

ask the expert

BY BALAKRISHNA RAO

Fungal growth on mulch

Once in a while, we find a lot of different fungal growth on mulch beds in the landscape. Are there any fungicides to manage the ugly mushrooms and other fungal growth on mulches?

— MINNESOTA

The mulch beds can occasionally support the growth of various fungi such as slime molds, shotgun fungus, bird's nest fungus and different kinds of mushrooms and plant pathogens. Usually, it's caused by the use of fresh or dry woody mulches obtained from trees that readily decompose.

If used properly, mulches and compost can help improve soil structure, moisture retention, drainage, plant health and control of weeds. They can also help lower soil temperature in summer, provide insulation to roots and protect from cold in winter months. These organic materials can also inhibit certain soil-borne root disease-causing fungal agents. They can help increase beneficial bacteria and fungi such as mycorrhizae. However, if mulched improperly at a depth of four inches to six inches instead of an ideal depth of one and one-half to two inches, the result is the development of nuisance fungal growth, inhibition of beneficial microorganisms and improper maintenance of water and temperature.

Sometimes, little can be done to manage nuisance fungi other than to turn the mulch into the surface soil layer, followed by watering to soak the mulch. Reports from The Ohio State University indicate

that another option is to remove suspect mulch and place it in a heap after thorough wetting to allow for optimum composting. The temperature may reach 110° F to 160° F, and this will kill nuisance fungi. They also suggest that if fresh mulch is placed on top of the mulch with a past history of nuisance fungi, the problem may reoccur in future years.

Where feasible, purchase a composted product that is low in wood content. Avoid fresh wood chips. These can be used after composting. Make sure to soak the mulches heavily after application. Avoid applying more than two inches. Mulches and composts managed in this way can provide many of the horticultural benefits to trees and shrubs. This will also help reduce the establishment of nuisance fungal growth or plant diseases. There are no practical and effective fungicides for managing nuisance fungi on mulches. New fungicides, such as Heritage, might help manage the problem, but this needs further research.

Controlling pine scale

Some clients are having severe pine needle scale on pines. Can we use oil and control the scales? We believe it may be too late for this season.

What can we do now? I appreciate any recommendations.

— NEW YORK

It's a little too late to obtain good results controlling pine needle scale using horticultural oil. The ideal timing

would be from mid-May through the end of June, and again from mid-August through late September. Treat when young crawlers (nymphs) are emerging and before they settle down and develop a new cover (testa) for best control. All other timing applications may provide variable results.

We don't know the efficacy of horticultural oil after the second instar settles and eventually develops into an adult scale. Although oil can smother and suffocate the scales (when the testa is mature), the oil may not penetrate well. The ability for oil to go around and under the scale cover needs further research.

Before treating, check and study the developmental stage of the scale. Gently flip open a few scales from random needles. If the scale has a single female, there may still be some chance that oil may provide some level of control. However, if you find several tiny egg masses which look like jelly beans, the oil may not do a good job of managing the scales.

If you are trying to provide treatments now, first check the developmental stages of scales and keep good notes and update us about your findings. It may be a good idea to do this in a small area to learn more about the oil's role in managing pine scale in autumn. Read and follow all label instructions for best results.

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SEND YOUR QUESTIONS TO: "Ask the Expert" Landscape Management; 7500 Old Oak Blvd.; Cleveland, OH 44130, or email: sgibson@advanstar.com. Please allow two to three months for an answer to appear.

