

Pinus ponderosa

[Synonyms : *Pinus beadsleyi*, *Pinus benthamiana*, *Pinus brachyptera*]

PONDEROSA PINE is an evergreen tree. Native to western and southern North America it has needle-like leaves and egg-shaped golden-brown cones.

It is also known as Arizona pine, Arizona ponderosa pine, Arizona white pine, Arizona yellow pine, Big pine, Bird's-eye pine, Blackjack pine, *Borovice těžká* (Czech), British Columbia pine, British Columbia soft pine, British soft pine, Bull pine, California white pine, California yellow pine, Foothills yellow pine, *Gelbkiefer* (German), *Gultall* (Swedish), Heavy pine, Heavy-wooded pine, Knotty pine, Longleaf pine, Pacific ponderosa pine, *Pin à bois lourd* (French), *Pin jaune* (French), *Pin lourd* (French), *Pin ponderosa* (French), *Pitchpin à bois lourd* (French), Pitch pine, Red pine, Rock pine, Western pitch pine, Western yellow pine, and Yellow pine.

Warning – prolonged contact with the fresh wood can cause dermatitis and allergic breathing problems.

Ponderosa pine can be confused with jeffrey pine (*Pinus jeffreyi*) and authorities point out that a prime difference between them can be seen in the cones which for ponderosa pine are shorter and more prickly.

Ponderosa is Latin (heavy, weighty, significant) meaning 'heavy' with reference to the wood. The tree was well-known to local North American Indian tribes. The Hopi Indians used the strong and heavy wood for roof beams in their stone-walled homes, as well as for the ladders used to climb down to the subterranean chamber (or *kiva*) that represented the Underworld. Isleta, Montana Indian, Mewuk and Mendocino Indian tribes also used the wood for building. Kawaiisu Indians used the needles as an outer covering of their Winter homes, and the Thompson tribe insulated their pit house roofs with them. When Diegueño Indians harvested acorns they made their temporary shelters from the bark – and the Paiute tribe used the bark similarly.

In the Hopi *kiva* the tobacco mixture used during ceremonial smoking included ponderosa pine needles as one of the ingredients, and these needles were also used to decorate prayer sticks. Some of the Navajo tribe used cones and needles during some of their rituals, while pollen played a role in some Nitinaht ceremonies. One Okanagan-Colville ritual performed to stop rain required smouldering cones to be thrown in the direction of the rain clouds. This latter tribe also laid the needles on the floors of their sweat houses to repel witchcraft, and Kawaiisu Indians hung the outgrown cradle of a baby boy on a branch to ensure that he would grow up as strong as that tree.

For some of the Okanagan-Colville tribe ponderosa pine was a source of staple food. Seeds or nuts were eaten by quite a few North American Indian tribes including the Cheyenne, Kawaiisu, Spokane, Thompson, Okanagan-Colville, Coeur d'Alene and Paiute. Shasta Indians ate the ground nuts in cakes or dried them, whereas the Havasupai preferred them roasted. The Miwok Indians also ate them dried. Fresh inner bark was enjoyed by the Paiute, Blackfoot, and Montana Indian tribes, and the Paiute also stored the inner bark for Winter food (as similarly the Okanagan-Colville kept seeds as well). Bark was eaten by some of the Navajo Indians and juice from Spring buds was familiar to the Cheyenne tribe, and to Okanagan-Colville children. The layer between the wood and the inner bark

(known to botanists as cambium) was food for Sanpoil, Coeur d'Alene, Thompson and Spokane Indians. The Klamath tribe ate it as a relish or as famine food and the Okanagan-Colville not only ate it fresh but also stored it for future use. Like resin from some of its close relatives the Paiute, Okanagan-Colville and Cheyenne tribes all chewed it like gum. The Thompson and Okanagan-Colville Indians insulated their food caches with needles, while the Paiute tribe preserved their rock paintings with a coating of pitch.

Apart from building wood was also used by some of the Navajo Indians for making babies' cradles (and snowshoes, parts of saddles, and fence posts) – and it was used by the Shuswap and the Thompson tribes (the latter when it was rotten, and sometimes in conjunction with dry cones and bark) for smoking skins. Wood provided a fuel for the Mendocino Indian tribe, some of the Navajo and for the Isleta Indians. The Klamath tribe used dried needles as tinder and Blackfoot and Montana Indians twirled the twigs together to start a fire. When the Shuswap Indians were on the move they made camp fires with bark as this cools too quickly for anybody tracking them to work out when the camp was broken. Many tribes including the Klamath, Okanagan-Colville, some of the Thompson tribe, and the Montana Indian tribe made their canoes or dugouts from the trunk or branches.

The gum was also versatile. Nez Perce, Paiute, Mendocino Indian, Crow and Okanagan-Colville tribes all used it as an adhesive. For the latter it was a glue with which feathers could be secured to arrowshafts, while for the Cheyenne its positioning inside whistles or flutes determined the musical instrument's pitch. The Cheyenne also used pitch as a 'hair spray' to keep hair in position and other tribes, such as the Paiute, and Thompson, harnessed its waterproofing qualities. The former coated the outside of woven willow (*Salix*) water jugs with it, and the latter used it to coat their moccasins and other items.

Various parts of the plant provided material for basketry. Roots were employed by the Maidu, and Karok tribes, the Wintoon Indians wove the stems and the Diegueño tribe used the needles. Cheyenne Indians also used the roots to obtain a blue dye, and Thompson Indians made pipe stems with the stems. The plant provided an under-arm deodorant for Shuswap Indians, girls in the Thompson tribe inserted needles under the skin in their armpits for fragrance and Flathead Indians used these needles to make a hair wash to control dandruff.

No wonder that for the Hualapai Indian tribe the tree was a cash crop.

In veterinary medicine hot gum was applied to horses' sores or wounds by the Thompson Indians.

Ponderosa pine yielded various medicines for many Indian tribes. It offered a cure for coughs for some of the Navajo Indians, it was also used by them and the Okanagan-Colville tribe to treat fever, and the Okanagan-Colville prescribed it as a remedy for some stomach upsets and to stem internal bleeding. It was turned to by the Flathead tribe as a source of treatment for some female ailments – but Okanagan-Colville women ate the green buds to cause an abortion. The Thompson tribe used it as a sedative that they believed was particularly suitable for babies and they also chose it for some ear disorders and, like the Okanagan-Colville, for various eye problems. Both Flathead and Thompson Indians treated rheumatism with it, the Thompson tribe applied it to cuts, and they and the Okanagan-Colville, Paiute, Cheyenne and Flathead Indians all turned to it for treating some skin problems.

In the early 19th Century the Scottish botanist, David Douglas (1798-1834) who collected plants in North America for the Horticultural Society of London, sent seeds of the ponderosa pine home to Britain.

As settlers became established on the western side of the Continent so the pine's attributes began to be exploited. The light red (often knotted) wood is soft, fairly strong and

lightweight and it was used for general construction work, and for making railway sleepers, pit props and fence posts, and it was also burnt as fuel. It has also been used for veneering and building interiors. At the turn of the 20th and 21st Centuries some authorities noted that a large amount of the wood was being used for paper pulp. In their native habitat in the vicinity of Los Angeles thousands and thousands of ponderosa pines have been lost or seriously damaged by smog from cars and industry. In the United States Ponderosa pine was adopted as a state emblem by Montana in 1949.