

Silvopasture Establishment

North Carolina Practice Job Sheet 381

Prepared for: _____

Prepared by: _____

Farm: _____ Tract: _____ Date: _____



DEFINITION

Silvopasture is an agroforestry practice that combines and integrates trees with forage and livestock production on the same management land unit. Trees are generally managed for high-value products over the long term and, at the same time, provide annual income from livestock and forage production. Additionally a silvopasture system provides shade, can reduce livestock stress and often increase forage production. Sometimes nut and fruit trees are grazed in a silvopasture system. Landowners must be prepared to engage in some management of both tree and forage components over time as silvopasture is not a “plant it and leave it” system.

PURPOSE

Silvopasture establishment is used to enhance and diversify production on a farm by providing forage and tree/shrub products, reducing soil erosion, improving water quality, enhancing wildlife habitat, increasing net carbon storage and reducing fire hazard. Fields selected for silvopasture establishment must be suited to production of both the woody and forage species desired.

APPLICATION

Silvopasture is normally established concurrently with prescribed grazing, forest stand improvement and other practices as part of a resource management system for a conservation management unit. Silvopasture can be established on pasture where trees/shrubs are added, or more commonly, in existing forestland where forages can be added to provide additional grazing. When wildlife enhancement is a concurrent purpose, native or adapted tree/shrub species beneficial to the target wildlife and pollinator species become part of the site-specific specifications.

Tree/shrub spacing, either planted or thinned, is determined by the light needs of the forage plants, tree management objectives and machinery widths. Forages that have been used in successful silvopasture in the Southeast include bahiagrass, tall fescue, bermudagrass and some native grasses. Grazing must be deferred until trees are a sufficient size to withstand animal grazing. Adequate watering facilities are required to supply livestock needs. Fencing, permanent and temporary, is required to manage grazing. Intensive tree management, including pruning is often required.

Prepared for _____ Tract _____ Field number _____

Silvopasture Establishment DESIGN & SPECIFICATIONS

Site-specific requirements are prepared in accordance with the NRCS Field Office Technical Guide.

Purpose (check all that apply)

- | | |
|--|--|
| <input type="checkbox"/> Provide forage for livestock while providing production of wood products. | <input type="checkbox"/> Enhance wildlife habitat. |
| <input type="checkbox"/> Increase carbon sequestration. | <input type="checkbox"/> Reduce fire hazard. |
| <input type="checkbox"/> Improve water quality. | <input type="checkbox"/> Provide shade for livestock. |
| <input type="checkbox"/> Reduce erosion. | <input type="checkbox"/> Develop renewable energy systems. |

Silvopasture Establishment

Total Area of Silvopasture Planned: _____ ac.
 Trees Species: _____ Forage Species: _____

¹Distance available for herbaceous crops; set equal to multiple agricultural equipment widths.
²Distance from center of one set to center of the next set.

Plant Materials Information

Woody tree/shrub sets	1	Alley	2	Alley	Alley Sets
Planting Date (range): _____ to _____		Profile View of Alley Cropping System crops/forage			Alley Crop(s):
Rows trees/shrubs in set 1: _____ Width of set 1: _____ ft		Aerial View of Alley Cropping System			
Rows trees/shrubs in set 2: _____ Width of set 2: _____ ft					
Note: Woody sets will usually contain multiple rows of trees/ shrubs.					

WOODY PLANT MATERIALS LIST AND PLANTING SPECIFICATIONS Species/cultivar by set number and row number ¹	Kind of stock	Planting Dates	Distance between plants within row (ft)	Distance (ft) from this row to next row ²	Total Est. plants needed
Set #1: (by rows below)					
1					
2					
3					
4					
Set #2: (by rows below)					
1					
2					
3					
4					

¹Include size, caliper/collar diameter, height, and age as applicable.
²Adjusted for width of maintenance equipment.

Additional Notes or Requirements:

Prepared for _____ Tract _____ Field number _____

Temporary Storage Instructions (Check for any utilities (underground or overhead before planting woody sets!!!)

Planting stock that is dormant may be stored temporarily in a cooler or protected area. For stock that is expected to begin growth before planting, dig a V-shaped trench (heeling-in-bed) sufficiently deep and bury seedlings so that all roots are covered by soil. Pack the soil firmly and water thoroughly.

Site Preparation

Remove debris and control competing vegetation to allow enough spots or sites for planting and planting equipment. Add soil amendments as follows:

Additional requirements:

Planting Method

For container and bareroot stock, plant stock to a depth even with the root collar in holes deep and wide enough to fully extend the roots. Pack the soil firmly around each plant. Cuttings are inserted in moist soil with at least 2 to 3 buds showing above ground.

Planting Equipment:

Additional requirements:

Operation and Maintenance

Establishment: Replace dead or dying tree/shrub stock, continue controlling competing vegetation, provide supplemental irrigation if needed and feasible.

After Establishment: Inspect periodically for pest/disease problems. Protect from fire, livestock grazing and herbicide damage. Prune woody sets as required to maintain light in alleys and produce desired quality of tree/shrub products.

Additional Requirements:

Certifications

Landowner/Operator

I HAVE REVIEWED THIS PLAN AND HAVE THE REQUIRED INFORMATION TO INSTALL THIS PRACTICE

SIGNATURE:

DATE:

<i>Design</i>	Plans & specifications prepared by:	Title:	Date:
	Approved by:	Title:	Date:

<i>Installation</i>	Meets NRCS standards and specifications? <input type="checkbox"/> YES <input type="checkbox"/> NO	Date:
	Certification by:	Title:

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