

Pinus lambertiana

[Synonyms : *Pinus lambertiana* var. *martirensis*]

SUGAR PINE is an evergreen tree. Native to south-western North America it has needle-like leaves and large hanging, glossy yellowish-brown cones.

It is also known as Big pine, Big sugar pine, *Borovice lambertova* (Czech), California sugar pine, Gigantic pine, Great sugar pine, Purple-coned sugar pine, Shade pine, True white pine, and *Zucker-Kiefer* (German).

The flowers are pollinated by the wind. The tree's sap (or sugar) exudes from any wounds in the trunk, limb or cone base. Although initially white it eventually turns brown and is sweet-tasting. It has even been compared favourably by some authorities with maple sugar, *Acer saccharum* (despite its laxative properties) and is referred to as American manna. The cones are said to be the longest of all pine cones and they can weigh as much as 4½ lb when green.

Warning – prolonged contact with the fresh wood can cause dermatitis and allergic breathing problems. The sap consumed to excess can cause a laxative reaction.

Sugar pine is a protected tree in Nevada in the United States.

Lambertiana commemorates an English botanist, Aylmer Bourke Lambert (1761-1842) who has been described as a patron of botany. His friends, from his teens, included many leading botanists, especially the English botanist, Sir James Edward Smith (1759-1828). He developed over his lifetime a large and diverse herbarium (consisting of specimens personally collected, received from donors or obtained in purchased lots) which he made available to his peers (from all over the world) but which, because of their never organised nature, became split up and distributed all over the world after his death. Lambert also collected plants which he grew on his Wiltshire estate in his gardens and greenhouses, and he created a large library. He was a founder Fellow of the Linnean Society (to which he contributed a few papers, and of which became a vice-president in 1796), a Fellow of the Royal Society from 1791 (of which he became a Council Member in 1810), and he was also a member of the Society of Antiquaries of London (reflecting his interest in other aspects of natural history). With guidance especially from the English botanists, Sir Joseph Banks (1744-1820) and Sir James Edward Smith, and in partial collaboration with not least the English botanist, David Don (1799-1841) his publications included *A Description of the Genus Cinchona*, and *A Description of the Genus Pinus*.

The tree provided food for several North American Indian tribes. Klamath Indians ate the small, dark brown seeds, as did the Karok Indians (only they roasted them) – and the latter also stored them for food in Winter. These seeds were prepared in various ways by the Kawaiisu Indians who roasted, dried, boiled and ground them. They were also eaten by the Mendocino Indian and the Miwok tribes, they were made into cakes and added as a dried ingredient in other dishes by the Shasta Indians, and the Pomo tribe stored them for Winter food. The seeds also offered emergency rations. Sugar pine sap provided a sweetener for the Miwok, Pomo and Kawaiisu, and the Karok also ate it – as well as the Yuki and Pomo Indians who chewed the sap (like gum) too.

Sugar pine wood was used for building by the Karok tribe, who also used the pitch as an adhesive for repairing their canoes and fastening arrowheads and feathers to shafts. Some of the Pomo Indians used the pitch too when making toy whistles. Karok Indians made the dried seeds into jewellery and various local tribes also used the rootlets for basketry. The tree was recognized by several North American Indian tribes as a source of medicine including the Pomo. Kawaiisu and Miwok Indians used it to treat sore eyes (the former on children as well as adults). Mendocino Indians and the Kawaiisu both took it as a laxative, and the Kawaiisu also viewed it as a remedy for wind. It has been used too by some tribes in very small doses for treating period problems and in larger quantities for abortions.

This was one of the trees first discovered by the Scottish botanist David Douglas (1798-1834) who collected plants in North America for the Horticultural Society of London. Its huge cones are not easily accessible and when they proved to be beyond his reach he is said to have resorted to shooting them down – and he introduced the seeds to Britain.

Stands of the tree offer food and shelter for many birds, animals and insects, especially according to some authorities particular species of woodpecker, squirrel and beetle (all of which disperse the seeds beyond the shade of the parent tree).

Today a reason for the tree's drought resistant qualities (it produces a substance that regulates vegetable tissue moisture levels regardless of the external climate) is said to have been harnessed by some leading cosmetic houses in their moisturising creams.

The soft and lightweight, pale brown wood has been used for roofing, shingling and interior finishing, as well as for making boxes and crates, and piano keys and organ pipes.