NATURAL RESOURCES CONSERVATION SERVICE
MONTANA CONSERVATION PRACTICE JOB SHEET

SILVOPASTURE ESTABLISHMENT (ACRE)

CODE 381

Definition

Silvopasture is an agroforestry application establishing a combination of trees or shrubs and compatible forages on the same acreage.

Purpose

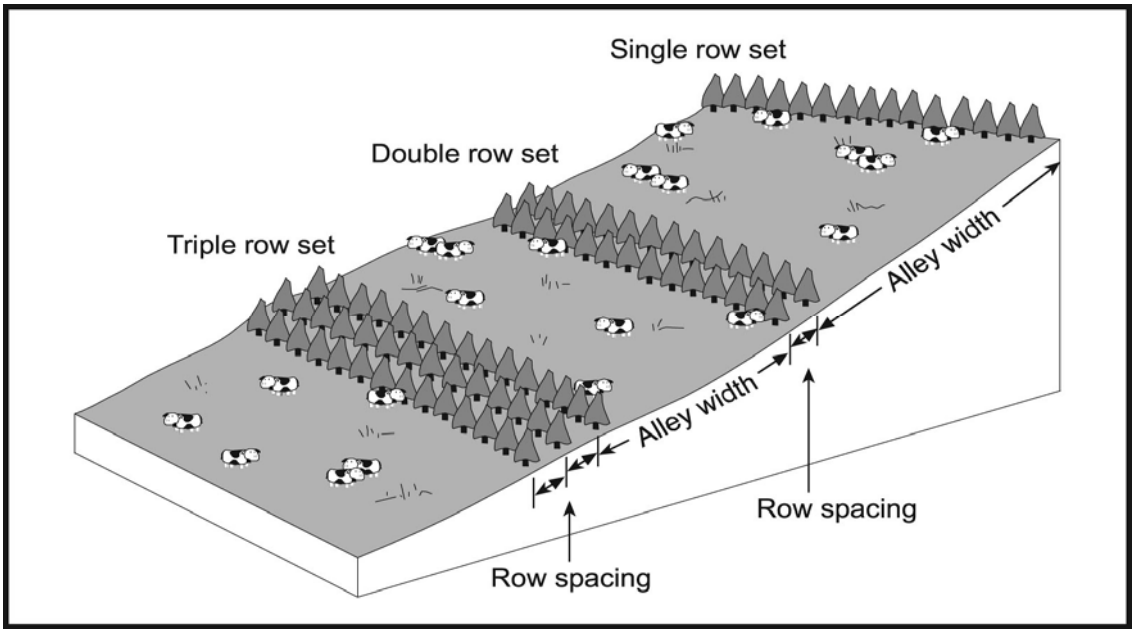
Silvopasture is used to provide forage for livestock and the production of wood products, to increase carbon sequestration, to improve water quality, to reduce erosion, to enhance wildlife habitat, reduce fire hazard, and to provide shade for livestock.

Where used

Situation where silvopasture establishment applies includes:

1) Pasture where trees or shrubs can be added;
2) Forest where forages can be added;
3) Land on which neither the desired trees nor forages exist in sufficient quantity to meet the land user's objectives.

This practice may be applied on any area that is suitable for the desired plants.



Typical layout diagram showing alley width, row spacing, and tree sets for establishing a silvopasture system in existing pasture. Trees may be grown in single rows or in aggregate rows called sets with wide alleys for forage production between sets. Planting arrangements should consider management objectives, equipment operability, and tree-forage species needs.

Resource Management System

Silvopasture is normally established concurrently with prescribed grazing, nutrient and pest management, forest stand improvement, and other practices as part of a resource management system for a conservation management unit. When silvopasture is used for soil erosion control, trees or shrubs are planted on the contour and/or perpendicular to prevailing winds in conjunction with herbaceous vegetation. When wildlife habitat enhancement is a concurrent purpose, native or adapted tree or shrub species beneficial to the target wildlife species become part of the site-specific specifications.

Wildlife

Silvopasture provides excellent opportunities to improve wildlife habitat for some species by providing desirable forage, ground cover, improving vertical structure, and increasing habitat diversity.

Operation and Maintenance

Replace dead and dying woody species in newly established plantings. Care must be taken to use chemicals or chemical applications that are compatible with both the woody plantings and the herbaceous plant material. Thin the woody planting to maintain forage production. Pruning may be needed to adjust light levels, improve wood products, provide adequate space for machinery, or improve health of trees. Protect trees and shrubs from damage by livestock or harmful wildlife. Damaging pests will be monitored and controlled.

Specifications

Site-specific requirements are listed on the specifications sheet. Additional provisions are entered on the job sketch sheet. Specifications are prepared in accordance with the NRCS Field Office Technical Guide, practice standard Silvopasture – Code 381.

Silvopasture – Job Sheet

LANDOWNER	FIELD / MANAGEMENT UNIT		DATE
LEGAL DESCRIPTION	CONTRACT ITEM NUMBER	AREA (ACRES)	JOB CLASS

Purpose (check all that apply)	
☐ Provide forage for livestock and the production of wood products	☐ Enhance wildlife habitat
☐ Increase carbon sequestration	☐ Reduce fire hazard
☐ Improve water quality	☐ Provide shade for livestock
☐ Reduce erosion	

Layout – Existing Pasture	
Alley System	**Natural System**
Alley width (ft):	Plant to plant spacing (ft):
Number of rows per set:	
Row and plant to plant spacing (ft):	
Cultivated strip width – around new planting (ft):	
Tree/shrub set orientations:_____Contour; _____North/South, _____East/West, ☐ Other (specify_____)	

Layout – Existing Forest
Spacing between existing trees (ft):
Desired spacing between trees (ft):
Herbaceous material – species to establish:

Woody Plant Materials Information – Alley System					
Planting date:					
Species by set and row number: (indicate set and row numbers on the job sheet sketch)	Kind of stock[1]:	Distance between plants (ft):	Row length (ft):	Number of plants for row:	Total per set
Set # 1: 1					--
2					--
3					--
4					
Set # 2: 1					--
2					--
3					--
4					

[1]BAreroot, Container

Silvopasture – Job Sheet

Woody Plant Materials Information – Natural System					
Planting date:					
Species:	Kind of stock[1]:	Distance between plants (feet):	Number of plants per acre:	Number of acres:	Total number plants needed for practice:
1					
2					
3					
4					

Herbaceous Plant Materials Information				
Planting date:				
Species/cultivar by set and row number: (indicate set and row numbers on the job sheet sketch)	Broadcast or drilled:	Rate (#'s PLS/ acre):	Area treated (acres):	Total per set (#'s PLS):
Set # 1: 1				
2				
3				
4				
Set # 2: 1				
2				
3				
4				

Soil Map Units

Conservation Tree/Shrub Suitability Group (CTSG)

Silvopasture – Job Sheet

Site Preparation

Care, Handling, and Storage for Woody Planting Stock

Planting and Protection

Operation and Maintenance

Additional Specifications and Notes:

Silvopasture – Job Sheet

If needed, an aerial view or a side view of the practice can be shown below. Other relevant information, complementary practices and measures, and additional specifications may be included.

Scale 1" = _____ ft. (NA indicates sketch not to scale: grid size = 1/2" by 1/2")

Attached Plan Map: Yes □ No □

Approvals:

NRCS Conservationist	**JOB APPROVAL AUTHORITY**	**Date**
Producer		**Date**

Silvopasture – Job Sheet

Installation and Certification:

Conservation Management Unit or Field Number:_____

Acreage of Treated Area:_____ Adequate:_____

Conservation Tree/Shrub Suitability Group (CTSG):_____

Method of Site Preparation:_____ Adequate:_____

Woody Plant Materials Selected and Number of Plants Installed:

Species:_____ Number Installed:_____ Adequate:_____

Species:_____ Number Installed:_____ Adequate:_____

Species:_____ Number Installed:_____ Adequate:_____

Species:_____ Number Installed:_____ Adequate:_____

Method of Vegetative Competition Control:_____ Adequate:_____

Existing Pasture - Alley System:

Distance between Plants and Row:_____Feet Adequate:_____

Number of Rows per Set:_____ Adequate:_____

Alley Width:_____Feet Adequate:_____

Width of Cultivated Strip Around Planting:_____Feet Adequate:_____

Percent Survival Rate (2nd Year):_____% Adequate:_____

Existing Pasture - Natural System:

Distance between Plants:_____Feet Adequate:_____

Percent Survival Rate (2nd Year):_____% Adequate:_____

Existing Forest:

Desired Spacing between Trees:_____Feet

Distance between Existing Trees:_____Feet Adequate:_____

Silvopasture – Job Sheet

Herbaceous Plant Materials Selected and Amounts Applied:

Species:_____ Amount Applied:_____ Adequate:_____

Species:_____ Amount Applied:_____ Adequate:_____

Species:_____ Amount Applied:_____ Adequate:_____

Species:_____ Amount Applied:_____ Adequate:_____

CERTIFICATION STATEMENT:

I hereby certify that this practice has been installed in accordance with NRCS standards and specifications.

NRCS Conservationist	**JOB APPROVAL AUTHORITY**	**Date**
		Date