

# SALMON BLADE

## Purpose

The salmon blade is used to scarify and prepare a seedbed to provide for natural regeneration in shelterwood systems. It can be used to reestablish paper and yellow birch, northern hardwoods and white pine. The salmon blade mixes topsoil and duff together creating a seedbed and incorporating seed already present in the duff layer. The salmon blade can be used pre-harvest or following a thinning.



## Suitable Site Conditions

Hardwood or conifer stands that are level to gently rolling with soils that are dry to moderately moist are suitable for using a salmon blade. Wet soils are not recommended. Wet conditions may not allow soil to mix but instead be scraped open. Thin soils with lots of large subsurface rock are not suited for using the salmon blade. Slopes exceeding 30% are not recommended for salmon blading.

## **Equipment Specifications**

The salmon blade is designed to be pushed by a small to medium sized crawler tractor. Something like a JD 450/550 in the 60 -100 hp range are ideal. This size tractor is generally quite maneuverable in the understory of hardwood stands. The salmon blade is 6' - 8' wide and can be made to attach to the existing dozer blade.

## **Operational Techniques**

The salmon blade is run through a stand with the teeth 2-5 inches deep in the soil. This mixes downed seeds, surface litter, decaying organic matter and underlying mineral soil together. The salmon blade can cut shallow roots and stems of brush and shrub competition clearing openings for seed catch from the overstory. The salmon blade creates furrows in the soil to catch seed and hold moisture increasing seed germination and seedling survival. One trip over an area and minimum of 50 - 60% area coverage is usually adequate for seedbed soil disturbance.

## **Summary**

### **Advantages:**

1. Scarifies and prepares a seedbed for natural regeneration of hardwoods.
2. Can be done pre-harvest to capture seedfall from existing stand.
3. Knocks back competing vegetation.
4. Allows the use of smaller equipment, more maneuverable in standing timber.
5. May impede grass invasion of the site.

### **Disadvantages:**

1. Not well suited to wet, rocky or steep sites.
2. Summer operation can limit visibility for operator.
3. May not control competing vegetation adequately.