

## *Plant Health Care Recommendations for Southern Magnolia*

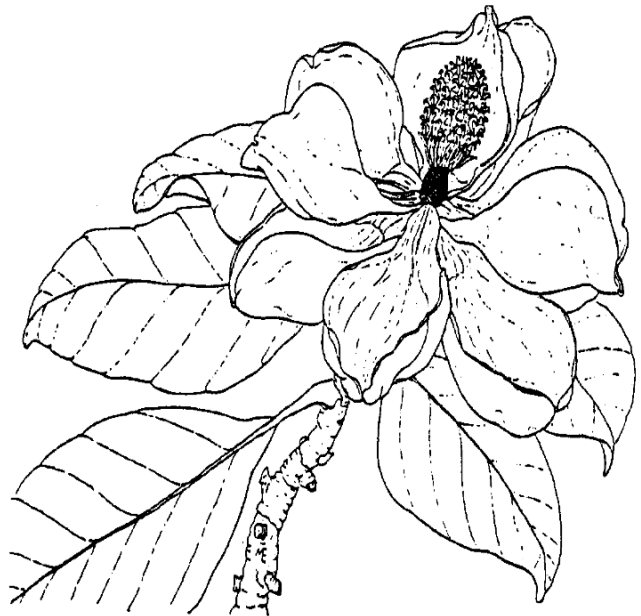
Southern Magnolia (*Magnolia grandiflora*) is a magnificent slow to moderate growing, large size evergreen tree. It is well suited for use as a specimen tree or as part of a group planting screen. Its large glossy green leaves and showy white summer flowers make it a popular ornamental in warm climates.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

Magnolia grows best in acidic (pH 5.0 to 6.0) well drained, loamy, moist, rich soils. They are tolerant of high soil moisture but cannot withstand prolonged inundation. Partial shade or full sun is ideal.

Trees 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 to 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. Magnolia prefers between 40 and 80 inches of water every year. Mulch will conserve soil moisture and speed penetration of water into the root zone. Irrigation water must be low in salt and boron or marginal leaf scorching will occur. Tensiometers allow for easy monitoring of soil moisture.

Magnolia often becomes deficient in nitrogen and iron. Nitrogen deficiency appears as overall yellowing of the foliage. Annual applications of Boost at the high rate when trees are young prevents this problem and



promotes rapid growth. As the tree matures the low rate of Boost 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 it may be treated by soil acidification and fertilization with iron.

Insects which cause great damage to magnolia are rare. The tree does need to be monitored for scale insects on twigs. An indication of a heavy scale infestation is a blackening of the leaves or twig dieback. Bleaching of the leaves may be caused by the greenhouse thrips or mites. Occasionally, looper caterpillars, whitefly and mealybugs are found damaging trees.

There are numerous fungal leaf spots which attack magnolia. They are rare but may cause premature defoliation and an unsightly appearance when found. Wood decay can weaken the trunk and roots of magnolia. To reduce entrance into the trunk, avoid wounds, including pruning wounds when possible. Keeping the root collar free of mulch and soil reduces the risk of *Armillaria* infection. Verticillium wilt is a fungal disease which infects the root system and is seen as dieback of branches.

### **Recommended Monitoring for Southern Magnolia**

| <b>Timing</b> | <b>Treatment</b>   |
|---------------|--|
| Winter        | Inspect for deadwood and structural problems. Prune as needed.   |
| Late Winter   | Apply horticultural oil to suppress the overwintering stages of insect pests. Collect a soil sample for nutrient and pH analysis. If decline is present submit samples for nematode and root rot analysis. |
| Spring        | Monitor for leaf diseases, scale, mites, thrips, caterpillars and<br>Treat soil nutrient and pH problems as needed.  |
| Summer        | Monitor soil moisture level (weekly or bi-weekly) and irrigate as  |
| Fall          | Fertilize as needed. Soil inject for sucking insects if applicable.<br>If leaf spots diseases were present, infected fallen leaves should be removed.  |