Shear and Pile

Where Applicable:

Shear and pile is a method of mechanical site preparation that is used to rid the site of debris after a final harvest. This method is used when there is a large amount of debris or standing stems present on the site. If large amounts of debris do not exist, mulching, shear only, rake only or some other site preparation method might be used instead.

Description:

A combination of shearing and piling can be accomplished by using a dozer with a V-cutting blade to shear off remaining debris at the ground level. Once sheared, the debris is then raked into windrows. The rake blade should be equipped with teeth on the lower edge to reduce the amount of large roots near the soil surface and minimize soil movement during raking. Once piled, the debris can then be burned. If piles do not take up a large amount of area or diversity for wildlife habitat is desired, these piles can be left and planted around. On slopes exceeding 7 percent, parallel windrows should be located no more than 150 feet apart with openings of at least 20 feet for every 150 feet of windrow. Ends of windrows should be at least 66 feet from property boundaries and residual stands. The recommended time frame for shearing and piling is during the months of June through September.

Benefits:

Shearing and piling helps to reduce the amount of large roots near the soil surface minimizing residual sprouting thus reducing competition with planted pines. Regardless of the planting method, ridding the site of debris will help facilitate a better planting job. Sites that have been sheared and piled can be wildland machine planted and banded resulting in better survival, more uniform spacing, etc.

Other Recommendations:

Care should be taken to disturb as little soil as possible during this procedure and windrows should be as narrow as possible. As with any mechanical site preparation, shear and pile should be conducted along the contour of the land to help prevent soil erosion. This practice should be avoided on steep slopes, deep sands, or other highly erodible soils. The Streamside Management Zones (SMZ’s) along streams should be protected by planning the use of this equipment so as to minimize disturbance of these areas. Site preparation activities should skirt SMZ’s and stream channels. Any debris should be placed well above the ordinary high water mark of any stream, or body of open water. Extra care should be taken to avoid soil compaction on clayey soils and on wet sites.

Cost:

This operation normally costs approximately $160-$200 per acre depending on tract size, amount of debris, availability of vendors, access, etc.