

U.S. Department of Agriculture



Silvopasture

What is silvopasture?

Silvopasture is the deliberate integration of trees and grazing livestock operations on the same land. These systems are intensively managed for both forest products and forage, providing short-term and long-term income sources. Well-managed silvopastures apply agronomic principles using a variety of native or introduced forages, provide reasonable nutrient inputs and nitrogen-fixing legumes to foster fertility, and utilize rotational stocking and other top grazing management approaches. Silvopasture optimizes forage utilization and ecological well-being of soil, water, air, and biological resources on the farm.

Why silvopasture?

- Diversify on-farm income
- Increase biological diversity
- Improve forage quality
- Provide wildlife habitat
- Provide shade for livestock
- Reduce wildfire risk
- Control insects
- Minimize risk of low pulp market prices
- Increase access for salvage after disturbance
- Boost opportunity for recreational activities
- Sequester carbon in soil and vegetation





Benefits of silvopasture

- Protects water quality
- Reduces soil erosion
- Improves water holding capacity of soil
- Improves nutrient cycling
- Increases tree growth rates
- Improves animal performance
- Reduces forest fuel load
- Increases biological diversity (turkey, quail, songbirds, deer)
- Looks good (aesthetics) and increases property value
- Increases cash flow while trees grow
- Is sustainable (can reduce need for chemical and mechanical controls of tree stands)

For more information visit: <u>bit.ly/silvo</u> USDA is an equal opportunity provider and employer.



Silvopasture

Silvopasture for a better future

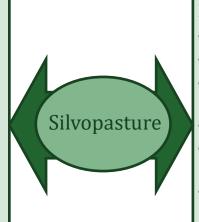
Extreme weather is occurring more frequently. Rainfall events are becoming increasingly further apart, making drought conditions worse. Rainfall events are also becoming more drastic. Extreme rainfall events, combined with the longer wait time between rainfall, can cause severe flooding. Silvopasture practices can mitigate the negative effects of extreme weather events.



Management Inputs

- Canopy management
- Tree protection
- Weed control
- Soil amendment
- Hay harvest
- Tree pruning
- Rotational grazing
- Pasture renovation
- Grazing management based on total forage production

Graphic adapted from Brantly (2014)



Results

- Diversification of income streams
- Shorter forest rotation
- Shaded, cool season forage plants can be more nutritious for livestock
- Improved plant nutrient uptake
- High-value woodland products from active limb management
- Cooler environment in summer for livestock
- Some wind and weather protection



Help your lands, help your pockets

The annual grazing income helps cash flow while the tree crop matures. Using silvopastures creates easy access to trees, or tree products, when it is time to harvest. While these systems can require a number of management activities, the benefits can make it worthwhile. One of the greatest benefits of silvopasture to farms in the Southeast is reducing heat stress during hot periods. Taking preemptive action to overcome the threats of rising temperature and unpredictable precipitation patterns is a smart move and silvopasture management can be a part of that strategy. Even in current conditions, summer pastures with available shade are a desirable feature. Providing tree shade to livestock can increase the efficiency of feed resources. Trees also provide shelter from high winds, snow, and rain.

Contact the USDA Southeast Regional Climate Hub for more information: Steve McNulty, steven.mcnulty@usda.gov | Michael Gavazzi: michael.gavazzi@usda.gov Or visit our website at: <u>bit.ly/silvo</u>

