

# Restoring Tall Fescue and Orchardgrass Pastures by Interseeding Alfalfa

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- Tennessee livestock production
- Cool-season grass pastures Tall fescue & orchardgrass
- Pasture condition declining
- Deficient grazing
- Poor forage management
- Drought
- Introducing Alfalfa (ALF)
- High quality
- Practical and economical



- Challenges:
- Weed control
- Most common weed: crabgrass
- Hard to control
- But, high quality and productivity
- No more pre-emergent herbicide
- High nutritive value for summer

# Objectives

- 1. Identify different management strategies in restoring poor stands of cool season grass pastures **with alfalfa** to increase **yield** and quality.



# Objectives


2: To determine the potential economic benefits of introducing alfalfa into grass pastures for livestock producers in the U.S. humid transition zone.

3: To develop an extension program to help educate agents and producers about successful strategies in restoring low producing grass pastures with alfalfa.



# Material and Methods

- Middle Tennessee AgResearch and Education Center in Spring Hill, Tn
- Maury silt loam
- Weather:
- 2020 growing season
- 992 mm
- 30-yr average
- 671 mm



# Material and Methods

- Two experiments: TF and OR
- 6 Treatments and 4 replications
- Treatments were:
- control
- fall seeding of alfalfa, FA
- FA + crabgrass,
- spring seeding of alfalfa, SA
- SA + crabgrass,
- Urea



# Material and Methods

- Monthly, a 0.1-ft<sup>2</sup> grid (\*3)
- Strip cutting
- 8.4 m<sup>2</sup>
- Oven dry – 60°C



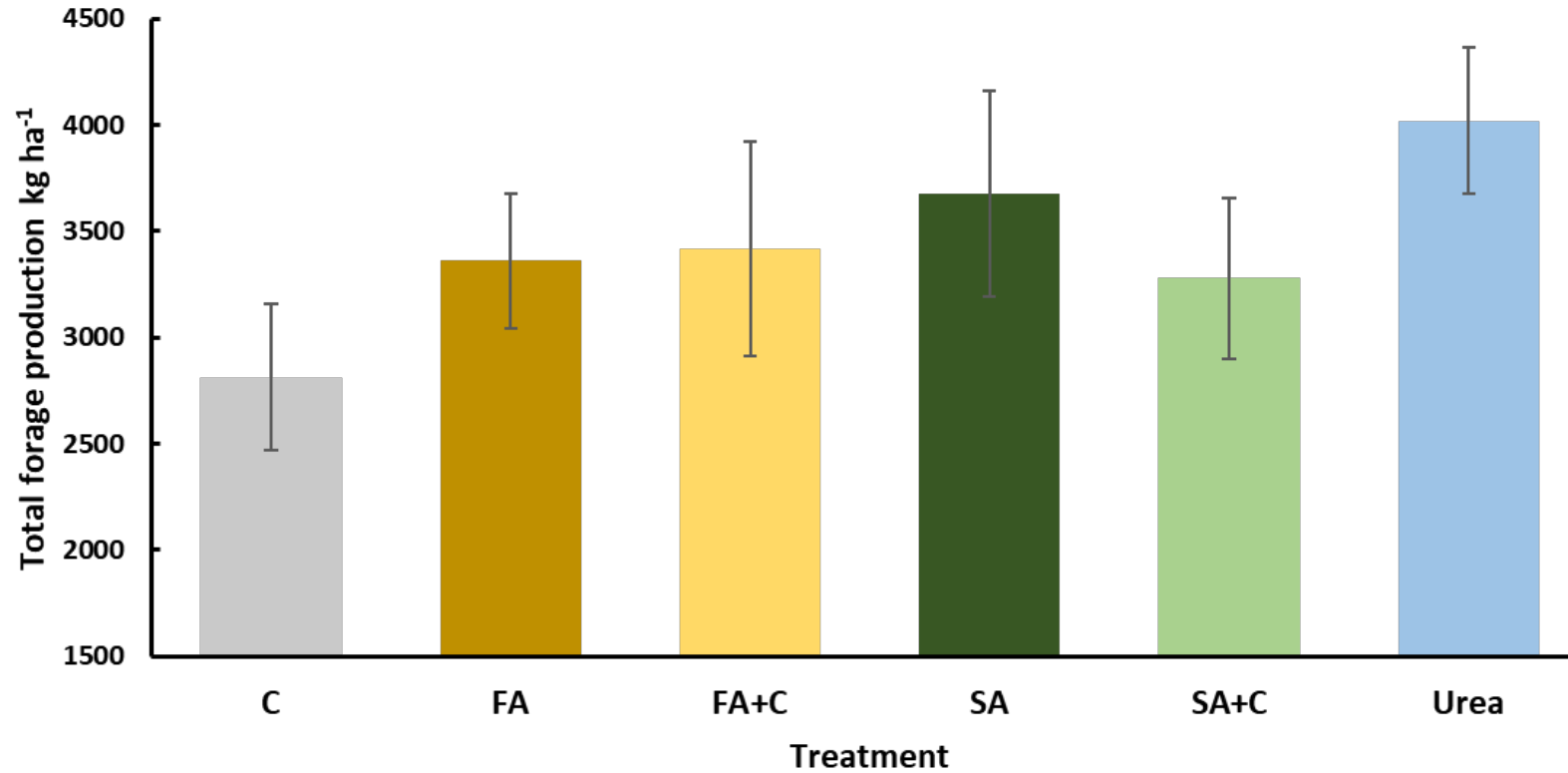


# Preliminary Results

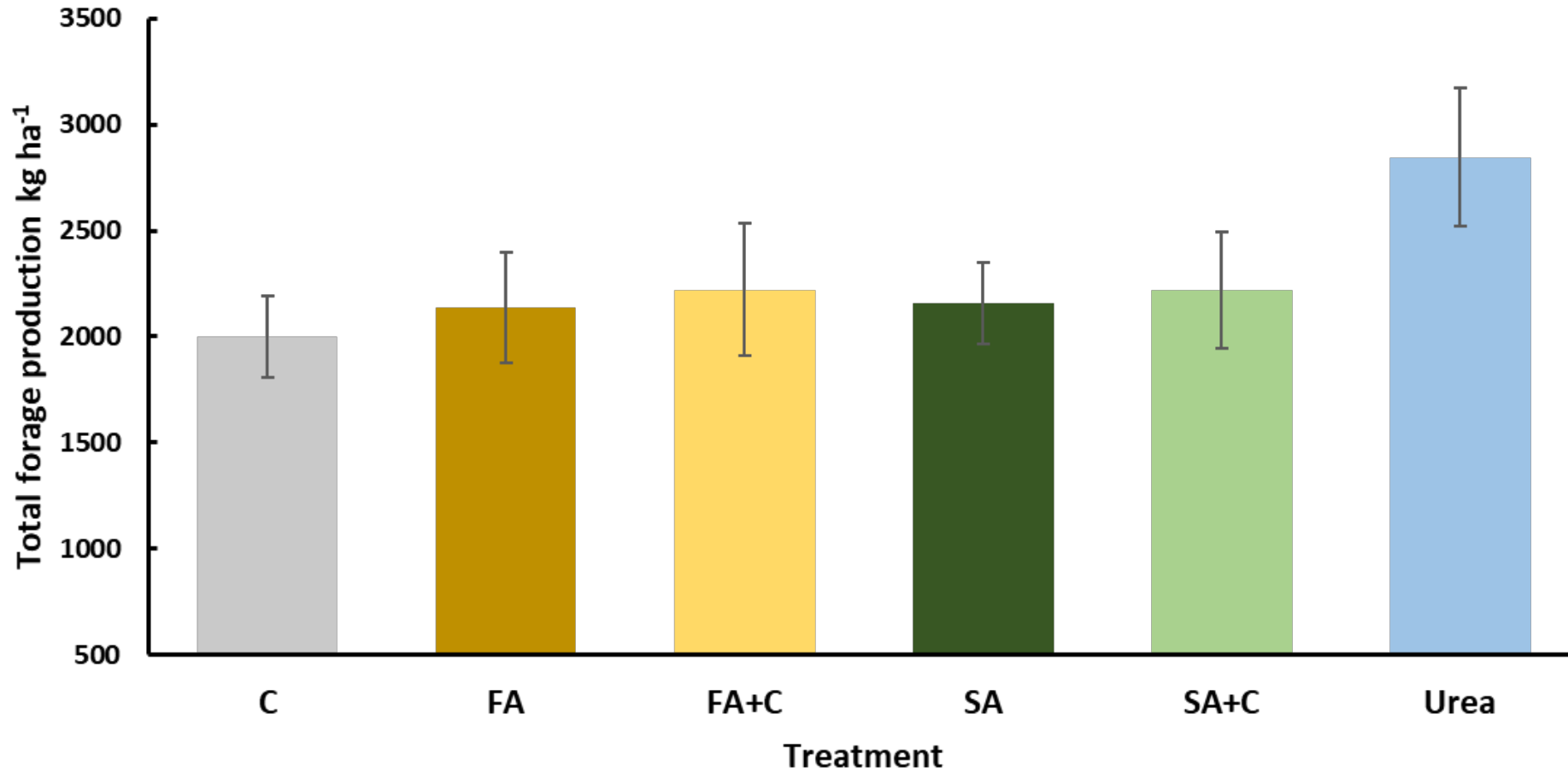
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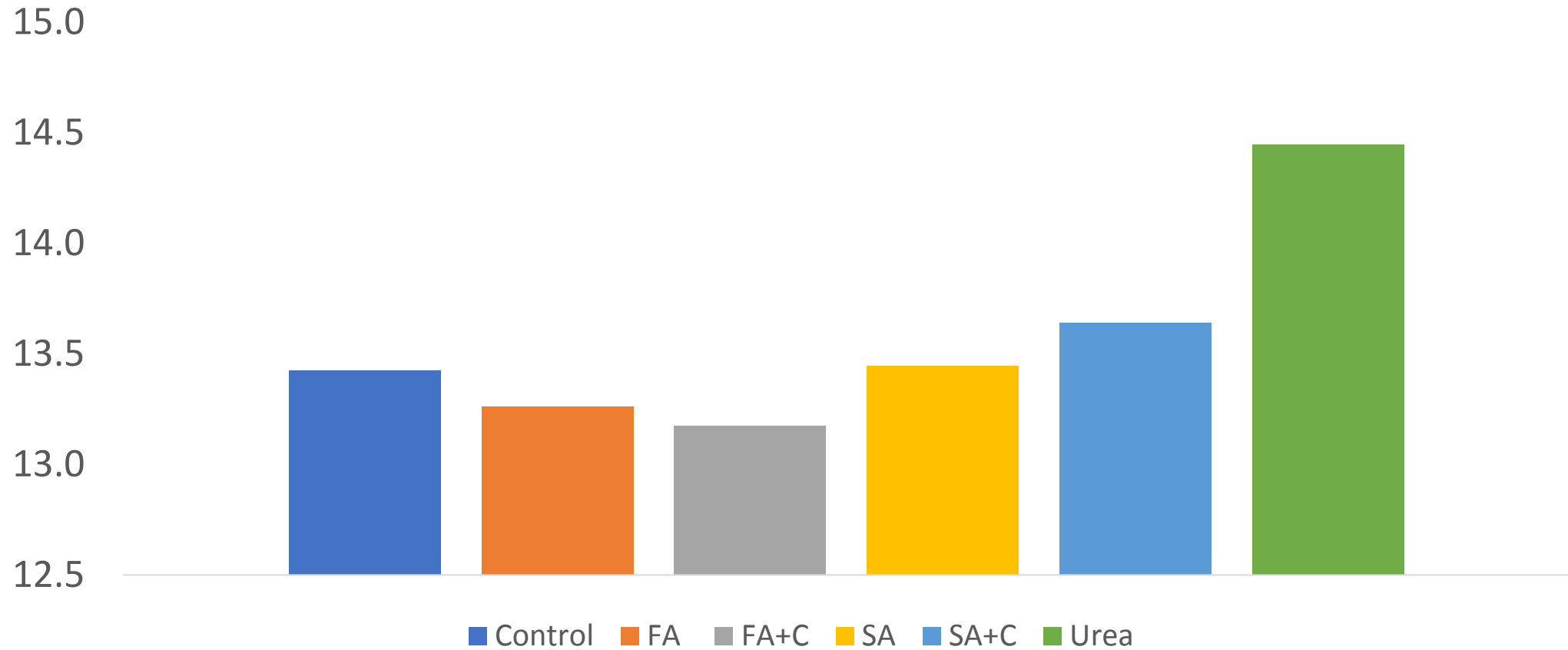
# Total tall fescue forage yield under during the 2020 growing season



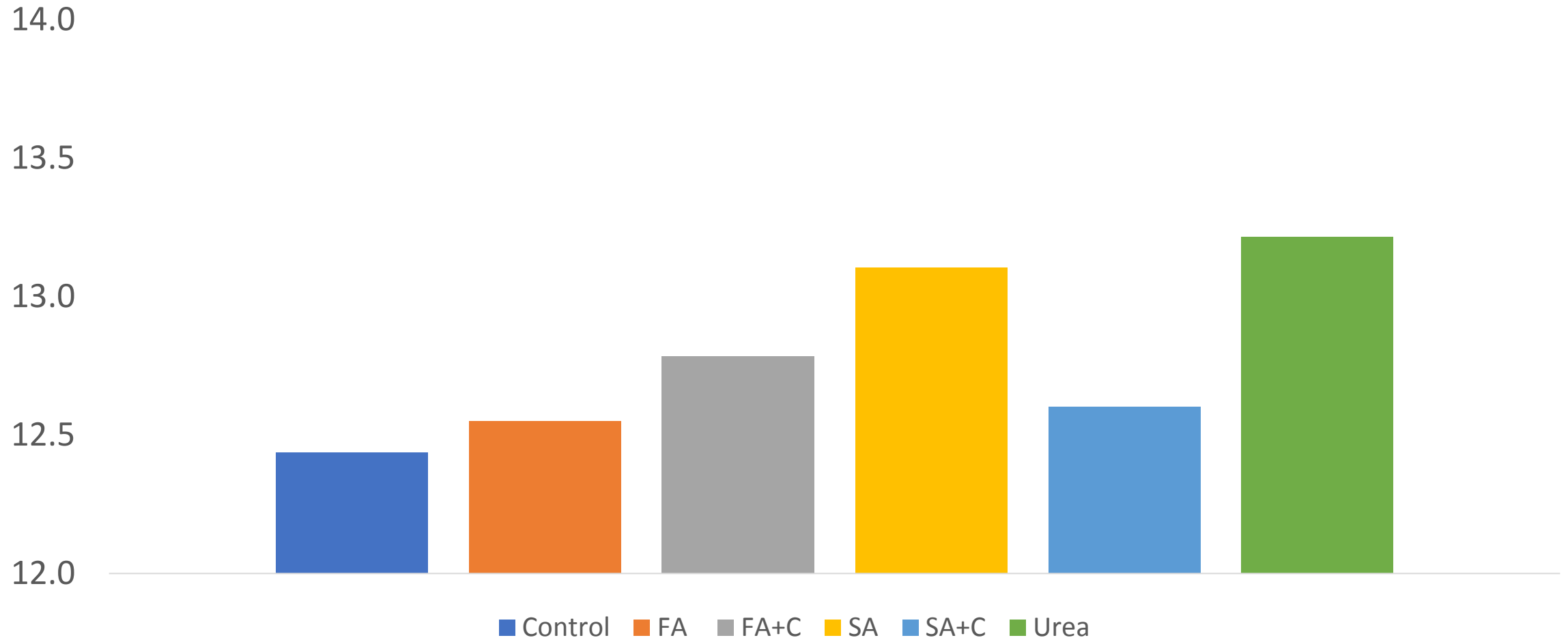
# Total orchardgrass forage yield under during the 2020 growing season



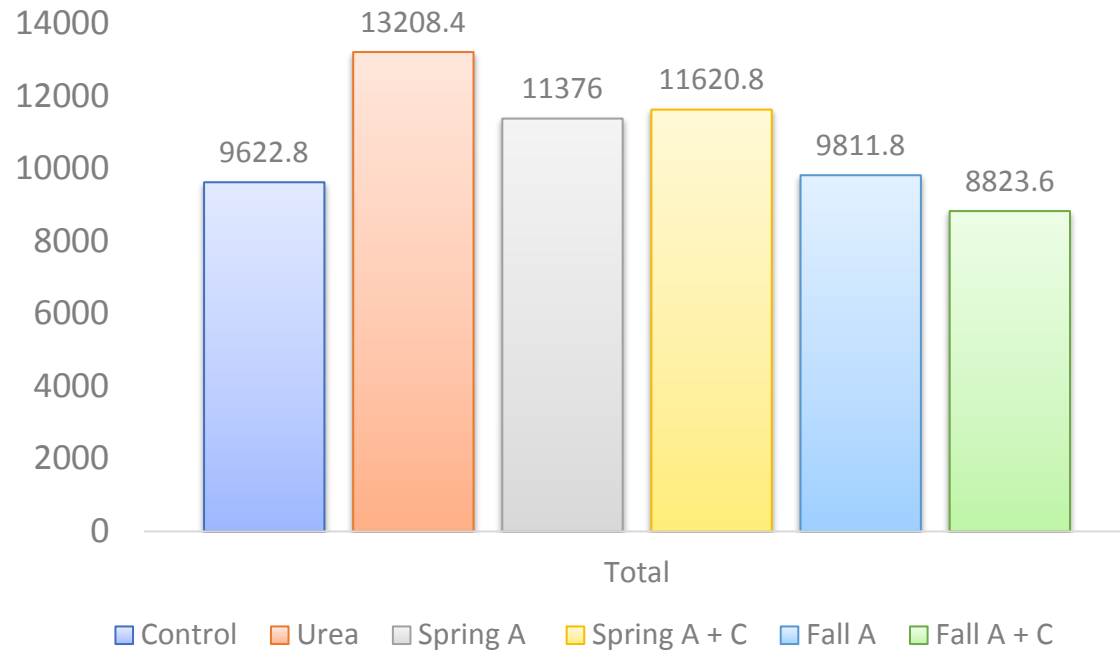
## Crude Protein – TALL FESCUE



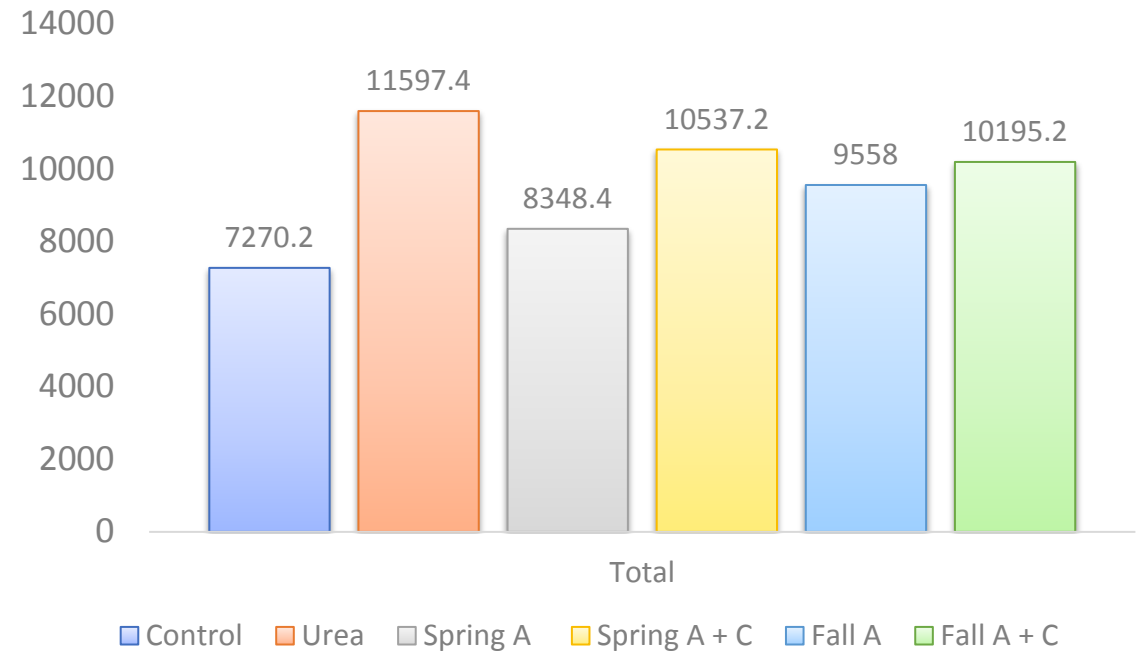
## Monthly Crude Protein - ORCHARDGRASS



# 2021 Forage Mass Production



Tall Fescue



Orchardgrass

# Preliminary Conclusion:

- Alfalfa interseeded into existing tall fescue is challenging
- Alfalfa interseeded into orchardgrass is promising
- June planted crabgrass is highly recommended
  - 🐮 Weed control, for both grass weed and broadleaf weed
  - 🐮 Promote yield
  - 🐮 Maintain adequate nutritive value



Questions?