

The shocking truth

What kind of trees are more or less prone to lightning strikes? Are hemlocks often hit? If we have a group of large oak trees on a golf course, do we need to install lightning protection on every tree? Once installed, how many years is the tree protected?

—ILLINOIS

Lightning is most likely to strike the following trees:

- ▶ a lone tree
- ▶ the tallest tree of a group
- ▶ a tall tree at the edge of a grove or at the end of a row
- ▶ trees closer to a body of water such as a lake, pond, river or stream
- ▶ trees growing in moist soils

▶ trees close to a building

Deep-rooted trees appear to be more likely targets than shallow-rooted trees. Although not much research has been conducted, it is believed that trees such as ash, maple and oak—with their high starch contents—are better conductors than trees such as beech and birch, which contain a higher concentration of oils in their tissues.

The following trees have been reported to be hit by lightning more often than others: maple, ash, tulip tree, pine, spruce, sycamore, poplar, oak, hemlock and elm.

Trees such as chestnut, birch and beech are struck less often than average.

In a group of large trees—oaks in a grove, for example—generally only the taller trees need to be protected.

Lightning protection systems should be inspected during every dormant season. The air terminals may need to be raised every two to three years, or as needed. Make sure that a single, 32-strand copper (17 gauge) conductor is attached to an air terminal (tree point), installed in the highest part of a tree and then fastened along the trunk down to the ground connec-

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tion. If the crown is round or globe-type, install several small air terminals and conductors in the highest parts of the main branches. Each conductor should be extended along the trunk, about one foot below the ground and out to the drip line of the tree or about 25 ft. from the trunk, whichever is farther.

Drenching for diseases

Can we mix Chipco 26019 to control Rhizoctonia sp. and either Subdue or Aliette to control Phytophthora sp.? We would like to drench trees with fungicides at the rootzone. The trees are growing in heavy clay covered with mulch.

—WASHINGTON

You can mix either Subdue or Aliette with Chipco 26019 for broad-spectrum disease man-

agement. Make sure that the *Rhizoctonia sp.* and *Phytophthora sp.* you mentioned are listed as disease-causing agents. Sometimes, it is possible to detect non-pathogenic forms of fungal agents which may not require a fungicide treatment. However, if you have a laboratory to diagnose the problem from a suspected tree, then it would be all right to use the fungicides. Otherwise, you will be using the fungicide for insurance's sake, not knowing whether or not the fungal species is a disease causing species.

If you are planning to use these fungicide combinations on a program basis, consider the following possible option:

First, use Chipco 26019 + Aliette fungicide in combination. A month later, use alternate combinations of Chipco 26019 + Subdue. Where feasible, it is advisable to provide a third treatment one month after the second treatment, using the Chipco 26019 + Aliette combination.

On the other hand, if you prefer, you can start with a Chipco 26019 + Subdue combination first, followed by Chipco 26019 + Aliette one month later, and again use Chipco 26019 + Subdue for the third treatment. With this program, your objective is to alternate the fungicides to obtain better results. **LM**



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