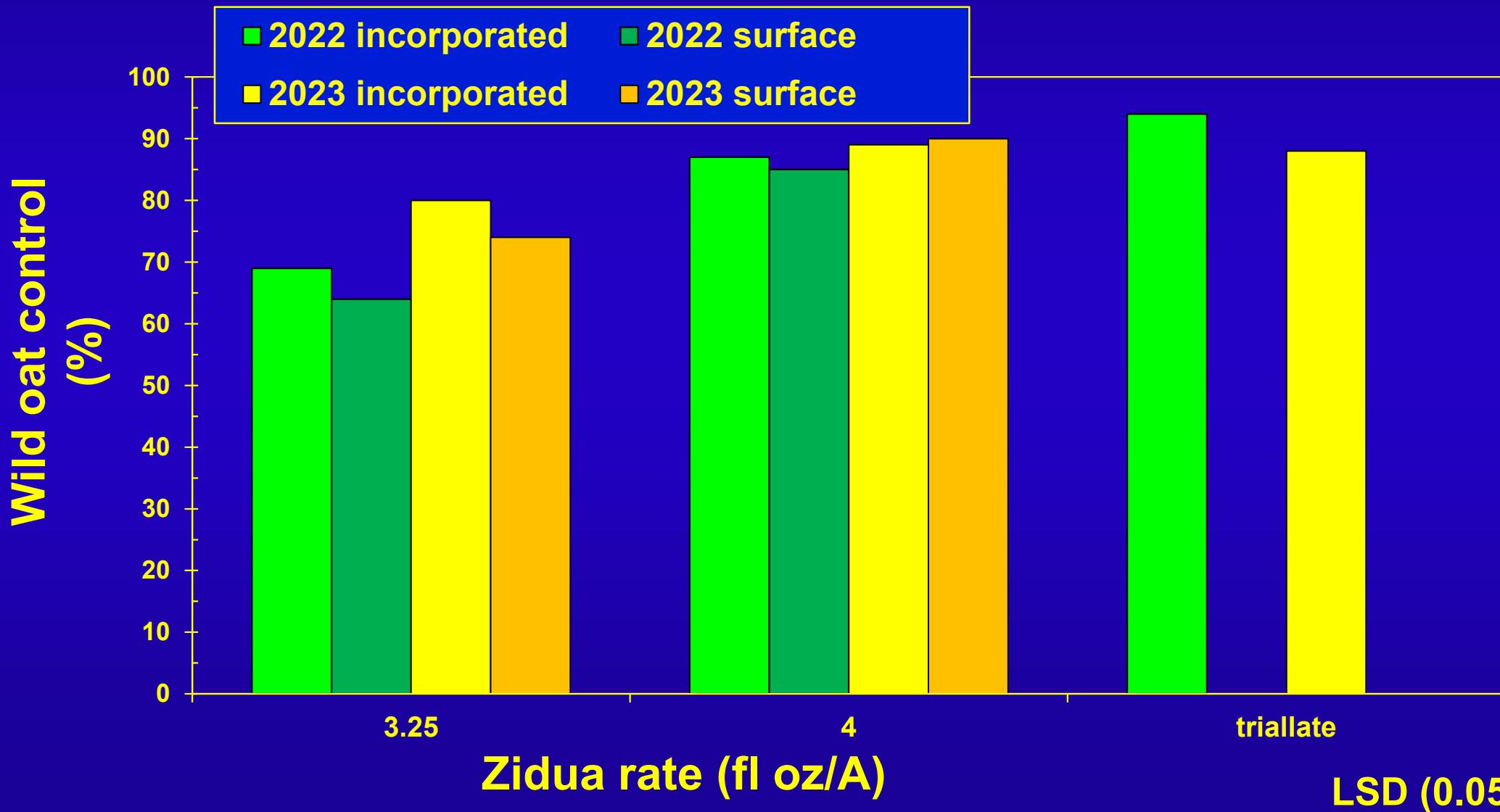


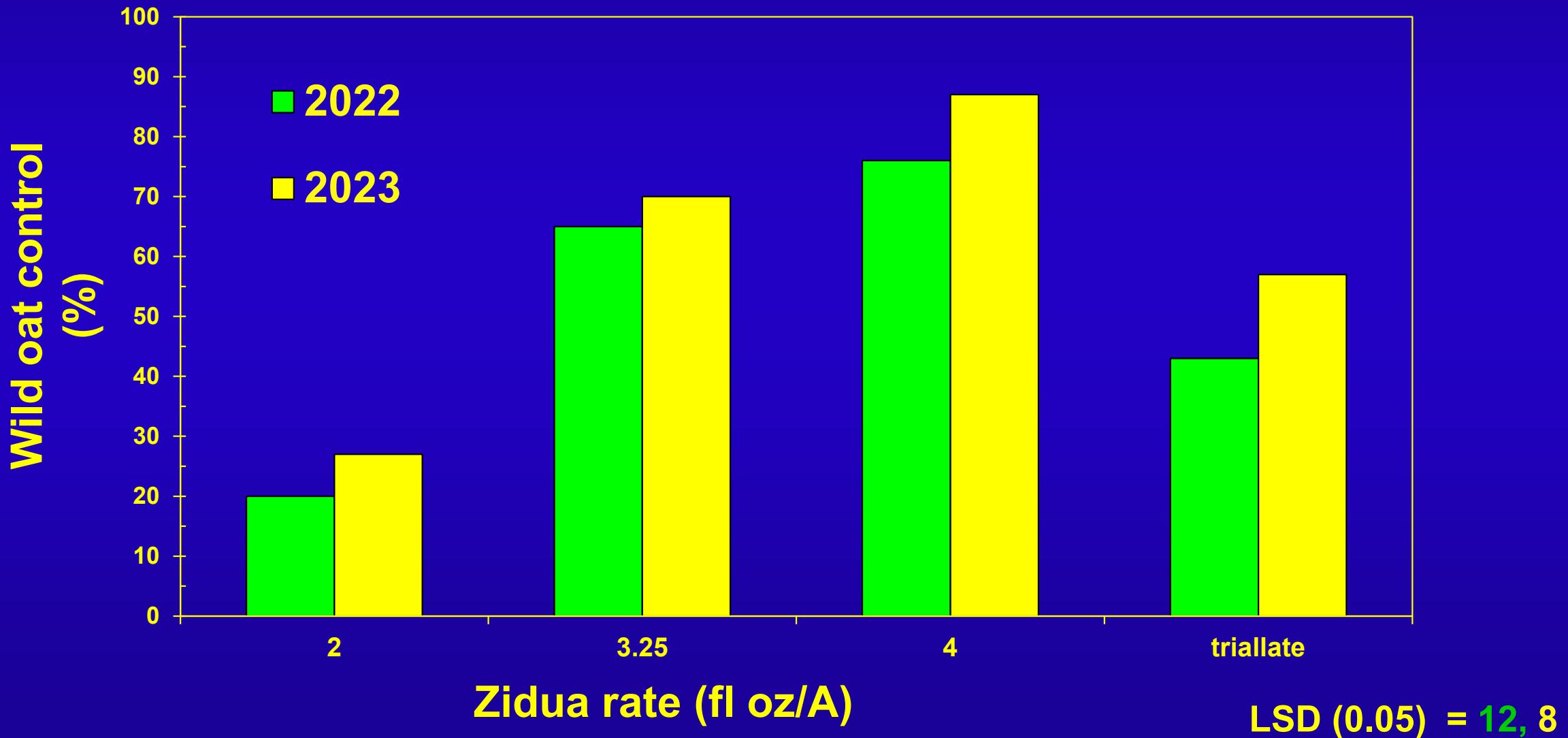
How did Zidua do on wild oat in 2023?



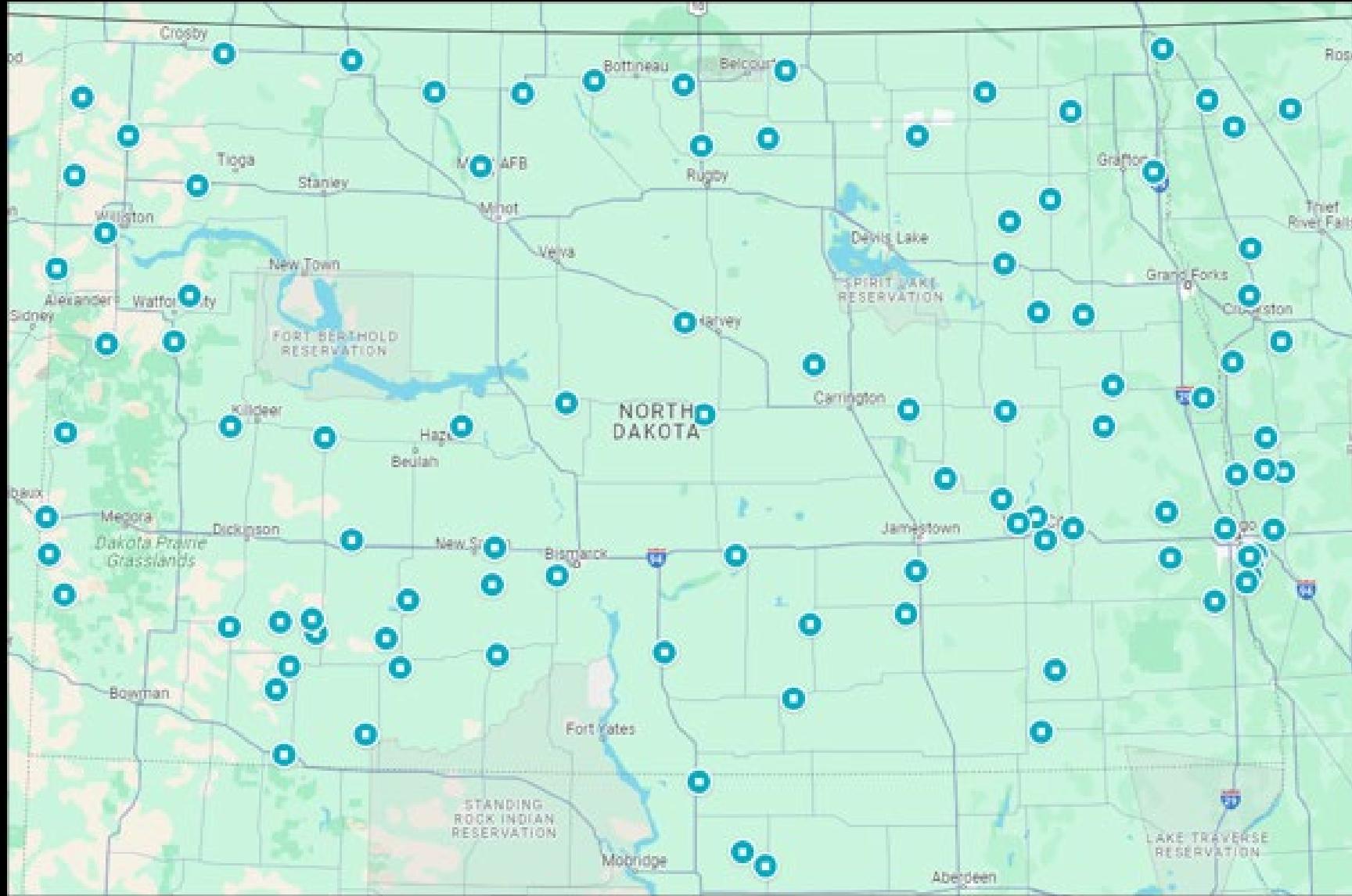
Fall Zidua on Conventional Till near Fargo



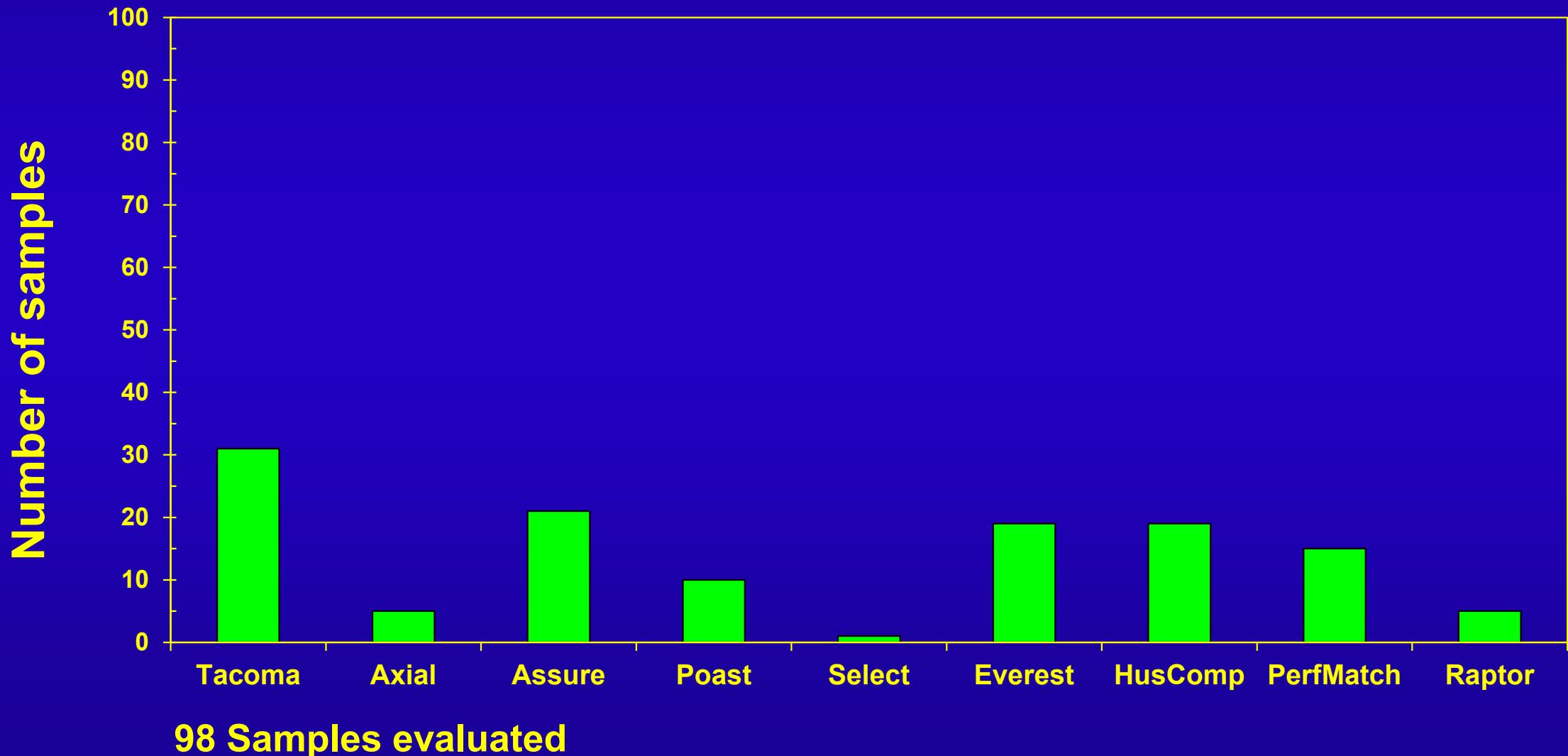
Fall Zidua on Minimum Till near Valley City



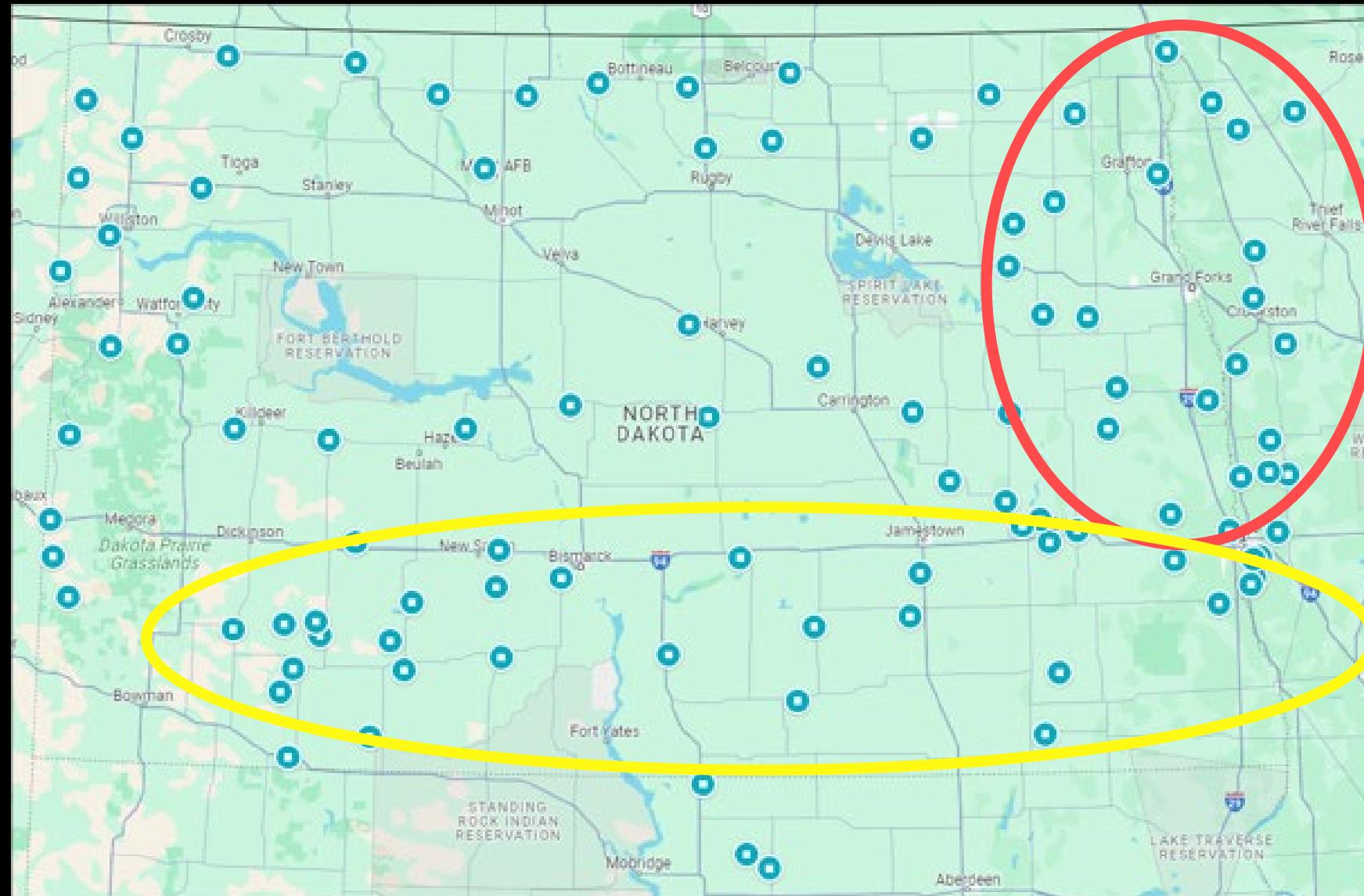
Nondirected State Survey of Wild Oat



Wild Oat Samples with Resistance to Herbicides



Nondirected State Survey of Wild Oat



½ samples R to
Groups 1 & 2

1/5 samples R to
Group 1

Four Weeks After POST Application



Check Axial Disc Puma SelM Everest Varro PowerFlex Raptor Matrix PowerMax

Submitted Wild Oat Samples

**High occurrence of resistance to Tacoma and Axial
Select, or your favorite clethodim**

About ½ of samples had some survivors

2 samples did not express symptoms

1/3 of samples had broad Group 1 & 2 resistance

Submitted Green Foxtail Samples

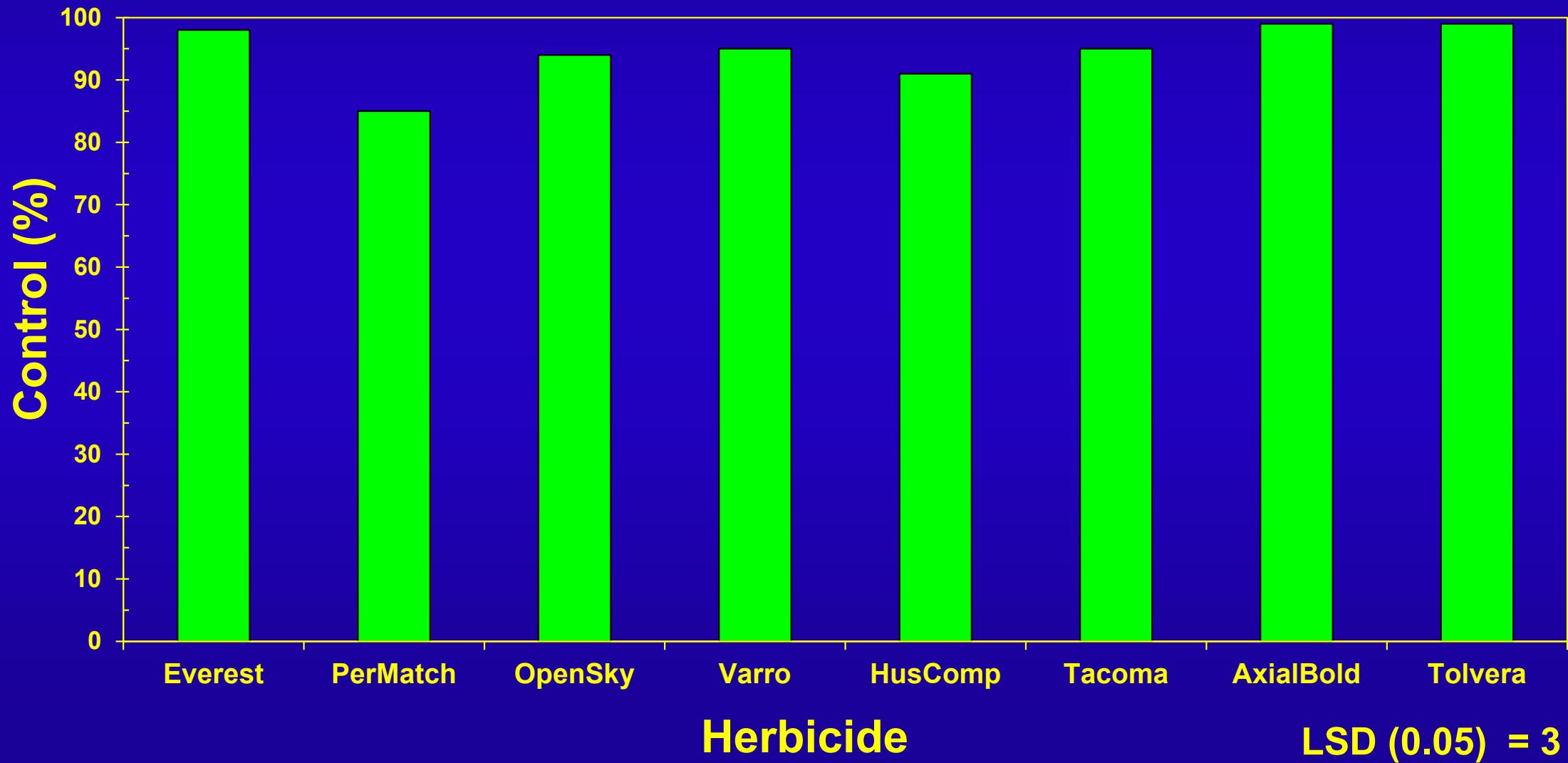
**Nearly all with strong resistance to Tacoma and Axial
Select, or your favorite clethodim**

About $\frac{1}{2}$ of samples control as low as 80%

Group 2 wheat herbicides largely effective

$\frac{1}{4}$ of samples with low resistance to Raptor

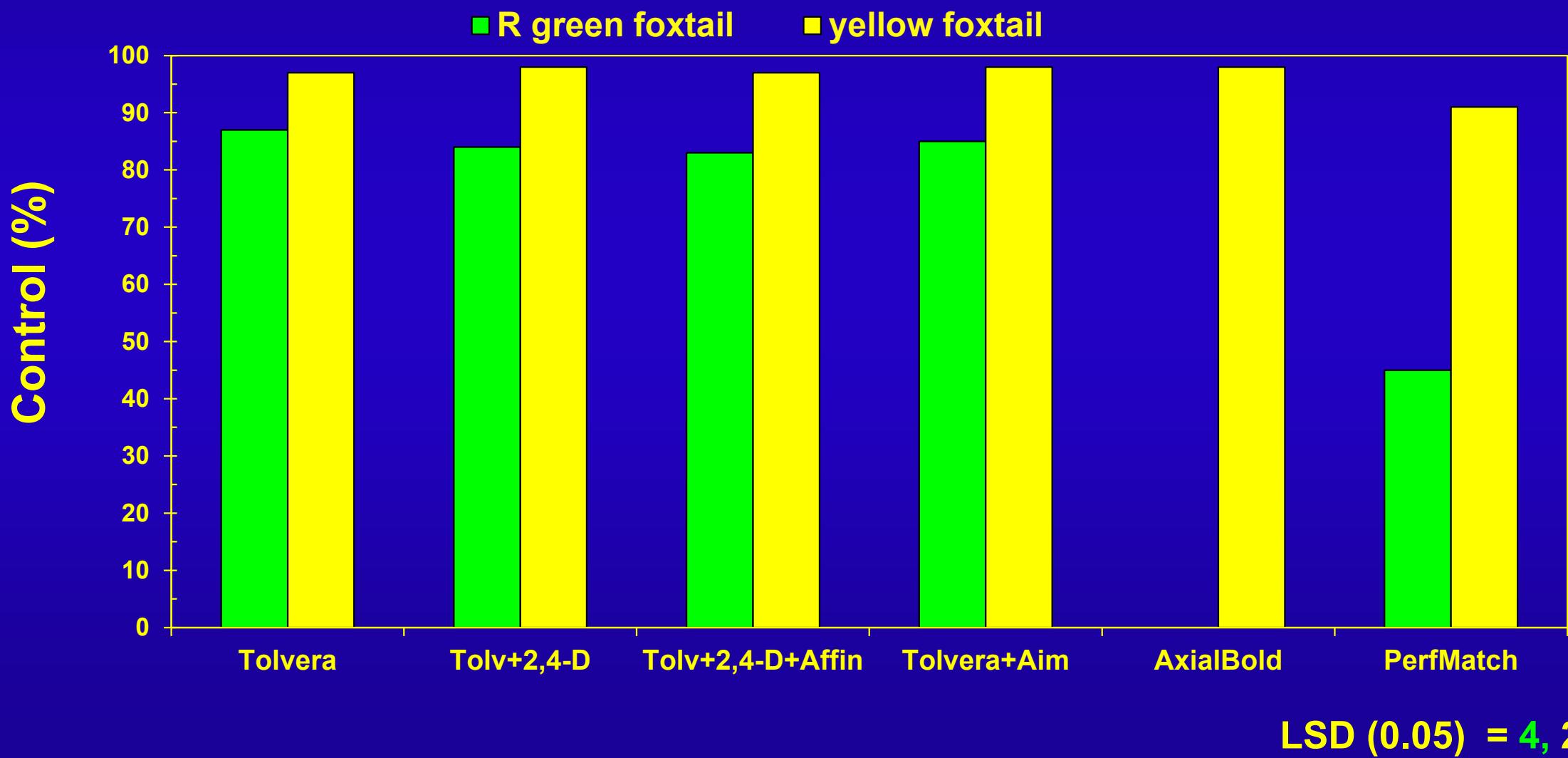
Yellow Foxtail control in Wheat



GF-5036

- Spring 2024 launch
- Active ingredients/formulation:
 - tolpyralate + bromoxynil
 - HPPD (group 27) + PSII Inhibitor (group 6)
 - EC formulation
- Use rate of 11.0 – 14.7 fl oz/A
- Labeled POST emergence for wheat (spring, winter, durum) and barley
- Key product features:
 - Dual MOA broadleaf and foxtail herbicide
 - control of herbicide-resistant weeds including kochia and waterhemp
 - Excellent crop rotation flexibility

Foxtail Control



Axial XL



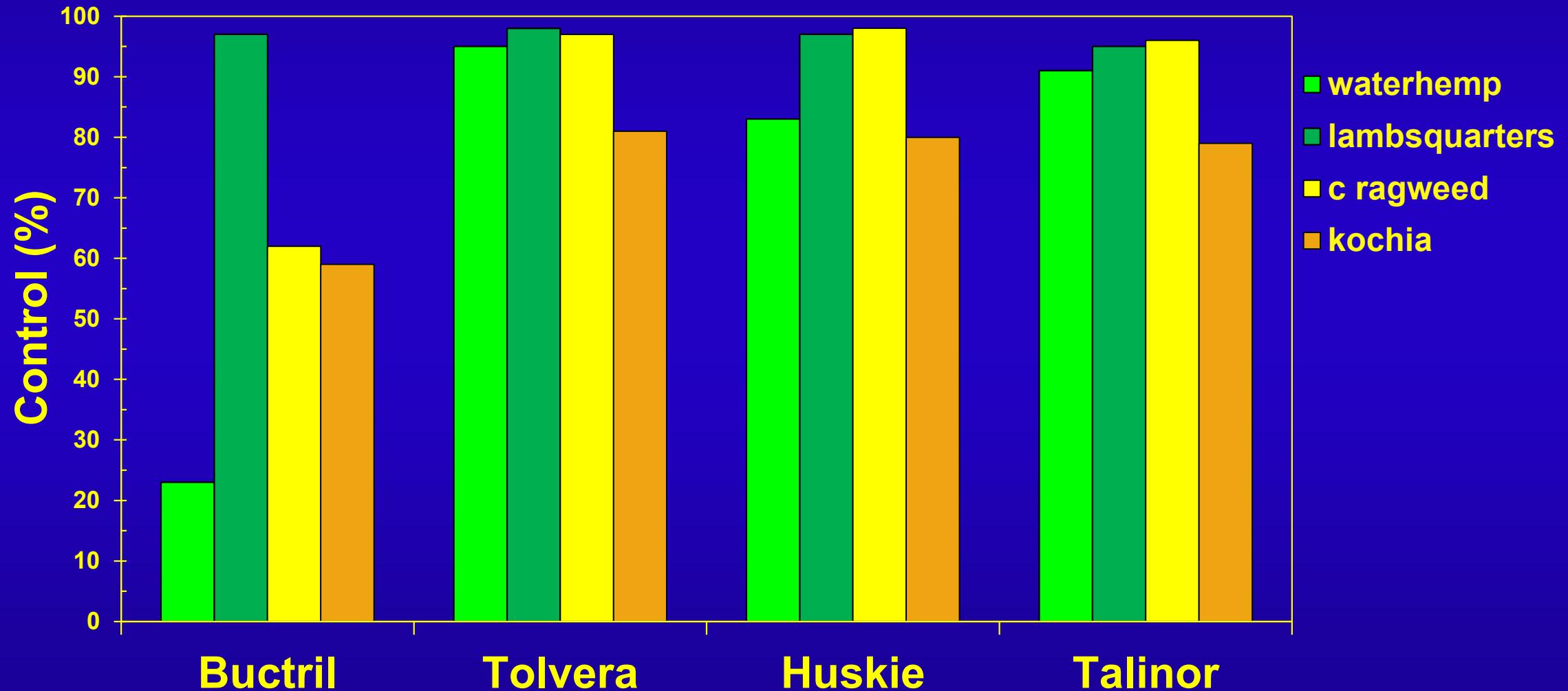
Perfect Match



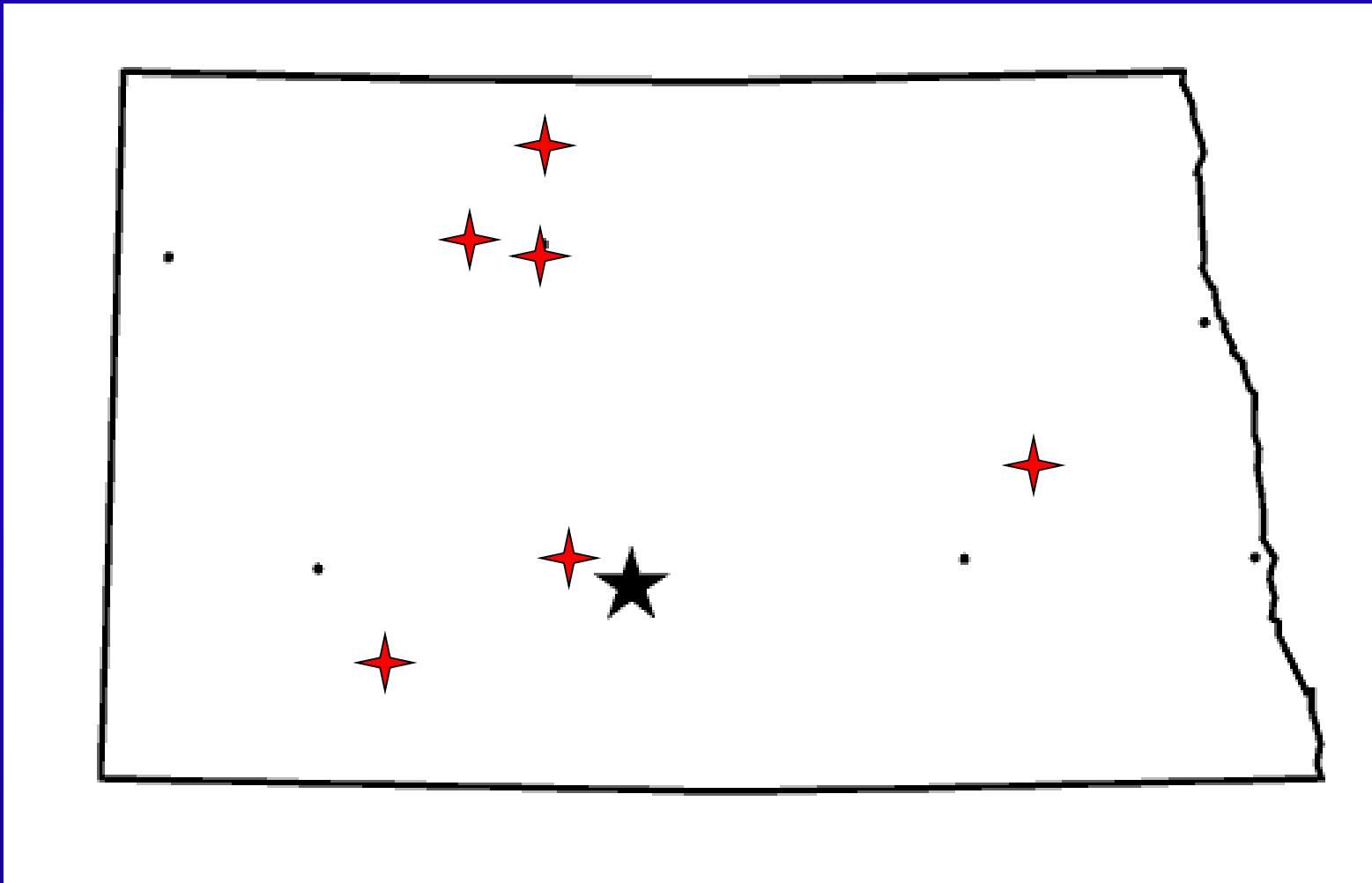
Tolvera+2,4-D



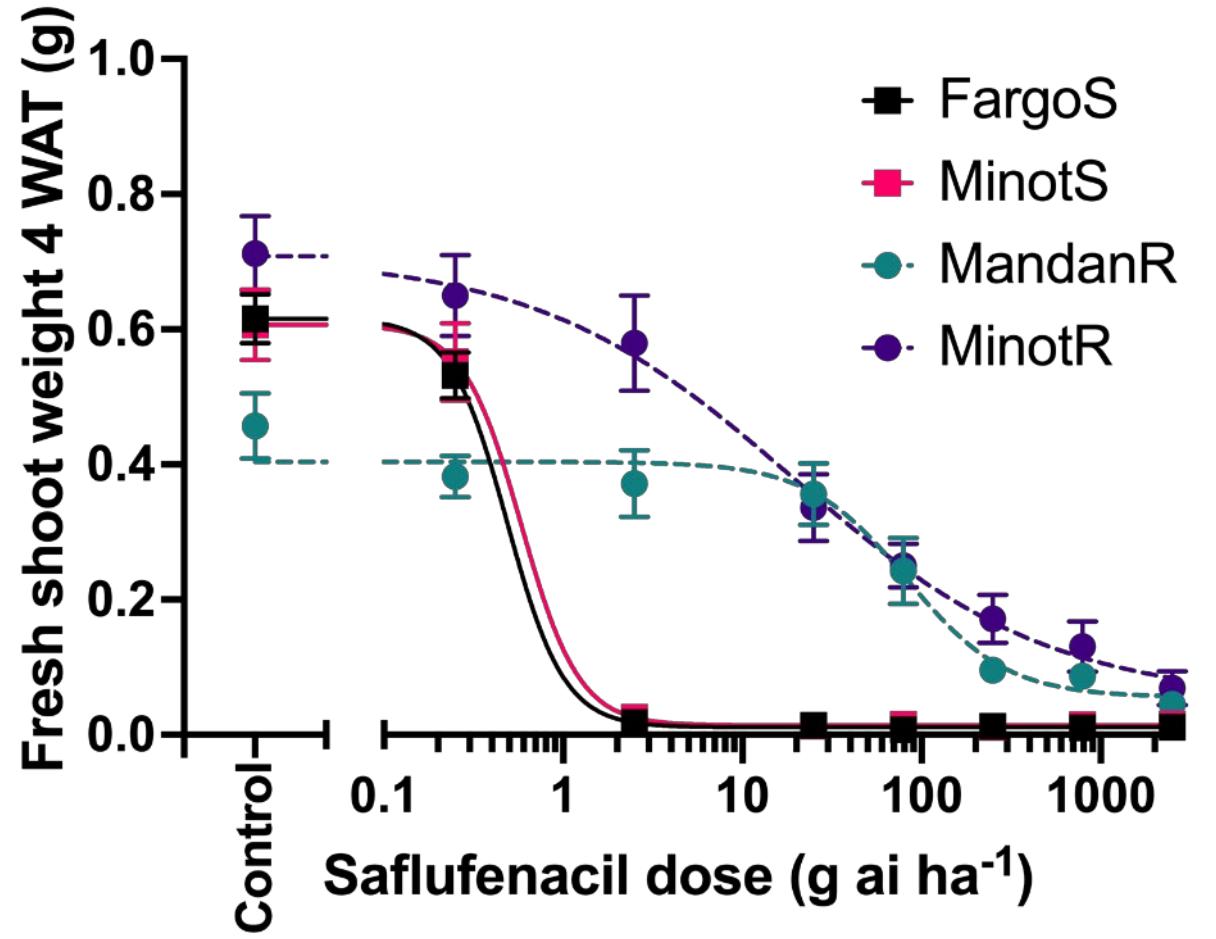
Broadleaf Control with Group 27 Premixes



Kochia is now a Survivor of PPO Herbicides



Group 14-resistant kochia



Courtesy of Dr. Quincy Law



Saflufenacil rate:

g a.i. ha⁻¹

Relation to 1 oz product A⁻¹ field rate

14 days after treatment

Mandan-R

0
0x

0.25
0.01x

2.5
0.1x

25
1x

79
3.16x

250
10x

790
31.6x

2500
100x

Minot-S

Courtesy of Dr. Quincy Law

Survivors of 100x Saflufenacil

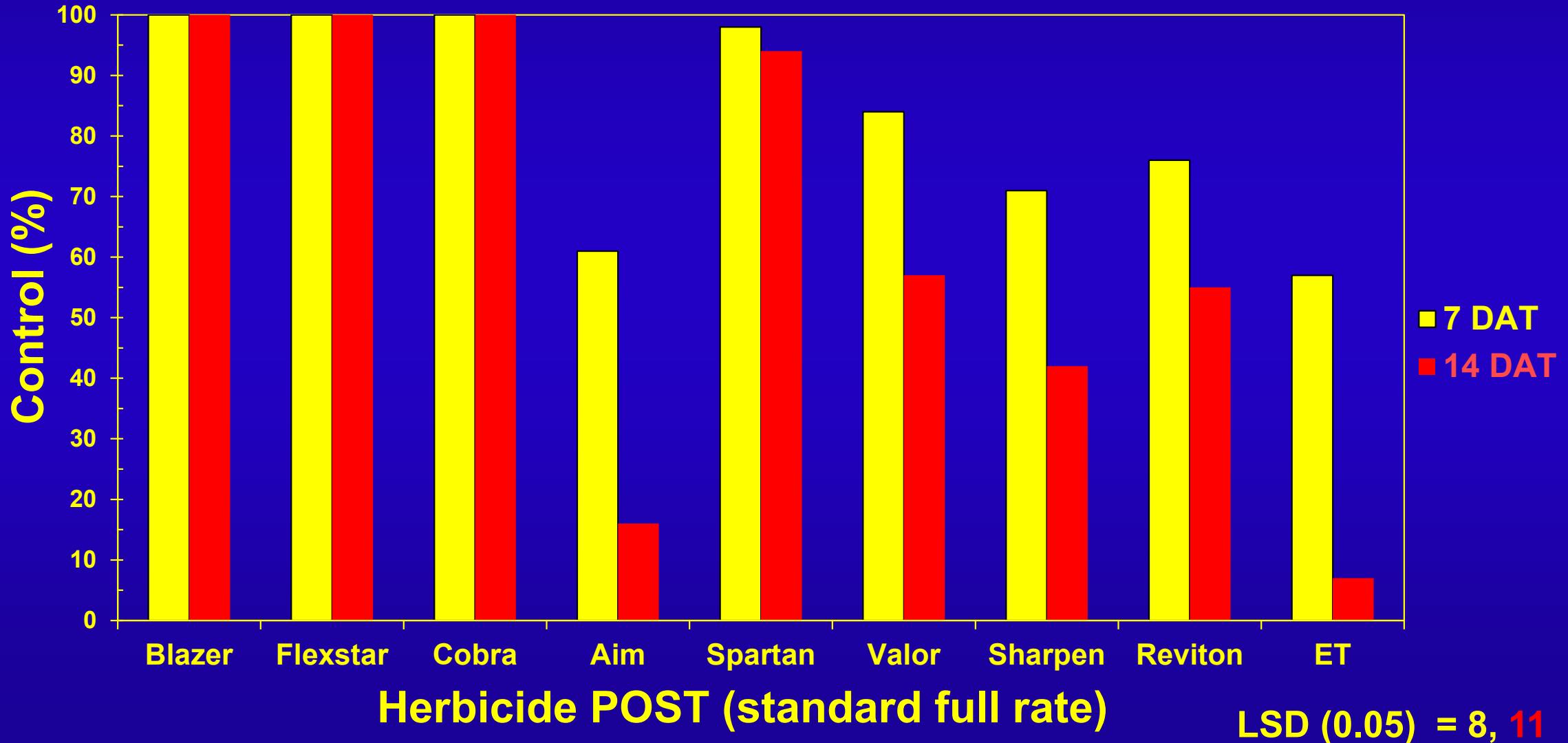


NDSU

PLANT SCIENCES

Courtesy of Dr. Quincy Law

Kochia Collection from Minot, ND



Minot Kochia

Spartan POST

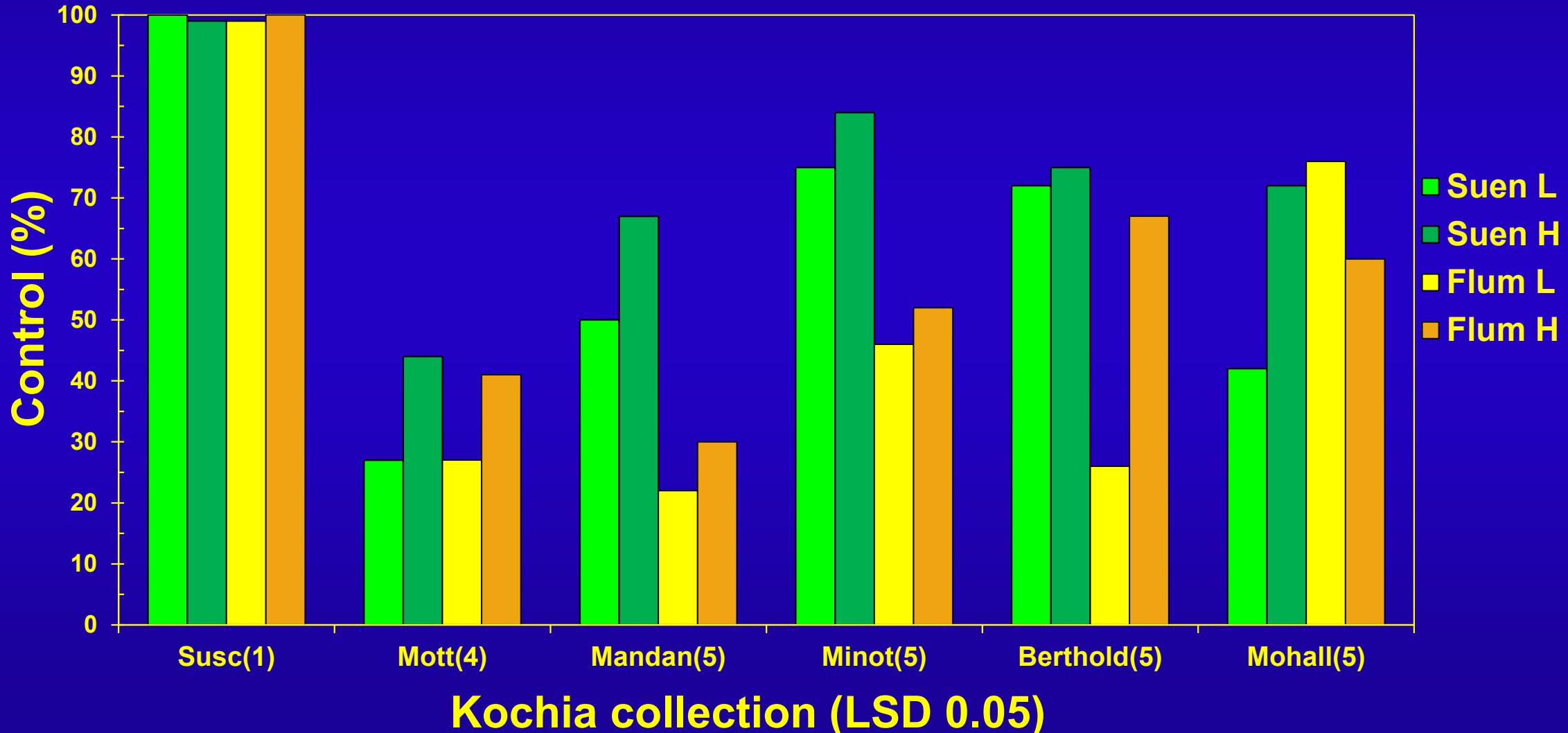
Sharpen



Aim

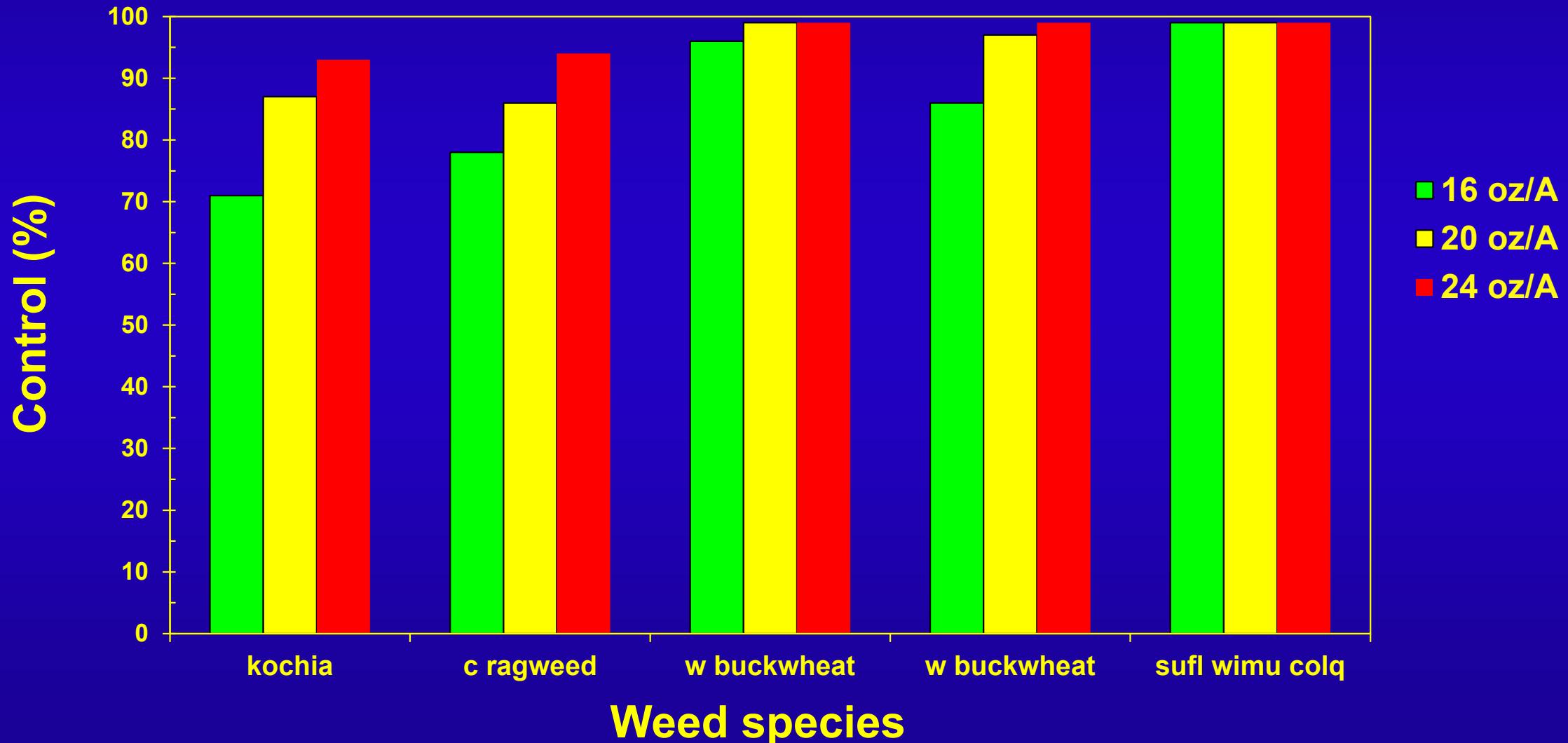


Pre-emergence Kochia Control with High Rate





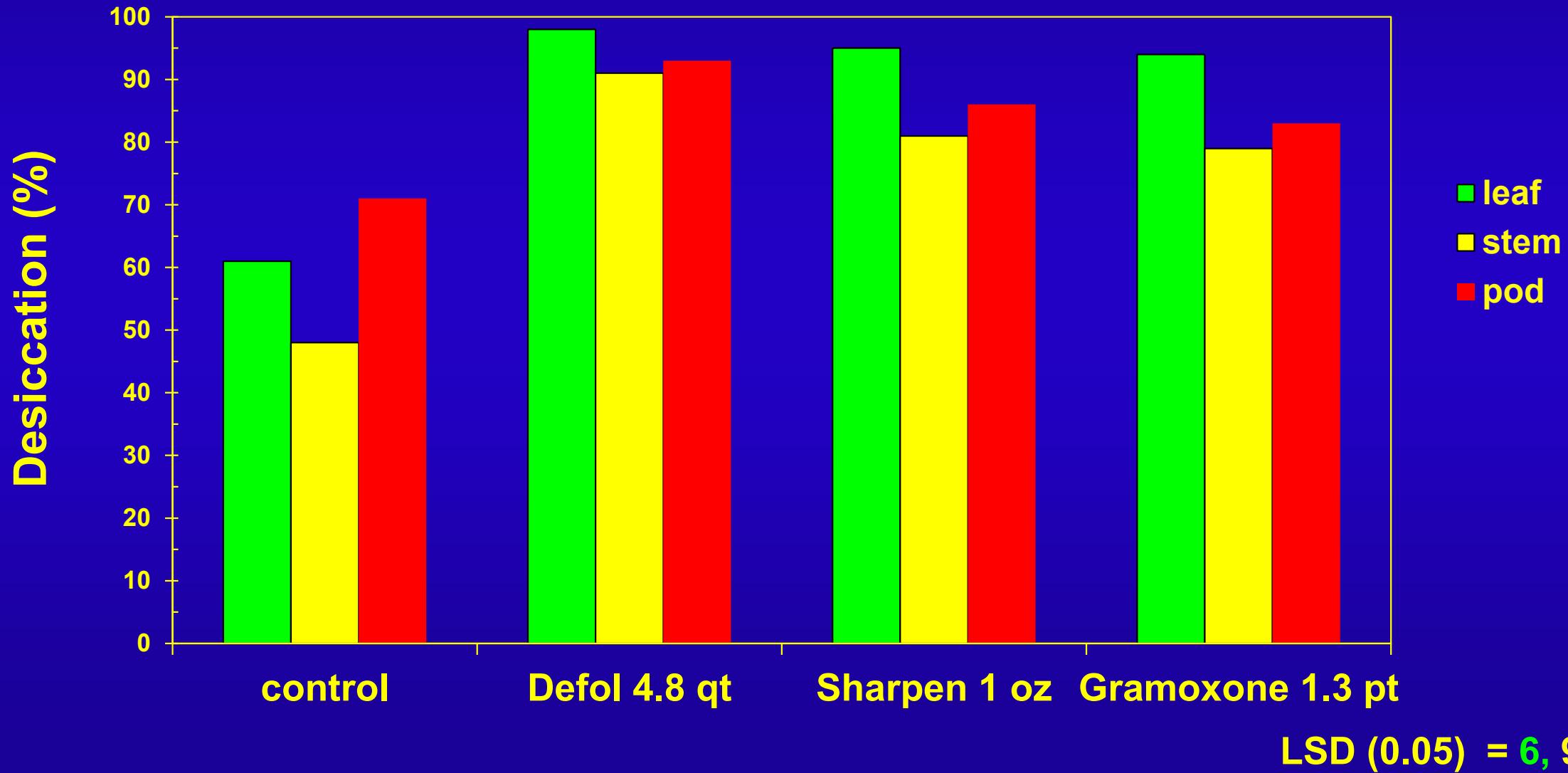
Weed Control with Maestro EXT



Desiccation of Dry Bean 7 DAT



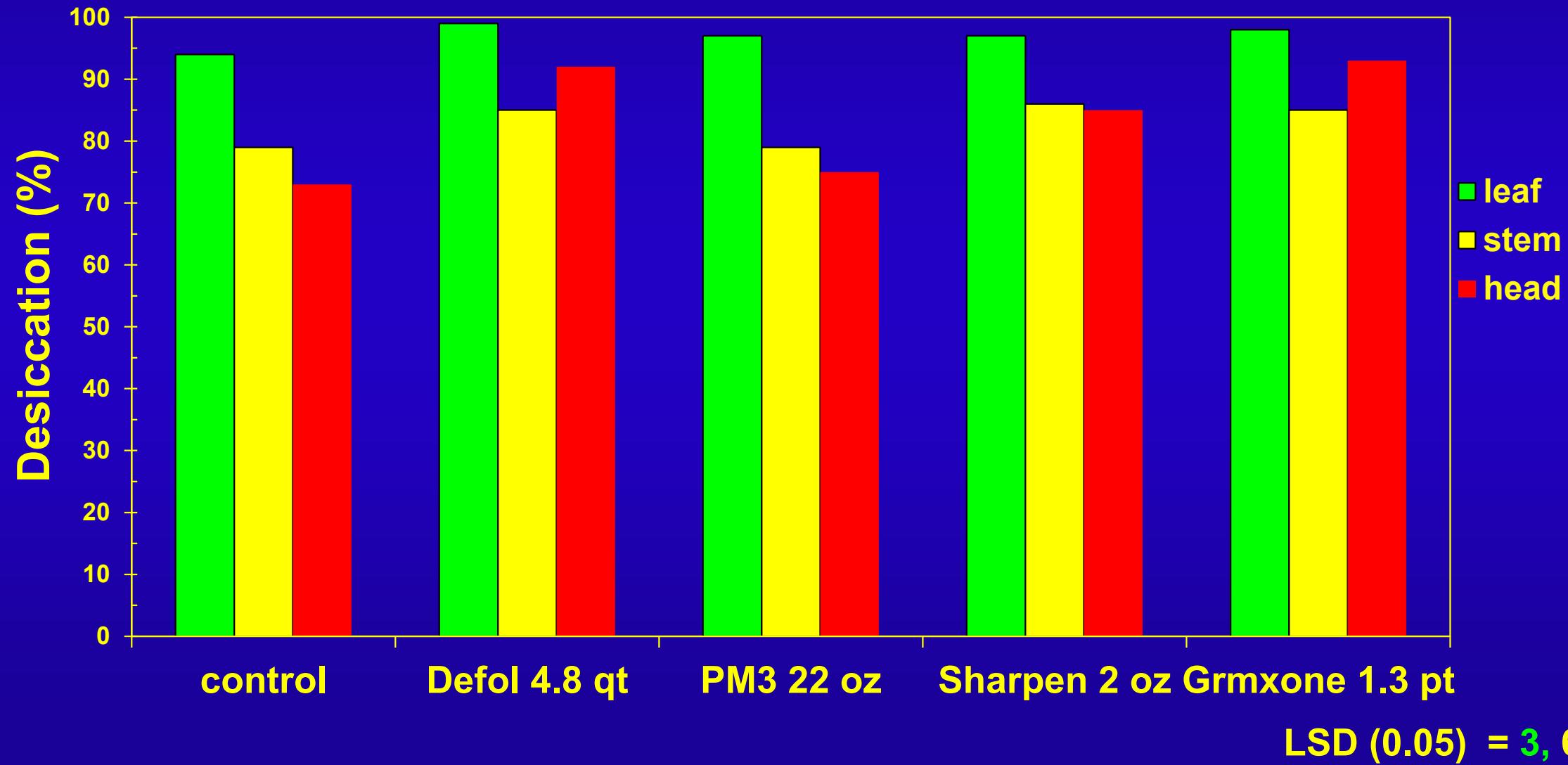
Dry Bean Plant Component Estimates



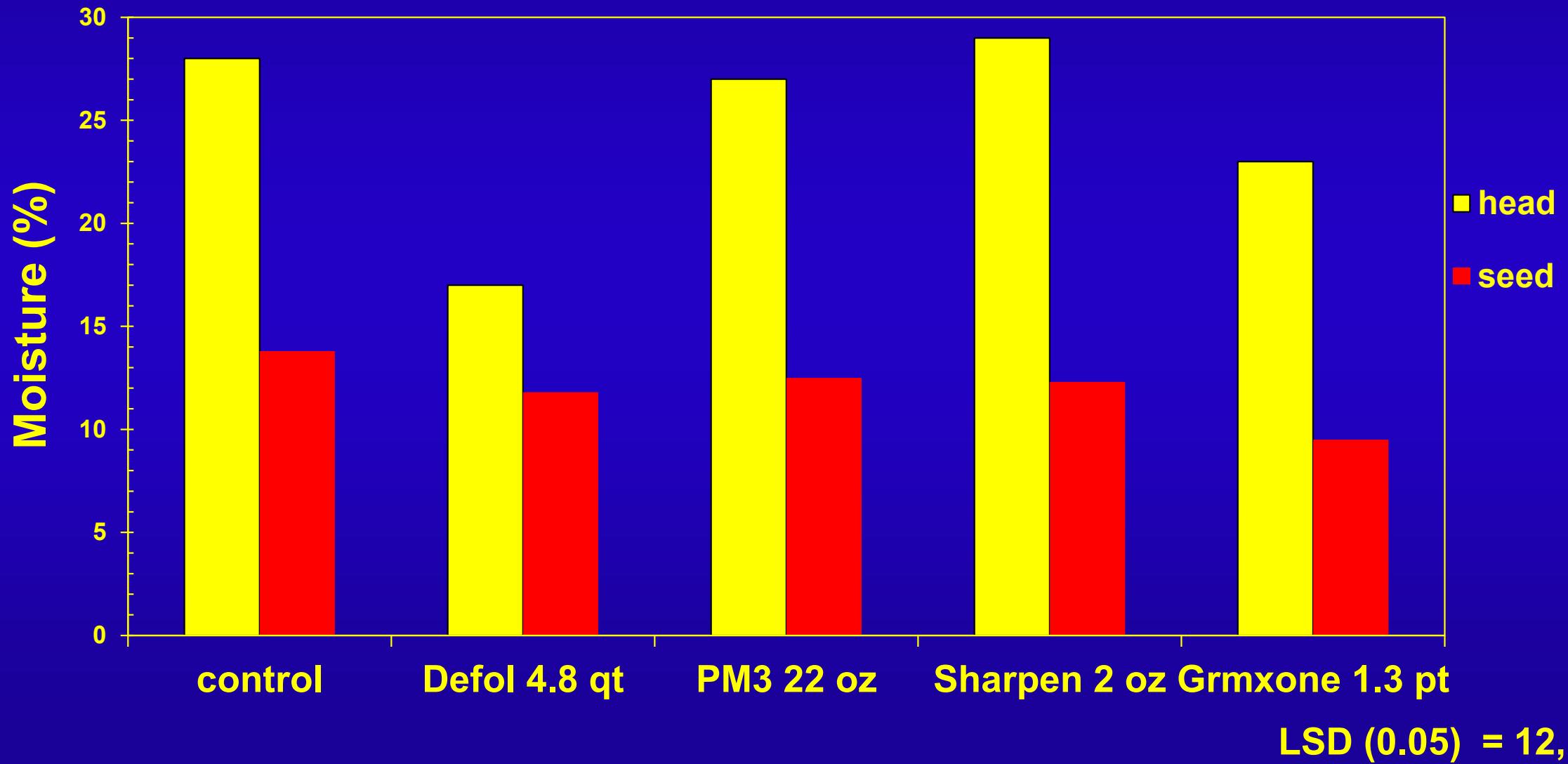
Sunflower at Desiccation Timing



Sunflower Plant Component Estimates



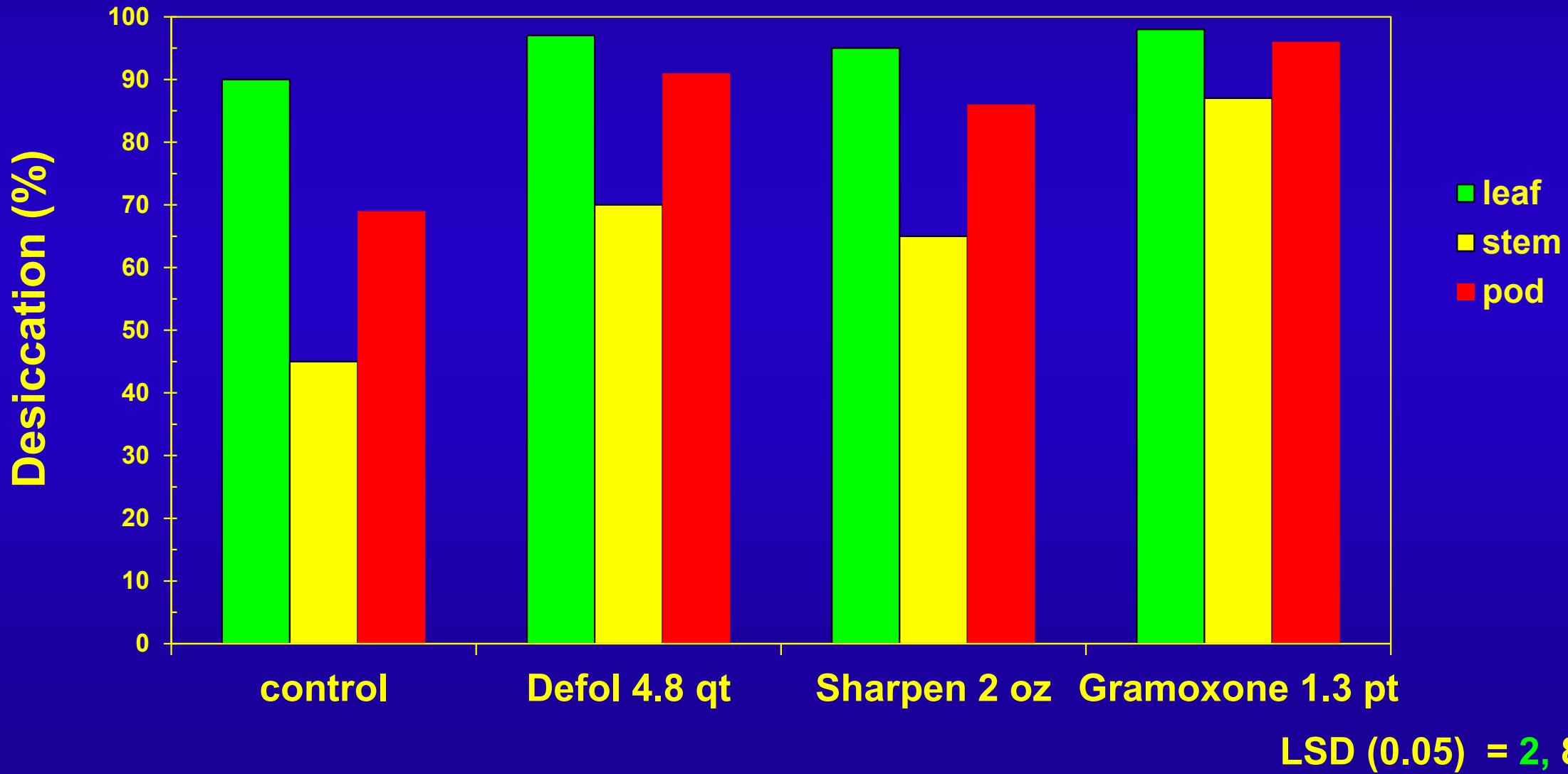
Sunflower Harvest Moisture Values



Canola at Desiccation Timing



Canola Plant Component Estimates



1.2 pt Reglone + GlyLoad + Drift-Fiant

