

ROLLER CHOPPER

Purpose

The roller chopper is designed to knock down and chop up brush and trees up to about 3 inches in diameter. It also will sever some shallow roots. It is very heavy but can be pulled with a prime mover, usually a skidder. The drum can be filled with water for extra weight.



Suitable Site Conditions

The roller chopper should not be used on sites that are wet because of its weight and the compaction and rutting that can result from the skidder. It can be pulled through light and medium slash. Heavy fresh slash will cause the blades to ride up over the ground and not be as effective in chopping vegetation.

Equipment Specifications

A roller chopper has grader blades mounted on a large drum approximately 6 feet in diameter and 8 feet wide. It requires a prime mover, either a crawler or a skidder, of 120 hp. or more.

Operational Techniques

Roller chopping might be considered as a way to control brush competition instead of herbicides prior to seeding or planting. Effectiveness is dependent on timing. Roller chopping should be scheduled as soon after leaf out as ground conditions allow. The theory is that chopping following leaf flush will kill the aerial stems and have reduced re-sprouting due to root reserves being depleted by the initial spring flush of leaves. Shallow surface roots will also be disturbed. A single pass can do a good job on standing hazel, balsam fir, and aspen regeneration. Sometimes a second pass is helpful to smash slash and brush closer to the ground and to create a bit more soil disturbance if the site is to be seeded. Soil disturbance and exposed mineral soil is minimal with roller chopping, compared to patch or disk trench

scarification.

Roller chopping might be used for pre-commercial thinning in dense stands, however the frame around the drum and the prime mover can cause damage to trees adjacent to the chopped rows. (see picture). Therefore it is not recommended for pre-commercial thinning in pine.

Summary

Advantages:

1. High productivity and low cost.
2. Possibly eliminates need for herbicide.
3. Can “clean” up a site of residual trees, slash and brush.
4. Minimal soil disturbance reducing opportunities for invasive and noxious weeds.

Disadvantages:

1. Works poorly in heavy slash.
2. Minor soil disturbance for seedbed.
3. Timing is important.
4. Potential for re-sprouting.



Roller chopper before treatment.



. . . .and after treatment.