

Brad Hunt
114 Dodge Rd.
Livermore Falls, ME 04254
207-897-3677

FNE02 - 422: Silvopasture Final Report

Project goals are to demonstrate a form of silvopasture. This is the integration of grazing livestock with tree production.

The farm profile remains the same. I am raising beef and dairy replacements. Woodlot management plan remains the same which is to selectively harvest 90 acre woodlot.

Participant George Cummings has been very helpful with this project as he does his own form of silvopasture. Peter Tracy was very helpful with layout of the project. He has continued to give sound advice on the best forest management practices. Tech. advisor Dan McConville also helped with layout and tree selection for silvopasture area. Tree growth will be monitored and recorded for a period of time. Dan will oversee these results.

Project activities began with implementing a forest management plan. Silvopasture was laid out with consideration to quality and type of trees in pasture area. Lower quality trees were removed. Stumps were removed from larger grazing patches. These larger grazing patches were lightly disc harrowed, fertilized and seeded. Areas which would not allow equipment travel were brush cut and broadcast seeded.

All measurable results of this project will be measured and monitored for several growing seasons. Tree growth will be measured and compared to like trees not in silvopasture system. Forage growth will be measured in several different areas and be compared. Animal movement within system has been utilized for two growing seasons. Initial results were somewhat inconclusive. First season was very dry and forage establishment was poor in some areas. Grass grew best in slightly shaded areas, although it still didn't flourish due to lack of rain. Also animals tended to overgraze these areas. Thus it could not be determined if animals preferred these areas due to shade or forage quality. With our understanding of animals it would be easy to determine they were going to go where there is feed. The second season produced much better results. A cold, damp and late spring slowed grass growth early in the season. The arrival of warm weather allowed a more even forage growth in all areas. Animal movement was monitored and found to be favorable. Animals moved throughout the whole system quite evenly. There was skepticism that animals would lay in the shade during hot spells. Our second growing season did not yield a lot of extreme heat, making it difficult to agree or disagree with this theory. It was observed during peak fly season that the animals seemed to enjoy thick brushy areas. It could be determined that the brush gives them something to scratch on, and help remove flies. A sort of natural insecticide. As was suspected animals did browse on small hardwoods, but more so when there was lack of forage. Long term observation and experience will determine how many animals this system will support.

Weather was a major factor in establishing pasture in first season, the lack of rain slowed forage growth. Conditions did improve for second season and forage growth improved.

The second condition affecting results is terrain, which is wetter than realized. Soft ground did not allow travel with wheeled equipment. This area was merely broadcast seeded and is currently growing unfavorable grasses. Animal numbers and seasonal changes may change conditions in that area.

Grazing livestock on pasture is definitely an economic gain as compared to confined feeding. All expenses and labor are greatly reduced. The main goal of this project was to create pasture, tree growth will be an added benefit. Tree growth will be monitored for several seasons, economic gain for trees has not yet been determined. This will take several growing seasons.

My assessment of this project has not generated new ideas at this time. This project has solved the current problem which was lack of pasture. At this time there is no plan for change, system will be monitored for several growing seasons. It is possible for future results to create new ideas.

At this time it is planned to continue to use this system. This system works very well for current farm situation. Future results may change this plan, the situation will have to be assessed at that time depending on results.

Outreach consisted of flyer describing project. Approximately 150 flyers were handed out at local fair. It appeared to attract a lot of interest.

In summary, this project was to create pasture for a small herd of cattle. Approximately ten acres of land was selected to create silvopasture. Lower quality trees were removed to thin area enough for grass production. Results so far have been favorable. Forage production has been established. Most all trees have responded well and look very healthy. Livestock movement within system appears to be quite even between open and shaded areas. At this time, given this situation again, I would create the same system.

**BENEFITS OF SILVOPASTURE
INCLUDE:**

- Conservation of soil that may be lost when these practices are done separately
- Decreased nutrient runoff from pasture, thus better water quality
- Improved habitat for livestock
- Increased wildlife diversity
- Improved soil properties due to added organic matter
- Attractive landscape with an aesthetically pleasing park-like setting



**For more information, or to view
the Silvopasture, contact Brad
Hunt at 897-3677, 114 Dodge
Road, Livermore Falls, ME 04254.**

SilvoPasture



An In-depth Study



WHAT IS SILVOPASTURE?

Silvopasture is the integration of grazing livestock with tree production.

Silvopasturing is a relatively common practice in other parts of the country, but has not been studied extensively in the Northeast. The goal of this study will be to determine if Silvopasturing is a viable option for this region.



WHY SILVOPASTURE?

Silvopasture is primarily used in the South because of the extreme heat. This practice allows the livestock to graze while protected by the shade of the trees. Although this region does not have extreme heat, during the winter silvopasture can offer protection to livestock from wind chill. This practice can also be beneficial to farmers who own and manage woodlots.



METHODS USED IN THIS PROJECT:

Removed least valuable tree growth from selected area
Stumps were removed from certain areas
Study will consist of monitoring tree growth and grass production

OBJECTIVES OF THIS PROJECT:

To establish Silvopasture from unmanaged woodlands
Determine if Silvopasture is a viable practice for the Northeast with the major benefit being tree production



RESULTS OF THIS PROJECT:

Results of this project will be measured in the following ways:
Biomass sampling – clipping plants at the surface from a given area and drying and weighing them to determine volume of plant growth, then comparison of these results with open pasture.
Observations of livestock movement
Tree growth will be measured and compared to woodlot not in silvopasture