

## Selectively managing woody plants

Problem: Last year we cleared several acres of land along a river bank and planted it with grass. Is there any herbicide that can be used to prevent the reoccurrence of woody plants from along river banks without injuring the grass?

**Solution:** Since the wooded area has been cleared and grass has been planted, consider maintaining the area as a low maintenance grass area with proper mowing and broadleaf weed control as needed. Broadleaf weed herbicides, used in the lawn maintenance program, might be beneficial. Read the product label to see whether that product can be used along river banks. Mechanical means, such as proper mowing, may help manage some of the plants because once the plant's terminal bud is removed it may fail to grow further.

If the woody plants or branches are close to—or hanging over—the water, consider using herbicides that contain glyphosate, such as Accord or Rodeo. These herbicides can be applied directly over the plants and can be applied over water. These are non-selective herbicides, and will kill the grass. Reports indicate that glyphosate can be applied using a backpack and spot-treating as needed using a "low volume" application technique. With this method, the herbicide products do not have to be applied over the entire plant. The objective is to apply a five percent concentration of mix, quickly, over the the plant foliage enough to translocate and help manage the undesirable vegetation. Be careful not to get this product on the grass.

A wick-type applicator can treat woody growth selectively. It could be time-consuming, but it should manage the undesirable vegetation very well.

If the woody plants or branches are not close to or hanging over the water, you could consider using Krenite herbicide; but it should *not* contact the water. Apply from June to October.

## Cold weather injury tough to prevent

Problem: Last year, soon after winter, a number of Quanzon cherry trees showed severe injury from exposure to low temperature. Affected trees had extensive bark splitting and/or peeled bark. In some instances, the bark was peeled all around the stem. Is there an antidessicant (drying agent) or protective wrap we can use to prevent this from happening again? (Michigan)

**Solution:** Last year, sub-zero temperatures in many parts of the U.S. caused frost crack on a number of plants. Generally, evergreens are less subject to cracking than are deciduous trees. Plants such as linden, oak, elm, London plane, horse chestnut, willow, apple, beech, crabapple, golden rain tree, walnut and many other thin barked trees are commonly sensitive to frost crack.

The problem with cherry may be due to sun scald, frost canker and/or cup shakes resulting from exposure to low temperatures. The following explanation from an arboriculture text by Dr. R.W. Harris might be helpful in understanding the problem.: "On sunny days in winter, a tree trunk may be warmed as much as  $10^{\circ}$  C ( $18^{\circ}$  F) above air temperature. If a trunk or branch so warmed becomes shaded by a dense cloud or opaque object, the bark temperature may drop quickly to a critical level, causing injury or death to the bark and cambium. This is generally called *sun scald*, even though it is actually a freezing injury. It has also been called a *frost canker*.

"Wide fluctuations above and below and freezing temperatures of wood may also cause *cup shakes*, or separations of the wood along one or more annual rings. These occur when a frozen trunk warms quickly upon exposure to the sun. The warmed outer wood expands and separates from the inner wood, which has expanded less rapidly. Cup shakes are not evident until the trunk is cut or breaks, but cause serious defects in lumber and may weaken a living tree. Longitudinal frost cracks usually occur in the bark and wood parallel to the grain and extend to the center of the trunk."

Generally, there is no known practical solution to protect the sensitive plants from these injuries. Some researchers believe that frost cracks can be prevented by preventing wounds, making proper cuts and preventing root injuries. Others believe that wounds may be a factor in frost cracks, but are not the primary cause.

Reports indicate that shading a trunk or painting it with white latex exterior paint can moderate temperature extremes and may reduce frost crack, sun scald and cup shakes. Another option may be to paint the trunk using whitewash (calcium carbonate and water) in early fall. The drawback with painting is that in the spring the trunk may remain white and may not be aesthetically pleasing.

In my opinion, it is better to install a burlap barrier 8 to 10 inches away from the trunks of cherry trees. This can be done by placing four wooden stakes about 10 inches away from trunks and then wrapping them with burlap. This 8 to 10 inches of air space is needed to maintain constant temperature and help prevent the injury. Other wrapping materials such as tubes, aluminum, craft wraps or white cloth do not seem to protect against frost cracks.

Generally, plants going to winter, which are under some sort of stress, are more likely to be affected by low temperature exposure. Therefore, follow proper watering, mulching, fertilizing, pruning and pest management as needed to help improve plant health.

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Mail questions to "Ask the Expert," LANDSCAPE MANAGEMENT, 7500 Old Oak Blvd., Cleveland, OH 44130. Please allow two to three months for an answer to appear in the magazine.