



# NATIVE PASTURES: BMPs for GRAZING

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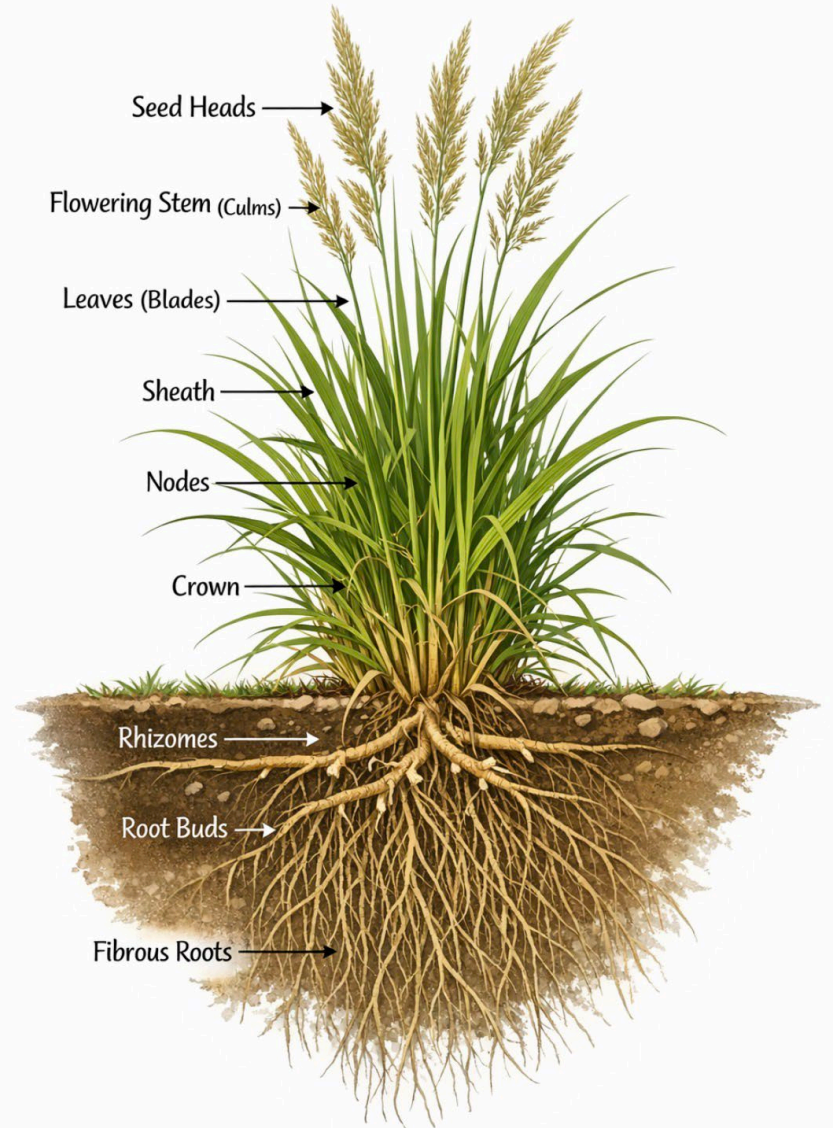
# NATIVE PASTURES: BMPs for GRAZING

- Grass Physiology
  - Canopy Management
  - Grazing Heights
  - Grazing Time
  - Stocking Rates
  - Grazing Strategy
  - Rest Periods
- 

# The Native Grass Plant

- Leaves
  - Solar panels
  - Sponges
  - Feed
- Roots
  - Powerbank
  - Pipeline
- Growing Points
- Tillers
- Crown

## Parts of Native Grass



## Leaf:

Capture sunlight

Capture and retain moisture: C4

Recharge the Powerbank

Canopy to reduce competition

Provide high quality forage to grazers



## Roots:

Powerbank for the plant

Provides for drought resiliency

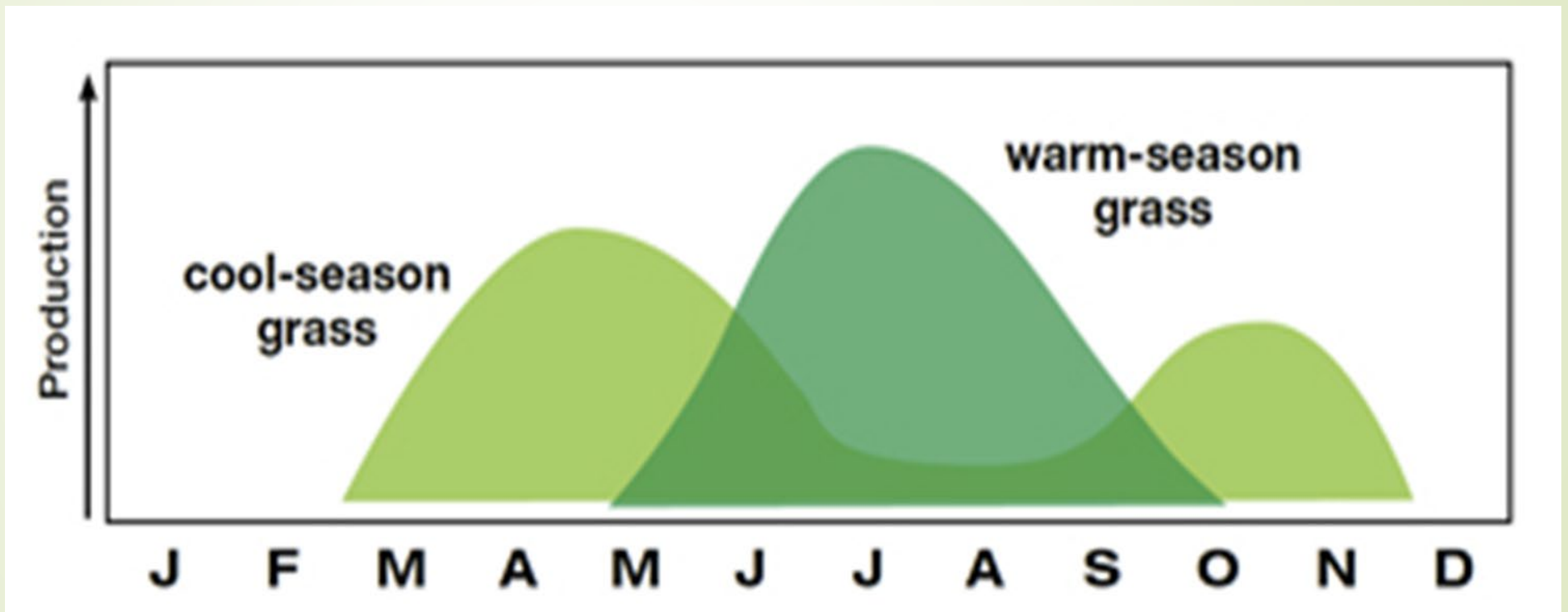
Transports moisture and nutrients from the soil to the plant

Can be affected by grazing

Determine the sustainability of the stand



## NATIVE PASTURES: BMPs for GRAZING




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# NWSG Grazing Management

## RULE OF THUMB

- Start grazing when grass gets knee-thigh tall (18-24")
  - Stop grazing when grass gets below knee (15-18") \*boot top
  - Remove cows 30-45 days before frost
- 



Rule of thumb...  
At any point throughout  
the summer, do not  
graze below 8”



# Canopy Management

## Initial grazing

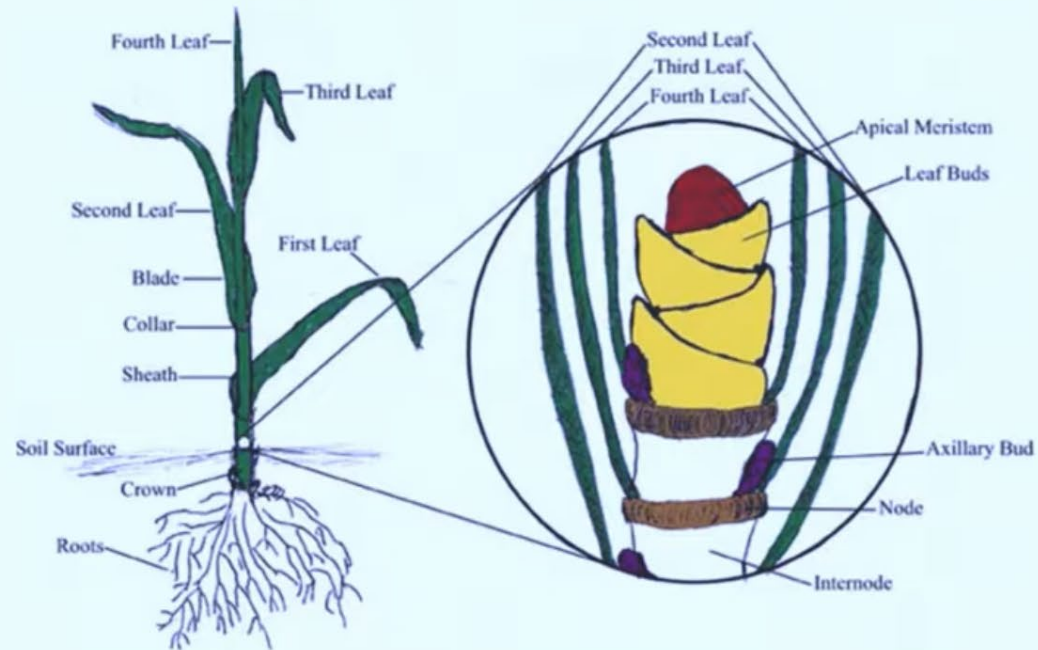


# Canopy Management

## 2 week return



# Tall Grasses Have High Growing Points

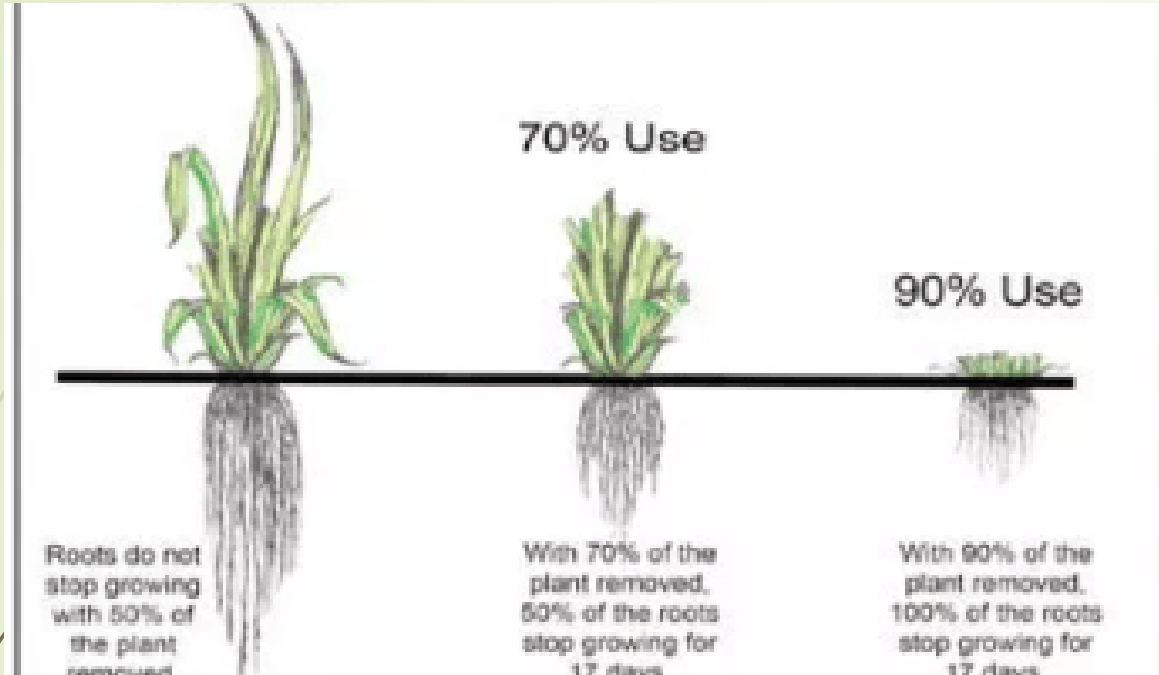


Llewellyn Manske, North Dakota State University;  
<https://www.ag.ndsu.edu/archive/dickins/research/2003/range03a.htm>.

# Canopy Management



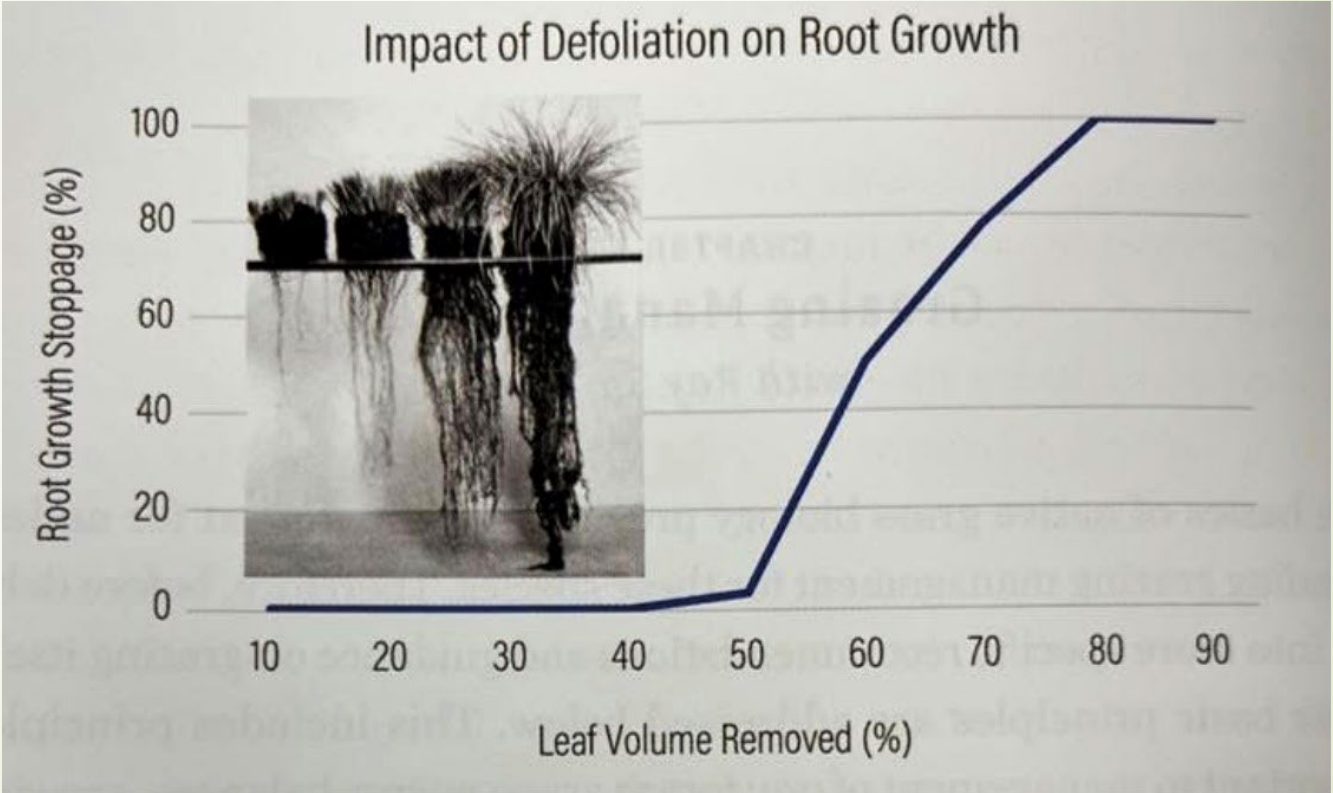
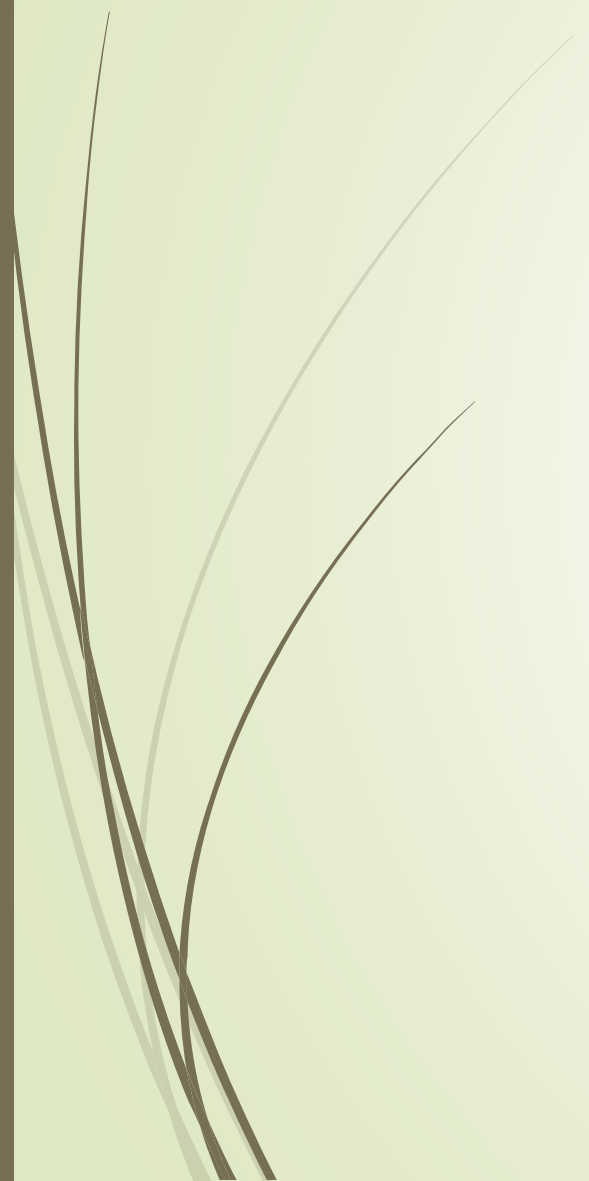
# Root Development



<https://onpasture.com/2017/07/03/fourteen-foot-long-roots-thats-what-great-grass-farmers-grow/>

Leaf Volume Removed (%)	Root Growth Stoppage (%)
10	0
20	0
30	0
40	0
50	2-4
60	50
70	78
80	100
90	100

Crider, F. J. 1955. Root-growth stoppage resulting from defoliation of grass. USDA Tech Bulletin 1102





# Native Pastures: Stages of Establishment: Year One



Photo Courtesy: Jay Steele

# Native Pastures: Stages of Establishment: Year One



Photo Courtesy: Jay Steele

# Native Pastures: Stages of Establishment: Year One



Photo Courtesy: Jay Steele

Native Pastures:  
Stages of Establishment: Year Two




Native Pastures:  
Stages of Establishment: Year 3+





# Grazing Strategies

- Rotational
  - Continuous
  - Patch Burn Graze
- 

# Rotational Grazing

- High stock density
- 3-5-7 day moves
- 12-24 day rest



## Continuous Grazing

- Lower stock density
- Single pasture
- No rest opportunity unless cattle are moved to another pasture/forage type



# Patch Burn Graze

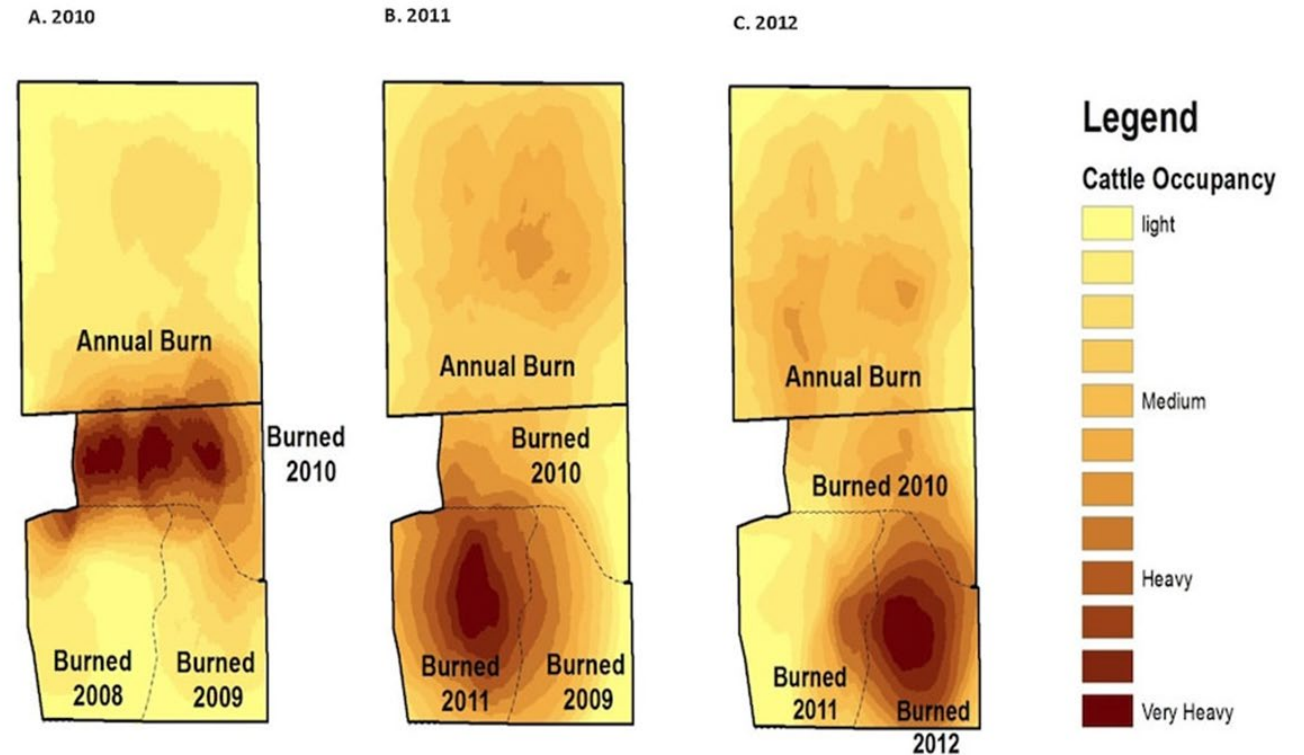
**FIGURE 1**



Illustration by A. Vander Yacht

# Patch Burn Graze

- Trade: reduced canopy management for increased rest periods
- Optimal strategy if wildlife is top priority
- Fire is required






## Prescribed Fire

- NWSG is adapted to and thrives with prescribed fire
- Increase nutritional value of forage
- Can lead to overgrazing or grazing too short
- Use caution with burns going into Year 2
- Rotational: Burn entire paddocks but not every paddock every year
- Continuous: Burn on 2-3 year rotation
- PBG: burn 1/3 each year




## Brown grazing

- Grazing NWSG post-frost
  - Nutritional value is not adequate to sustain cattle
  - Optimized if used in conjunction with strip grazing stockpiled fescue
  - DO NOT brown graze when pastures are muddy
  - DO NOT let cattle get into the crown of the plant
- 



## Rest/Recovery

- ▶ Rest every 4-5 years
  - ▶ Vary initial grazing among paddocks
  - ▶ Overgrazing is tolerable from time to time
  - ▶ Overseeding
  - ▶ Diversification
- 



## Resources



- ▶ CPLC Branch > Documents > Habitat and Wildlife Management Documents and Presentations > Grazing\_Haying BMPs
- ▶ Beef, Grass and Bobwhites: NBCI publication
- ▶ Native Forages: MDC publication
- ▶ University of Tennessee, Center for Native Grass Management: Native Grass College
- ▶ Missouri Native Grasslands Collaborative: [www.mongc.org](http://www.mongc.org)

# Questions?



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