**PURPOSE:** Shearing and raking is a site preparation technique where larger vegetation is removed and pushed into windrows to prepare an area for reforestation.

**EQUIPMENT:** Shearing prepares sites where vegetation is 6-inches dbh or more. A bulldozer of D-6 Caterpillar size or larger is needed. Angled or V-shaped blades are used; serrated edges have the best cutting action. Do not use conventional straight dozer blades.

Root raking usually follows shearing and is used to push felled vegetation and other debris into windrows. The brush rake is often called a "root rake" because of use in agricultural clearing to uproot trees without moving too much soil.



**METHODS**: The shear blade will normally fell trees up to 14 or 16 inches dbh. Leave larger trees standing and, if not suitable for mast or den trees for wildlife, deaden them with herbicides or fell them with a saw.

Proper use of the root rake is critical. Blades should penetrate the soil only a few inches while pushing debris. The objective is to uproot as few large trees as possible and to leave as much of the litter layer intact as possible.

Arrange windrows on the contour to prevent erosion. Pack them tightly with a maximum width of 30 feet. Distance between windrows should be as little as 100 feet on steeper slopes and as much as 300 feet on more level ground. When the work is done properly, they will be relatively free of soil. Construct windrows no closer than 150 feet to a permanent stream and run parallel to the stream.

**PRECAUTIONS:** Provide space in windrows every 300 - 400 feet so firefighting equipment can get through quickly. Minimize soil disturbance by halting operations during wet weather and allowing the ground to dry out before shearing and raking is attempted.

Photo Credit: Scott Roberts, Mississippi State University, www.forestryimages.org

