

Hughie Jones – March 2013

Eucommia ulmoides
Chinese thread tree or hardy rubber tree
Planted in 1992 in bed 74

This is an area of VanDusen that has some unusual trees. There is the bee tree (*Tetradium daniellii*), the spur tree (*Tetracentron sinensis*), and the Chinese thread tree (*Eucommia ulmoides*).

Eucommia ulmoides is a unique tree. It is the only species in its genus and the only genus in its plant family, *Eucommiaceae*. That's not all. It is the only rubber bearing tree from the temperate climate. *Eucommia* means 'good rubber'. Unfortunately, it is now extinct in the wild. The forest areas on hills and mountains of central China and eastern China used to be its habitat. Its many medicinal uses led to its extinction.

But in the past, *Eucommia* wasn't alone in its genus and had a greater range. Fossil species from 10 to 35 million years ago have been found in Europe, Asia, and North America. In fact, five different species have been identified in North America. One of these, *Eucommia rolandii*, was found in British Columbia.

Every part of Chinese thread tree exudes latex. Tear a leaf, break a twig, or peel off some bark, and a stringy latex-like sap appears. Rubber can be made from the tree sap, but the extraction process is complicated and too costly for commercial application.

Eucommia ulmoides is grown for its many medicinal uses. The part of the plant commonly used in traditional Chinese medicine is the trunk bark. This is stripped off the tree in large segments and collected from April through June, when the level of active constituents is at its highest. It is then folded so that the inner surfaces are together and left for a few days until these surfaces turn black. The bark is dried in the sun, and the coarse outer bark stripped off.

For marketing purposes, the strips of bark are usually cracked at regular intervals to reveal the white threads of latex. When properly collected, the bark regenerates promptly and a new layer appears in about a month. The trees must be at least 10 years old to get suitable bark material.

The amount of latex in the bark is relatively small (about 4% by weight) and the tree can't be tapped like the tropical rubber tree (*Hevea brasiliensis*) for a renewable supply. However, the leaves are a good source of latex. They have gotten some industrial use in China, such as for lining pipes.

Eucommia ulmoides is grown as an ornamental shade tree because of its attractive glossy green foliage and its excellent resistance to insect and disease problems. It is a low branching tree and grows to 20 metres with broad ascending branches and a rounded spreading crown. It is dioecious – the male and female flowers are on separate trees. Flowers bloom in April with the male greenish brown flowers in clusters and the female ones solitary. We only have one Chinese thread tree in VanDusen. If we see ash-like winged seeds after flowering, then our tree is a female.



Serrate, elliptic, pointed, elm-like, glossy dark green leaves of Eucommia ulmoides



Note latex threads in torn Eucommia ulmoides leaf



Stripped trunk bark of Eucommia ulmoides for medicinal purposes

Hiller's Manual of Trees and Shrubs
Trees of Vancouver – Gerald B. Straley
Trees & Shrubs for Pacific Northwest Gardens - John Grant & Carol Grant
<http://www.missouribotanicalgarden.org>
<http://www.itmonline.org/arts/eucommia.htm>