

RAKING

Purpose

The purpose of raking is to prepare a site for planting or seeding. It is excellent practice for piling slash and light scarification for seeding. It is imperative that stumps are not grubbed as this will result in topsoil loss and leave the site pocked with craters.



Suitable Site Conditions

The rake is best suited for well-drained soils with less than 25 percent surface rock larger than 6 inches. The most suitable soils are coarse and medium texture, at least 12 inches deep. Soils with higher amounts of clay are very susceptible to compaction, particularly when wet. The operation of heavy equipment on these soils is limited to periods when the soil is frozen or dry (less than 50 percent field capacity). Slopes should be less than 20 percent for reasons of safety, job performance, and erosion hazard. Sites exceeding these conditions will reduce the effectiveness and efficiency of the operation.

The power source used with rakes on most contract jobs will handle heavy amounts of slash. Stumps should be low to prevent the rake from hanging up.

The Rockland rakes are designed primarily for piling of slash and debris. They are most effective on fresh conifer slash and will handle moderate amounts unless large diameter material is involved. They are capable of knocking down standing residual trees 2 to 3 inches

DBH, but efficiency is greatly reduced as the number of stems increases.

Equipment

Crawler tractors with a minimum of 160 to 300 horsepower at the flywheel are generally required on contract jobs. There should be at least 8 teeth, more than 12 inches long on the blade. The Rockland rakes are designed to be mounted on J.D. 350 and 450 crawler tractors.

Operational Techniques

Raking should preferably be done when the soil is frozen and the snow depth is less than 2 feet. If this is not possible or scarification is desired, an alternate time is from midsummer to early fall if the soil is dry and the topsoil is left in place.

Debris is usually pushed into windrows or piles. Windrows should be spaced 150 to 200 feet apart. Breaks should be left every 300-500 feet to allow for access. The windrows should be placed on the contour in hilly terrain. Randomly distribute piles. Space piles as close as practical but not further apart than 150 feet, and less than 30 feet in diameter. The preceding depends upon the amount of the surface debris, residual stems, and rock. Both windrows and piles should have clean edges and be tightly packed.

The amount of topsoil pushed into the piles should be kept to an absolute minimum. The most effective means to reduce topsoil loss is by close supervision of the operator.

Summary

Advantages:

1. Is a good piling tool.
2. Works better than most site prep equipment with moderate amounts of surface rock.
3. Produces the most adequate site for direct seeding in rocky areas.

Disadvantages:

1. Potential exists for excessive topsoil removal.
2. Cannot be used on wet medium and fine textured soils.
3. One of the most expensive methods of site prep.
4. May increase erosion.