Western red cedar, by its name, is related to the cypress family, having scale-like leaves rather than needles. It is indigenous to the Pacific coast of north-west America and grows along all the coast from southern Alaska to northern California. The species grows in inland regions of the Rocky Mountains such as south eastern British Columbia, north eastern Washington, northern Idaho and north western Montana. Elevations below 1,800 metres elevation, where it was first introduced to Britain in 1853 and was included as a trial species in Sandhole Estate, Cwm Workino, Gwynedd, are most suitable for growing in Ireland.

Silviculture & Management in Ireland

Western red cedar is a highly shade tolerant species and is therefore suitable for use in mixtures with either broadleaves or other conifers. In its natural range in north west America it grows in association with Douglas fir, western hemlock and Sitka spruce. Western red cedar is characteristically a tree of mild climate and moist habitat and is therefore highly suited to Irish conditions. It is most productive on heaver, lowland soils, especially gley soils and those with a slightly alkaline nature. It is one of the few conifers that will tolerate sites of high pH. It will not tolerate high levels of exposure and prefers shelter, particularly at establishment. In Ireland, pure stands of western red cedar are established at 2 metre x 2 metre spacing, i.e. 2,500 stems per hectare. Although its initial establishment can be relatively slow, once settled it rapidly develops and can outgrow most other conifers, in terms of height, until year 20 when growth begins to slow. High pruning is required for western red cedar for the production of higher quality butt logs. The pruning commences between five and six years later than for other popular conifers of the same Yield Class such as Sitka spruce or Douglas fir. As a shade tolerant species, western red cedar tends to develop a high degree of taper resulting from the retention of active lower limbs. This can be alleviated somewhat by high pruning and also the retention of relatively high stocking densities throughout the rotation. However, both fluting and taper appear to be an inherent feature of the species. The normal rotation length for western red cedar is between 50 and 60 years, depending on Yield Class and markets.

Western red cedar is highly palatable to herbivores such as rabbits, hares and deer and considerable damage can be caused by their browsing. It also appears to be more susceptible than most conifers to butt rot caused by Heterobasidion annosum and Armillariella spp. In addition, it is susceptible to basal stem blight caused by Scolletia spp. Western red cedar is classified by the Forest Service as a diverse conifer and as such is an approved species for grant aid. It is regarded as a species with very considerable potential to our mild wet climate and heavy wet soils. It is capable of high growth rates and productivity. In recent years, western red cedar has become a popular conifer due to the increased availability of more sheltered sites and the national policy to increase the diversity of species planted. Approximately 100,000 western red cedar transplants are produced and sold by Irish nurseries each year. This is equivalent to approximately 40 hectares planted in a single season. Coillte, the Irish Forestry Board, currently manages over 200 hectares of western red cedar.

Uses & Markets

Western red cedar produces a rich reddish brown timber with a low density rendering it comparatively quick drying and light when dry. After long periods of exposure to the elements, the timber surface takes on a silvery grey appearance. It is not a strong timber and is not used for structural purposes. However, it is relatively durable and is most commonly found as an outdoor decorative timber in railway sleepers, decking, cladding and roofing shingles. Specialised uses for western red cedar timber include the manufacture of saunas, cladding and screens, used for holding meteorological field equipment. In Scandinavia, it is popularly used in the manufacture of saunas.

Further Information

Further information on growing western red cedar can be obtained from your local Forest Service Inspector or any Professional Forester.