

NEWS RELEASE
January 3, 2002

TREE WOUNDS AND DECAY

BACKYARD HORTICULTURE

By Gary W. Hickman, Horticulture Advisor
University of California Cooperative Extension, Mariposa County

Trunk and branch wounds are often serious matters for old trees that are no longer growing vigorously. Wounds usually break the bark and damage food and water conducting tissues, reducing a tree's vigor. Wounds also expose healthy wood to microscopic organisms, primarily bacteria and fungi, which may infect and eventually decay the wood.

Branch wounds occur when branches are pruned or break away from a parent branch. All trees lose some branches during their lifetime, and the wounds that result usually close or "callus." Some branches break naturally, such as in a windstorm; others may be pruned off in the normal course of good tree maintenance. Either way, a wound results. It's not always possible to prevent breakage, but proper pruning can reduce problems related to wounding. When pruning, make clean, smooth cuts. Do not leave long stubs, as they often die back or sunburn, and are slow to callus. Instead, leave a small collar of wood at the base of the branch; cutting the branch flush with the trunk usually leaves a larger than necessary wound. In most cases, pruning wounds close most rapidly when made a few weeks before growth begins in spring. Wounds that result from proper pruning need no additional treatment, including the use of wound dressings.

Wounds to trunks may be caused by drilling for trunk injections of fertilizers or insecticides, or by a variety of other causes, including vandalism. If you look at an old wound, you'll notice that it does not "heal" from the inside out, but closes by forming layers of callus

tissue around the edges of the wound. In treating tree wounds you need to do everything possible to promote rapid closure of the wound by this callus tissue.

Once a tree is wounded, especially from branch breakage, take the following steps as soon as possible:

- With a sharp knife, remove dead and loose bark from around the wound. Do not attempt to shape the wound, since this may actually enlarge the wound and delay callus formation. If present, leave areas of live, attached bark in a wound to speed callusing.
- If the wood beneath the bark is damaged, smooth it so it will not trap water and debris or slow callus formation.
- All of the bark around the wound must be tight. As soon as possible after wounding, press loose bark tightly against the wood and hold it in place with small aluminum nails. If the cambium tissues beneath the bark have not dried, the loose bark will eventually reattach itself to the wood.
- Trim broken or improperly pruned branch stubs back to the branch collar, leaving the collar intact.
- Do not cover the wound with chemical dressings. These materials have not been shown to prevent wood decay or improve wound closure.
- If necessary, improve tree vigor and promote rapid wound closure with proper irrigation.

The University of California prohibits discrimination against or harassment of any person employed by or seeking employment with the University on the basis of race, color, national origin, religion, sex, physical or mental disability, medical condition (cancer-related or genetic characteristics), ancestry, marital status, age, sexual orientation, citizenship, or status as a covered veteran (special disabled veteran, Vietnam-era veteran or any other veteran who served on active duty during a war or in a campaign or expedition for which a campaign badge has been authorized). University Policy is intended to be consistent with the provisions of applicable State and Federal laws. Inquiries regarding the University's nondiscrimination policies may be directed to the Affirmative Action/Staff Personnel Services Director, University of California Agriculture and Natural Resources, 1111 Franklin, 6th Floor, Oakland, CA 94607-5200, (510) 987-0096.