

NEWS RELEASE
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TREE BRANCH FAILURES

BACKYARD HORTICULTURE

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

After the recent strong winds in Mariposa, several people have called for information on what to do with broken limbs on trees. One caller asked how to deal with a serious trunk wound in a very old tree, which occurred when a large branch broke and split the trunk to the ground. Such a wound is difficult to deal with, particularly in old trees that are no longer growing vigorously. Wounds that break the bark and damage food and water conducting tissues may reduce 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: (1) 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. (2) If the wood beneath the bark is damaged, smooth it so it will not trap water and debris or slow callus formation. (3) 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. (4) Trim broken or improperly pruned branch stubs back to the branch collar, leaving the collar intact. (5) Do not cover the wound with chemical dressings; these materials have not been shown to prevent wood decay or improve wound closure. (6) Improve tree vigor and promote rapid wound closure with proper irrigation starting next spring.

In summary, you can prolong the useful life of your trees by making proper pruning cuts and avoiding all unnecessary wounds. Be sure to avoid topping trees, especially old trees. Serious branch and trunk decay often results from topping.

For more information, call the UC Cooperative Extension office in Mariposa and ask for Leaflet 7185- Tree Wounds and Treatment.

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