

Silvopasturing

*Intensified & Diversified Use of Wooded Landscapes
Presenting New Opportunities for Graziers*

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**South Central
New York
Agriculture Team**



Angus Glen Farms, LLC

angusglenfarm.com

Overview

- *~ 350 acre grazing operation (150 leased acres)*
- *Animal Welfare Approved (AWA) Certified*
- *Started with sheep and goats in 2002*
- *Started with cattle in 2004 with 2 cows/calf pairs*

... today, ~ 120 cows

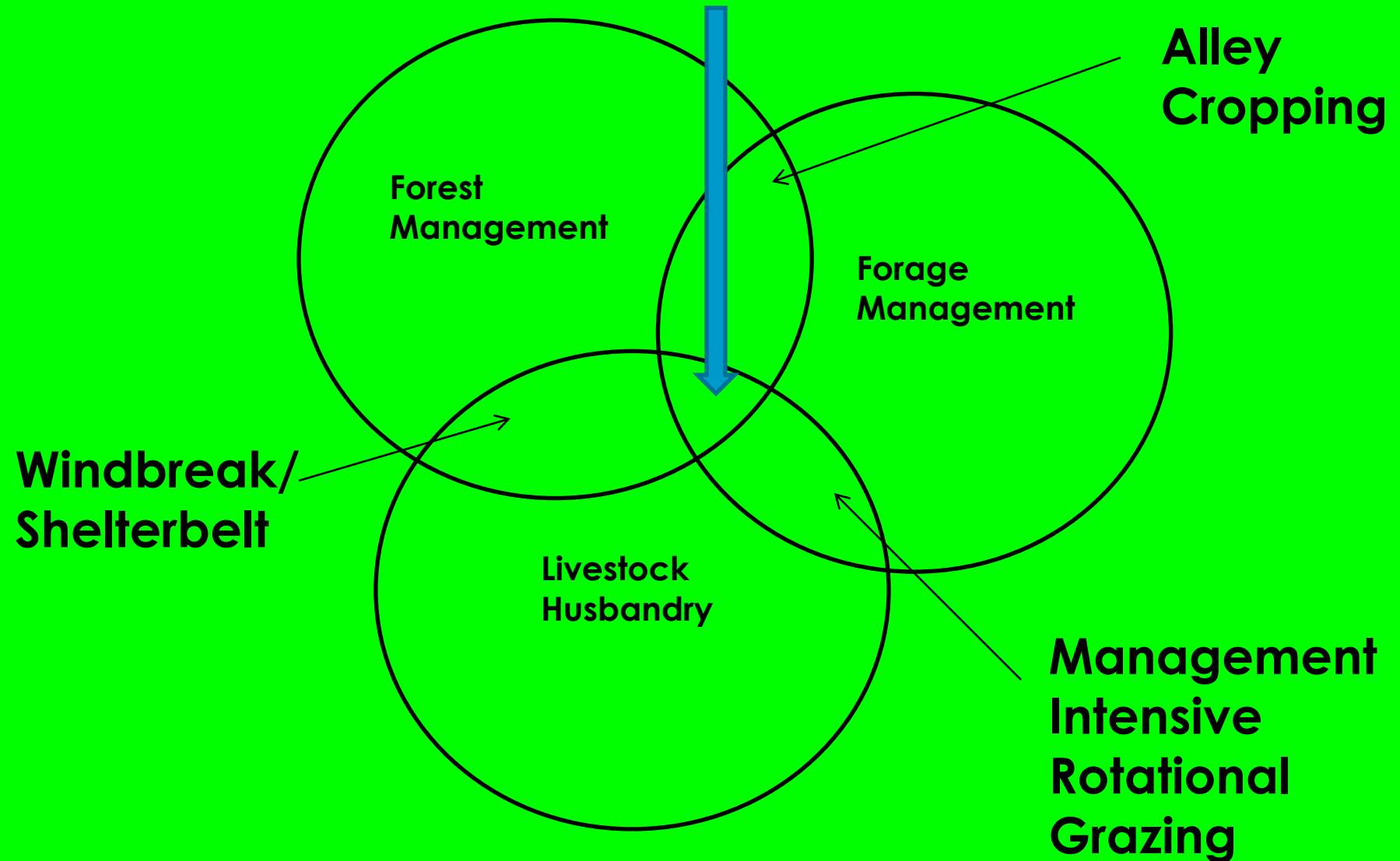


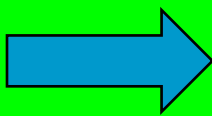


*Silvopasturing: Integrating Sustainable (Quality)
Timber and Forage Production to Optimize “Benefits”*

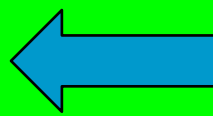
“The Triple Crown of Agroforestry”

Silvopasture



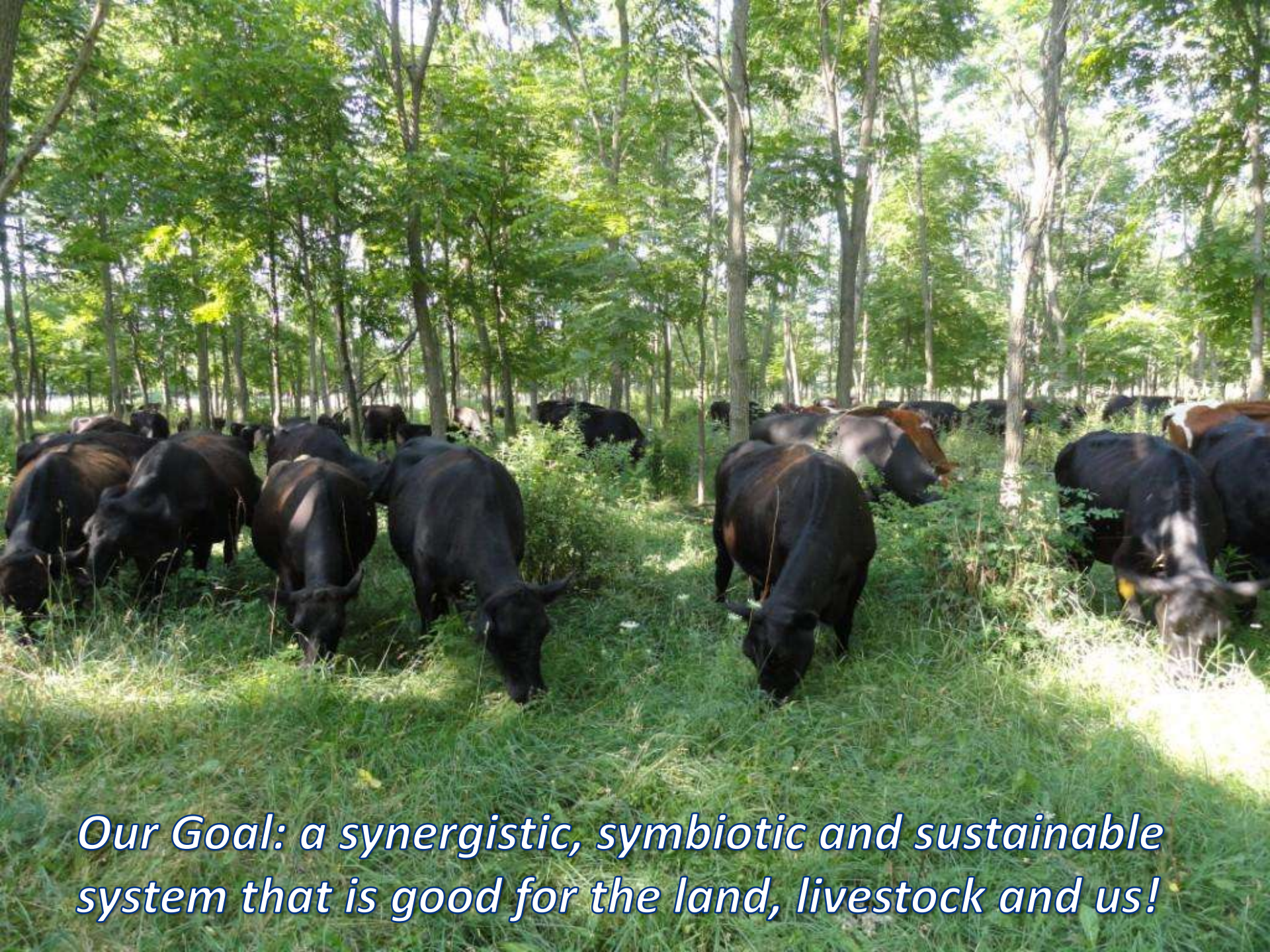


Adding woods to
pasture (or...)



...Pasture to woods





Our Goal: a synergistic, symbiotic and sustainable system that is good for the land, livestock and us!



What Are The Alternatives?



Still a “foreign concept” in the Northeast...

Agroforest Syst
DOI 10.1007/s10457-012-9482-z

Comparing silvopastoral systems and prospects in eight regions of the world

Frederick Cubbage · Gustavo Balmelli · Adriana Bussoni · Elke Noellemeyer ·
Anibal N. Pachas · Hugo Fassola · Luis Colcombet · Belén Rossner ·
Gregory Frey · Francis Dube · Marcio Lopes de Silva · Hayley Stevenson ·
James Hamilton · William Hubbard

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Abstract Silvopasture systems combine trees, forage, and livestock in a variety of different species and management regimes, depending on the biophysical, economic, cultural, and market factors in a region. We

Corrientes provinces, Argentina; La Pampa province, Argentina; northwestern Minas Gerais, Brazil; the Aysén region of Patagonia, Chile; the North Island of New Zealand; the Southeast United States; Paraguay;

... but a widely accepted agroforestry system in other forested regions of the world

Our farm < 2003...





FTX90-L

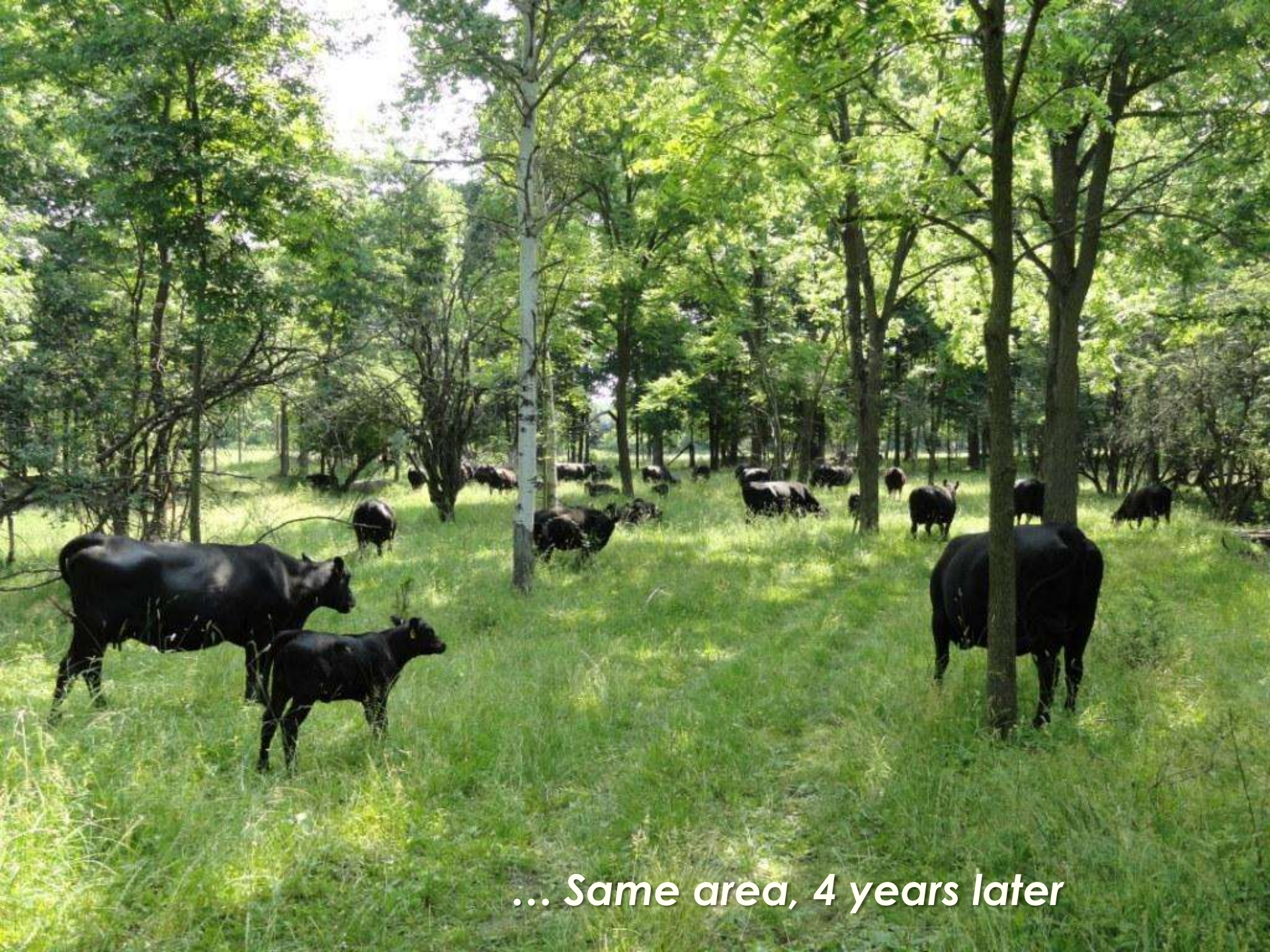


FECON

STAY BACK 3M

2006





... Same area, 4 years later



Understory was previously dominated by dense invasive shrubs





Can Wooded Areas Be Grazed?

Requirements:

- ✓ Good Access
- ✓ Secure Fencing
- ✓ Water
- ✓ Productive Growing Site
- ✓ Well-thinned stand that yields good quantity and quality of food
- ✓ Compatible with landowner goals
- ✓ *Willingness and ability to care for livestock?*



*Intensively-managed,
but not unlike a
modern sugarbush!*

Why Silvopasturing?

- **Management intensive grazing practices and new tools allow better animal control**



“Goats in the Woods” Project, 2000 – 2002

Cornell University’s Arnot Forest (Cayuta, NY)

Intensively-managed goat herds were shown to be effective in the (organic) control of interfering understory vegetation

Why Silvopasturing?

- Management intensive grazing practices and new tools allow better animal control
- *New biomass and fuelwood markets have created opportunities for aggressive commercial thinning*



Why Silvopasturing?

- Management intensive grazing practices and new tools allow better animal control
- New biomass and fuelwood markets have created opportunities for aggressive commercial thinning
- *Farm viability and global food production challenges*



Not to mention meeting the demand for locally-grown foods!

... and new “crops”



Why Silvopasturing?

- Management intensive grazing practices and new tools allow better animal control
- New biomass and fuelwood markets have created opportunities for aggressive commercial thinning
- Farm viability and global food production challenges
- ***Many threats to forest health that need to be counteracted:***
 - *Deer*
 - *Past History and Landowner Apathy*
 - *Invasive Pests*
 - *Interfering Vegetation*



Etc...

- *Engage landowners to be better stewards*
- *Property tax abatement programs?*
- *Provide short-term, annual income from wooded areas*
- *Rehabilitate degraded woodland areas & control invasives.*
- *Stimulate forest regeneration*





*Silvopasture is only as good as
the **quality** and **quantity** of the food available!*

Consequently...



***Over-stocked &
unthinned stands
with barren understories
don't make quality
Silvopastures!***

The Keys to Creating Silvopasture

1. *Modify stand density to allow adequate **sunlight** to reach the ground in a “3-D” system*







The Keys to Creating Silvopasture

1. Modify stand density to allow adequate **sunlight** to reach the ground in a “3-D” system
2. *Meet the germination requirements for desired plant species*



The Keys to Creating Silvopasture

1. Modify stand density to allow adequate **sunlight** to reach the ground in a “3-D” system
2. Meet the germination requirements for target plant species
3. *Management of system to avoid negatively pressuring desirable plants (... or deliberately pressure the undesirables)*





B_Chedzoy

Legend

- b_chedzoy_home_farm
- b_chedzoy_elaine_line_files
- b_chedzoy_reisinger_line_files
- b_chedzoy_reisinger_paddocks
- b_chedzoy_elaine_paddocks2
- b_chedzoy_home_paddocks_polygon



1	6.2
2	6.6
3	6.8
4	3.0
5	1.2
6	4.5
7	5.4
8	3.4
9	5.9
10	6.5
11	6.6
12	3.2
13	2.9
14	3.0
15	2.9
16	3.4
17	2.5
18	1.2
19	3.8
20	2.8
21	1.8
22	1.4
23	2.7
24	1.6
25	2.2
26	1.6
27	1.5
28	2.3
29	2.3
30	2.6
31	3.2
32	2.0
33	2.3
34	2.8
35	3.7
36	2.6
37	2.7
38	2.9
39	3.3
40	2.2
41	1.2
42	0.5
43	1.1
44	3.2
45	3.0
46	2.2
47	3.1
48	4.6
49	1.7
50	0.9

The Keys to Creating Silvopasture

1. Modify stand density to allow adequate **sunlight** to reach the ground in a “3-D” system
2. Meet the germination requirements for target plant species
3. Management of system to avoid negatively pressuring desirable plants

*Think it through...
... and start small!*



Photo: John Hopkins

"Guide to Silvopasturing in the Northeast"

available at: **www.forestconnect.info**



Also visit: **www.silvopasture.ning.com** to ask questions and share experiences