

Tree/Shrub Site Preparation

Virginia Conservation Practice Job Sheet

490



Definition. Tree and Shrub Site Preparation is treating areas to improve the site conditions for establishing trees and or shrubs.

Purpose. To encourage natural regeneration of desirable woody plants and to permit artificial establishment of woody plants.

Conditions where practice applies. This practice is applicable to cutover forest land, pastureland, hay land, crop land, fallow land, or any other land suitable for tree/shrub growth.

Implementation methods.

Mechanical Site Preparation: Mechanical site preparation may consist of one or more of several treatments.

For previously forested cutover land the site preparation may involve bulldozing logging slash and piling in windrows along the contour with a root-rake to minimize soil disturbance and displacement. Piling the logging debris into windrows will create an area suitable for hand crews to plant trees between the windrowed debris.

Cutover forest land may also be treated with a rolling drum-chopper. This large machine is pulled behind a bulldozer. The drum chopper will knock down any standing tree saplings or understory vegetation that was not cut during the harvest operation and it will chop the debris on the ground into smaller pieces to facilitate faster decomposition. In most cases, this method is followed by a prescribed burn.

Newer site preparation machinery for cutover forest land also includes mulching machines that grind the logging debris into small pieces while crossing the site. This better distributes nutrients from the logging debris across the site instead of piling the debris into windrows.

In some areas, bedding the cutover land before planting is a common mechanical site preparation method to create a better seedbed for the desired tree species.

For land that was previously cropland, hay land or pastureland, the following mechanical methods are appropriate for use as forest site preparation:

- Use rotary brush cutters, mowers or bush-hogs to cut down existing vegetation.
- Scalp the area to remove the top layer of sod on the narrow row where the tree seedlings will be planted. This removes the competing herbaceous species from directly around the seedlings to enhance seedling survival.
- Disk the area to facilitate proper site conditions conducive to artificial regeneration. The number of disk passes required to achieve a well prepared site will depend on the type and amount of existing surface vegetation.

Chemical Site Preparation: Chemical site preparation consists of using an appropriately labeled herbicide to kill unwanted competing vegetation.

Chemical Site Preparation may be accomplished using ground based applications through heavy equipment that is driven over the land, by using aerial sprayers mounted to helicopters, or by using spray equipment mounted to normal agricultural tractors. Use appropriate herbicides labeled for the species to control, site conditions, and use in proximity to water and follow all instructions as outlined in the Virginia Pest Management Guide (2009 edition and subsequent revisions) as maintained by the Virginia Cooperative Extension Service.

Observe appropriate setbacks from water resources and adjoining land to prevent chemical drift from damaging other resources.

Fires as Site Preparation: If prescribed fire is to be used for Tree/Shrub Site Preparation, refer to Virginia Conservation Practice Standard *Prescribed Burning* (Code 338). A Virginia Certified Prescribed Burn Manager must prepare a burn plan.

Conservation Management System. Tree/shrub site preparation may be a component on most conservation management systems that address the soil, water, air, plant, and animal needs, including wildlife.

Specifications. Practice specifications will be developed individually for each site with the landowner. Specifications will address the requirements that are needed to properly prepare the site for the next crop tree planting. These recommendations will vary widely due to differences in site conditions, soils, desired crop tree species, previous crops and previous site manipulation. All decisions concerning location, site preparation methods and other specific technical decisions will be documented on this job sheet or other acceptable method.

Operation and Maintenance. O&M will consist of maintaining erosion control measures and controlling locally invasive and noxious plants as necessary. Access by vehicles or equipment during or after site preparation shall be controlled to minimize erosion, compaction and other site impacts.

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Client:			County:
Farm #:	Tract #:	Program:	Date:
Assisted by:			

Purpose: (Check all that apply)
<input type="checkbox"/> Encourage natural regeneration of desirable woody plants.
<input type="checkbox"/> Permit artificial establishment of woody plants.

Method: (Check all that apply)
<input type="checkbox"/> Mechanical Site Prep (Shearing, Root Raking, Drum Chopping, Disking, Bedding, Sub-soiling and Ripping, Scalping)
<input type="checkbox"/> Chemical Site Prep (Foliar Spray, Soil Application, Single Stem Treatments)
<input type="checkbox"/> *Site Prep Burn (Prescribed Burn)
*If Prescribed Burn is planned, the burn should be conducted according to a plan prepared by a Certified Prescribed Burning Manager. Follow Virginia Conservation Practice Standard <i>Prescribed Burning</i> (Code 338).

Amount:		
	Stand/Field #	Stand/Field #
Mechanical Site Prep (ac)		
Chemical Site Prep (ac)		
Site Prep Burn (ac)		
Species to be Established		
Site Index		
Soil Type(s)		

Comments or additional installation instructions:

Installation shall be in accordance with the specified drawings, specifications, and special requirements. **No changes are to be made in the drawings or specifications without prior approval from the technical specialist developing the plan.**

Sketch of Layout (Conservation Plan Map may be substituted)