



TREES

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TREES

Trees provide other nourishing foods, as well as fruit and nuts, which can be invaluable to the survivor, particularly in areas where there is little other plant life available.

The following refers to the trees of temperate and northern regions. Tropical trees, such as palms, are included in the section on tropical plants.

Bark

The thin inner bark (cambium) of certain trees is both edible and nutritious, but best in the spring, when sap has started to flow. Choose bark from near the bottom of the tree or from exposed roots. Peel it back with a knife to reveal the inner layer. This is mildly sweet and can be eaten raw — but can be made more digestible by long boiling, which will reduce it to a gelatinous mass. It can then be roasted and ground for use as flour.

Outer bark has too much tannin to be edible, but some kinds have medicinal uses.

Trees with best inner bark:

1. **Slippery Elm** (*Ulmus rubra*), of northern America, grows to a maximum 18m (60ft). Twigs are hairy and rough, oval, toothed leaves are hairy below.



2. **Basswood** (*Tilia americana*), a North American lime with large, heart-shaped leaves and dark, grooved bark which becomes smooth grey on upper parts.



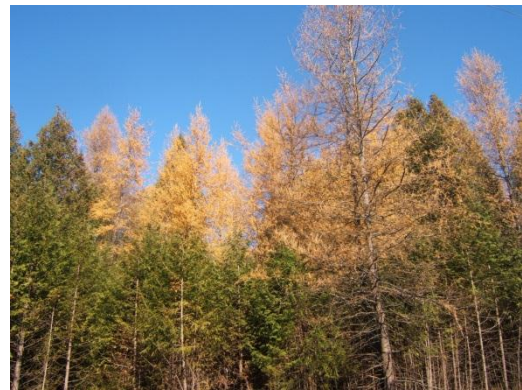
3. **Birches** (*Betula*), which are often abundant in colder areas. They can be identified by their long delicate twigs and shiny, flaky bark that is often broken up into plates.



4. **Aspens** (*Populus tremula*), small to medium trees resembling poplars. They have rounded leaves on very, very long stalks that quiver in the wind.



5. **Tamarack** (*Larix laricina*), is found in cold parts of North America. It grows to 24m (80ft) with a pointed shape, bears cones and has needles in tufts along the twigs.



6. **Poplars** (*Populus*) have triangular leaves and prominent catkins. They occur in many northern areas.



7. **Maples** (*Acer*) grow widely and are recognized by their distinctive lobed leaves in three parts and by the two winged fruits.



8. **Spruces** (*Picea*) are evergreen trees of cold climates. They are shaped like steeples, bear cones and have stiff, four-sided needles that grow all around the twigs.



9. **Willows** (*Salix*) are broad-leaved trees or shrubs with toothed leaves, lighter on the underside, and distinctive yellow or green catkins. There are many kinds, including ground-hugging arctic one.



10. **Pines** (*Pinus*) are widely found evergreen trees bearing cones and clusters of long needles. Their inner bark is rich in vitamin C.



11. **Hemlocks** (*Tsuga*) are evergreens, resembling spruces, with sprays of foliage, flat needles and short, oblong cones. They bear no relation to the poisonous plant of the same name.



NOTE: In addition to the inner bark, the buds and shoots of all these trees can be eaten raw or cooked — EXCEPT for those of Tamarack and Fetlock, which are POISONOUS.

OTHER USES FOR INNER BARK

The inner bark of some trees is very strong but pliable. It is easily torn into strips for lashings. The bark of the Mohole tree, for example, is made into 'grass' skirts by Pacific islanders, having first been steamed in a hang (see *Fire in Camp Craft*).

Birch bark can be removed from the tree in large sheets and forms an ideal material for roofing shelters or for making small containers. The North American Indians clad their canoes with it.

SPRUCE TEA

Steep spruce needles in hot water to make a tea. Collect only fresh, green needles and boil. The liquid produced is rich in vitamin C. The vitamin can be obtained more directly by chewing tender young needles, whose starchy green tips are particularly pleasant in spring. Spruces occur far into the north and are an important source of nourishment when little other plant life is available.

Gums and resins

With some trees, when cut, sap seeping out on to the bark hardens into a lump. If this is soluble in water it is a gum; if not, it is a resin. Both are very nutritious, rich in sugars and a useful survival food. A few have medicinal properties and others are highly inflammable and make excellent material for lighting fires.

BIRCH AND MAPLE SCROOP

Tap birch or maple in the same way as a rubber tree. Cut a V-shape in the bark to collect the sugary sap that runs out. Below the V make a hole in the trunk to insert a leaf as a drip spout to run the sap into a container.

Collect sap daily and boil it. It will give off lots of steam but thicken down into a syrup. This is instant energy and well worth the effort.

POISONOUS TREES

The following trees contain irritant or poisonous substances. Do NOT eat any part of them, except for the meaty roots of hickory, which are edible.

1. Yews (*Taxus*) are straggling evergreen trees or shrubs with flaky bark, dark green needles and red berry-like fruits. The fruits are particularly poisonous.



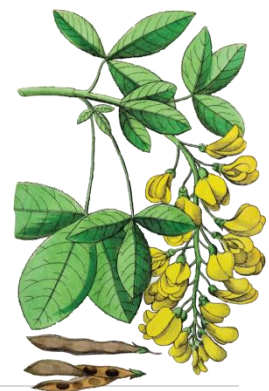
2. Cedars (*Cedrus*), originally from the Mediterranean and Himalayas, the true cedars are large, spreading, scented evergreens with erect cones.



3. Horse Chestnuts and Buckeyes (*Aesculus*) are tall with hand shaped leaves, sticky buds and white, pink or yellow flowers. Do not confuse their poisonous, spiky-cased nuts with those of Sweet Chestnut which has narrow, toothed leaves and much more densely prickled seed cases.



4. Laburnums (*Laburnum*) are small, broad-leaved trees with three-part leaves and long sprays of yellow flowers.



- Black Locust (*Robinia pseudoacacia*) is a North American tree with dark grey bark, oval leaflets in opposite pairs, clusters of white flowers and bean-like seed pods.



- California Laurel or Oregon Myrtle (*Umbellularia californica*), is a short-trunked North American evergreen, averaging 16m (50ft) with oval leathery leaves, clusters of yellowish flowers and greenish to purple berries. Foliage is pungently aromatic.



- Moosewood or Moosebark (*Acer pensylvanicum*), of north-eastern North America averages 12m (40ft), with light, white-striped bark, oval to spear-shaped leaves, olive to brownish above, broad-petaled, yellow-greenish flowers and winged fruits.



- Hickories (Co/yo) have divided, often palm-shaped leaves, catkins and, usually, rounded nuts. The nuts of some kinds are edible, as are the sap and roots, but do not eat unless the species is positively identified.

