Silvopasture: knowing when and if to graze woodlands

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# What is silvopasture?

A system that combines timber, livestock and forage production on the same site. Trees provide long-term returns, while livestock and forages generate an annual income.





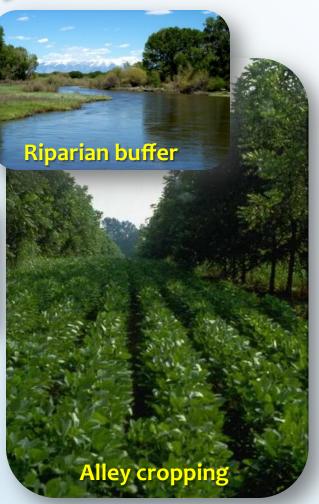
## One of 5 Agroforestry Practices

...the *intentional* combining of agriculture and working trees to create sustainable farming systems.









## Can be established by:

- Planting trees in open pasture, or by
- Thinning existing woods and planting forages







Silvopasture is an accepted practice in the Southeast and Northwest US

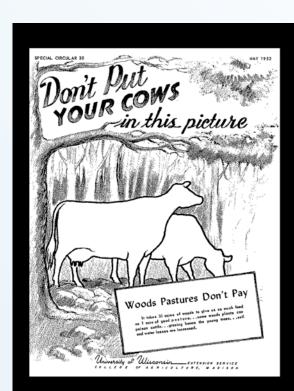
Not accepted in the Upper Midwest



#### But Wisconsin farmers do

- Have and value trees in pasture
- Graze woodlands

We just don't talk about how and why they do it.



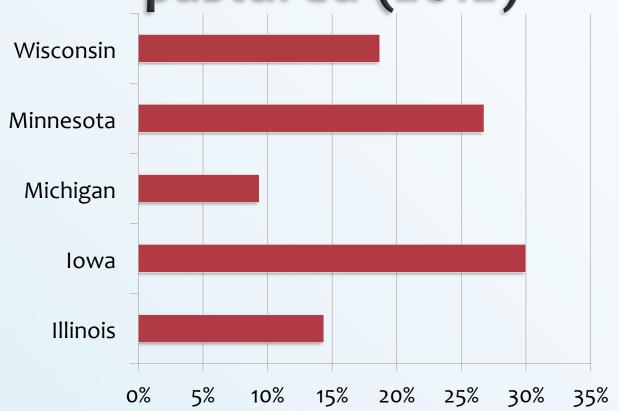
# Silvopasture is not cows in the woods

#### But it raises similar concerns:

- Damage to trees
- No tree regeneration
- Quality and amount of forage under trees
- Erosion & compaction
- Spread of invasive species
- Tree form
- Management challenges (fence maintenance, mowing)



# Percent of farm woodland pastured (2012)



Fewer than 1% of these farms report practicing silvopasture

2012 Agricultural Census, Tables 8 and 43, Land Use & Selected Practices

# Why are people interested?

#### Landowners

- Use value tax law
- Manage brush
- Cost of land/income potential
- Savanna restoration
- Income from trees
- "I like trees"
- Hunting; aesthetics

### Farmers (with livestock)

- Shade
- Shelter from wind
- Cost and availability of pasture
- Supplemental forage



# When is silvopasture not appropriate?

- If your woods cast a deep shade (and you don't want to thin) – if grass won't grow there
- If your woods are in MFL or have another legal restriction on grazing
- If your soils are too wet or your slopes are too steep
- If your woods have spring ephemerals or other sensitive flora
- If you have young trees that you want to keep
- If you are not sure the grazing will be well-managed

### Assess your woods:

- Is there enough light for grass to grow?
- What trees are there now, and how big are they?
- Are there seedlings or saplings you want to keep?
- Are the soils dry most of the year?
- Are there plants that are toxic to livestock?
- What is the timber potential of the current stand?



If you want to plant trees in open pasture:

- Decide what you want from the trees: Shade?
   Firewood? Nuts? Beauty? Timber? Other...?
- What trees will grow well on your site?
- How will you arrange the trees?
- How will you protect young trees?
   Electric fence? Tree tubes plus fence?
   Other strategies?



Use a grazing system that benefits the animals and minimizes damage to desired trees:

- Management-intensive (rotational) grazing
- Paddocks should include open pasture with good forage
- Provide water away from trees
- Shaded area should allow livestock to spread out
- Appropriate livestock type and numbers



Begin by clarifying your goals.

If more than one person is involved:

- Make sure the landowners' and farmer's goals are compatible
- All parties need to clearly communicate their goals
- Discuss concerns and differences
- Have a clear agreement in writing (lease) that lays out what management will be done and what you don't want

## Many questions. We need:

- Demonstrations & examples of good silvopasture
- Information on:
  - Economics (cost of establishment and management)
  - ➤ Species (trees, livestock, forages)
  - ➤ How to establish savanna and protect young trees
  - ➤ How to control invasive species through grazing
  - >What sites are suitable; what sites are not
  - ➤ Markets for silvopasture products



## **UW-Madison research:**

- Research at Lancaster ARS and on farm
- Silvopasture case studies
- Grazing on brushy public lands
- Studies on goats for managing invasive brush



### **Panel**

Vance Haugen, Crawford County

Randy Mell, LaCrosse-Bad Axe/Black-Buffalo/ Trempealeau River Basins

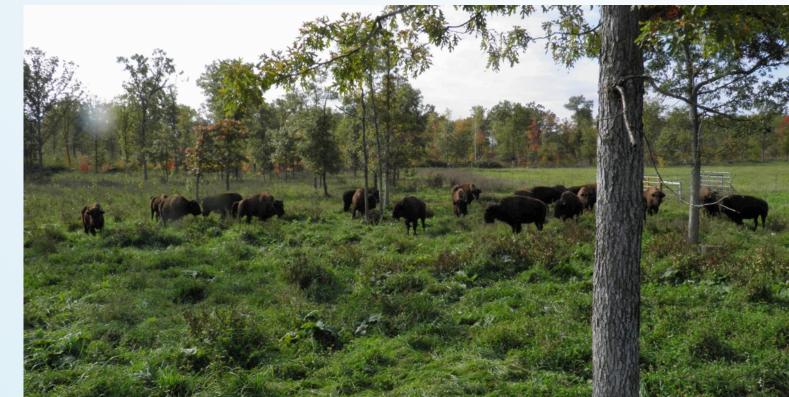
Otto Wiegand, Burnett, Sawyer, and Washburn Counties

Mark Rickenbach, Dept. of Forest and Wildlife Ecology











# We want to hear from you

What is your experience with Silvopasture or woodland grazing?

Do you have comments on our preliminary recommendations?

What are your questions for silvopasture research?

Contact dbmayerfeld@wisc.edu

with your comments or questions or to be added to the silvopasture list serve

