

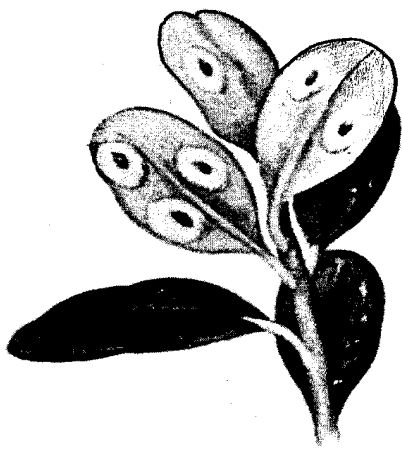


Boxwood

Boxwood (*Buxus sempiverens*) is the aristocrat of formal gardens. Native to Europe, this species has been used extensively in America since colonial times. Dwarf varieties, known as English boxwood are widely used as edging, hedges and foundation plants. The larger variety, known as American boxwood, is used as screens, foundation plantings and formal plantings.



Boxwood performs best in partial shade but will tolerate full sun. Soils must be well drained, organic, slightly acid to neutral pH and fertile. The shallow root system is intolerant of moisture extremes and competition with turf and other ground covers. A light layer of mulch benefits root development. Boxwood roots extend far beyond the edge of the crown. Soil disturbances such as compaction, cultivation and construction must be avoided in the plant's vicinity. On exposed sites, boxwood is very sensitive to foliage desiccation especially in winter.



Boxwood Leafminer

Boxwood is susceptible to a number of pests and disorders. Foliage feeding pests include psyllids, spider mites and leafminers (American boxwood). *Phytophthora* root rot, a fungus disease, is a leading cause of premature decline and death of boxwood. Root rot develops primarily on wet, poorly drained soils which aids growth and infection by the fungus. Boxwood also is very sensitive to root feeding nematodes. These microscopic worms have stylets which puncture root cells and remove their contents. Nematodes can severely stunt root growth and predispose plants to winter injury. Plants stressed by root disease, winter injury or other factors are prone to canker diseases that cause branch and stem dieback.

Recommended Monitoring for Boxwood

Timing	Treatment
Late Winter	Remove leaves from center of plants where they tend to collect. Prune out winter damaged branches. Thin crowns as necessary. Sample for nematodes, <i>Phytophthora</i> root disease and soil nutrient levels and pH if decline symptoms are evident. Apply hort oil to suppress psyllids and mites.
Early Spring	Apply treatment if nematodes are present. Fertilize and amend pH based on soil test reports. Apply fungicide soil drench if <i>Phytophthora</i> root rot is present. Monitor for psyllids, mites and leafminers. Treat as needed. Excavate mulch from root collars and add mulch to root zone as needed.
Mid Spring	Monitor for psyllids, mites and leafminers. Treat as needed. Inspect irrigation and soil moisture levels to reduce water stress and prevent root disease.
Early Summer	Monitor for spider mites and treat as needed. Inspect irrigation and soil moisture levels to reduce water stress and prevent root disease.
Mid Summer	Re-apply fungicide drench if <i>Phytophthora</i> root rot is present. Monitor for spider mites and treat as needed. Inspect irrigation and soil moisture levels to reduce water stress and prevent root disease.
Late Summer	monitor for spider mites and treat as needed. Inspect irrigation and soil moisture levels to reduce water stress and prevent root disease.
Fall	Apply mulch to root system as needed. Fertilize and adjust pH as specified in soil test report. Erect burlap barriers to protect against desiccation on exposed sites. Apply irrigation as necessary to ensure adequate soil moisture before soil freezes in order to minimize winter injury. Apply systemic insecticide if desired to reduce the level of sucking insects and leafminers next year.

Note: Boxwood should be thinned annually by removing small branches in the outer crown to allow light and air penetration to the center. Boxwoods that have been properly thinned should have growth along their entire stems. Dead branches should be removed when detected.

Timing of root disease treatments can vary throughout the growing season based on plant needs.