

## Crape Myrtle Diseases & Insect Pests

Crape myrtles (*Lagerstroemia indica*) are essentially trouble-free small trees. The most common problems include powdery mildew, Cercospora leaf spot, aphids, Japanese beetles and sooty mold. More information on successfully growing crape myrtles is available [in HGIC 1008, \*Crape Myrtle\*](#), and [HGIC 1009, \*Crape Myrtle Pruning\*](#).

### Diseases

**Powdery Mildew:** Powdery mildew is one of the most common problems of crape myrtle, and it is caused by the fungus *Erysiphe lagerstroemia*. Patches of white to grayish powdery growth occur on the surfaces of leaves, flowers and new shoots. Heavily infected flowers may fail to open. Infected parts of the plant are usually distorted and stunted. The disease is most serious in shady, damp locations, especially where plants are crowded and air circulation is poor. Development of the fungus is favored by high humidity at night and dry, mild daytime conditions, as often occurs during the spring and fall.



Powdery mildew coating the flower buds of crape myrtle.  
James Blake, ©2007 HGIC, Clemson Extension

**Prevention & Treatment:** The most effective control measures include locating plants in full sun, removing sprouts from the base of the plant and planting resistant varieties. Susceptible varieties of crape myrtle should be avoided. Removing diseased twigs and branches may be possible, if only a few shoots are infected. Remove sprouts (suckers) at the base of the plant as they occur, since they are very susceptible to powdery mildew. Once these sprouts become infected, the fungus easily spreads to the upper portions of the plant.

**Plant Resistant Varieties:** The extent of resistance to powdery mildew for a particular variety may vary from location to location and may depend on particular conditions occurring in the environment.

- The *Lagerstroemia indica* x *fauriei* hybrids developed at the U. S. National Arboretum in Washington, D. C. are resistant to powdery mildew.
- Varieties with very good resistance to powdery mildew and fairly good tolerance to Cercospora leaf spot include: 'Apalachee,' 'Basham's Party Pink,' 'Caddo,' 'Dodd #2,' 'Fantasy,' 'Glendora White,' 'Hopi,' 'Lipan,' 'Miami,' 'Osage,' 'Pecos,' 'Regal Red,' 'Sarah's Favorite,' 'Sioux,' 'Tonto,' 'Tuscarora,' 'Tuskegee,' 'Velma's Royal Delight' and 'Wichita.' 'Apalachee' and 'Fantasy' are totally resistant to powdery mildew.
- 'Catawba,' 'Cherokee,' 'Seminole,' and 'Yuma' have some resistance to powdery mildew.

**Varieties to Avoid:** 'Gray's Red,' 'Orbin's Adkins,' 'Carolina Beauty,' 'Wonderful White,' 'Raspberry Sundae' and 'Potomac.'

If disease is severe enough to warrant chemical control, select a fungicide containing one of the

following: myclobutanil, propiconazole, thiophanate-methyl, or copper-based fungicides (see Table 1 for specific products). Multiple applications may be required. Apply all chemicals according to directions indicated on the label.

**Cercospora Leaf Spot:** Leaf spots caused by *Cercospora lythracearum* may appear on crape myrtles that are caused by the fungus *Cercospora* species during periods of warm, moist weather. Yellow spots ( $\frac{1}{8}$  to  $\frac{1}{4}$  inch diameter) appear on the upper leaf surface with white-grey sporulation of the fungus on the lower leaf surface. The disease can result in almost complete defoliation of the plant in late summer and fall in susceptible cultivars.

**Prevention & Treatment:** Select resistant varieties for new plantings. The varieties, 'Fantasy,' 'Tonto,' 'Tuscarora,' 'Tuskegee' and 'Velma's Royal Delight,' have exhibited resistance to *Cercospora* leaf spot in field trials. The amount of resistance may vary from location to location and may depend on particular environmental conditions. Provide good air circulation and avoid overcrowding plants. If disease is severe enough to warrant using chemicals for control, thiophanate-methyl or myclobutanil as used for powdery mildew will control *Cercospora* leaf spot (see Table 1 for specific products). Apply all chemicals according to directions on the label.

## Insects & Other Pests

Very few insects are pests of crape myrtle. In South Carolina, the most important insect pest is the crape myrtle aphid (*Sarucallis kahawaluokalani*), which is found on the leaves and twigs of crape myrtle. Crape myrtle aphids feed only on crape myrtle trees. Japanese beetle (*Popillia japonica*) is also a pest, feeding on leaves and flowers. In addition to crape myrtle, it will feed on nearly three hundred different plant species.

**Crape Myrtle Aphids:** Crape myrtle aphids are pale yellowish green in color with black spots on the abdomen. They vary in length from  $\frac{1}{16}$  to  $\frac{1}{8}$  inch long. They overwinter (survive the winter) as eggs, which hatch in the spring. During the growing season, females give birth to live young. Since it takes about 10 days to reach maturity, several generations are produced each growing season. At

the end of the growing season, females produce eggs that overwinter.

Aphids feed by inserting their mouthparts into tender new leaves from which they suck plant sap. Plant sap has a high sugar content. When they feed, the aphids excrete large amounts of sugary liquid called honeydew. With a large aphid population, the honeydew can completely coat leaves. The honeydew serves as food for the sooty mold fungi (*Capnodium sp.*), as well as various insects, including ants, wasps and flies.



A heavy infestation of aphids on the underside of a leaf. Image from John Herbert, University of Florida

As the aphid feeds, it injects saliva into the leaf. The saliva causes yellow spots to develop on the leaf. Their feeding on young leaves often causes distortion of leaves. Buds, branch tips and flowers can also be affected by feeding.

**Control:** The following crape myrtle hybrids (*Lagerstroemia indica x fauriei*) have moderate resistance to aphids: 'Muskogee,' 'Natchez,' 'Tuscarora,' 'Acoma,' 'Tuskegee,' 'Hopi,' 'Pecos,' 'Zuni,' 'Biloxi,' 'Miami,' 'Wichita,' 'Apalache,' 'Comanche,' 'Lipan,' 'Osage,' 'Sioux,' 'Yuma,' 'Caddo,' 'Tonto,' 'Choctaw' and 'Fantasy.' Consider using these in new plantings.

Several predators feed on the crape myrtle aphid. These include ladybird beetles (ladybugs) and their larvae (immature forms), green lacewings and their larvae, hover fly maggots, parasitic wasps and entomophagous (insect feeding) fungi. As much as possible, these natural predators should be allowed to reduce aphid populations. In addition, aphids can sometimes be removed from plants by spraying with a strong stream of water. Spraying with water may have to be repeated regularly, as needed.

As a result of their phenomenal reproductive rate, aphids are very difficult to control with insecticides. If a single aphid survives, a new colony can be produced in a short period of time. In addition, using insecticides means that beneficial predators will also be killed. If it is determined to be absolutely necessary, various insecticides are labeled for use by homeowners against aphids on crape myrtles. These include insecticidal soap, horticultural oil, pyrethrins, neem oil, permethrin, cyfluthrin, lambda cyhalothrin, acephate or malathion. Soil drenches of imidacloprid in the spring will control aphids and last longer within the plant to prevent future infestations by aphids and other insect pests (see Table 1 for specific products). As with all pesticides, read and follow all label instructions and precautions.

**Japanese Beetles:** Adult Japanese beetles are about ½ inch in length and coppery-brown in color with metallic green heads. They emerge from the soil and feed from May to August. They lay their eggs in the soil. Grubs hatch from the eggs and feed on grass roots. As the weather cools, the grubs move more deeply into the soil, to overwinter.

Both adult beetles and their larvae (grubs) can seriously damage plants as a result of their feeding. Adult Japanese beetles eat flowers and skeletonize leaves (eat leaf tissue between the veins, resulting in a lacy skeleton remaining). The grubs feed on the roots of plants, especially on the roots of grasses.

**Control:** Multiple approaches are necessary for controlling Japanese beetles. Adults can be removed by handpicking and destroyed. Japanese beetle traps are available commercially or can be homemade. They may be effective at reducing adult populations.

Keep traps at least 50 feet from the crape myrtle tree or you may create more of a problem by attracting them to the area. Milky spore, *Paenibacillus popilliae*, is a disease-causing bacterium that is effective against grubs of Japanese beetles but not the adults. It is commercially available for homeowner use. Many products containing carbaryl, neem oil, cyfluthrin, permethrin, lambda cyhalothrin or acephate are labeled for use by homeowners against Japanese beetles on crape myrtle. Soil drenches of imidacloprid in the spring will control Japanese beetles and last longer within the plant to prevent

future infestations by additional pests (see Table 1 for specific products). As with all pesticides, read and follow all label instructions and precautions.

## Other Problems

**Sooty Mold:** Leaf and stem surfaces are covered with a black sooty substance, causing them to appear black and dirty. Sooty mold indicates that there is an insect problem on the plant. These common molds are caused by fungi that grow on the sugary substance, called honeydew, produced by various insects that suck sap from the plant. Aphids, scales, mealybugs and whiteflies most commonly cause this problem.



Sooty mold completely covers these crape myrtle leaves. Image from John Herbert, University of Florida

**Prevention & Treatment:** Sooty molds are unsightly, but are relatively harmless, since they do not directly attack the plant. Controlling the insect problem can reduce excessive amounts of sooty mold. Reduce aphid numbers by allowing beneficial insects such as lady beetles to inhabit the plant. Aphids can sometimes be washed from the plant with a strong stream of water.

Although not necessary, sooty mold can be washed from the leaves by drenching with a dish soap solution (4 ounces per gallon of water), waiting three to four minutes, and then washing the foliage with a strong stream of water.

**Lichens:** A lichen is an unusual organism composed of a fungus and an alga living together in the same body. Lichens often appear as green to gray-green leafy or crusty growths on the trunks or branches of plants. Typically, they occur in abundance on plants that are declining in health or vigor. They are harmless to the plant, and are in no way responsible for the poor health of the plant. Less vigorous plants tend to be more open, increasing sunlight penetration, and subsequent lichen growth.

**Prevention & Treatment:** Controls are not necessary. Lichens will gradually disappear if the health of the plant is restored.



These harmless lichens are growing on an older crape myrtle.  
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**Table 1. Insecticides & Fungicides for Crape Myrtle Insect Pest & Disease Control.**

Insecticides & Fungicides	Examples of Brand Names & Products
Acephate	Bonide Systemic Insect Control Concentrate
Carbaryl	Garden Tech Sevin Bug Killer Concentrate
Copper-based Fungicides	Bonide Liquid Copper Concentrate Monterey Liqui-Cop Fungicide Concentrate Bonide Copper Fungicide Camelot O Fungicide/ Bactericide Concentrate Natural Guard Copper Soap Liquid Fungicide Concentrate
Cyfluthrin	Bayer Advanced Vegetable & Garden Insect Spray Concentrate
Horticultural Oil	Bonide All Seasons Spray Oil Concentrate Ferti-lome Horticultural Oil Spray Concentrate Southern Ag Parafine Horticultural Oil Monterey Horticultural Oil Concentrate
Imidacloprid	Bayer Advanced 12 Month Tree & Shrub Insect Control Bonide Annual Tree & Shrub Insect Control with Systemaxx Ferti-lome Tree & Shrub Systemic Insect Drench Gordon's Tree & Shrub Insect Killer Concentrate Monterey Once A Year Insect Control II
Insecticidal Soap	Bonide Multi-Purpose Insect Control Soap Concentrate Espoma Earth-Tone Insecticidal Soap Concentrate Natural Guard Insecticidal Soap Concentrate Safer Brand Insect Killing Soap Concentrate Schultz Garden Safe Insecticidal Soap Concentrate
Lambda Cyhalothrin	Bonide Caterpillar Killer RTS <sup>1</sup> Bonide Beetle Killer RTS <sup>1</sup> Martin's Cyonara Lawn & Garden Concentrate; & RTS <sup>1</sup> Spectracide Triazicide Insect Killer for Lawns & Landscapes Conc.; & RTS <sup>1</sup>

Malathion	Bonide Malathion 50% Insect Control Concentrate Gordon's Malathion 50% Spray Concentrate Hi-Yield 55% Malathion Insect Spray Martin's Malathion 57% Concentrate Ortho MAX Malathion Insect Spray Concentrate Southern Ag Malathion 50% EC Spectracide Malathion Insect Spray Concentrate Tiger Brand 50% Malathion Spray
Milky Spore	Gabriel Laboratories Milky Spore Powder; or Granular
Myclobutanil	Spectracide Immunox Multi-Purpose Fungicide Concentrate Ferti-lome F-Stop Lawn & Garden Fungicide
Neem Oil	Ferti-lome Triple Action Plus: Neem Oil Concentrate (w/ pyrethrins) Garden Safe Fungicide 3 Concentrate Garden Safe Neem Oil Extract Concentrate Monterey 70% Neem Oil Fungicide/Insecticide/Miticide Schultz Neem Oil Extract Concentrate Southern Ag Triple Action Neem Oil Concentrate Natural Guard Neem Concentrate
Permethrin	Bonide Eight Insect Control Vegetable Fruit & Flower Conc. Bonide Total Pest Control – Outdoor Concentrate Bonide Eight Yard & Garden Ready To Spray (RTS <sup>1</sup> ) Hi-Yield Indoor/Outdoor Broad Use Insecticide Concentrate Martin's Vegetables Plus Concentrate Tiger Brand Super 10 Concentrate
Propiconazole	Banner Maxx Fungicide Bonide Infuse Concentrate Ferti-lome Liquid Systemic Fungicide II Concentrate Martin's Honor Guard PPZ Concentrate Martin's Systemic Fungicide RTS <sup>1</sup>
Pyrethrin	Bonide Garden Insect Spray Concentrate Spectracide Garden Insect Killer Concentrate Southern Ag Natural Pyrethrin Concentrate Monterey Bug Blaster-O
Thiophanate-methyl	Cleary's 3336-WP Turf & Ornamental Fungicide Southern Ag Thiomyl Systemic Fungicide
<b>Note:</b> Control of diseases and insects on large trees is usually not feasible, since adequate spray coverage of the foliage with a pesticide cannot be achieved.	
<sup>1</sup> RTS = Ready to Spray (a hose-end sprayer)	

Pesticides Updated by Joey Williamson, HGIC Horticulture Extension Agent, Clemson University, 10/16. Revised by Joey Williamson, HGIC Horticulture Extension Agent, Clemson University, 08/14. Originally prepared by Nancy Doubrava, HGIC Information Specialist; J. McLeod Scott, HGIC Horticulture Extension Agent; James H. Blake, Extension Plant Pathologist; and Clyde S. Gorsuch, Extension Entomologist (Emeritus), Clemson University. New 05/99. Images added 04/07.

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