

Commercial Crop Production Fruit and Nut Crops - Mayhaw

Integrated Disease Management

The mayhaw tree is the official state fruit tree in Louisiana. The tree is a Hawthorne native to the southeastern United States and is normally found in low and wet areas. Mayhaws flower in February and March, and the fruit is commonly used to make jellies. For more information on mayhaw trees visit the Louisiana Mayhaw Association website (<http://www.mayhaw.org>). Mayhaws are susceptible to two diseases in Louisiana: fire blight and cedar-quince rust (or quince rust) (Table 1). These diseases are best managed by using an integrated approach including fire blight-resistant varieties, good cultural and sanitation practices and judicious use of fungicides.

Site selection: Although mayhaws are found in lowlands and wetlands in nature, they produce best when planted in well-drained upland soils and full sun.

Resistant varieties: Several mayhaw varieties are resistant or tolerant to fire blight. A list of varieties commonly grown in Louisiana and the level of disease resistance to fire blight is provided in Table 2. No varieties have known resistance to cedar-quince rust.

Table 1. Symptoms, source of inoculum and management of mayhaw diseases

Disease (Pathogen)	
Fire blight <i>(Erwinia amylovora)</i>	<p>Symptoms: Infected blossoms turn black and die. Tender shoots become infected, resulting in a shoot blight that is characterized by dead leaves that remain attached to the shoot, which often develops into a shepherd's crook.</p> <p>Source of Inoculum: The bacterium survives in old cankers and is dispersed by splashing rain, wind-driven rain, bees and other insects.</p> <p>Management: Plant-resistant varieties (Table 2). Prune out diseased branches. Sanitize pruning equipment. Aliette (2.5-5 lbs/100 gal) can be applied to nonfruit-bearing trees. Fosphite (Aluminum tris, 1-3 qt/100 gal) can be applied to fruit-bearing and nonfruit-bearing trees. Alude (2.5-5 pt/A) can be applied to manage fire blight.</p>
Cedar-quince rust <i>(Gymnosporangium clavipes)</i>	<p>Symptoms: Infected fruit develop pimply projections and ripen unevenly. Infected twigs become thickened and deformed.</p> <p>Source of Inoculum: The fungus overwinters in cankers on eastern red cedar and some junipers. Spores are wind-dispersed.</p> <p>Management: Adament (4-5 oz/A), Inspire Super (12 fl oz/A), Pristine (14.5-18.5 oz/A), Sovran (3.2-6.4 oz/A) and TopGuard (8-12 fl oz/A) can be applied to suppress quince rust.</p>

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Table 2. Mayhaw varieties, variety characteristics and resistance to fire blight

Resistance categories: R = Resistant; T = Tolerant; S = Susceptible; VS = Very susceptible

Variety	Variety Characteristics	Resistance
Big Red	Requires a cross pollinator (i.e. Marlene or Maxine), blooms late, red fruit with pink flesh, yields high on first shaking	R
Cajun	Small- to medium-size tree, blooms very late, yields high on first shaking	R
Crimson	Blooms late, mostly red fruit (some pink), moderate to high fruit drop	R
Double G	Well-formed tree, blooms early, dark red fruit, yields high on first shaking	S
Elite	Blooms early, deep red fruit, yields high on first shaking	R
Hope 13	Blooms early, large dark red fruit, very low fruit drop, yields high on first shaking	R
Marlene	Blooms very early, medium-size red fruit, high level of fruit drop (use suspended netting to collect dropping fruit)	R
Maxine	Inverted umbrella shaped canopy, large red fruit, blooms late, low fruit drop	R
Red Majesty	Blooms late, red fruit, low level of fruit drop	VS
Red Splendor	Cross between Texas Star and Cajun, blooms early, dark red fruit, holds fruit well, yields high on first shaking	T
Royalty	Blooms early, medium- to large-size red fruit, moderate level of fruit drop, does not hold fruit well in high winds	T
Royal Star (G5)	Thornless tree, dark red to purple fruit, low fruit drop, yields high on first shaking	S
Spectacular	Requires a cross pollinator (i.e. Texas Star or Royal Star), blooms early, large fruit, yields high on first shaking	R
Super Spur	Bloom early, deep red fruit, resistant to high winds, very high yielding	R
Texas Star	Well-formed tree, blooms early, red fruit, yields high on first shaking	S

Information in this section was last updated in December 2019 by Dr. R. Singh.