

Silvopasture

What is Silvopasture?

It is the Agroforestry practice of managing trees, forage and livestock on the same plot of land.

Why use Silvopasture?

Livestock benefit from shade provided by trees as well as the forage that grows between them. Trees benefit from the soil nutrients in the livestock manure. Trees offer longer term products, such as high-value timber, fruits, and/or nut crops while the livestock offer shorter term products to sell, so the fixed costs of production are spread across more than one enterprise.

Production

Different silvopasture management options include:

- Timber (lumber/wood) and pasture grazing or browse
- Fruit, nut or berry trees/shrubs with livestock grazing
- Christmas trees and livestock grazing

Planted pine silvopasture is the most common option in the southeast United States. This option uses pine trees planted at “wide” spacing with open ground, or alleys, between tree rows that are used for grazing. While trees are young, they must be protected from livestock (fenced out for example), but later that protection can be removed. Pine trees already planted can also be thinned and forages planted for grazing.

Points to consider:

Livestock

Livestock choices usually include cattle, goats, sheep, or horses, but others could be used. Animals must be managed so they do not damage trees too much but still get the forage they need. Therefore, rotational grazing is recommended.

Trees

Trees can be arranged in single or multiple rows and in block plantings. They must be deep rooted, fast growing and responsive to pruning. Tree spacing should allow enough light for quality forage growth.

Forage & Browse

A variety of shrubs, grass, legumes and forbs can be used for forage and/or browse. Their selection will depend on livestock species, but must stand up to grazing and some shade.

Soil

A successful system needs fertile, well drained soil with a proper pH for the forages used. Soil erosion control is necessary.

What can you make money on?

- Tree products: fence posts, fire or fuel wood, pulpwood, and sawn timber from lumber trees; fruits, nuts, Christmas trees and more
- Livestock products: meat, eggs, milk, wool/fiber, leather and feathers
- Other: wildlife habitat for hunting and hunting leases; hay and silage; crops grown in alleys in rotation with livestock

Funding sources

There are agencies or organizations that may offer programs or assistance for landowners to help use silvopasture or other agroforestry practices.

Possible programs for North Carolina's landowners include:

- The Natural Resources Conservation Service (NRCS) with programs such as EQIP (Environmental Quality Incentive Program), Conservation Reserve Program (CRP) and others
- U.S. Fisheries and Wildlife programs
- State level programs from the US Forest Services and others
- Southern Region Sustainable Agriculture Research and Education (SARE) Program
- Non-Governmental Organizations (NGOs) such as Quail Unlimited, Ducks Unlimited and National Wild Turkey Federation.

For more information, contact your nearest County Extension Center, Soil & Water Conservation District, State Forestry Agency, USDA NRCS Office or a local natural resource consultant.

Advantages of Silvopasture

- Livestock/hay provides faster cash flow
- Shade from trees protects animals
- Shade improves growth of some forages
- Nutrient cycling is improved
- Erosion on grazing land is reduced
- Ongoing pasture operations are enhanced

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Resources:

National Agroforestry Center
USDA – NRCS
USDA – Forest Services
www.unl.edu/nac/