

RESEARCH LABORATORY TECHNICAL REPORT



Taxus Disorders

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Taxus (yews) are among the most popular evergreens for foundation plantings and hedges in the landscape. The Japanese yew (*Taxus cuspidata*), English yew (*T. baccata*) and a hybrid between these species known as Anglojap yew (*T. media*) are the most widely planted species with many available cultivars. *Taxus* is a popular landscape species because of its slow, compact habit of growth, lush green foliage, wide diversity of forms and resistance to pest problems. Occasionally, *Taxus* plantings will fail and the cause usually can be traced to an environmental or cultural problem.

Poor Drainage ("Wet Feet")

The most common cause of death of *Taxus* plantings is excessive soil moisture. This condition usually occurs in heavy clay soil, low areas where drainage is impeded, or adjacency to rainspouts on buildings. Yews do not tolerate the poor soil aeration associated with wet soil. *Phytophthora* root rot tends to develop on plants growing in poorly drained soils. Yews affected by "wet feet" generally exhibit a gradual decline including foliage yellowing and browning, poor growth, twig and branch dieback, and ultimately death (Figure 1). Where *Taxus* is declining on poorly

drained clay soils, replanting with a more tolerant species such as arborvitae, viburnum, or deciduous holly is the best practice. Efforts to improve soil drainage in planting holes will aid in the establishment of new *Taxus* plantings.

Acid Soils

Yews often are grown in mass plantings along with ericaceous plants such as pieris, mountain laurel, rhododendron, and azalea. Ericaceous plants prefer acid soils (pH: 4.5-5.5) whereas *Taxus* prefers a more alkaline soil (pH: 6.0-7.0). Acid-forming fertilizers, used to maintain ericaceous plants, often are applied to *Taxus* when these plants are grown together. The acid soils often lead to foliage chlorosis on *Taxus*. In this situation, it is recommended to apply dolomitic limestone to the soil beneath the crown of the *Taxus* plants in order to maintain a more alkaline soil environment. Apply three to four pounds of lime per 100 square feet of soil surface area beneath *Taxus* every three years.

Bark Wounds

Taxus species are very intolerant of bark wounds. Bark injuries as small as 1/3 the circumference of the branch

Figure 1: Plant death due to root rot caused by *Phytophthora* spp.



may lead to death of that portion of the limb distal to the injury. Bark wounds resulting from snow and ice accumulation in winter are the most common cause of branch and twig dieback. Tying the plants with soft twine in the fall can prevent breakage by snow and ice accumulation. Fasten the twine around the base of the trunk and wind it spirally upward to the top and back down in reverse spiral. The twine must be completely removed in early spring.

Winter Drying

Desiccation of the foliage during winter is a common problem, especially on *Taxus* grown in windy, exposed locations. English yew is most prone to winter drying while Japanese and Anglojap yews are hardier.

Figure 2: Mealybugs



Figure 3: Fletcher scale females



Insect Pests

The most destructive pests of *Taxus* are the black vine weevil and strawberry root weevil. Larvae of these pests feed on the roots, causing reductions in growth and vigor. Adults feed on the foliage causing characteristic notches in the blade. Other pests of *Taxus* include mealybugs, mites, and several species of scales, most notably Fletcher and cottony taxus scales (Figures 2 and 3).



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