Disorders of Yew (Taxus) in Ohio

Nancy J. Taylor and Stephen Nameth
Department of Plant Pathology
The Ohio State University

In landscape plantings yew (Taxus) is relatively free of infectious diseases. Most problems of yew are related to selection of an improper planting site, presence of excess soil moisture, occurrence of winter, insect, or nematode injury or misuse of herbicides. In poorly drained, wet soils Phytophthora root and crown rot or Pythium root rot may become a problem.

Description of Problems
Improper Planting Site and Excess Soil Moisture

Yews grow best in soil that is well drained and receives a moderate amount of moisture. When too much soil moisture is present, roots die from lack of oxygen. This problem is popularly known as “wet feet” (Figure 1). The root loss results in reduced water uptake. Decline and death of top growth closely follows. If living roots are found only in the mulch or in the top few inches of soil when a declining plant is dug, “wet feet” can be suspected.

Root Rot

Where excess moisture is present Phytophthora or Pythium root and crown rot can become a problem on surviving plant roots. Since these fungal diseases often follow non-infectious root death, they are difficult to diagnose without laboratory analysis of the dying root tissue.

Winter Injury

Winter injury of Taxus results in browning and death of foliage. The type of winter injury known as winter drying is more common on the south side of exposed plants. During warm sunny periods in winter, water loss from the needles may occur rapidly. This water is not replaced rapidly enough to prevent the drying of the plant tissue. This form of injury can be lessened by keeping the plants well-watered before the soil freezes in the fall and by avoiding planting sites exposed to drying winter winds.

Insect Injury

Insect injury is sometimes mistaken for disease. Taxus plants may turn yellow if heavily infested with the black vine weevil. The larvae of this insect do damage by feeding on the roots. The problem is not always readily diagnosed. Half-moon or crescent-shaped notches in needle margins are a sign that the black vine weevil may be present and feeding on roots (Figure 2).
Nematodes

Nematodes, primarily the lesion nematode (Pratylenchus) and the sting nematode (Scutellonema), are sometimes a problem on Taxus in well-drained soils. There is little that can be done about these pests on existing plants except to keep plants adequately watered and fertilized. If affected plants need replacement professional fumigation of the site prior to planting can be done.

Herbicides

Yew is occasionally injured when exposed to herbicides applied to nearby lawns. New growth on such plants is yellowed. Shoots may be twisted and distorted (Figure 3). In severe cases, plants can be killed. Such injury occurs when the herbicide comes in direct contact with the foliage. Herbicide can also be taken up through the roots when the material is washed into the root zone from the treated lawn. Sometimes fertilizer products containing weed killers are unknowingly applied around plant roots.

Management of Yew Problems

Poorly Drained Site

To determine if the site is poorly drained, dig a one-cubic foot hole near affected plants and fill with water. If water is still present in the hole after 24 hours, the site is poorly drained. Drain tiles, soil amendments, or a raised bed may be needed to grow yew successfully.

Excess Water

Look for sources of excess water. Is the plant next to a downspout? Is the plant being overwatered, perhaps via an automatic system set by the clock rather than as needed? Is the plant at the base of a slope? Reduce the amount of water standing around plant roots to allow good root growth.

Root Rot

Root rot diseases (Phytophthora or Pythium) are not well-managed with fungicide applications in the landscape. Since they are more severe under excess moisture conditions, the site improvement described above should improve the root rot problem. Professional fungicidal treatments are prescribed in some situations.

Winter Injury

If winter injury has occurred, wait until the growing season is well underway to determine the extent of dieback, then prune out dead branch tips. Consider moving affected plants if damage is severe.

Contact your local Extension office if black vine weevil is suspected. Agents can provide up-to-date information about care of infested plants. If herbicide damage is suspected, first determine the source of contamination to prevent further damage. If symptoms are severe throughout the plant, it may need replacement. Wait a year before replanting if exposure was through the roots. On plants with less severe damage prune out affected areas to remove unsightly growth. Stimulate new shoot growth with fertilizer. Water during droughts to maintain vigor.