

Weeds on Horse Properties 2026

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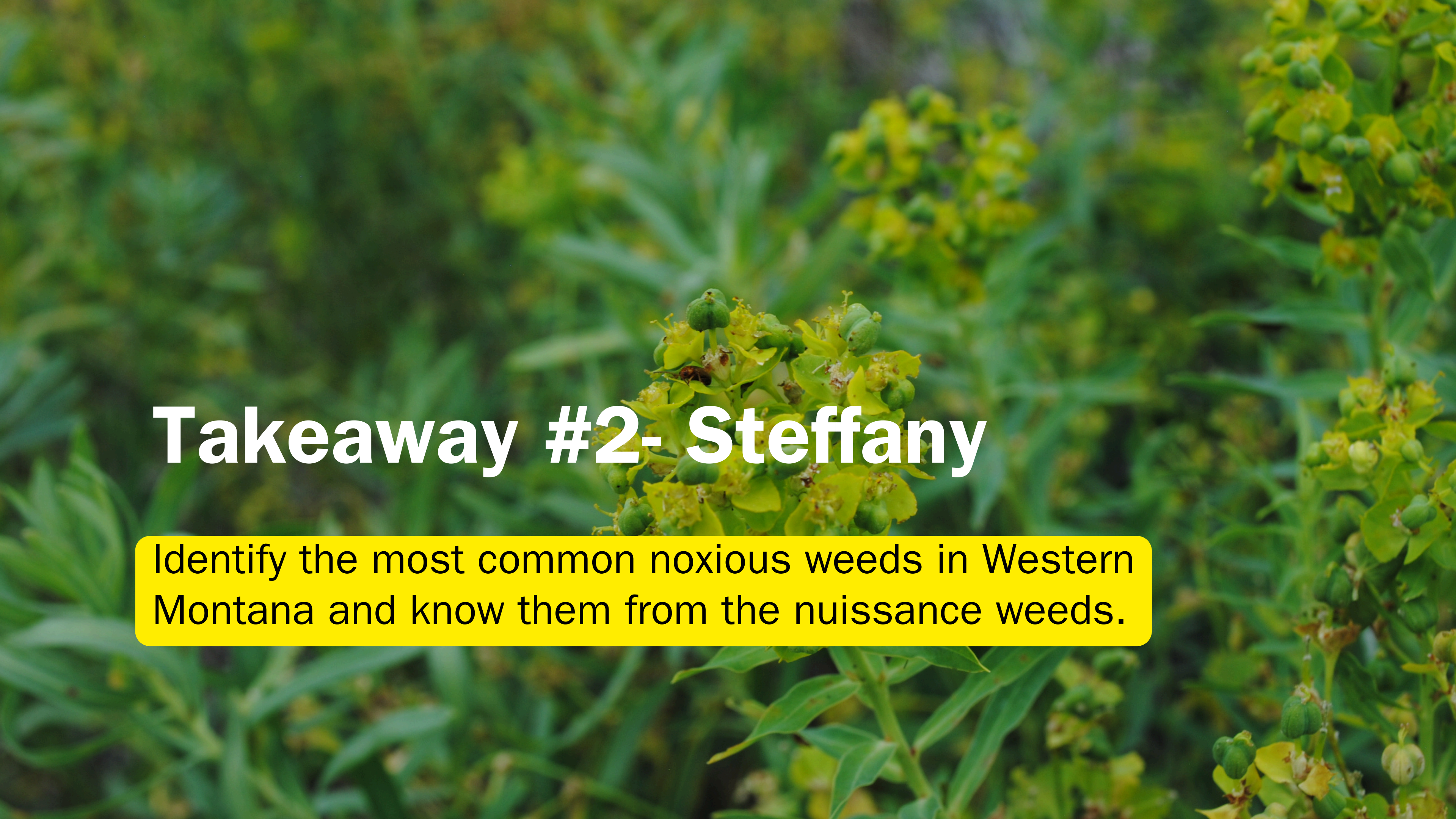
Layne Von Lanken- Integrated Pest Management Coordinator, Missoula County Department of Ecology and Extension



The background image shows a dense field of green weeds and grasses. In the upper left corner, a portion of a wire mesh fence is visible. The plants are lush and green, with some small white flowers scattered throughout. The overall scene is a natural, somewhat overgrown landscape.

Takeaway #1- Natalie

Explore common themes causing weeds to be introduced onto your property and why they prosper!



Takeaway #2- Steffany

Identify the most common noxious weeds in Western Montana and know them from the nuisance weeds.

A close-up photograph of a dense field of weeds. The plants are primarily green with some purple seed heads and white daisy-like flowers. The text is overlaid on the lower half of the image.

Takeaway #3- Layne

Understand your integrated weed management options for control and long term maintenance while protecting the health and wellness of your animals.



BONUS TAKEAWAY- ALL!

Know what resources could benefit you from the Missoula County Department of Ecology and Extension!

What you will need...

- your phone for scanning QR codes
- a way to take notes
- PLEASE leave your audio and video OFF!
- find the chatbox for live participation
- we will take questions between each case study



Case Study #1

- **Snowdrift Lane, Missoula County**
- **Noxious Weeds:** Creeping (Canada) thistle
- **Nuisance Weeds:** Bull thistle, flixweed, mustards, madwort
- No herbicides used in 2024 and 2025, but sprayed one small pasture with Corteva Stinger in early spring 2026
- irrigated with K-line
- **Pasture Goals:** mitigate weeds, increase grass production, save time and labor





**Missoula
County**

Case Study #1

- 3.52 acres of pasture for 3 horses
- Currently allowing 4 hours of grazing per day
- Grazing calculator estimates 4,928 lbs (2.5 tons) of available forage per year (assumes 1.0 ton/acre)
- 3 horses will consume 3,555 lbs of grass per month or 118.5 lbs per day
- Owner has 1,011 grazing hours “IN THE BANK”
- If owner continues to graze 4 hours per day, that is sustainable for 253 days (8 months!)
- But at 8 hours per day, there are only 126 days of forage available (4.1 months)

Pasture Eval Program





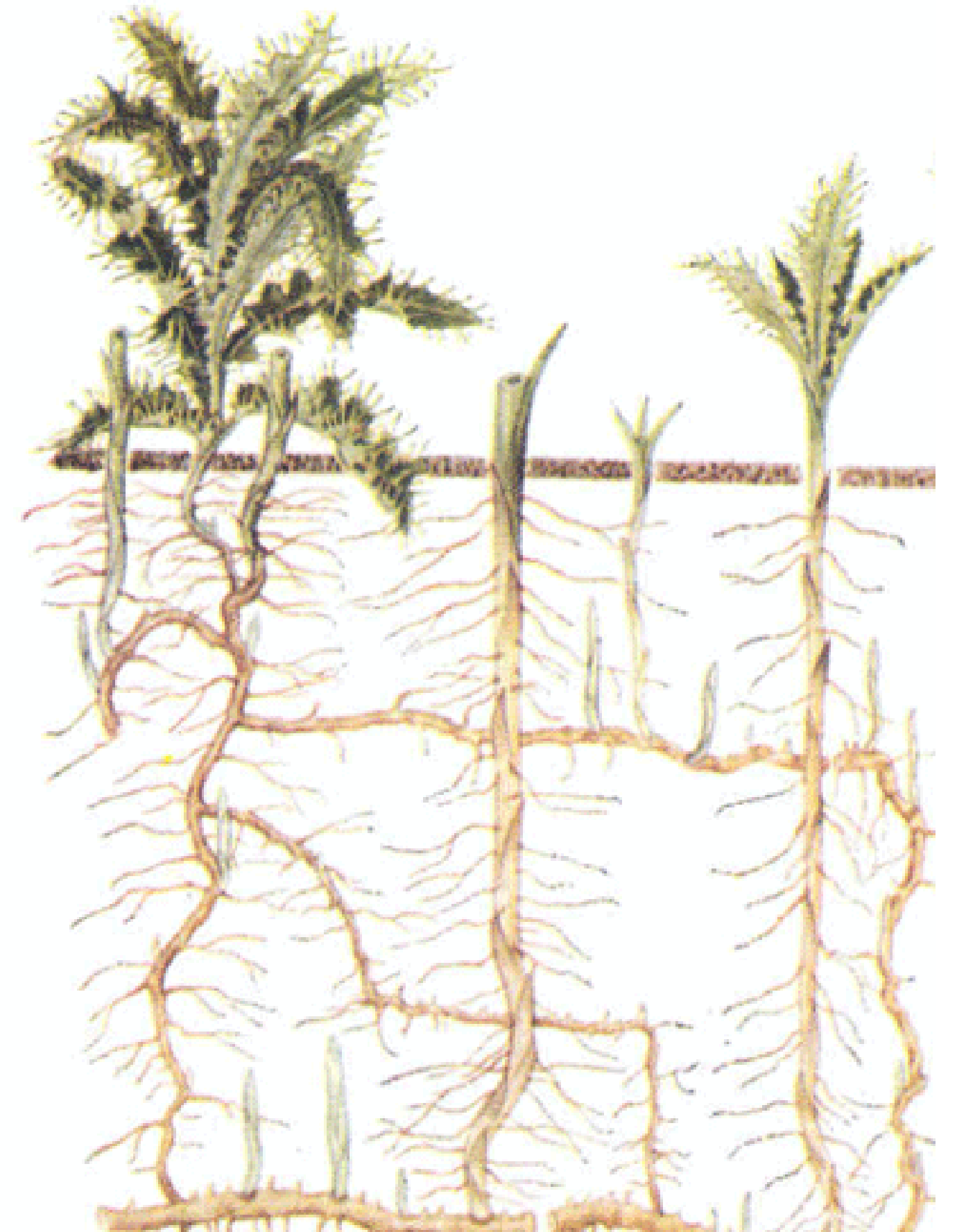
Common Theme #1 = Timing



Western Montana Pasture Calendar			
Spring	Summer	Fall	Winter
March Triggered by soil temperatures, desirable grazing plants (especially cool-season grasses) use winter energy reserves to initiate new growth. - Remove horses and livestock from pastures into sacrifice areas. - When dry, drag/harrow fields to spread out the nutrients in the manure. - Apply composted manure onto pastures especially in areas where animals did not defecate or urinate.	June The growth rate of grasses starts to slow as they put energy into making seeds. - Consider your stocking density to facilitate more "even" grazing across paddocks/cells/strips and allow longer rest periods for regrowth of grasses. - Consider mowing to encourage more even grazing and cut off weed seeds. - Spot spray or pull weeds before they bloom.	September Desirable cool-season, perennial grasses are in summer dormancy until late September when root regrowth is initiated by cooling soils and moisture. - This is a good time to submit a fecal egg count to determine parasite load and plan for fall deworming. - Consider supplementing with some hay to relieve pressure on heat stressed grasses. - Good time to lime acidic soils, fertilize with P and K, and sample soils.	December All plant growth above and below ground has stopped. - Overgrazing can delay spring regrowth by several weeks. - Do not allow pasture access until the ground is frozen and snow is deep enough to protect dormant grasses. - Encourage animals to drop manure evenly across the pasture by moving where you provide hay.
 April This is a critical time for desirable cool-season grasses to produce the leaves and roots that will feed them throughout the year. Refrain from grazing! - April or early May are great times to submit a soil sample which will indicate the appropriate amount of fertilizer. - Mow or graze cheatgrass stands before they go to seed.	July Growth rate of cool-season grass slows considerably. Seed heads mature and stalks become lignified and unpalatable. - Mow tall stands to facilitate more even grazing especially for horses. - Do not graze cells/paddocks again until grass has regrown to >6" tall. - Plan for longer rest periods between grazing events as days get hotter. - Irrigation is necessary to keep grasses growing.	 October Desirable cool-season grasses are busy below ground growing new roots in preparation for winter dormancy. This is a very critical period for promoting grass stand longevity! - There is a higher risk of fall laminitis/founder as diurnal fluctuations in temperature stress grass regrowth. - Remove horses and livestock from pastures into sacrifice areas.	January Cool-season grasses are in winter dormancy. - Protect grasses from being grazed <3" plant stubble. - Encourage animals to drop manure evenly across the pasture by moving where you provide the hay. - Stockpiled pastures and crop residues can be grazed.
May This is a period of rapid growth for all grasses. Variations in precipitation from year to year will change rate of growth. Overgrazing from the previous year will delay spring regrowth by several weeks. - Once grasses are >6 inches tall, you can start your rotational grazing system for horses and livestock. - Monitor for weeds and spot spray or pull where found.	August The cool-season grass plants start initiating summer dormancy (aka summer slump). They do not grow during this period, making over-grazing all too easy. Consider supplementing some hay to relief pressure from the heat stressed cool-season grasses.	November Desirable cool-season, perennial grasses begin winter dormancy period. - Drag/harrow again and spread composted manure. - Stockpiled grasses (those that haven't been grazed all year) can provide enough nutrition for most animal life stages! - Be careful to avoid erosion and soil compaction during high precipitation.	February Cool-season grass plants are in winter dormancy. - Encourage animals to drop manure evenly across the pasture by moving where you provide the hay. - Stockpiled pastures and crop residues can be grazed. - Overgrazing can delay spring regrowth by several weeks.

Case Study #1

- **Unique Topics:**
 - Grazing during sensitive times has made desirable grasses less competitive against unwanted plants and has stunted grass growth.
 - Vocab words = rhizomatous versus taprooted. This is why handpulling and mowing is NOT effective against creeping thistle, but IS effective against bull thistle. Know before you mow!



**Find the
Canada Thistle PDF**

SCAN ME!



Case Study #1

- **Practical Solutions**
 - Develop a rotational grazing plan (i.e. strip, cell or paddock) that allows for longer rest periods between grazing events.
 - Limit grazing during the most sensitive times of the year such as April and October.
 - Consider broadcasting the pasture with an aminopyralid or clopyralid as long as manure does not leave the property.

**Find the
Canada Thistle PDF**

SCAN ME!





Questions?

Case Study #2

- **Spurgin Rd, Missoula County**
- **Noxious Weeds:** Hoary Alyssum, creeping thistle
- **Invasive Nuisance Weeds:** mustards
- 3.5 acres of pasture for 5 horses
- Irrigated with K-line, mowed 2x/year
- Fertilized with 30-10-6 on April 20th, 2026 along with 60% potash at 50 lbs per acre
- 2022 and 2025 soil tests showed high organic matter and no limitations
- **Pasture Goals:** mitigate weeds, buy less hay (storage limitations), remove manure by giving away as compost



SPURGIN RD

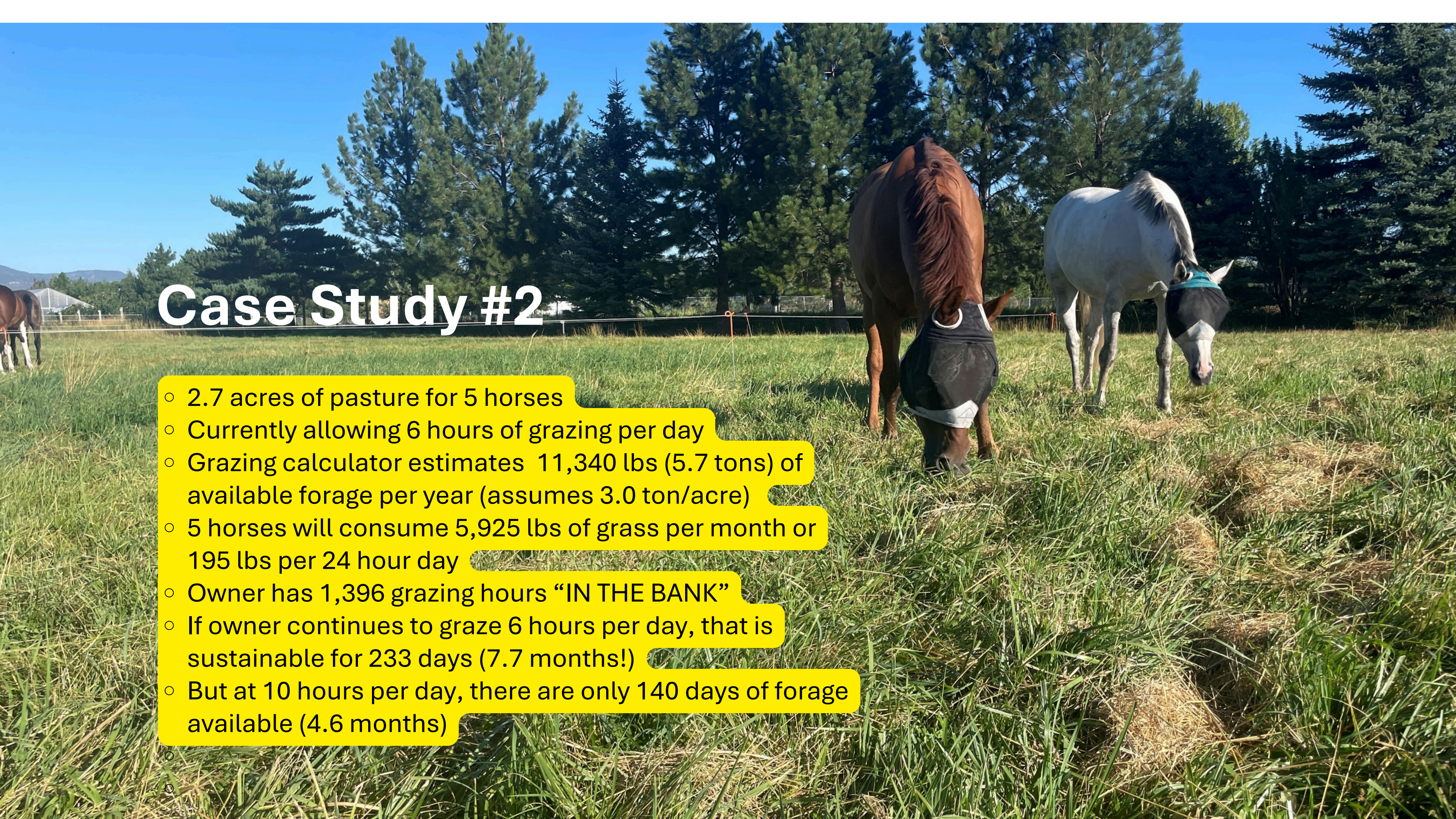
Parked Car

Grace Zone

Sacrifice Paddocks

Sacrifice Pasture

The Garden

A photograph of two horses grazing in a lush green field. In the foreground, a brown horse and a white horse are both wearing fly sheets and grazing on tall grass. The background features a line of tall, dark green pine trees under a clear blue sky. A white fence is visible in the distance. The title 'Case Study #2' is overlaid on the left side of the image in a large, white, sans-serif font.

Case Study #2

- 2.7 acres of pasture for 5 horses
- Currently allowing 6 hours of grazing per day
- Grazing calculator estimates 11,340 lbs (5.7 tons) of available forage per year (assumes 3.0 ton/acre)
- 5 horses will consume 5,925 lbs of grass per month or 195 lbs per 24 hour day
- Owner has 1,396 grazing hours “IN THE BANK”
- If owner continues to graze 6 hours per day, that is sustainable for 233 days (7.7 months!)
- But at 10 hours per day, there are only 140 days of forage available (4.6 months)

Case Study #2

- **Unique Topics:**
 - Hay was the source of hoary alyssum
 - Giving away compost that must be free of aminopyralids and other similar herbicides
 - Vocab phrase = persistence of herbicides
 - identifying hoary alyssum from white top and field pennycress





WHITETOP



Bunched together, large veined leaves



HOARY ALYSSUM



Unserrated leaves, later spring

FIELD PENNYCRESS



Serrated leaves, early spring

**Find the
Hoary Alyssum PDF**

SCAN ME!



Case Study #2

- **Practical Solutions:**
 - hand pull the hoary alyssum since the patch is small
 - “farm” the disturbed areas each year by raking and laying grass seed
 - do not fertilize weedy patches
 - mowing often
 - Herbicide options are limited due to composted manure being given away, so 2,4-D applications instead of aminopyralids!

**Find the
Hoary Alyssum PDF**



A photograph of a lush green field of tall grass under a clear blue sky. In the background, a line of evergreen trees is visible, and a white cow is partially obscured by the grass. A thin wire fence runs across the middle ground. The word "Questions?" is written in large, white, sans-serif font across the lower half of the image.

Questions?

Case Study #3

- **Mullan Rd, Missoula County**
- **Noxious Weeds:** leafy spurge
- **Invasive Nuisance Weeds:** arrowleaf senecio, flixweed, madwort, white hawkweed
- 15 acres for 5-7 horses
- Woodland, non-irrigated pasture
- No herbicides used in the last 5 years due to concerns about river proximity
- **Pasture Goals:** maximize horses' time on pasture while mitigating laminitis risk





Case Study #3

- 15 acres of pasture for 7 horses
- Currently allowing 8 hours of grazing per day
- Grazing calculator estimates 21,000 lbs (10.5 tons) of available forage per year (assumes 1.0 ton/acre)
- 7 horses will consume 8,295 lbs of grass per month
- Owner has 1,848 grazing hours “IN THE BANK”
- If owner continues to graze 8 hours per day, that is sustainable for 231 days (7.5 months!)
- But at 12 hours per day, there are only 154 days of forage available (5 months)
- At 24 hours of grazing (continuous), there is only 77 days of grazing (2.53 months)

Grazing Calculator



**To Rent to System, you must schedule a Pasture
Evaluation Site Visit (scan here to apply)**



Case Study #3

- **Unique Topics:**
 - When to graze metabolic horses?
Stressed grass is high sugar grass!
 - The electric fence rental program!
 - What to do when you're next to a major waterway (Clark Fork River)?



**Find the
Leafy Spurge PDF**



Case Study #3

- **Practical Solutions:**
 - Over grazing is compounded due to the sensitivity of forested and un-irrigated pasture
 - Divide the 15 acre pasture into strips to allow rest between grazing events in the more desirable grazing spots.
 - Leafy spurge has biological control! Contact the Montana Biocontrol Project for more details or scan this QR code.
 - Consider goat grazing by trained animals!

MT Biocontrol

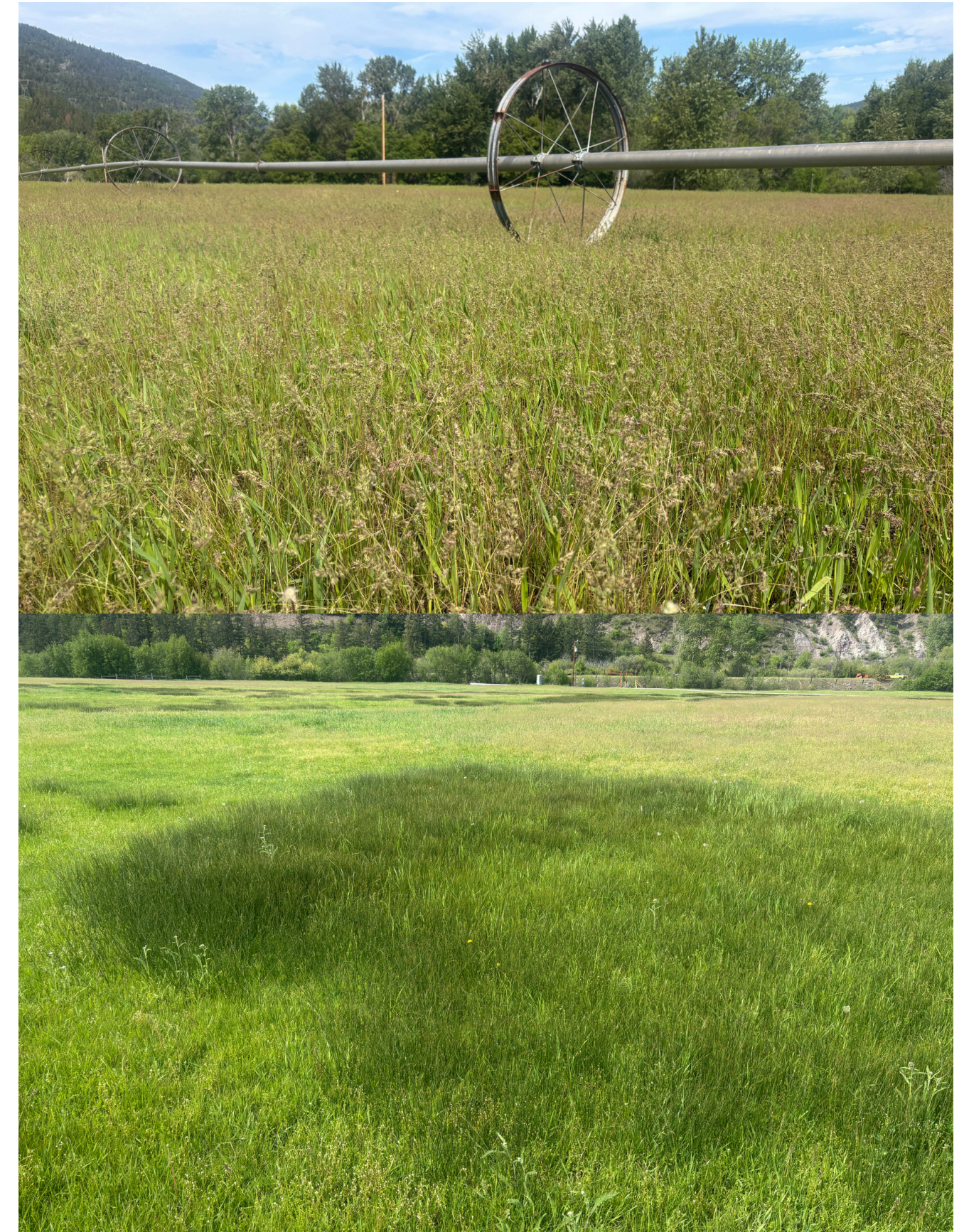




Questions?

Case Study #4

- **Turah, Missoula County**
- **Noxious Weeds:** bulbous bluegrass
- **Invasive Nuisance Weeds:** common yarrow, corn cromwell, horsetail
- 20 acre hayfield. 7-8 horses.
- Horses grazed after first cutting of hay and throughout the winter
- **Pasture Goals:** Increase hay production of desirable grasses like orchardgrass, develop grazing strategy



Case Study #4



rk Fork

Case Study #4

- **Unique Topics:**
 - Hay field, historically, has also been used for winter grazing, so desirable grasses were continuously stressed and disadvantaged.
 - Do NOT use this hay in the backcountry!
 - Difficulty controlling bulbous bluegrass.

Case Study #4

- **Practical Solutions**
 - Complete regeneration/refarming of old hay field is necessary.
 - No till drill rental from Missoula Conservation District.
 - Mow early, mow often for smaller infestations.
 - Irrigation will help give desirable grasses the advantage.
 - Restrict grazing in the critical fall period.

**Bulbous
Bluegrass PDF**





Questions?

Case Study #5

- **Clinton, Missoula County**
- **Noxious Weeds:** None
- **Nuisance Weeds:** white willow dock, creeping and meadow buttercup, tall tumbleweed, madwort, henbane
- Boarding facility with 27+ acres of pasture
- Irrigated with pipe
- **Pasture Goals:** Low labor, meet boarder/client expectations, provide “entertainment grazing”



Case Study #5

- **Unique Topics:**
 - Compacted soils and disturbances are the primary reasons for weed introduction on horse properties.
 - Boarding horses and balancing owner expectations with land management goals is a tough balance to strike!
 - Toxicity of henbane (especially when baled in hay) and buttercup (oil causes blisters)



MSU MontGuide Henbane



Case Study #5

- **Practical Solutions:**
 - Control for the toxic and noxious weeds first, and consider acceptable level of weed infestations.
 - Black henbane is NOT on the Montana Noxious weed list, but is on several county noxious weed lists.
 - Burning, mowing and tillage prior to seed production can control black henbane.
 - Timing of herbicide applications is important.





Questions?

Resources

Natalie Sullivan, MS PAS

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406-258-4208



The flyer features a background image of a lush green pasture with a wooden fence and trees. At the top center is the Montana State University Extension logo, flanked by two sets of five white dots. Below the logo, the text "SCAN TO LEARN MORE" is written in white, followed by "PASTURE EVALUATION PROGRAM" in large, bold, white letters. Underneath, a subtitle reads: "A FREE service for Missoula County residents who want to make their properties more productive, safe, and beautiful!". A large QR code is centered in the lower half, enclosed in a white border with a yellow background. At the bottom, there are two sections: on the left, a phone icon followed by "For More Information 406-258-4208"; on the right, the text "Visit Our Website" followed by the website address "www.missoulaeduplace.org" and a globe icon.


MONTANA
STATE UNIVERSITY
EXTENSION

SCAN TO LEARN MORE

PASTURE EVALUATION PROGRAM

A FREE service for Missoula County residents who want to make their properties more productive, safe, and beautiful!



 For More Information
406-258-4208

Visit Our Website
www.missoulaeduplace.org 



The Electric Fencing Rental Program

- Part of the Pasture Evaluation program
- \$50 refundable deposit
- 2-4 week rental depending on season



Recommended Apps & Sites

- APPS: Montana Grasses or Seek by iNaturalist (free)
- MSU Extension MontGuides
- Missoula County Weed District Sheets @missoulaeduplace.org

MONTANA *Grasses*

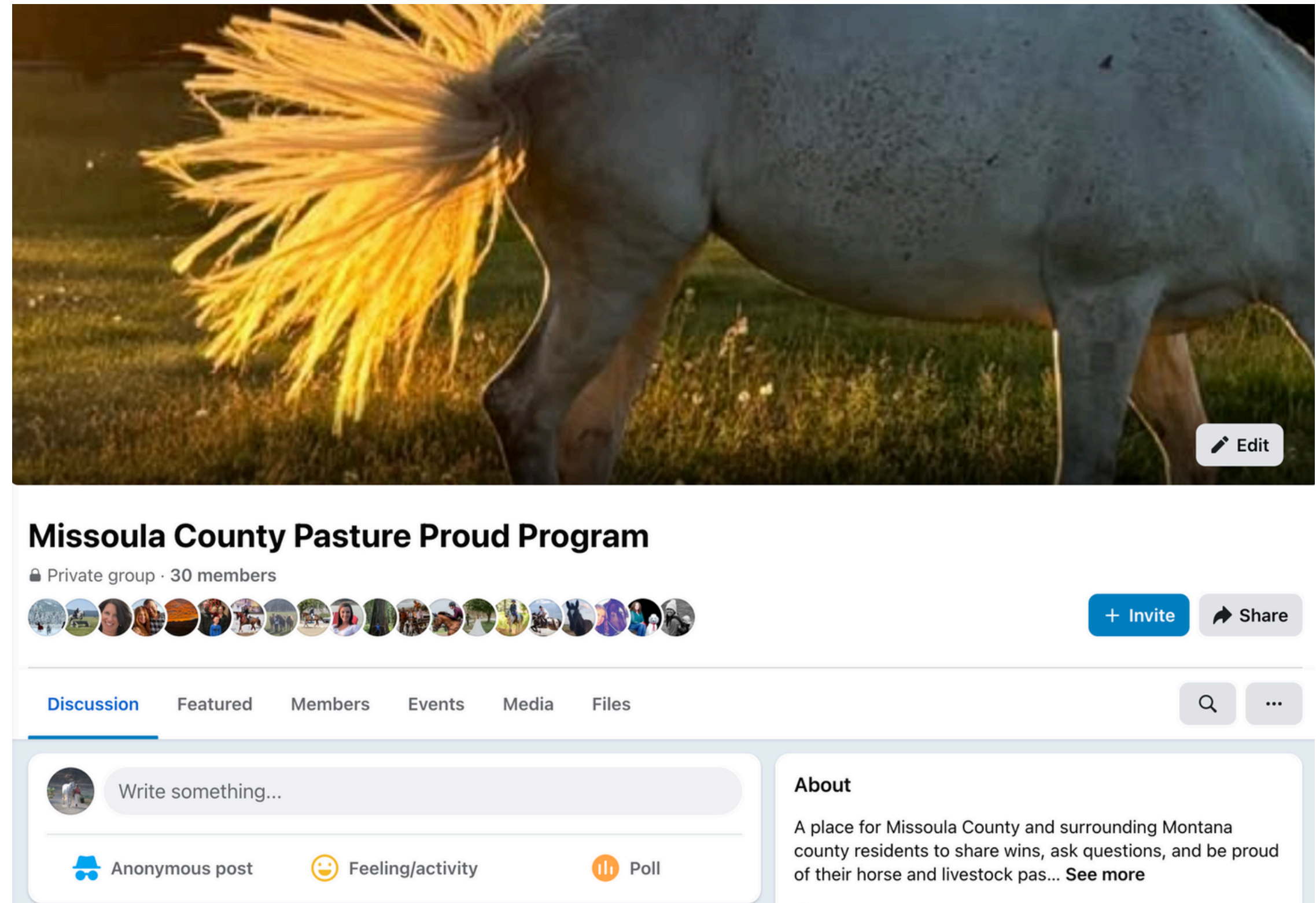


**A GUIDE TO THE COMMON GRASSES OF
CROPLAND, PASTURE, AND RANGE
IN MONTANA AND THE WEST**

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Facebook Group Page



The image shows a screenshot of a Facebook group page. At the top is a large cover photo of a horse's tail, which is a mix of grey and bright yellow, set against a grassy field. Below the photo is the group name "Missoula County Pasture Proud Program" and the status "Private group · 30 members". A row of 15 member profile pictures is displayed. To the right of the member list are buttons for "+ Invite" and "Share". Below this is a navigation bar with tabs for "Discussion", "Featured", "Members", "Events", "Media", and "Files". The "Discussion" tab is selected. Under the navigation bar is a text input area with a placeholder "Write something..." and icons for "Anonymous post", "Feeling/activity", and "Poll". To the right of the input area is an "About" section with the text: "A place for Missoula County and surrounding Montana county residents to share wins, ask questions, and be proud of their horse and livestock pas... See more".

Missoula County Pasture Proud Program
Private group · 30 members

+ Invite Share

Discussion Featured Members Events Media Files

Write something...

Anonymous post Feeling/activity Poll

About
A place for Missoula County and surrounding Montana county residents to share wins, ask questions, and be proud of their horse and livestock pas... [See more](#)



2026 Horse Farm Track Tour & Storytelling Event

- Stevensville, MT
- Friday, September 4, 2026



Weeds on Horse Properties Instructor Survey

