

Differentiating between silvopasture and wooded livestock paddocks



Joseph Orefice, PhD

North Branch Farm, Saranac, NY

Uihlein Forest Director, Cornell University

September 29, 2017

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

Joseph N. Orefice and John Carroll

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	Woodland pasture	No. of farms using woodland pasture*	% of total pasture acreage that is woodland pasture
(ac).			
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





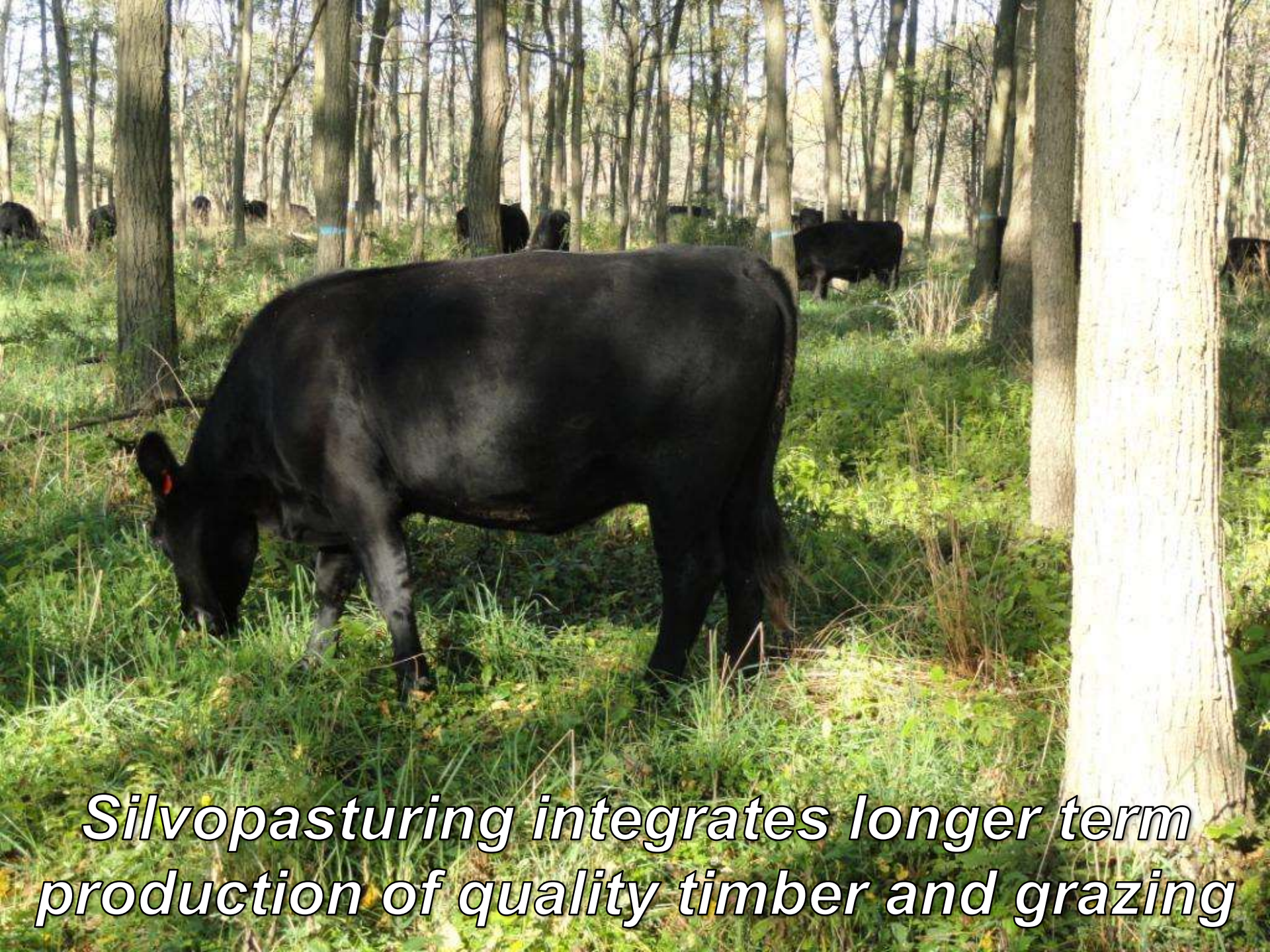
Ungrazed

Grazed

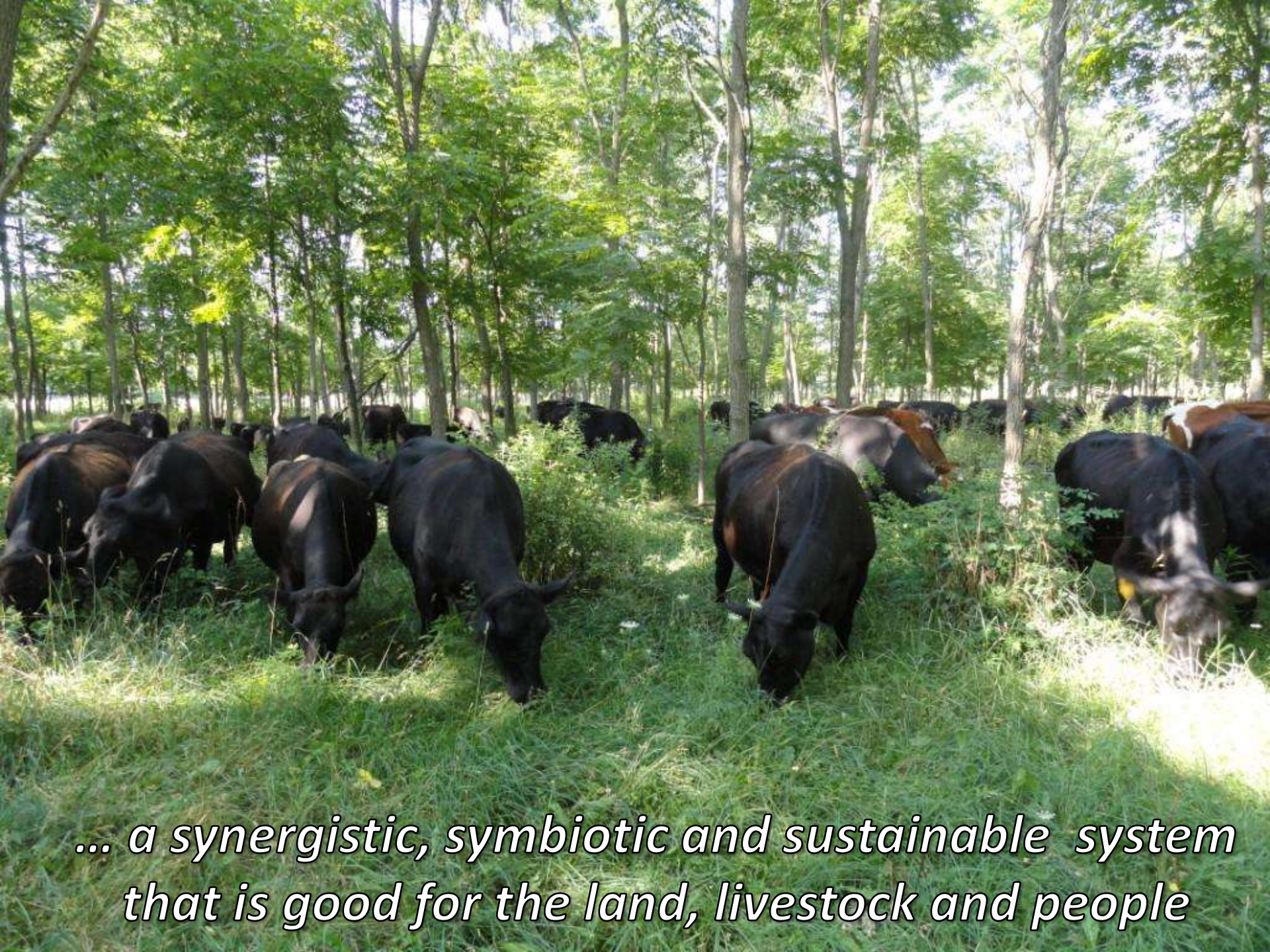
Silvopasture:

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





*Silvopasturing integrates longer term
production of quality timber and grazing*



*... a synergistic, symbiotic and sustainable system
that is good for the land, livestock and people*

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





North Branch Farm
www.adkfigs.com

jno37@cornell.edu

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

Orefice, J., Carroll, J., and L. Ketner. (2016). Photo Guide to Northeastern United States Silvopasture. Available online.

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*. In Press.