

Upper Midwest Grazing Educators Webinar Series

Green Lands Blue Waters



Teaching the Basics of Grazing
May 15, 2015

Hosted by Warren King and Jane Jewett



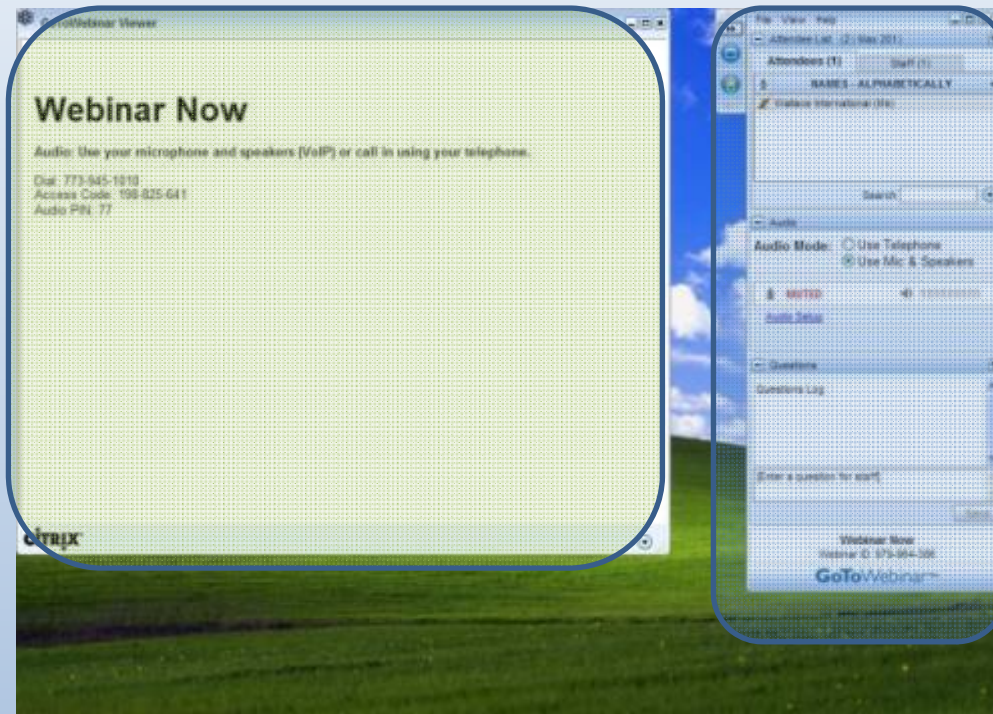
- Co-manager of the Pasture Project
- President of WellSpring, Ltd
- Work focused on expanding environmentally sustainable farming, developing local & regional food systems and improving water quality



- Research Fellow, University of Minnesota
- Green Lands Blue Waters Initiative

Webinar Technical Orientation

Your Starting Screen

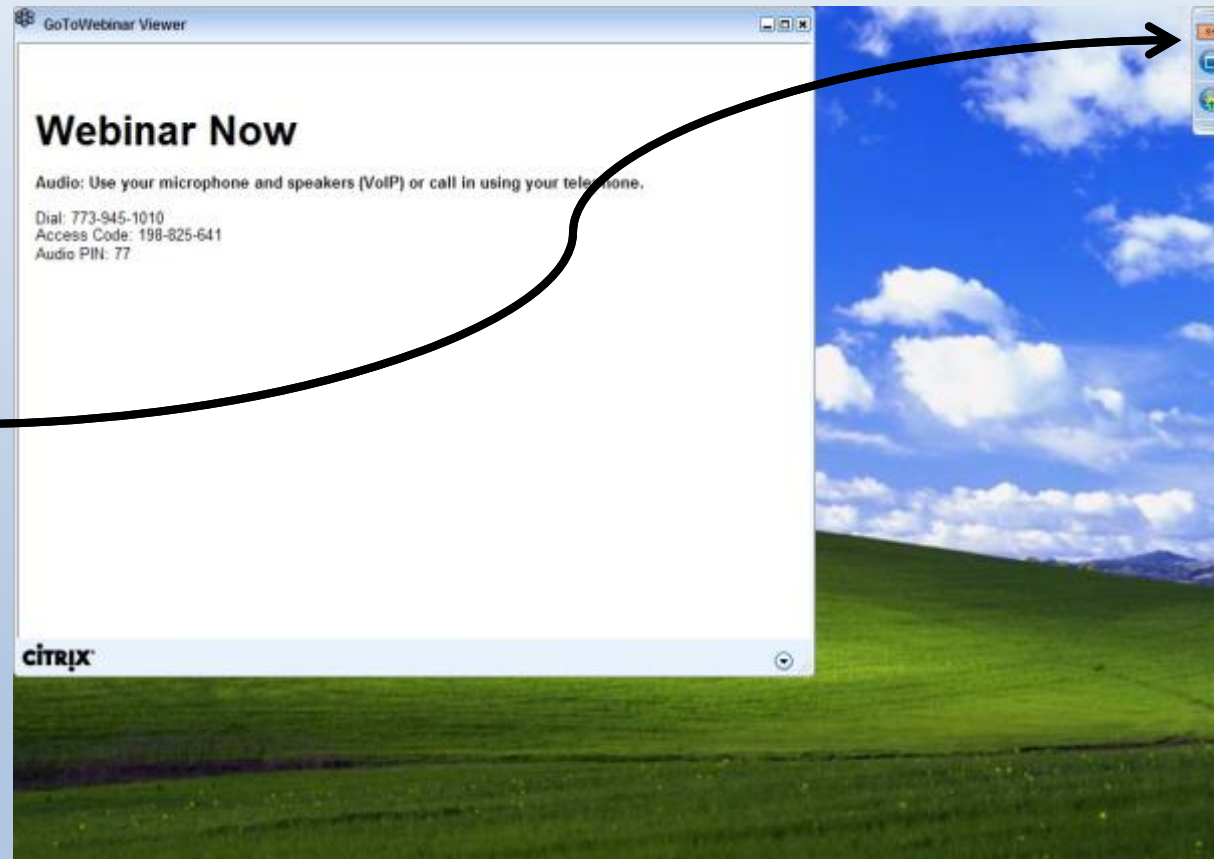


Presentation

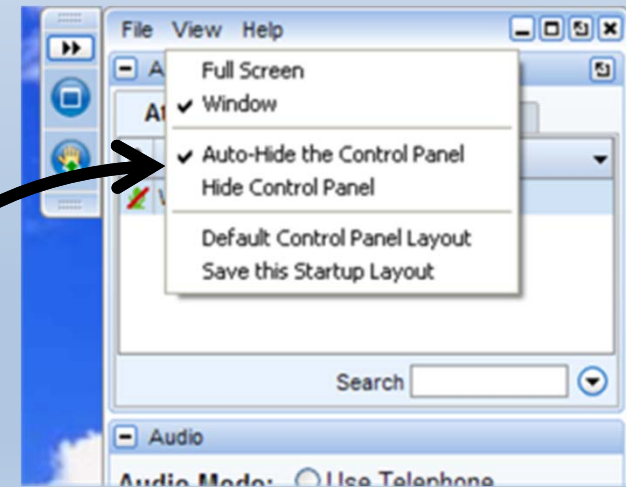
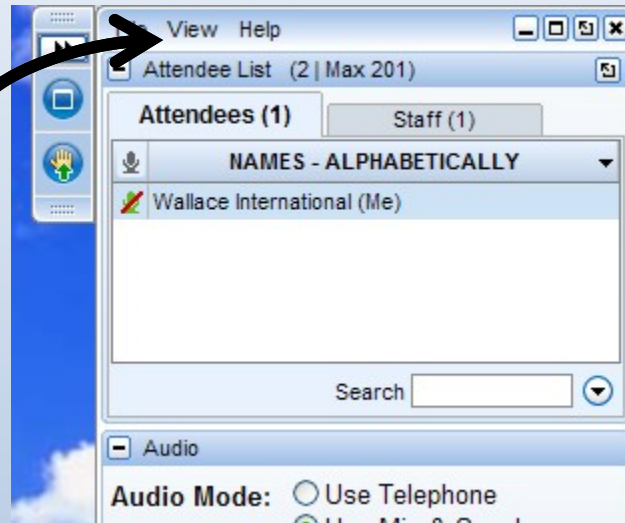
Control Panel

To Display Minimized Control Panel

Click the
orange
arrow
button



To Keep Control Panel Visible

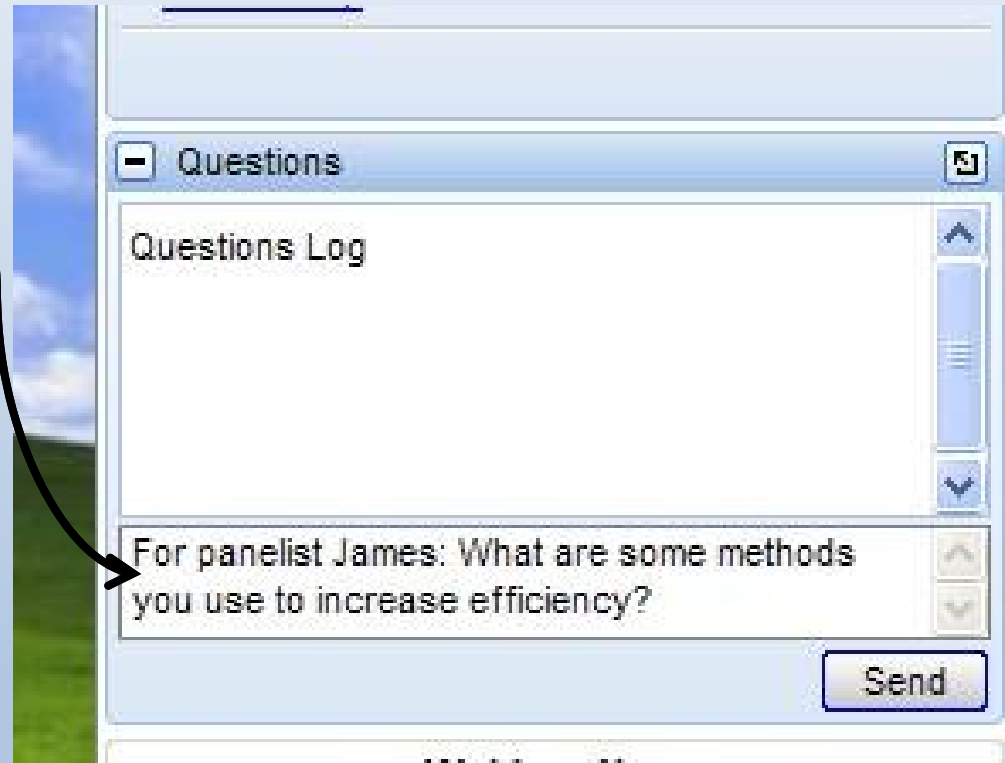


To Ask a Question

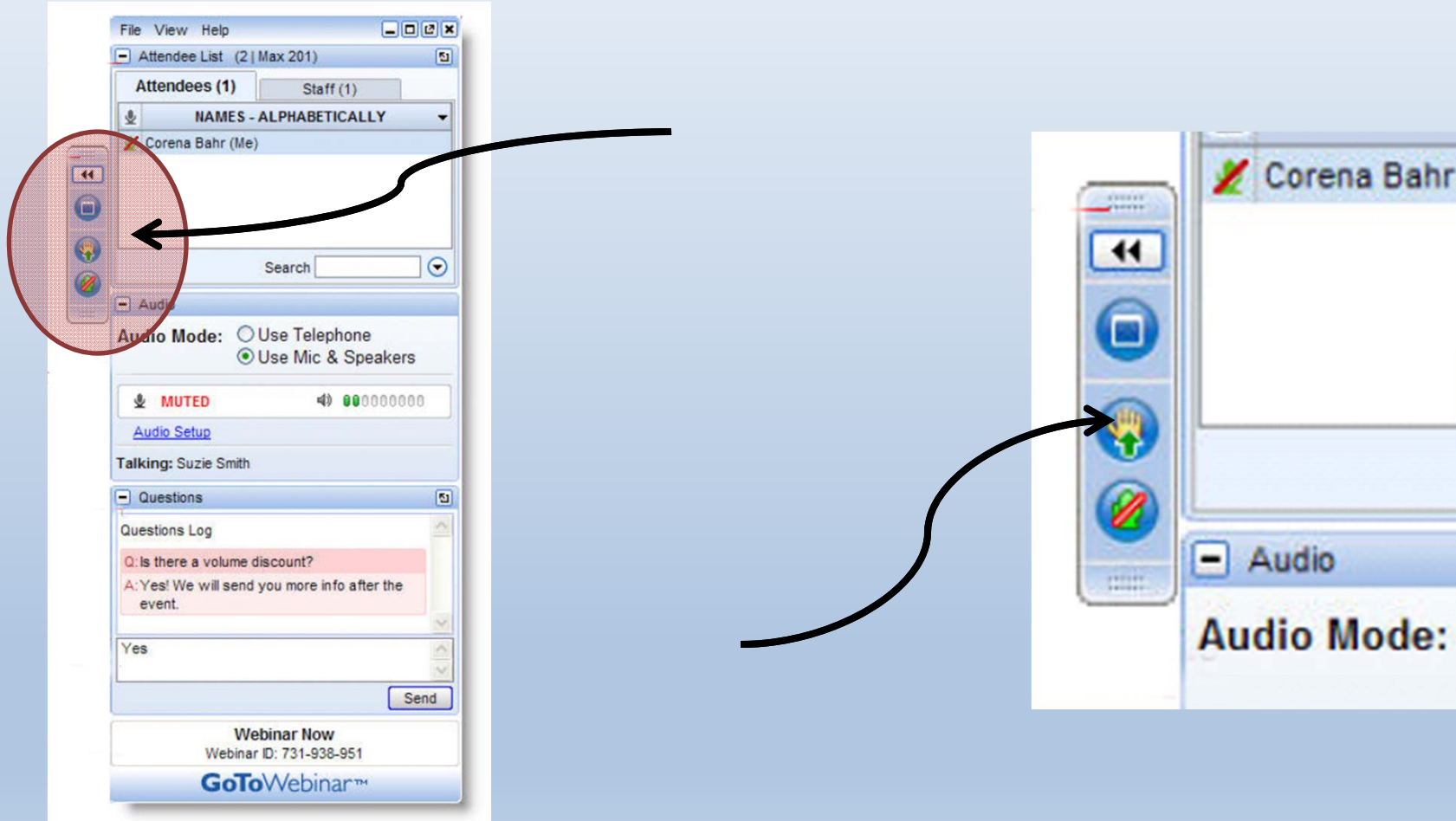
Type your question in the small box at the bottom of the Questions box.

If possible, specify which panelist(s) you are addressing with your question.

Press "Send"!



To “Raise Your Hand”



Post-Webinar Survey

- We will be sending out a survey following the webinar.
- These surveys help to make for a better experience for everyone involved, if you could please take a moment to fill them out, it would be of great help to us.

Who's Sponsoring the webinar series?

Green Lands Blue Waters

Goals

- Increase perennial forage and pasture
- Improve environmental performance of farming
- Maintain production and profitability

The Pasture Project

Goals

- Expand grass-based livestock production
- Accelerate transition to sustainable farm production
- Improve water quality

Why Focus on Grazing Educators?

- The Upper Midwest is a unique geography
- More young farmers are interested in livestock production
- More landowners and conservationist are interested in livestock benefits
- More consumers want pasture raised meat and dairy products
- Less public funding for grazing networks and education
- Fewer professional development opportunities for educators
- Changes in grazing techniques and terminology
- No single source for education materials

What Could a Grazing Educator Network Achieve?

- Connect Upper Midwest Educators through discussion and sharing
- Assess education materials-tool; determine what's missing and fill the gaps
- Create a platform to house and access materials and tools
- Share what works and why
- Cross-pollination of staff, students, apprentices and programs
- Involve established grazing education programs
- Access materials-tools no longer in circulation
- Build collaboration that is more “grass-roots” than “top-down”
- Include educators of various types; farmers, academics, agency and consultants
- Establish basic principles of managed grazing that are taught by all

What is the format for today's webinar?

- **Presenters will discuss topics, sharing experience and insights**
- **Audience is encouraged to do the same**
- **Moderators will “direct the traffic” and keep discussion moving**
- **Audience is asked to take a brief survey at the end of the webinar**



Andy Marcum

- Andy Marcum is the Ag Lands Solutions Specialist for the Land Stewardship Project. His work focuses in the Chippewa River Watershed on the Chippewa 10% Project, a cooperative effort focused on increasing perennial cover throughout the watershed.
- Growing up on a Hereford Ranch in Oregon, Andy has gained an extensive background in cattle and grassland management.
- Currently Andy works with various landowners to improve production and profitability on their property
- Andy also raises Grassfed Beef on his own ranch using intensive grazing management to restore degenerated pasture and Native Prairie.



Laura Paine

- Laura Paine has been involved in Wisconsin's sustainable agriculture community in a variety of roles for more than 20 years.
- From 2006 to 2014, she served as Grazing & Organic Agriculture Specialist for the Wisconsin Department of Agriculture, Trade and Consumer Protection.
- Paine is currently Program Director for the Dairy Grazing Apprenticeship, a formalized, nationally accredited training program for beginning dairy farmers.
- She has a Bachelor's Degree in Botany from Southern Illinois University, a Master's Degree in Horticulture from the University of Wisconsin, and is a Certified Educator for Holistic Management International.
- She and her husband raise and direct market grass-fed beef on their farm near Columbus, Wisconsin.

Conservation and the Environment on the Grazing Farm:



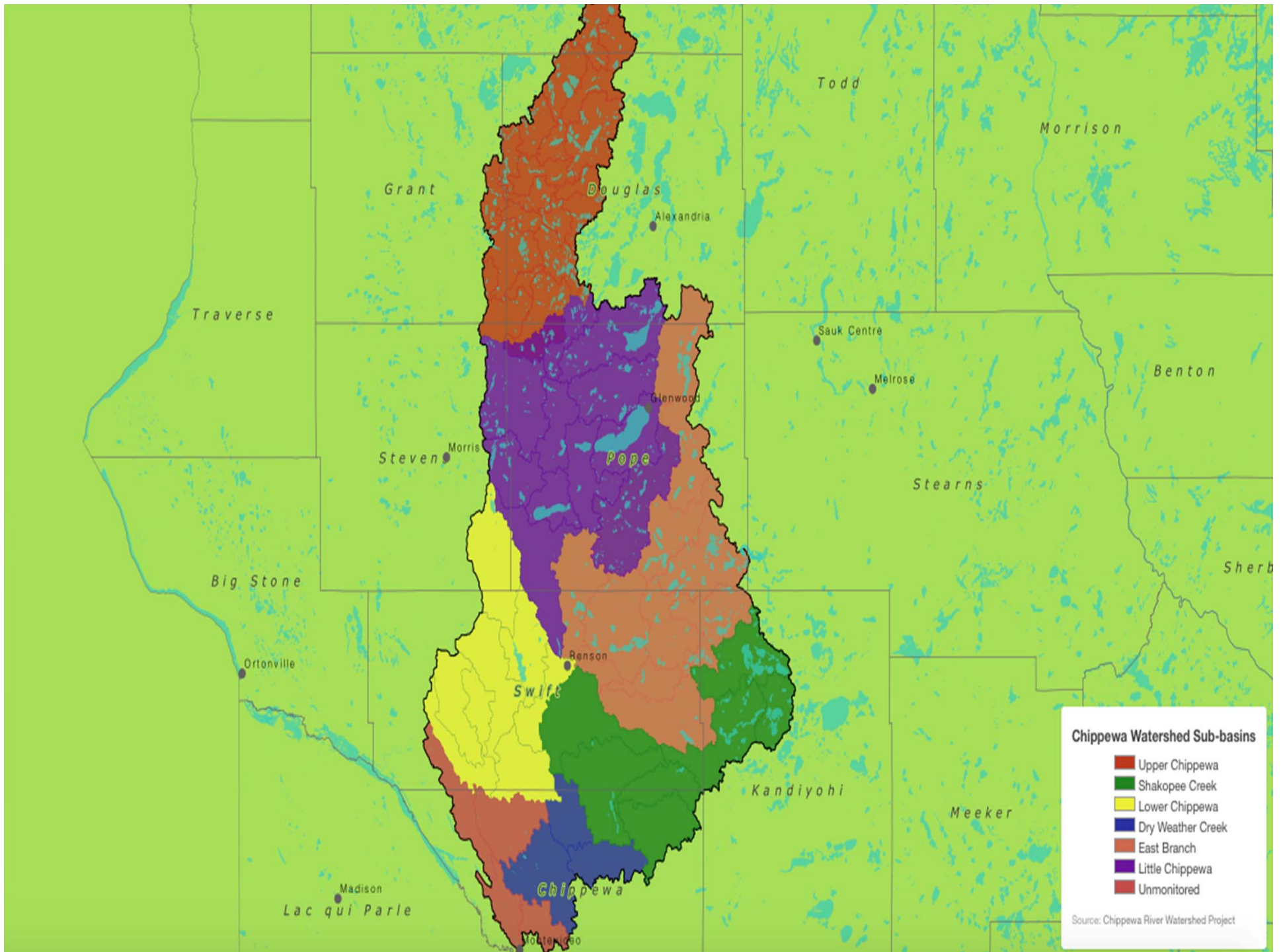
Grassroots Success in Landscape Level Change

Andy Marcum &
Laura Paine

Land Stewardship Project

- Mission- Foster an ethic of stewardship for farmland, to promote sustainable agriculture and to develop sustainable communities.
- Landowner Engagement- Meet with farmers and landowners individually and spend time in a 1-1 setting. We discuss conservation goals, help recognize and verbalize obstacles to those goals, then form a plan to overcome these obstacles.
- Chippewa 10% Project- Work with farmers and landowners to improve water quality throughout the watershed.
 - Perennial Cover
 - Cover Crops
 - Soil Health Monitoring
 - Input Reduction
 - Managed Grazing





Chippewa Watershed Sub-basins

- Upper Chippewa
- Shakopee Creek
- Lower Chippewa
- Dry Weather Creek
- East Branch
- Little Chippewa
- Unmonitored

Source: Chippewa River Watershed Project

Success of Engagement; Networks & Individual Change

- Meet landowners on their turf



1-1 Conversations

- Their History?
- Farm History?
- What are they proud of?
- What they would like to see on their farm?
- Changes in the community?
- Conservation Goals?

Stating these values provides us with an opportunity to support action.



Formation of Networks



Cover Crop/Soil Health Network

- Incentivize Initial trials
- Connect farmers to resources
- Provide opportunities for farmers to work together
- Provide soil monitoring. Spring and Fall testing



The nuts and bolts of Grazing for Conservation and Soil Health



Laura Paine
Program Director
Dairy Grazing Apprenticeship
608-338-9039
lkpaine@gmail.com

GLBW Grazing Educators Webinar
September 11, 2015

Green Lands Blue Waters



Mission: To support development of and transition to a new generation of agricultural systems that integrate more perennial plants and other continuous living cover in the agricultural landscape

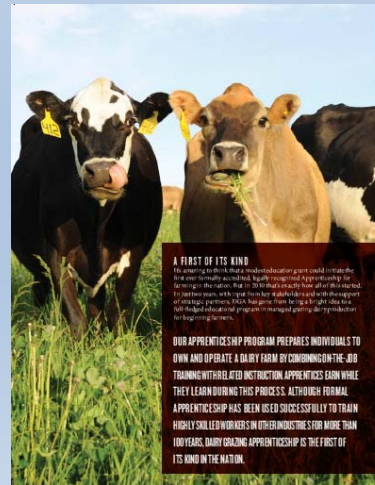
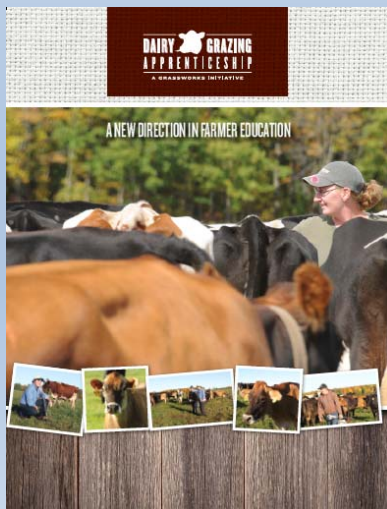


A Conservation Farming Apprenticeship



MAJOR WORK CATEGORIES
All work items are mandatory unless specifically identified as "Not Mandatory".

Work Category	Subcategory	Item	Hours	Days	Notes	
1. Manage Dairy Operations (includes tasks by year, calves and milk cows)	A. Handle animal health	1. Monitor appropriate flight stress duration.				
		2. The animal shows signs of the desired direction.				
		3. Monitor diet.				
		4. Control new herd look and behavior.				
		5. Properly use and grade while ordering or sorting including gain and proper diet event look.				
		B. Study for the job and on-the-job	1. Study for the job and on-the-job.			
			2. Follow proper procedures to determine whether entering a herd is necessary.			
			3. The following is to be done at least once every 30 minutes and adjusted for the amount of time to be spent (can increase or decrease as needed).			
			4. Evaluate animal productivity.			
			5. Complete and maintain on-the-job records and maintain training data.			
C. Evaluate animal productivity	1. Complete and maintain on-the-job records and maintain training data.					
	2. Monitor daily milk production.					
	3. Complete and maintain on-the-job records and maintain training data.					
	4. Evaluate animal productivity.					
	5. Complete and maintain on-the-job records and maintain training data.					



- 2 year program.
- 3712 hrs. on-the-job training on a working dairy farm.
- 288 hrs. related classroom instruction.



Why continuous living cover?
Land...Water...Wildlife

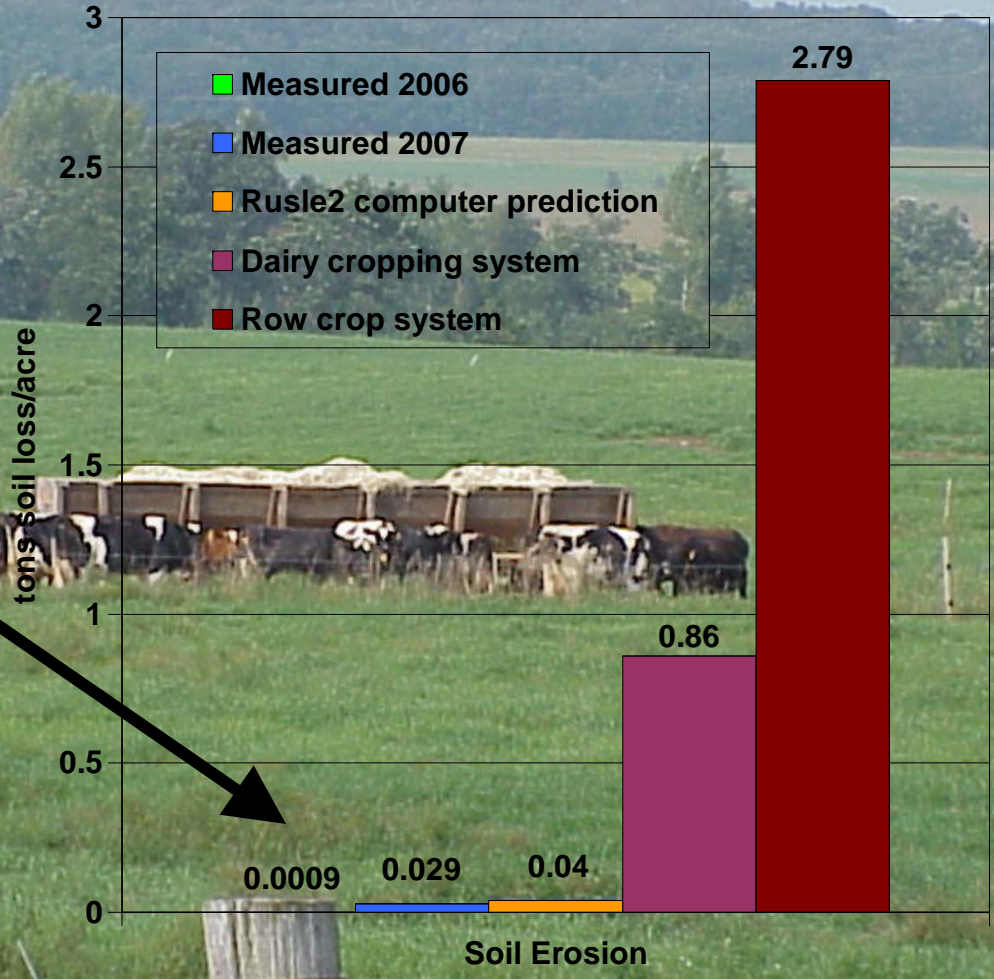
Considering grazing as a habitat management tool

- Restore something approaching natural grazing component and nutrient cycling
- Increasing cost of other management tools (mowing, burning, etc.)
- Livestock can go places where equipment cannot
- Opportunity to partner with neighboring farmers
- Other?

Pastures keep soil in place

data from Breneman Discovery Farms project

Sediment losses from Breneman outwintering pastures



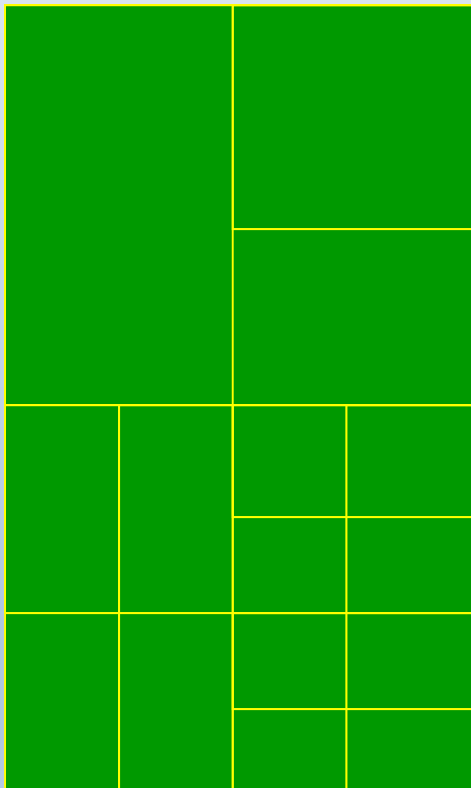
Well
Rested



Over
Grazed

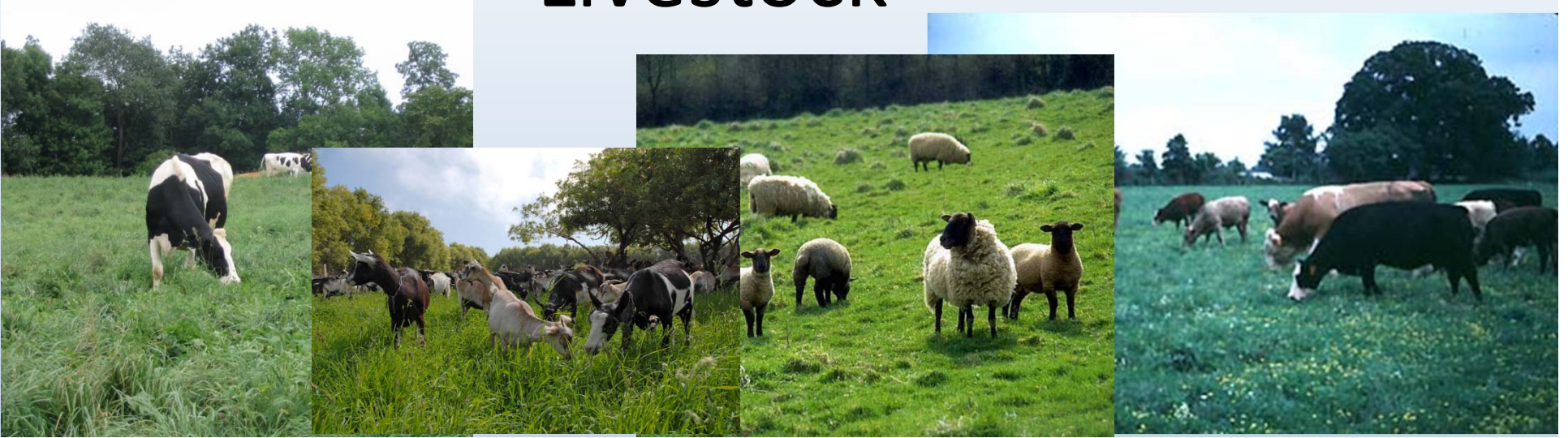
Rotational Grazing Principles

for Production AND Conservation



- Optimizing grass growth.
- Pasture area is divided into paddocks.
- Herd is rotated through a series of paddocks, remaining in each for 1 to 3 days.
- Adequate residual is left to promote fast regrowth.
- * *Each paddock is rested for 3 to 5 weeks.*
- Productivity and quality are maximized.
- Thick, healthy pasture increases intake.

Livestock



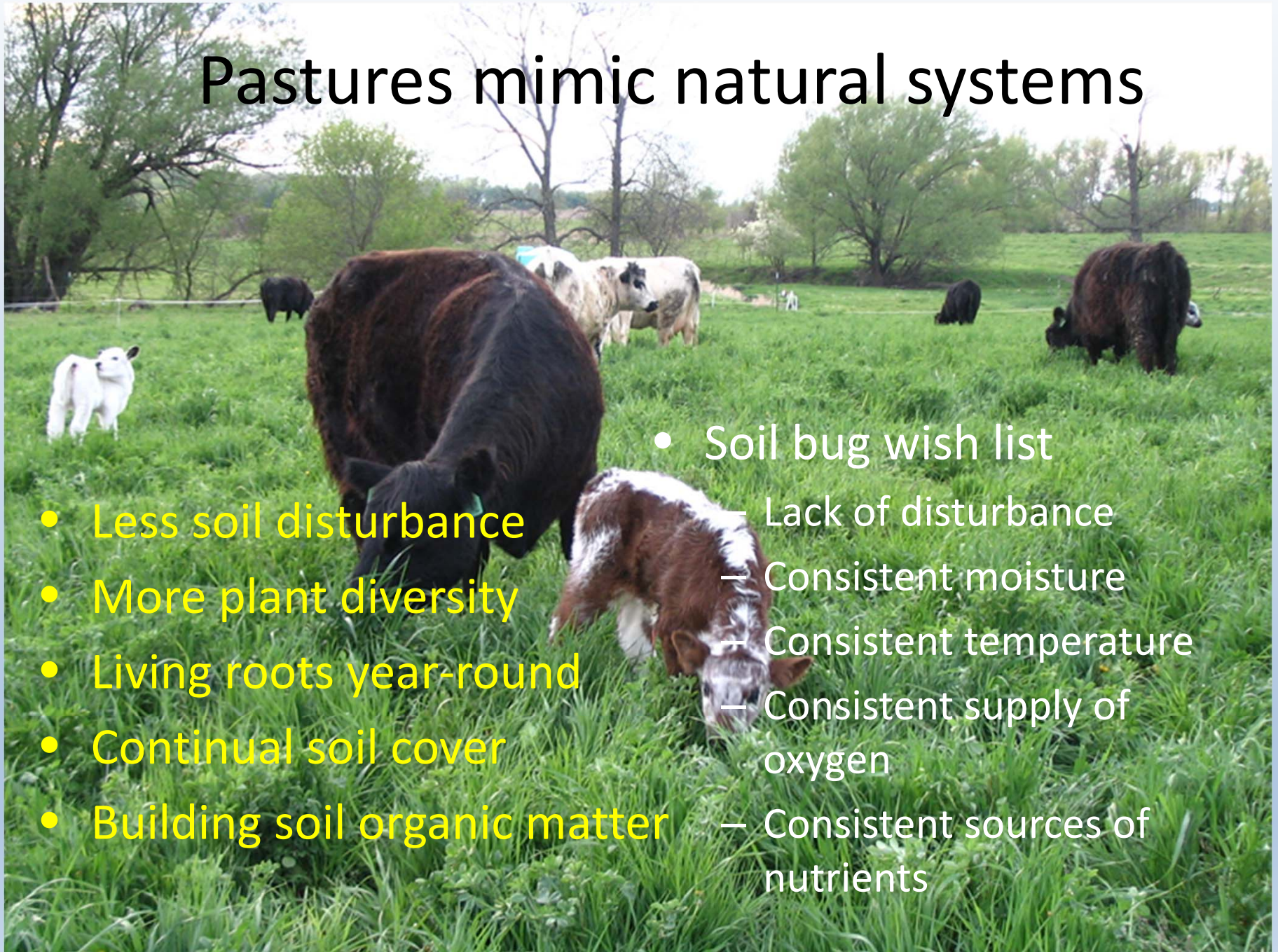
Soil Livestock

Pastures mimic natural systems

- Less soil disturbance
- More plant diversity
- Living roots year-round
- Continual soil cover
- Building soil organic matter

- Soil bug wish list

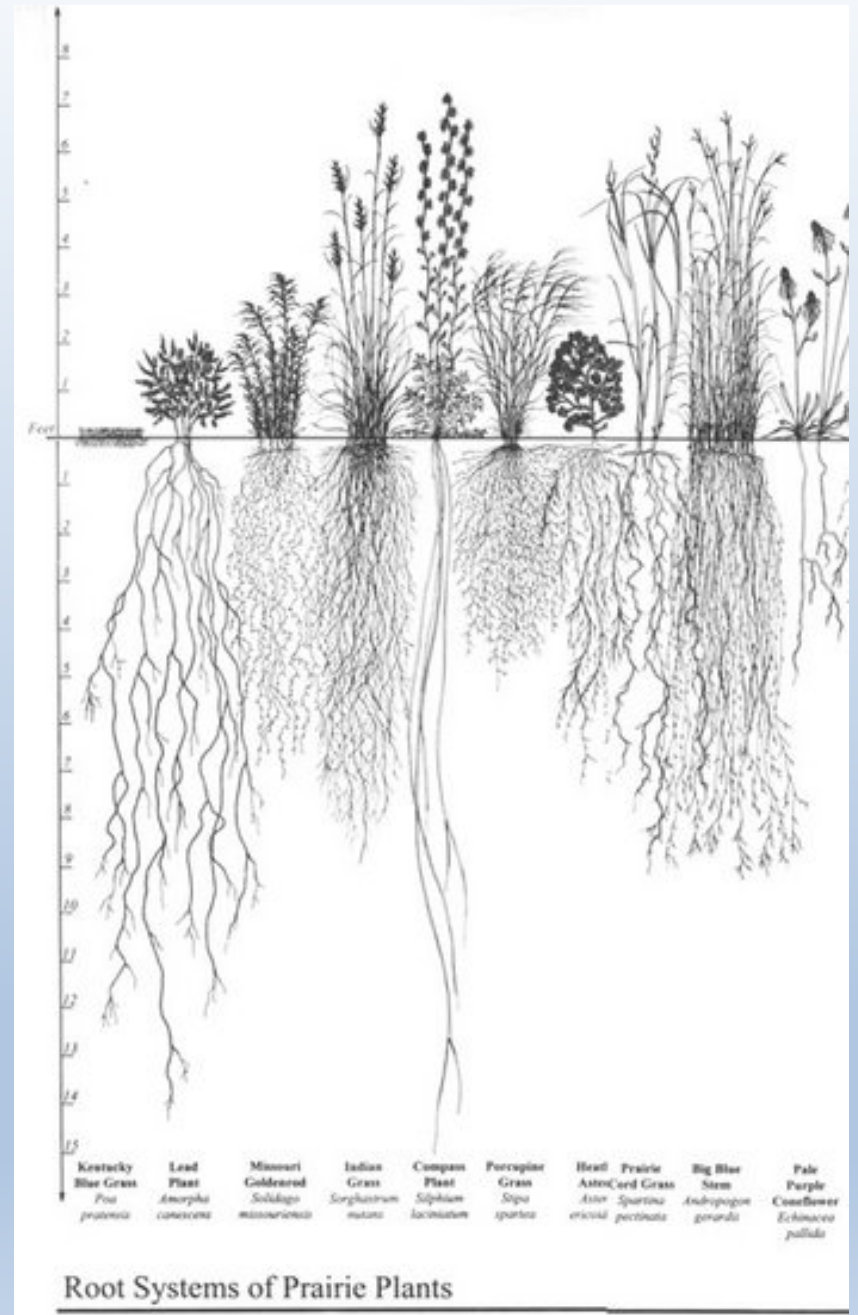
- Lack of disturbance
- Consistent moisture
- Consistent temperature
- Consistent supply of oxygen
- Consistent sources of nutrients



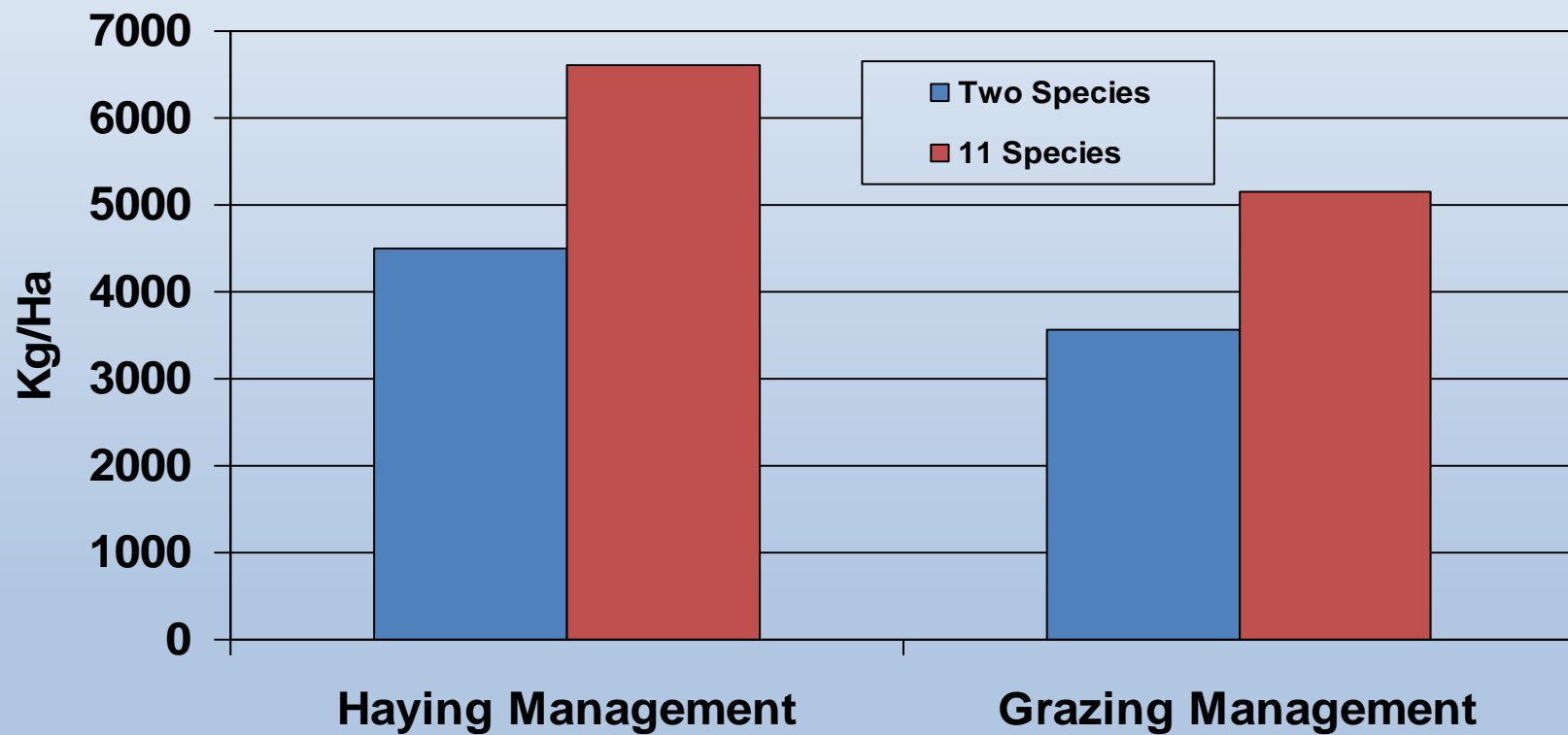
Diverse pastures increase intake

- Plant competition
 - Water
 - Nutrients
 - Light
 - Space

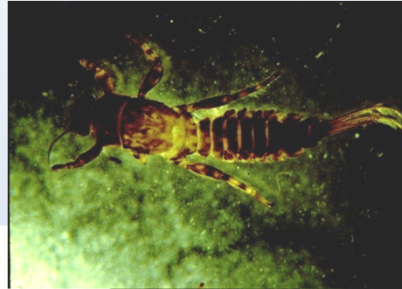
Diversity enhances resource use efficiency



Forage Yield in simple and complex mixtures

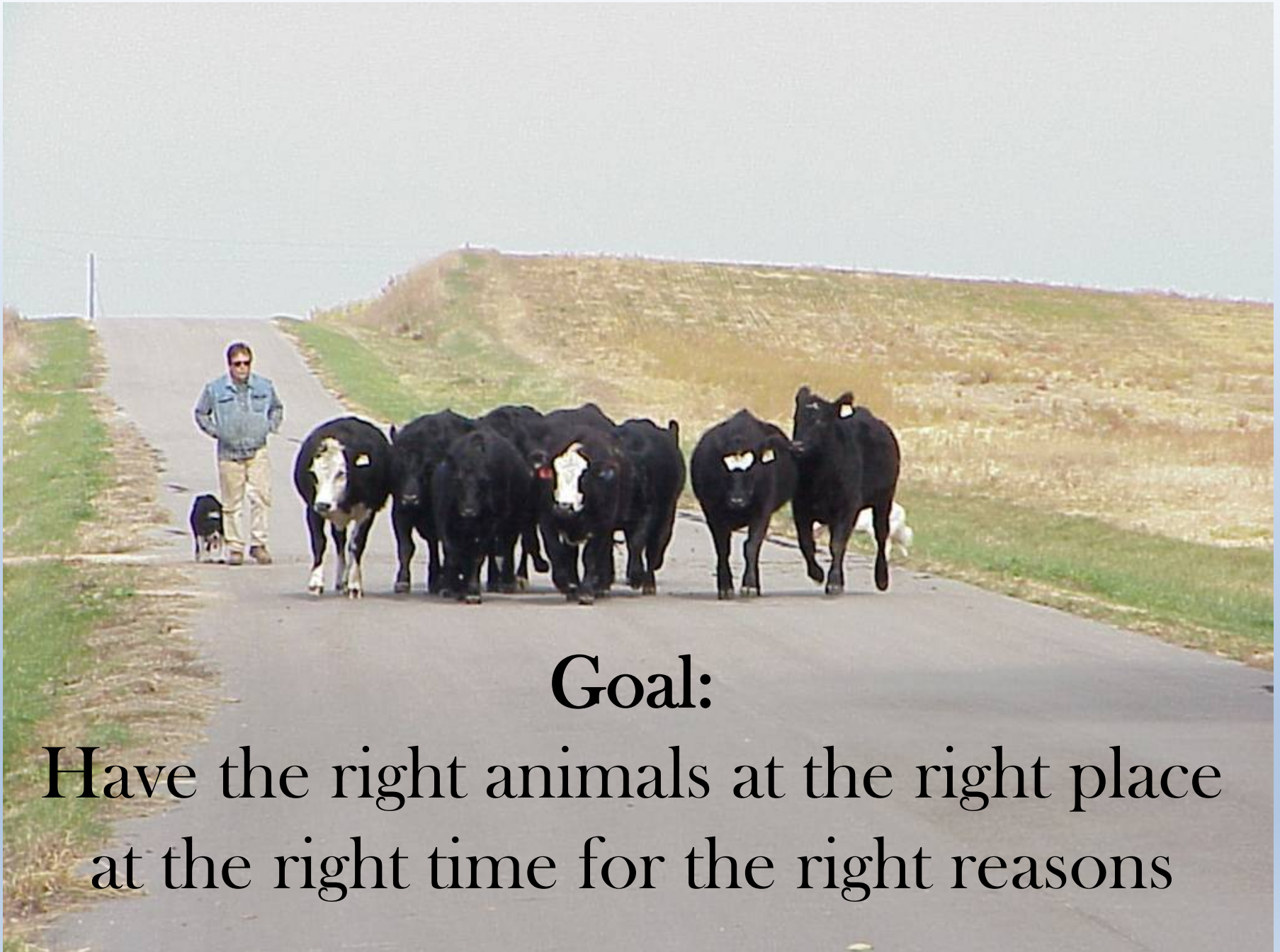


Data from Skinner et al. 2006 Agronomy J.



Managing grazing for habitat goals

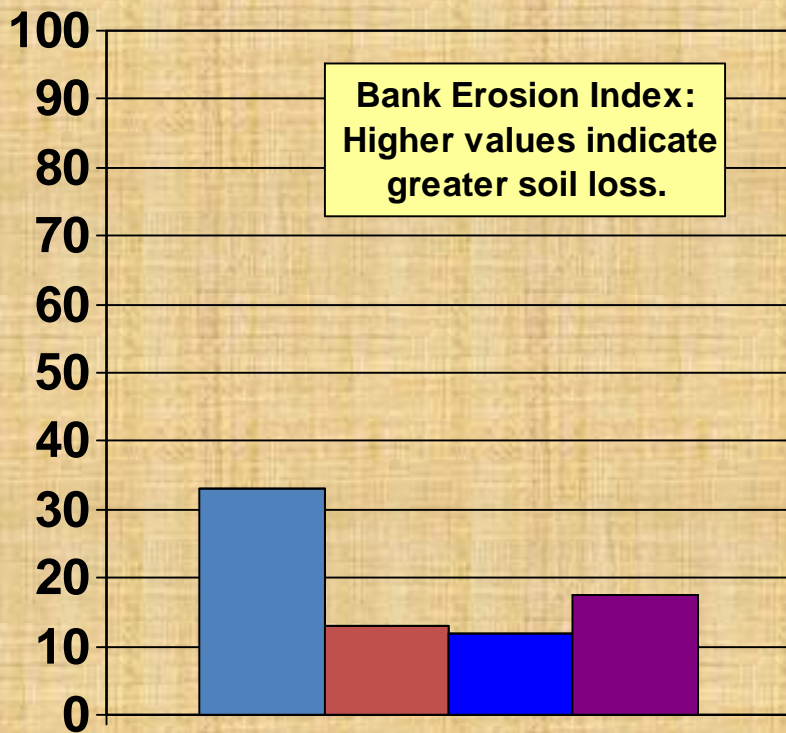




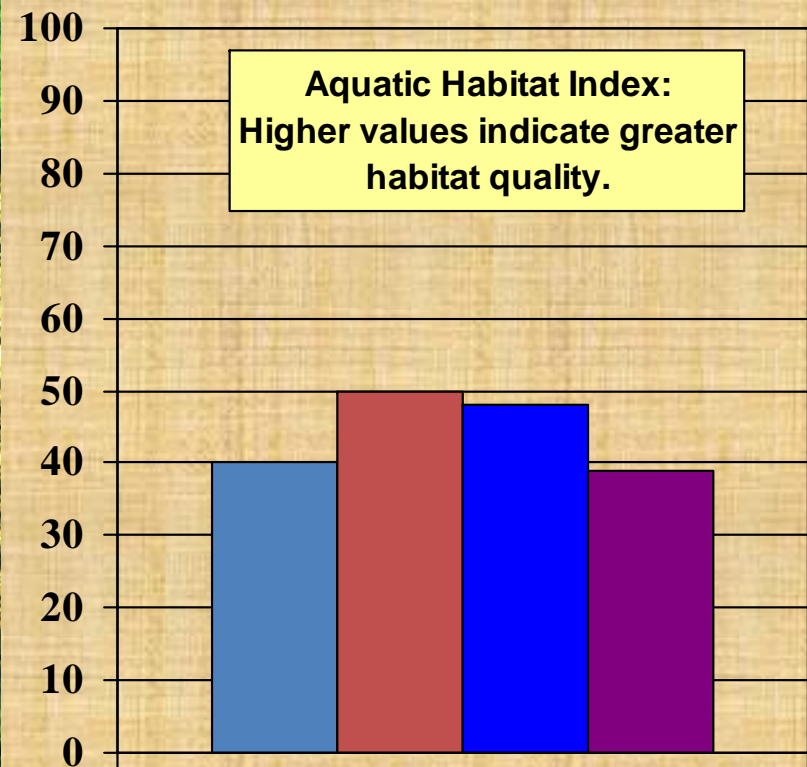
Goal:

Have the right animals at the right place
at the right time for the right reasons

Improving Aquatic Habitat

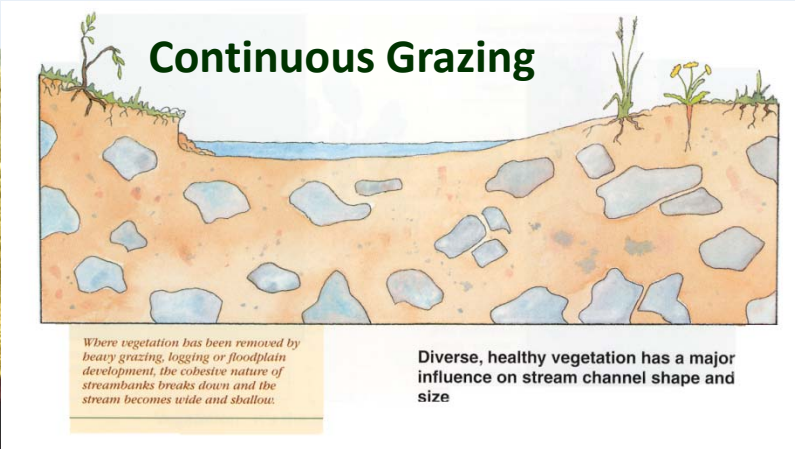


■ Unrestricted Grazing ■ Managed Grazing
■ Grassy Buffer ■ Woody Buffer

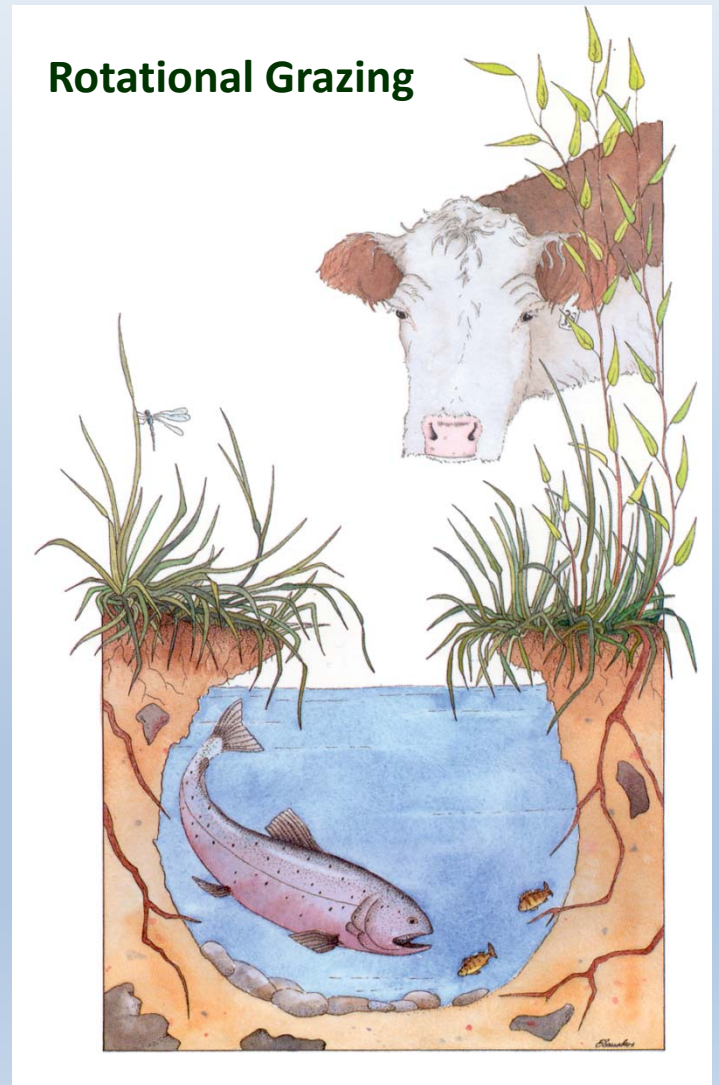


■ Unrestricted Grazing ■ Managed Grazing
■ Grassy Buffer ■ Woody Buffer

Aquatic Habitat & Bank Stability



Rotation
Residual
Rest



STREAM CROSSINGS

Constructed crossings allow animals safe access to water and protect streambanks

- Place where animals like to cross.
- Use gravel, geotextile, or cement, depending on conditions.
- Use 1.5" rock.

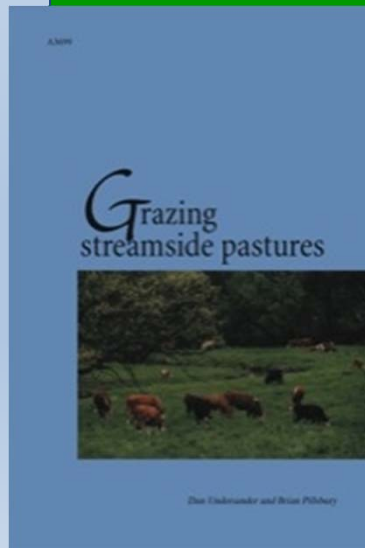


Managing Riparian Pastures

Pumping from Stream to Tank

Diagram Key

1. bilge pump
2. underground water line
3. water tank
4. outdoor extension cords
5. 12 volt battery
6. float switch
7. relay

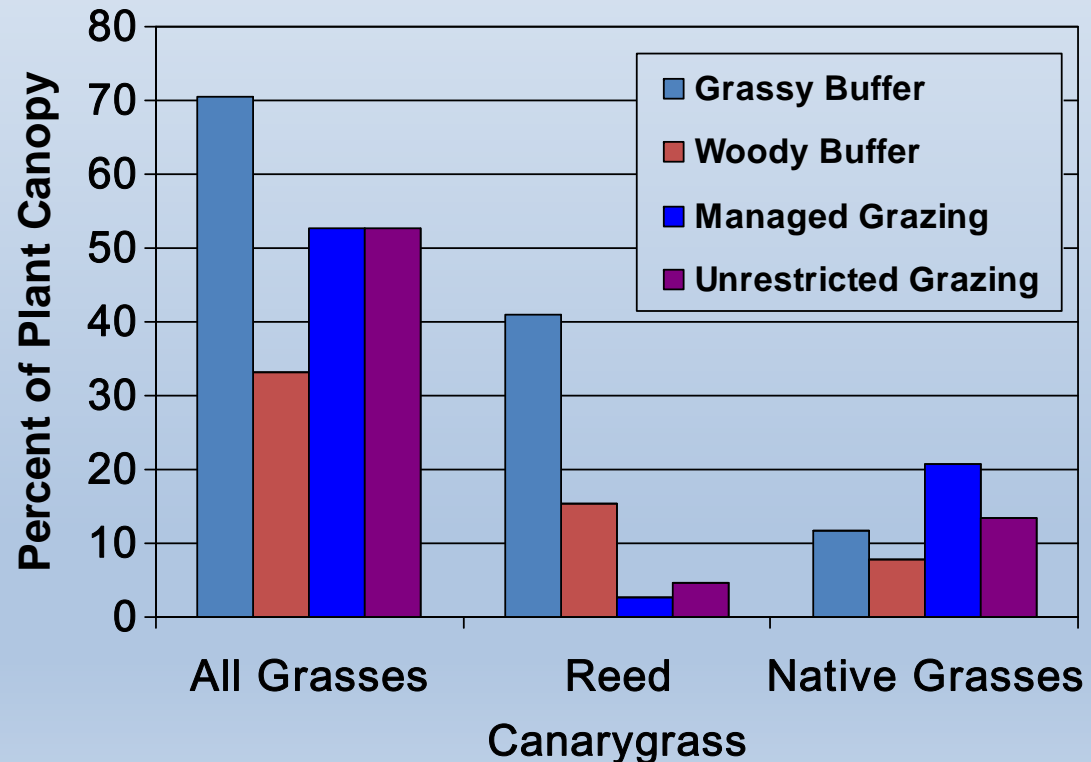


Vegetation management goals:

Improve habitat structure?
Control invasives?



Grazed sites had more native grasses and sedges and less reed canarygrass, an invasive species in riparian areas and wetlands.



Understanding Animal Grazing Behavior

<u>Species</u>	<u>Grass</u>	<u>Forbs</u>	<u>Browse</u>
Bison	93	5	2
Horses	81	5	14
Elk	63	16	20
Cattle	64	18	12
Sheep	57	19	20
Goats	39	10	50
Deer	10	34	57

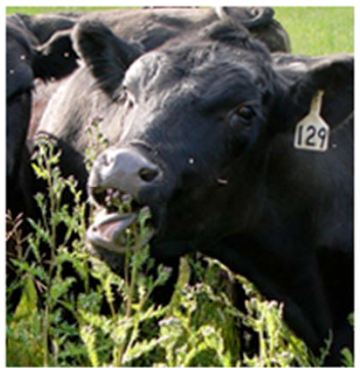


Livestock for Landscapes

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- [Cows Eat Weeds](#)
- [Prescribed Goat Grazing](#)

Educated Cows Eat Weeds!



In 2004, Kathy Voth invented a method for teaching cows to eat weeds. Based on decades of science, her simple steps make it possible for anyone to save money and take advantage of new forage by turning their cows into weed managers.

- Learn More....
- [Background](#)
 - [Weed Eating Benefits](#)
 - [What's Edible](#)
 - [Projects](#)
 - [How to Get Started](#)
 - [What People Are Saying](#)
 - [Meet the Inventor](#)
 - [Links](#)

Goat Prescribed Grazing



My six year reserach project explored the best ways to manage goats for fire control. The results are useful for land managers and those interested in running a prescribed grazing service.

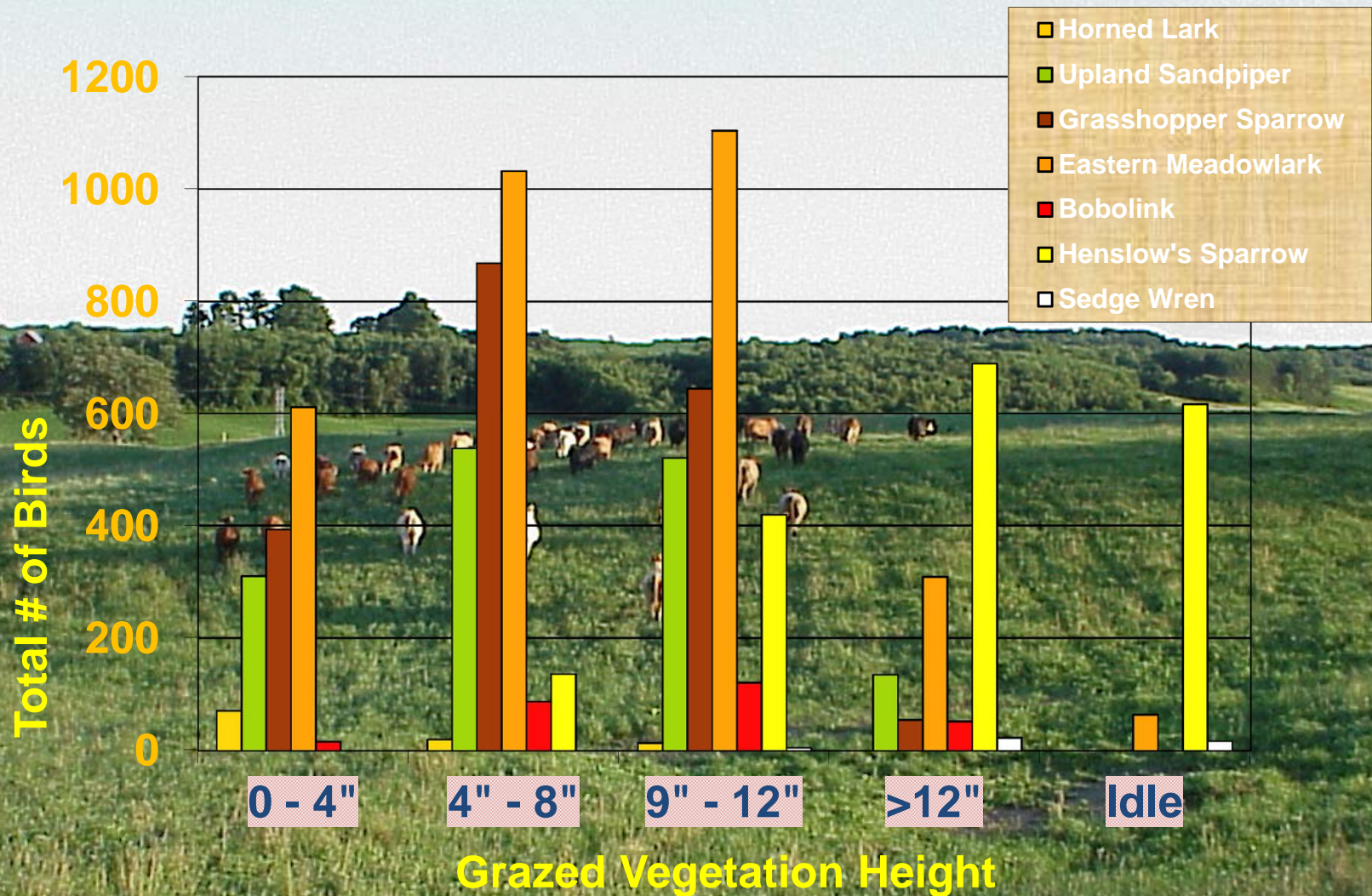
- Learn More...
- [Project](#)
 - [Find a Prescribed Grazier](#)
 - [CD Handbook](#)
 - [Links](#)

<http://www.livestockforlandscapes.com/>

Mob Grazing

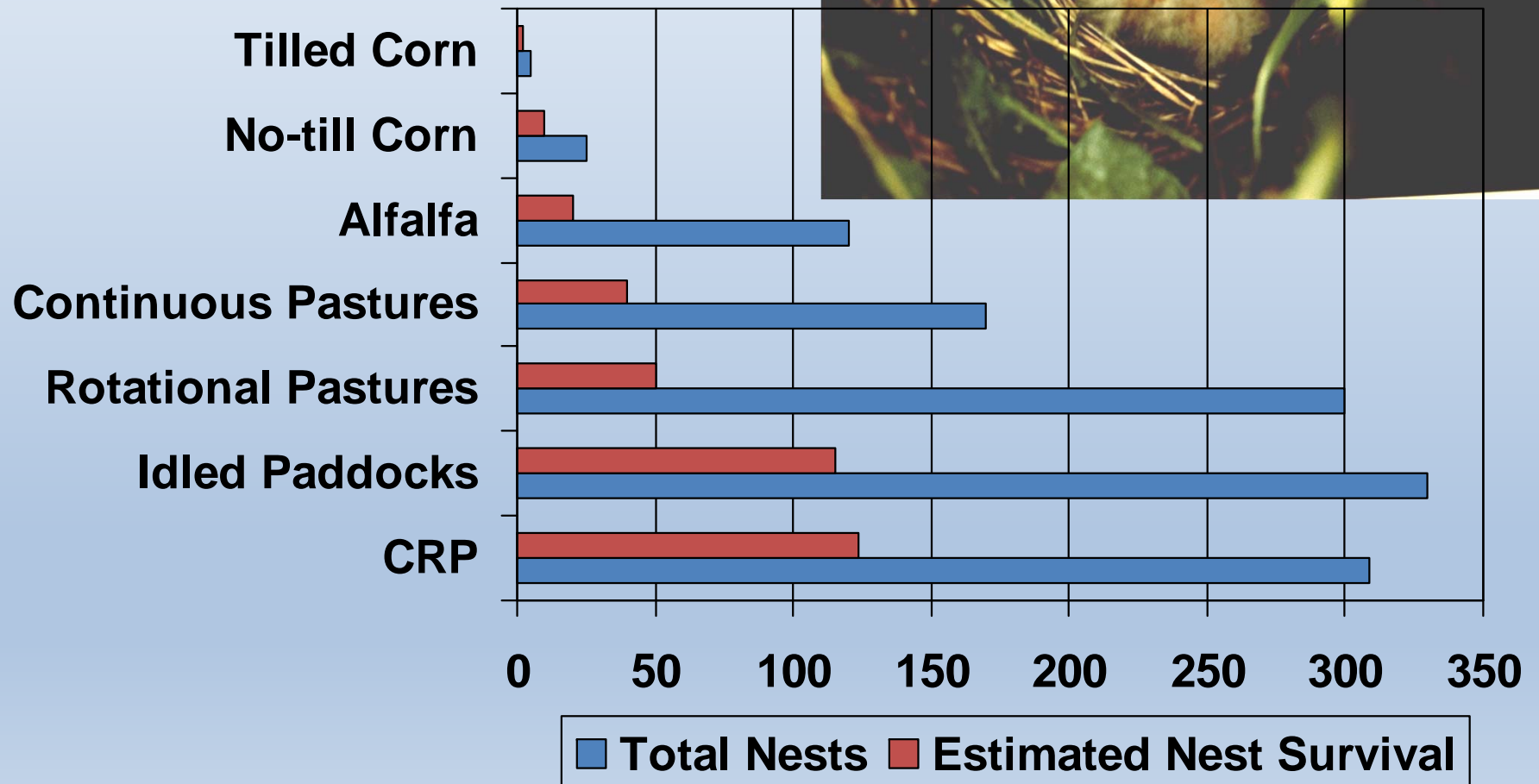
1,000,000 lbs per Acre



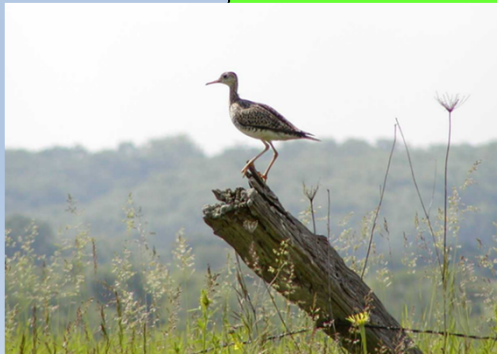
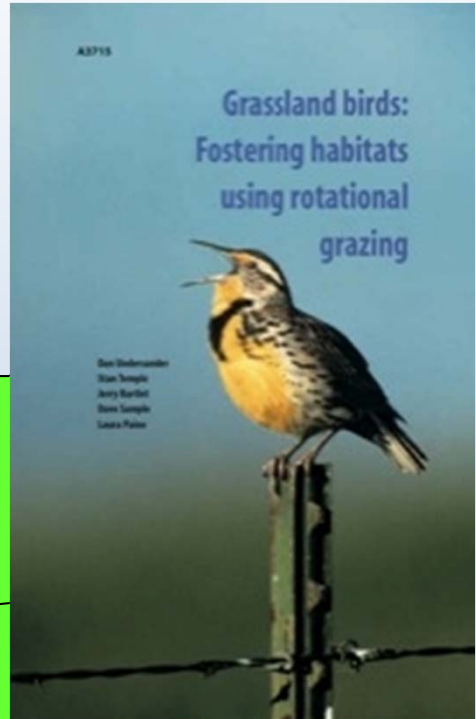
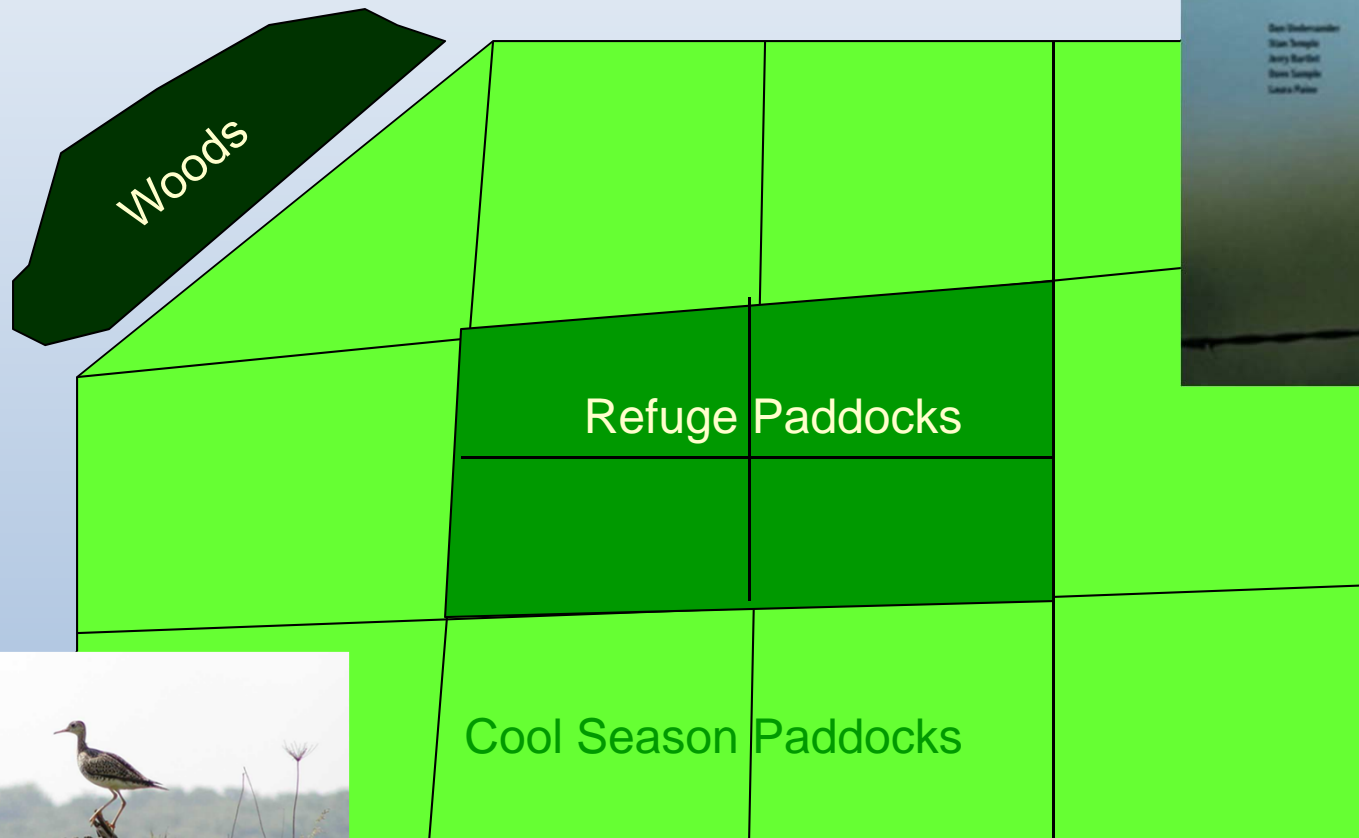


Managing Grazing to Enhance Grassland Bird Habitat

Making Compromises: Nest Survival



Creating a Nesting Refuge



Grassland bird nesting season: May and June

Working Landscapes

Agricultural
Goals:
Incorporating
habitat value
into profitable
agricultural
systems

Landowner
Goals:
Income
Aesthetics
Conservation
Avocation
Other?

Conservation
Goals:
Utilizing
livestock
grazing as
a tool for
habitat
restoration

Case History

David Anderson Farm Highland, WI

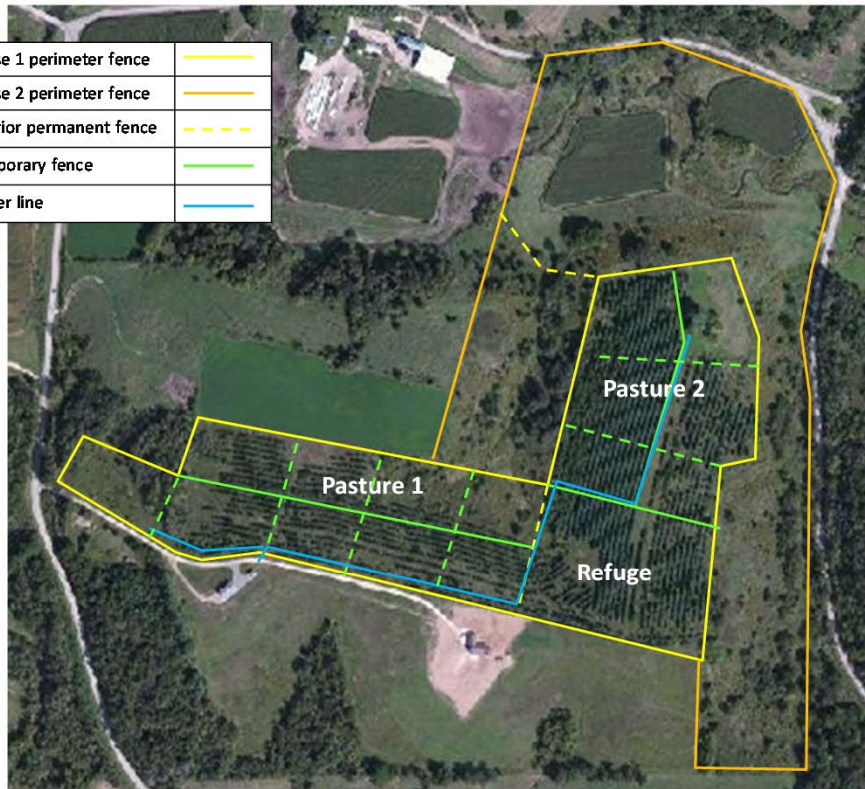
Refresh Values

03/13/2013

Landowner Grazing Profile

Landowner Information	Property/Parcel Information
David Anderson 5005 County Road II Highland, WI 53543 608 935 7568 prairewind1@att.net	County: Iowa Legal Description: Sec. 27 T7N - R2E Parcel #: Tract 6001 farm 7772 Acres For Grazing: 65.4 Number of Fields: 2
Land Management Goals:	Grazing Objectives
Land Management Objectives: Wants to form a bird refuge, likes the concept of managed grazing, wants to possible, and generate enough income in investment. (ap): or of the grazing unit to protect nesting ent: out cost share options and eligibility. nd owner has applied for cost sharing on. e, water, inter-seed with compatible with a neighbor to rent his pasture and roximately 11 - five acre paddocks. s in time.	Landowner Involvement Rank: 3 Maintain and establish fences and paddocks, establish and maintain watering facilities, inter-seed and improve sward and cut or spray invasive weeds/brush. Livestock types desired: Dry Cow Duration of Grazing: 180 Term of Contract Desired: year to year Grazing Management Plan: yes Restrictions (Min Plant Res, Access, AUMs): Landowner wants residual left at 3 inches and area in middle of pasture (9.2 acres) left uncut or grazed from May 1st to July 15th for nesting birds.
Worksheet	Existing Infrastructure (See map):
Overall): re 31.1 acres of expired CRP with wner has contracted to have cut and Cassville, with bromegrass as the re that has a lot of brush and invasive over ds/Density/Legumes): e brush/weeds, density poor to good	Fencing, Watering Systems, Cattle Lanes, etc Has a EQIP contract with NRCS for cost sharing fencing, watering system and seeding.
Estimated Grazing Potential & Value:	
Dry Cow	Grazing Capacity (AU's): 24 0.12 Monthly Forage Need (lbs): 43,200 24 Rental Value (Per Month): \$512.64 487,884 Hay Price (\$/ton): \$178

Phase 1 perimeter fence	—————
Phase 2 perimeter fence	—————
Interior permanent fence	- - - - -
Temporary fence	—————
Water line	—————



A Grazing- Conservation Partnership



SW Badger's Grazing Broker Project



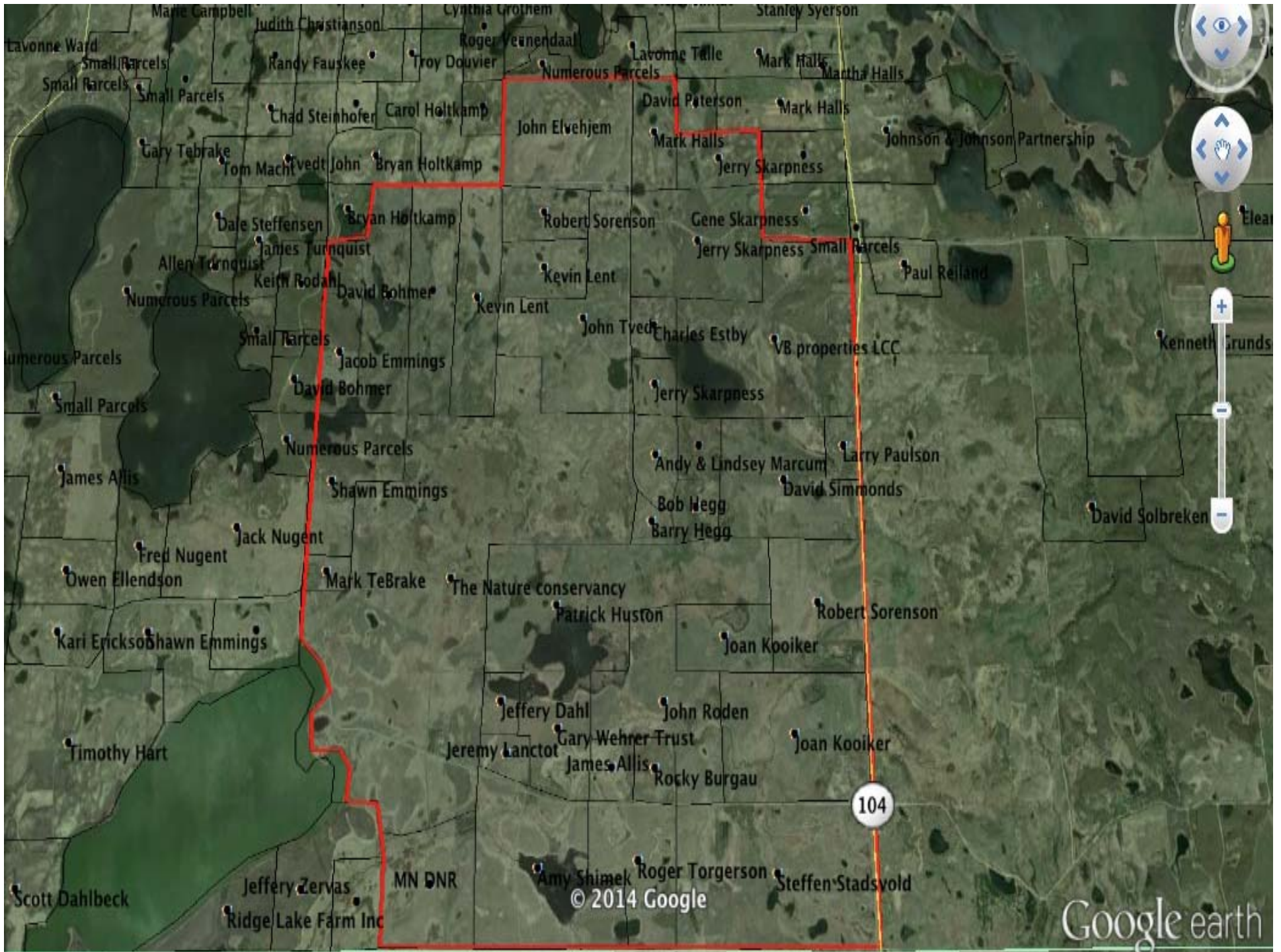
An estimated 60% of land in the region
is owned by non-farming landowners

www.swbadger.org

Simon Lake Challenge

Community Based Conservation





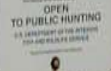
© 2014 Google

Google earth





**WATERFOWL
PRODUCTION
AREA**



**OPEN
TO PUBLIC HUNTING**

U.S. DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT

Invasive Species Removal



Before

After













- By convening farmers, agencies and recreational landowners; in working cooperatively to meet conservation goals, we create a community environment for stewardship and strengthen communities by supporting their efforts.



Questions?



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Phone- 320-424-3901

Laura Paine- lkpaine@gmail.com

Phone- 608-338-9039



LAND
STEWARDSHIP
PROJECT

Future Webinars



SCHEDULE
9:00-10:30 AM CDT

TEACHING THE BASICS OF GRAZING
Done!

View the webinar, slides, and resources [here](#).

GRASS-BASED FARM FINANCIALS
Done!

View the webinar, slides, and resources [here](#).

ADAPTIVE HIGH STOCK DENSITY GRAZING
Done!

VIEW THE WEBINAR, SLIDES, AND RESOURCES [HERE](#)

AUGUST 7
Integrating Livestock into Cropping Systems

SEPTEMBER 11
Grazing for Conservation and Soil Health

OCTOBER 9
Teaching Resources Roundtable

All sessions will be online and archived for future use. To sign up for upcoming sessions or to receive reminders about future sessions, you can register with us [here](#).

Are you a grazing specialist, land manager, or grazing educator?

Want to be involved in the development of grazing education?

If so, please [join us in our webinar series](#), hosted by [Green Lands Blue Waters](#) and [The Pasture Project](#).

The monthly series will present topics important to grazing, with perspectives from scientists, experts, and producers.



The webinars are free, and will be designed to encourage an active and lively discussion on issues important to the grazing community.

Look for more information about the series and the next webinar, scheduled for August 7th, at our websites. Contact [Jane Jewett](#) or [Warren King](#) with any questions.

Green Lands Blue Waters





Thank you!