



Crapemyrtle Bark Scale

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Introduction

Crapemyrtle bark scale (CMBS; *Acanthococcus lagerstroemiae*) is an emerging invasive pest of crape myrtle in Virginia. Originally from Asia, CMBS has spread across the southeastern United States, probably through the movement of infested crape myrtles in the nursery trade. CMBS belongs to the family Eriococcidae in the order Hemiptera.

Identification

CMBS is a pinkish scale insect that produces a layer of whitish-gray waxy material that thickens as the scale matures (Fig. 1). Heavily infested crape myrtles may have trunks and branches encrusted with layers of CMBS (Fig. 2). CMBS produces copious amounts of honeydew, which supports the growth of sooty mold. Crape myrtles with heavy coverings of sooty mold may have blackened trunks and branches (Fig. 3). CMBS should be suspected if scale insects are found on the trunks and branches of crape myrtle.



Figure 1. Crapemyrtle bark scale (Michael Merchant, Texas Cooperative Extension, Bugwood.org).

Damage

CMBS does not appear to kill healthy crape myrtles quickly, but it is a strong stress factor on the trees. Crape myrtles infested with CMBS tend to leaf out

later in the spring; have fewer, smaller bloom clusters; and have reduced plant vigor, all of which diminishes the attractiveness of this popular ornamental tree. Heavy coatings of sooty mold on leaves reduce photosynthesis, also lowering plant vigor. Branches and trunks blacked with sooty mold (Fig. 3) further reduce the aesthetic quality of crape myrtles as ornamental trees.



Figure 2. Heavy population of crapemyrtle bark scale (Jim Robbins, University of Arkansas CES, Bugwood.org).



Figure 3. Crape myrtle branch covered with crapemyrtle bark scale and sooty mold (Mengmeng Gu, Texas A&M AgriLife Extension Service, Bugguide.org).

CMBS can be considered a nuisance pest because its honeydew coats vehicles, other plants, and structures near infested trees, supporting the presence of sooty mold and attracting bees, wasps, and ants.

Life History

Female CMBS can lay several hundred pink eggs when mature. The eggs hatch into pinkish mobile crawlers (Fig. 4), which move onto new areas of the plant before settling down as sessile nymphs. Sessile CMBS develop increasingly denser coverings of whitish waxy material as they develop. Nymphs molt into adult females or, after a “pupal” stage, into adult males. There are 2-4 generations of CMBS each year in the more southern regions of the US. In Virginia, CMBS appears to have at least two generations per year based on samples submitted for identification.



Figure 4. Crawlers of crapemyrtle bark scale (Jim Robbins, University of Arkansas CES, Bugwood.org).

Distribution

CMBS was first recognized in Texas in 2004. Scattered populations are now found throughout the southeastern US, extending into the Mid-Atlantic and the lower Plain States. CMBS was first detected in Chesapeake, Virginia, in 2014. Since then, CMBS has been found in multiple counties and independent cities in eastern Virginia.

Monitoring

Monitor for CMBS in the crotches of branches and trunks, around old pruning scars, and under the loose bark of crape myrtles. Sooty mold is strongly associated with CMBS, although heavy aphid

populations can also result in sooty mold. CMBS has occasionally been found on other host plants near infested crape myrtles, so other plantings around crape myrtles should be examined as well.

Check for live CMBS by running a fingernail over the scales and looking for a pinkish-red fluid. Dead scales will be dry, but their bodies may persist on the trunk and branches of crape myrtle until they weather off. This technique can be used to assess if a control treatment was effective or not.

Control

Avoid buying infested plants from garden centers and nurseries. Plant crape myrtles properly in full sun, which discourages establishment of CMBS. Maintain plant health, but do not apply too much nitrogen fertilizer, which may encourage scale populations.

Examine infested plants for ladybird beetles feeding on CMBS. Naturally occurring predators, such as *Hyperapis begeminata*, can drastically reduce CMBS infestations. Adult *Hyperapis begeminata* are small, shiny, domed black beetles with two red spots (Fig. 5). Immatures of this ladybird beetle are covered with a white fluffy covering and are often mistaken for CMBS (Fig. 6). However, the beetle larvae will move when disturbed, unlike adult CMBS.



Figure 5. Adult *Hyperapis begeminata* ladybird beetle, a predator of crapemyrtle bark scale (M.J. Raupp, University of Maryland).



Figure 5. *Hyperapis begeminata* larva, a ladybird beetle predator of crapemyrtle bark scale (M.J. Raupp, University of Maryland).

Apply a soil drench of imidacloprid or dinotefuran when crape myrtles begin to leaf out in the spring, usually around April. Other options suggested for CMBS, but not fully researched in Virginia, include the use of dormant oil or insecticidal soap. Dormant oil applied in the winter or late spring, before the trees begin new growth, may help smother any overwintering populations of CMBS. Insecticidal soap sprays can be applied during the warmer months when the crawlers are active. However, insecticidal soap will not be effective against mature nymphs or adult CMBS, which are protected by their felted waxy coverings. Insecticidal soap sprays should not be applied in addition to any soil drenches, or when pollinators or other beneficial insects such as ladybird beetles are present on the trees.

Consider lightly pruning flower clusters and branches heavily infested with CMBS before spray treatments. This reduces the tree's attractiveness to other insects such as pollinators, physically removes large numbers of the pest, and allows for better coverage of the interior of the tree.

Another control option is to lightly scrub the main trunks of crape myrtles with soapy water made with mild dish detergent and a stiff-bristled brush to kill and remove CMBS. This also removes some of the sooty mold and the loose exfoliating bark that shelters CMBS, exposing the scales to any spray treatments that may be applied.

Commercial growers should see the current [Virginia Pest Management Guide for Horticultural and Forest Crops](#) (VCE publication 456-017) for registered

insecticides recommended for control of CMBS. Do not apply insecticides when pollinators or predatory ladybird beetle adults or larvae are present.

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2021

ENTO-465NP