

PROBLEM SOLVERS

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Visual symptoms misleading

Problem: An unusual number of customers this spring have complained that the leaves on their trees looked terrible. Some reported leaves falling off by the end of June. One customer says the chemicals I use on weeds are doing this. Do you know what is causing the trees to look bad? Could it really be the weed killer? (Pennsylvania)

Solution: It is very important to respond to customer complaints like these. In nearly all cases where the right chemical was used in the right way, the actual problem is nonchemical. The customer should be provided with a clear explanation of the problem as soon as possible.

There are several nonchemical causes of herbicide-like symptoms on woody plants that may be causing your problems. The ones which I see quite frequently and which appear to be more extensive this year are: 1) anthracnose, 2) aphids, and 3) cold or frost injury. Anthracnose is a leaf disease caused by several different kinds of fungi. Leaves having anthracnose are often curled or cupped (distorted) perhaps having small areas of brown necrotic tissue present.

Anthracnose is identified by the presence of fungal fruiting bodies and spores. Identification may require incubation of affected leaves under conditions conducive to fungal growth before these features are seen.

Aphids are small, soft-bodied insects which suck plant juices. Some, but not all, aphids have been found to produce substances chemically similar to plant growth regulators. The end result of aphid feeding is distorted foliage -- cupped, curled, crinkled, and/or undersized leaves. These symptoms are similar to herbicide injury. However, you will be able to find honeydew (a sticky, sugary, aphid excrement), skins, eggs, or the insects themselves when aphids are involved. It may require a hand lens or microscope to clearly see aphids, or other insect signs.

Low temperatures also produce foliar symptoms which mimic herbicide damage. Low but not killing temperatures result in crinkled or wrinkled leaves. Frost and freezing temperatures kill tissue turning it black or dark brown. The entire leaf may not be destroyed and the blackened tissue may be found only at the growing tips and margins of the leaf.

The foliage in question can, and in cases of possible litigation, should be analyzed for the presence of herbicide. There are laboratories which for around \$50 or more can detect and identify the more commonly used herbicides.

"Wait and see" is best approach

Problem: We have around 500 boxwood plants and a number of Sunburst locust, flowering crab, redbuds, and azaleas in our nursery. These were damaged by a hail storm and cold temperatrng the winter of

1983-84, which was unusually cold. The boxwoods have the first three inches of tips burned by sun or frost. Should these be trimmed or will they come back? The azaleas were injured by the hail storm with bud damage. Will they leaf out again this year? The locust and crab trees show damage from the hail. What can we expect? (Iowa)

Solution: My recommendation for the damage you describe; i.e., hail, frost, winter injury, would be to fertilize and water first, then prune out the dead tissue later. It is sometimes difficult to determine in the field what is truly dead and will not come back from what may leaf out again (refoliate) after proper treatment.

To some people, fertilizer means an inorganic product. Such products probably should be avoided because they are chemical salts and could cause fertilizer "burn". This, of course, would not help the plants recover.

Hail and frost injury can make the plants unsightly and probably difficult to sell. However, unless more than one-half to two-thirds of the normal crown has been killed, with proper treatment most of the plants should recover. It may take one or two growing seasons before the appearance of the plant has improved to the extent where they are again attractive and therefore ready for sale.

Best trimming time varies

Problem: What time is the best for trimming trees February, March or in the winter? (Michigan)

Solution: With the exception of trees which "bleed" readily, trimming and especially the removal of small, dead or dying branches can be done nearly any time.

Maples, birches, and elms are bleeders and should not be trimmed during the period of bud break and leaf development. Bleeding seems to be less of a problem when the tree is trimmed in the fall and early winter rather than in late winter or early spring. In fact, it is best for most kinds of trees to prune them after the spring flush because when the cambium is active, the bark is loose and can be easily torn.

Broad-leaved (deciduous) species in general can be trimmed without harmful results after leaf fall but before bud break. Needle-bearing trees (conifers) are set back the least when pruned just prior to bud break. From a disease standpoint, specifically Dutch elm disease and oak wilt, elms and oaks should be trimmed in late fall or early winter.

Trees infected with or susceptible to fire blight should never be pruned when the plant is wet. Doing so spreads the bacteria which cause fire blight. Fresh wounds caused by trimmings can attract insects, mostly beetles, some of which carry disease from tree to tree. Thus pruning when the adult insects are active increases the chances of spreading certain diseases and should be avoided.