

# PLANT HEALTH CARE REPORT



## Southern Magnolia

Southern magnolia (*Magnolia grandiflora*) is a magnificent, slow-to-moderate growing evergreen tree. It is well suited as a large specimen plant or as part of a group planting screen. Large, glossy green leaves and showy white, summer flowers make it a popular ornamental in warm climates. If winter temperatures drop between 20°F to -10°F damage or mortality can occur; damage usually occurs below 0°F.



Espalier pruning system

Southern magnolia grows best in acidic (pH 5 to 6), well-drained, loamy, moist, rich soils. They are tolerant of high soil moisture but cannot withstand prolonged flooding. Partial shade or full sun is ideal.

This species should be mulched to the dripline to make watering and fertilization easier and to promote root growth. Letting branches grow to the ground allows for an accumulation of fallen leaves and branches that produce a natural mulch and reduce traffic, which can compact the soil. The root collar must be kept free of mulch and soil to prevent disease.

Irrigation is essential in dry climates in both the summer and winter. Southern magnolia prefers 40 to 80 inches of water every year. Mulch will conserve soil moisture and speed penetration of water into the root zone. High salts or boron in irrigation water will cause marginal leaf-scorching.

Southern magnolia often becomes deficient in nitrogen and iron. Nitrogen deficiency appears as overall yellowing of the foliage. Annual fertilization when trees are young prevents this problem and promotes rapid growth. As the tree matures, a lower rate of nitrogen may be used. Iron deficiency occurs when the tree is grown in alkaline soils, wet soils, or when there are other root problems. Iron deficiency can be treated by adding a product to lower soil pH and by adding iron chelate to the soil.

Fungal leafspot diseases rarely damage southern magnolia but may cause premature defoliation and an unsightly appearance. Algal leafspot can cause unsightly spots in hot and humid locations (pictured at right). Wood decay can enter and weaken the stem and roots, so avoid wounding (including pruning) if possible. *Armillaria* attacks stressed and low vigor trees. *Verticillium* wilt, another fungal disease, can infect the root system and cause dieback of branches.



Trees should be monitored for scale insects on twigs and leaves. Black sooty mold is common with heavy infestations of soft scales. Bleaching of the leaves may be caused by thrips or spider mites. Black twig borers can cause damage to new growth twigs in the southeastern US. Occasionally, looper caterpillars, whitefly, and mealybugs damage southern magnolias.

---

## Monitoring and Treatment Considerations for Southern Magnolia

### Mid-winter

Remove dead, dying, diseased, and broken branches. Reduce or remove branches to promote appropriate structure.

### Late winter

Apply dormant treatment to suppress overwintering insects. Begin treatment to prevent black twig borer if needed. Sample soil for nutrient and pH levels. If decline is evident, submit root samples for root rot testing.

### Spring

Apply fungicide treatment at budbreak if there is a history of leafspot disease; repeat treatment as needed. Repeat treatment to

prevent black twig borer if needed. Monitor for scales, thrips, caterpillars, and mites; treat as needed. Fertilize, adjust pH, and amend soil according to soil analysis.

## Summer

Repeat fungicide treatment for leafspot disease as needed. Begin treatment for algal leafspot if present. Inspect for Verticillium wilt symptoms. Monitor irrigation and soil moisture to minimize water stress and prevent root disease. Remove branches killed by *Verticillium*.

## Fall

Repeat treatment for algal leafspot where needed. If sucking insects were problematic this past growing season, consider treating with an appropriately timed systemic product. Fertilize, adjust pH, and amend soil as needed. If leaf spot disease is evident, remove fallen leaves.

---