

Differentiating between silvopasture  
and wooded livestock paddocks

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## Silvopasture—It's Not a Load of Manure: Differentiating between Silvopasture and Wooded Livestock Paddocks in the Northeastern United States

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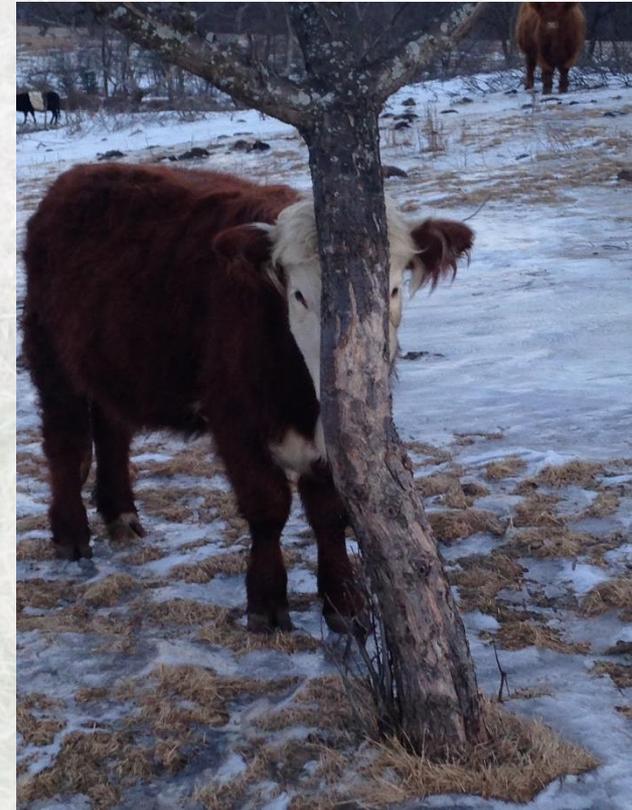
difficulty, produces high-quality forage, expands the grazing season, and diversifies revenue (McDaniel and Roark 1956, Clason and Sharrow 2000, Garrett et al. 2004, Kallenbach et al. 2009, Chedzoy and Smallidge 2011a).

### Woodland Pasture

One challenge silvopasture faces in the Northeast is that many foresters are unfamiliar with it but very familiar with degraded woodland pastures. Over the last 100 years best management practices (BMP) have been developed for open pastures and forest management, whereas woodland pasture has remained a taboo subject. Sil-

## Outline

- Woodland Pasture
- Wooded Livestock Paddocks
- Livestock for Vegetation Management
- Silvopasture



# Woodland Pasture (Managed?)

**Table 1. Distribution of woodland pasture in New York and New England.**

State	Land in pasture .....(ac).....	Woodland pasture	No. of farms using woodland pasture*	% of total pasture acreage that is woodland pasture
Connecticut	72,018	21,081	1,056 (24)	29
Massachusetts	85,760	17,837	1,093 (59)	21
Maine	118,980	27,105	1,103 (58)	23
New Hampshire	46,446	12,447	706 (54)	27
New York	985,494	146,995	5,286 (186)	15
Rhode Island	10,098	2,281	198 (7)	23
Vermont	195,000	37,100	1,184 (68)	19
Region	1,513,796	264,846	10,626 (456)	17

Of total pastureland in the region, 1 in 6 acres (17%) is woodland pasture. In the New England states, the proportion of woodland pasture to total pasture area is more than 1 in 5 (22%). These data are from the Census of Agriculture, but the management of these pastures was not addressed (Vilsack and Clark 2014).

\* Number of farms self-identifying as practicing alley cropping or silvopasture.

Orefice, J., and J. Carroll. 2016. Silvopasture, it's not a load of manure: differentiating between silvopasture and wooded livestock paddocks in the northeastern United States. *Journal of Forestry*: 2017.



# Wooded Livestock Paddocks



Feedlots with Trees



Undisclosed northeast US farm

## Wooded Livestock Paddocks

- 1: Root Compaction
2. Girdling from Livestock
3. Soil Degradation
4. Parasite problems

**These problems are inherent to CONTINUOUS grazing, NOT silvopasture**



↑ NOT silvopasture

Two definitive characteristics of silvopastures are:

- 1) Management of livestock type, timing, and impact maintains forage and tree health and rooting zones that stabilize soil in silvopastures
- 2) Trees are actively cultivated in silvopasture systems and stem density is controlled to encourage forage and tree vigor.

# Additional Confusion

Livestock as a form of vegetation management



**May be a stage of silvopasture establishment  
from forestland but care must be taken**



# Open-pasture Edge





Ungrazed

Grazed

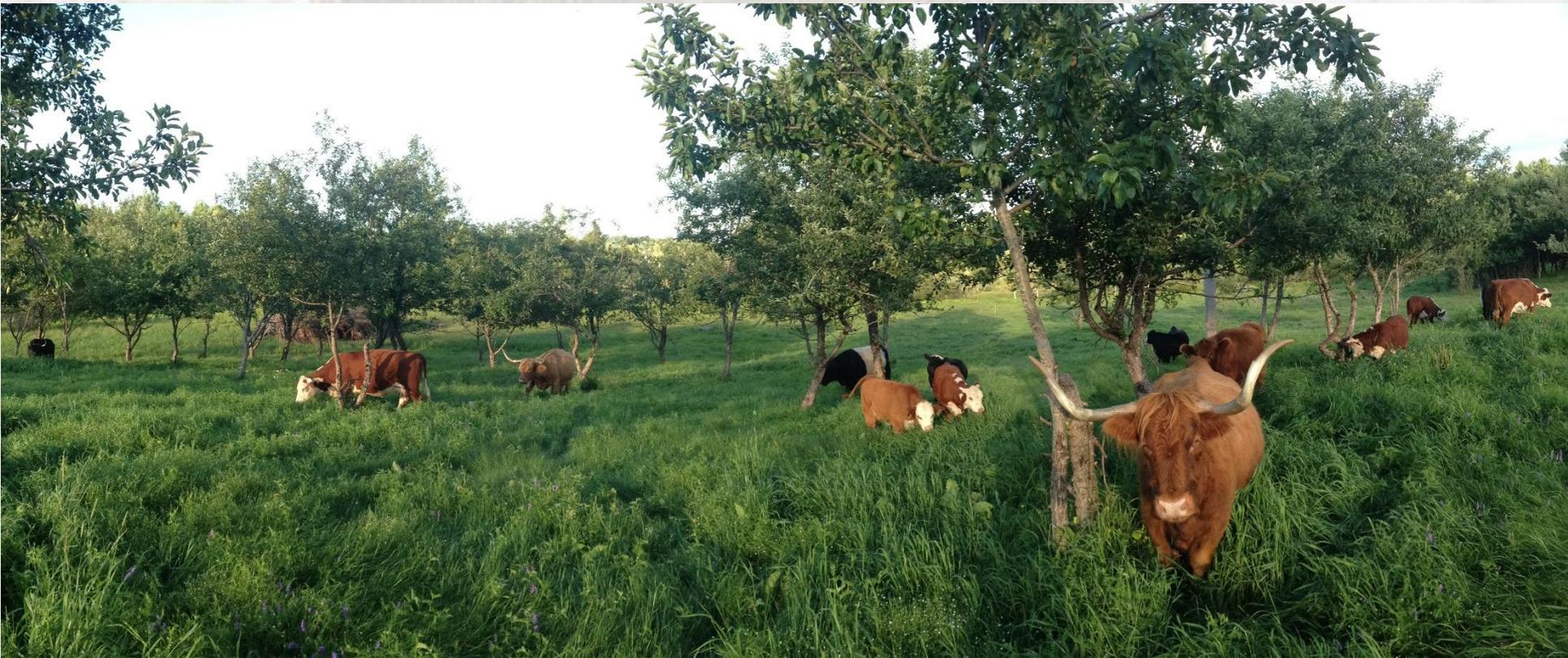
# Site preparation or Soil Degradation?



Definitely NOT carbon farming

# Silvopasture:

The sustainable production of livestock, trees, and forage on the same unit of land



## Benefits

- Reduced heat and cold stress on livestock
- Multiple use, multiple revenue
- High quality forage
- Summer slump forage availability
- Incentive to manage farm woodland
- Vegetation Management
- Aesthetics



**Wooded Livestock Paddock**



**Well Managed Silvopasture**



TABLE 1: Reasons for, and challenges of, silvopasture utilization by 20 farmers practicing silvopasture in New York and New England. Farmers practicing silvopasture were purposefully identified and interviewed. Farmer may have provided more than one reason for or challenge of silvopasture utilization.

<i>Reasons for silvopasture utilization</i>	<i>Number of Farmers</i>
Shade for livestock	16
Expanding pasture acreage and diversity	14
Increased utilization of existing farm woodland	12
Increased forage availability during mid-summer and droughts	12
Diversified livestock diet	8
Overall animal welfare	6
Management of undesired vegetation	5
Winter shelter for livestock	4
Tree health/fertilization	3
Increased farm aesthetics	2
<i>Challenges of silvopasture utilization</i>	---
Fencing establishment and maintenance	9
Lack of knowledge toward silvopasture management	6
Lack of time for silvopasture management	5
Unknown forage quality and management techniques	5
Reduced mobility of machinery	3
Support from agricultural extension organizations	3
Undesirable vegetation	2
Fleece contamination in fiber animals	1
Epicormic branching on trees	1
Monitoring livestock	1

# Research Supporters



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**Orefice, J., Carroll, J., Conroy, D., and L. Ketner. (2017).** Silvopasture practices and perspectives in the northeastern United States. *Agroforestry Systems* 91: 149-160.

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