

# **Management of Field Bindweed, Yellow Nutsedge, and Dodder in Processing Tomatoes (just not at the same time)**

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# Field Bindweed

Deep rooted perennial  
Seedling to perennial in ~30 days  
POST treatments less effective in the spring  
or after 10am



# Most Effective treatments for Field Bindweed

## PRE treatment

- Treflan @ 1.0 lbs/a – Best (higher rates ?)
- Zeus @ 0.10 lbs/a – Fair-good
- Matrix @ 0.0625 oz/a – Fair-good (4 oz/a)

## POST treatment

- Matrix 0.03 lb/a – Fair (2 oz/a)
- Shark 0.03 lb/a - Good

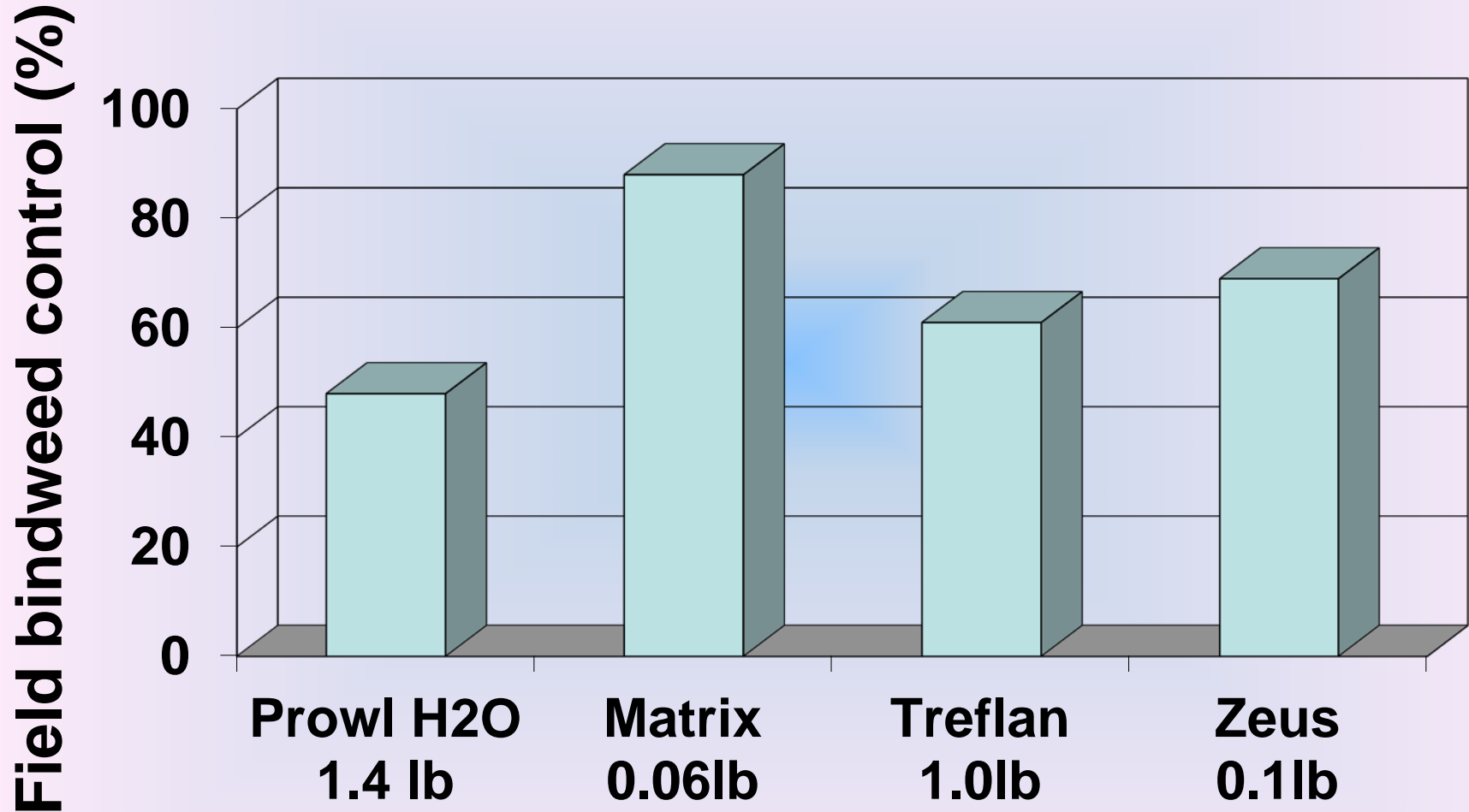
# Treatments in 2012

<u>Treatment</u>	<u>Timing</u>	<u>Rate (lbs/ac)</u>
• Prowl H <sub>2</sub> O	PRE	1.4
• Matrix	PRE	0.06
• Treflan	PRE	1.0
• Zeus	PRE	0.1
PRE herbicides+ Matrix	POST	0.03
PRE herbicides + Shark	POST	0.03
• Matrix	POST	0.03
+ Matrix	POST (20 day interval)	0.03
• Shark	POST shielded	0.03
• Shark	POST shielded	0.03
+ Shark	POST shield (20 day interval)	0.03
• Untreated		

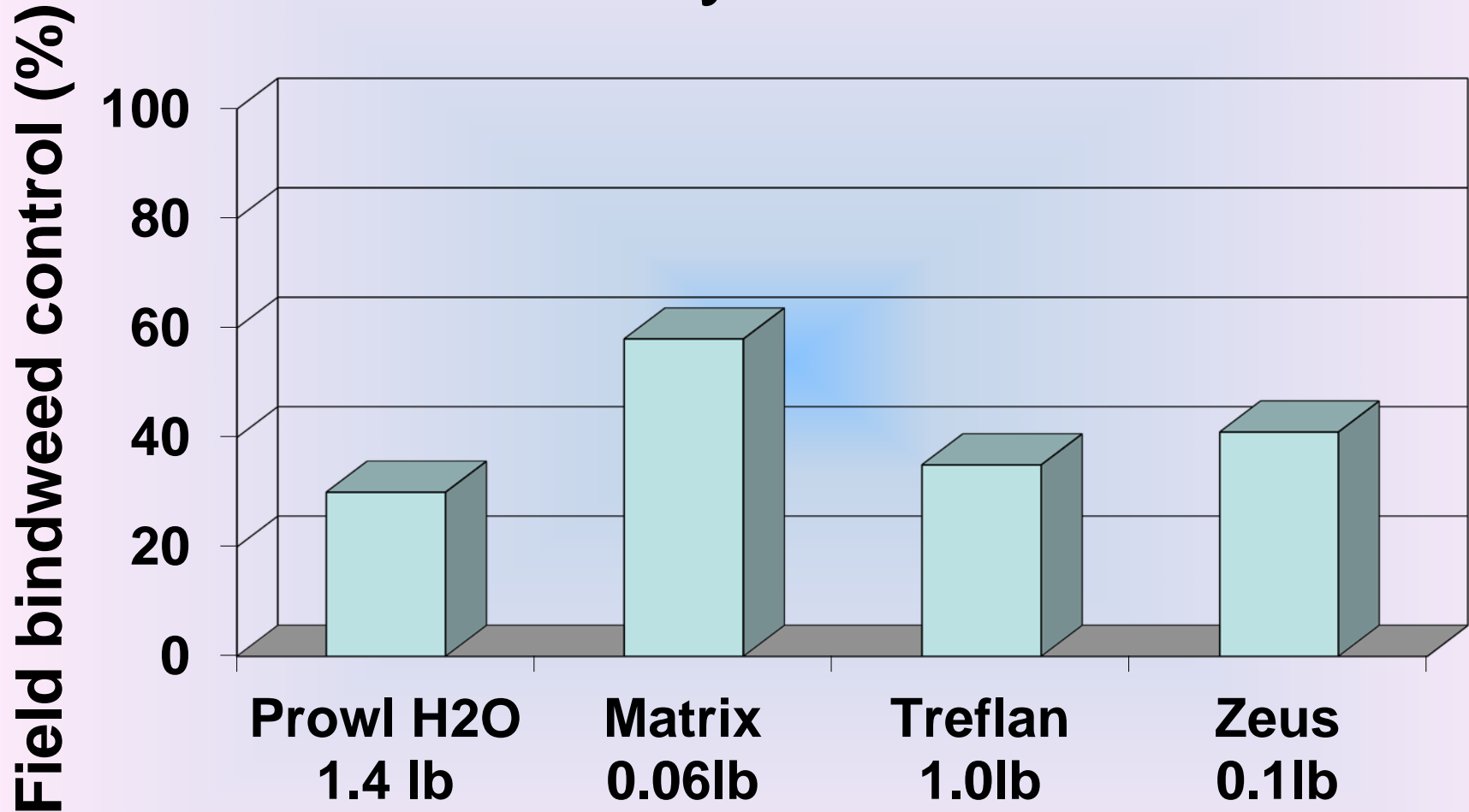
# 2012 Bindweed study



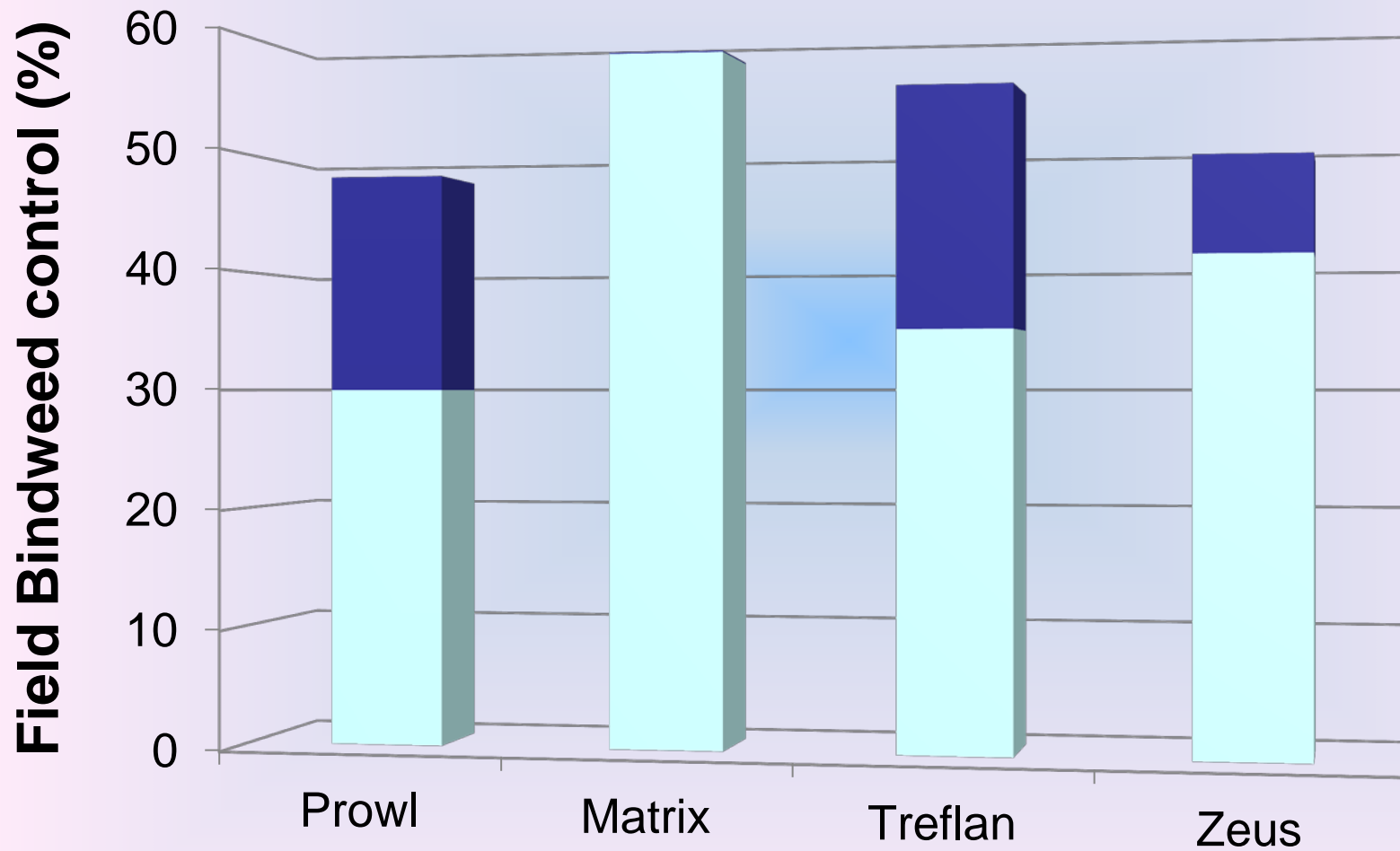
# Field Bindweed Control (%) on June 11, 2012



# Field Bindweed Control (%) on July 13, 2012



# Field Bindweed control (%) on July 13, 2012



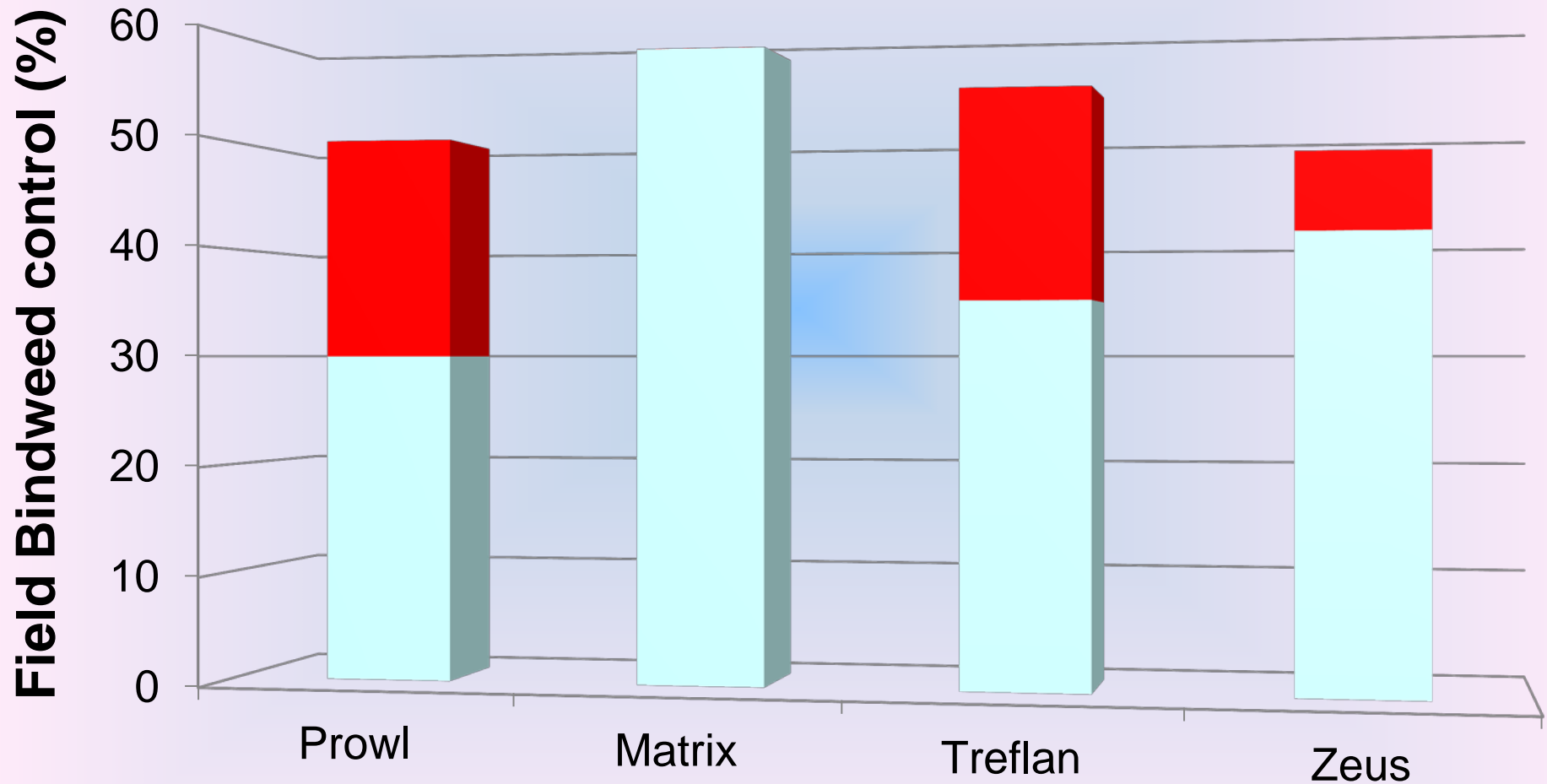
PRE herbicides alone or plus Matrix @ 0.03 lb/a POST



**Matrix POST**



# Field Bindweed control (%) on July 13, 2012



PRE herbicides alone or plus Shark @ 0.03 lb/a POST-directed

**Shark POST  
1DAT**



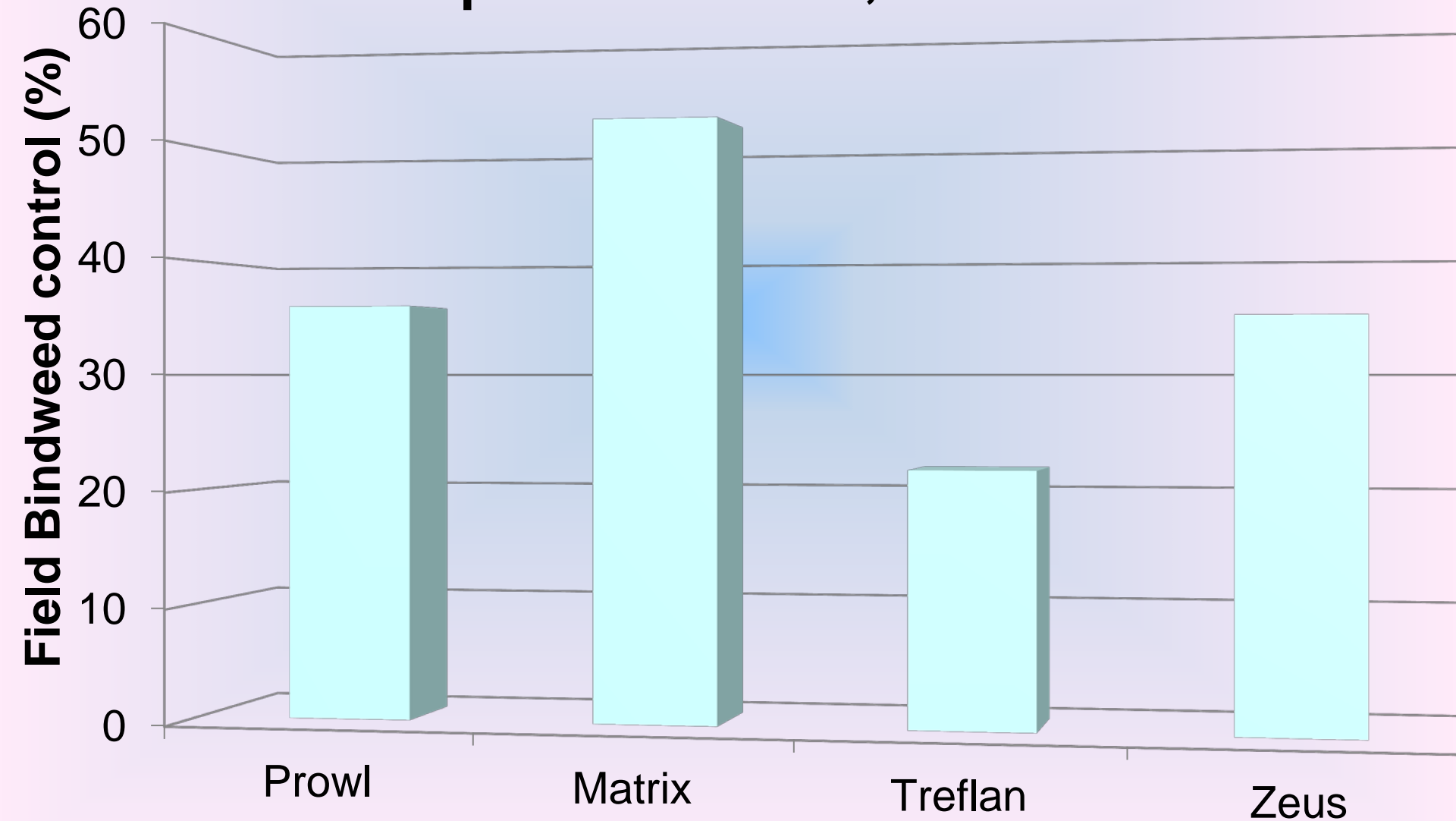
**Shark POST**  
**12 DAT**



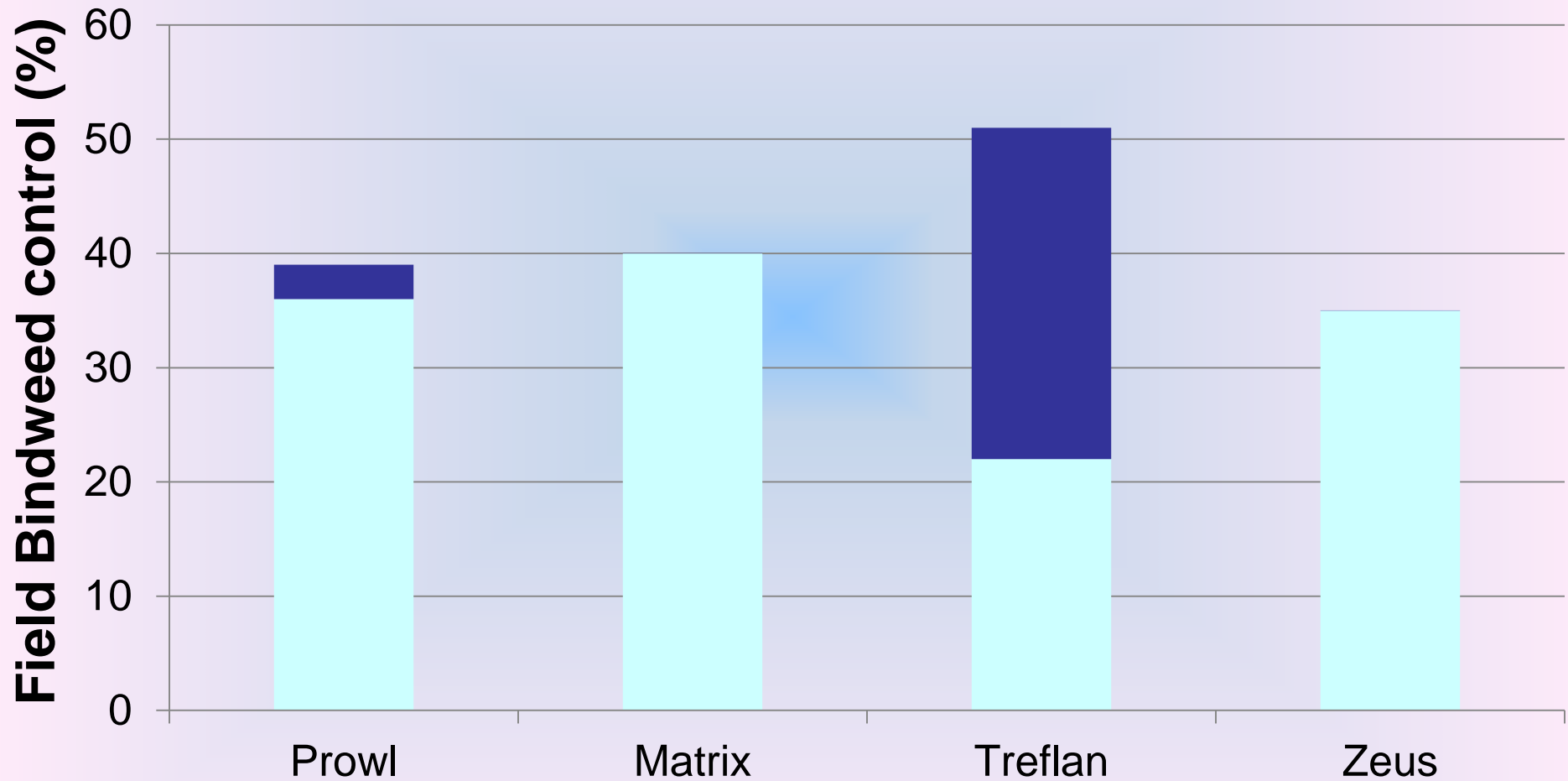


**Shark over the top**

# Field Bindweed control (%) on September 6, 2012

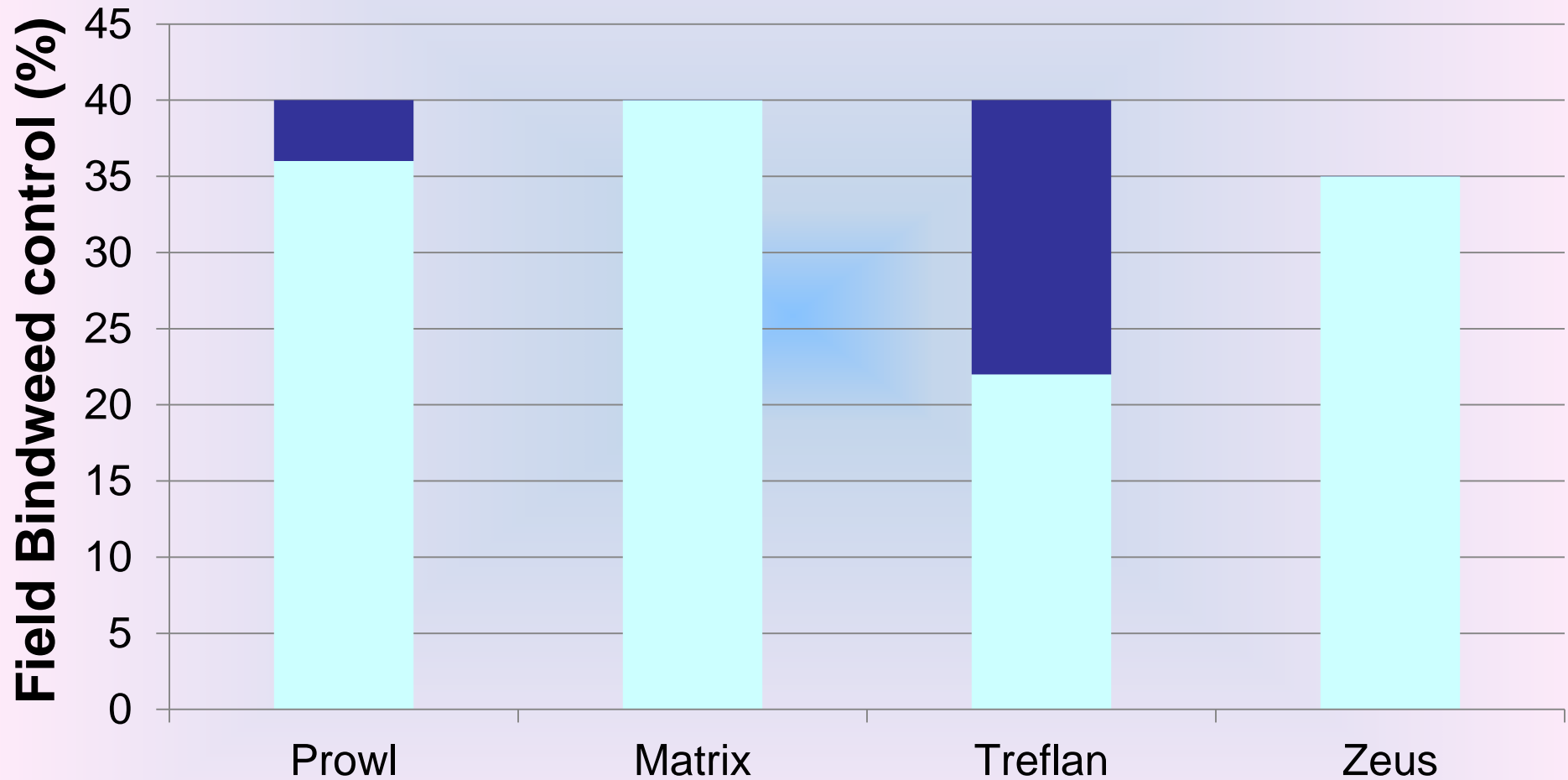


# Field Bindweed control (%) on September 6, 2012



PRE herbicides alone or plus Matrix @ 0.03 lb/a POST

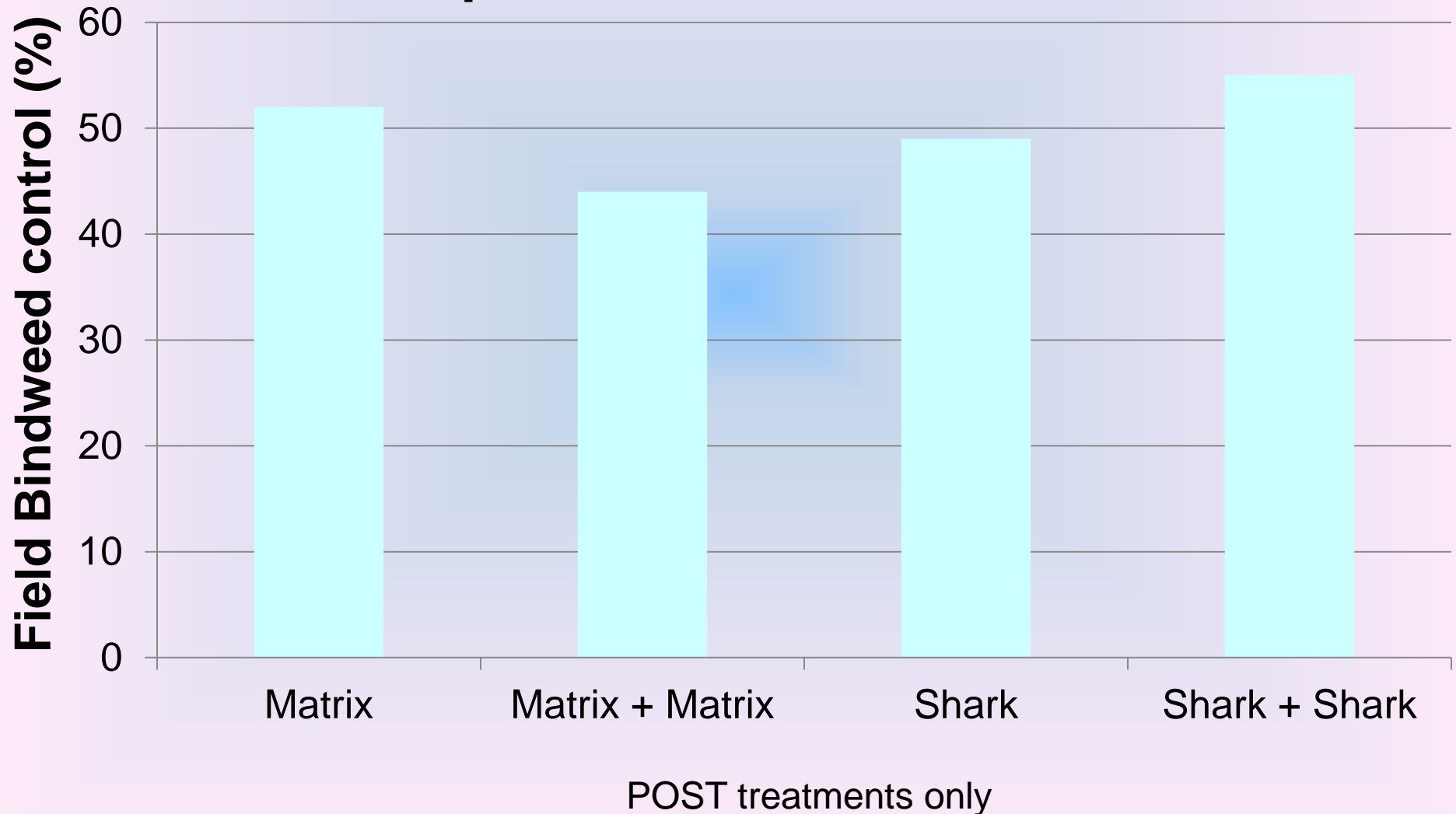
# Field Bindweed control (%) on September 6, 2012



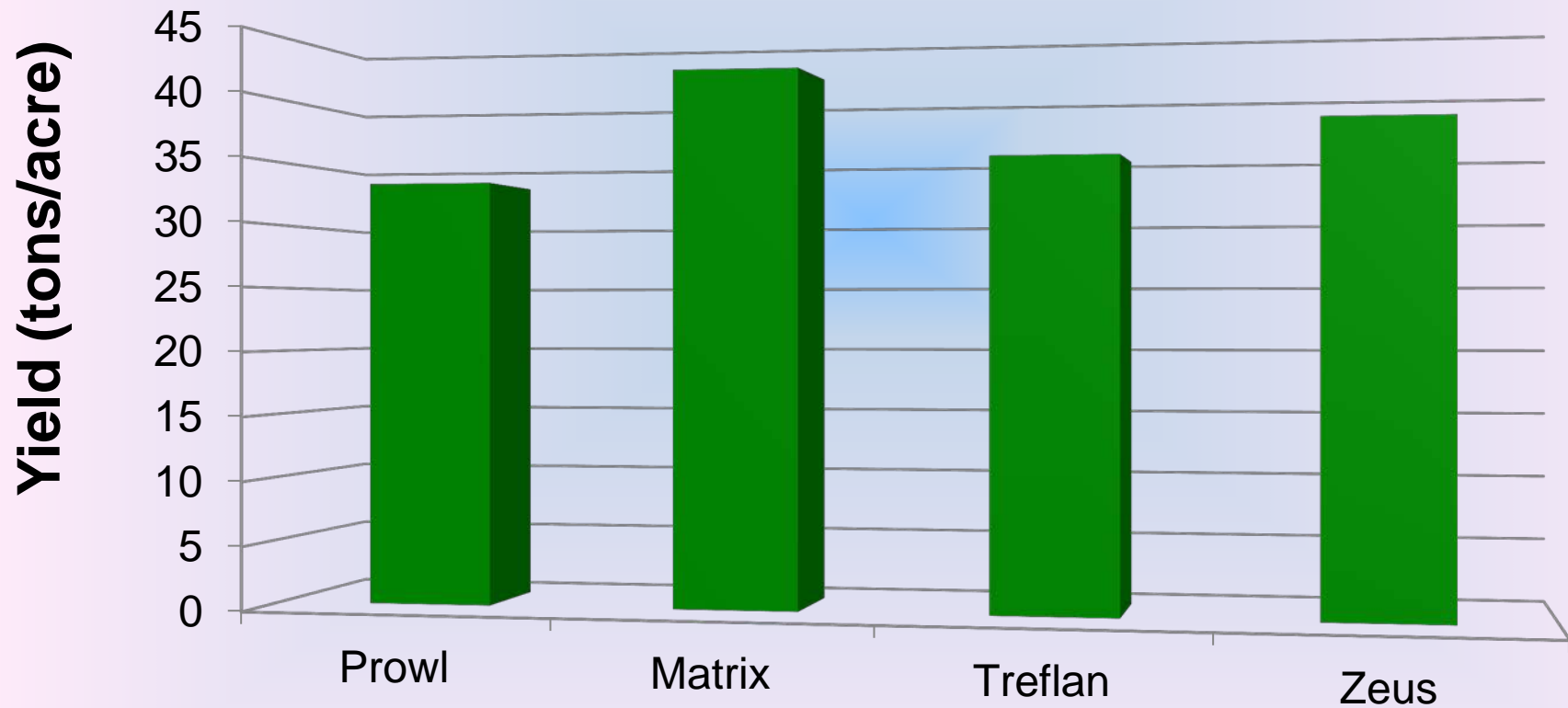
PRE herbicides alone or plus Shark @ 0.03 lb/a POST-directed



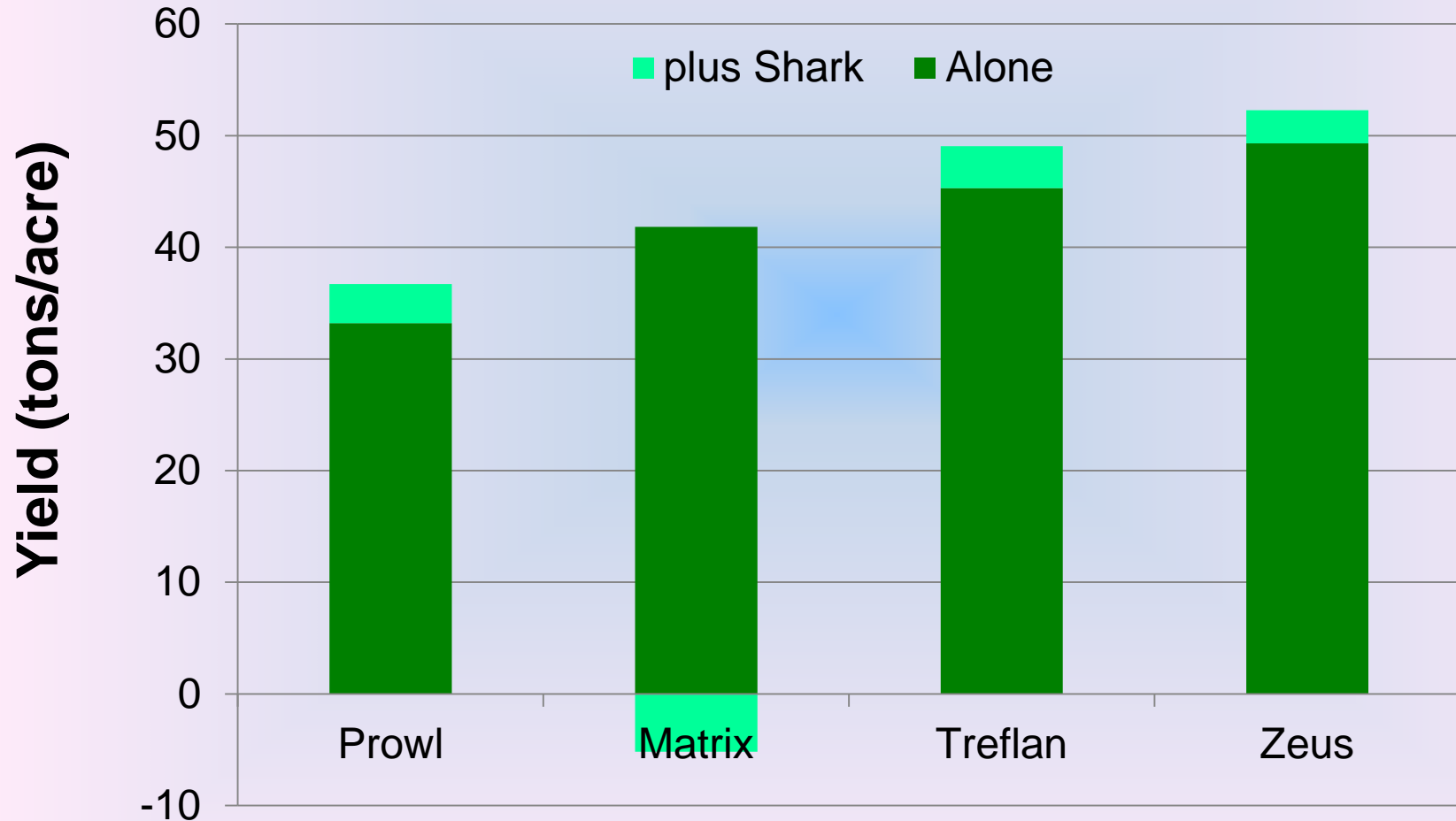
# Field Bindweed control (%) on September 6, 2012



# Tomato Yield (tons/acre) on Sept. 6, 2012



# Tomato Yield (tons/acre) on Sept 6, 2012



# Field bindweed conclusions

- Treflan is best PRE at suppressing established field bindweed, but Zeus and high rate Matrix (4 oz/a of product) also good
- POST treatments improved control in many cases
- Dual Magnum, Prowl H<sub>2</sub>O, Matrix and Zeus good at suppressing seedling bindweed

# Yellow Nutsedge

**\* Not very competitive**



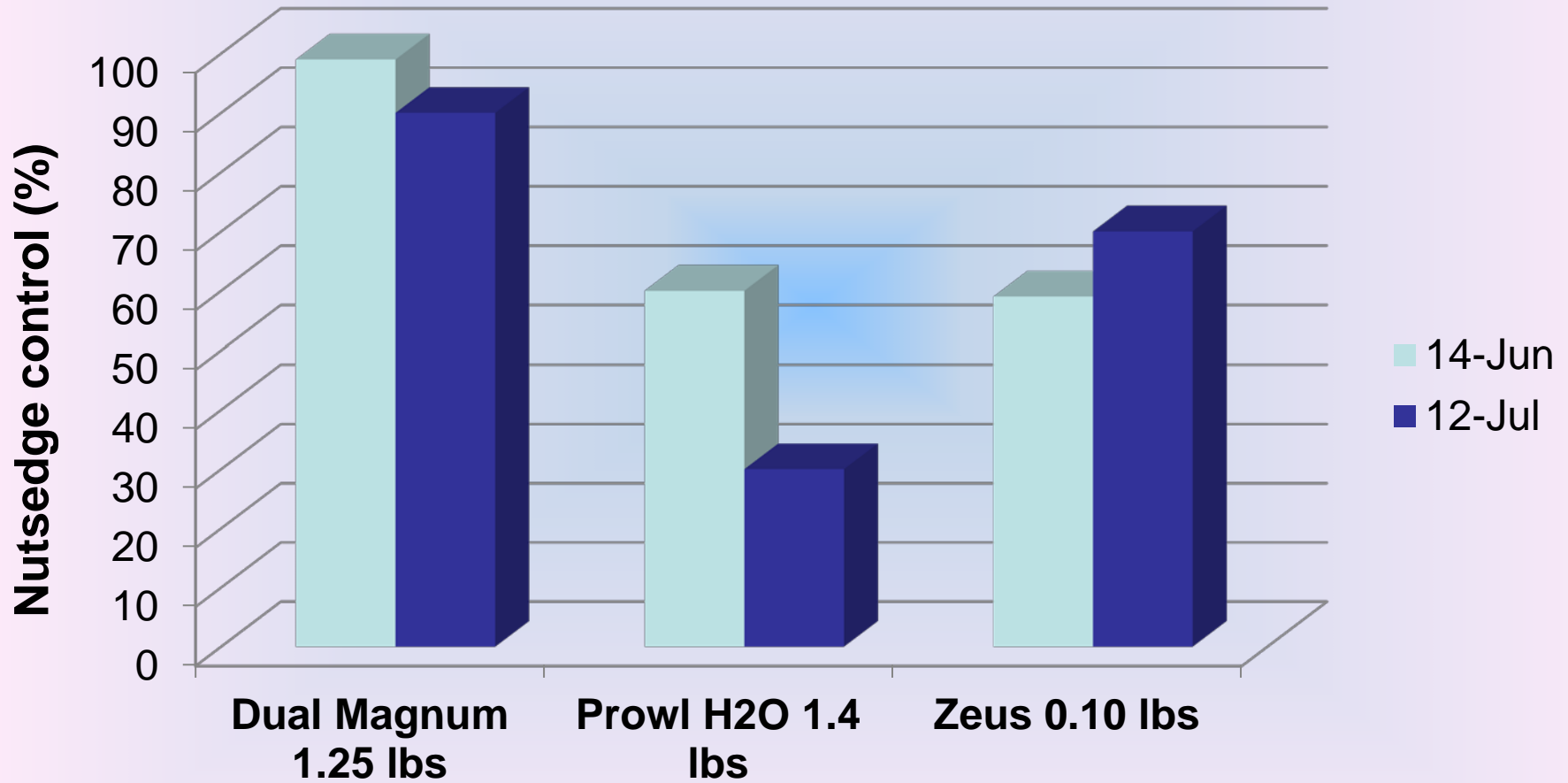
# Yellow Nutsedge

Tubers main source of spread

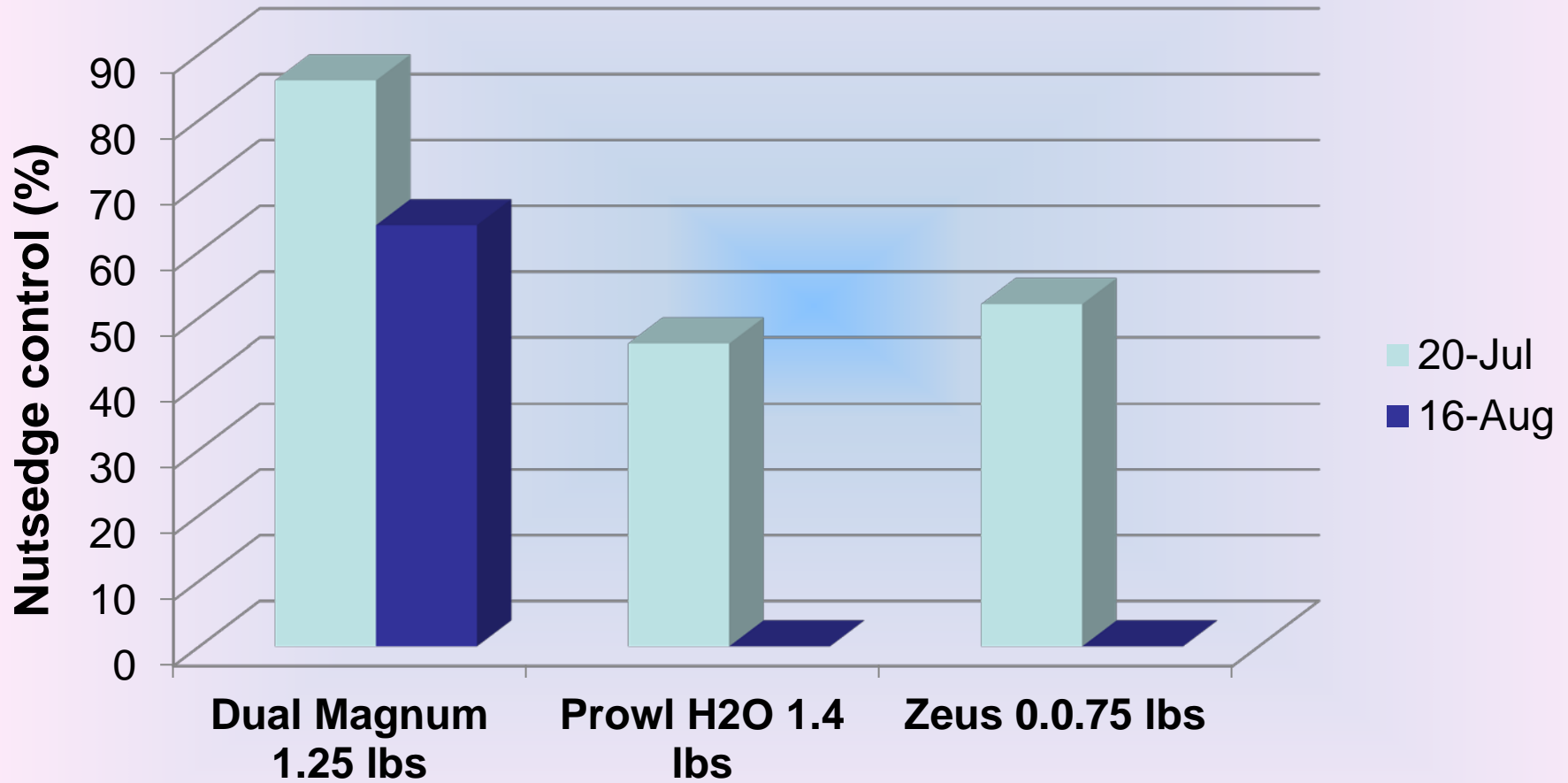
Seed rarely (if ever) viable



# Yellow Nutsedge Control 2012

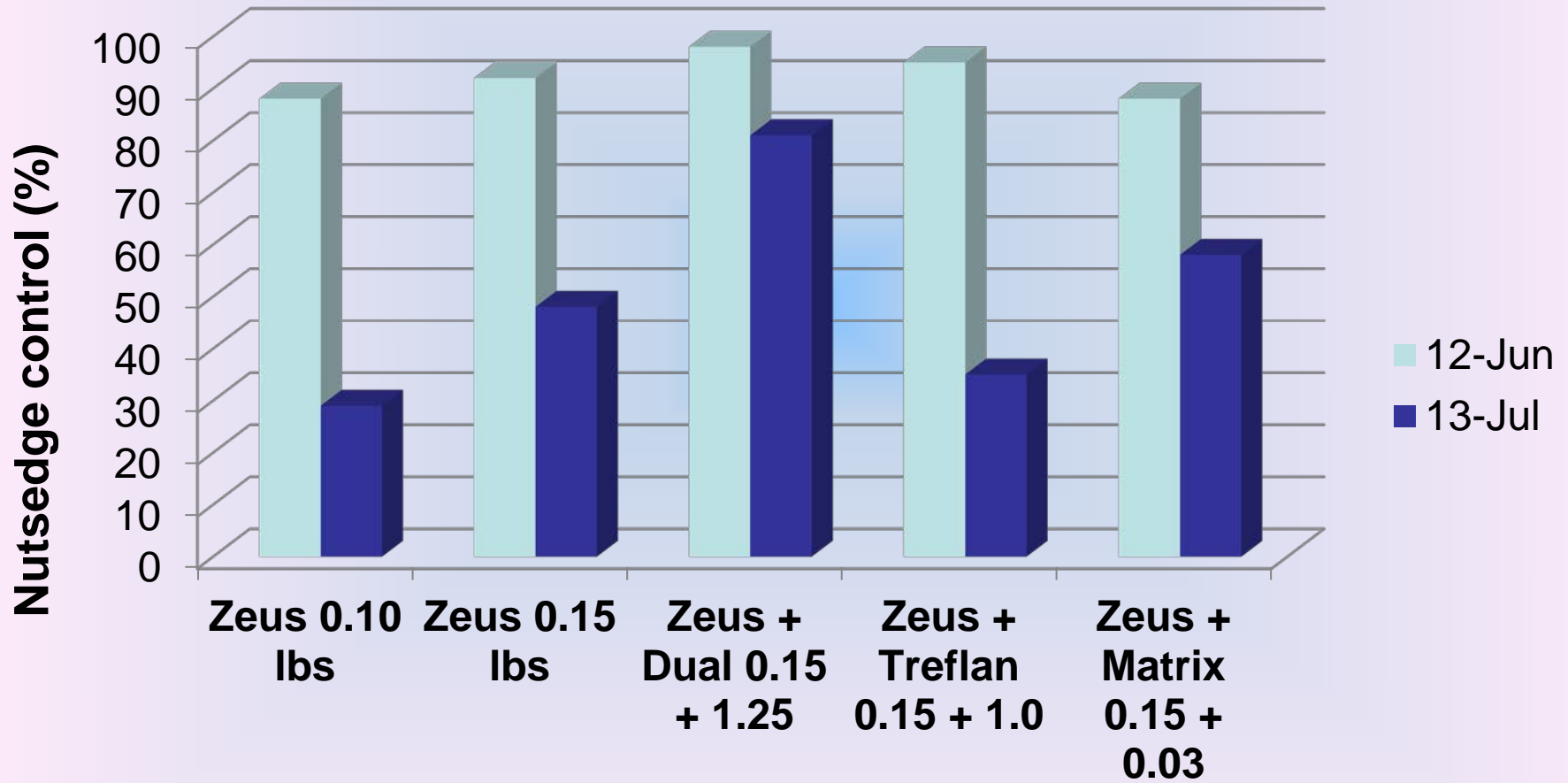


# Yellow Nutsedge Control 2011

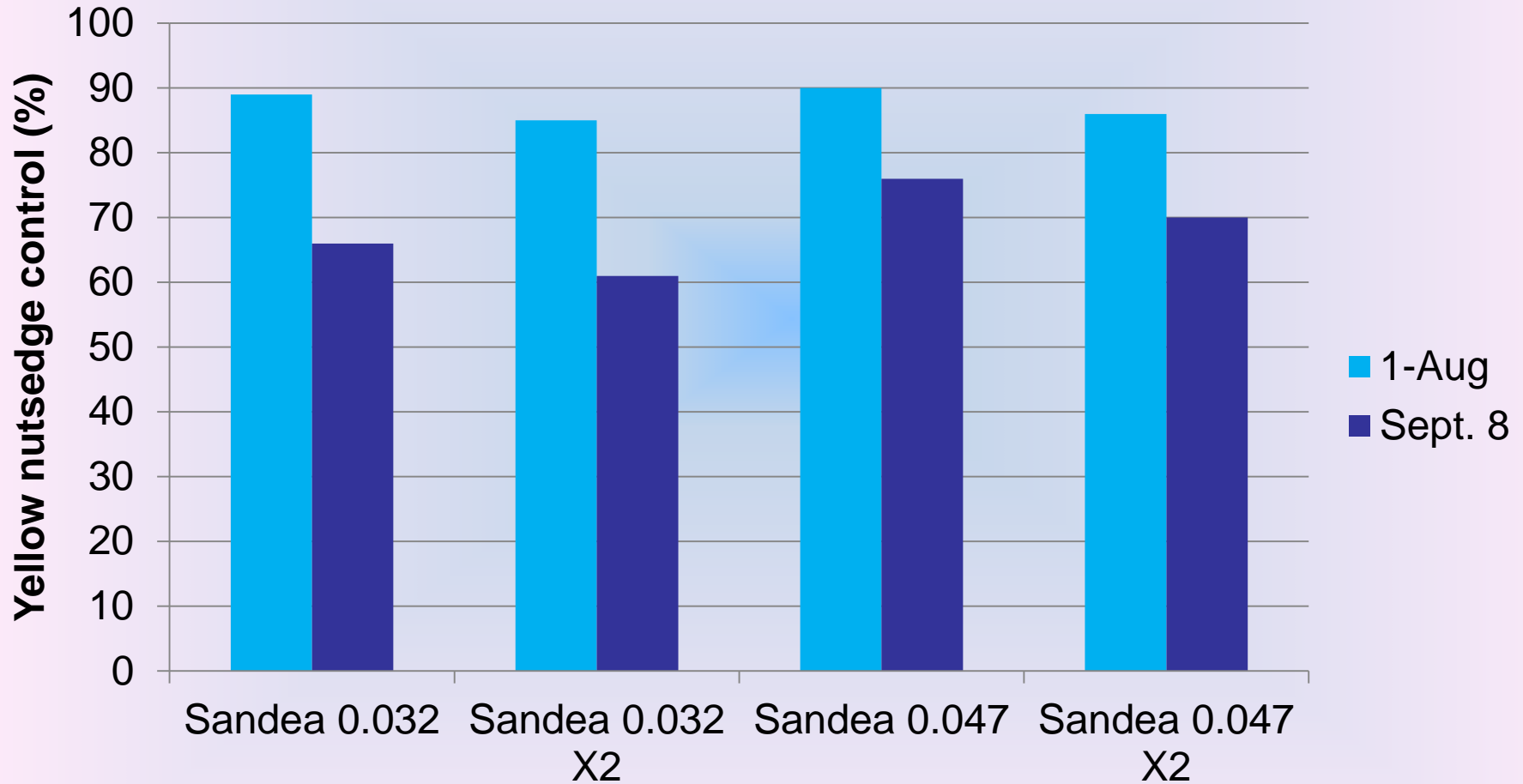




# Yellow Nutsedge Control 2012



# Yellow Nutsedge Control with Sandea



Treated on June 11 (3 to 5 leaf stage of nutsedge), and X2 on July 9.  
Methylated seed oil (0.5% v/v) added to all treatments.

# Yellow Nutsedge Conclusions

- Dual Magnum is the best treatment, with Zeus providing some control.
- Sandea is good for POST control
- Sulfosulfuron (Certainty, Maverick) – NOT Registered in tomatoes, but excellent nutsedge control

# Nutsedge control

Certainty 1.25 oz/a - Untreated



“Dodder – It is like a car wreck – a curiosity if you are not involved, but a real hassle if it is your field”      Chuck Rivara













# Crop Rotation??

## Susceptible crops

- Alfalfa
- Asparagus
- Carrot
- Onion
- Safflower
- Sugarbeet
- Melon

**Grass type crops are Resistant**





# Hand removal

- Hand crews typically miss about 5 to 10% of attached dodder plants
- Follow initial hand cultivation with a second spot treatment about 3 weeks later to catch new or missed infestations
- Plants removed from the field?



# Dodder Resistant Tomatoes

- Processing tomato varieties shown to have resistance to dodder:

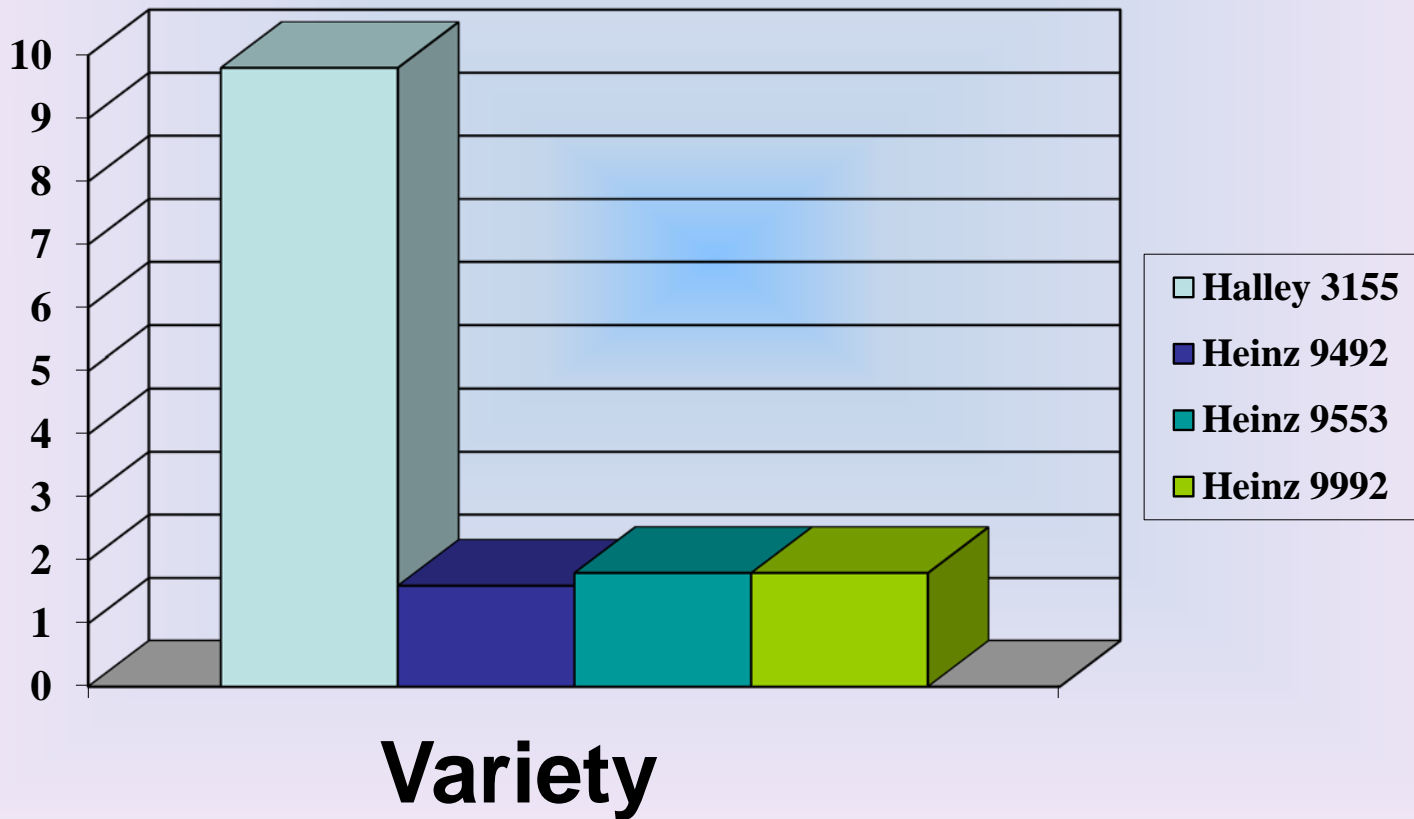
**CDX 233, H9492, H9553, H9888,  
H9992, H9997, H1100, and**

**SVR 024 2 0665**

(Probably a few others)

# Tomato Variety - Dodder Control

Number of Dodder / 200m row







43



**Dodder susceptible  
H9665**

**Dodder resistant H9492**

# Field Testing of Tomato Varieties For Dodder Resistance

H9888

Peto 771





**H9492**

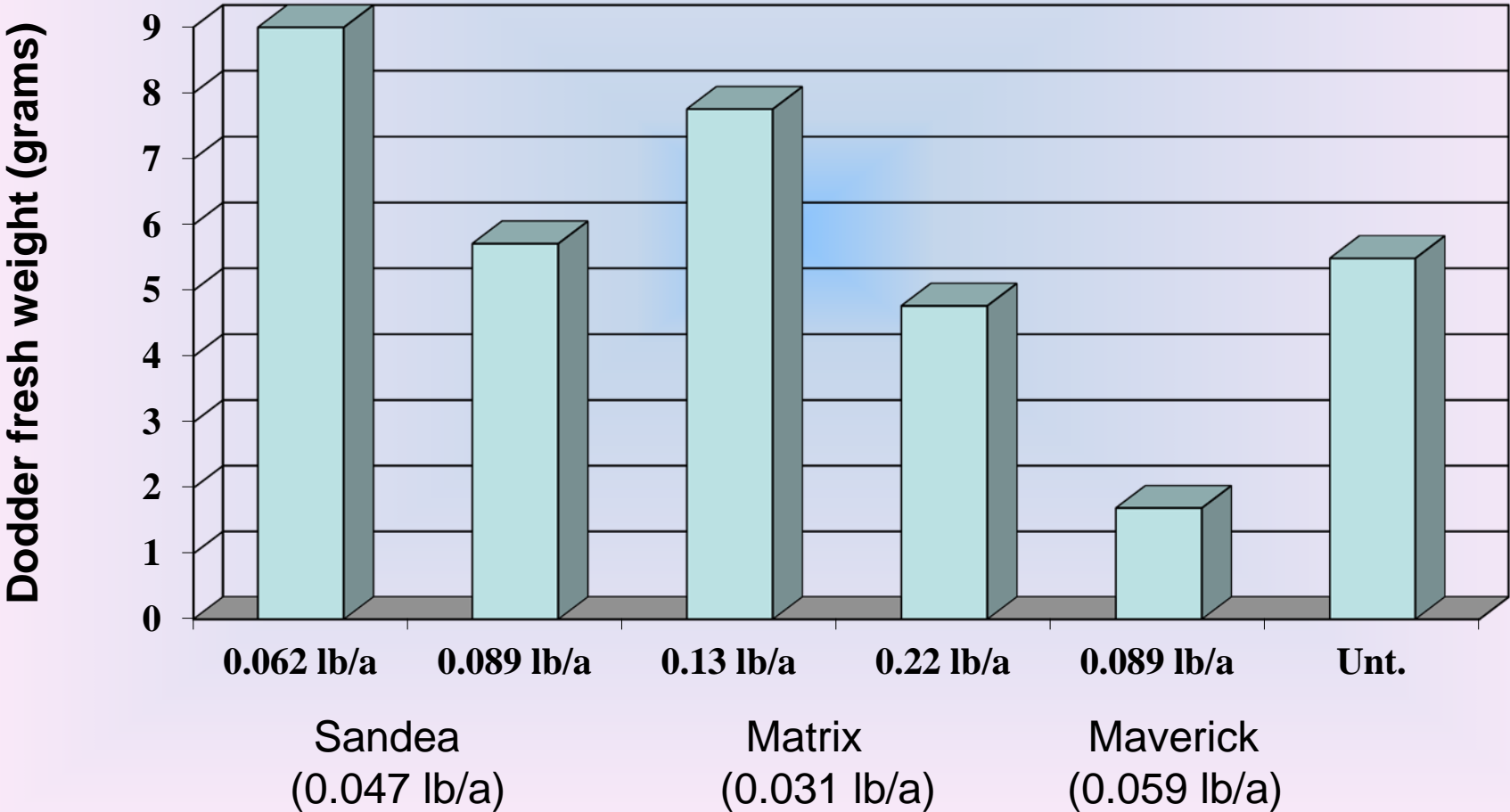
**H9665**

# Postemergence Herbicide options

- Rimsulfuron
- Halosulfuron
- Sulfosulfuron – Not labeled



# Dodder Biomass after Herbicide Treatment







# Conclusions

- Crop rotation to grass type crops
- Tolerant varieties reduced dodder attachments and dodder growth
- Matrix (rimsulfuron) and Sandea (halosulfuron) only marginally effective
- Plant late with transplants (May ?)
- Combination of tolerant varieties and Matrix is the most effective option



**Thanks to the  
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# Questions?



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