BY BALAKRISHNA RAO

## 2, 4-D alternatives

Some of our customers would like to have a weed control program free of 2, 4-D. What can we use to manage broadleaf weeds in residential and commercial lawns?

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ask the expert

For broadleaf weed control on residential and commercial lawns, there aren't many herbicides in the market that are free of 2, 4-D. Consider using herbicides such as PBI Gordon's Power Zone or LESCO's Eliminate.

Power Zone contains carfentrazoneethyl, MCPA, 2-ethylhexylester, mecoprop-p acid and dicamba acid. It has broad-spectrum weed control in the label and can be tank mixed with other herbicides. Delay mowing one to two days before and after applying the herbicide.

Eliminate contains MCPA, trichlopy and dicamba. It can be used without a problem on grass that's sensitive to 2, 4-D. However, its activity may be lower than a herbicide containing 2, 4-D. A LESCO rep mentioned that even though it's slower- acting than a 2, 4-D product, the results would be similar within two weeks. After application, there won't be immediate twisting or curling of target weeds. The Eliminate label covers a spectrum of weeds similar to what a 2, 4-D product covers. Also, Eliminate can be applied in two to 2-3 pint/A versus 3-4 pint/A of a 2, 4-D herbicide.

## Sycamores at risk

How do you control sycamore anthracnose on California and American sycamore trees? Are there resistant plants we can plant in the future? The fungus *Apiognomonia platani* (perfect stage *Discula plantani*) causes sycamore anthracnose, which is an early spring disease that favors cool and moist conditions. It can kill buds, leaves and tender twigs in the spring, causing respective blights in severe cases. While in the twig blight condition, the fungus can produce cankers that are sunken, discolored areas on twigs and branches. The fungus overwinters in the cankers and reappears again in spring. If the disease is severe enough, it can defoliate trees or cause dieback.

Anthracnose is most severe on the California sycamore, *Platanus racemosa*, and the American sycamore, *Plantanus occidentalis*. To a lesser degree, it can infect London plane tree, *P. xacerifolia*. The cultivar "Blood Good" is reportedly resistant to the disease in California, so consider planting these in the future but avoid establishing a monoculture. The varieties Columbia and Liberty are known to be resistant to anthracnose in the eastern United States but are susceptible to the disease in California.

As far as managing anthracnose disease, selectively prune infected areas during dry periods. Remember to disinfect between cuts to minimize the spread of disease.

Extensive defoliation during early spring and dieback can weaken a tree, and, since the season isn't over, the tree may produce a second set of leaves using stored carbohydrates, further contributing to the decline. Reduce stress to the tree and fertilize as needed to improve its health.

Also, consider treating with a fungicide such as Cleary's 3336 or Banner Maxx, starting with emerging leaves. Repeat the treatment two to three times at 10- to 14-day intervals. This disease can also be managed using trunk injection of Arbotect fungicide.

## Nematodes one possibility

We have a few Scotch or Austrian pines showing needle discoloration that eventually decline. Could this be pine wilt and pine wood nematode?

-MI

Browning and decline of pine trees may be associated with many abiotic and biotic disorders. Abiotic factors such as cultural and/or environmental stress can also contribute to tree decline. Exposure to moisture and temperature extremes can often stress the plants too. The effect of drought can carry over many seasons. Examine the base of affected trees for wire or natural girdling and any activity by insects or fungi. Check for soil disturbance and root damage.

To diagnose for pine wilt and pine wood nematodes, look at the brownish needle discoloration that begins at the base of the needle and moves upward with reduced or no resin flow in the twigs and trunk. Affected plants will decline in two to three months.

The first symptom of the disease is a drop in resin levels. This occurs within five to nine days after nematodes enter the tree. The nematodes can complete a generation in four days and each female can lay up to 80 eggs. As the population increases, it causes pine wilt symptoms within three to four weeks.

To manage the problem, promptly remove and destroy infested trees. There are no nematocides for these pests. Another option is to treat the

trunk and branches with borer control materials such as Astro to manage the longhorned sawyer beetles.

Manager of Research and Technical Development for the Davey Tree Expert Co., Kent, Ohio SEND YOUR QUESTIONS TO: "Ask the Expert" Landscape Management; 7500 Old Oak Blvd.; Cleveland, OH 44130, or e-mail: jstahl@advanstar.com. Please allow two to three months for an answer to appear.

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