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SEND YOUR QUESTIONS TO:

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Please allow two to three months for an answer to appear in the magazine.

Maple in trouble

A 10-in. diameter red maple is showing extensive chlorosis. Some of the leaves have interveinal browning. It doesn't look like scorch. There is no marginal leaf browning generally associated with scorch. At the base of tree, there is about 6 to 8 in. of soil mounding and lot of traffic, compaction and surface roots. How can we improve the health of this tree? Can we put soil on the surface roots?

— CANADA

This problem is typical of maple chlorosis generally associated with manganese micronutrient deficiency. However, the problem may also be related to iron and other micronutrient deficiencies. The best way to find out is to send about 50 representative leaves with foliar discoloration to a diagnostic clinic for a nutrient analysis test. Correction can be provided based on test results.

For manganese deficiency, the treatment should be done in early spring during the bud break and leaf expansion period. If it is done later in the year, leaves produced prior to treatment will not green up. Also remember that the treatment response may vary from tree to tree. Success may range from 30% to 50% of the time. Often, trees with codominant stems may show a less-than-satisfactory response.

If correction is not provided, nutritional starvation can cause the browning of leaves between the veins. This may mimic scorching but is not the same.

For compaction, consider:

▶ Aerating with 2-in. auger and filling it with pea gravel. This vertical mulching should help minimize the compaction.

▶ Applying surface mulch to reduce compaction and possibly cover the surface roots.

▶ Planting low-growing ground covers to help cover the surface roots. Maples do produce a lot of surface roots and they can be further aggravated by compaction and traffic.

▶ It is not advisable to add new soil on top of the existing soil because it will suffocate the roots, change the water table and compound the problem.

Basic pest management

We know that destructive pest problems can cause severe stress on plants. We would appreciate your opinion on this topic and some management guidelines.

— NEW YORK

Destructive sucking pests like mites, scales, aphids or chewing pests, such as gypsy moths, Japanese beetles or elm leaf beetles can cause severe damage. Affected plants will decline because of stress — primarily nutritional starvation. Consider providing the management of specific insects, mites or diseases and also provide proper mulching, fertilizing and watering to help improve plant health.

Similarly, there are a number of early foliage diseases such as scab, rust, anthracnose and diplodia that can weaken and stress the plants — making them susceptible to borers and cankers.

Fungus attacking ornamentals

We understand that the fungus Verticillium sp. is a soil-borne fungus, which can attack a number of ornamental plants. We are seeing an increasing incidence of verticillium wilt on maples. Many of them are aggravated by this year's drought. Can you provide a list of plants known to be resistant to Verticillium sp.?

—MICHIGAN

You are correct. Verticillium is capable of entering its host through basal trunk wounds. This activity is seen more during drought years, like this year. The following list of verticillium will resistant plants might be of interest to you.

apple	linden
beech	mountain ash
birch	mulberry
crabapple	oak
dogwood	pawpaw
fir	pear
firethorn	poplar
ginkgo	pine
hackberry	rhododendron
hawthorn	spruce
hickory	sweetgum
holly	sycamore
honeylocust	walnut
hornbeam	willow
juniper	yew
katsuratree	zelkova
larch	