Taxus baccata

L.

Taxaceae

LOCAL NAMES
English (Himalayan yew,english yew,commomn yew,Bhutanese yew); French (if commun); German (eibe,beeren-eibe); Italian (tasso,libo,albero della morte); Nepali (dhengra salla,barme sale); Spanish (tejo)

BOTANIC DESCRIPTION
Taxus baccata is an evergreen, under-storey tree to 30 m tall, with a spreading crown. It tends to be forked, fluted with depressions at branch-stem junctions. Branches are ascending to drooping with twigs irregularly alternate, green or yellow-green when young, reddish brown with age. The bark is reddish-grey or reddish brown, thin, smooth, peeling off in longitudinal narrow shreds.

Leaves in to 2 rows, needle-like, 1.5-2.8 by 0.2-0.25 cm, usually curved, acuminate. Margins, slightly inrolled, dark-green and shining above, brownish-yellow and somewhat pale beneath, single nerved and narrowing into a short petiole.

Flower inconspicuous, yellowish with female blooms on small flaky handles.

Seed hard, surrounded by a red fleshy aril, looking like a berry, about 7 mm in diameter.

BIOLOGY
Flowering occurs from March to May and seeds ripen between August and November of the same year. Seeds require shelter and moist shady areas for germination and do not survive in open areas.

Leaves and fruits (Arnoldo Mondadori Editore SpA)

Fruits (Gil Wojciech, Polish Forest Research Institute, www.forestryimages.org)

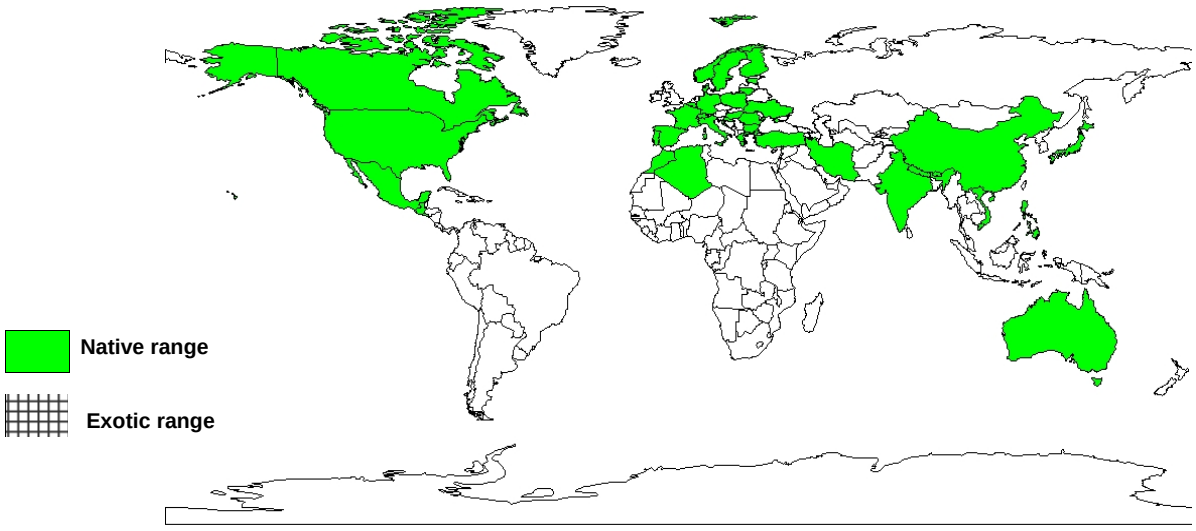
ECOLOGY
Yew's habitat is characterized by moist, mixed coniferous forests or cool, broad-leaved forests. It is particularly characterized of Abies spectabilis forest, especially on limestone, but found associated with Picea smithiana, Tsuga dumosa, Pinus wallichiana and Quercus semecarpifolia, particularly at higher altitudes.

BIOPHYSICAL LIMITS
Altitude: 100-4400 m
Mean annual temperature: 8-21ºC
Mean annual rainfall: 500-2900 mm
Soil type: It grows in a range of soil types from light to heavy acidic shallow soils.

DOCUMENTED SPECIES DISTRIBUTION

Native: Algeria, Australia, Belgium, Bhutan, Bosnia and Herzegowina, Bulgaria, Canada, China, Croatia, Czech Republic, Denmark, El Salvador, Estonia, Finland, France, Germany, Greece, Guatemala, Hungary, India, Iran, Italy, Japan, Korea, Republic of, Lithuania, Mexico, Morocco, Nepal, Norway, Philippines, Poland, Portugal, Romania, Russian Federation, Spain, Sweden, Switzerland, Taiwan, Province of China, Turkey, Ukraine, United Kingdom, US, Vietnam

Exotic:



The map above shows countries where the species has been planted. It does neither suggest that the species can be planted in every ecological zone within that country, nor that the species can not be planted in other countries than those depicted. Since some tree species are invasive, you need to follow biosafety procedures that apply to your planting site.

PRODUCTS
Food: The red aril surrounding the seed can be eaten. In India, local people use the bark as a tea substitute.

Fodder: In parts of western Himalayas, the trees are lopped for cattle fodder.

Timber: The wood is hard, fine, even-grained and moderately heavy (about 700 kg per m). The timber is very valuable and is known for its resistance against rooting. It is used mainly for turnery, marquetry and wood carvery. The colorful wood (red heartwood, white sapwood) was used to veneer furniture, to make lute bodies, bowls, tankards, combs, tool handles, pegs, and various art objects. In the UK, yew veneers is in high demand for its decorative value. In India it is used for carrying poles, bows and furniture.

Poison: Leaves are poisonous to cattle. The foliage and seeds contain several alkaloids (taxine) and glucoside (taxicatine), very poisonous, which alters to hydrotaxine by hydrolysis. In Europe, poisoning is frequent in animals such as horses, asses and mules which are extremely sensitive while rabbits, guinea-pigs and cats are insensitive. In humans, the yew generates digestive, nervous, respiratory and cardiovascular disorders, which can result in death.

Medicine: The arilles, removed from their seeds, have diuretic and laxative effects. It was used medicinally to treat viper bites, hydrophobia (rabies), heart ailments and as an abortifascient. It is known to contain the anti-cancer drug taxol, but has not been widely exploited in this connection.

SERVICES
Ornamental: Currently, its principal use is as an ornamental plant in gardens and cemeteries

Boundary or barrier or support: Yew is a very useful tree for hedging and topiary as it can be closely trimmed. It tends to become a very large bush without trimming. It is used as a windbreak.

Other services: The green twigs are used to decorate houses in Nepal during religious festivals.

TREE MANAGEMENT
Stand establishment is through using plants and natural regeneration. The species is termite resistant and tolerates shade. It has ability to produce suckers. The mean diameter increment of naturally growing trees ranges from 1-4 mm annually.

GERMPLASM MANAGEMENT
The seed storage behaviour is orthodox. There are about 8000 seeds/kg.

FURTHER READNG

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SUGGESTED CITATION

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