

## Hemlock—a versatile conifer

by Douglas Chapman, Dow Gardens

Hemlock is one of the most versatile native narrow-leaf evergreens for the landscapers' palette.

Hemlock is unique among the conifers in that it will grow in shade or in partial sun. It must be grown on cool, moist sites. It can be found growing in glacial rocky soil, fertile clay loam, or moist sandy soils. The optimal pH is from 4.0 to 6.5. This plant grows best on moist, yet, well-drained soils.

Hemlock is one of the most cold-tolerant plants, reported hardy to -76 degrees F. Hemlock should be transplanted balled and burlaped spring or fall.

Canadian hemlock is very shallow-rooted, thus intolerant to changes, frequently dying if plants around it are removed or the grade is changed. If undisturbed, it is a long-lived tree. Canadian hemlock, a fine-textured conifer, is most widely available in the trade. The needles, which last three to four years, are dark green with a silver-green on the under surface. The leaves are very sensitive to salt spray, resulting in defoliation

and, in severe cases, death. It has a pyramidal habit of growth, being 40 to 70 feet in height and 25 to 35 feet in width.

The branches are pendulous and very resistant to ice and/or snow damage. Hemlock can be used as a hedge or in natural plantings.

Canadian hemlock is not suited as a foundation plant. It is well suited for large area landscapes, golf courses, parks, or the home landscape. It is most effective in groups of three or more and not as a specimen.

Only a few clones are available in the trade, but one report notes a great deal of variation in Canadian hemlock which should lead to many new cultivar introductions.

The two cultivars available are Coles Prostrate and Sargentii.

Coles Prostrate hemlock is more correctly a ground cover, being six inches in height and three to six feet in width. It should be used when a landscape architect is looking for a shade-tolerant evergreen ground cover.

Weeping hemlock (*Sargentii*) is extremely useful in the home landscape as a specimen in protected locations. It will reach six to eight feet in height and 12 to 25 feet in width. The largest I have seen is on Long Island at Planting Fields Arboretum.

Carolina hemlock is native to the southeastern United States, Virginia to Georgia. It is not readily available in the trade, but I have seen it being grown at Weston Nurseries in Hopkinton, Mass. It is more dense, due to the fact that it holds needles one year longer. The habit is very graceful. Carolina hemlock reaches 40 to 60 feet in height and 20 feet in width.

Carolina hemlock is more difficult to transplant than Canadian hemlock, but one report suggests it grows more rapidly once established. We have it growing in Dow Gardens in central Michigan.

It is reported to grow better in urban landscapes than Canadian hemlock. It can be planted in the same landscape situations as mentioned above, and is especially well suited as a hedge plant. We are anxious to see it fruit; the cones are larger than Canadian hemlock, thus more effective.

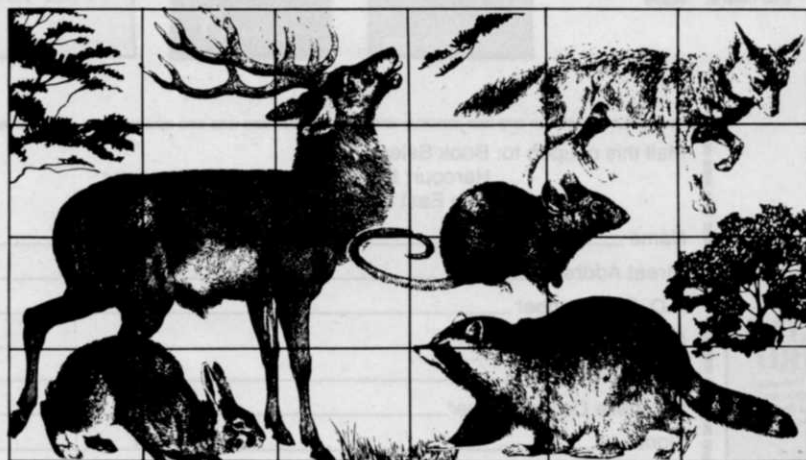
Japanese hemlock is a small, compact tree, reaching only 20 to 25 feet in height. The short needles radiate out in all directions. They are light green underneath.

This is a tree that is difficult to find in the nursery trade, but it could be a unique addition to small home or courtyard landscapes. The largest plant I have seen growing is in Cambridge, Mass. at Mt. Auburn Cemetery. Japanese hemlock has the most dense appearance, holding onto the needles for eight to 10 years.

Hemlock is a genera that deserves a prominent place in the landscape. It has few disease problems unless weakened or predisposed. The most significant pest is mites which are not much of a problem if planted on a wet, cool site. It tolerates pruning well, thus is a good hedge.

Hemlock should be grown in groups for natural plantings and not as a specimen except for weeping Canadian hemlock. It grows well in the shade or on protected sites. Hemlock ranks high as a low maintenance, high quality landscape tree. Charles Sprague Sargent and Donald Wyman both rank Canadian and Carolina hemlock as the best of the narrow-leaf evergreens.

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