

Tree of the Month, September 2010: Tree of Heaven (*Ailanthus altissima*)

At the Western edge of the Stone Garden stands a group of lovely tall trees: the Trees of Heaven, *Ailanthus altissima*. These trees belong to the Simaroubaceae family. They are fast-growing and can reach a height of 50 feet (15 meters) in 25 years. The name is derived from the Ambonese word *ailanto*, meaning 'tree reaching for the sky' or 'heaven tree'. *Altissimo* is Latin for 'tallest'.

The Tree of Heaven has a pale gray fine fissured bark and large compound leaves with 10 to 41 leaflets. In the spring small greenish yellow flowers develop in terminal panicles on both male and female trees. The male flowers have a smell which people find unpleasant, but it helps to attract pollinating insects. In late summer or early fall the female trees develop clusters of gold coloured samaras with a central orange red seed.

Ailanthus is native to China, where it is valued for its medicinal properties and it is used as a host plant for the moth that produces Shantung silk. The tree was imported to Europe in the 1740's by a French Jesuit priest, Pierre D'Incarville, who sent seeds from Peking to his botanist friend Bernard de Jussieu in France. Jussieu in turn passed some on to friends in England. The tree was imported to North America in 1784 when seeds were sent from England to William Hamilton, a Philadelphia gardener. It quickly became a popular ornamental in gardens and along city streets. It soon naturalized and spread across the United States.

Ailanthus is drought tolerant as it stores water in its root system. It is also very pollution tolerant. It can cope with cement dust, fumes from coal tar operations, sulfur dioxide and others. It is a prolific seeder. It is found in areas where few other trees can survive. It colonizes disturbed urban areas, abandoned buildings, and old mining sites. This tree grows along roads, railways, and in forest openings. It spreads by suckering roots as well as by seeds. It competes with native species and emits a chemical called ailanthone, which inhibits other plant life from growing around it. It is considered invasive and unwanted in many parts of the world, where it has unflattering nicknames like 'tree from hell', 'ghetto palm' and 'stink tree'. In our wet climate it is not invasive. However it is not a suitable tree for a city garden: the root system can damage sewers and foundations.

The Tree of Heaven was the central metaphor in the book 'A Tree Grows in Brooklyn' by Betty Smith, which was published in 1943 and became a bestseller. It focuses on the ability to thrive in a difficult environment. Betty Smith wrote:

"There's a tree that grows in Brooklyn. Some people call it the Tree of Heaven. No matter where its seed falls, it makes a tree which struggles to reach the sky. It grows in

boarded up lots and out of neglected rubbish heaps. It grows up out of cellar gratings. It is the only tree that grows out of cement. It grows lushly, survives without sun, water, and seemingly earth. It would be considered beautiful except that there are too many of it.”

At VanDusen Gardens we have several *Ailanthus* specimens in the Sino-Himalayan section. We can admire the beauty of the tree and appreciate its strength and resilience.