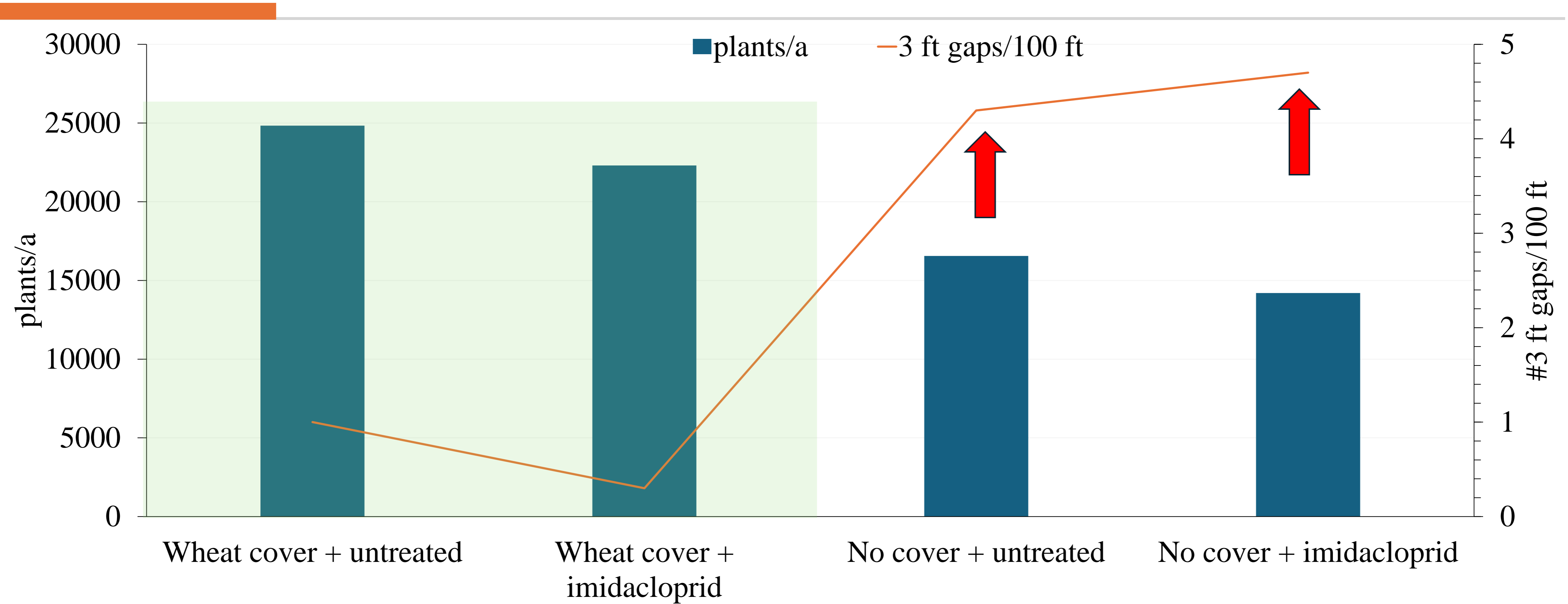


# However, Stand Establishment Can Still Be Better under Cover Residue



DP2234; 48K seeds/a

P values: 0.1279 (plants/a); 0.0148

**Stand establishment: avg 50% under cover and 32 % under no cover**

# Need to Look at Broader Picture



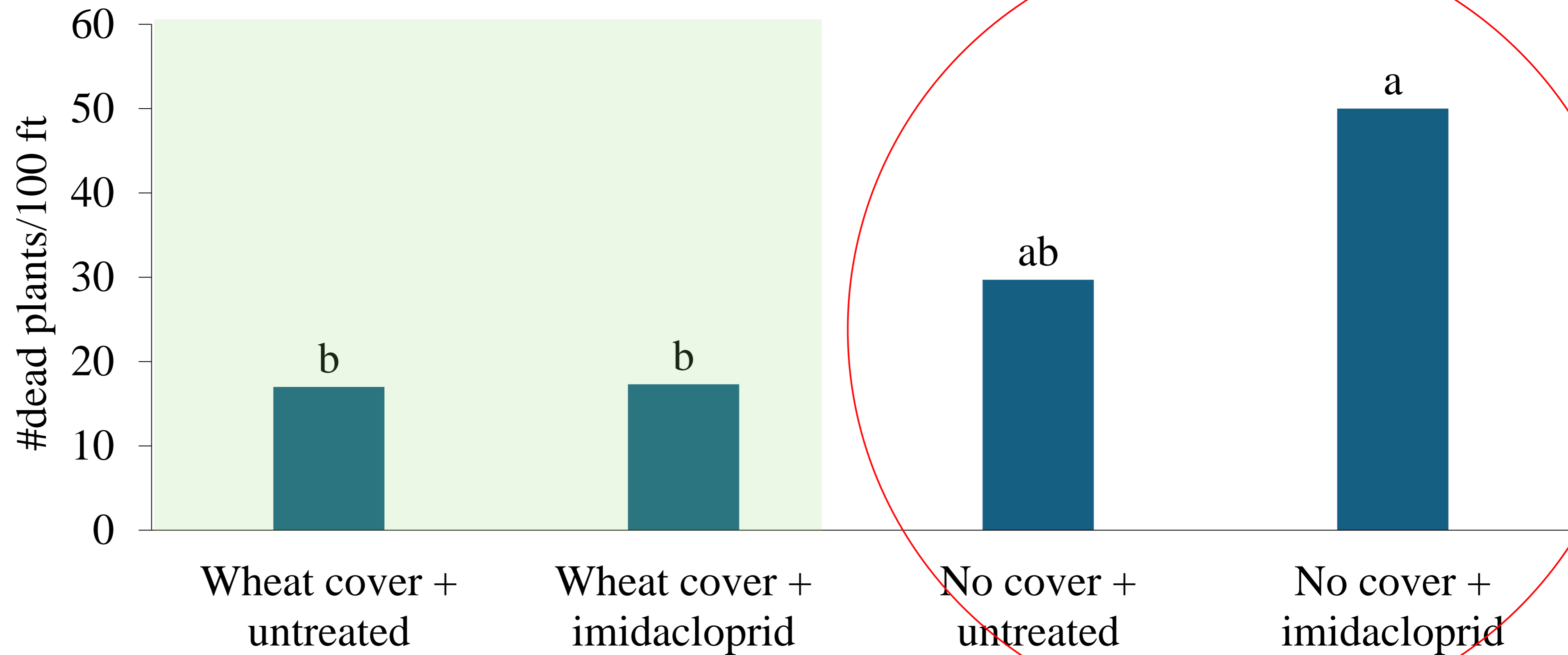
Can sand-blasting be more damaging?

**July 2024, Martin County, TX**



**What would be more damaging—wireworms or sand?**

# Number of dead seedlings (from sand blasting) way higher with no cover residue



P = 0.0053



- **Cover crops do favor wireworm survival (food & shelter)**
- **Need to weigh the impact on pest populations against agronomic benefits (reduced sand damage and erosion)**
- **Balancing act with proper cover crop management**



# MANAGEMENT

**First few weeks of a cotton  
plant's life are the most  
important**



# Facilitate quicker emergence & reduce exposure time

- Choose insecticide **seed treatments** (e.g. imidacloprid) (inconsistent performance but still best bait as a preventative tactic)
- Add **at-plant treatment** (e.g. in-furrow AgLogic, AdmirePro, pyrethroids))



Photo: Pat Porter



# EXAMPLES OF SEED TREATMENT PACKAGES IN COTTON

Company	Cotton Seed Brand	Seed Treatment Package Offered	Insecticide Active Ingredient (at standard rate)
<b>Bayer CropScience</b>	<b>DeltaPine</b>	Acceleron Basic	X
		Acceleron Standard	imidacloprid
		Acceleron Elite	imidacloprid
<b>BASF</b>	<b>FiberMax, Stoneville</b>	Core Seed Treatment Package	X*
		Prime Seed Treatment Package	imidacloprid
<b>Corteva AgriScience</b>	<b>PhytoGen</b>	PhytoGen TRiO	imidacloprid
<b>Americot</b>	<b>NexGen</b>	CottolyST Base	X
		CottolyST IMI+	imidacloprid, acephate
		CottolyST Enhanced	imidacloprid, acephate
		CottolyST Premier	imidacloprid
<b>Syngenta</b>		Avicta Elite Cotton	imidacloprid + thiamethoxam

\*imidacloprid at storage rate



# Fallowing can help reducing numbers--→ control weeds!

Helps starve young wireworms by cutting off their food supply



For established populations, summer fallowing may not suffice  
Older larvae can go without food for several months and resume feeding when the crop is planted.

**Plant small grains (e.g. sorghum, winter wheat) with insecticide seed treatments (e.g. Teraxxa/Broflanilide) that control wireworms**





# Management..

**Facilitate quicker emergence and reduce exposure time to wireworms.**

- Choose insecticide seed treatments (e.g. imidacloprid, thiamethoxam, clothianidin)
- Add **at-plant treatment** (in addition to seed trt in fields with known history (e.g. in-furrow AgLogic, AdmirePro, pyrethroids))
- Fallowing can help reducing wireworm abundance-- **Control weeds!**
- Plant **small grains** (e.g. sorghum, winter wheat, etc.) with insecticide **seed treatments** (e.g. Teraxxa/Broflanilide) that control wireworms
- Plant under **good conditions**: Soil temperature, moisture, shallower seeding, rate, seed quality
- Manage cover crop (use seed treatment, terminate 60 days before planting)
- Whether to **replant?** Consider costs of replanting, condition and spacing of the remaining plants



**1. Are seed treatments effective against wireworms in cotton, and are they economically viable?**

**Inconsistent, Yes.**

**2. Do cover crops favor wireworm populations?**

**Yes!**



# THANK YOU!

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Texas State Support Committee




Photos: Pat Porter

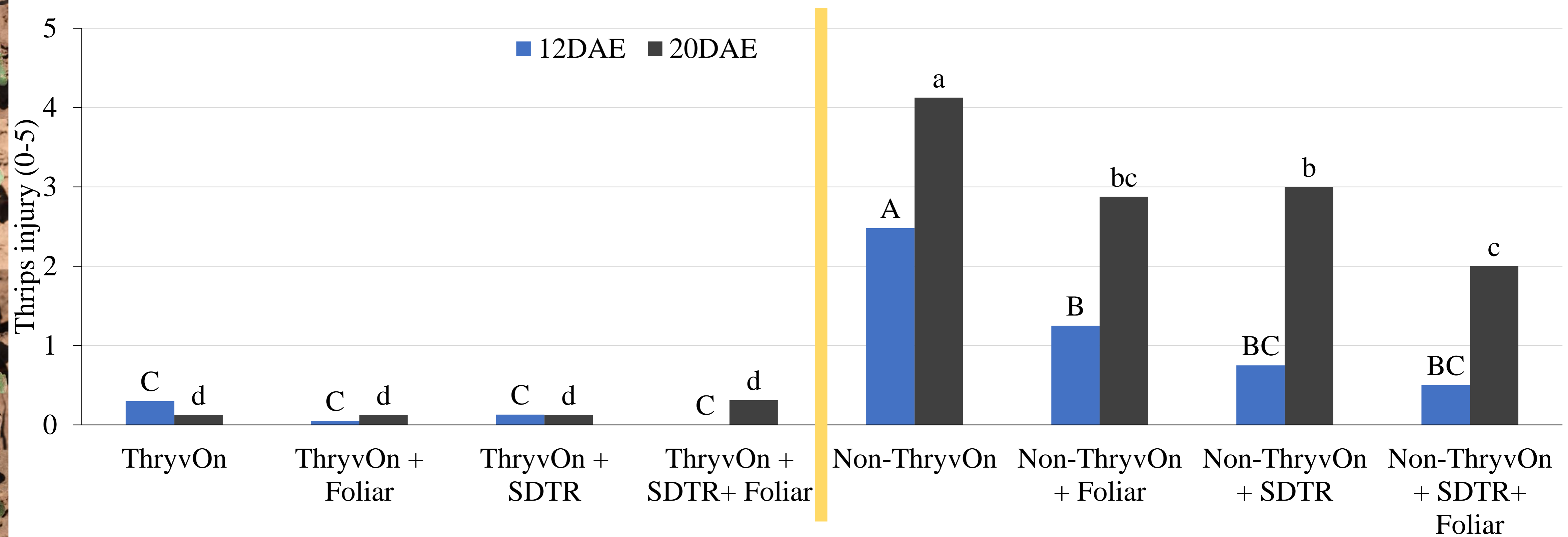
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# THRYVON: FIT FOR THE HIGH PLAINS



- 
- How effective is ThryvOn against targets pests?
  - How would ThryvOn help with overall crop management?
  - Does ThryvOn offer greater economic returns than the non-ThryvOn cotton?
- 

# Thrips Injury to ThryvOn and non-ThryvOn cotton, Halfway 2022



P values: 12DAE: 0.0001; 20DAE: 0.0001



# Thrips Injury to ThryvOn (bottom) Vs. non-ThryvOn (top) plants

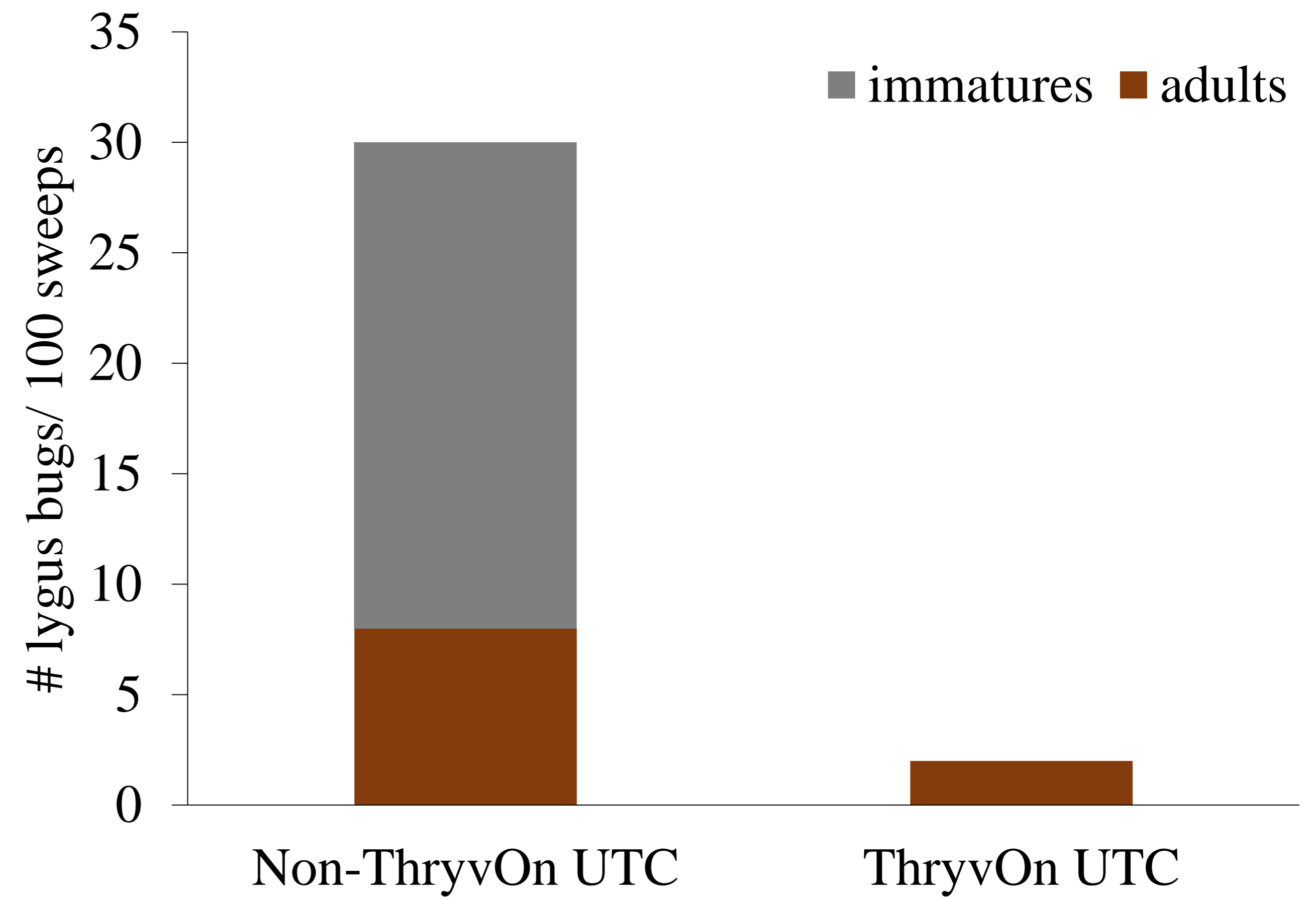


# ARE INSECTICIDE SEED TREATMENTS OPTIONAL IN THRYVON COTTON?

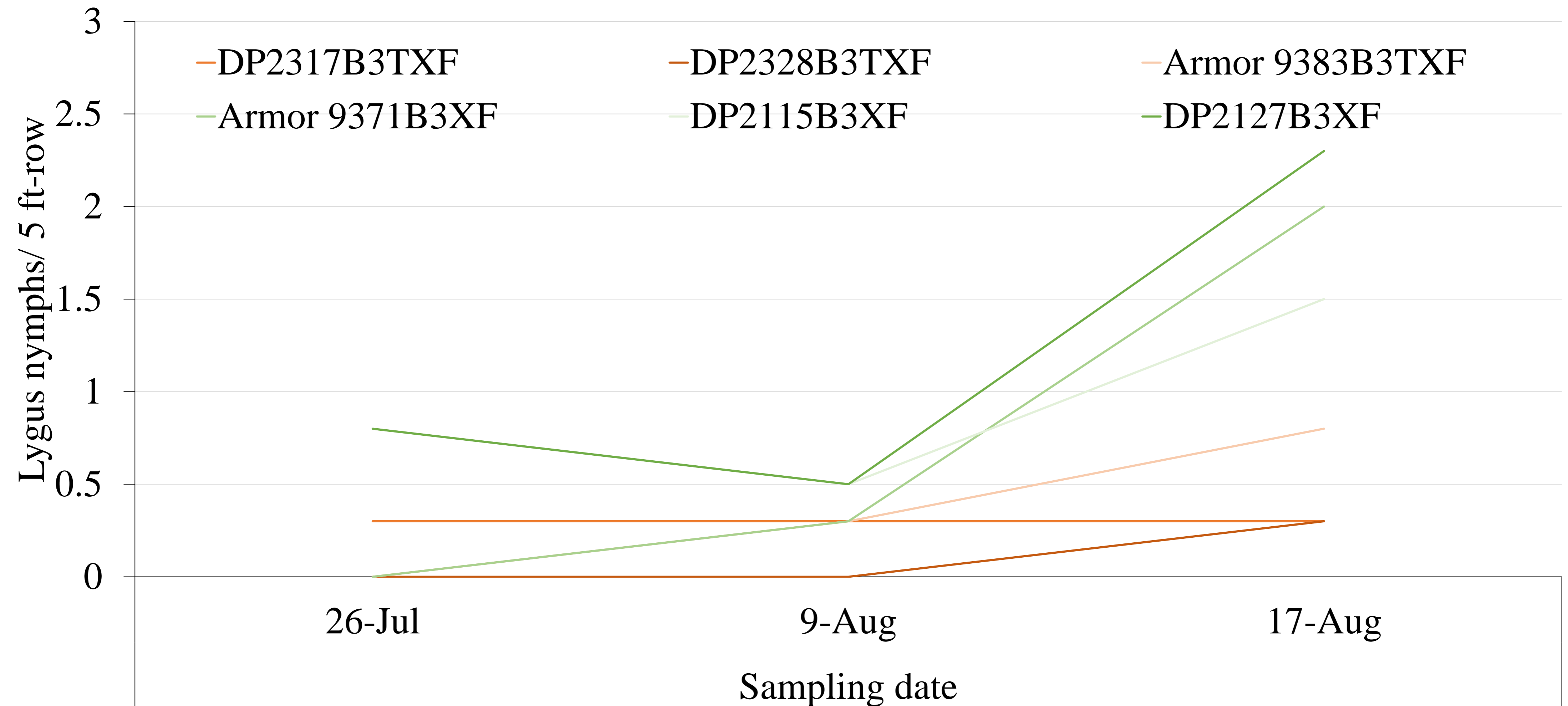
- ThryvOn cotton seed planted in the counties highlighted in **blue will only be sold with the addition of an insecticide seed treatment**, whereas an insecticide seed treatment will be **optional for the red counties**.



# Lygus bug



# ThryvOn Impact on Lygus Bug





# How Effective Is ThryvOn On Tarnished Plant Bugs?

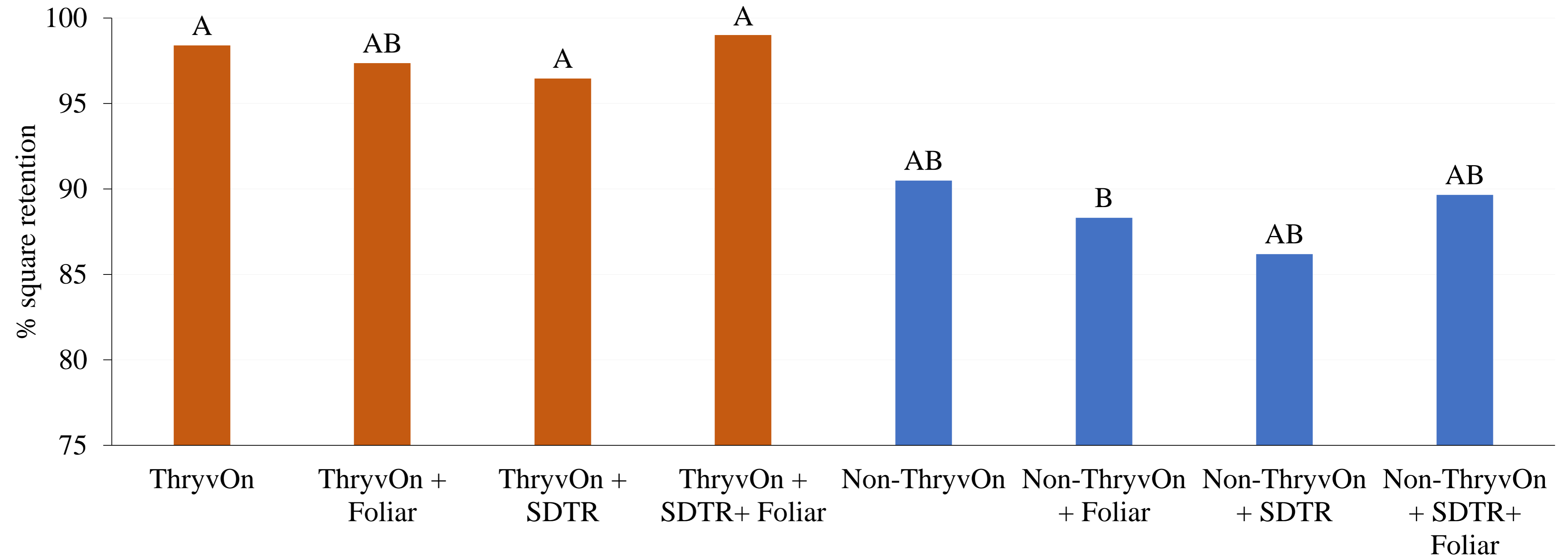
- Primarily offers suppression
- Better activity on small nymphs
- Slower population development in ThryvOn than non-ThryvOn cotton
- Insecticide applications targeting plant bugs may still be required

# Cotton Fleahopper



Photo: Pat Porter

# Better Square Retention in ThryvOn

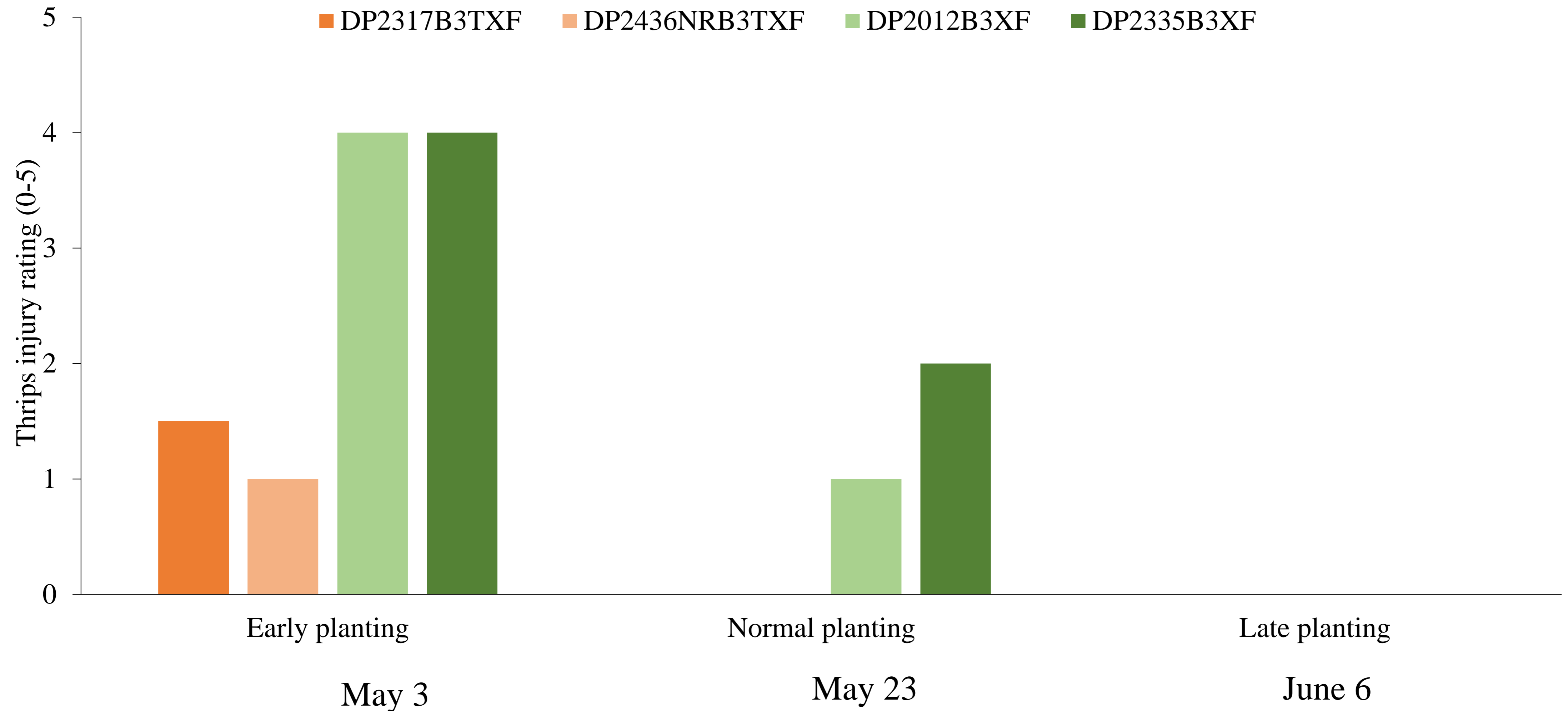


# How would ThryvOn help with overall crop management?

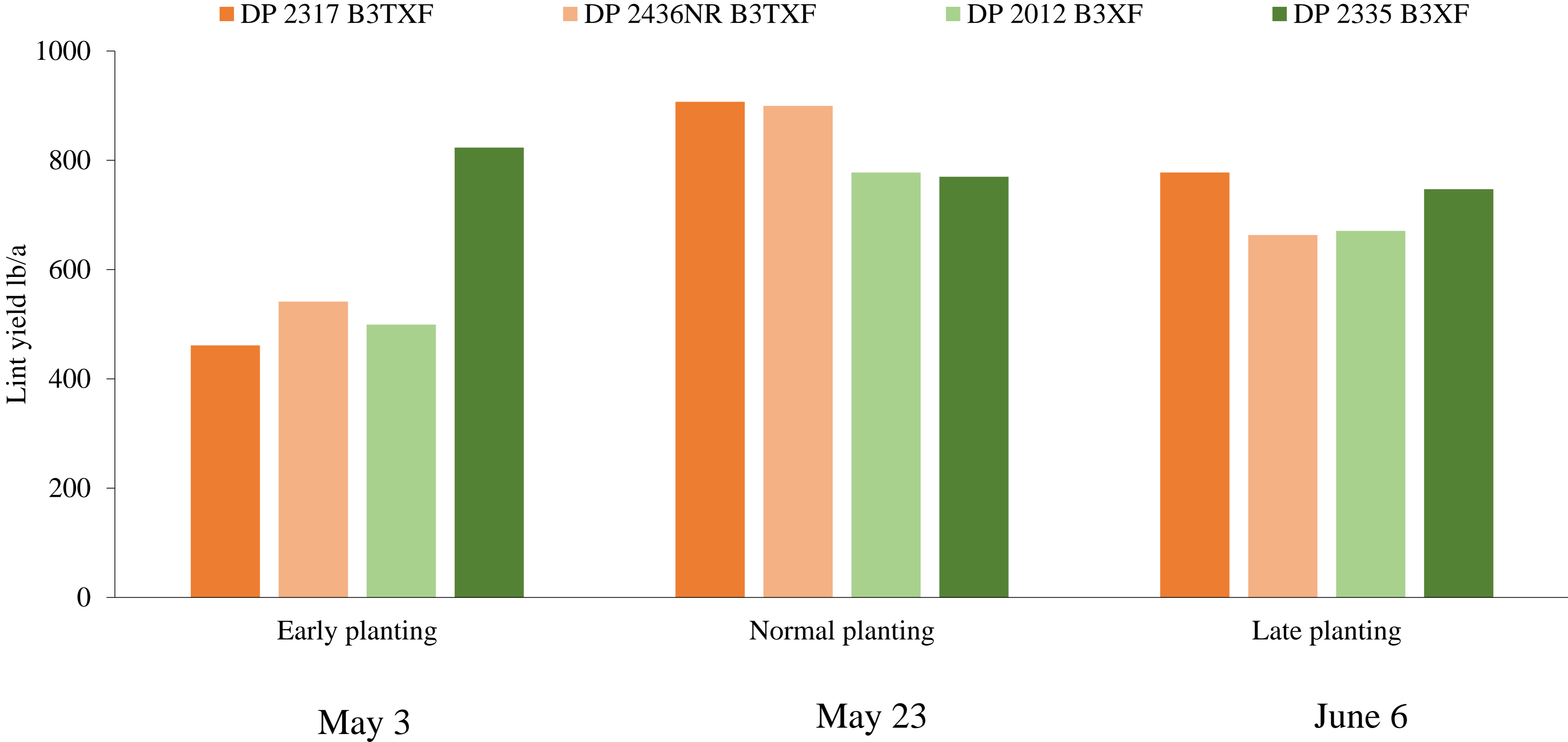
- Offer some management flexibility
- Eliminates the need for additional insecticide inputs for thrips
- Placement (early planting, harder to spray areas)



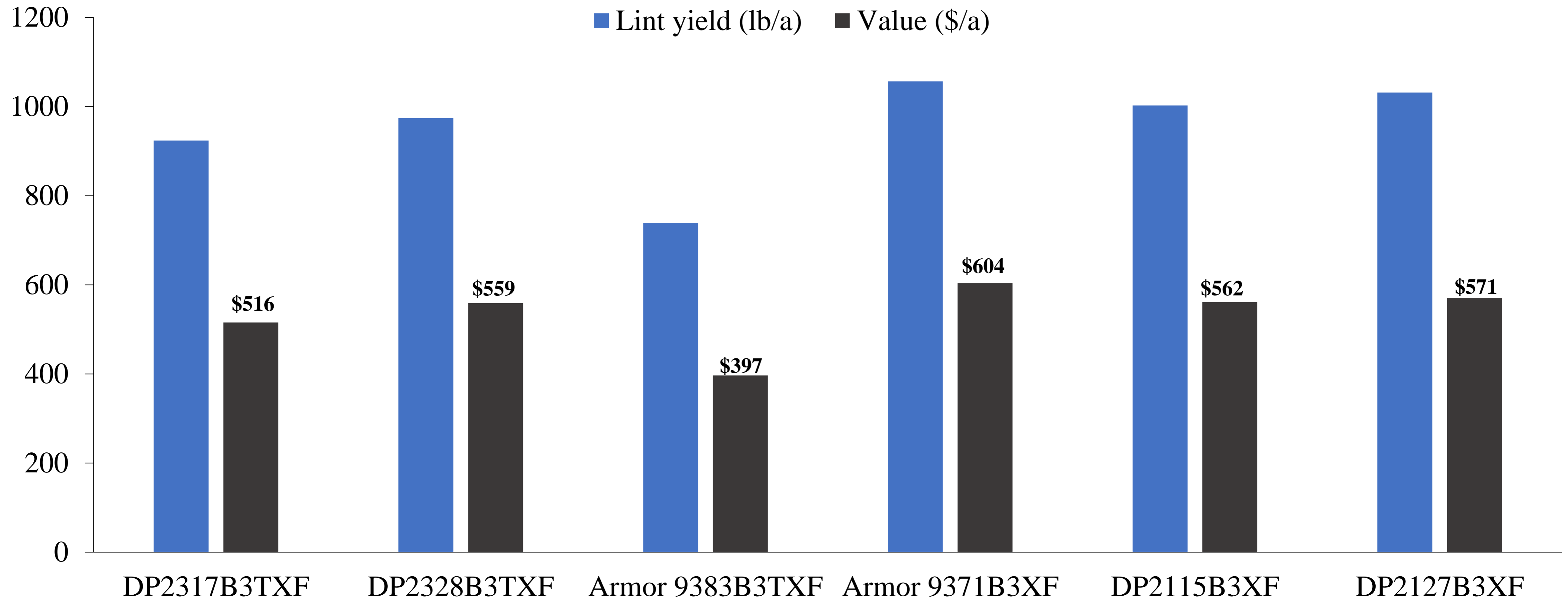
# Planting Date Impact on Thrips Injury, Lubbock 2024



# Planting Date Impact on Yield, Lubbock 2024

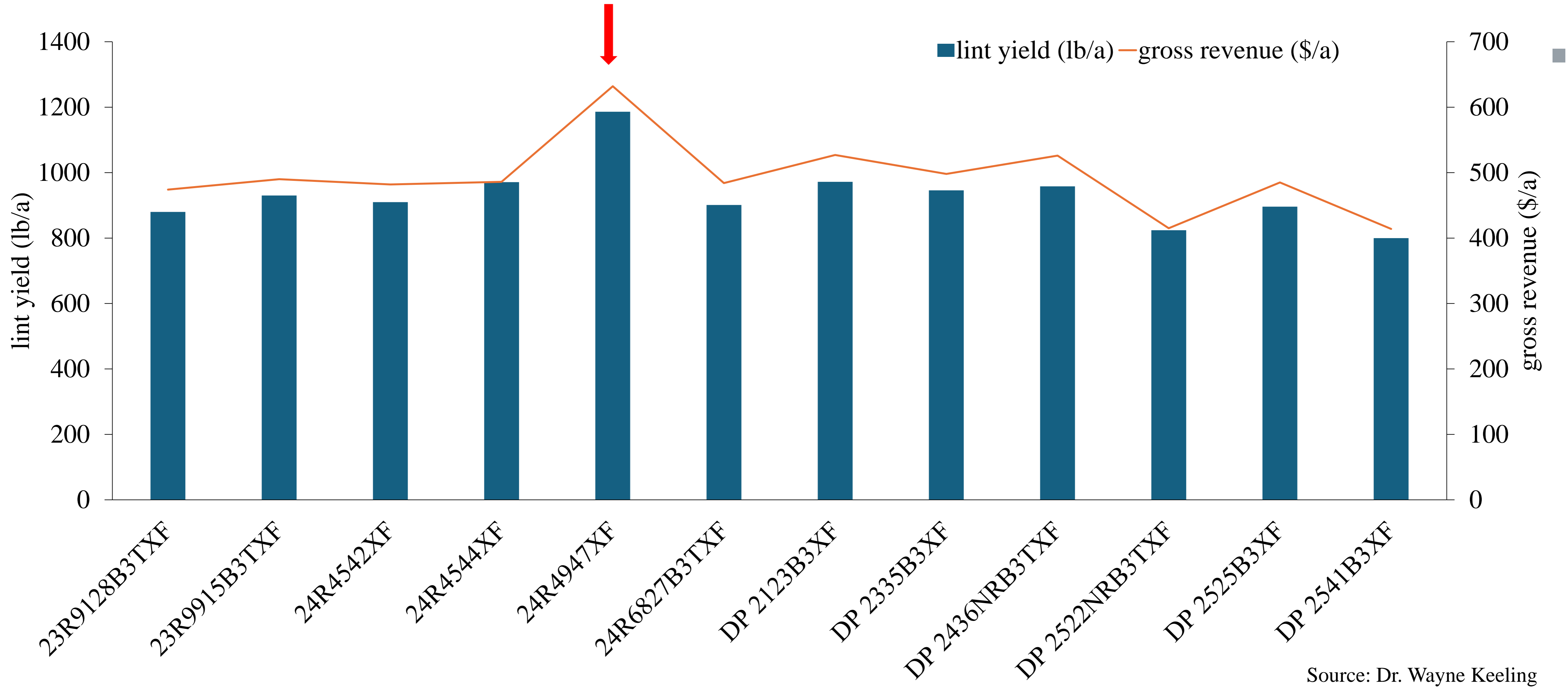


# Does ThryvOn offer greater economic returns than the non-ThryvOn cotton?



Plainview, TX, 2023

SOURCE: DR. TERRY WHEELER



Source: Dr. Wayne Keeling

**EFFECT OF VARIETY ON LINT YIELD AND GROSS REVENUE  
LAMESA, TX 2024 (HIGH IRRIGATION)**



# Summary

- ThryvOn has an excellent activity on thrips and some on plant bugs
- Does offer management flexibility
- Choose the variety based on **yield potential**, specific agronomic needs and manage it accordingly

# Bt Traits Protect Potential Yield from Losses to Target Pests..But, What if Pests Aren't There?

- Yield benefits only occur when targeted insect population densities are at or above economically damaging levels.
- When insect pressure is low or absent, economic benefit with trait-protected cultivars only occurs if higher seed costs are offset by **greater yields**.



# THANK YOU!

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