



URI COLLEGE OF THE
ENVIRONMENT AND LIFE
SCIENCES (CELS) OUTREACH
CENTER

3 East Alumni Avenue
Kingston, Rhode Island 02881

For more information:

Call:

In RI: URI MGA Hotline
1-800-448-1011
Mon.-Thurs. 9:00 a.m.—2:00 p.m.

In MA and CT: 401-874-2900

Outside New England please
contact Cooperative Extension in
your county.

Websites:

URI Master Gardener Association
www.urimga.org

CELS Outreach Center
www.uri.edu/cels/ceo

BARK SPLITTING

Bark splitting is an injury that can occur in response to various environmental factors at different times of the year. Splits can affect the trunk of a tree as well as branches. Bark splits are not likely to be fatal to trees, although they will, in some cases, allow entry of disease organisms which can cause decay. A tree should be able to close most splits through proper treatment to encourage the natural callusing process.

Kwanzan cherry, maple, and fruit trees are the most susceptible trees, but any newly planted tree, especially of a thin-barked species, is a candidate for bark splitting if it is not cared for properly. Be particularly careful to avoid fertilizing trees late in the growing season as this may promote new growth and predispose the tissue to winter injuries (including bark splitting). Autumn fertilization following leaf drop and dormancy should not lead to this problem.

Causes

There is no single reason for bark splitting on trees. Following is a description of some of the more common causes.

Frost cracks: During late winter and early spring, sharp temperature changes between day and night can freeze the water within the trunk causing it to explode or split open in a symptom referred to as "frost-cracks." Frost cracks are also called southwest injury since this is the side of the tree most often affected. Painting the trunk white or wrapping with tree wrap helps prevent southwest injury. Frost cracks can also start from a wound inflicted earlier in the tree's development. Sometimes the crack may remain in the internal wood, but frost can cause the crack to expand and split the bark. Excessively late growth in the fall stimulated by warm temperatures, high humidity, and high nitrogen levels can increase susceptibility of trees to frost cracking.

Fluctuating growth: Conditions that lead to fluctuating growth may also cause bark splitting. For example, dry weather (which slows growth) followed by wet or ideal growth conditions may cause an excessive or vigorous amount of growth leading to splits in the bark.

Sunscald: Sunscald, especially in winter months, can cause bark injury to thin-barked or young trees. Although an exact split may not be seen immediately, the outer layer of bark

PESTICIDES ARE POISONOUS!! Read and follow all safety precautions on labels. Handle carefully and store in original containers out of reach of children, pets, or livestock. Dispose of empty containers immediately, in a safe manner and place. Pesticides should never be stored with foods or in areas where people eat.

When trade names are used for identification, no product endorsement is implied, nor is discrimination intended against similar materials. Be sure that the pesticide that you wish to use is registered in the state of use.

The user of this information assumes all risk for personal injury or property damage.

For more information call: URI Master Gardener Hotline (in RI) 1-800-448-1011, CELS Outreach Center (in MA and CT) 401-874-2900 or visit the URI Master Gardener Website at www.urimga.org Outside New England please contact Cooperative Extension in your county.

Rhode Island Cooperative Extension provides equal program and employment opportunities. U.S. Department of Agriculture cooperating.

Note: The Hotline is open Monday—Thursday, 9:00 a.m.—2:00 p.m. from March 1 to November 1.



will peel away from the affected area in the summer following the winter damage. Sunscald injuries to tree limbs can be minimized by avoiding heavy pruning of trees that have dense canopies. Gradual thinning of limbs over a period of years is preferable, particularly on thin-barked trees. Newly-planted trees may be protected from sunscald by wrapping main trunks with tree wrap.

Treatment

When a split occurs on a tree, what should you do? Research has indicated that tree wound paints are of little value in helping a tree to callus over. For this reason, a split should not be covered with paint or tar. However, tracing the bark around the split can be very helpful in aiding wound healing. With a sharp knife, starting from one end of the split, trace around one side of the wound, about 1/2 to 1 inch back from the split bark. Stop at the other end and do the same procedure on the opposite side of the split. Knives should be sterilized between cuts by dipping for several minutes in a 1:10, bleach/water solution or a 70% alcohol solution to avoid contaminating the cuts. Carefully remove the bark from inside the traced area. There should now be a bare area. A tree growing with good vigor usually calluses over quickest. Encourage vigor in the tree with yearly spring fertilizer applications and be sure to provide adequate irrigation in hot, dry weather. Bark splits will often close over completely, leaving a slight ridge in the trunk where callus tissue has been produced.

Adapted from: Cornell Cooperative Extension, 2000; Virginia Cooperative Extension, 1997