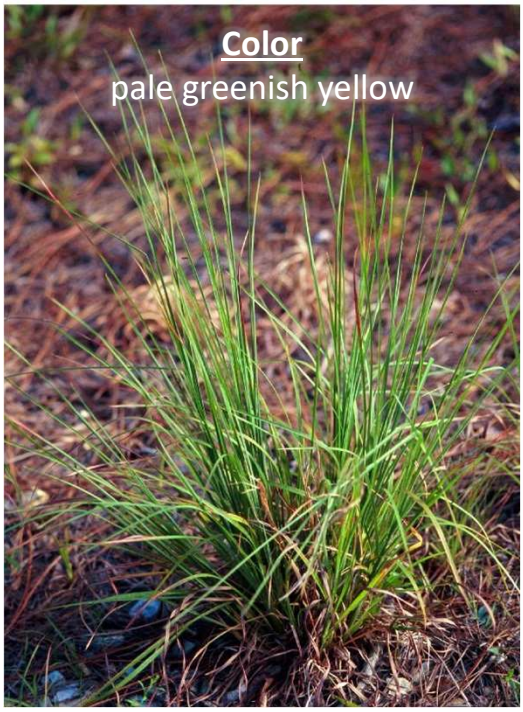
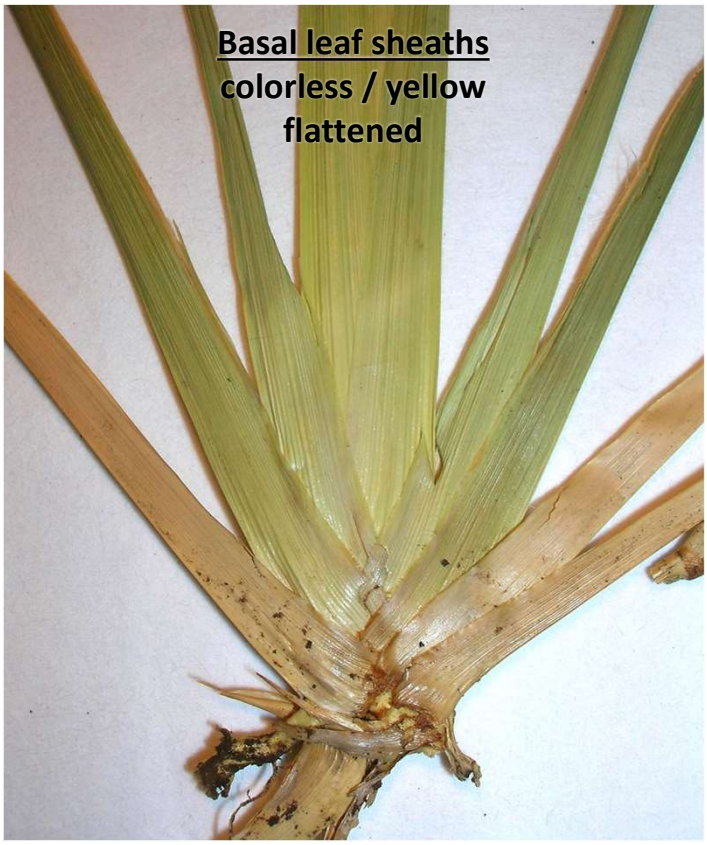
- Growth begins at 60°F
- Native, warm season
- Perennial
- Bunchgrass
- Grows 2 - 4 feet tall
- Leaves
  - Flat to partly folded
  - 10 - 15 in long
  - 1/8 in wide

Aliases: Poverty Grass, Sagegrass



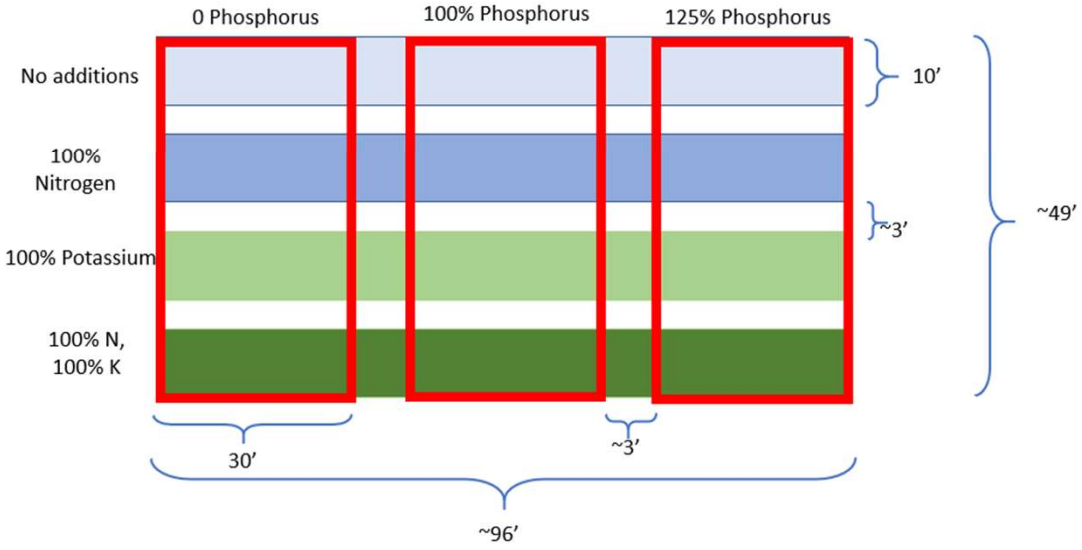


Broomsedge bluestem is an undesirable plant

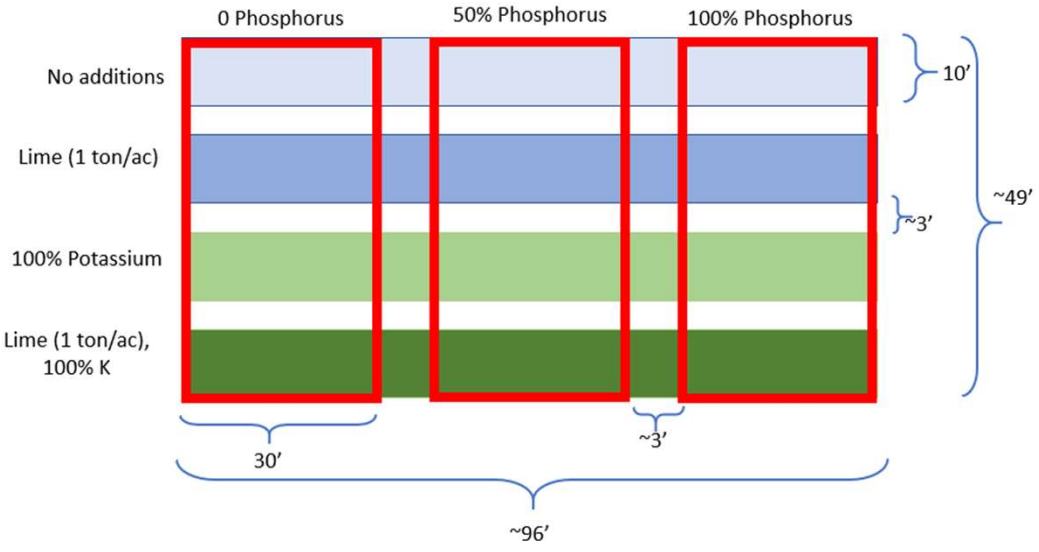
- Low quality for grazers
- Renowned for growing in low fertility soils
- Commonly known as a biological indicator plant
  - Noting low phosphorus.

This project intends to evaluate fertilization application rates over multiple years for persistence of broomsedge bluestem.

Fescue hayfields – Crawford County (Girard) and Labette County (Altamont)



Native meadows – Montgomery County (Caney) and Wilson County (Coyville)



Project Made Possible By

CANEY AGRI-SERVICE, LLC. SINCE 1991 620-879-2421

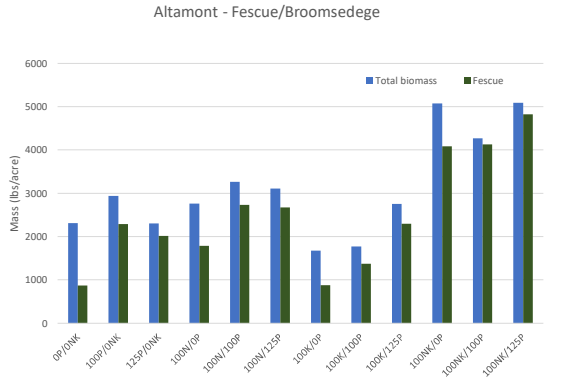
MIDWEST MINERALS "Rock Solid Since 1947"

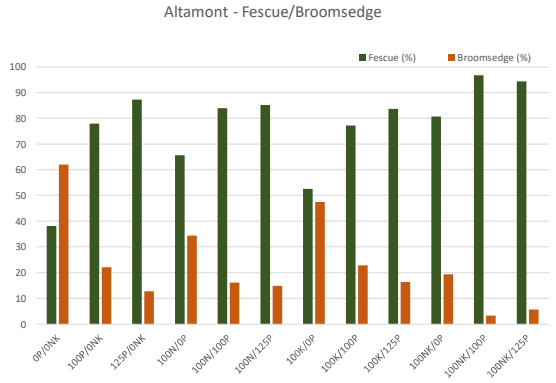
Pro-Ag Services, LLC

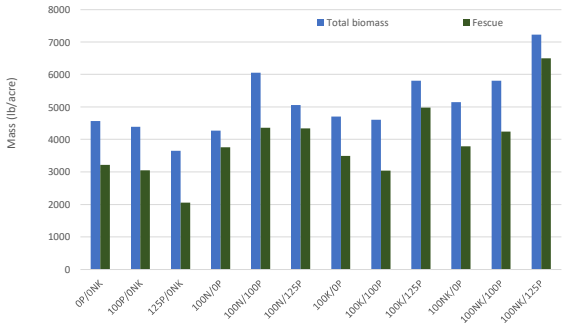
LABETTE COUNTY CONSERVATION DISTRICT
MONTGOMERY COUNTY
WILSON COUNTY

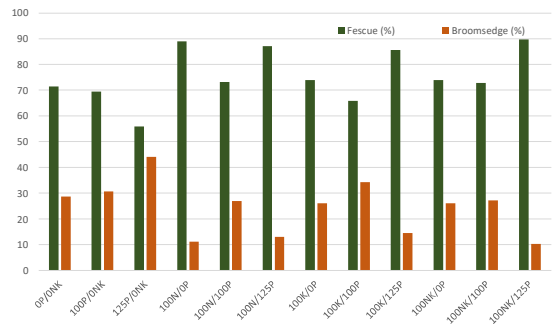
Take Home Points – 2023 results

- Soil test is the most important tool to establish a fertilizer program for fescue hayfields.
- Phosphorus application increases yield only when soil phosphorus is very low.
- Nitrogen application (by itself) increases hay yield, crude protein and energy.
- The nitrogen effect is enhanced when combined with potassium and phosphorus
  - Resulting in higher forage yield and quality
  - Better broomsedge suppression
- Phosphorus and potassium applications increase native meadows' forage yield and crude protein.
- Lime had little effect in the year of application. Possibly to due to severe drought.







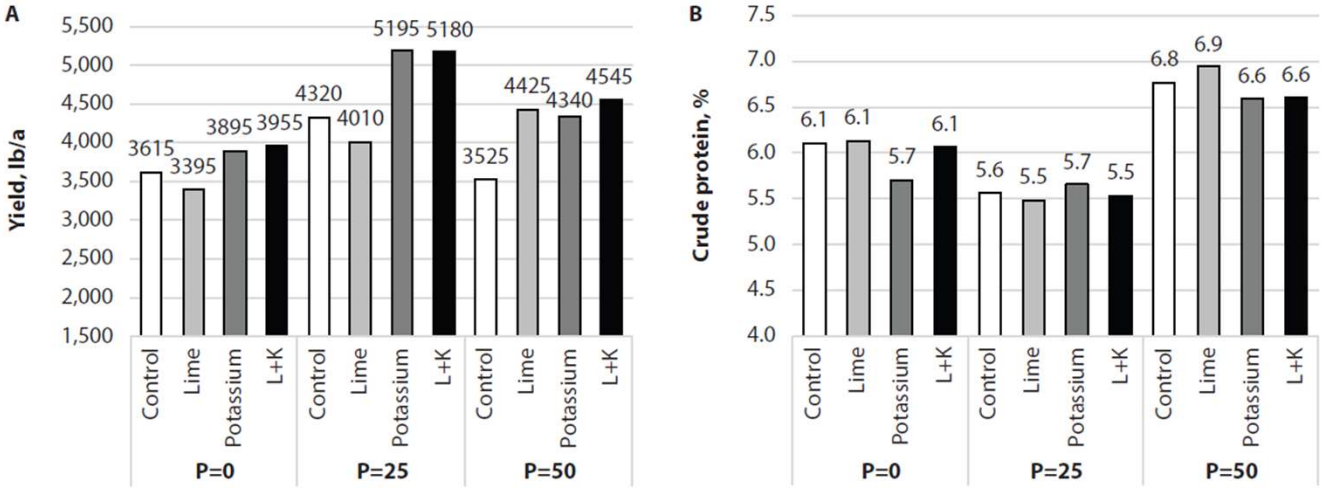


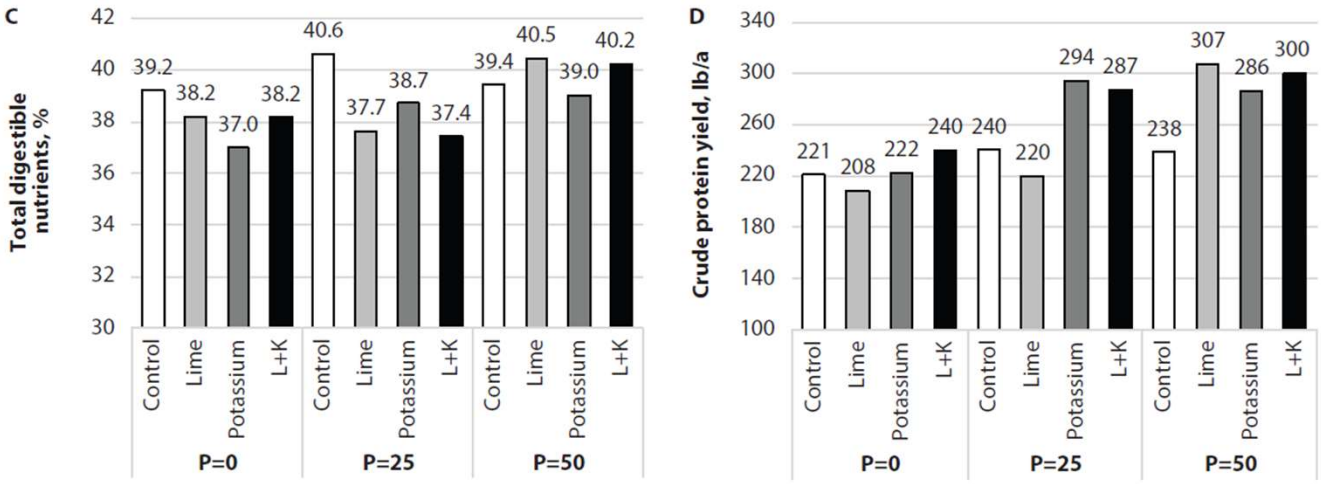
Aerial view of Altamont fescue site, Sept. 28, 2023.

Forage harvesting at fescue site.

Take Home Points – 2023 results
Native Hay Meadows

- Soil test is the most important tool to establish a fertilizer program for native hay meadows.
- Fertilization increased yield and crude protein, based on the soil test requirement.
- When phosphorus was not applied: lime, potassium or lime+potassium had little effect on yield.
- Yield was increased by potassium and lime+potassium when coupled with the 25 and 50 lb phosphorus per acre rates.
- Lime had little effect in the year of application. Possibly to due to severe drought.
    - Lime application increased the forage yield only when combined with 50 lb phosphorus per acre.





Color differences readily visible at native hay meadow near Coyville, KS.