

The Plantsman's Choice

Western hemlock: a star among conifers

Henrik Sjöman and Andrew Hiron

The western hemlock originates in the western United States, where trees of about 70m in height are reported.

***Tsuga heterophylla*, the western hemlock, is without a doubt one of the most beautiful and useful solitary trees. Its graceful growth with slightly downward-pointing branches and hanging shoot tips combined with its impressive size can give any park environment a distinctive character.**

The species has its natural distribution in the western United States and Canada, where it mainly grows in a maritime climate from central California in the south to Alaska in the north. Its greatest and fastest development is in the temperate rainforests along the Pacific coast, where trees of about 70m are reported.

The western hemlock is very tolerant, and as a young and newly planted specimen it can handle open conditions much better than its East American relative *Tsuga canadensis*, which demands a protected growing environment. However, the development of western hemlock in open and exposed environments can be limited by the fact that it has difficulty handling intense weed (e.g. grass) competition; this can jeopardise establishment and early development. But if you succeed in establishing it, the growth rate is quite impressive (for a hemlock), and a well-established tree can make annual growth of about 0.5–0.8m. Growth is strongest in the first 50–70

years and then becomes much slower.

The species develops a clear, central trunk with fine sweeping branches evenly distributed along it. The branches flow slightly downwards, whilst the shoot tips are almost pendulous, giving the crown a soft, elegant form. The new needles appear fresh green before maturing to dark green. Even in maturity, the species maintains a narrow, pyramidal morphology that can provide architectural impact throughout its life.

The site requirements of western hemlock do not differ significantly from other species in the *Tsuga* genus: moist, well-aerated and relatively nutritious soil. The species does best as a solitary tree, but also performs well with other trees in mixed plantations. When solitary trees are planted, care must be taken with the establishment phase, especially the irrigation as the species is sensitive to drought. However, the western hemlock is easy to

establish in comparison with other solitary conifers and should therefore qualify as a safe choice for public green environments.

In mixed plantings, it has a great value because of its high tolerance for shade – it retains its dense greenery even in relatively dark conditions. In urban woodland plantations, it is a fine element of a planting scheme in concert with other tree species: in winter it gives volume and structure through its evergreen character, while during the summer it acts as a perfect backdrop for other plants with prominent seasonal qualities, such as flowers and autumn colour.



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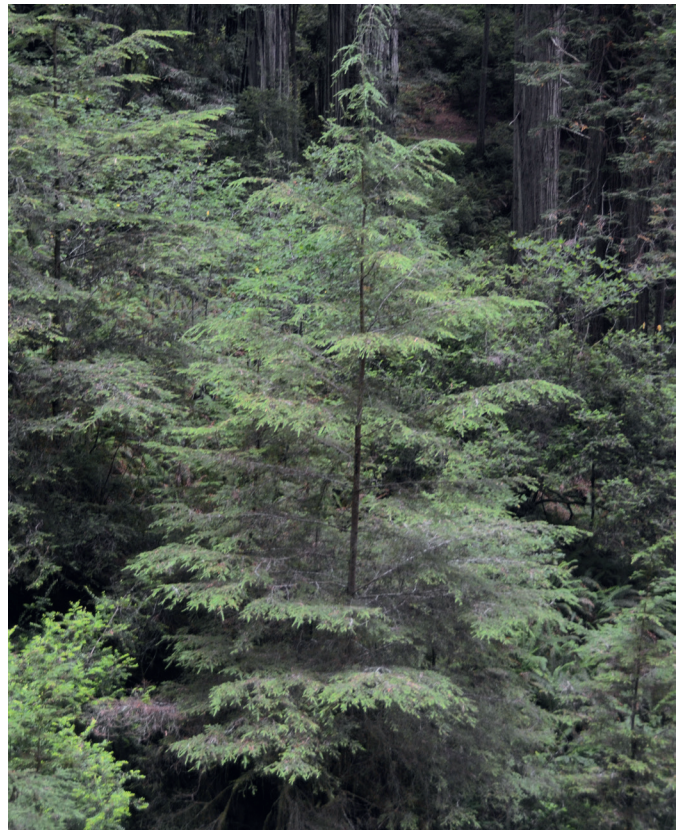
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In its natural environment, the western hemlock can take on impressive dimensions



The western hemlock is often called the queen of solitary trees and thus qualifies as a must-have species for every self-respecting park environment!



A young western hemlock in the western United States. The species shows an impressive shade tolerance and is thus very useful in co-plantings.