

ANCHOR CHAIN

Objectives

The purpose of anchor chaining is to provide a mineral soil seedbed for natural or artificial seeding, or for planting.

Anchor chaining, if done in early summer, will also reduce competition from brush and aspen suckers by disturbing their root systems. This is most effective if performed one growing season post-harvest.



Suitable Site Conditions

The anchor chain is best suited for well-drained soils with less than 35 percent surface rock larger than 6 inches. The most suitable soils are coarse and medium texture, at least 12 inches deep. Slash and high-cut stumps can have an adverse effect on success of operation. Heavy slash should first be pushed into compact piles or minimized during logging operations by full tree skidding. Slopes should be less than 25 percent for reasons of safety, job performance, and erosion hazard. Sites exceeding these conditions will reduce the effectiveness and efficiency of the operation. There should be a minimal number of residual live trees, as these may be difficult to avoid when the operator makes turns while traversing the site.

Equipment

The chains (owned by the State or other agency) weigh about 7000 pounds, and are typically transported to each site by DNR, using a J-5 type trailer pulled behind a 1-ton pickup.

Minimum skidder size is a John Deere 648 (172 gross hp) or equivalent.

A loader truck is also required, in order to safely unload and reload the chains on the trailer.

Operational Techniques

The anchor chains are pulled by the skidder at a rate of 2 to 3 miles per hour. The operator should pull them in a straight line as much as possible. Anchor chaining must be done when the soil is not frozen. A double pass will increase the amount of scarification, and may be necessary unless the slash load is light.

Summary

Advantages:

1. Light on the land--no risk of topsoil removal
2. Less expensive than most other site prep methods
3. Can be effective even on rocky sites
4. May eliminate the need for herbicide treatment

Disadvantages:

1. Cannot be used on heavy slash
2. Awkward to move between sites
3. Cannot be used on frozen soils