Silvopasturing

Sustainable Woodland Grazing that Benefits Land, Livestock and People

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Silvopasturing: “The managed production of trees and livestock on the same land - over time”

But… the silvopasture is only as good as the quality and quantity of the food available!
Unthinned and over-stocked stands with barren understories don’t make quality silvopastures!
... nor does this
Examples of What Silvopasturing is NOT!
Should Woodlots be Grazed?

The Past:
- “Keep Livestock Out of the Woods!”
- Frequent and “unmanaged” livestock access to farm woodlots resulted in negative impacts

But Today…
- New fencing methods allow for management intensive grazing practices and better animal control
- New biomass and fuelwood markets have created opportunities for aggressive commercial thinning
- Farm viability and world food production challenges (50% more mouths to feed by 2050!)
- Many threats to forest health that need to be counteracted:
  - Deer
  - Past History and Landowner Apathy
  - Invasive Pests
  - Interfering Vegetation
Photo by Molly McGovern
Are there opportunities in the northeast?
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

Something unorthodox, but not so different than a modern sugarbush.
Why Pasture Our Woods? (or why have wooded pastures?)

1. Vegetation Mgmt.
2. Rainfall Interception and Soil Protection
3. Diversified Crops
4. Diversified Diet for Better Livestock Health and Performance
5. Wildlife Habitat Enhancement
6. Emergency, and Drought-resistant Forage Base

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7. Heat and Cold Stress Amelioration and Shelter from Extreme Weather
8. Supplement Seasonal Forage Curves
Nutritional Comparison: Browse, Forbs, Alfalfa

<table>
<thead>
<tr>
<th>Plant</th>
<th>% Protein</th>
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<tbody>
<tr>
<td>Alfalfa</td>
<td>21</td>
</tr>
<tr>
<td>Burdock</td>
<td>29</td>
</tr>
<tr>
<td>Curly Dock</td>
<td>33</td>
</tr>
<tr>
<td>Elderberry</td>
<td>24</td>
</tr>
<tr>
<td>Wild Grape</td>
<td>22</td>
</tr>
<tr>
<td>Willow</td>
<td>20</td>
</tr>
<tr>
<td>Mulberry</td>
<td>26</td>
</tr>
</tbody>
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Source: www.agri-dynamics.com
Etc, etc, etc...

- Improved nutrient recycling
- Improved aesthetics
- Possibly improve quality and quantity of forages?
- Increased stocking capacity on farm
- Increased grazing time in shade = possibly higher average daily gains
- Provide short-term, annual income from wooded areas
- Rehabilitate degraded woodland areas
- Stimulate forest regeneration
- Possible qualification for property tax abatement programs
- Engage landowners to be better stewards
Keys to Establish Sufficient Quality and Quantity of Food in the 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 avoid negatively pressuring desirable plants

Start with a written plan!
Animals alone are *usually* not sufficient to control heavy vegetation (but...)
Mechanical
Girdling and poisoning
Thought: *If Grazing and Silviculture are the “artful application of science”… then, Silvopasturing is a “fine art”*

It requires considerable skill and knowledge of both realms!
“Guide to Silvopasturing in the Northeast”
available at www.forestconnect.info

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