Forest Disease Management Notes

United States Department of Agriculture

Forest Service
Pacific Northwest Region

Mechanical Injury

Mechanical injuries are caused by a large number of agents. The most common are wind, hail, falling trees, and man-operated equipment. Large losses are associated with mechanical injury. Injuries commonly become infected by wood decay fungi.

Hosts: All trees; thin barked species are more subject to wounding.

Recognition: Windthrown and broken trees lying approximately in the same direction indicate damage from severe wind; hail damage appears mostly on thin bark stems, twigs, and occurs only on the upper sides; scars from equipment (bulldozers, axes, etc.) resemble animal feeding wounds, but lack teeth marks; wood is often goughed.

Management: None for hail; for wind, avoid opening tip shallow rooted stands, especially in root-diseased areas; equipment-caused damage can be reduced by good pre-sale preparation and proper logging techniques.

Pre-Sale Preparation

1. Do not log in spring or early summer in easily injured species.
2. Select equipment appropriate to site.
3. Mark leave trees rather than those to be cut.
4. Lay out skid trails in advance.
5. Cut short logs.
6. Do not thin stands of young, thin-barked species too heavily.

Logging Techniques

1. Harvest trees first in skid trails.
2. Cut stumps low to prevent skidder shunting.
3. Fell trees either away or toward skid trails.
4. Use end-line skidding.
5. Limb, top, and buck logs before skidding.

May be Confused With: Insect and animal damage.

Damage caused by severe winds

Hail injury on grand fir

Scarring caused by logging equipment