

~~WOODLAND~~ ^{FOREST} SITE PREPARATION (Acre)

Technical Standard

Definition

Treating areas to encourage natural seeding of desirable trees or permit reforestation by planting or direct seeding.

Purpose

To prepare land for establishing a stand of trees to conserve soil and water, improve watersheds, or to produce wood crops.

Where Applicable

On under stocked areas, recently harvested areas, or areas of undesirable vegetation where wood crops can be grown.

Technical Specifications

A. Species

Special site preparation is often needed to encourage natural seeding of intolerant and wind disseminated species. This includes the native pines (loblolly, shortleaf, Virginia, pitch, and white), yellow-poplar, sweetgum, cottonwood, sycamore, and birch. For successful germination and establishment of these species, the following conditions are necessary:

1. A seedbed of exposed mineral soil (at least 30 percent of the mineral soil exposed).
2. Sufficient quantities of direct sunlight reaching the ground to have a warming effect.

B. Method

1. Scarification During Logging

Logging equipment should be used in a manner which stirs the forest floor and mixes the litter and mineral soil. Make deliberate attempts to skid logs over different paths. Use of bulldozers with root rakes for slash piling does a good job of scarifying.

2. Disking and Chopping

Heavy disks or drum choppers may be used to destroy existing vegetation. This equipment should be limited to sapling size or smaller vegetation.

3. Shearing

The use of a KG blade is effective in shearing nearly any size vegetation. The "stinger" can split larger trees and stumps. Windrows should be kept small and narrow. Align windrows on the contour when possible.

4. Manual Treatment

Herbicides and girdling should be used to destroy existing vegetation where practical. The specifications for "Woodland Improvement" (666), Section IV, of the Technical Guide, should be used when recommending chemicals or girdling.

5. Any combination of the above four methods.

C. Erosion Control

1. Disking, chopping, and other soil disturbing operations should be done on the contour.
2. On steep slopes, windrows of slash placed on the contour will help control sedimentation.
3. Avoid site preparation work within 150 feet of a stream or other body of water.

D. Protection

1. Fire

Construct and maintain firebreaks around seeded or planted areas, where feasible. For details of firebreak construction, consult "Firebreak" (394), Section IV, of the Technical Guide.

2. Livestock

Exclude grazing animals from reproduction areas. For details, consult "Livestock Exclusion" (472), Section IV, of the Technical Guide.

3. Diseases - White Pine Blister Rust

Where natural seeding, direct seeding, or planting of white pine is planned on areas above 3,000 feet in elevation, currants and gooseberry (Ribes spp.) plants should be eliminated by grubbing or chemical methods throughout the area to be reforested as well as a 400-foot surrounding zone prior to the end of the first growing season. Thereafter, the area should be examined periodically and, if necessary, retreatment of the Ribes made throughout the control area.

E. Maintenance

1. Release

After establishment, release desirable seedlings from any competing undesirable species, where necessary. Use one of the methods described under "Woodland Improvement" Specification (666) in Section IV of the Technical Guide.

2. Stocking

a. Natural Seeding

- i. Approximately 500 well distributed, desirable seedlings per acre (an average distance of 9-10 feet apart) 1 year of age or older and free to grow, is reasonably good stocking.
- ii. A minimum of 300 desirable seedlings per acre (an average distance of 12 feet apart), free to grow, may be adequate, if they are uniformly distributed.

b. Tree Planting

See specifications for spacing in Tree Planting (612), Section IV, of the Technical Guide.