

# Community Forestry Assistant



Northwest  
Management, Inc.

## Newsletter November 2008

### Prevent Sunscald on Your New Trees!!

Have you ever seen dead or damaged areas on the trunk of a tree? Sometimes trunk damage is caused by weed eaters, lawn mowers, or wildlife. However, it can also be caused by sunscald.

Sunscald (also called "southwest injury") occurs on the south or west side of the tree trunk. Recognizing the causes, symptoms, and taking early corrective actions can prevent sunscald.



Sunscald is damage caused by rapid temperature fluctuations during the winter months. Sunscald occurs when bark is exposed to freezing temperatures at night followed by warm daytime temperatures. While the exact mechanism of injury is unclear, it is thought that the sensitive cambial cells are killed because they cannot adjust to these rapid temperature fluctuations.

Mild symptoms of sunscald may appear as discolored reddish or brownish bark. More advanced symptoms are sunken and/or split

bark, which peels back exposing the wood in the trunk. Depending on the extent of the damage and time elapsed since the injury occurred, wood boring beetle larvae may cause additional damage. Reflective surfaces such as light-colored buildings, fences, and block walls can also contribute to sunscald. Over time, the damage can lead to dead branches and possibly tree death.

Maples and deciduous fruit trees are often the most susceptible, but all young trees can be damaged by sunscald due to their thinner inner bark. Sunscald becomes even more of an issue when a young tree is moved from the protected environment of a nursery to the planting site without some gradual hardening-off.

To properly diagnose sunscald, you should consider contributing factors: recent weather, irrigation method and effectiveness,

pruning, planting dates, and potential for root injury. To test if damage has occurred, make a small cut into the suspected area with a sharp knife. If the inner bark is soft and green, then it is still alive. If it is brittle and falls off to expose that wood, then damage has occurred. If you still suspect damage but are unsure, evaluate the location of the plant and the potential for direct exposure of the bark to the sun. You can also look for other individuals of the same species in the area to see if they are also affected.

Avoiding sunscald is the best situation. Once injury occurs, the trees respond by forming callous tissue, which slowly grows back over the affected area. This may heal a tree having slight damage, but often, sunscald damage leads to overall decline of the tree.

The following steps can help avoid sunscald:

1. Plant healthy trees that are well-adapted to the local climate.
2. Avoid damaging the stem or excessive pruning of lower branches for a few years after planting. Branches that partially shade the trunk will reduce the incidence of sunscald. When you do prune, do so properly and do not make flush cuts.
3. Keep trees adequately irrigated. Water stress can make a tree more susceptible to sunscald.
4. Light colored tree wraps may help, but the wraps can also be hiding places for plant pests. Go to the [University of Minnesota Extension](#) website to help you choose the most effective materials. Painting exposed trunk and limbs with a 50 – 50 mixture of white latex paint and water may also be beneficial.
5. Apply 4-6 inches of coarse organic mulch on the soil surface to retain irrigation water and minimize reflected light and heat. Do not place mulch against the stem.

*This article has been adapted from the "Backyard Gardener-Sunscald and Tree Health" written by Jeff Schalau, Arizona Cooperative Extension, on April 12, 2006.*