

# FIELD BINDWEED MANAGEMENT FOR PROCESSING TOMATOES

SCOTT STODDARD, UCCE  
MERCED AND MADERA  
COUNTIES

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EMERITUS

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# FIELD BINDWEED

*Convolvulus arvensis*



# CONVOLVULACEAE

- Morningglory family
  - Tall morningglory,  
*Ipomoea purpurea*
  - Japanese morningglory,  
*Ipomoea nil*



# UC IPM GUIDELINES

- **Seedling field bindweed**

- Metam pre-plant
- Trifluralin (Treflan) at layby
- Post emergence, directed sprays with carfentrazone (Shark)
- Cultivation



UC Statewide IPM Program  
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- Fall glyphosate (Roundup) applications (also Paraquat, Shark)

- **Established bindweed**

- Roundup (fall)
- Cultivation



UC Statewide IPM Program  
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# EXTENSIVE ROOT SYSTEM

> 10 FT  
UNDERGROUND  
HORIZONTAL STEMS  
(RHIZOMES)





# 2007 VARIETY TRIAL

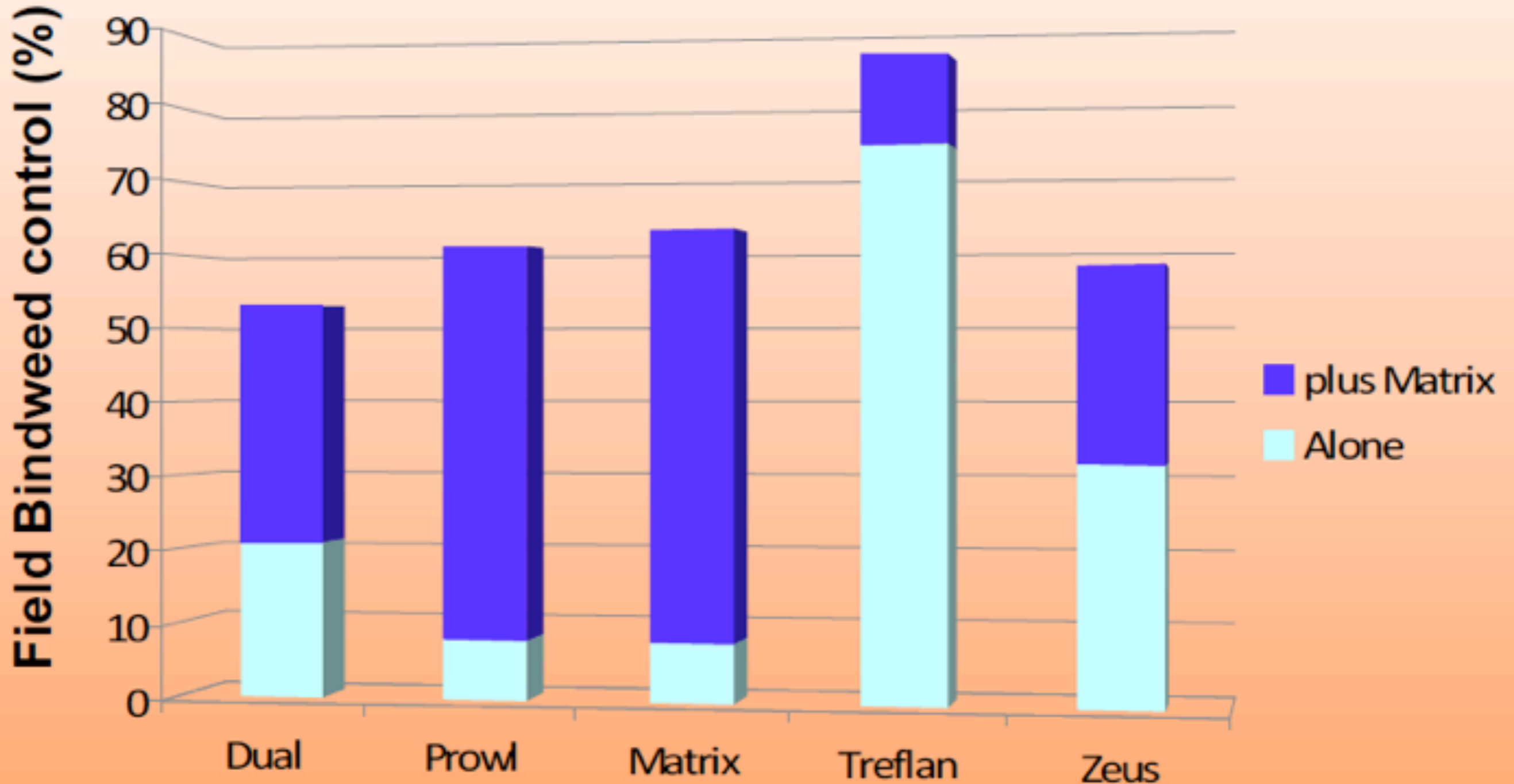
# BACKGROUND

- Reduced tillage favors perennial weeds.
- Earlier work by Bob Mullen suggested partial control with rimsulfuron (Matrix) pre/post, Shark post, Treflan pre.
- 2010 - 11: Tom Lanini reports Treflan as the best registered material to control bindweed; control improved with post applications of Matrix or Shark.

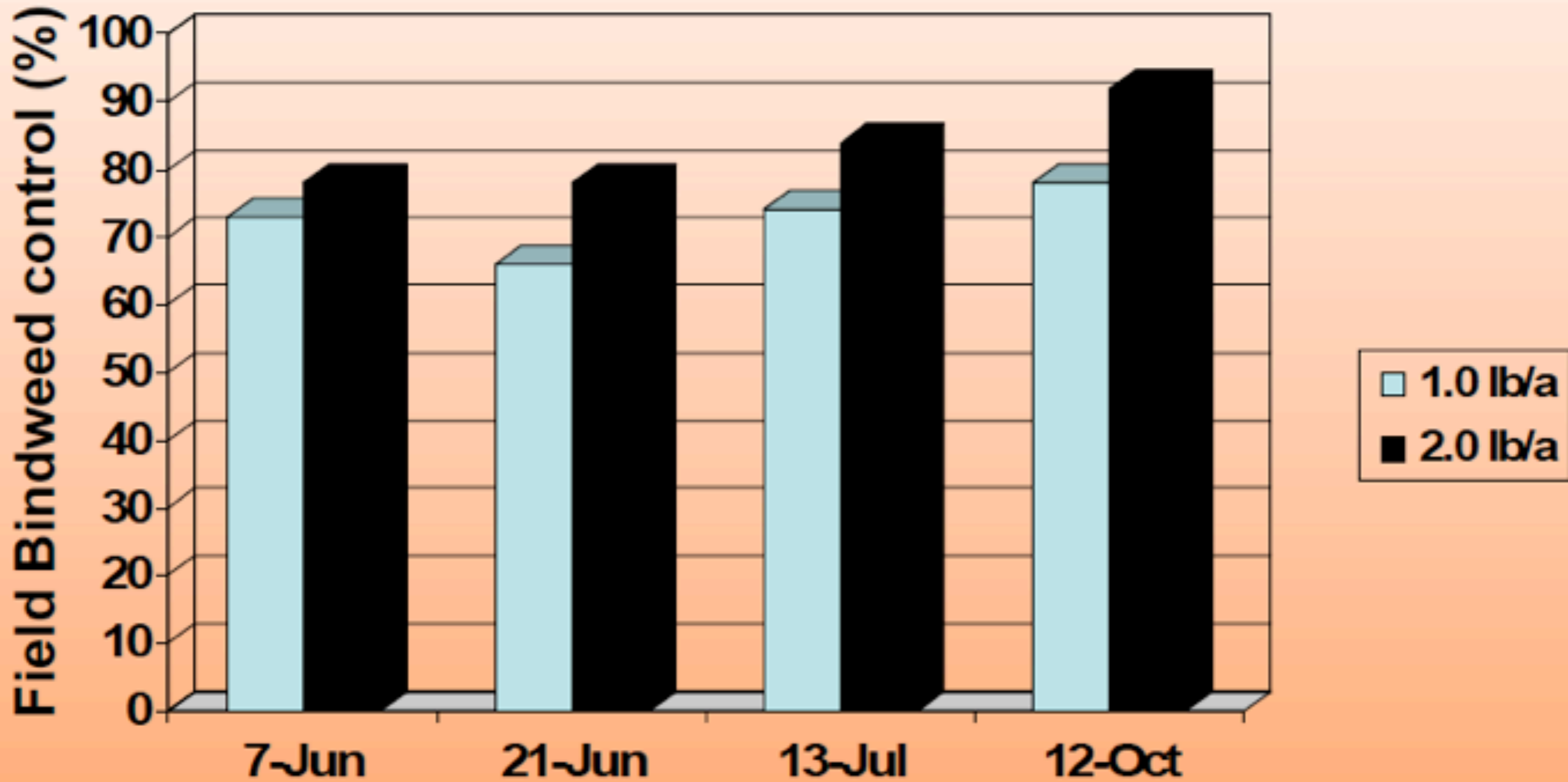
# Trial work (sulfentrazone - Zeus)



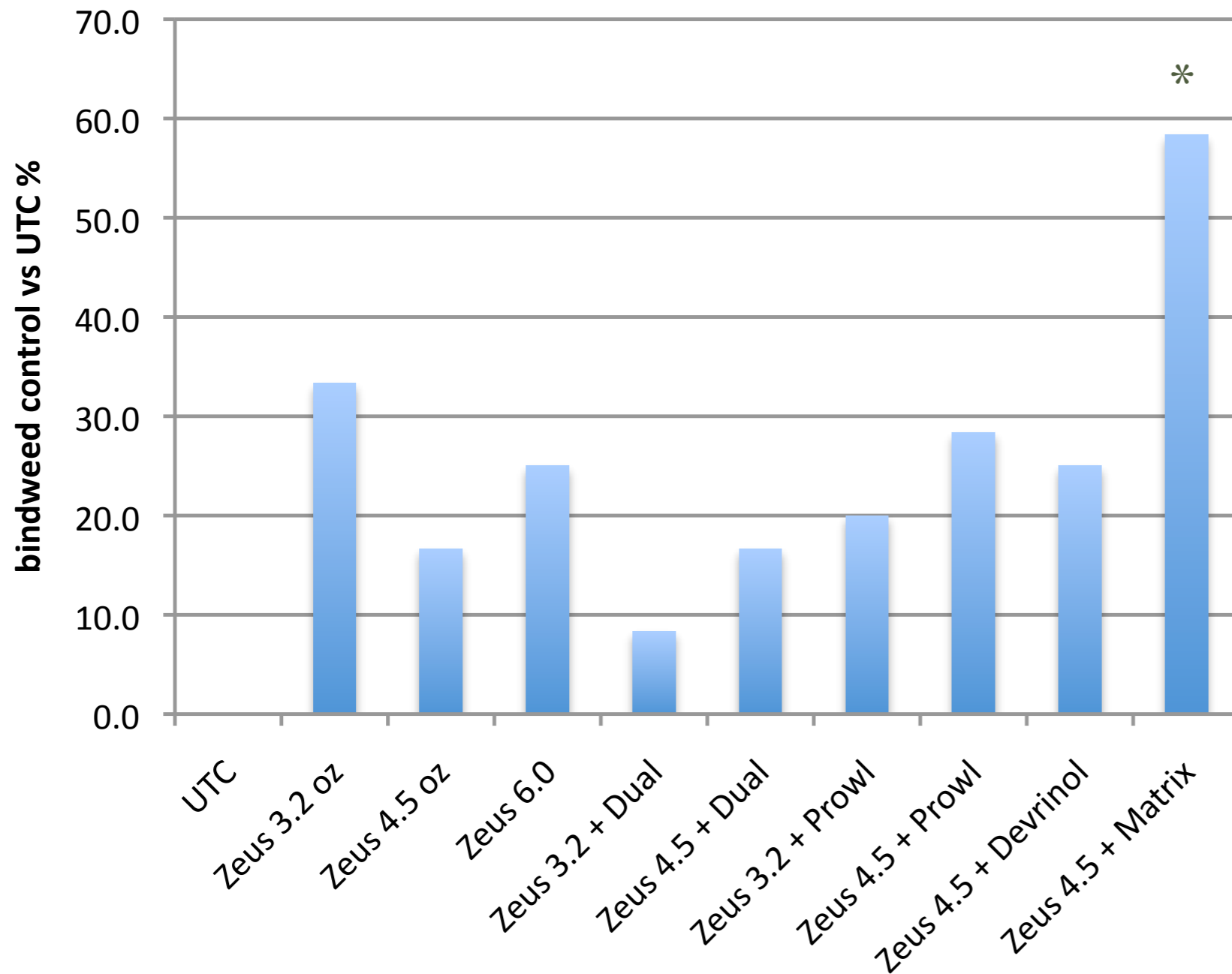
# Field Bindweed control (%) on July 13, 2011



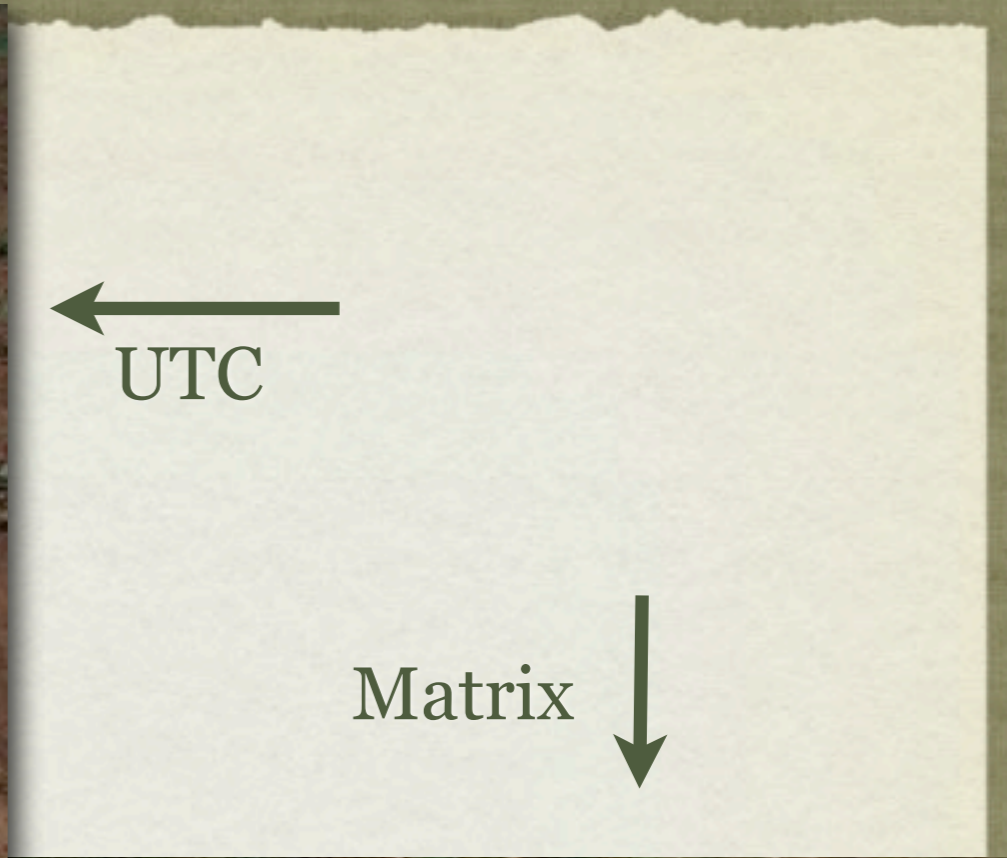
# Field Bindweed Control (%) at Two Rates of Treflan



## Zeus Trial, Sept 2011



- No significant reduction in bindweed by any of the Zeus PPI treatments.
- Total weeds reduced with herbicides
- Matrix post significant at 0.10



# Field bindweed control trial

2011



# 2012 TRIALS



# BINDWEED TRIAL AT WSREC AND UCDC 2012

## ● **PPI Trts:**

- UTC (no herb, no cultivation)
- Prowl (pendimethalin) 3 pints
- Matrix 2 oz/A
- Treflan 2 pints/A
- Spartan/Zeus 3.2 fl oz/A

## ● **Post trts:**

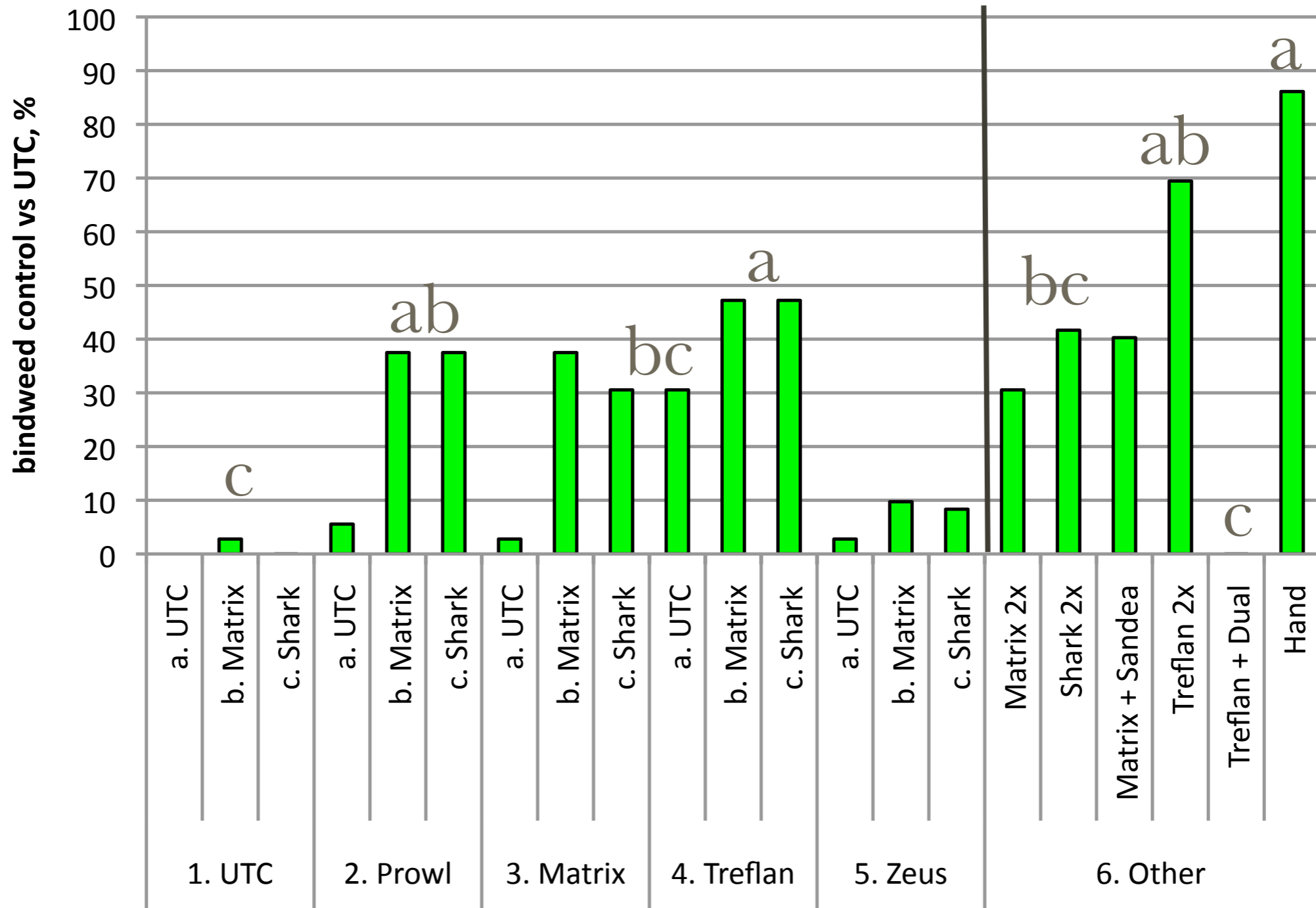
- UTC, Matrix 2 oz/A, Shark 2 fl oz/A

## Other:

1. Matrix post 2x
2. Shark post 2x
3. Matrix + Sandea (halosulfuron) post
4. Treflan pre and post
5. Treflan + Dual Magnum (metalochlor) 1.5 pints/A PRE
6. UTC (no herb, hand weed)

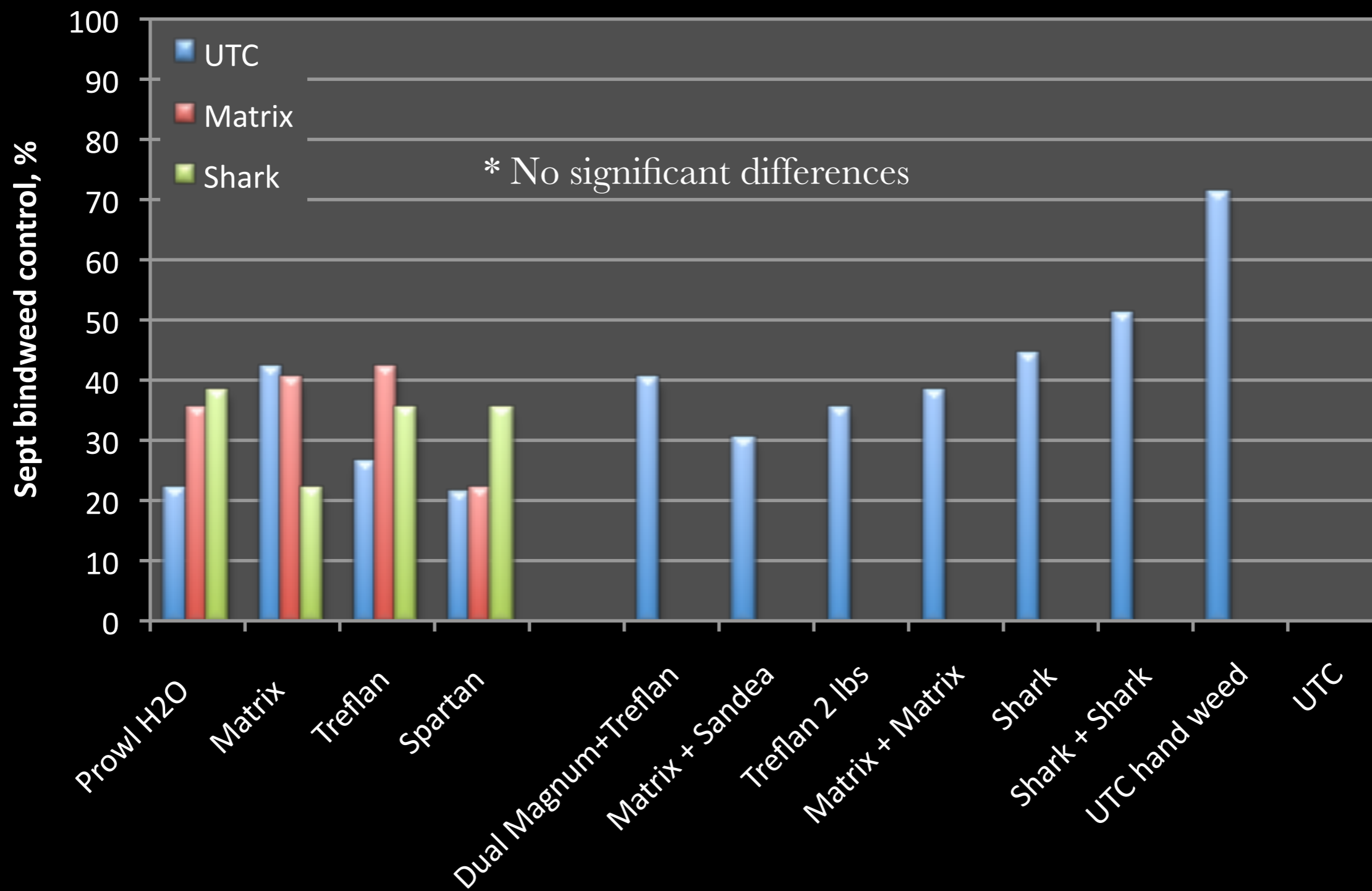


# WSREC Bindweed Trial 2012



August Weed Rating

# UC Davis 2012 Bindweed Trial



# 2013

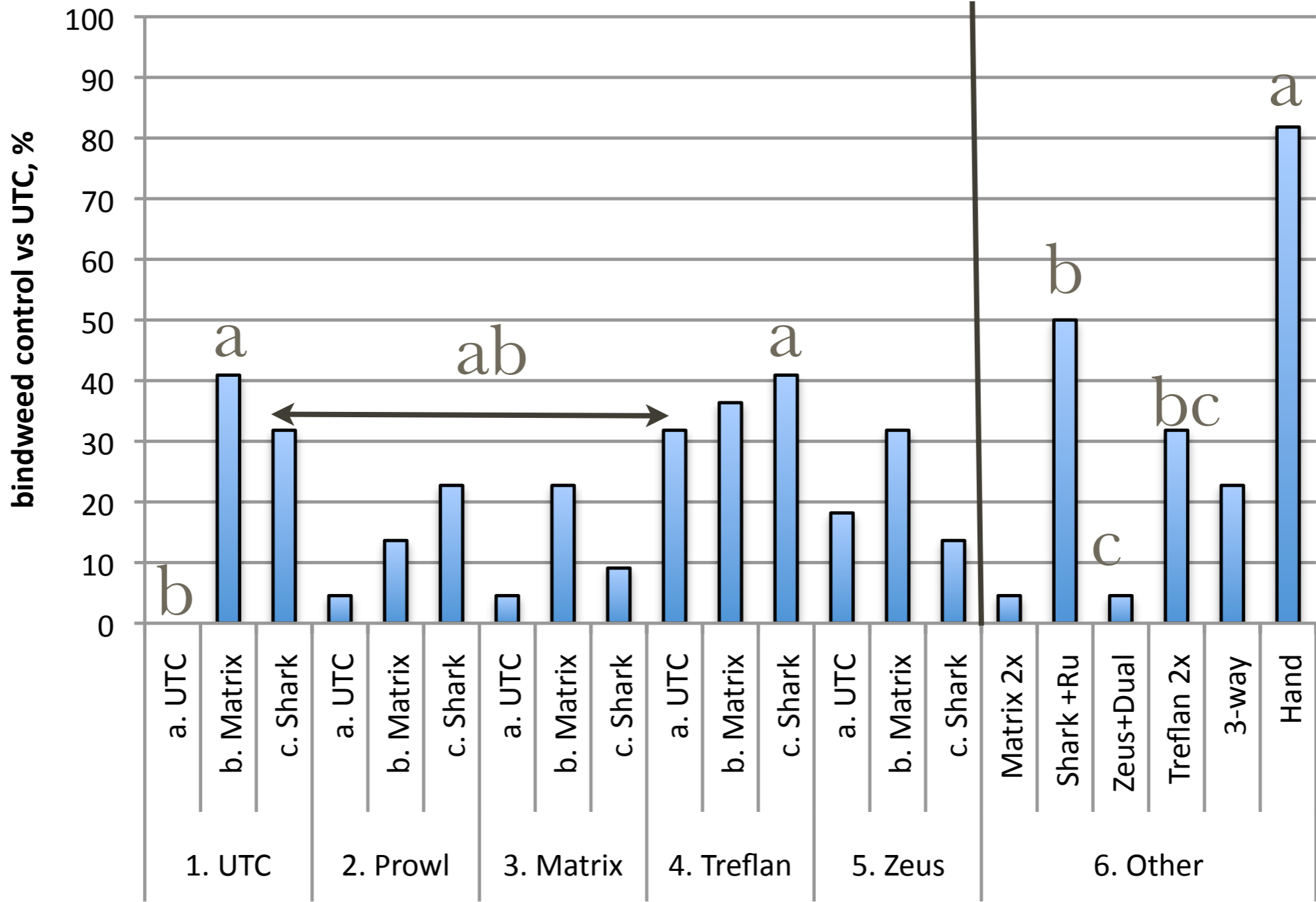
- **UCD**

- Lynn Sosnoskie adds planting date, glyphosate treatments.

- **WSREC**

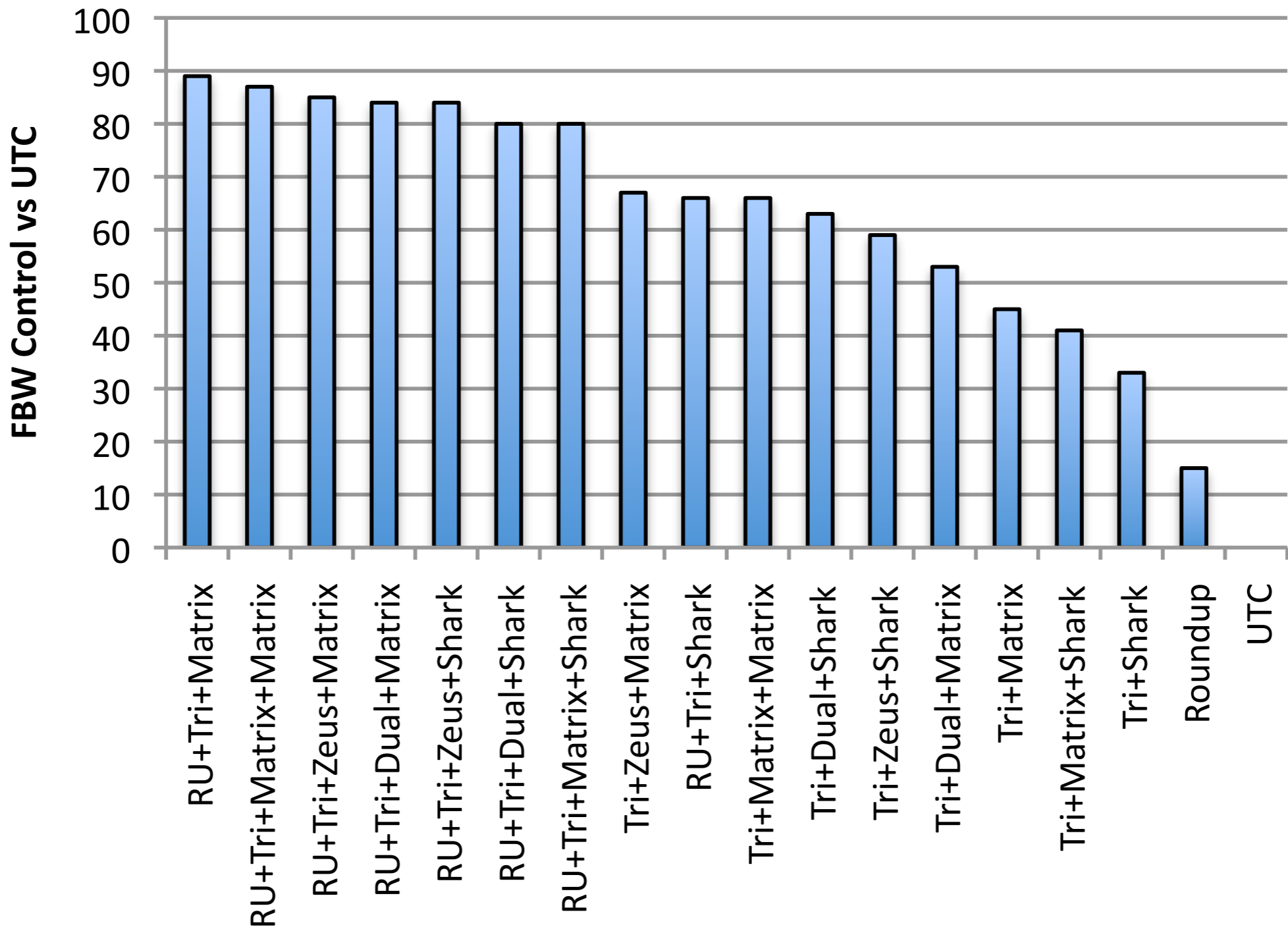
- 3-way (Treflan + Dual PRE, Matrix POST)
- Roundup + Shark POST 2x
- Zeus + Dual

# WSREC Bindweed Trial 2013



July weed rating.

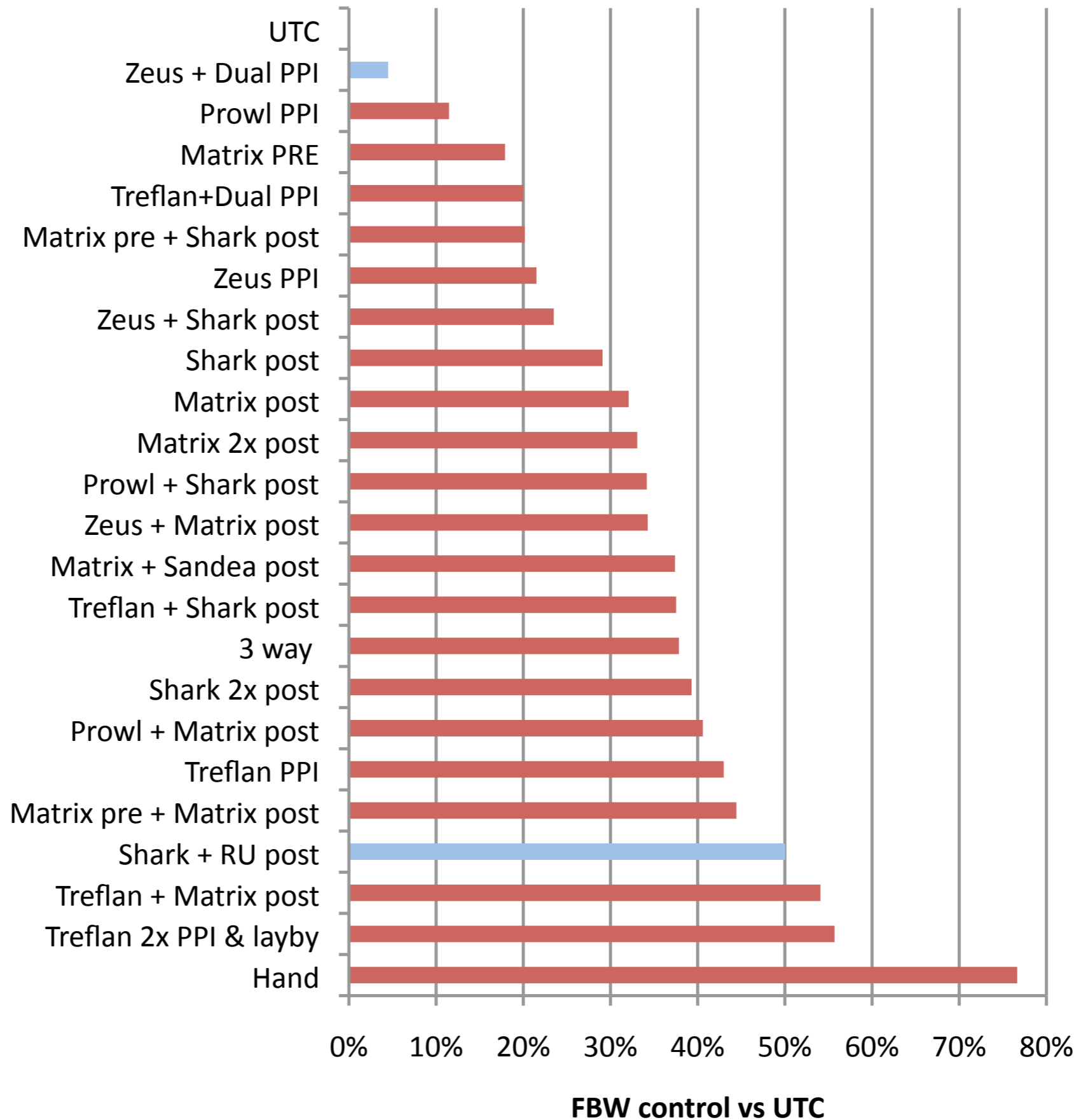
# UC Davis 2013



8 weeks after transplanting

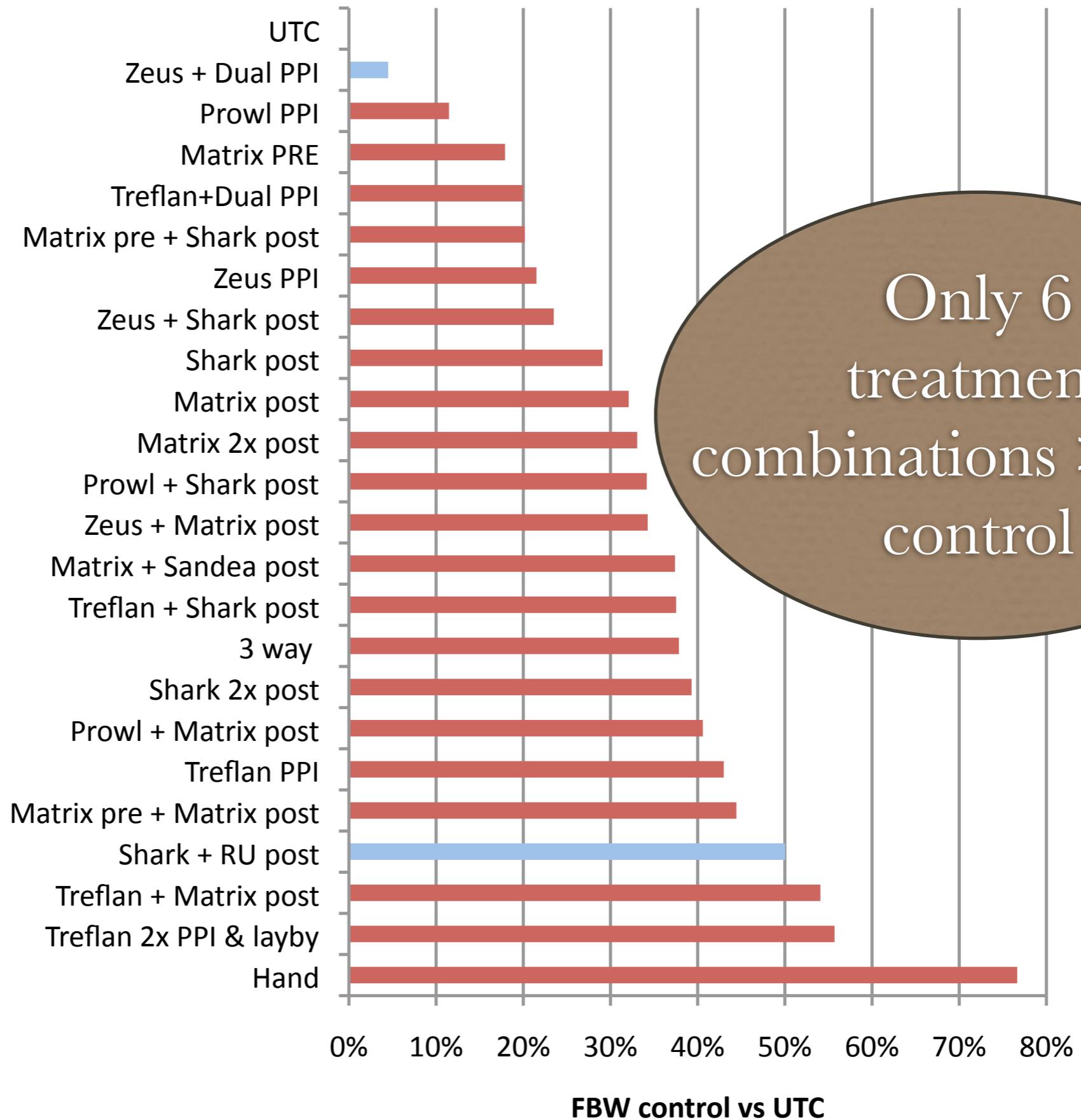
PUTTING IT ALL TOGETHER

# Field Bindweed Summary 2011 - 13



PUTTING IT ALL TOGETHER

# Field Bindweed Summary 2011 - 13



Only 6  
treatment  
combinations > 40%  
control

MOVING  
PAST  
40%





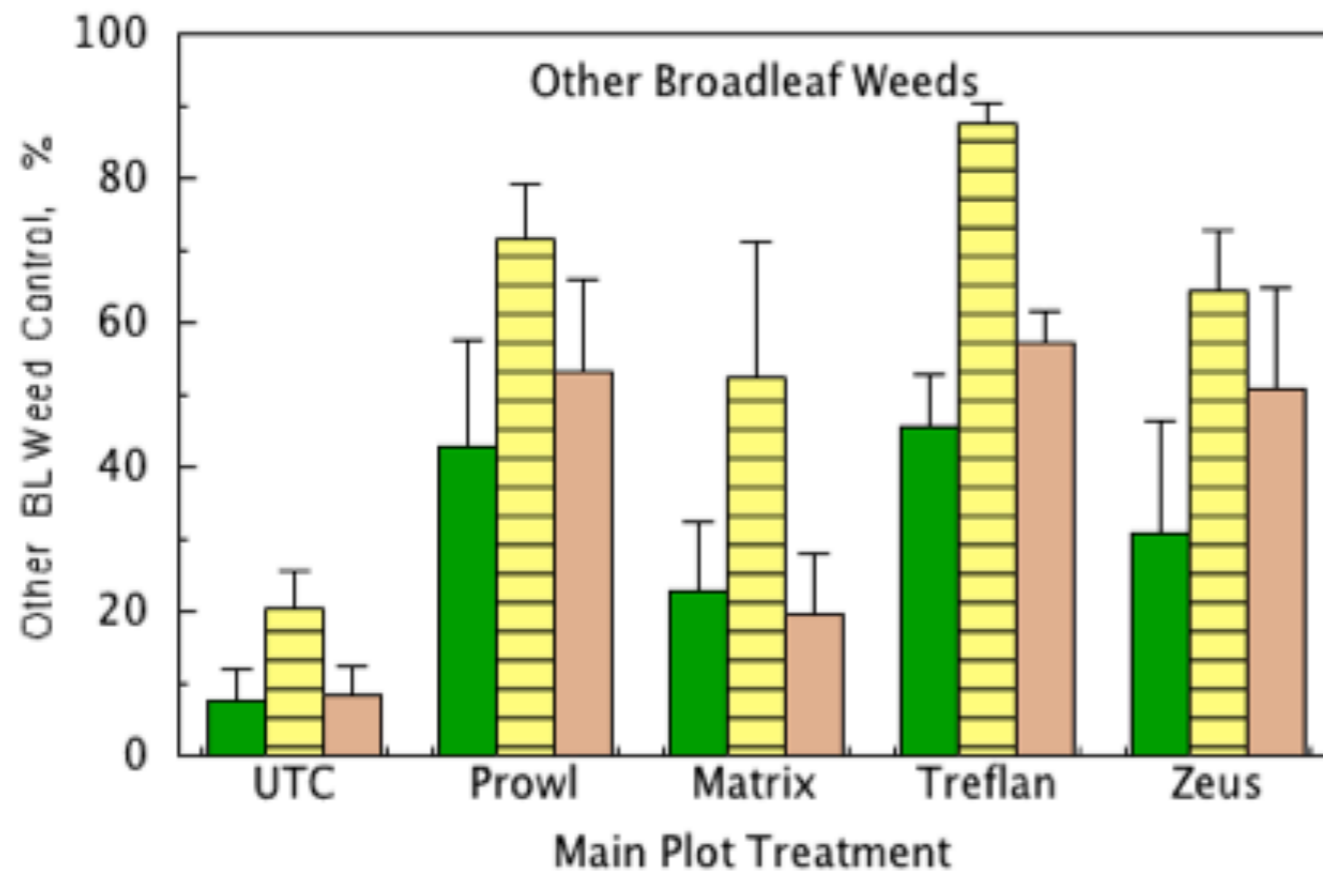
Prowl H<sub>2</sub>O only



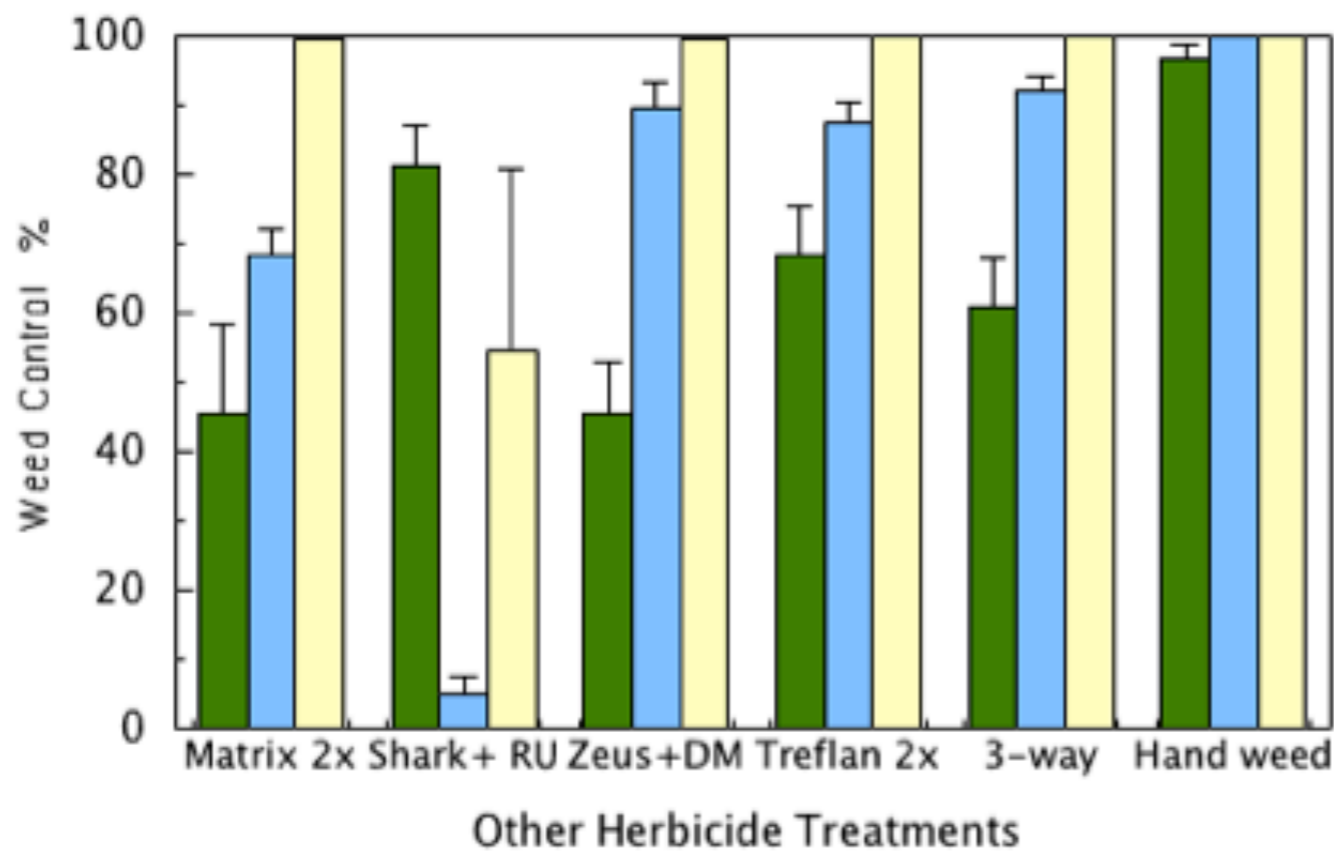
Prowl + Matrix



Treflan only



Split Plot Trt  
 a. UTC  
 b. Matrix  
 c. Shark

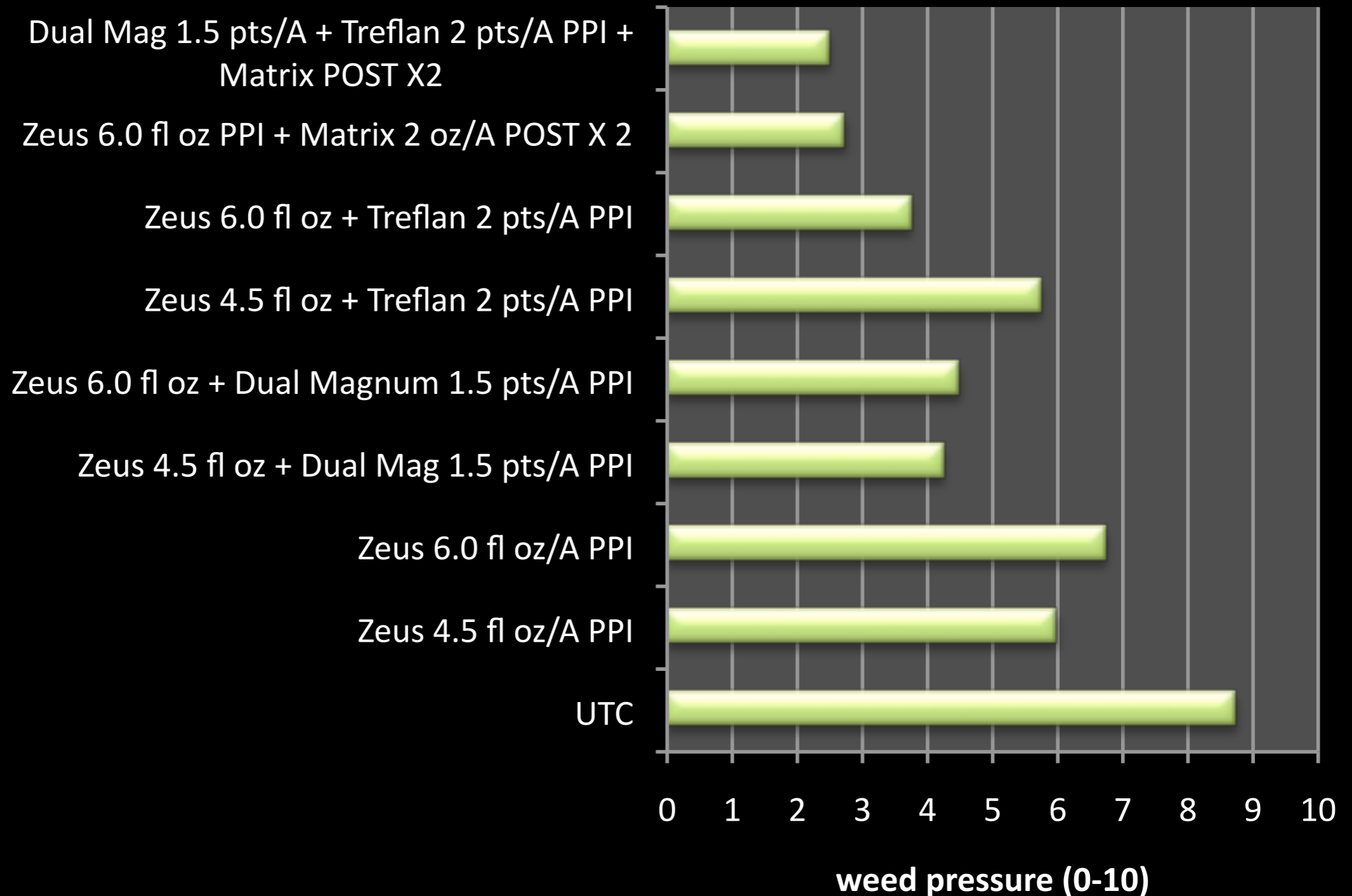


Other trts  
 Bindweed  
 Broadleaf  
 Grass

**OTHER  
WEEDS**

# ZEUS 2013

## total weed pressure



# ZEUS 2013

## total weed pressure



flan 2 pts/A PPI +  
T X2

2 oz/A POST X 2

reflan 2 pts/A PPI

reflan 2 pts/A PPI

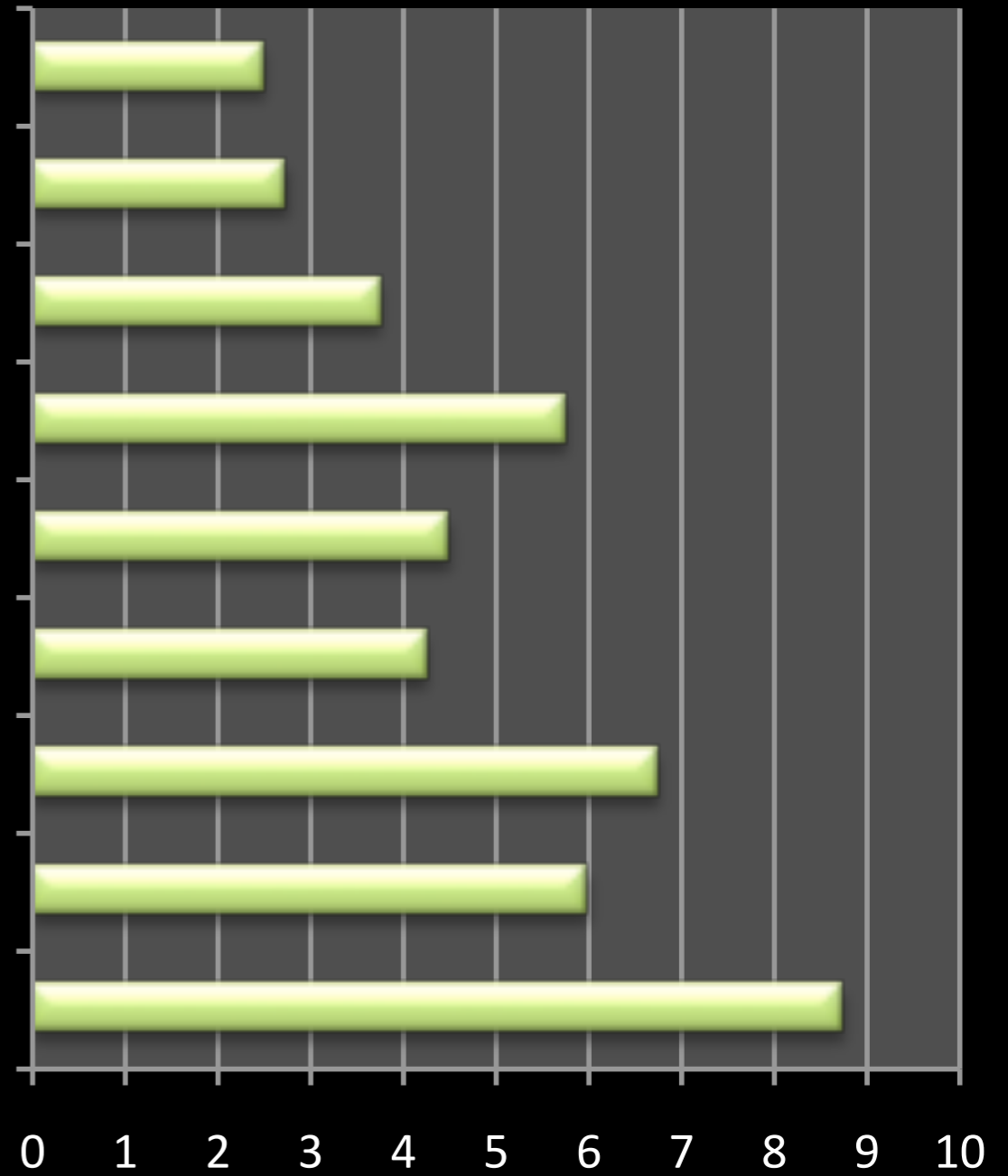
um 1.5 pts/A PPI

Mag 1.5 pts/A PPI

us 6.0 fl oz/A PPI

us 4.5 fl oz/A PPI

UTC

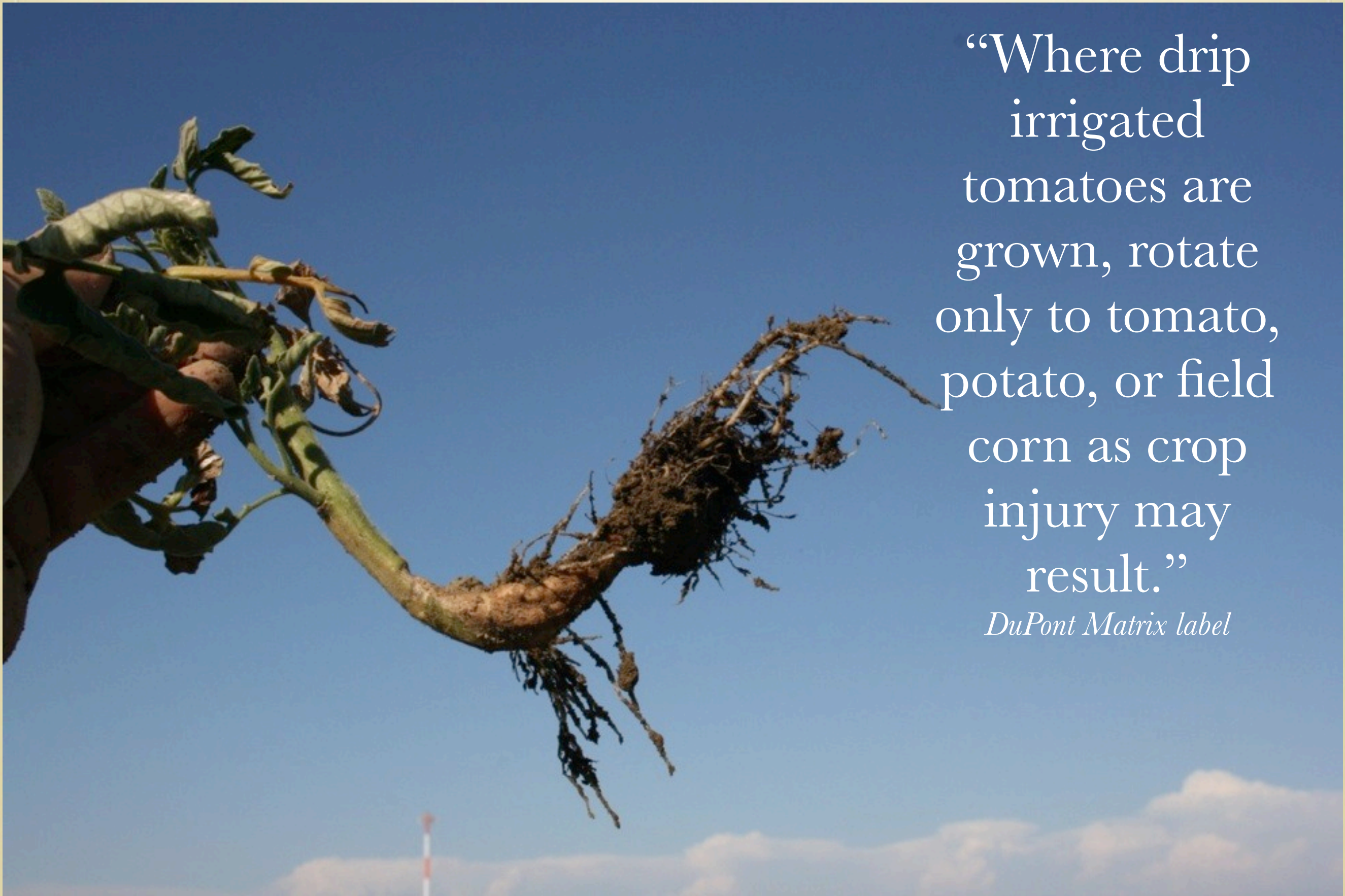


weed pressure (0-10)

# SUMMARY

1. Best treatment Treflan PRE + Matrix POST.
  - Matrix +15 - 20% “boost”
2. Higher rates of Matrix at 4 oz (2X rate) may improve control; 2x Treflan.
3. Roundup may help (only 1 yr of data).





“Where drip irrigated tomatoes are grown, rotate only to tomato, potato, or field corn as crop injury may result.”

*DuPont Matrix label*



# THANK YOU

THIS PROJECT WAS FUNDED BY A GRANT FROM THE CALIFORNIA  
TOMATO RESEARCH INSTITUTE