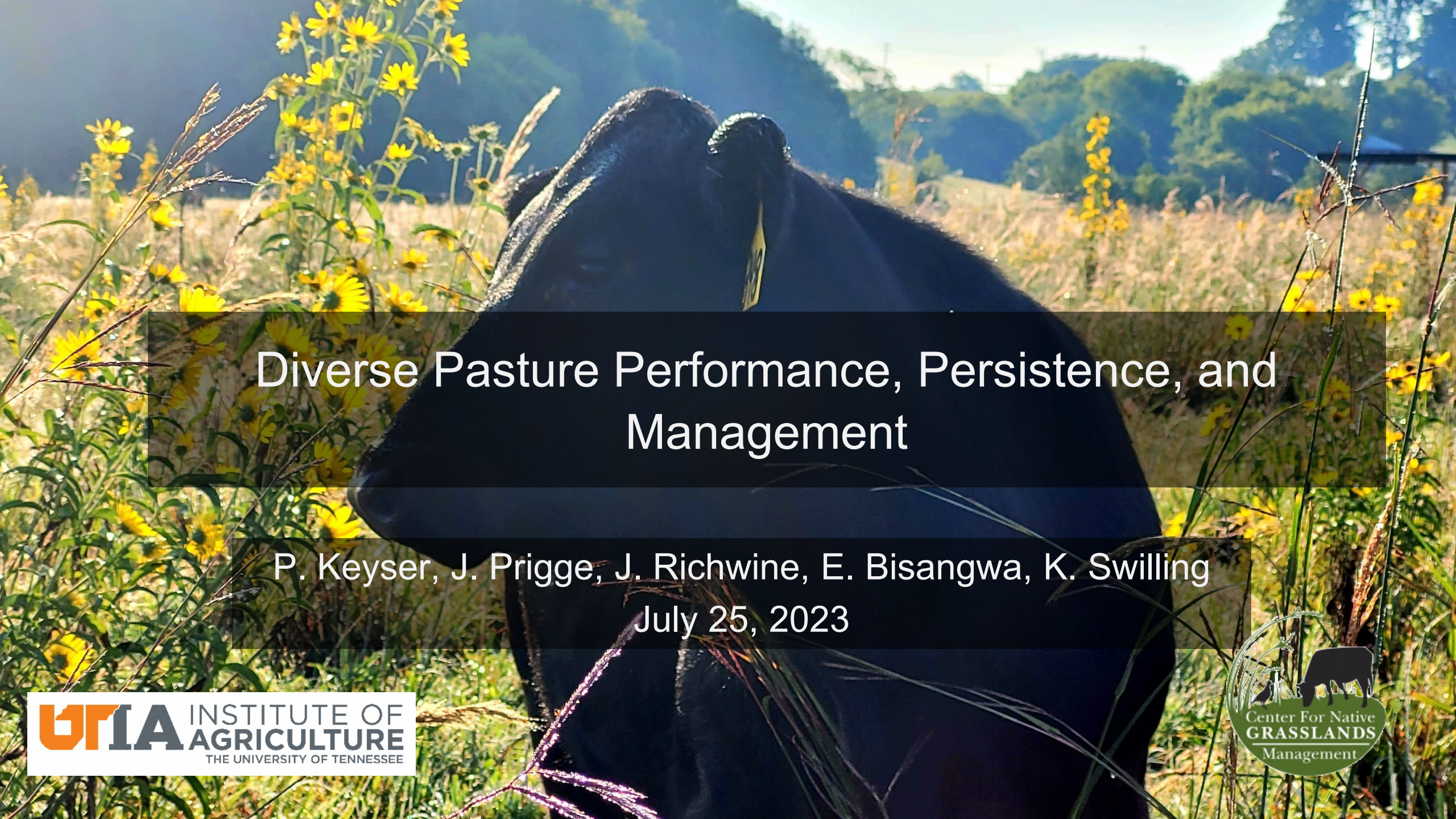

Diverse Pasture Performance, Persistence, and Management

P. Keyser, J. Prigge, J. Richwine, E. Bisangwa, K. Swilling

July 25, 2023

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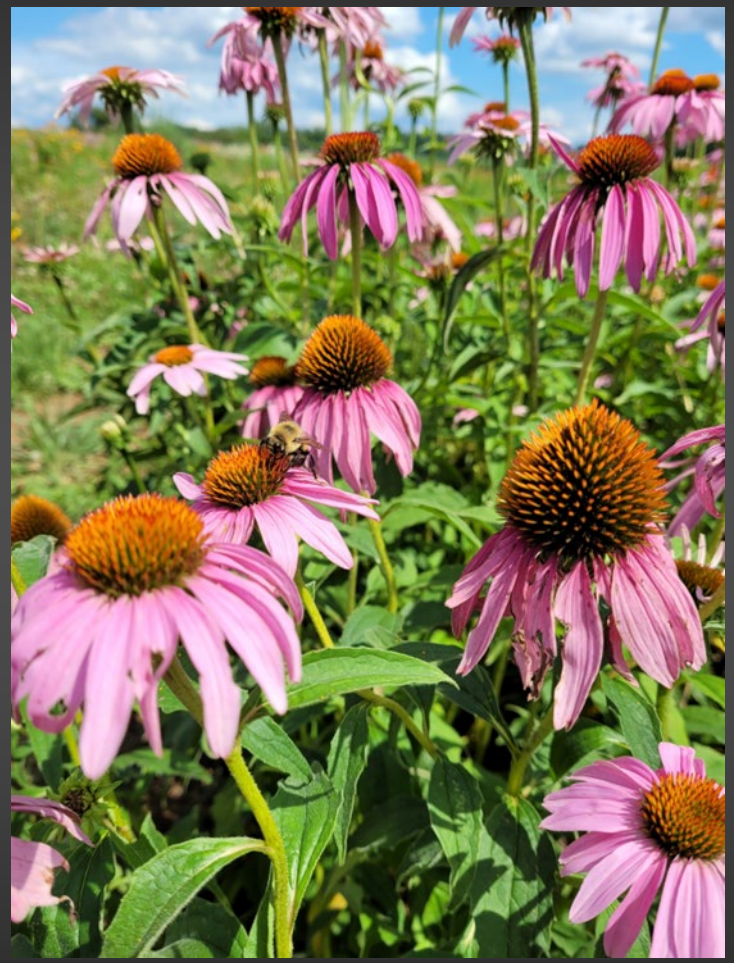
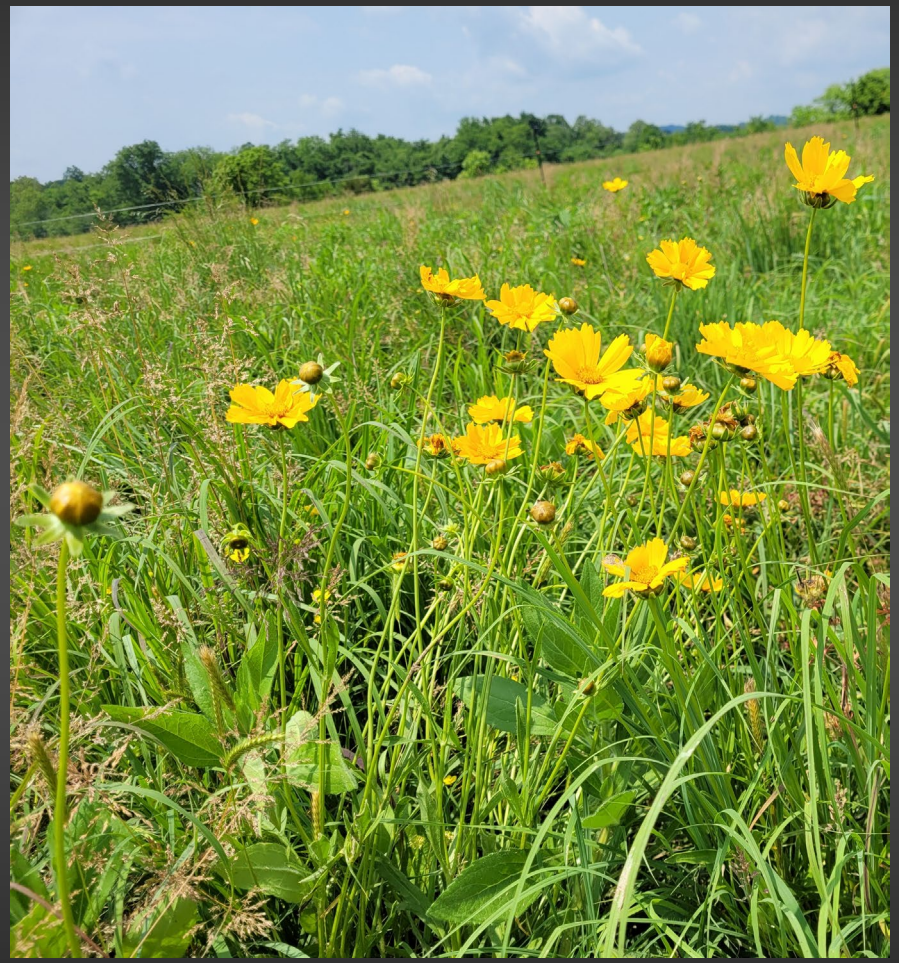




https://northwestmeadowscapes.com/products/canada-goldenrod-solidago-canadensis?variant=8646723305584

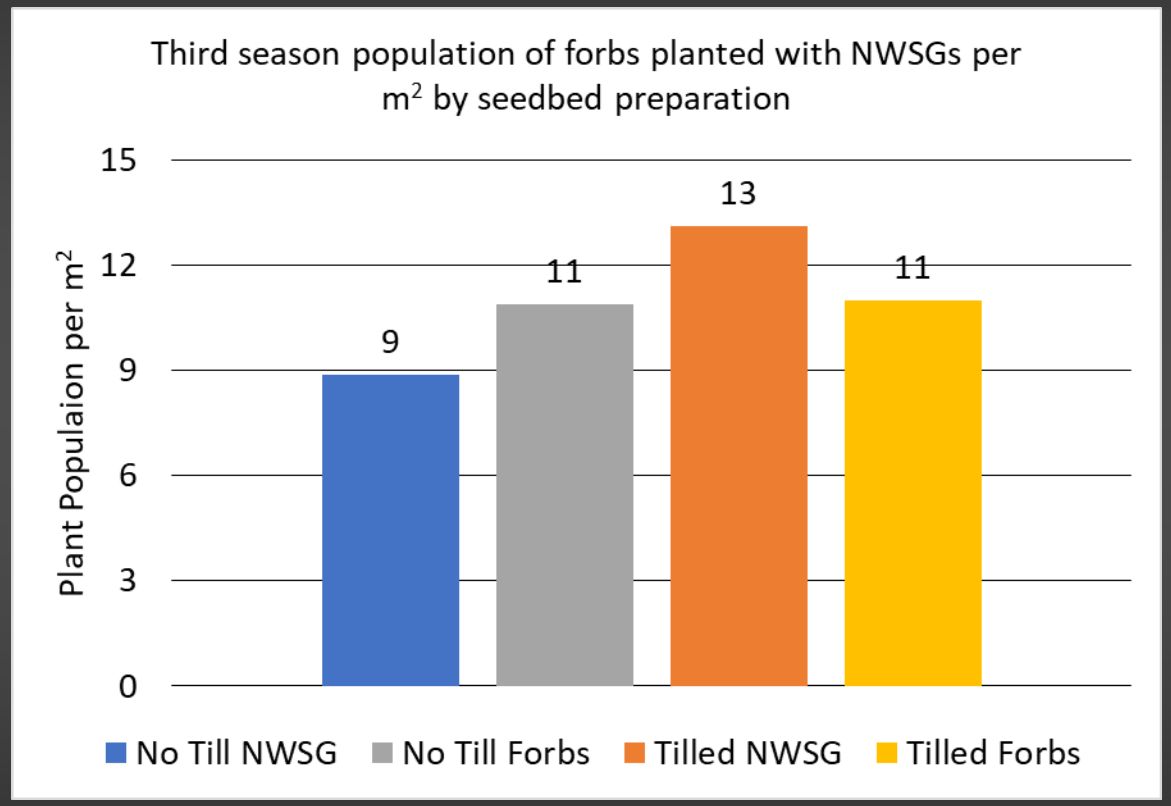
https://www.ernstseed.com/product/purple-prairie-clover/

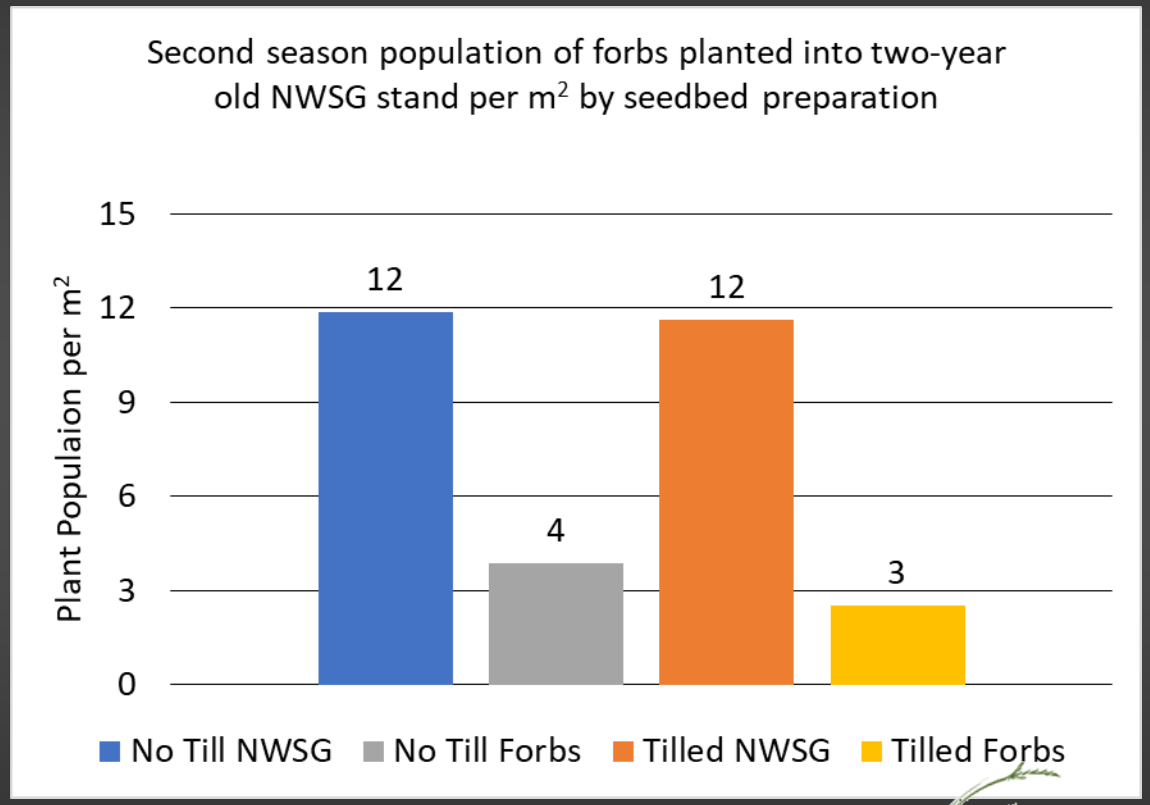
Photo credit: Colleen Kaste

https://www.ernstseed.com/product/illinois-bundleflower/

https://www.americanmeadows.com/grass-and-groundcover-seeds/patridge-pea-seeds

Forb Establishment in NWSG





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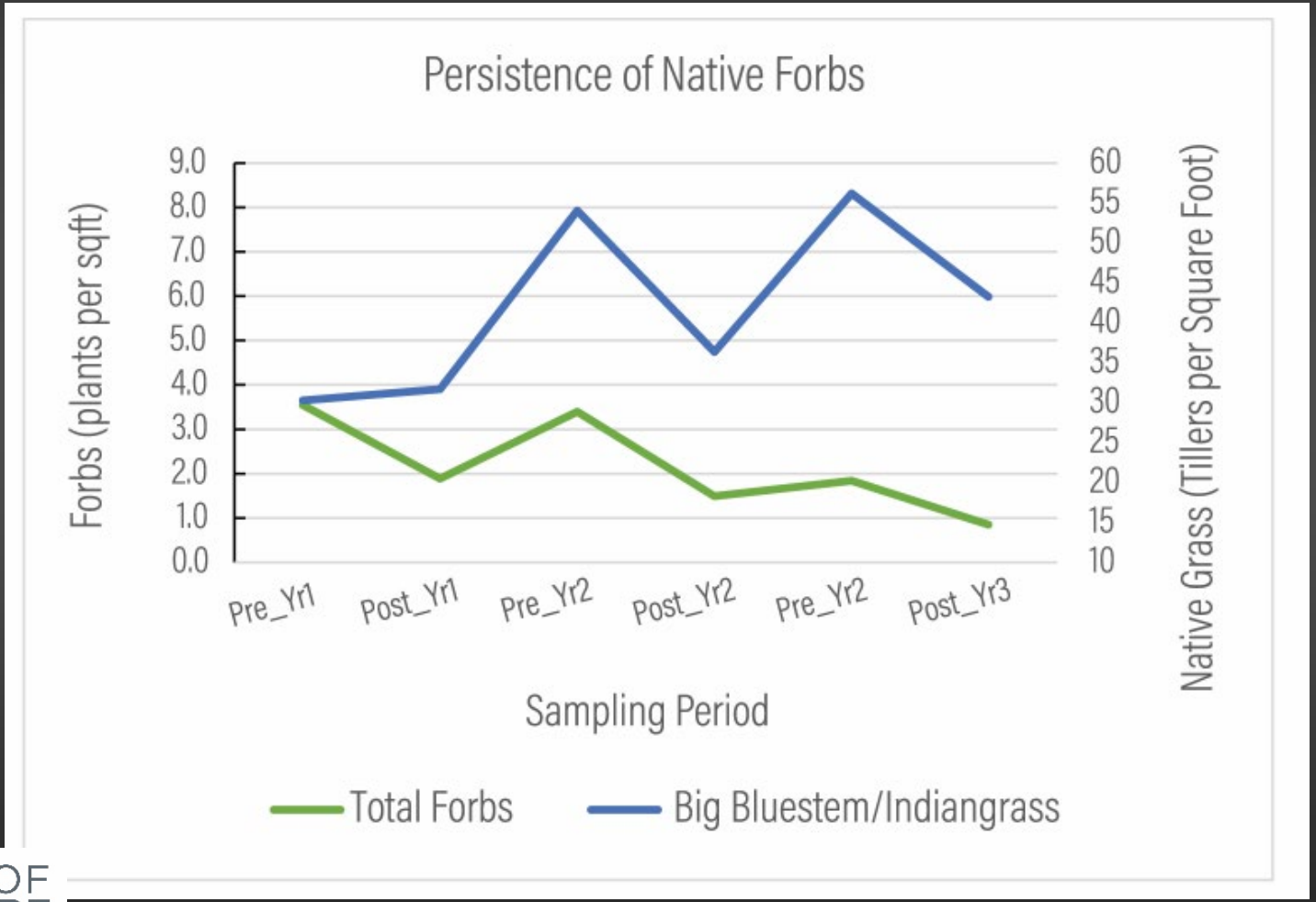
Grazing Management and Forb Persistence



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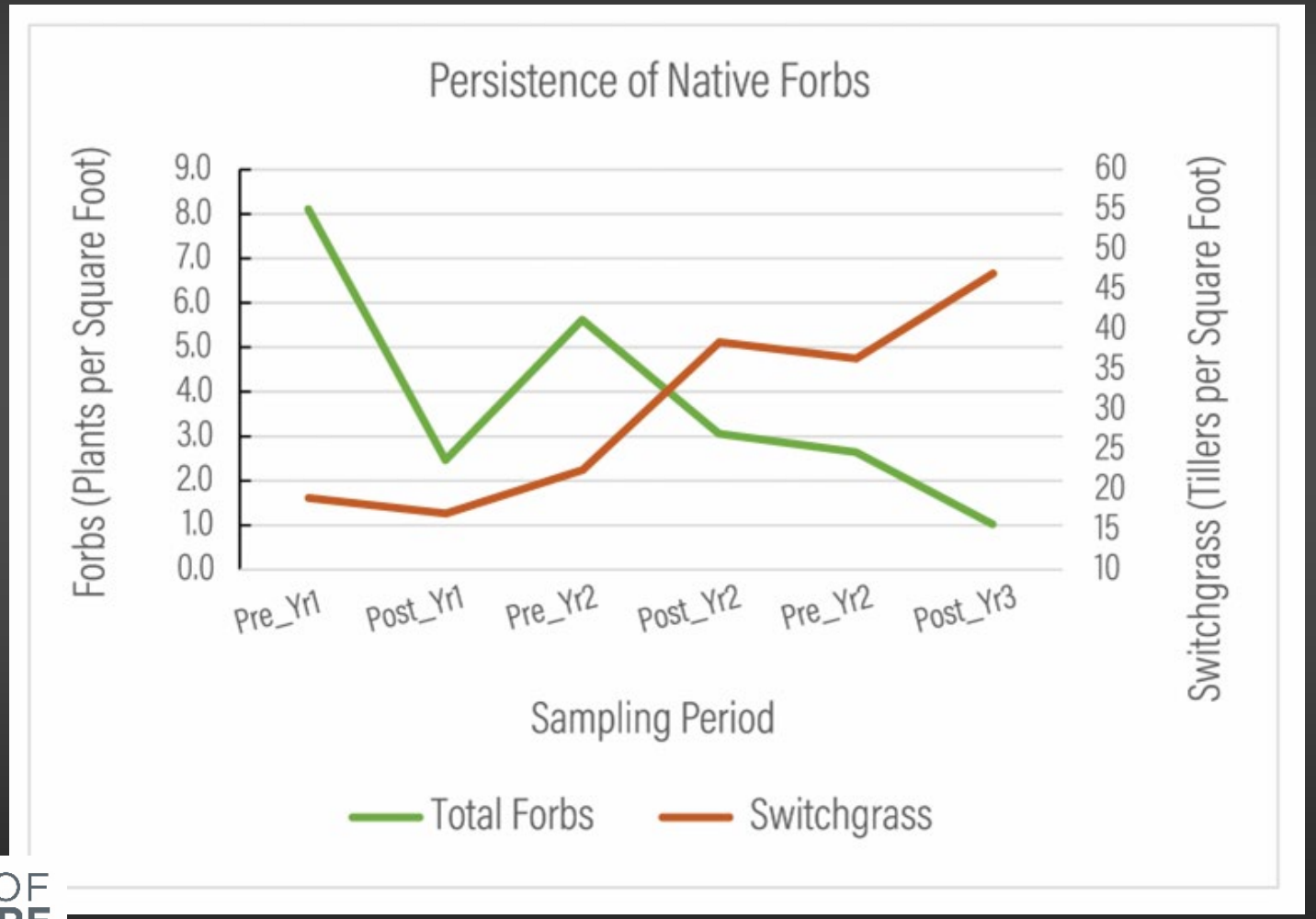
Grazing Management and Forb Persistence



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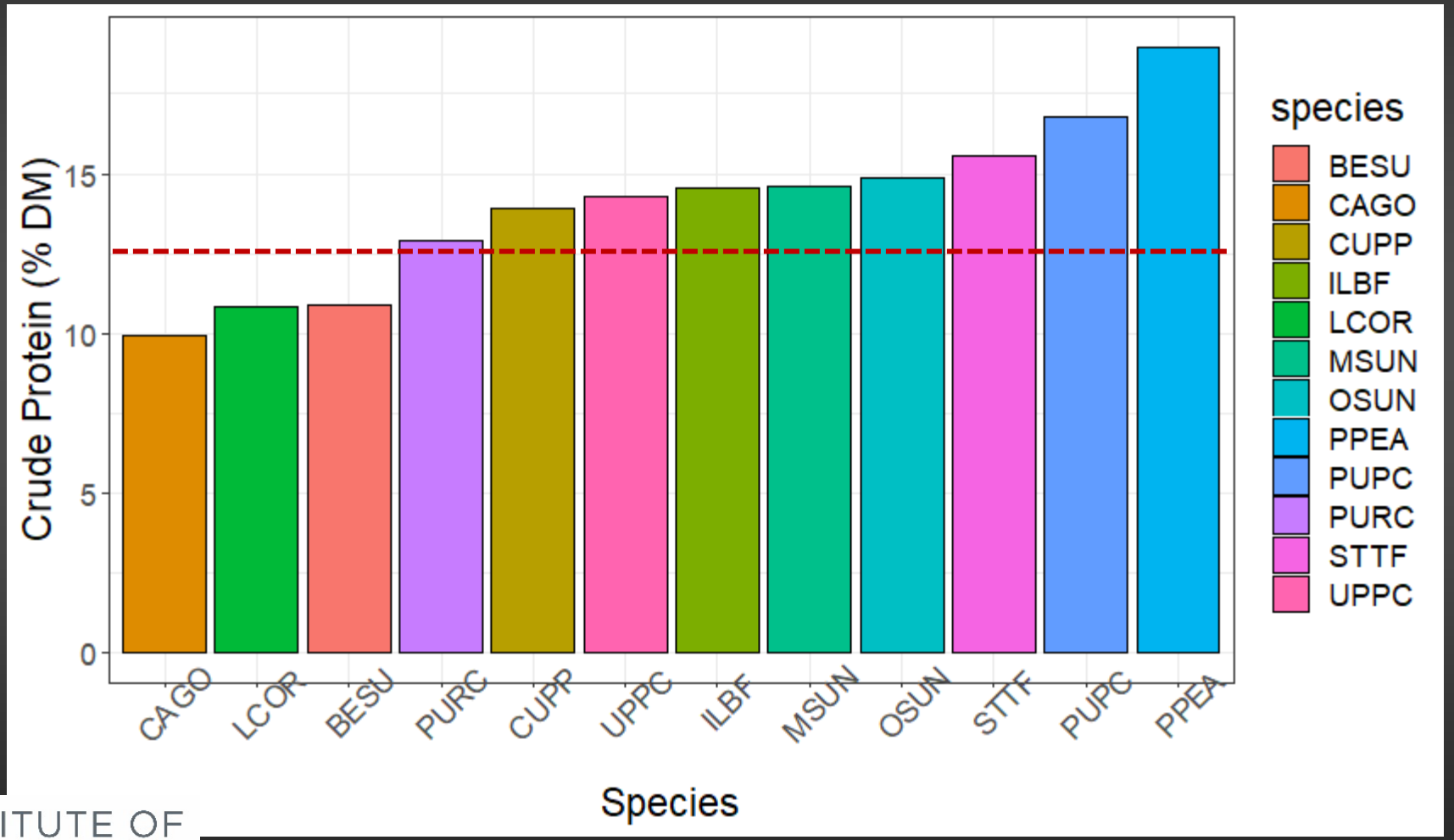
Average Crude Protein Content of Native Forbs



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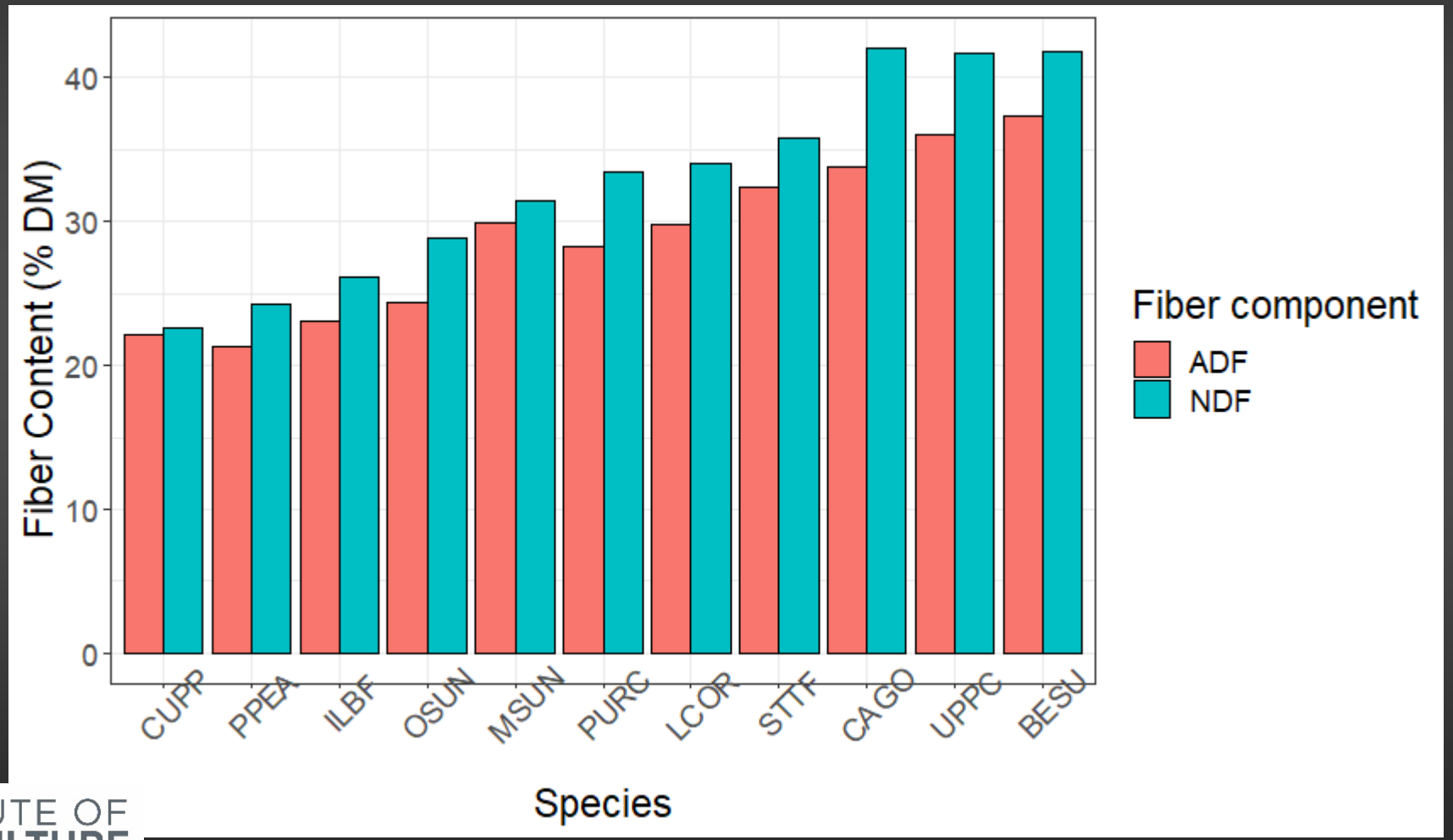
Average Fiber Content of Native Forbs



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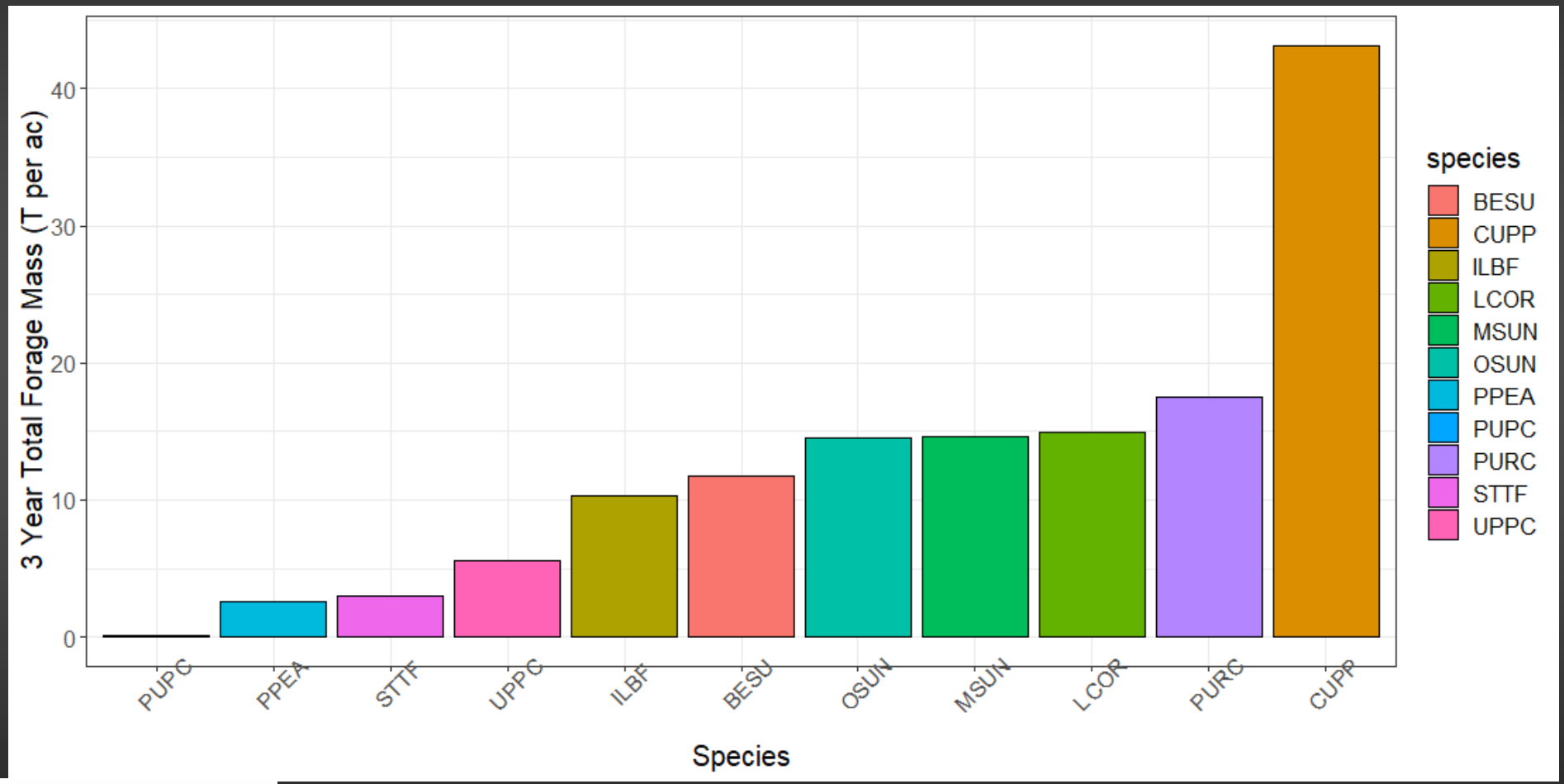
Three Year Cumulative Forage Mass of Forbs Under Repeated Defoliation



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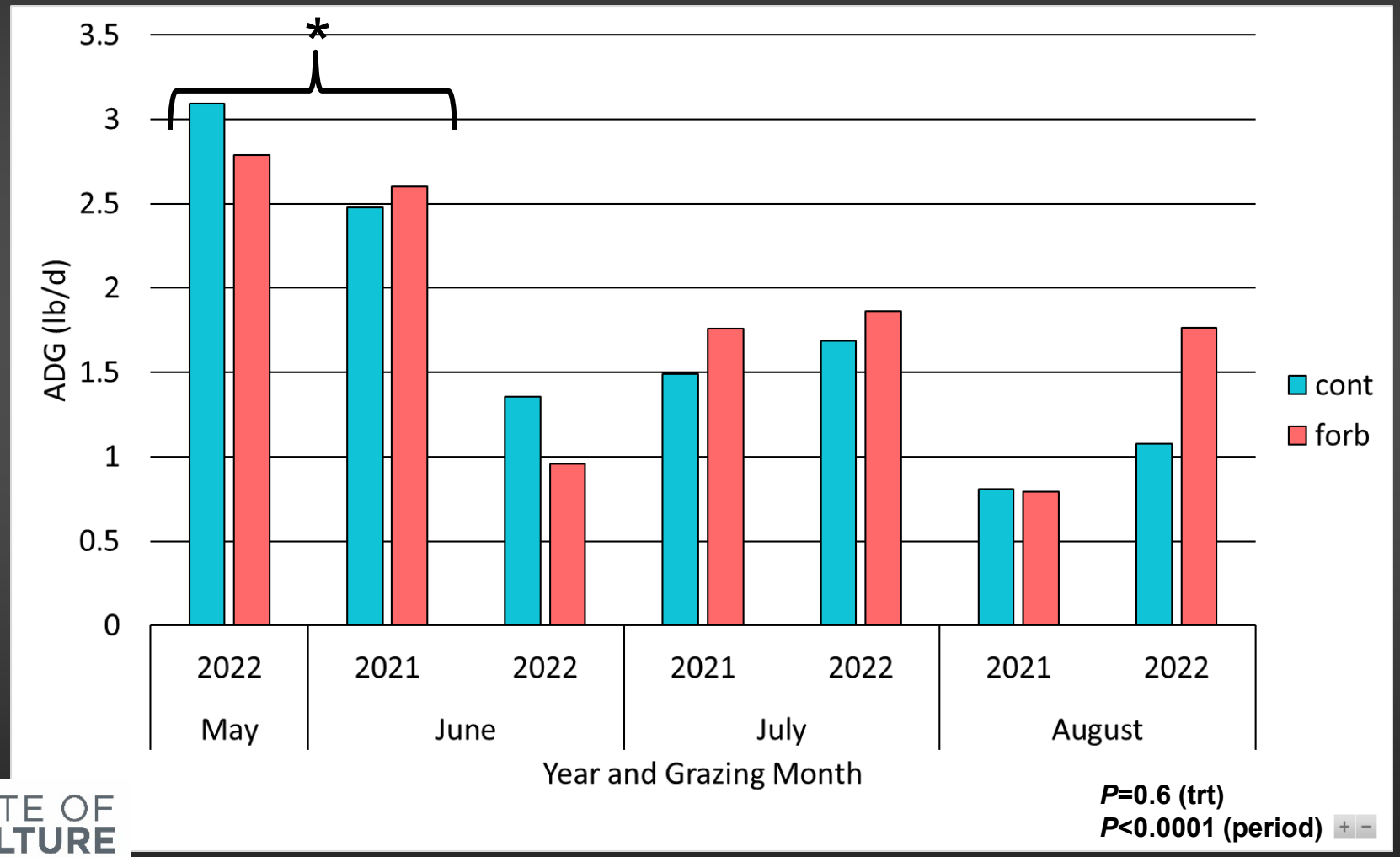
Cattle Performance on Native Pastures Over the Grazing Season



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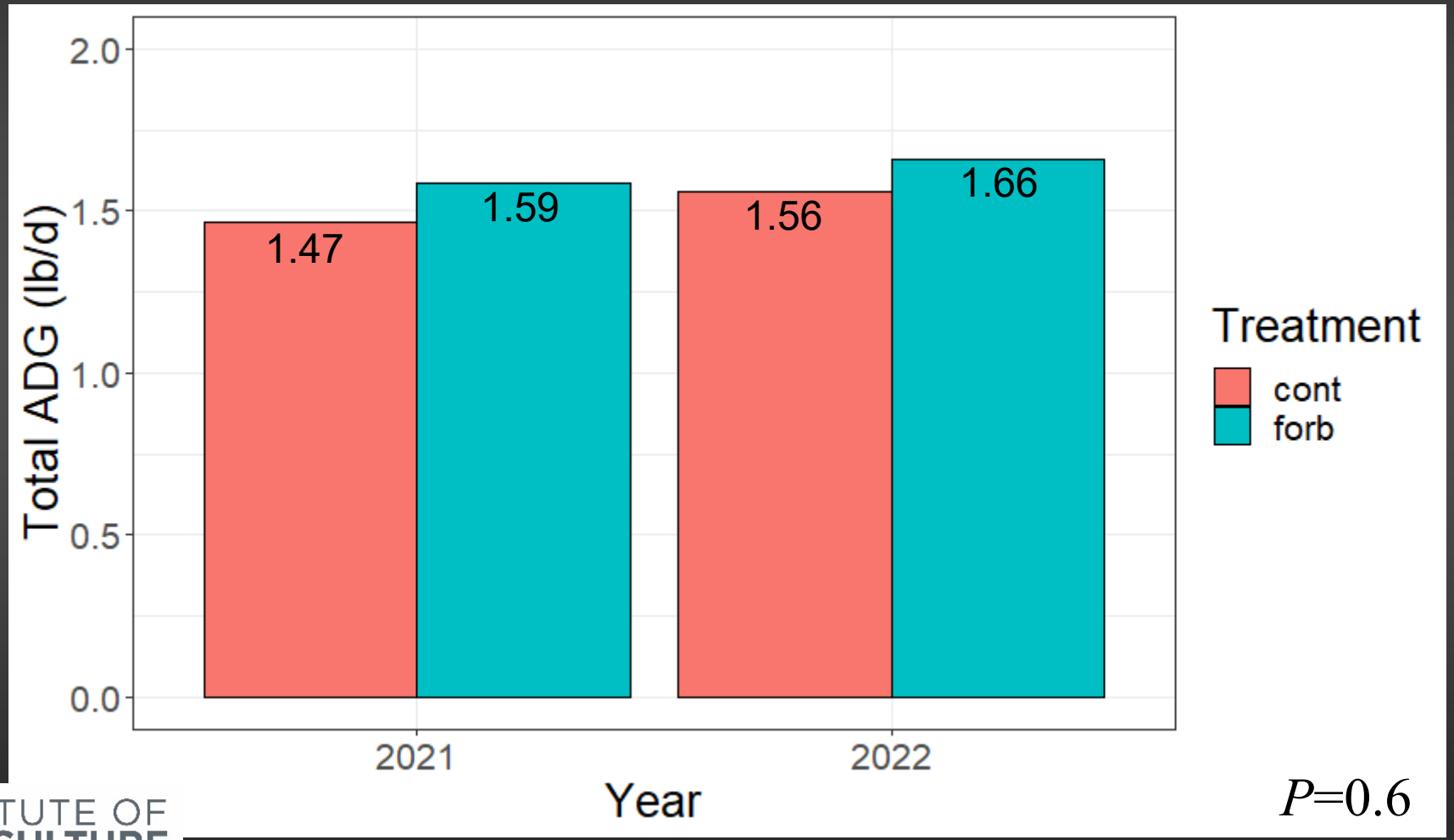
Cattle Performance on Native Pastures



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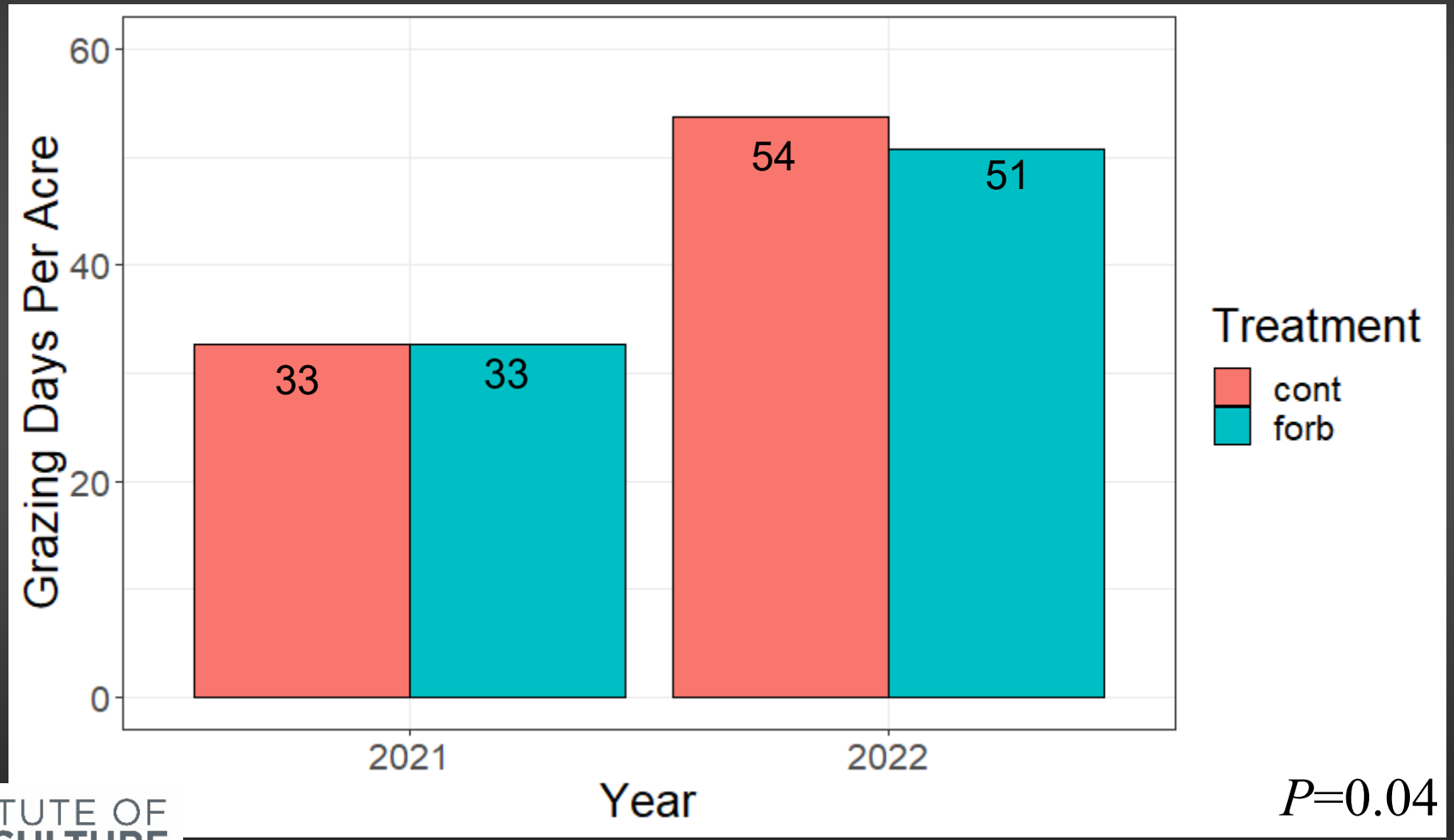
Grazing Days Per Acre



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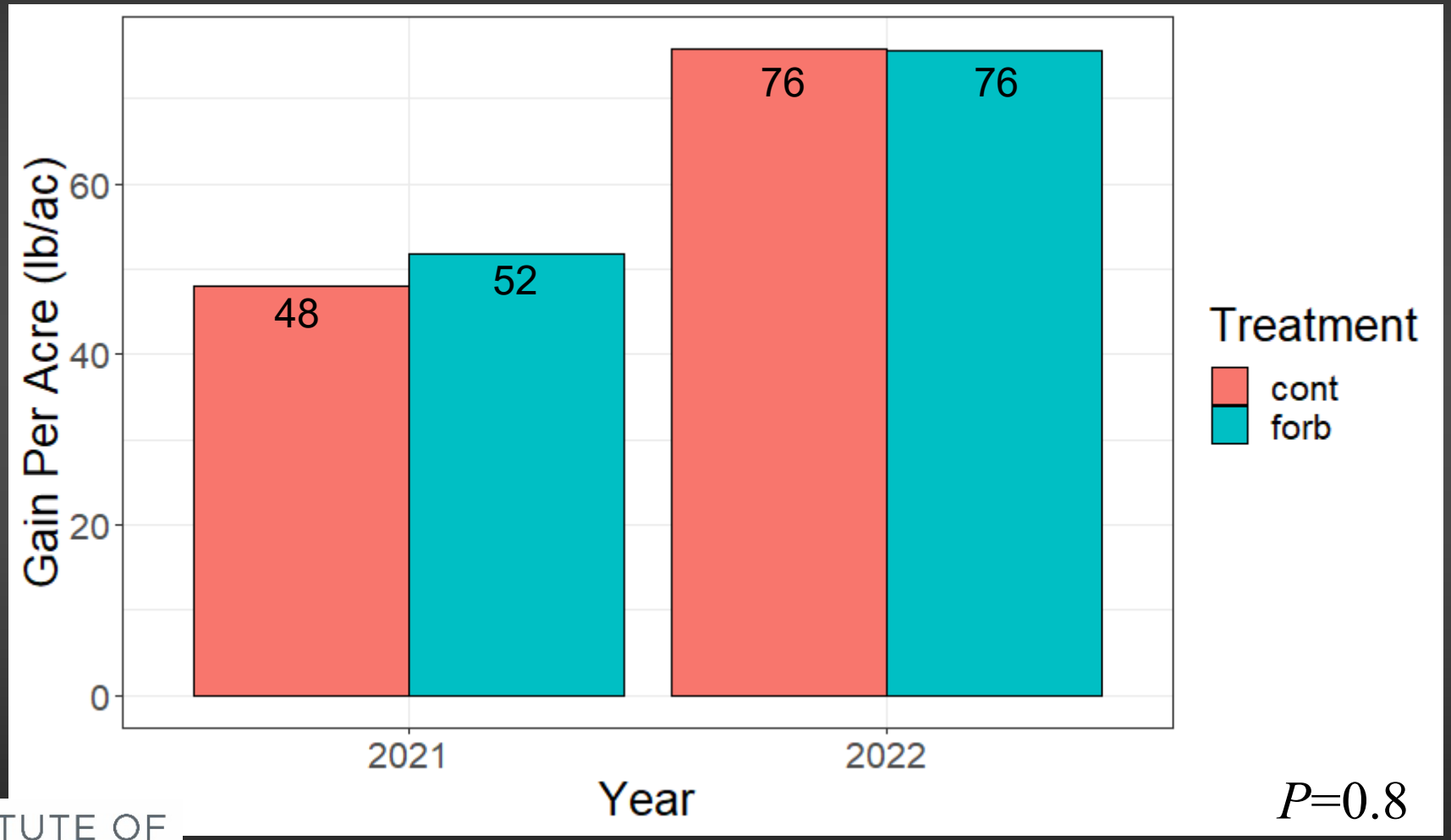
Cattle Gain Per Acre



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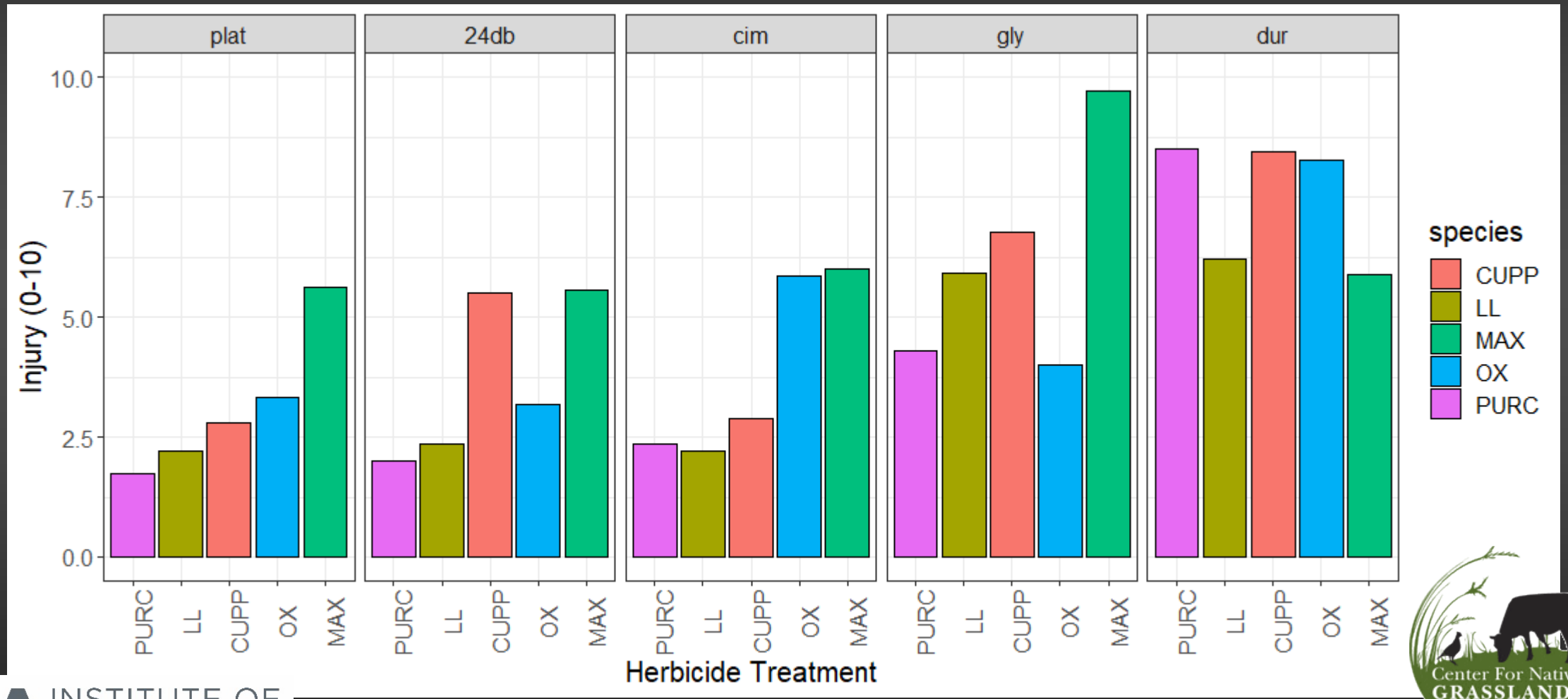
Herbicide Injury of Native Forbs 2 Weeks Post Treatment



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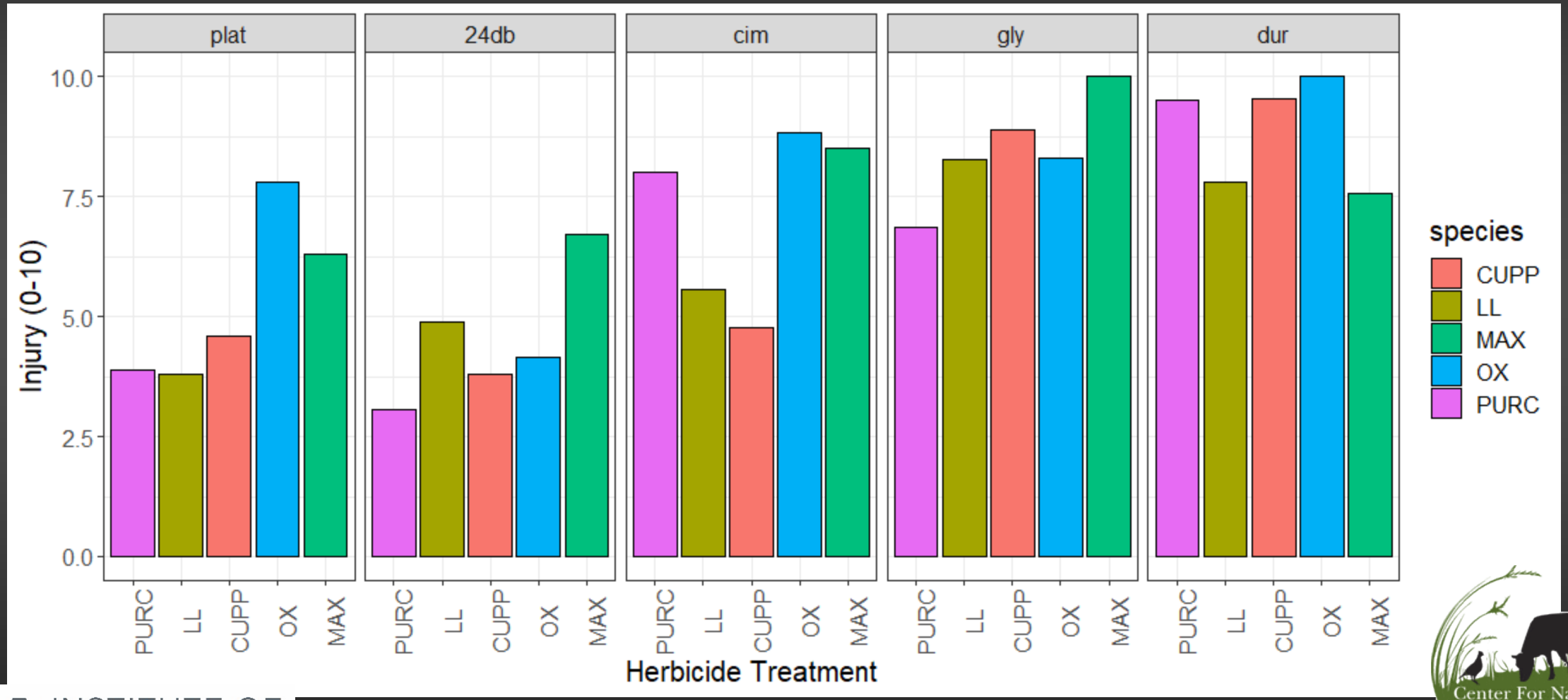

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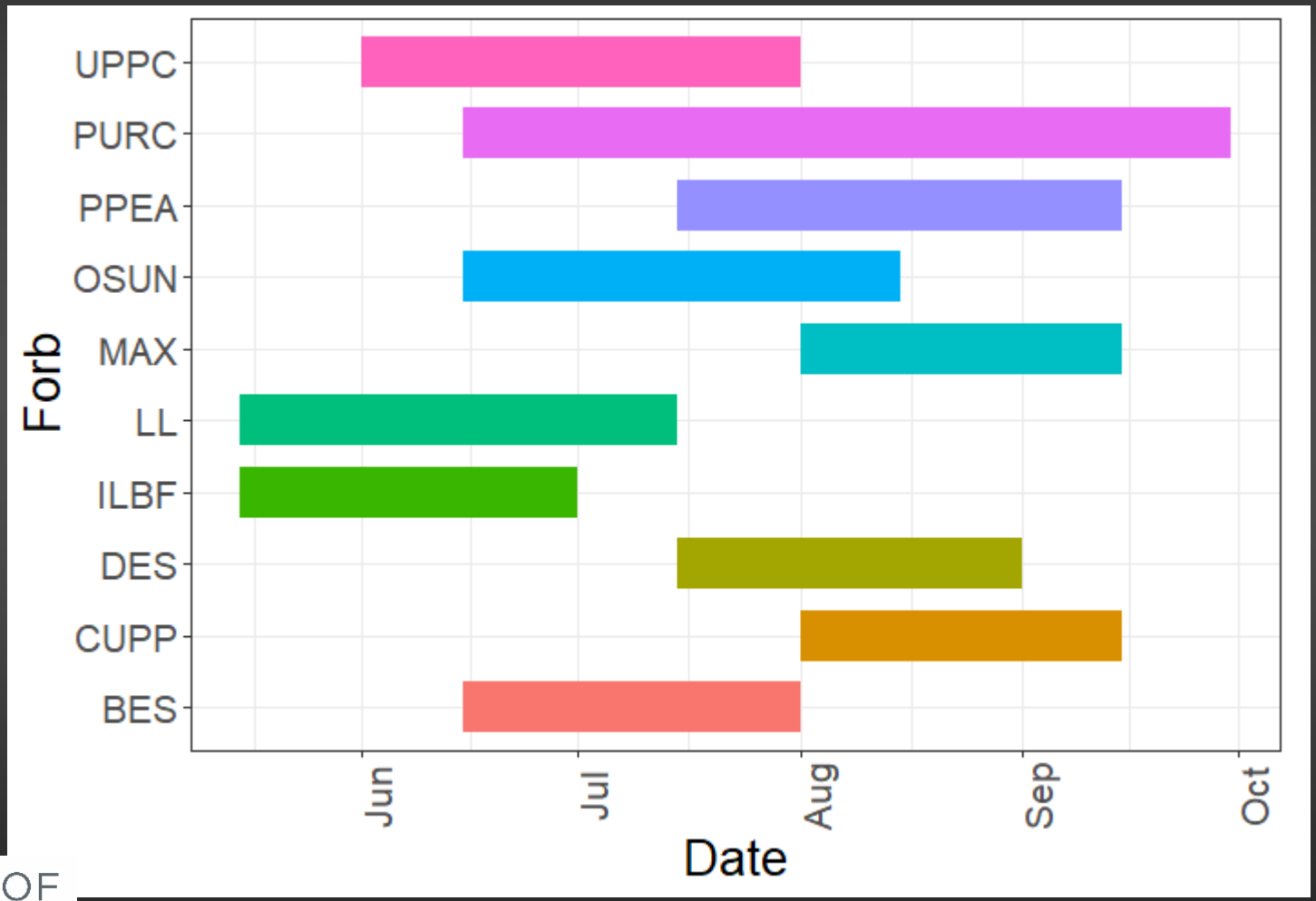
Flowering Patterns of Native Forbs



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Recommended Forbs

Forb	Benefits
Purple coneflower	Consistent blooms for pollinators and birds
Lanceleaf coreopsis	Early season blooms
Black-eyed susan	Quick-establishing biennial
Maximillian sunflower	Late season blooms
Oxeye sunflower	Moderate forage mass and persistent in pastures
Desmodium	Readily consumed legume

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Summary-Forb Establishment and Persistence

- Stand management impacts composition and forb persistence
- Forbs establish best when seeded with NWSG compared to interseeding into an established stand
- Diverse forb mixtures extend the blooming period throughout the season

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Summary-Forb Quality and Animal Performance

- Most forbs meet or exceed the CP needs of a growing steer
- Low fiber concentrations suggest no barrier to intake and palatability
- Cattle perform similarly when grazing NWSG and interseeded NWSG
- Grazing days and gain per acre are season dependent

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Summary-Forb Herbicide Tolerance and Management

- All forbs received damage from all herbicide treatments, but most were moderately tolerant
- 2,4-DB and plateau appear to be the best tolerated herbicides when sprayed early in the season

Acknowledgements

- Staff and Directors, NETREC and ETREC – Holston and Plant Science Units
- Technicians
- University of Tennessee Foundation
- USDA-NRCS – Conservation Innovation Grant
- USDA-AFRI
- University of Tennessee AgResearch
- University of Tennessee School of Natural Resources
- Ernst Conservation Seeds

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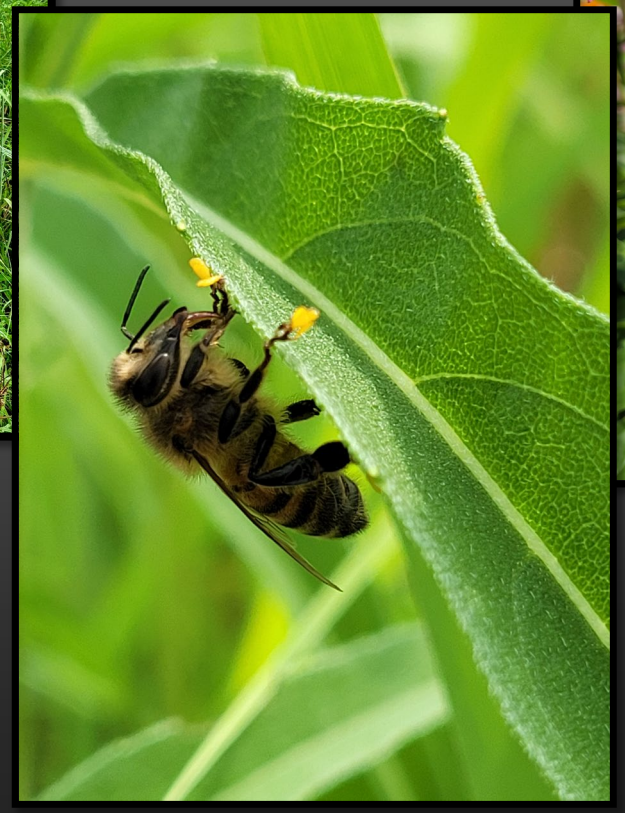
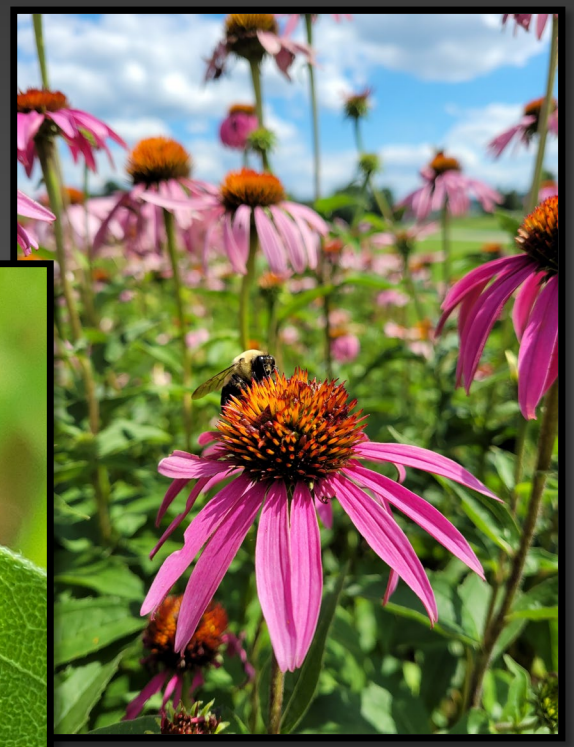
Questions?





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