

# Silvopasture From a Forester's Perspective

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As an extension forester for nearly the past two decades, it's been fairly easy to engage private forest landowners who see forest management as their primary land-based activity. This has not been my experience with farmers, who generally view their "woods" as a secondary land-based resource. My impression is that, while farmers value and appreciate their forests, they believe their woods don't require the same kind of intensive inputs and management as other agricultural endeavors.

It is from this perspective that I began looking into various agroforestry practices. Could agroforestry be a tool to engage farm-based woodlot owners? In particular, could silvopasture be a "bridge" between livestock producers and better forestry practices?

I first became interested in agroforestry after learning about work by Cornell University concerning livestock in the woods. Like every other forester, my first reaction was the fundamental teaching that "cows are bad for forests". Like so many things in life, it's not that simple. The potential negative effects of livestock near trees can be avoided with proper livestock management.

Several years later, I have had the opportunity to engage with this silvopasture first-hand. I have seen a silvopasture system established in an open field and have created silvopastures out of existing woodlots. These experiences have required me, a forester, to turn some of my training around to not only keep long-term tree productivity and value in mind but to also incorporate annual components such as forage and livestock needs.

Before, I would enter a woodlot with an eye to regenerating the forest stand and allocating growth resources to woody cellulose (increased diameter growth). Now, I'm one of only a few foresters who know something about animal comfort and growing digestible cellulose (forage). Balancing these demands on a given piece of land is challenging and requires interdisciplinary knowledge and experience.

Finding the right balance between tree spacing that fosters forage growth and maintains tree vigor and form is difficult, especially in thinning an existing forest with inherent variability. For example, too much sudden sunlight on a tree's trunk is stressful. Depending on the severity of the stress it can result in epicormic branching (small whipping branch growth out of the previously "clear" tree trunk), which degrades value or, even worse, results in mortality. This is a big deal to me as a forester... but is losing a few trees a problem to a livestock producer who might largely value the cooling shade for his primary crop of livestock?

We are learning as we go and it's a privilege to work with innovative, creative and risk-taking landowners such as Mr. Nappier and an interdisciplinary team of forage, livestock, and forest professionals. †

systems, it has helped him understand rotational grazing and better pasture management. He hopes to build on his experiences in future land management.

The experience has also provided Mr. Nappier the opportunity to be an educator. The farm is adjacent to a county road, and Mr. Nappier notes that many people traveling through the area now slow down (or stop and chat) to get a better look at the changes he is making. In addition to this casual training, Mr. Nappier has hosted farm tours and worked with extension agents and specialists to explain these efforts to visitors.

Although Mr. Nappier has just gotten started with silvopastures, he recognizes several potential benefits. For him, silvopasture provides greater use of and better opportunity to preserve natural resources. The end result has been aesthetically pleasing as well. As the project progresses he hopes to see two additional benefits: better long-term timber income and better transitioning for the next generation. Mr. Nappier notes that a land inheritance can often be a liability for the heirs. By improving the value of the land, adding infrastructure for farming, and creating opportunities for more valuable future timber harvests, he is creating a more valuable and workable asset for his children. †



↑ Milton Napier (left) and Adam Downing (right) discuss possibilities for Napier's land. Photos by John Fike.