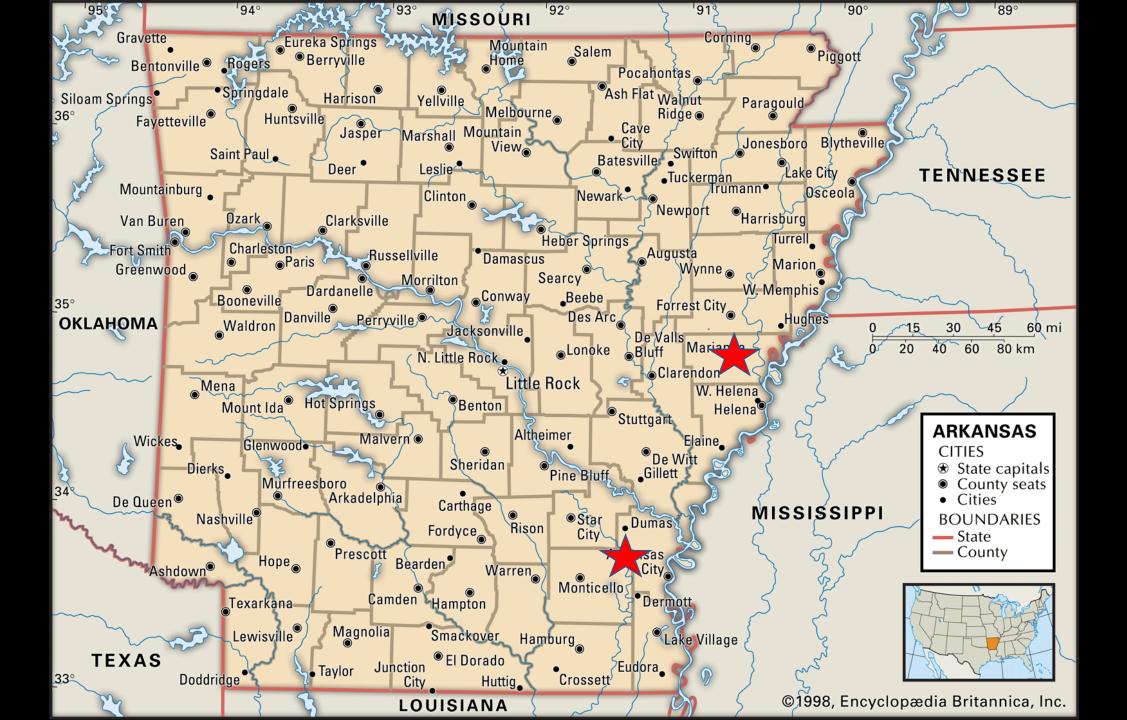
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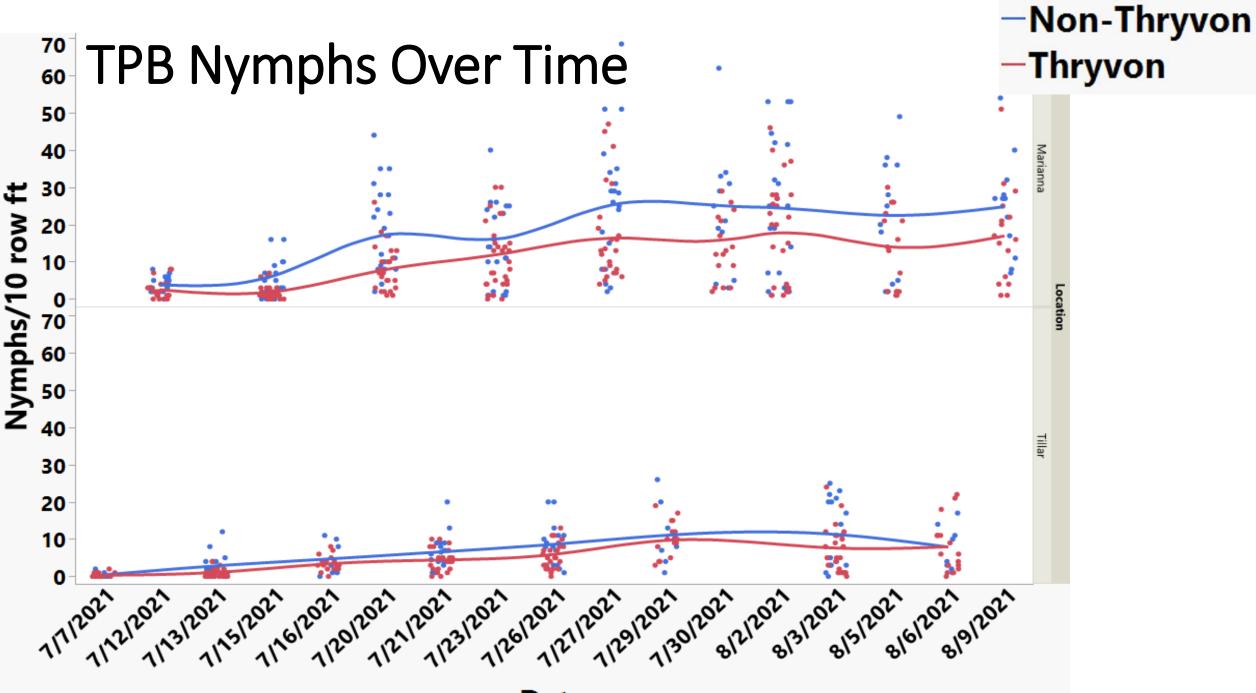
Untreated ThryvOn



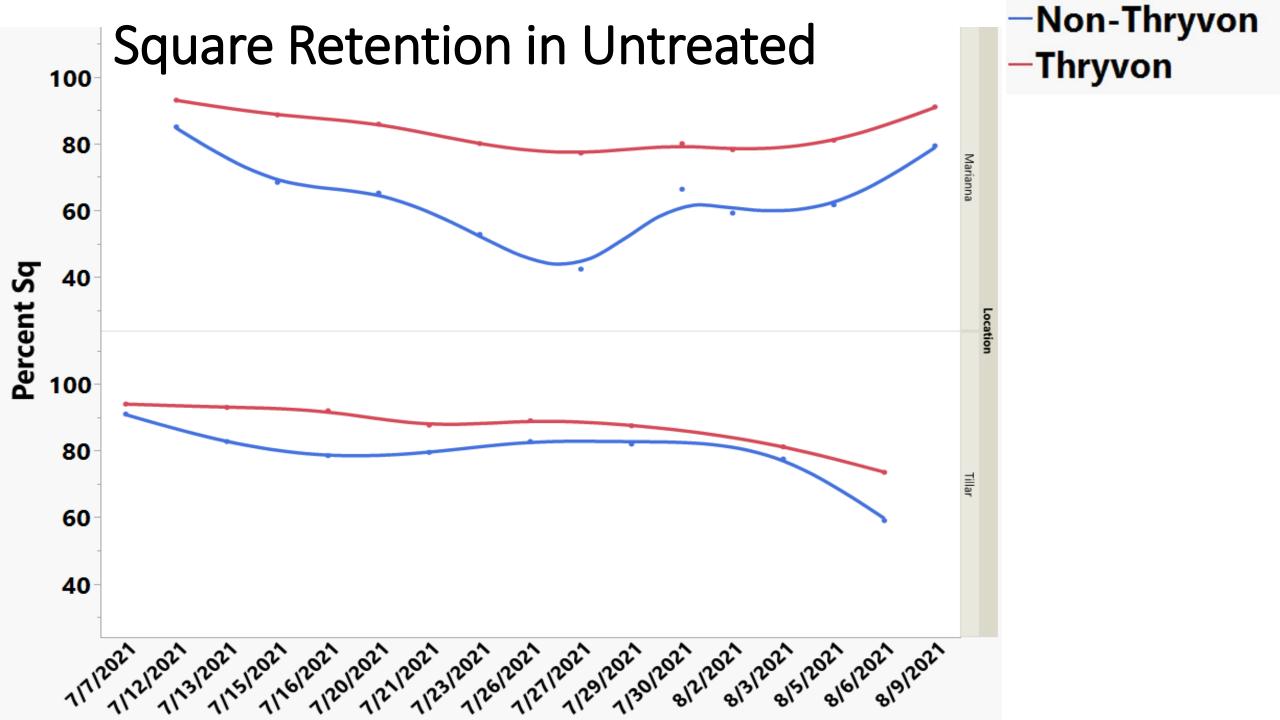
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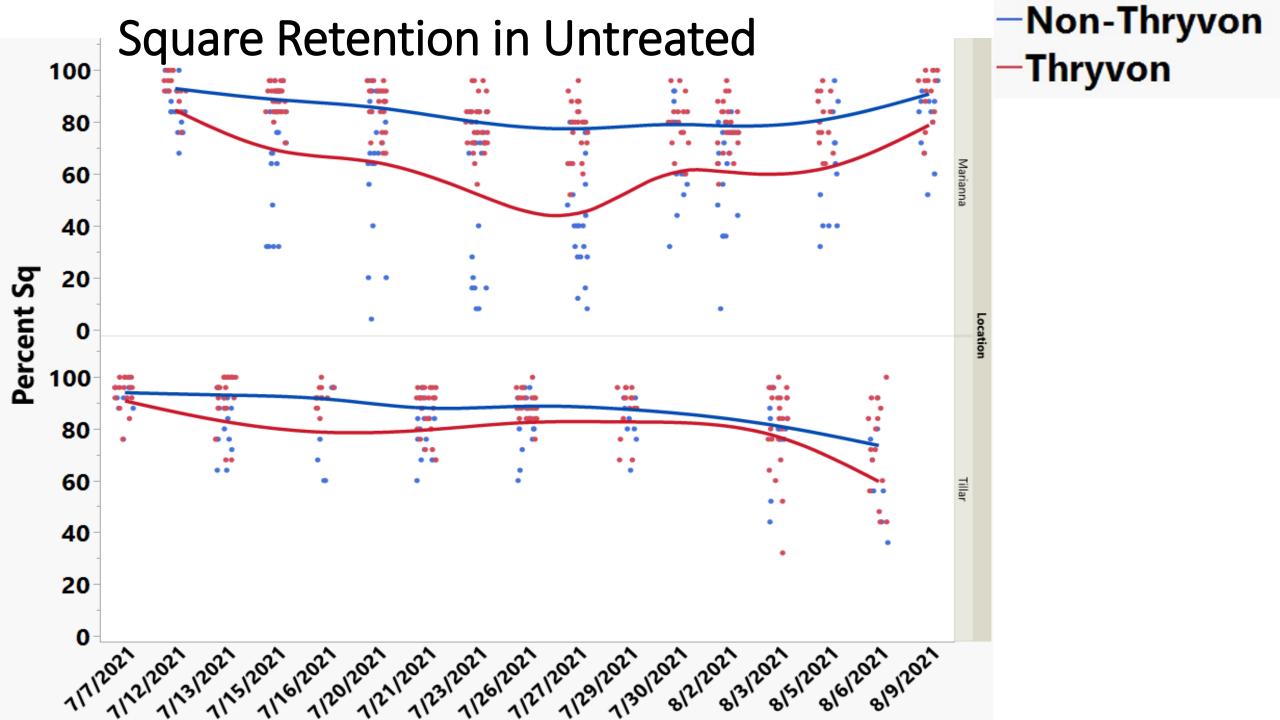


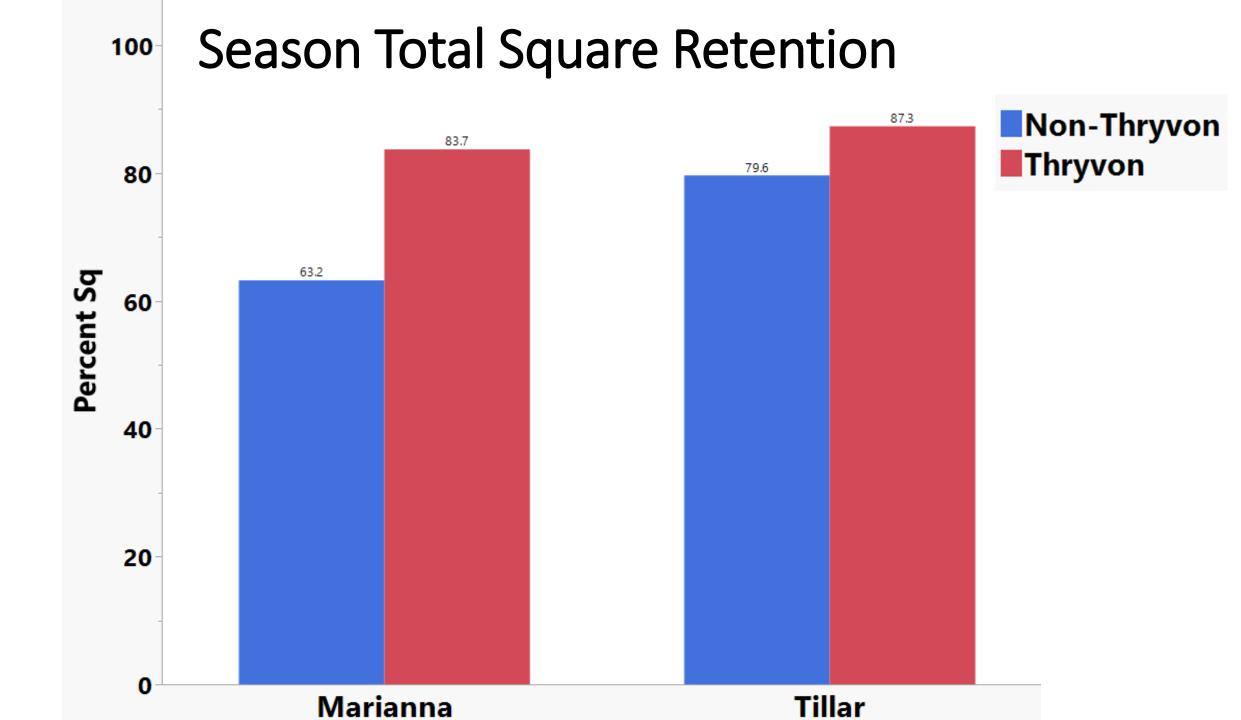


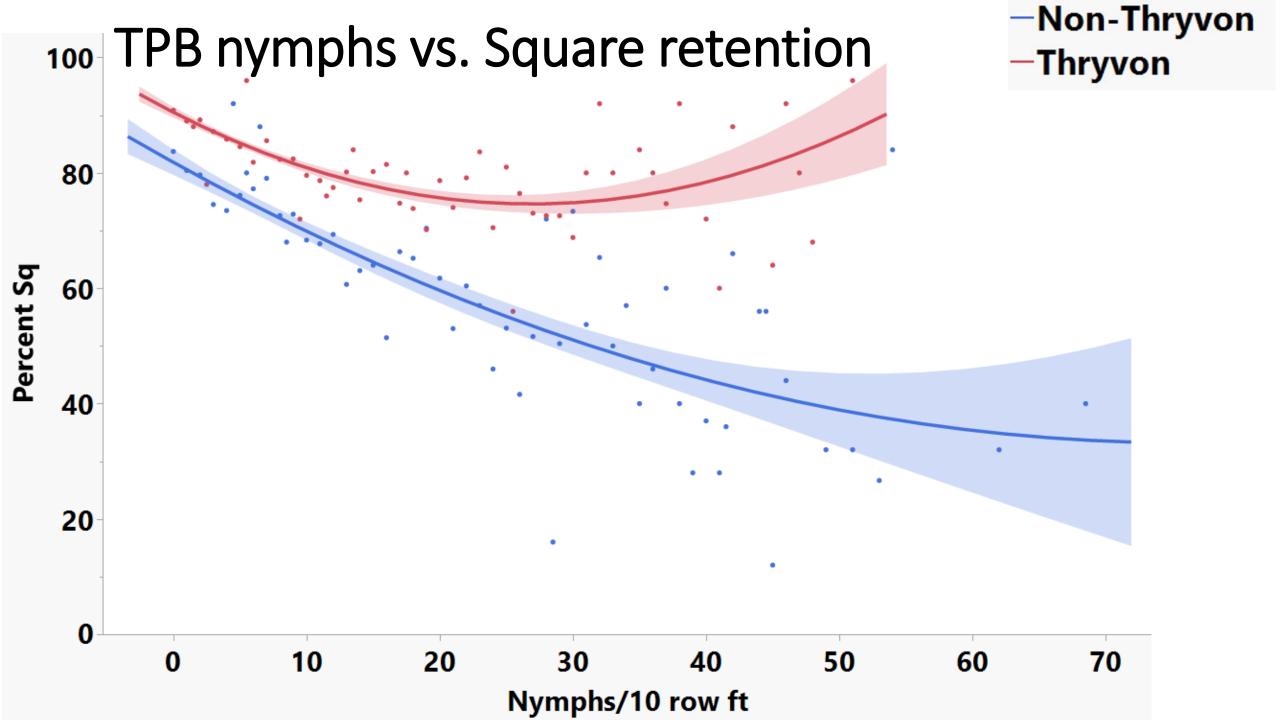


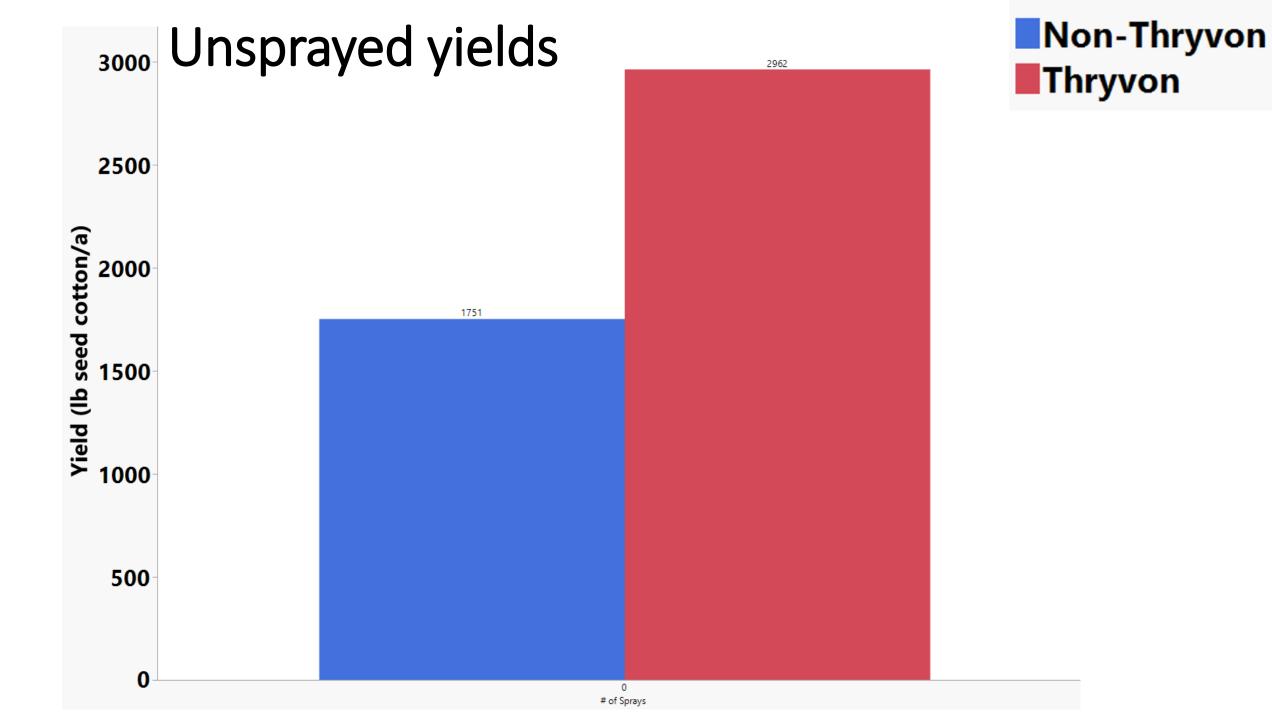
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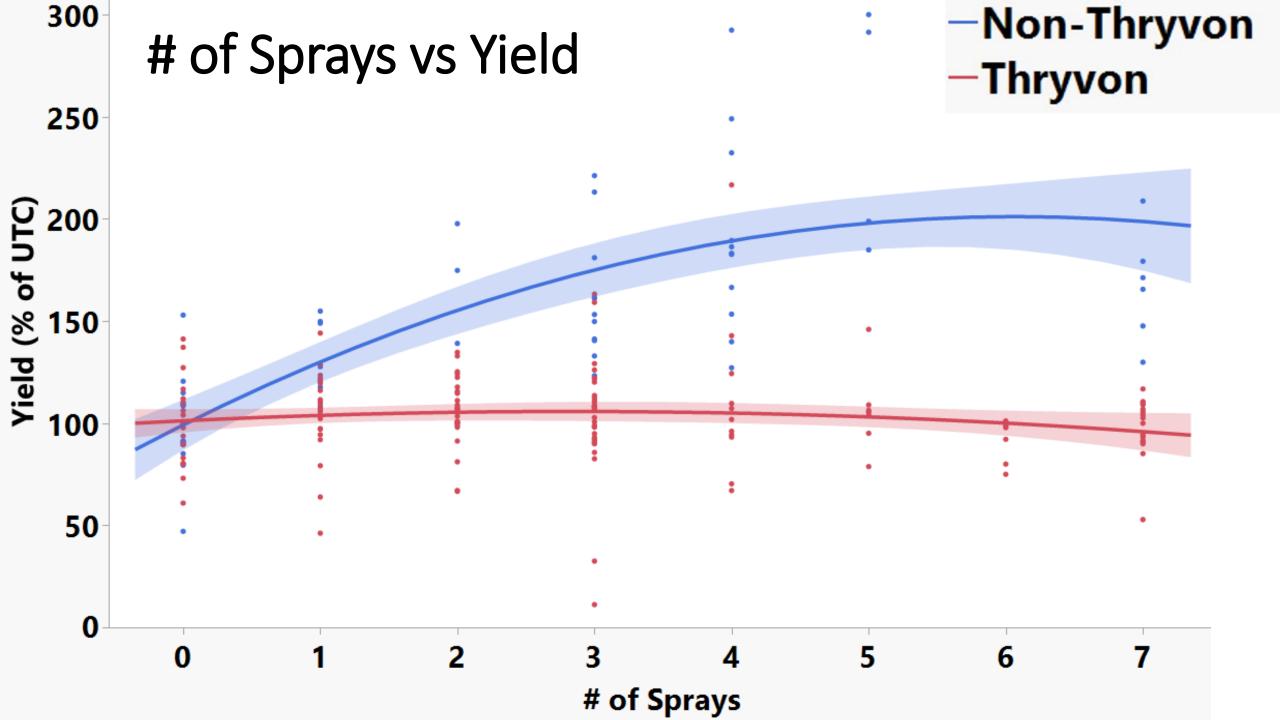


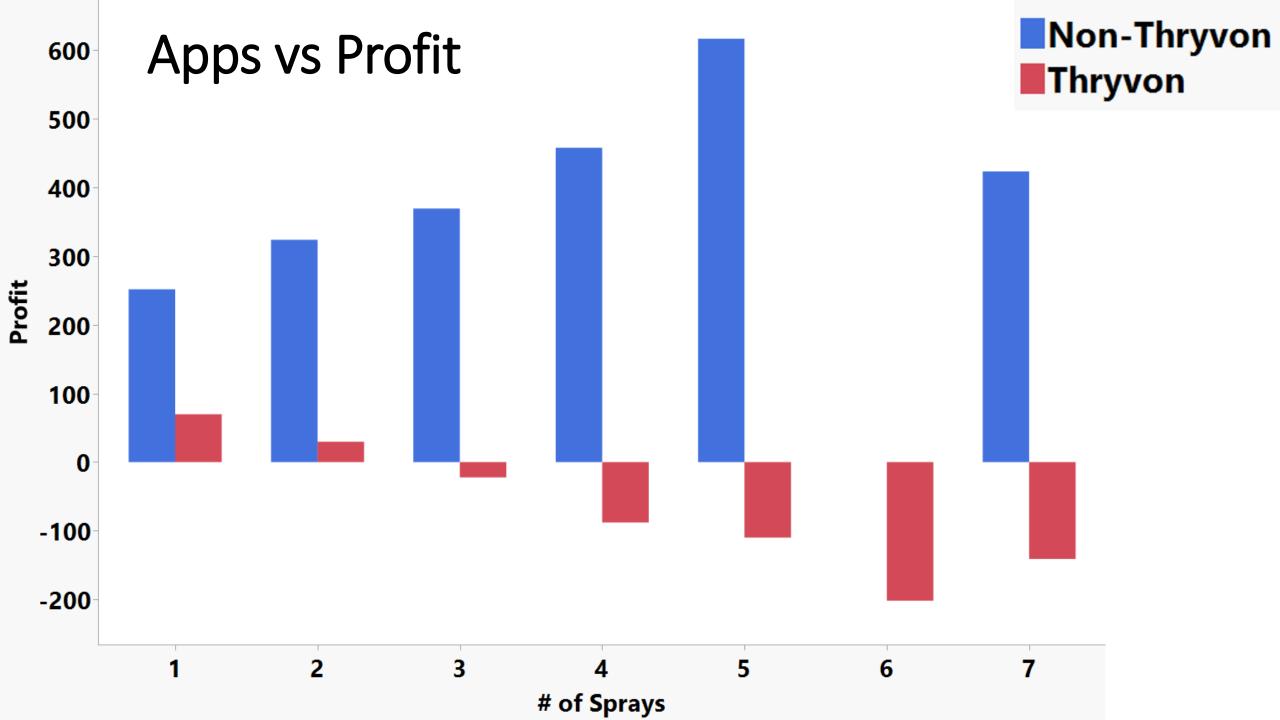




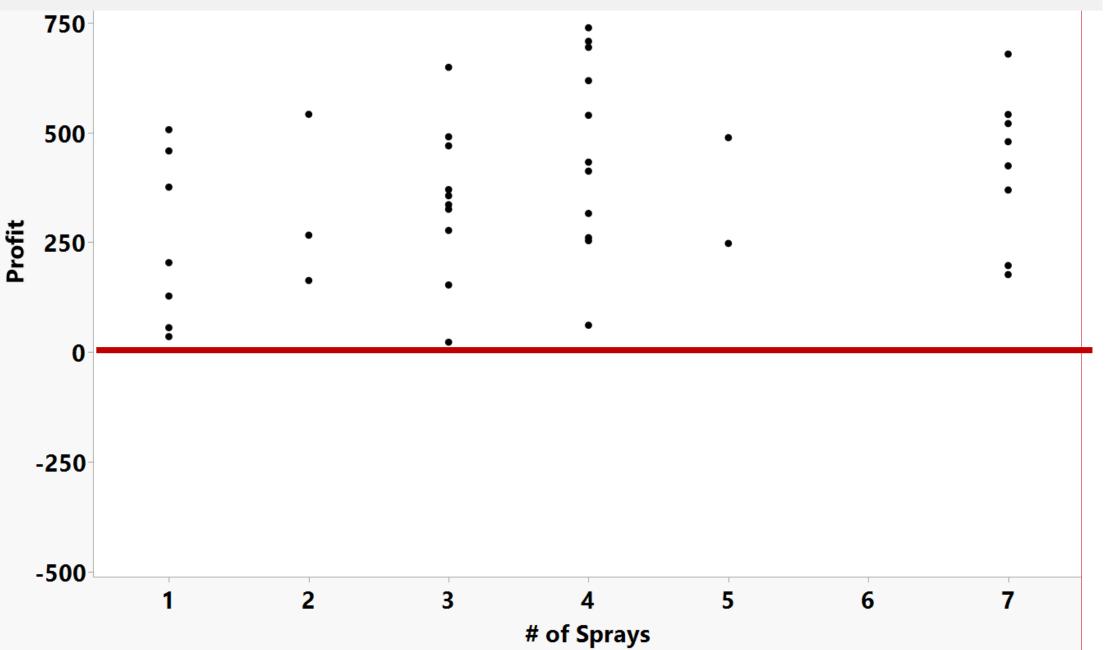




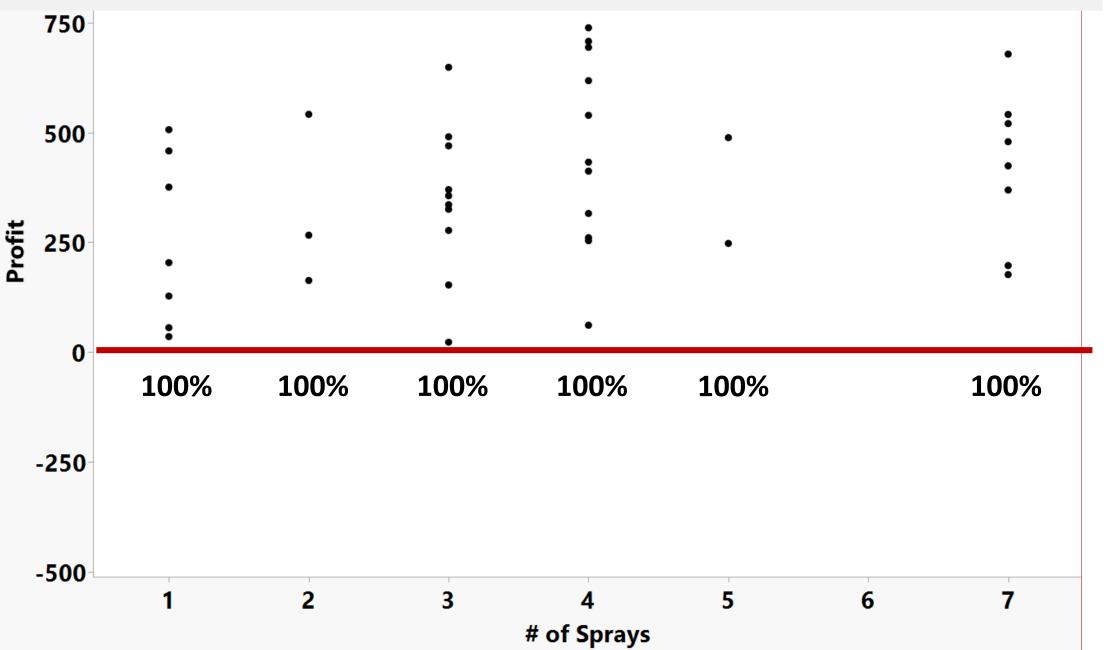




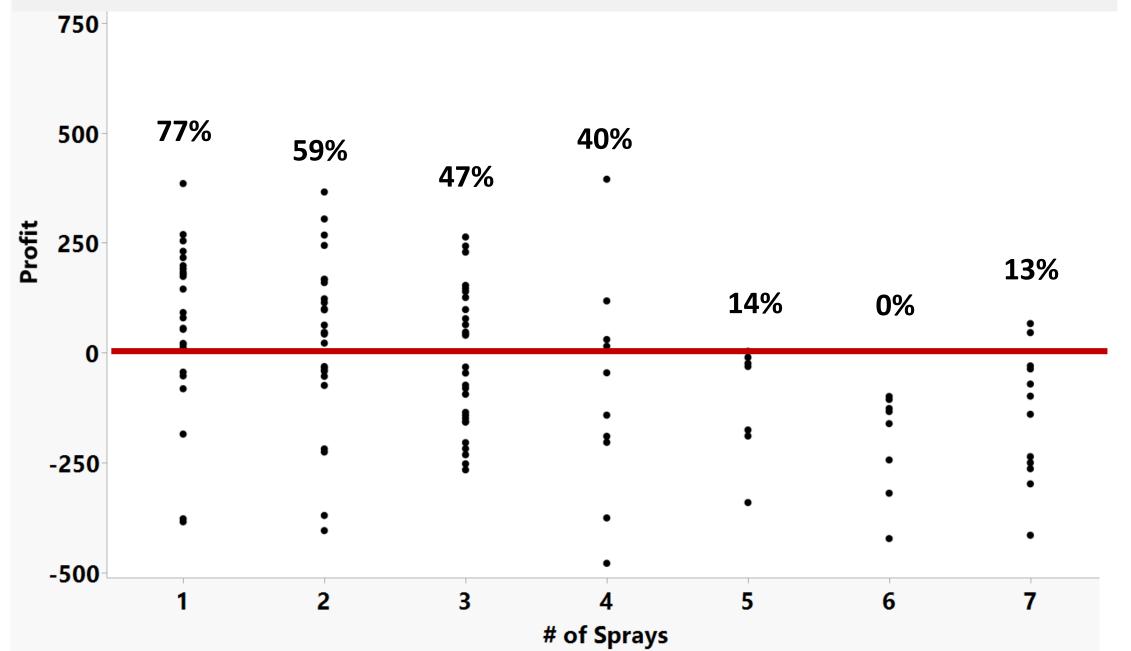
Plots that Profited from Spraying Non-ThryvOn

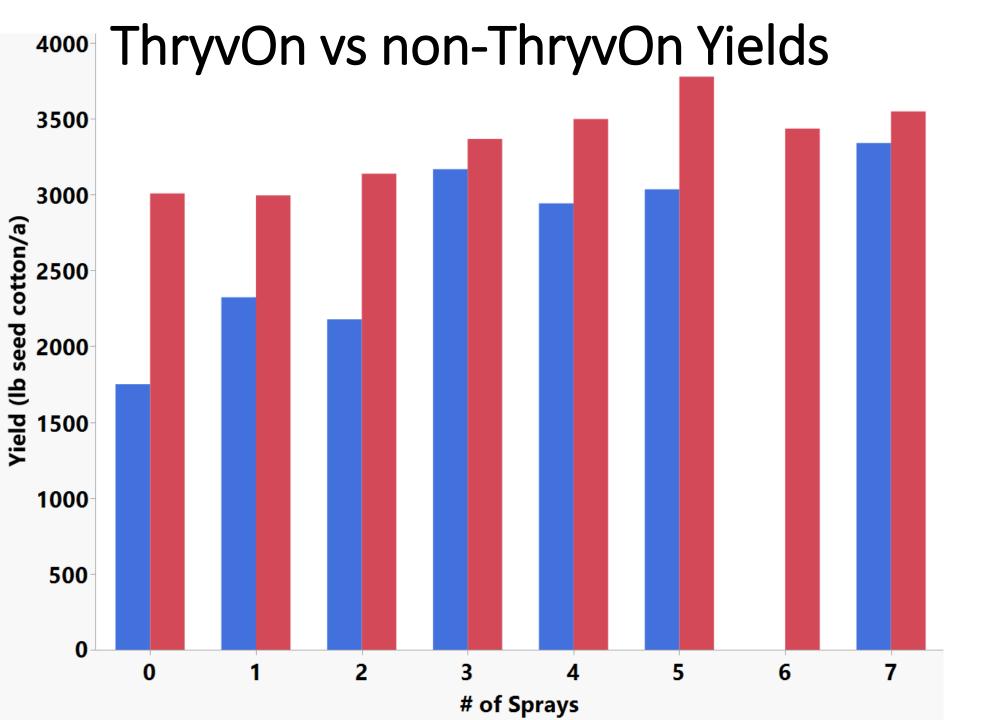


Plots that Profited from Spraying Non-ThryvOn



Plots that Profited from Spraying ThryvOn





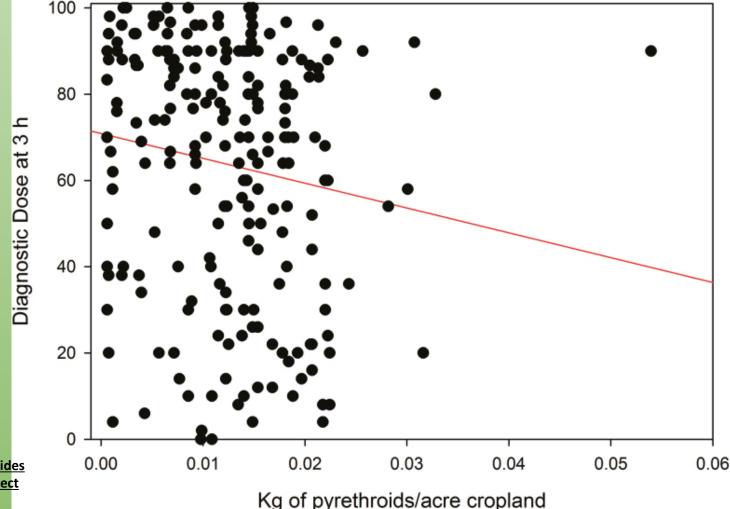
Non-Thryvon Thryvon

Conclusion

- Thryvon cotton has improved square retention over non-Thryvon cotton
- Thryvon cotton has fewer overall plant bugs than non-Thryvon
- Thryvon cotton does not appear to have the "yield drag" associated with some other technologies

Effect of Lygus Trait on Resistance?

- Lygus trait <u>very good</u> on thrips and will reduce plant bug applications
- Parys found as pyrethroid use declined so did resistance
- A overall decrease in use may improve efficacy for our current insecticides



Patterns of Tarnished Plant Bug (Hemiptera: Miridae) Resistance to Pyrethroid Insecticides in the Lower Mississippi Delta for 2008-2015: Linkage to Pyrethroid Use and Cotton Insect Management Parys KA, Luttrell RG, Snodgrass GL, Portilla MR

Will ThryvOn change our pest complex?

- Elimination of thrips apps and reduction in TPB apps could reduce flaring of spider mites
- Reducing insecticide apps could allow beneficial insect numbers to build reducing other insect numbers

Or...

• Insecticide applications for TPB keep stink bugs #'s down, could end up making a stink bug application necessary

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