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ANR-1047

Common Diseases of Crapemyrtle

Brilliant fall color, exfoliating bark, lush green leaves, and showy flowers make crapemyrtle *(Lagerstroemia indica)* a favorite in landscapes and gardens across Alabama. Introduced from China in the mid-1700s, crapemyrtle selections range in size from dwarf shrubs to sizable trees and are widely used in screens, hedges, and mass plantings or individually as accent or specimen plants.

This highly versatile shrub or tree, which blooms primarily in June and July, adapts best in well-drained soils on sunny sites across Alabama. The flower color of available crapemyrtle selections ranges from white to pink, purple, and many shades of red. In the mid-1950s, the crapemyrtle species *L. fauriei* was introduced from Japan and later crossed with *L. indica* to produce many highly attractive and powdery-mildew resistant selections of hybrid crapemyrtle *(L. indica* x *fauriei)*. Within the last decade, a number of improved cultivars of *L. indica* crapemyrtle have been released. See Extension publication ANR-1083, "Common Crapemyrtle," for additional information on the selection and care of crapemyrtles.

In landscapes and nurseries across Alabama, crapemyrtles are relatively free of highly damaging diseases. Powdery mildew and Cercospora leaf spot are the most common diseases found on crapemyrtles. While neither disease is a significant threat to the health and vigor of established plants, both can detract from their beauty in landscape plantings and from the market value of container-grown crapemyrtles.

Powdery Mildew

Powdery mildew, the most common and widely recognized disease on crapemyrtles, is easily identified by the cottony white to buff-colored patches or colonies of the causal fungus *Erysiphe lagerstroemia* on the leaves, tender shoots, and scales on the flower buds, particularly on selections of *L. indica* (Figures 1 and 2). On heavily mildewed plants, twisting or distortion of the leaves and shoots as well as abortion of the flower buds can be seen. On the most susceptible cultivars, leaves on tender, heavily colonized shoot tips can wither and die (Figure 3). Also, heavily diseased trees may drop their leaves. Powdery mildew can appear as early as leaf-out in mid-April, but leaf colonization usually does not become noticeable before late May or early June. In favorable conditions, this disease will intensify throughout the summer.

Figure 1. Powdery mildew on crapemyrtle

Figure 2. Powdery mildew on crapemyrtle

Figure 3. Leaves wither and die on the most susceptible cultivars

The causal fungus overwinters as dormant mycelia in leaf buds. Spores of this fungus spread to healthy leaves and tender shoots by air currents. Warm days and cool nights as well as extended periods of relatively dry weather favor the development and spread of powdery mildew on crapemyrtles. While nearby diseased crapemyrtles can be sources of powdery mildew, the powdery mildew fungus is often introduced into landscape plantings on infected plant material.

Cercospora Leaf Spot

Although Cercospora leaf spot, which is caused by the fungus *Cercospora lythracearum,* is not a widely recognized disease, heavy defoliation in the late summer and early fall greatly detracts from the fall color of many crapemyrtle cultivars. Damaging outbreaks of this disease occur on cultivars of *L. indica* and *L. indica x fauriei.* Symptoms of Cercospora leaf spot first appear on leaves as circular to irregular brown spots about ¼ inch in diameter. Diseased leaves may be twisted or distorted. As the spots enlarge and become more numerous, diseased leaves often turn yellow to bright red, depending on the cultivar damaged, and then fall to the ground (Figure 4).

Typically, spotting of the leaves begins on the branches around the base of the plant and then gradually spreads upward through the canopy until all but the youngest leaves at the shoot tips are lost (Figure 5). Although leaf spot symptoms can appear as early as late June to early July, premature leaf drop usually does not begin until mid-August. By mid-September, 50 percent of the leaves on susceptible cultivars can be lost. On leaf spot-susceptible crapemyrtle cultivars, severe leaf shed may not become noticeable until 1 to 2 years after plant establishment in the landscape. On disease resistant cultivars, leaf spotting and defoliation are often confined to the branches in the lower canopy and have little impact on aesthetics.

Figure 4. Diseased leaves turn yellow to bright red, then fall to the ground

Figure 5. Spotting from Cercospora leaf spot spreads to all but the youngest leaves on the shoot tips

The causal fungus is associated with crapemyrtles in both the nursery and the landscape. Diseased cuttings are the most likely source of Cercospora leaf spot in container-grown crapemyrtles. In landscape plantings, fallen diseased leaves from the previous year are probably the main sources of the Cercospora leaf spot fungus. Spores are spread to the new foliage by wind. Later, disease development accelerates, particularly in late summer, as spores are produced on leaves on the lower limbs and dispersed to healthy leaves in the upper canopy. Frequent showers or persistent heavy dews facilitate spore formation, their spread to healthy leaves, and disease development.

Control

The following procedures can help control powdery mildew and Cercospora leaf spot on crapemyrtles:

• Planting a crapemyrtle cultivar that is resistant to powdery mildew and Cercospora leaf spot is the best and most effective defense against both diseases. Antique *L. indica* selections that are commonly found around old homesites are often highly susceptible to powdery mildew and Cercospora leaf spot. In addition, most of the *L. indica* cultivars now in the nursery trade are susceptible to both diseases. 'Catawba,' 'Cherokee,' 'Glendora White,' and 'Potomac' are *L. indica* crapemyrtles that have good powdery mildew and Cercospora leaf spot resistance. Hybrid *(L. indica x fauriei)* crapemyrtles highly resistant to both diseases include 'Apalachee,' 'Basham's Party Pink,' 'Caddo,' 'Tonto,' 'Tuskegee,' and 'Tuscarora.' Other desirable crapemyrtle cultivars are the hybrids 'Natchez' and 'Sarah's Favorite' as well as 'Velma's Royal Delight.' The *L. fauriei* cultivar 'Fantasy' also suffers little damage from powdery mildew or Cercospora leaf spot. The *L. indica* cultivars 'Carolina Beauty,' 'Wonderful White,' 'Raspberry Sundae,' 'Powhatan,' 'Peppermint Lace,' 'Majestic Beauty,' and 'Orbin Adkins,' which are all highly sensitive to powdery mildew and Cercospora leaf spot, are poor choices for a low-maintenance home or commercial landscape. In a recent Alabama field trial, the powdery mildew resistant cultivars 'Acoma,' 'Near East,' 'Yuma,' 'Souix,' 'Hopi,' and 'Comanche' suffered from heavy leaf spotting and defoliation due to Cercospora leaf spot. See Alabama Agricultural Experiment Station (AAES) Bulletin 644 for more information on the susceptibility of crapemyrtle selections to powdery mildew and Cercospora leaf spot.

• Collecting and disposing of fallen, diseased leaves can help slow the spread of both diseases.

• Spacing out plants in new plantings of crapemyrtles improves air circulation and promotes sunlight penetration into the lower canopy.

• Making frequent applications of low rates of nitrogen is better than making one application of a high rate.

• Properly timing fungicide treatments protects powdery mildew and Cercospora leaf spot-susceptible cultivars from damage.

Powdery mildew: Apply the first fungicide spray shortly after leaf-out or as the characteristic white colonies first appear on the leaves. Continue fungicide applications at 1- to 2-week intervals until midsummer. See Table 1 for fungicides recommended for the control of powdery mildew.

Cercospora leaf spot: Wait until leaf spotting starts on the leaves on the lower limbs in early to mid-July to make the first fungicide application. Repeat applications at 1- to 2-week intervals, depending on the fungicide selected, until early September. See Table 1 for fungicides recommended for the control of Cercospora leaf spot.

When either powdery mildew or Cercospora leaf spot is severe, apply a fungicide at the highest rate and shorten the treatment interval. Several fungicides will effectively control both powdery mildew and Cercospora leaf spot on crapemyrtles.

References

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Table 1. Chemical Control of Powdery Mildew and Cercospora Leaf Spot on Crapemyrtles

Fungicide	Application Rate		Comments
	Per gal.	Per 100 gal.	
Powdery Mildew			
azoxystrobin Heritage 50W	N/A	1 to 4 oz.	Apply at 14- to 28-day intervals. Product for commercial use.
copper hydroxide Blackspot and Powdery Mildew Control	½ t.	N/A	Apply at 7- to 14-day intervals. Product for home landscape use.
myclobutanil Immunox	2 T. (1 fl. oz.)	N/A	Apply at 7- to 14-day intervals as needed to control disease. Product for home landscape use.
Eagle 40W	N/A	6 oz.	Apply at 7- to 14-day intervals as needed to control disease. Product for commercial use.
Eagle 20EW	N/A	6-12 fl. oz.	
propiconazole Systemic Fungicide	½ to 1½ fl. oz.	N/A	Apply at first sign of disease and repeat at 14-day intervals. Product for home landscape use.
Banner Maxx	N/A	5 to 8 fl. oz.	Apply at first sign of disease and repeat at 14-day intervals. Product for commercial use.
thiophanate-methyl Halt 50W	2½ t.	N/A	Apply at first sign of disease and repeat at 7- to 10-day intervals. Product for home landscape use.
3336 50W	2½ t.	12 to 16 oz.	Apply at first sign of disease and repeat at 7- to 14-day intervals. Product for commercial use.
3336 4.5F	N/A	10 to 20 fl. oz.	
triforine Rose and Shrub Disease Control	1 T.	N/A	Apply at first sign of disease and repeat at 7- to 14-day intervals. Product for home landscape use.
Cercospora Leaf Spot			
azoxystrobin Heritage 50W	N/A	1 to 4 oz.	Apply at 14- to 28-day intervals. Product for commercial use.
copper hydroxide Blackspot and Powdery Mildew Control	1½ t.	N/A	Apply at 7- to 14-day intervals as needed. Product for home landscape use.
myclobutanil Immunox	2 T. (1 fl. oz.)	N/A	Apply at 7- to 14-day intervals as needed to control disease. Product for home landscape use.
Eagle 40W	N/A	6 oz.	Apply at 7- to 14-day intervals as needed to control disease. Product for commercial use.
Eagle 20EW	N/A	6-12 fl. oz.	
thiophanate-methyl 3336 50W	2½ t.	12 to 16 oz.	Apply at 7- to 14-day intervals as needed to control disease. Product for commercial use.
3336 4.5F	N/A	10 to 20 fl. oz.	
Halt 50W	2½ t.	N/A	Apply at first sign of disease and repeat at 7- to 10-day intervals as needed. Product for homeowner use.

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