

Scales on magnolias

We see large, white bumps which look like scale insects on magnolias. When mashed, they make a mess. The leaves are coated with a black substance. How do we get rid of this insect and the black stuff on the leaves?

—MICHIGAN

Magnolia scale is large, for a scale, that is— $\frac{1}{4}$ to $\frac{1}{2}$ inch long. Females are dull grayish-brown to dark brown. The over-wintering scale begins feeding in late spring or early summer and matures by early August. Magnolia scale insects cause injury by sucking the nutrients from the tree. They have mosquito-like mouth parts and tap into a tree's vascular pipeline to siphon liquid and nutrients, which starve the tree. This causes twigs and branches to shrivel and die.

Magnolia scales excrete the excess fluids that they imbibe. For some reason this bug excretion is called "honeydew" or "ghost rain." You might notice it accumulating on your car windshield if you park under trees. A black, sooty mold soon colonizes the honeydew that has accumulated on leaves or rooftops.

The adults of these rather odd-looking insects resemble a cowry shell or a plant bud. This is one reason they build up in such large numbers without being noticed. They're noticed when the honeydew starts dripping. There is only one generation per year, but each female can produce 500 to 1000 eggs in late August to early Septem-

ber. The crawlers settle on leaves. Some of the population develop into second instars before cold weather and move to branches to overwinter.

Horticultural oil treatments may be made in March or April prior to bud opening. Treatments for crawlers would be provided in late August and repeated at 10-14 day intervals. You may need two applications per year, for two to three years, to manage this pest. If just one female survives, the tree can be repopulated quickly due to the large number of eggs that are produced. Horticultural oil will help preserve the natural predators and parasites that can help clean up the scales that might be missed.

Consider fertilizing the affected trees with a slow release nitrogen source to supplement nutrient loss.

The black stuff you refer to is called "sooty mold" fungal growth. This is a fungus growing on honeydew. The fungus does not harm the plant directly. However, if severe enough, it can block sunlight to leaves. The combination of insect feeding and sooty mold can weaken the plants.

Managing the scales will take care of the sooty mold. You can remove the fungus by spraying the leaves with the horticultural oil. However, new infestation of scale or other pests like aphids can encourage sooty mold growth. Continue monitoring for these sucking pests.

License needed to treat pastureland

One of our customers has several acres which he wants us to maintain for grazing dairy and beef cattle. He is interested in hiring us to control broadleaf weeds. Can we use Trimec 899 herbicide to control the weeds? After treating, how long does he have to keep the cattle from grazing? Are there any other chemicals we can use?

—WISCONSIN

Trimec 899 is not labeled for use on pastures used for grazing. A PBI Co. representative said that another product, brand name of Hi-Dep herbicide, is labeled for pasture use for broadleaf weeds. This is a mixture of two 2,4-D amine-containing herbicides. It contains Dimethyl amine plus Di-ethyl amine formulations of 2,4-D. This will help manage annual and perennial broadleaf weeds.

One thing to know is that Hi-Dep is only labeled for agricultural use. If you only have a turf and ornamental spraying license, you will not be able to purchase or apply this product. You must have a special license to purchase and/or apply this product. Contact your pesticide licensing agency to verify the things you need to do if you are still interested in providing this service. Also be aware that while using Hi-Dep the applicator must wear the proper personal protective equipment. It's on the label, as is the warning to keep animals from grazing on the treated property for 24 to 48 hours. **LM**



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