



Noxious/Invasive Species

YEWS

(Poisonous Plant)

Illinois

Plants of wooded and old woodland pastures



Description

Taxus species: Yews are evergreen trees or shrubs with spirally arranged, linear, dark-green leaves that spread in two ranks, and with small, inconspicuous flowers and showy, berry-like red or yellow fruits. The bark is thin, reddish or reddish-brown, and flaking in thin scales. Winter buds have overlapping scales. The linear leaves are 1 to 1-½ inches long, have a prominent midvein and 2 yellowish-green bands on the under surface, and lack resin ducts. They may be abruptly pointed or gradually long-pointed at the apex.

Yews are northern hemisphere plants, usually separated into 7 or 8 species with numerous named cultivars or varieties. Two species are native to North America, the Canada yew (*Taxus Canadensis* Marshall), and western yew (*Taxus brevifolia* Nutt.). Canada yew is a shrub, less than 5 feet tall, with seeds that are broader than they are high. Western yew is a small tree with ovoid, 2- to 4-angled seeds.

Occurrence

Canada yew, a plant of coniferous woods, bogs, stony deciduous forests, and cliffs, ranges from Newfoundland to Quebec and Manitoba, south to Virginia, Kentucky, Ohio, Indiana, Illinois, and Iowa. Western yew usually grows singly or in small groups on deep soils along streams and on moist flats near the coast. It occurs along the coast from Alaska and British Columbia, south to California, and eastward to Montana.

Several other species of yews are cultivated in the United States. These include the English yew (*Taxus baccata* L.) and the Japanese yew (*Taxus cuspidate* Sieb. and Zucc.). The English yew is a native of Europe, North Africa, and western Asia. The leaves are gradually pointed, and the winter bud scales are obtuse. This species and its numerous cultivars are grown as ornamentals.

The Japanese yew, a native of Japan, Manchuria, and Korea, is widely used as an ornamental. Like Canada yew, it has winter bud scales with acute tips and abruptly pointed leaves. The leaves of Japanese yew are wider than those of Canada yew. Some of the common cultivars are Brown's yew (*Taxus cuspidate* 'browni') and *Taxus cuspidate* 'capitata.'

Taxus X media Rehder is a presumed hybrid between the English yew and the Japanese yew. Two of its important cultivars are Hick's yew and Hatfield yew.

Conditions of Poisoning

Yews are among the most toxic plants. They appear to be poisonous all seasons of the year, although most cases of poisoning have been reported in the spring or summer when the trees have been trimmed and cuttings have been placed where animals have access to them. If the clippings or plant itself are burned, the ashes are still poisonous. Thus don't allow the livestock access to any form or part of the plant or its products.

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Toxic Principles The toxic principle is taxine. Foliage, bark, or seeds, whether dry or green, are toxic to people and to all classes of livestock.

Clinical Signs The sudden onset of bradycardia, nervousness, trembling, dyspnea, incoordination, and collapse represents characteristic poisoning by these trees. Gastroenteritis may be present in subacute cases. Death results from cardiac failure. The mechanism of the depressing action of the toxic agent on the heart is unknown.

Necropsy There are usually no lesions found in animals with acute yew poisoning. In subacute poisoning, mild inflammation may be present in the anterior portion of the intestine. This inflammation appears to be caused by an irritating oil and not by taxine.

Treatment Atropine sulfate has been reported of value in treating animals suffering from subacute poisoning. No effective treatment has been reported for acute poisoning.

References Evers, Robert A., and Roger P. Link. Poisonous Plants of the Midwest and Their Effects on Livestock, 1972. Special Publication 24, College of Agriculture, University of Illinois at Urbana-Champaign.

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