

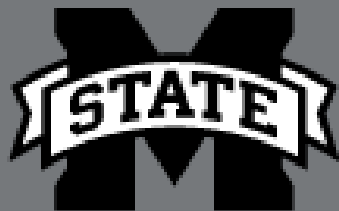
Managing Weeds in Mississippi Row Crops

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Acknowledgment

- ADAMA USA
- Albaugh LLC
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2022 Weed Control Issues

- Herbicide pricing and sourcing
- Italian ryegrass control
- Non-traditional/atypical weed species in burndown
- Off-target herbicide movement
- Poor grass control in all crops
- Weather – Heat, wind, rain (too much and too little)



Italian Ryegrass Control



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Italian Ryegrass Control

Observations from 2021-22:

- Fall treatments
 - Incomplete incorporation with unsettled beds
 - Emerged plants survived fall treatment
 - Residual herbicides dissipated in warm weather
- Winter treatments
 - Advanced growth stage due to warm weather
 - Plants green but not healthy
 - Negative interactions in herbicide mixtures

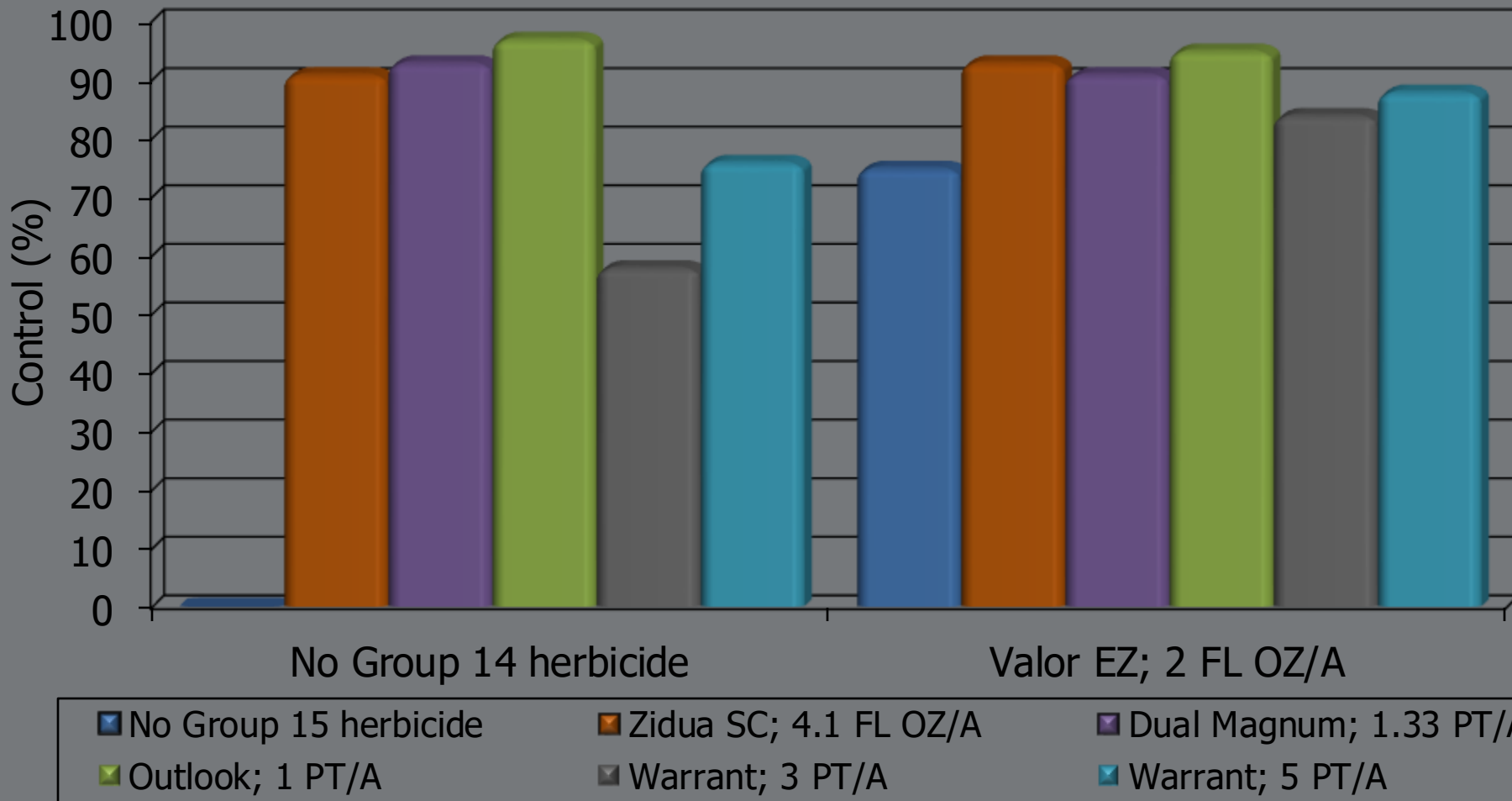


Italian Ryegrass Control



Italian Ryegrass Control

Italian ryegrass control with fall residual herbicides
100 d after application in 2022



Italian Ryegrass Control

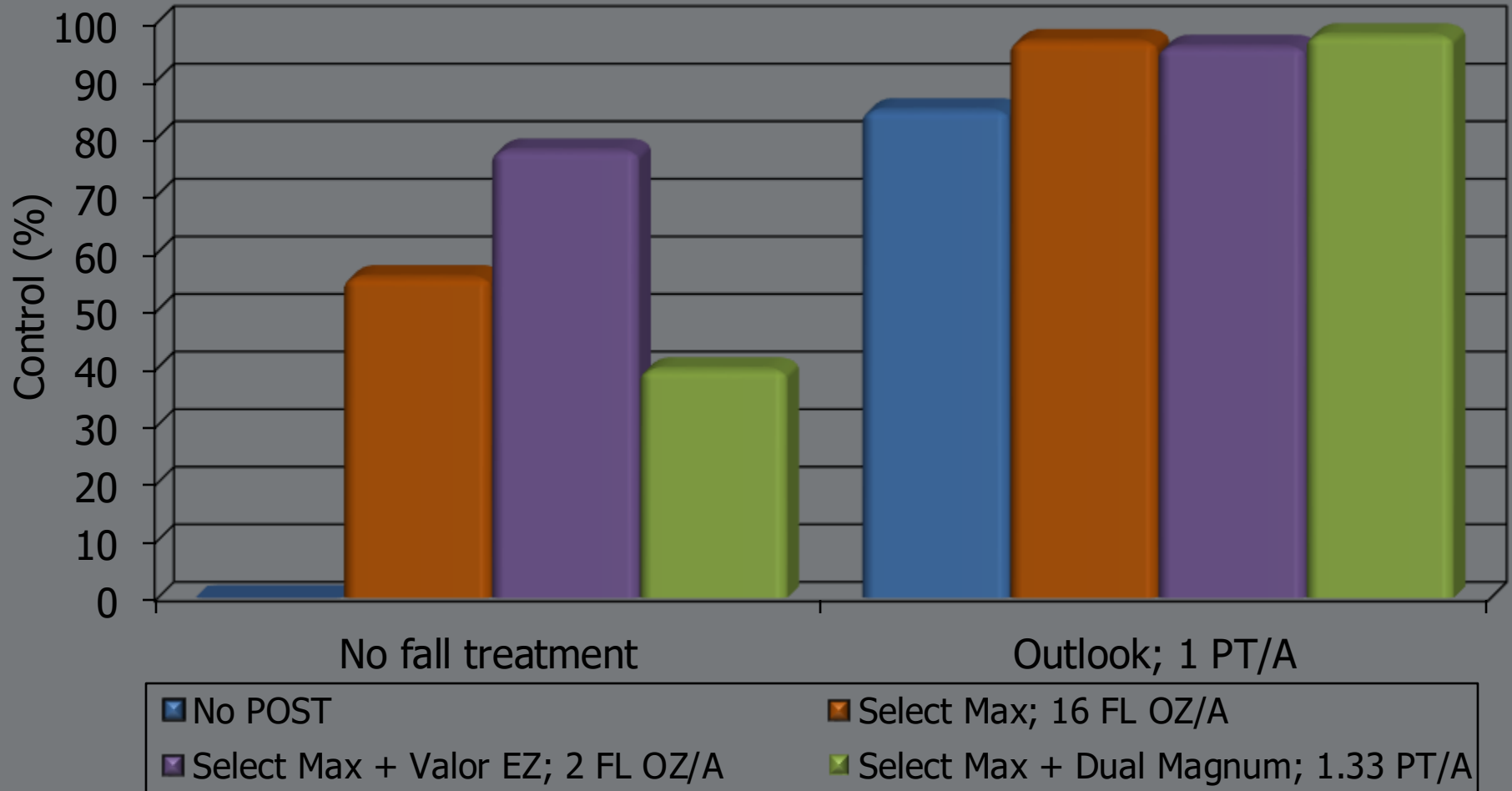
Clethodim Labeling:

- CDMS lists 29 clethodim products
- Concentrations = 0.97 to 3 lb ai/gallon
- Rate = 0.094 to 0.125 lb ai/A
- Adjuvant requirement varies with product, but most labels list crop oil at 1% v/v plus ammonium sulfate.
- Spray volume = 15 GPA by ground; 5 GPA by air
- “**Do not** apply to grasses that have tillered, formed seedheads, or exceeded recommended stage.”
- Targeted Italian ryegrass size = 2 to 6 inches



Italian Ryegrass Control

Italian ryegrass control with sequential herbicide applications 30 d after POST treatment in 2022



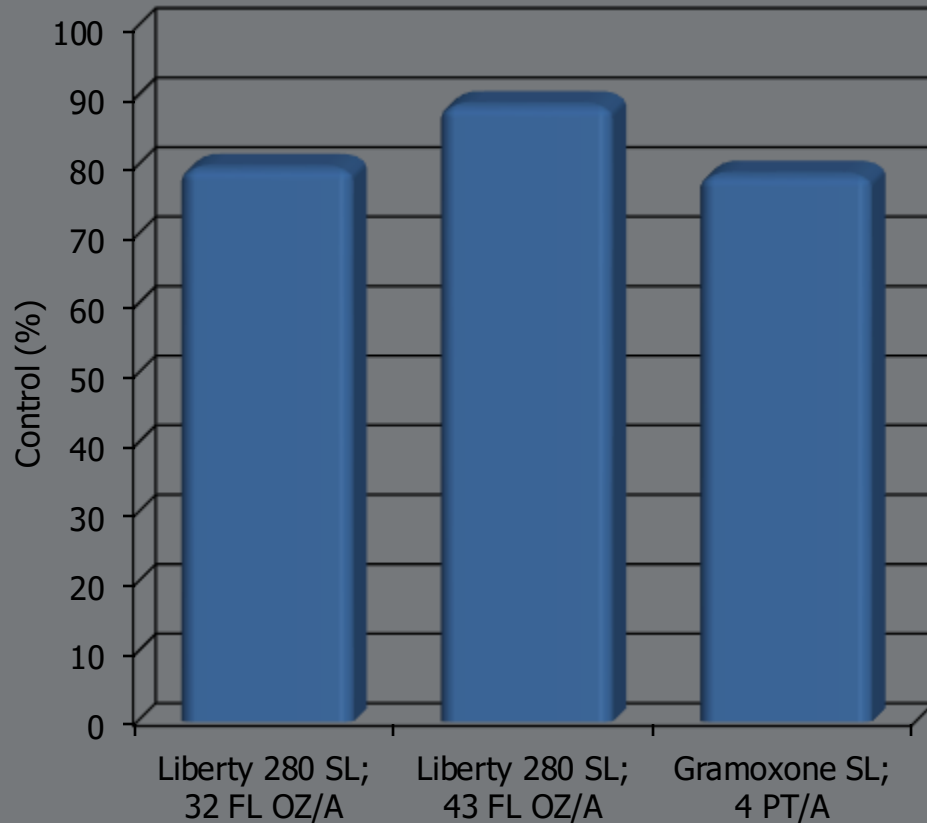
Italian Ryegrass Control

Gramoxone SL at 4 PT/A



Italian Ryegrass Control

Italian ryegrass control with late burndown treatments
21 days following application in 2022



Liberty 280 SL; 32 FL OZ/A



Gramoxone SL; 4 PT/A

Source: Alex Mangialardi



Non-traditional Weed Species



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Non-traditional Weed Species



Bog Yellowcress

Greenhouse observations:

- Growth: 75 branches per plant
- Fruit: 30 seed capsules per branch
- Seed: 60 seeds per seed capsule
- Seed number: **135,000 per plant**



Bog Yellowcress

Gramoxone SL

Glyphosate

Sharpen

2,4-D



Bog Yellowcress



Bog Yellowcress



7 days difference in application timing with Sharpen

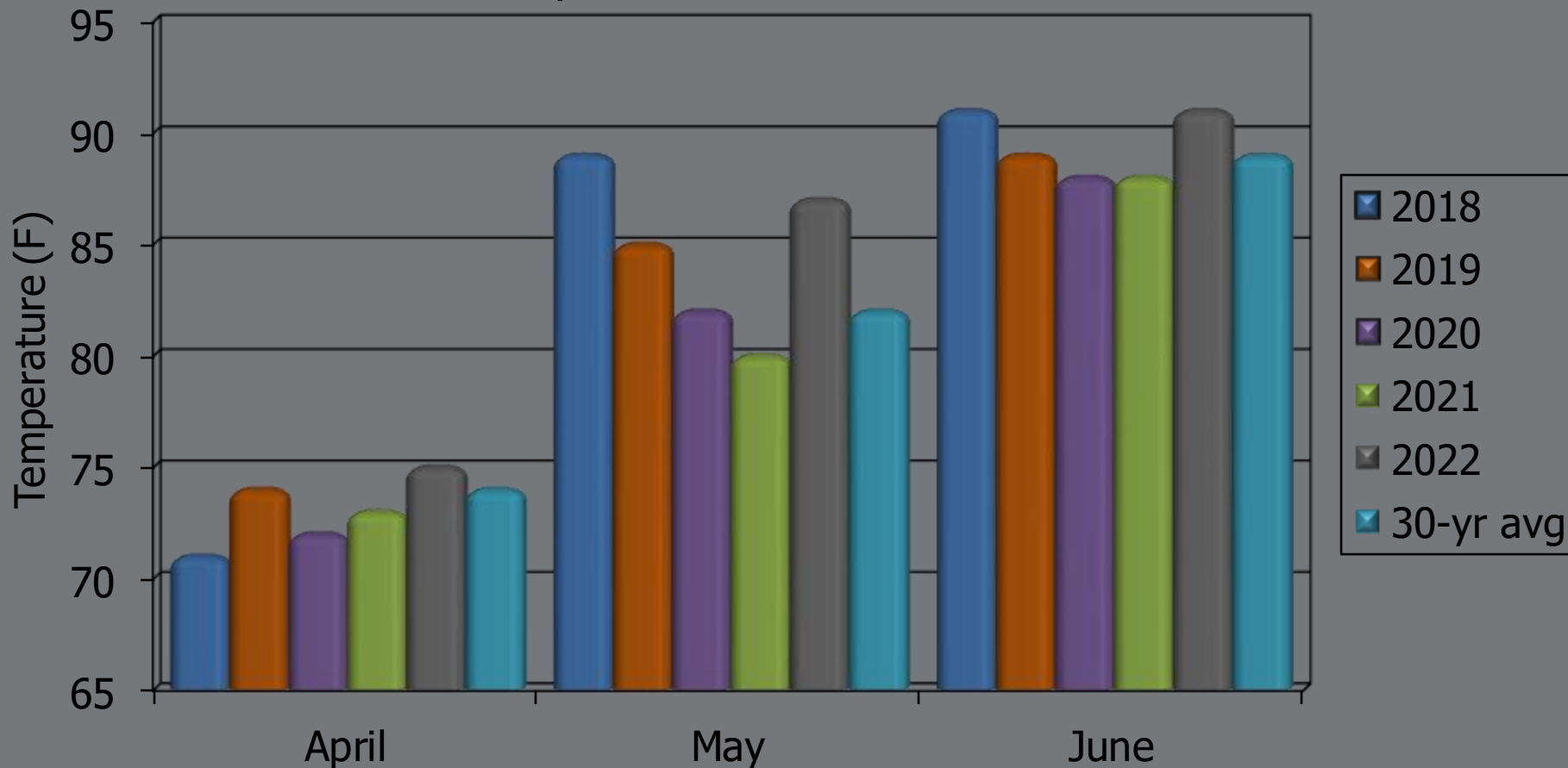


Poor Grass Control



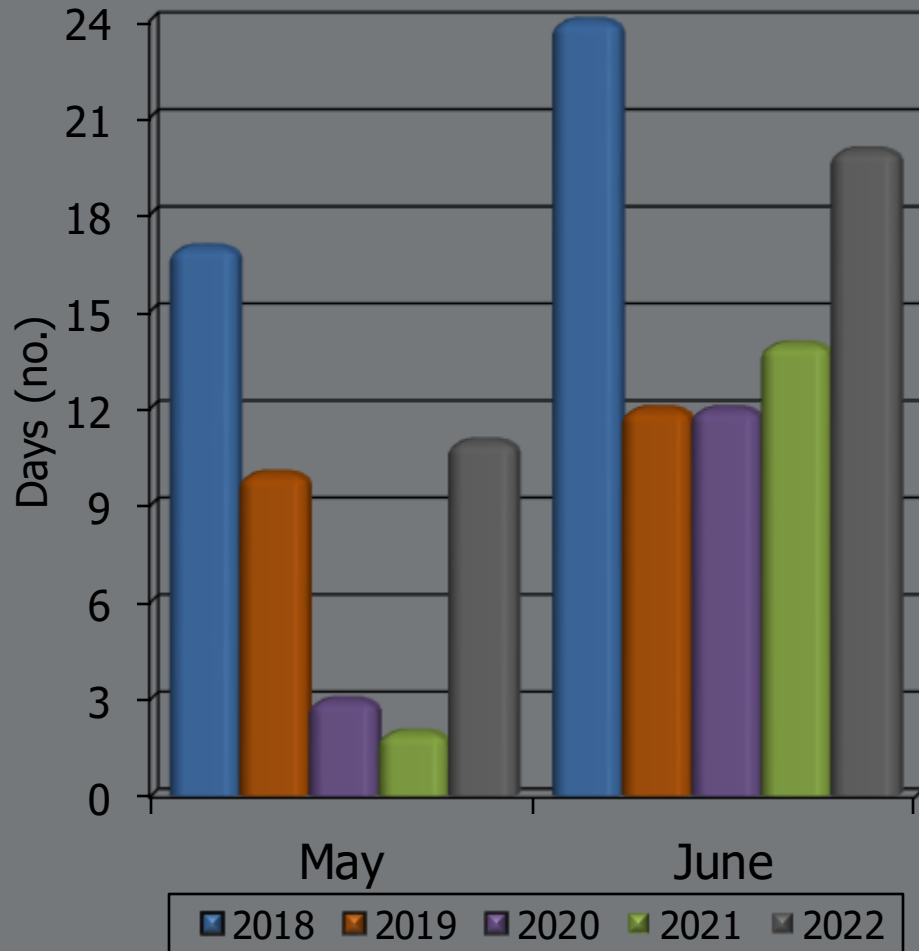
Weather Trends

Daily high temperatures during the spring in Stoneville, MS, from 2018 to 2022

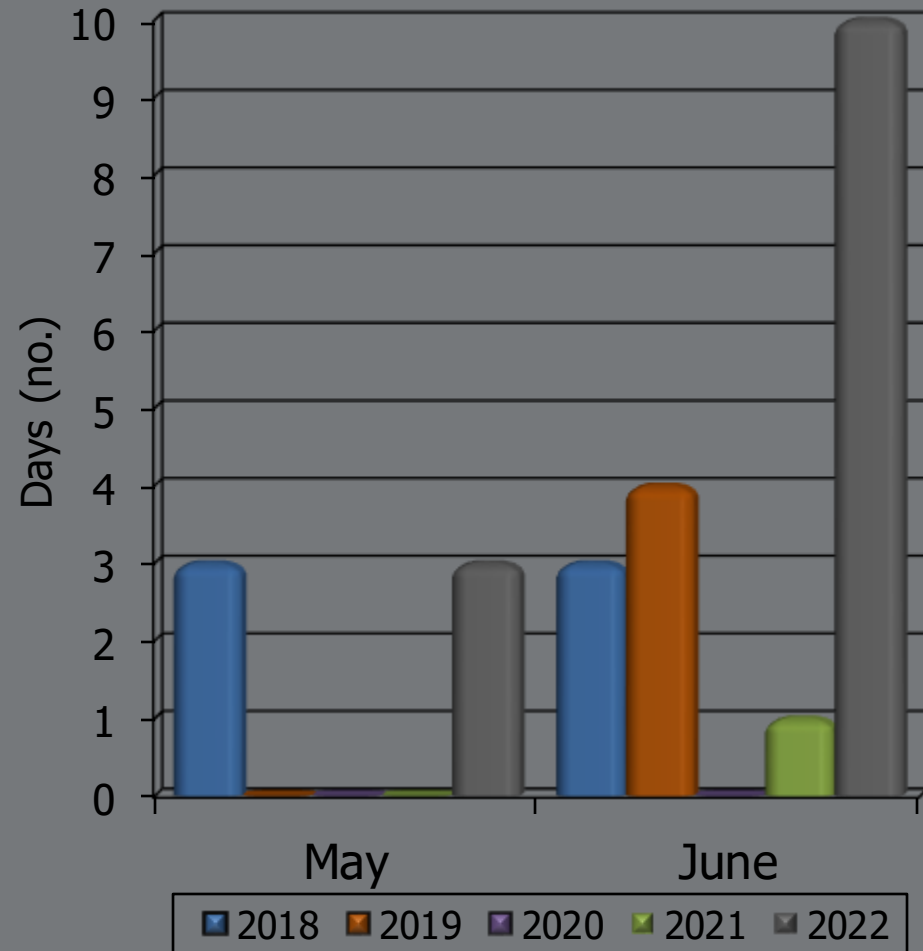


Weather Trends

Days of high temperature ≥ 90 F
at Stoneville, MS



Days of high temperature ≥ 95 F
at Stoneville, MS



Poor Grass Control

- Application timing
- Mixtures – Product interactions/antagonism
- No residual herbicide or residual not incorporated
- Difficult species – johnsongrass, goosegrass
- Bad weather – hot and dry



Questions?



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