Cabbage and Celery:

Herbicide activation with drip

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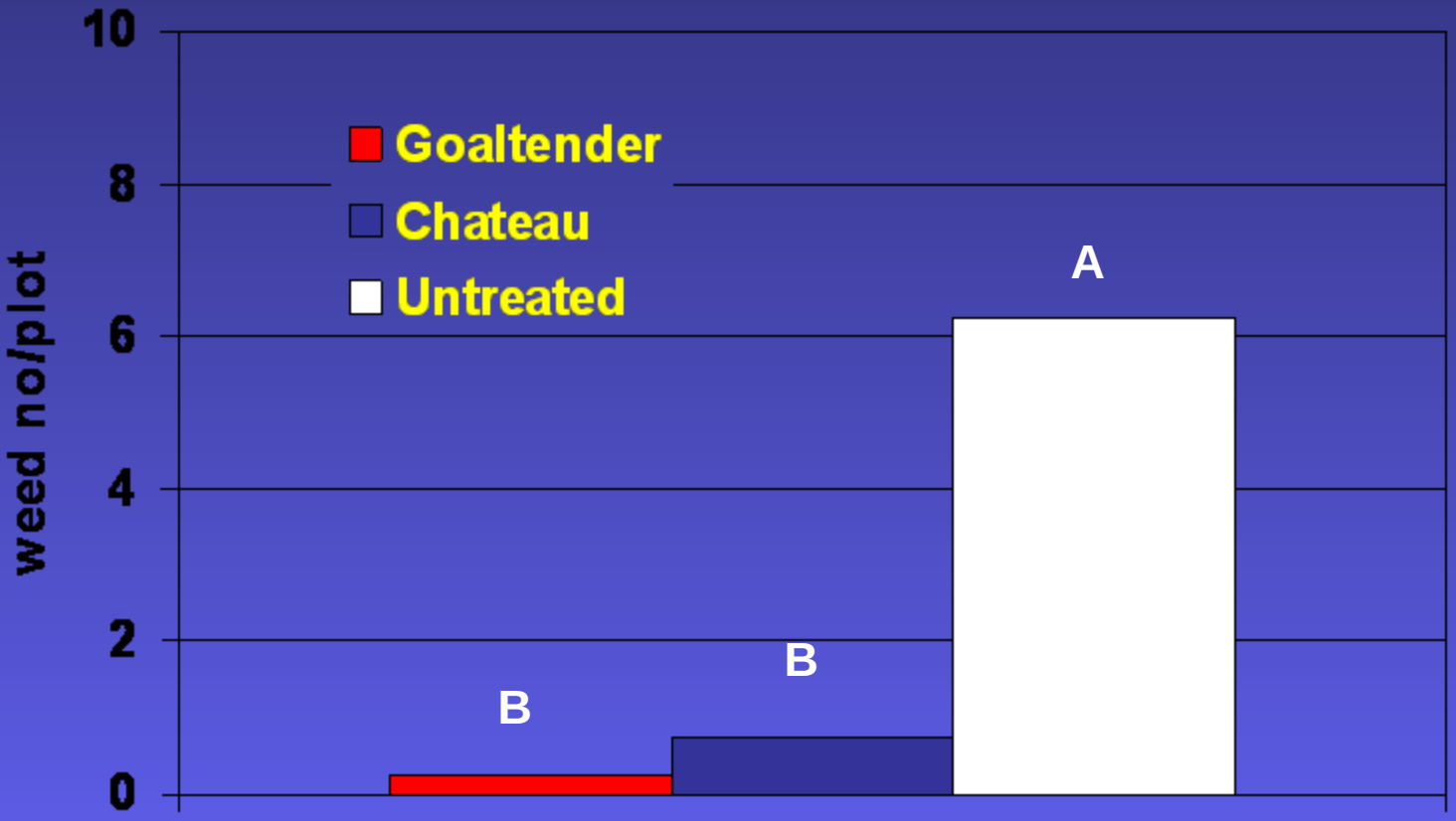
Pre-plant applied herbicides

- **Goaltender (oxyfluorfen) 0.25 lb a. i. /acre (1 pint)**
- **Chateau (flumioxazin) 0.063 lbs a. i. /acre**
- **(2 oz/acre of product)**

- **Application: Sprayed 1 day before planting to beds.**

- **Irrigation: single drip line for 2 crop rows**

Weeds in cabbage, Jan 12



Weeds: sowthistle, mallow, goosefoot

Injury to cabbage:
0 (none) to 10 (dead)

Untreated = Chateau = Goaltender

<1

Number of marketable heads:
Similar in all treatments

Celery:

- Goaltender (oxyfluorfen) 0.25 lb a. i. /acre
- Chateau (flumioxazin) 0.063 lbs a. i. /acre
- Spray Application 1 day before planting :

- to pre-irrigated beds
- to dry beds

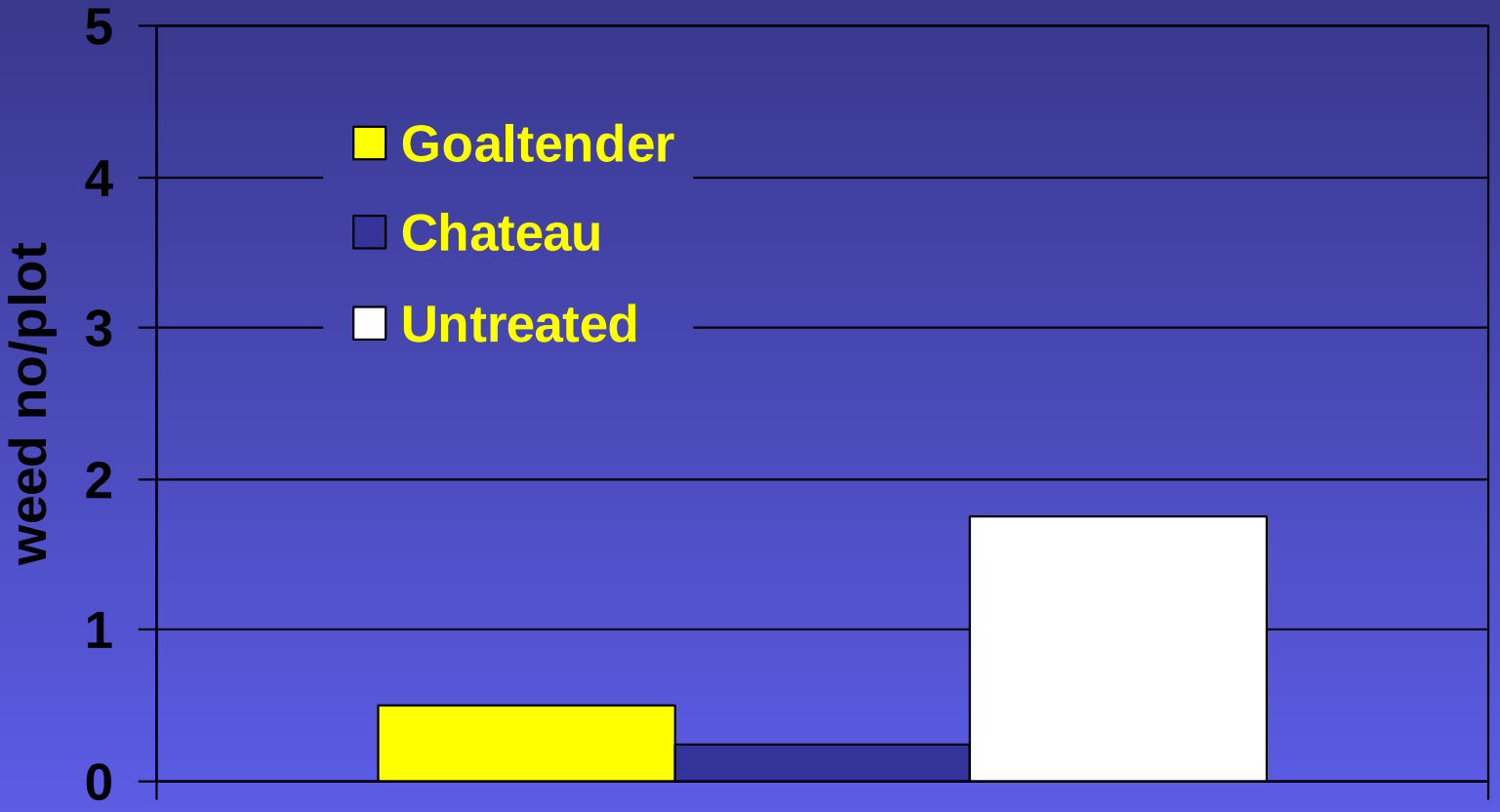
- Irrigation: single drip line for 2 crop rows

Pre-irrigated beds before drip installation and planting

Dry beds before drip installation and planting

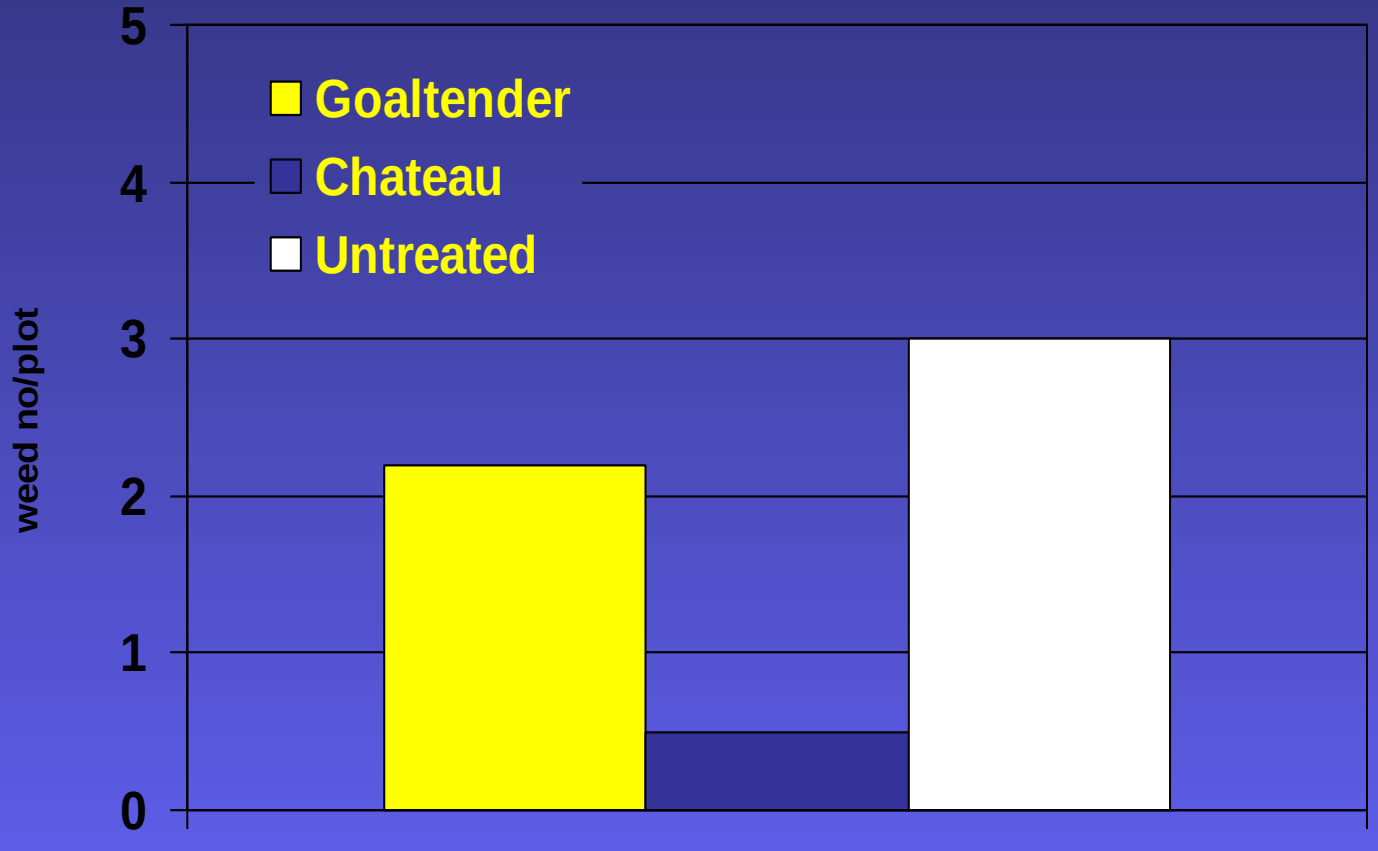
Results: Oxnard

Weeds in celery: pre-irrigated beds, 2 weeks after planting



Weeds: nettle, groundsel

Weeds in celery: dry beds, 2 wks after planting



Weeds: nettle, groundsel

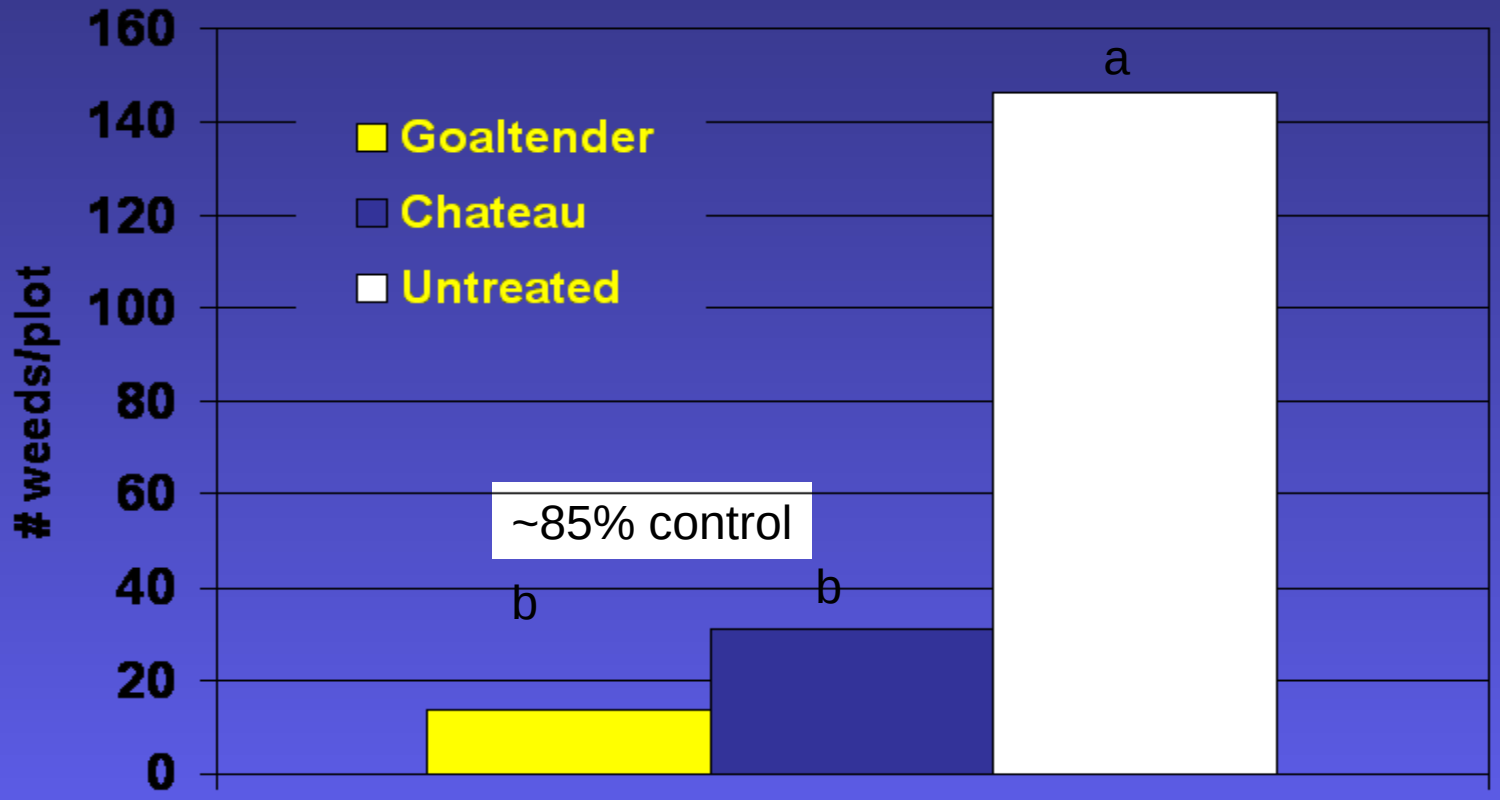
Injury to celery:
0 (none) to 10 (dead)

Untreated = Chateau = Goaltender

<1

Results: Santa Paula

Weeds in celery: pre-irrigated beds, 2 weeks after planting



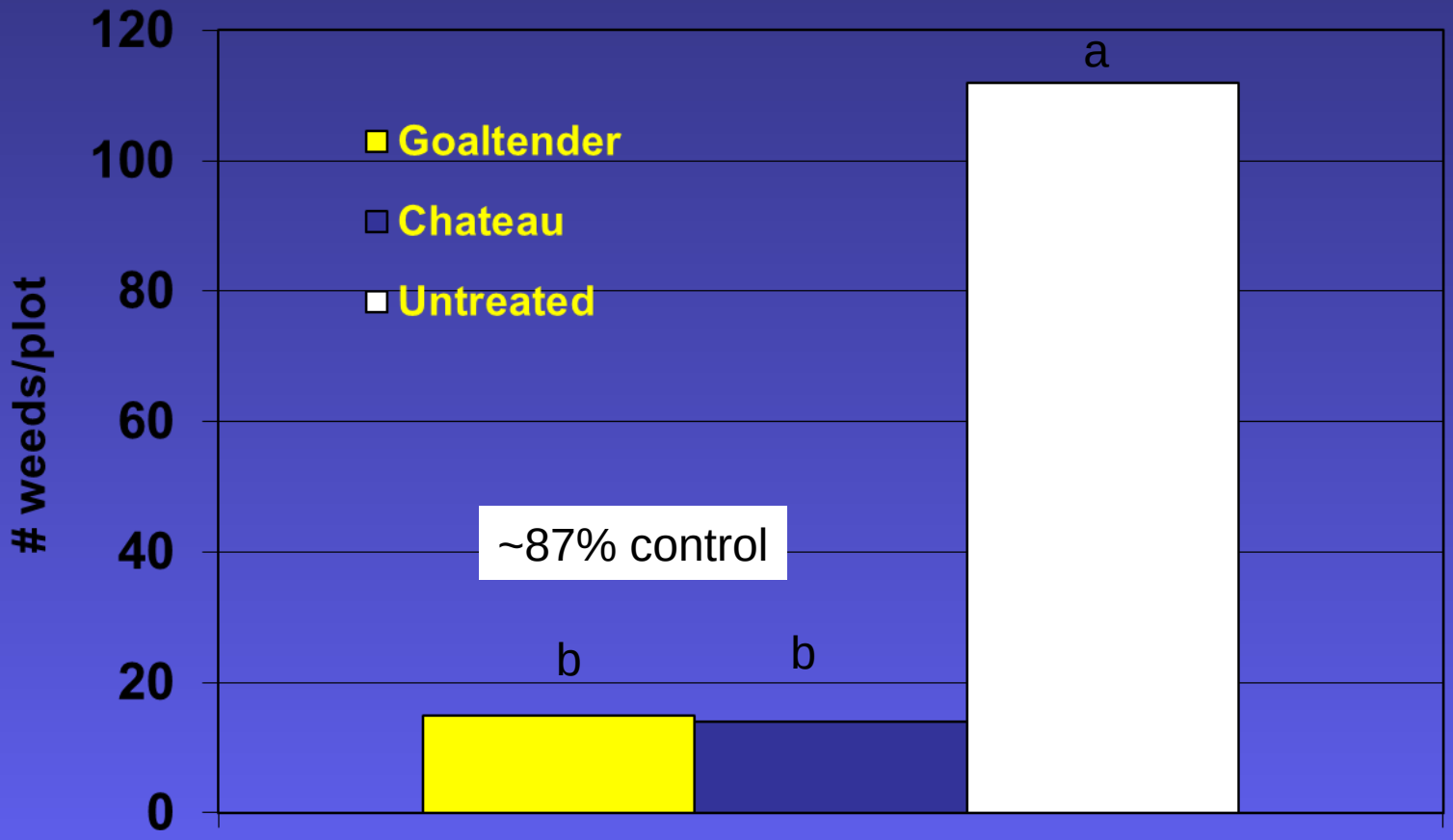
Weeds: goosefoot, mustards, nettle

Pre-irrigated beds:

Chateau vs Untreated

Pre-irrigated beds:
GoalTender vs Untreated

Weeds in celery: dry beds, 2 weeks after planting



Weeds: goosefoot, mustards, nettle

Dry beds:
Chateau vs Untreated

Dry beds:
GoalTender vs Untreated

Injury to celery:
0 (none) to 10 (dead)

Untreated = Chateau = Goaltender

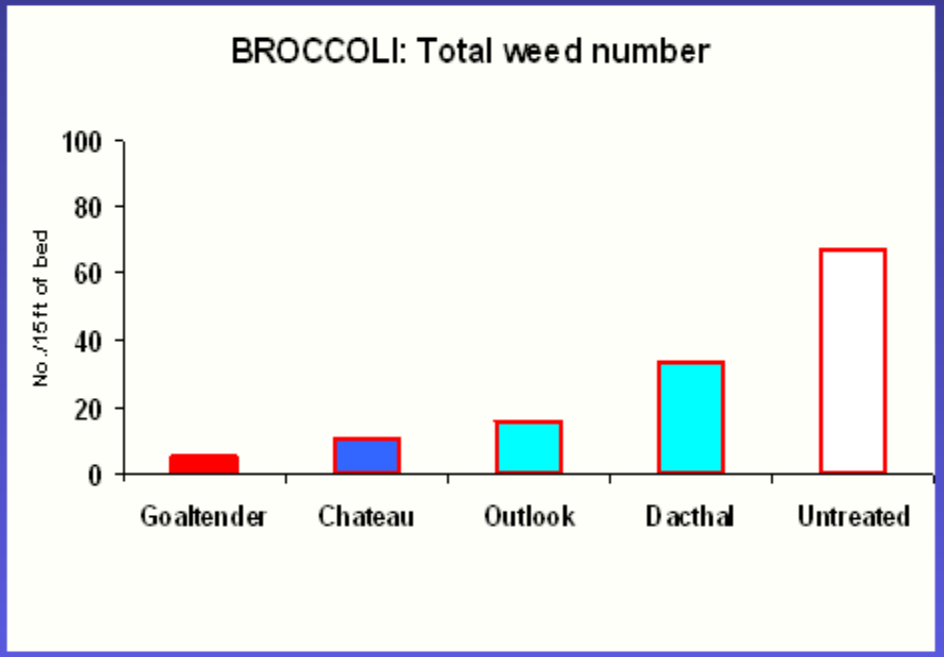
Pre-irrigated	**1.5**	**1.7**	**1.6**
Dry	**2.4**	**2.5**	**2.1**

NO SIGNIFICANT INJURY

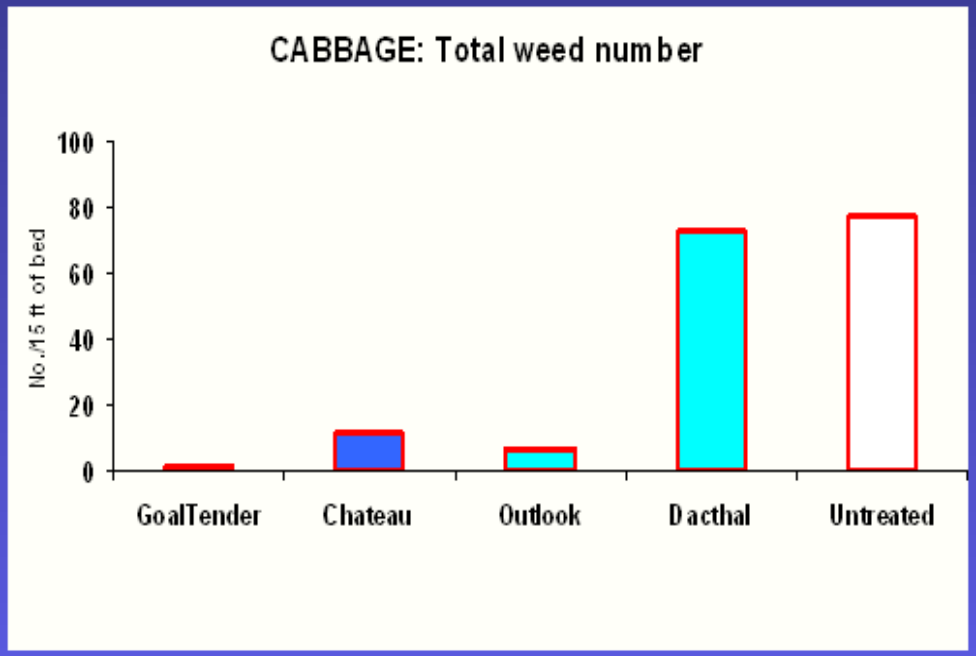
↓

NO SIGNIFICANT
Yield /head weight differences

How does this compare to sprinkler activation?



~88% control



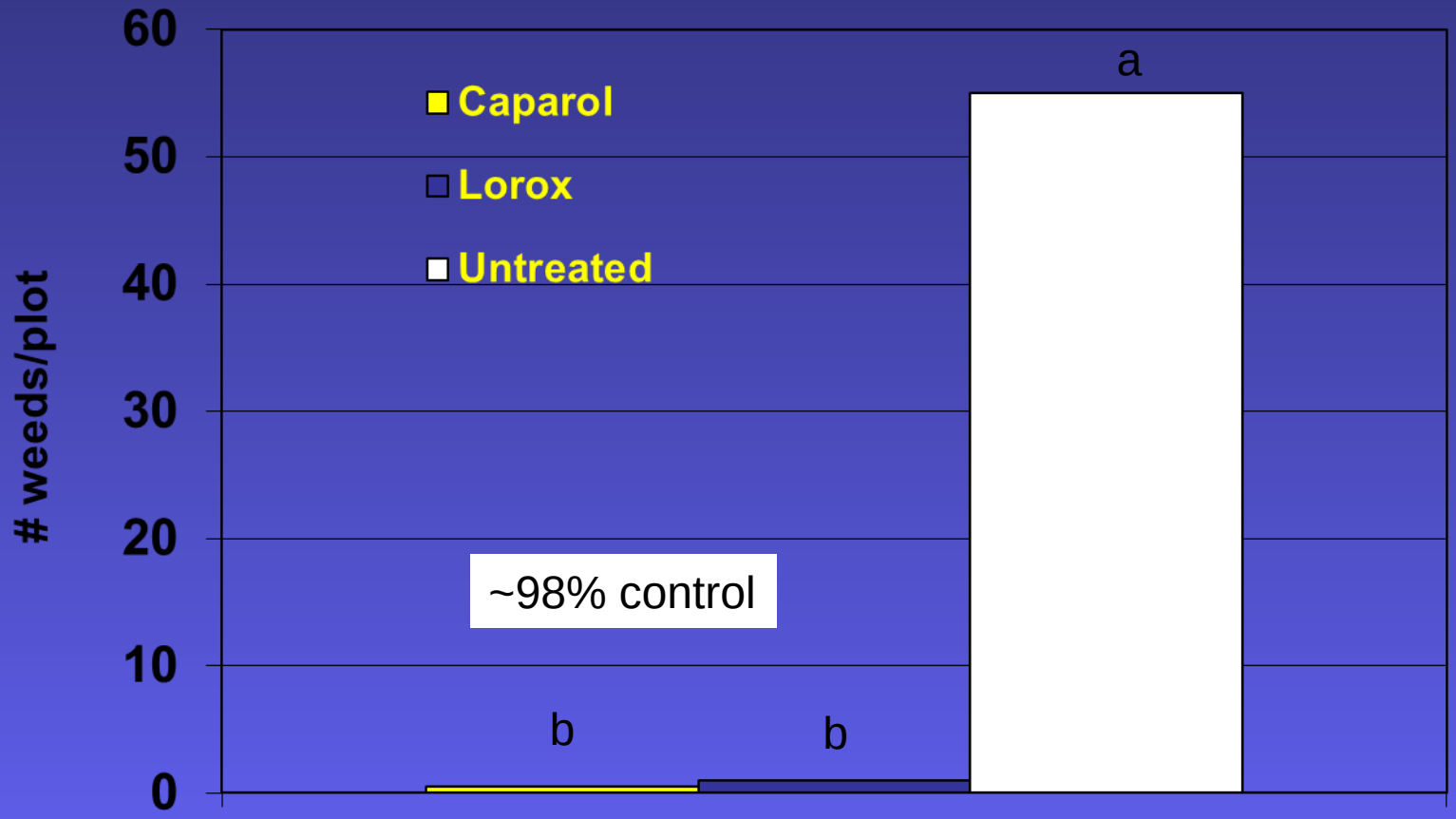
~92% control

What about post-transplant herbicides in drip–only system?

- Lorox (linuron) 2 lbs/acre (active ingredient 1.0 lbs/acre) applied 3 weeks post transplant

- Caparol (prometryn) 4 pints/acre (active ingredient 1.6 pints/acre) applied 3 weeks post transplant

Weed control



Weeds: goosefoot, mustards, nettle

Injury to celery:
0 (none) to 10 (dead)

Untreated = Caparol = Lorox

1.0 1.5 2.0

NO SIGNIFICANT INJURY

↓

NO SIGNIFICANT
Yield /head weight differences

Caparol vs Untreated

Summary: drip activation

- **Pre-wetted dry beds or post-transplant: effective and non-injurious**

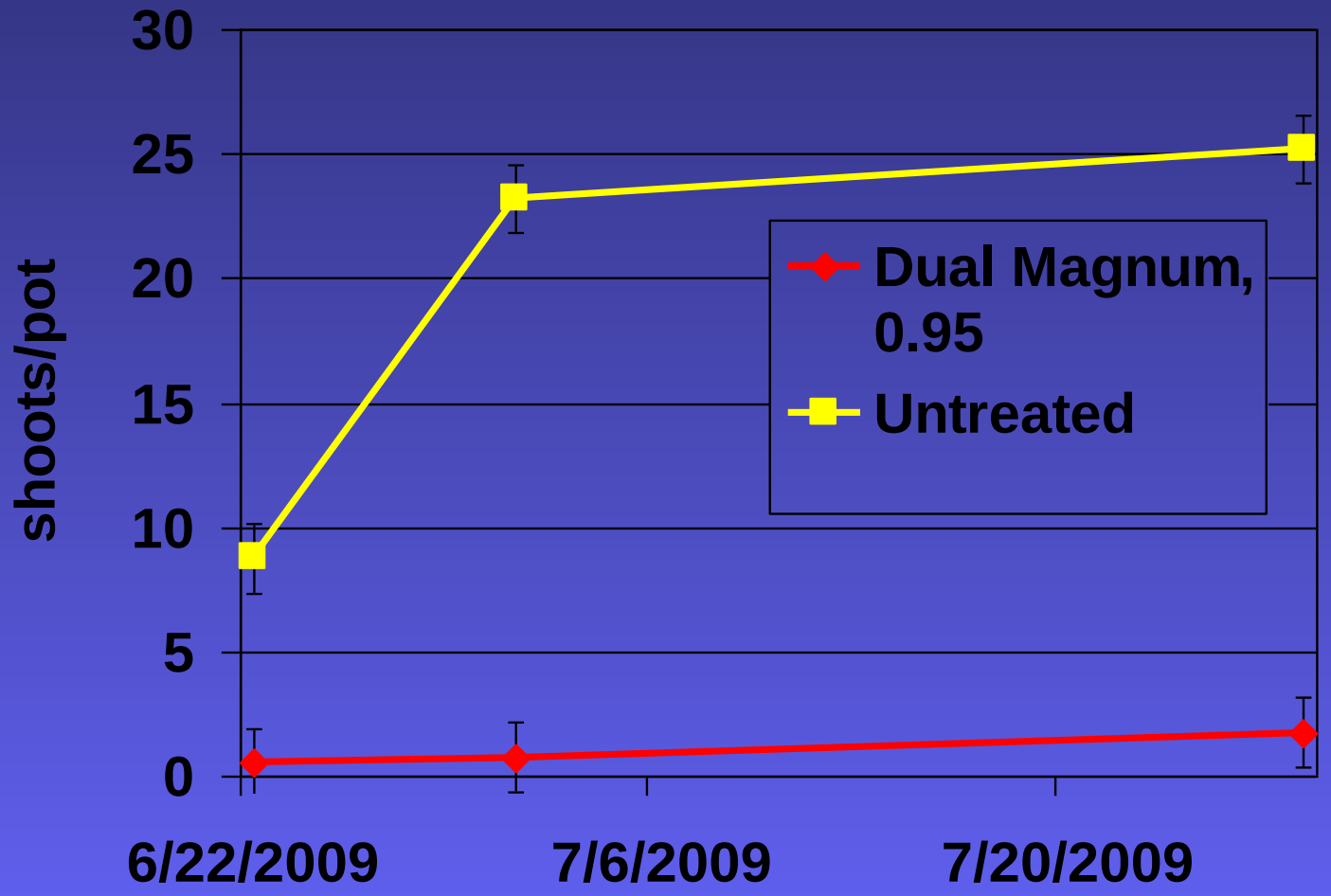
- **Goaltender , Lorox and Caparol– available, Chateau – 2014?**

Does plastic mulch improve herbicide efficacy?

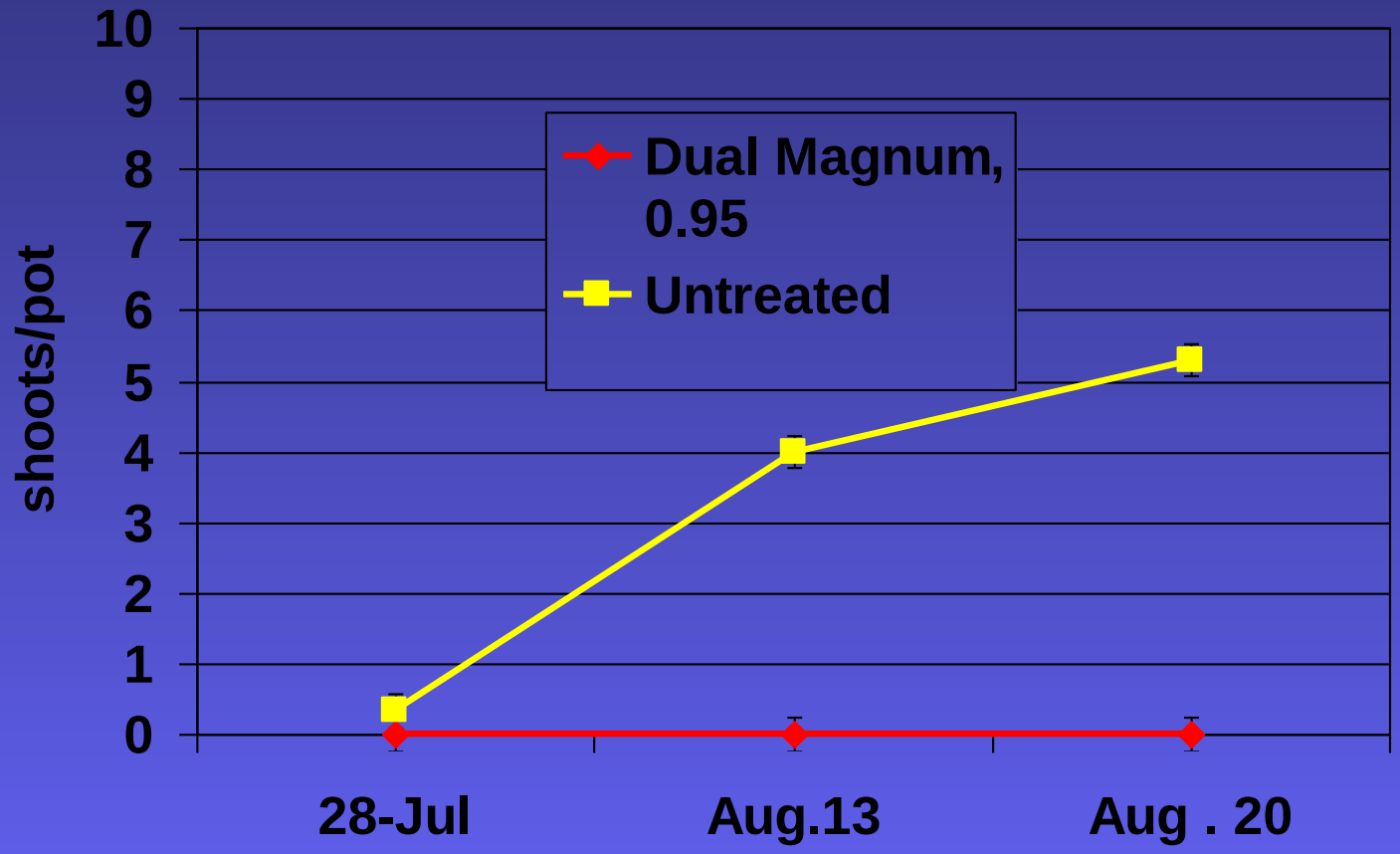
- Oxyfluorfen (Goaltender, Goal XL): prevents co-distillation

- S-metolachlor (Dual Magnum) ?

Purple nutsedge counts



Yellow nutsedge counts



Prowl H2O in lettuce

- **2.1 and 4.2 pints/A**
- **Applied to bed Oct 3, transplanted Oct 15**
- **Rio Bravo romaine, sprinkler irrigated**

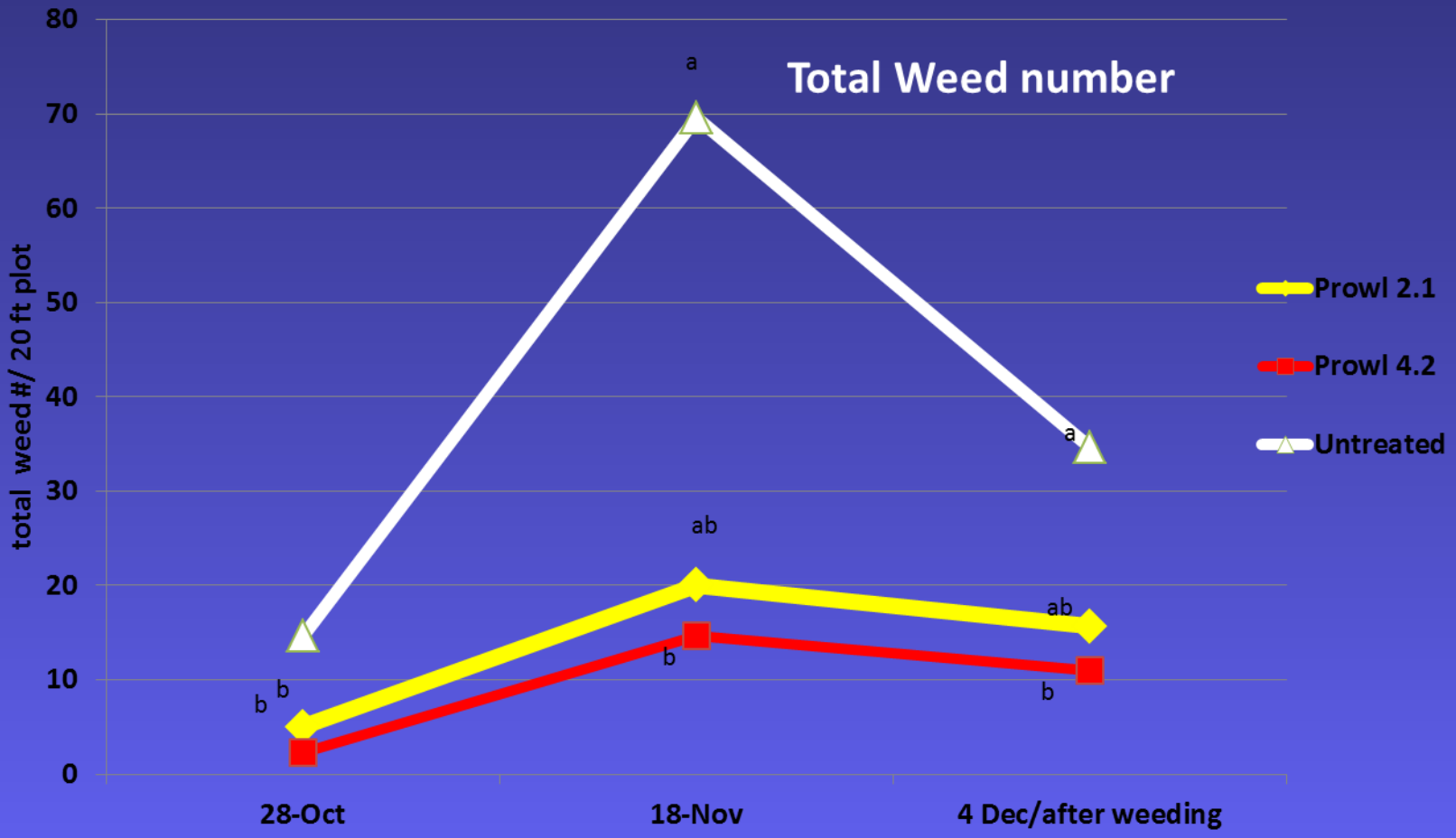
Crop Injury 0-10 (none to dead)

- **Prowl H2O 2.1 = 0.6**
- **Prowl H2O 4.2 = 1**
- **Untreated = 1**

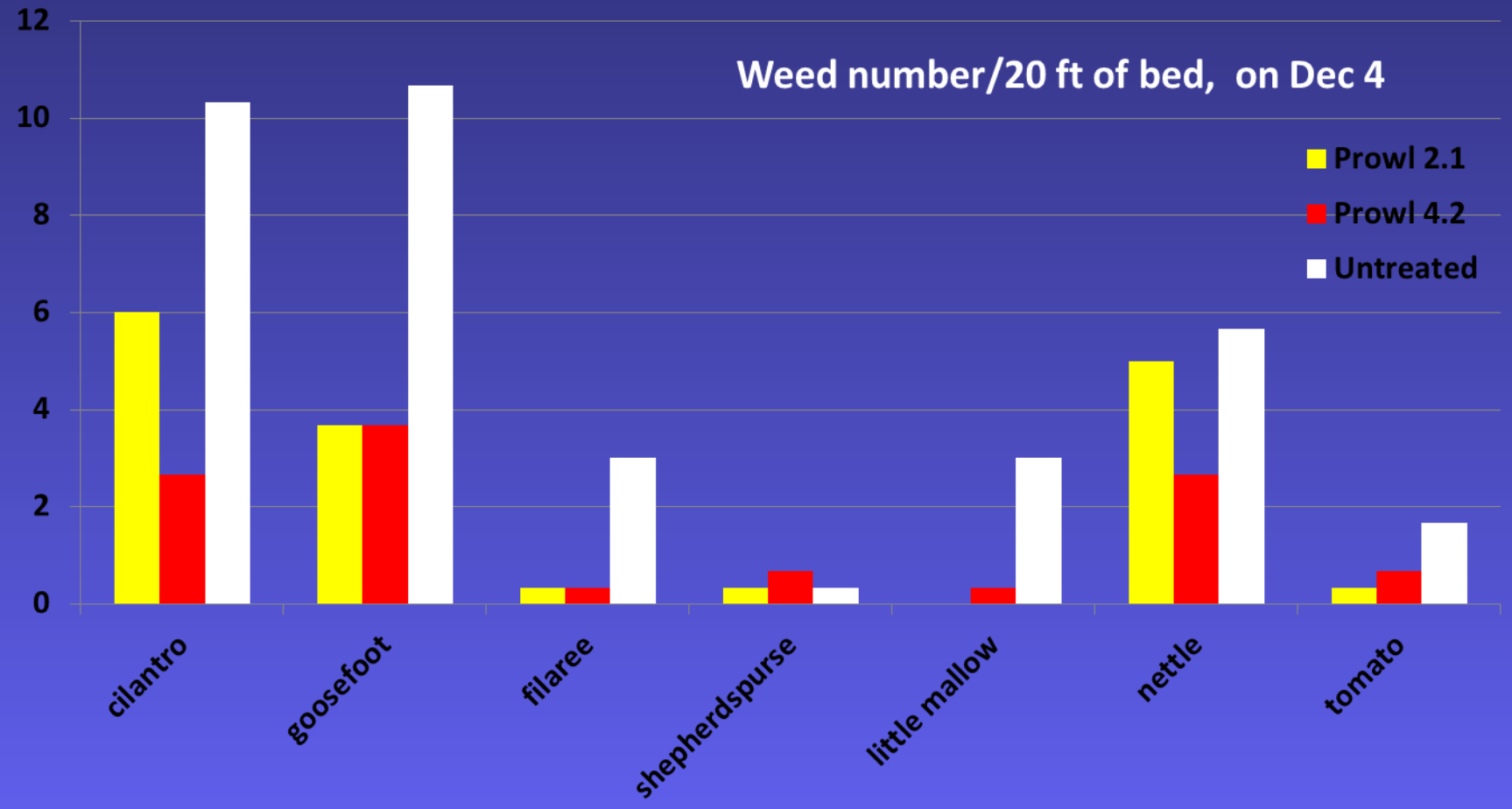
Crop Injury 0-10 (none to dead)

Prowl H2O 2.1 = 0.6; Prowl H2O 4.2 = 1 ;
Untreated = 0.3

Prowl H2O in lettuce



Prowl H2O in lettuce



Weeds in UNTRETED

Acknowledgements:

Steve Donovan- Deardorf Fam. Farms.