

Commercial Horticulture

Special Alert

June 13, 2024

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IPMnet
Integrated Pest
Management for
Commercial Horticulture
extension.umd.edu/ipm

If you work for a commercial horticultural business in the area, you can report insect, disease, weed or cultural plant problems (**include location and insect stage**) found in the landscape or nursery to sgill@umd.edu

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GLOOMY SCALE CRAWLERS AND SETTLED CRAWLERS ARE ACTIVE NOW!

By: Paula Shrewsbury and Nancy Harding, UMD

On Monday June 3rd, Nancy and I found gloomy scale, *Melanaspis tenebricosa* (Diaspididae) activity on red maples on the UMD College Park campus. We missed the beginning of crawler activity, since we are seeing some active crawlers, some settled crawlers, and a lot of capped (1st instar cover) first instars (see the images to recognize all these stages). Under these conditions, **NOW is time to treat** trees that have infestations of gloomy scale. Be sure to monitor red maple trees on your properties for gloomy scale and crawler activity now. The earlier you determine you have gloomy scale (ex. low densities), the easier controlling it will be. On June 3rd there were 943 DDs accumulated in College Park, MD.

Gloomy scale is an armored scale that is native to the Eastern U.S. There is one generation a year and they overwinter as mated females, and scales are on the bark and branches of the tree. Females do not lay eggs. They are ovoviviparous, meaning they hold their eggs inside of them to develop and then give birth to crawlers. Females can produce 5-7 eggs / day over a 6-8-week period.

In urban areas, which are warmer than nearby natural areas, gloomy scale is a key pest on trees, particularly red and sugar maples, although they may also attack other native maples and tree species. High infestations can coat twigs, branches, and trunks darkening the color and creating a bumpy texture on the

host (see image). Heavy infestations, which often occur under these warmer conditions, can result in branch dieback and death of trees if left unchecked.

Control: For optimal control, target monitoring and control measures to the susceptible crawler stage. Gloomy scale is difficult to manage because of the long egg laying and crawler activity period (6–8 weeks). This may require multiple treatment applications, depending on the product you use. **Now is the time to treat. Target the crawler or settled crawler stages with the insect growth regulators (IGR) Talus (a.i. buprofezin) or Distance (a.i. pyriproxifen).** Be sure to continue to monitor to determine if a second application may be needed due to the long crawler emergence period (6-8 weeks) of gloomy scale. If densities of gloomy scale are high, consider applying a dormant oil application at the appropriate time.

Although there are parasitoids, predators, and pathogens that attack gloomy scale, under warmer urban conditions the natural enemies often cannot keep the scale at low enough levels to prevent damage. However, natural enemies are impacting the populations and their conservation should be considered if treating with insecticides. For example, avoid applications of broad spectrum, long residual pesticides such as pyrethroids.

If you have problems with gloomy scale, we strongly recommend you read the article "[*Gloomy Scale \(Hemiptera: Diaspididae\) Ecology and Management on Landscape Trees*](#)" by Just, Dale, and Frank (Journal of IPM, 2020). They provide a comprehensive description of this pest and its management using an IPM approach.



N. Harding, UMD

A dense population of gloomy scale on the trunk of a red maple. The bark is not supposed to be “bumpy”.
Photo: N. Harding, UMD



High population of gloomy scale on the branch of a red maple. Note the bumpy appearance of the bark.
Photo: Adam Dale, NCSU



Close up view of gloomy scale on the bark of red maple. Note the soft bodied scale insect with its protective waxy cover removed. Also note the characteristic small black “caps” (1st instar covers) just off center of the scale cover.
Photo: Matt Bertone, NCSU



Magnified view of a gloomy scale crawler as seen last week on June 3, 2024.
Photo: M.J. Raupp, UMD



Magnified view of newly “capped” gloomy scale 1st instar nymphs as seen on the bark of red maple on June 3, 2024. The darker the color, the older the scale is.
Photo: M.J. Raupp, UMD

Go to the [IPMnet Conference Page](#) for links and details on these programs.

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