ASK THE EXPERT

DR. BALAKRISHNA RAO

More on draining wet wood

The following comments have been received from readers in response to Dr. Rao's answer concerning wet wood problems.

"As you can see from the following comments, the practice of installing drain tubes for wet wood is controversial," says Dr. Rao. "The statements are certainly valid, and—in theory, at least—drain tubes do not appear to be necessary or advisable.

"In practice, however, many arborists including myself have observed dramatic improvement in the condition of affected trees following drain tube installation, with no apparent adverse effects. Additional information and/or research is necessary to determine why some trees respond while others do not, and whether an alternative method could improve the condition of trees without the potential for causing more serious injury."

From James Burks, arborist consultant, Missouri: Although I enjoy and learn from reading your column, I must take issue with your advice in the May, 1992 issue.

In your answer, you recommended installing a drain tube into bacterial wet wood. While this practice was once commonly used, it has now fallen into disfavor and rightfully so.

To help relieve pressure within the tree requires precise knowledge as to location of the source of that build-up. Since we cannot see inside the tree, our "aim" is nothing more than an educated guess.

If the tube is installed "off target," it does no good. Further, drilling through the tree trunk breaks down the tree's natural defense boundary, thus allowing disease organisms a potential entry into healthy wood. In some cases (such as cabling), the negatives of breaking down CODIT walls may be justified; however, whatever benefits may occur due to the drainage tube installation (which have not been shown in the studies I am aware of) certainly do not argue for such treatment.

In my experience, most trees affected by bacterial wet wood are healthy despite the unsightly, sometimes malodorous ooze. In fact, according to Dr. Jim Feucht in Denver, some evidence supports the hypothesis that wet wood may actually lubricate tight branch crotches, thus helping prevent or minimize breakage.

My advice: do nothing.

From Jim Boron, Colorado: I am confused. It is my understanding that wet wood should never be treated by installing drain tubes.

I understand that wet wood is caused by bacteria that alters the wood inside the tree and in the process creates very moist conditions, high elemental concentrations, high pH and anaerobic conditions. Under these conditions, the affected wood is still relatively sound and is compartmentalized such that it does not further infect surrounding wood.

When holes are drilled and tubes installed into this zone, the infection is allowed entry into additonal, unprotected portions of the tree, and is allowed access as well to the cambial region of the hole's entry through the trunk. This cambial region is affected also, often causing cankers where there would be otherwise none.

Further, upon drying, the interior wet wood region becomes aerated, allowing decay-causing fungi to enter and begin a further deteriorating process not only in the original zone of wet wood, but along the path of hole entry. Upon decay, the interior wood is not nearly as strong as the original wet wood, and thus, the entire tree may become a hazard.

It is my understanding, then, that trees affected with wet wood should not be treated with drilled holes or with inserted drain tubes. If I should be wrong, please let me know. If the above information is found to be correct, then please let your readers know.

Improper treatment of our trees deserves no less.

Plants for black walnuts

Problem: What kinds of plants can be planted or grown within the root spread of black walnut trees? ***(Calif.)***

Solution: The following information comes from a University of California publication.

The following trees have been reported to grow within the root spread of black walnut trees: Virginia pine, red cedar, hickory, black birch, American beech, white oaks, red oaks, black oaks, American elm, tulip tree, papaw, sassafrass, sycamore, American crabapple, hawthorne, black cherry, honey locust, Canadian redbud, black locust, tree of heaven, staghorn sumac, sugar maple, red maple, Ohio buckeye, flowering dogwood, black gun and blackhaw viburnum.

The following shrubs and woody vines have been reported to grow within the root spread of black walnut trees: hazelnut, old man's beard (Clematus virginiana), American barberry, spice bush, wild hydrangea, black raspberry, blackberry, wild rose, smooth sumac, dwarf sumac, poison ivy, bitter-sweet, Virginia creeper, wild grape, St. John's-wort, maple-leaved viburnum and common elder.

For additional information:

Brooks, Maurice G. 1951. Effect of Black Walnut Trees and Their Products on Other Vegetation. Bulletin 347, West Virginia University, Agricultural Experiment Station, Morgantown, W.Va.

Rietveld, W.J. 1983. Allelopathic Effects of Juglone on Germination and Growth of Serveral Herbaceous and Woody Species. J. of Chemical Ecology, 9(2): 295-308.

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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.