

SEASONAL APPLICATIONS OF FLUAZIFOP-BUTYL AFFECTING SAFENING EFFICIENCY OF TANK MIXED TRICLOPYR IN ZOYSIAGRASS TURF

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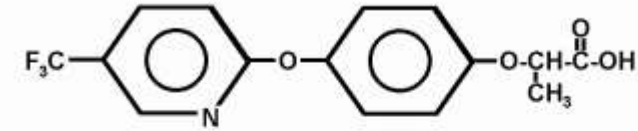
University of Florida

Zoysia spp. as turfgrass

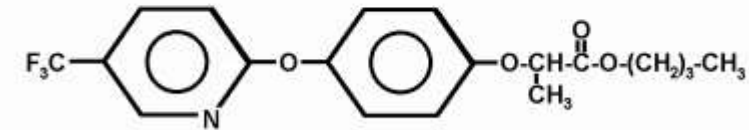
- Warm season turfgrass with drought and shade-tolerance
- Relative less supplemental irrigation and fertilization input
- Spread by stolons and rhizomes
- Bermudagrass, crabgrass and goosegrass

Fluazifop-P-butyl

- POST, marketed as “Fusilade”
- Blocks lipid biosynthesis
- Selective control of grassy weeds in broadleaved crops
- Common Bermudagrass



Fluazifop-P acid



Fluazifop-P butyl ester

Weed Control Methods Handbook, The Nature Conservancy, Tu et al.
Retrieved from <https://www.invasive.org/gist/products/handbook/12.Fluazifop.pdf>

Fluazifop-P-butyl Tolerance

- Moderate tolerance observed in zoysiagrass
- Level of injury vary by cultivar and management scheme
- Triclopyr: Safening of Aryloxyphenoxypropionate Herbicides
- Does application timing affect the safening effect from Triclopyr?

Zoysiagrass(left) and bermudagrass(right)



Photo credit to Dr. Kevin E. Kenworthy

Experiment Site



Imagery ©2017 Google, Map data ©2017 Google 50 ft

Jay Research Facility

GPS coordinates:

30°46'31.4"N 87°08'45.2"W

3 application rate

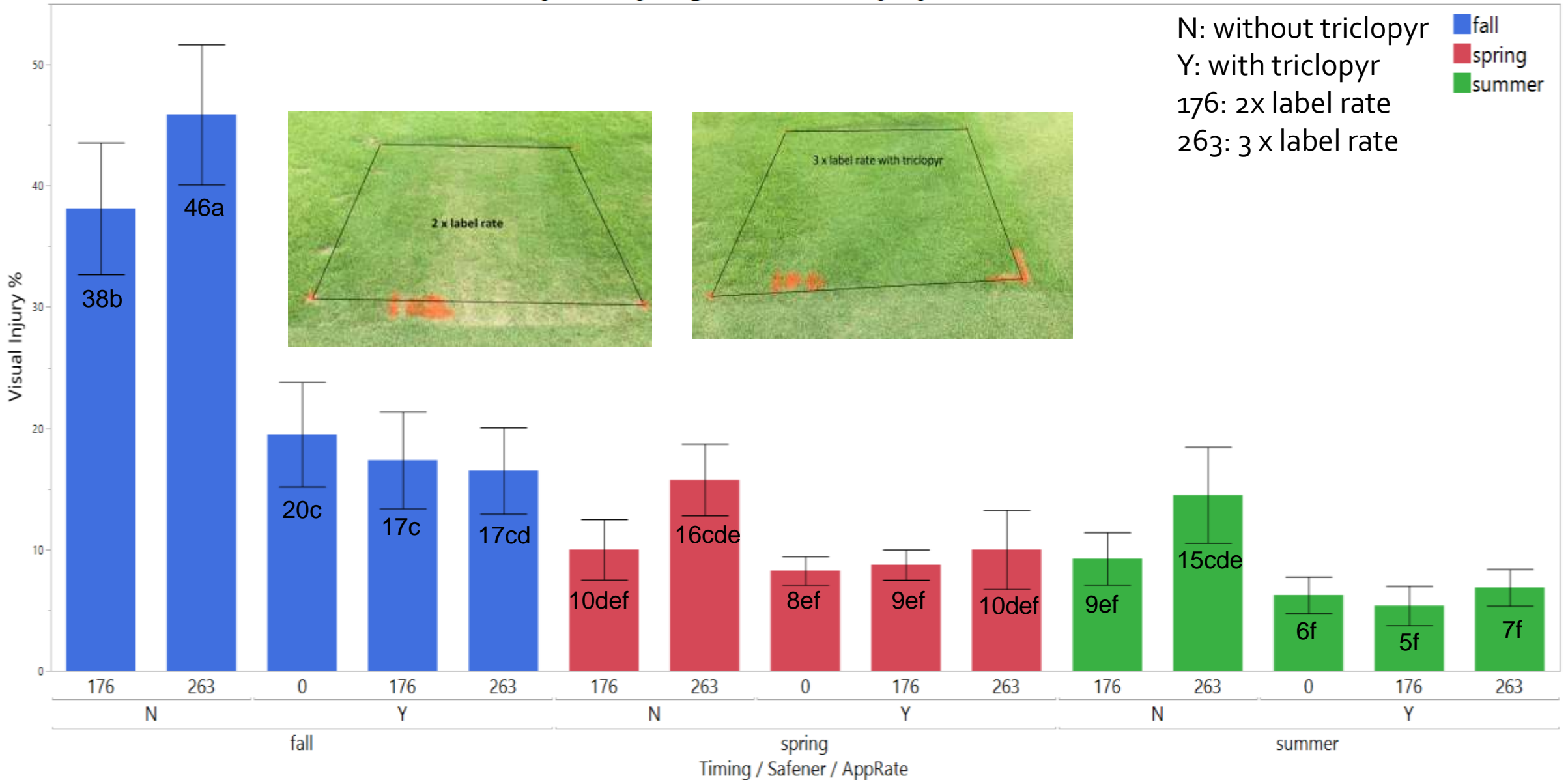
0, 2x, 3x label rate

with or without Triclopyr

3 application timing

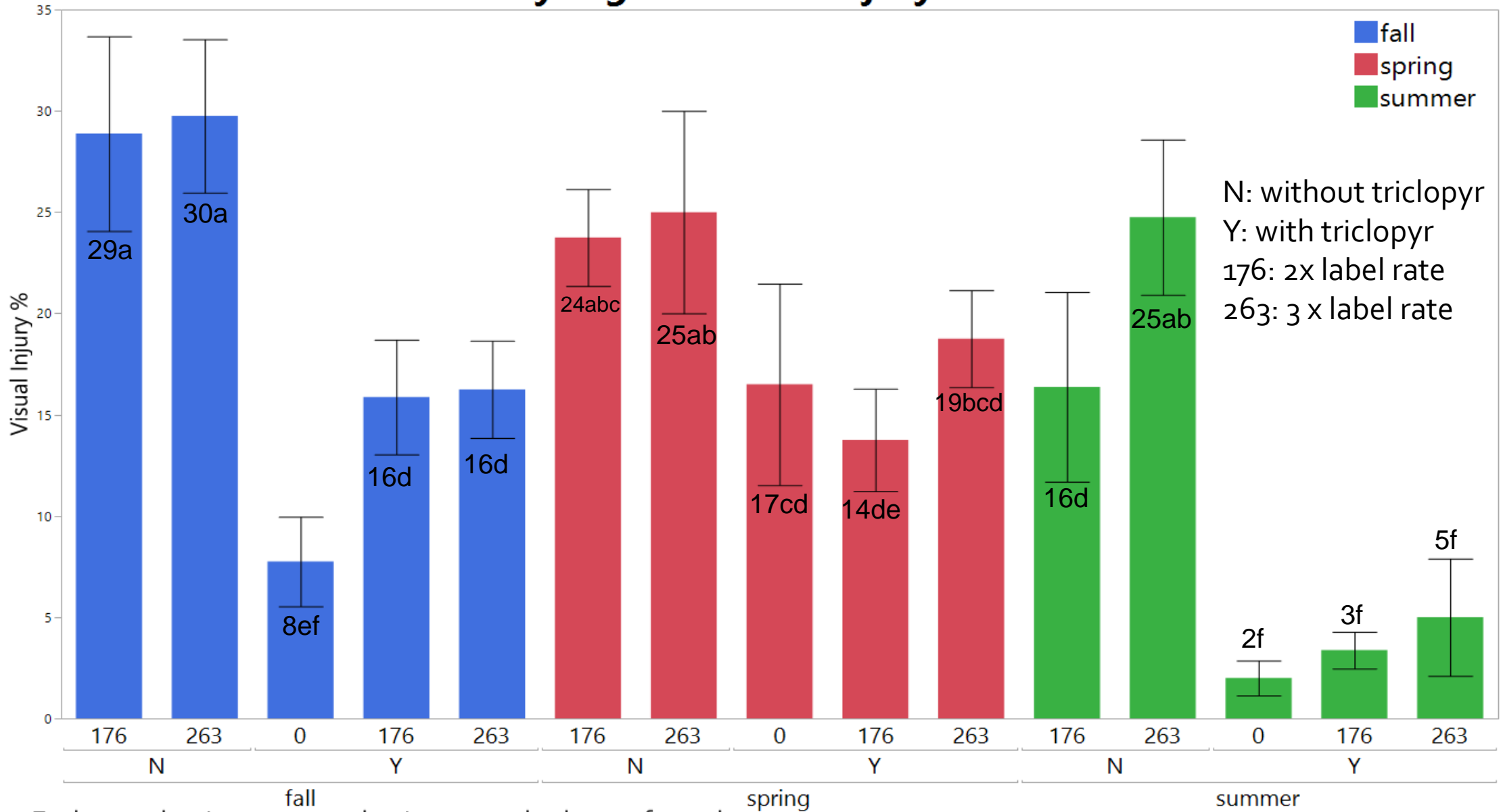
April, July, October

Empire Zoysiagrass Visual Injury at 6 WAT



Each error bar is constructed using 1 standard error from the mean

Zeon Zoysiagrass Visual Injury at 6 WAT



Each error bar is constructed using 1 standard error from the mean

Conclusions

- Tank mixing triclopyr as safener is best done when zoysiagrass is most susceptible to Fluazifop injury.
 - Fall vs. spring vs. summer.

Questions?