

A tall, slender pine tree stands prominently in a forest. The tree has a thick, reddish-brown trunk and a dense canopy of green needles. The background shows a clear blue sky with a few wispy white clouds. Other trees, including some with bare branches, are visible in the mid-ground and background. The ground is covered in green grass and low-lying vegetation.

Pinus Spp.

By, Amanda Benson

Pinus spp.

Pinus sylvestris, Pinus strobus, Pinus nigra

Common Names: Pine tree

Family: Pinaceae

Author: Amanda Benson

Parts Used: Needles, bark, nuts, knots in the wood



Botanical Description: An evergreen tree with needle like leaves. Pine trees are conical in shape when young, utilized as "Christmas Trees" at this stage. As they age they become more bushy and cylindrical and flat topped (something we rarely see in the over-logged Northwest). The leaves of the pine are called needles and are clustered in fascicles, typically holding 1-5 needles in a cluster. Male catkins are cone shaped and the female form actual cones that are wind pollinated. Seeds are naked and can fall out of cones while on the tree or when the cone hits the ground (unless the squirrels get them first). The bark is rough and usually flaky,

but can be any color from gray to red. If the tree is scored or damaged it exudes a resinous sap to repair its damage.

Habitat: There are 111 different species in the *Pinus* genus. Most prefer northern climates and higher elevations. Forests of *Pinus spp.* tend to have few understory plants and create very acidic soil where they grow.

Taste: Fresh needles are sweet, warming, and actually have an orange-y flavor probably due to the pinene



molecule that is so close to limonene molecule and the high vitamin C content. The dry bark is dirty, resinous, aromatic, and numbing.

The pine nuts have a smoky starchy taste.

Energetics: Yin, warming, uplifting, comforting, bitter.

Bach Flower Essence: Enhances self acceptance and strength; develops penetrating insight in a balanced way.

Doctrine of Signatures: Pine exudes resin giving us insight into its use as a mover of mucous and expectorant. The resin it puts out around a wound in its bark also shows us how to use it as a band-aid for minor wounds.

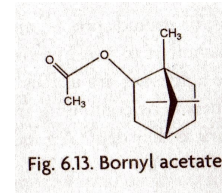
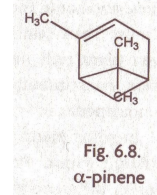
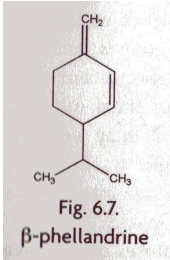


Scientific Summary: Constituents: Vitamin C, lignin, alpha-pinene, camphene, esters, phellandrene, pinene, various glycosides (pinicrine, piceine, coniferoside), potassium, vitamin E, carotenes, magnesium. Actions: Expectorant, demulcent, diuretic, stimulant, nutritive, analgesic, antispasmodic.

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Pharmacodynamics: Beta-phellandrene is an essential oil has expectorant properties and is abundant in pharmaceutical pine needle oil. Alpha-pinene is a main constituent in essential oils it has irritant that can cause skin eruptions delirium, ataxia, and kidney damage if taken as purified oil. It is used in the manufacture of camphor, insecticides, perfume bases, and synthetic pine oil. Bornyl acetate, or borneol acetate, an essential oil ester, gives the characteristic pine smell and has expectorant qualities. (Hoffmann)



Pharmacokinetics:

Indications and Effects: Urinary tract disorders, wet cough, the resin can be used as an antiseptic cover for wounds, stimulant, fever, hemorrhoids, malnutrition, arthritic condition. Different species can have slightly different actions though most books list that they are pretty much interchangeable is uses. M. Greive lists three different species and their uses:

Black Pine- *Pinus nigra*

---**Medicinal Action and Properties**---Rubefacient, diuretic, irritant. A valuable remedy in bladder, kidney, and rheumatic affections and diseases of the mucous membrane and respiratory complaints; *externally* in the form of liniment plasters and inhalants.

Larch- *Pinus larix*

---**Medicinal Action and Uses**---Stimulant, diuretic, astringent, balsamic and expectorant. As an external application it has been found useful in chronic eczema and psoriasis. Its chief official use is as a stimulant expectorant in chronic bronchitis, with much secretion. Its action is that of oil of turpentine.

White Pine- *Pinus strobus*

---**Medicinal Action and Uses**---Expectorant, demulcent, diuretic, a useful remedy in coughs and colds, having a beneficial effect on the bladder and kidneys. (M. Grieve)

Safety and Contraindications: The Lodgepole Pine-*Pinus contorta* is contraindicated in pregnancy because it contains the fatty acid isocupressic acid which lowers the blood supply to the uterus.

Classic Formulas: Culpeper used an emulsion of the pine nuts from *Pinus sylvestris* in an emulsion with barely water for “heat of the urine” and other urinary tract disorders.
(Culpeper)

Combinations: Combine with basil to make pesto for a nutritive addition to a meal.

1 head garlic, roasted

2 cups fresh Basil, tightly packed

½ cup extra virgin olive oil (*olea europea*)

½ cup pine nuts

Combine all ingredients and purée.

Preparation and Dose: Nuts: eaten raw or roasted. Needles: fresh as a tea, 3 needles chopped, pour boiling water over, makes a warming nutritive drink. Needles can also be made into a syrup for a stimulating expectorant for wet coughs. Bark: 1-2 teaspoons in 1 cup of boiling water for a tea. Needles and bark: Often used for diaphoretic baths and steam inhalations.

Traditional uses: The resin was traditionally distilled into turpentine also called terebinth. Turpentine can be further distilled into other things such as rosin and tar for various industrial purposes. However, today turpentine is made synthetically from petroleum. The whole tree is used for decoration during winter for Christmas and other religious



celebrations. Its evergreen bows represent life everlasting since they are continuously green through the winter season.



Ecological Issues: None reported. However old growth pine forests are rare and Pine is still coveted for its wood. Also *Pinus* spp. Are used for Christmas trees, it is uncertain if Christmas tree farms are helping or hindering Pine in this

respect. On the one hand at least the trees aren't being plundered from the woods, but the farms also increase the economic 'need' for Christmas trees.

Personal Experience: I grew up with a magnificent Ponderosa pine in my backyard. It provided me with an endless source of entertainment. It had a large light that had been installed high up on it and kept our backyard lit at night. The squirrels would hop along the telephone wires and jump into its branches and then sit up there throwing half eaten pine cones at us and chatter angrily if our cats were in the yard.

I earned a fair amount of my young income picking up pine cones so my brother could mow the lawn. 1 penny a pine cone. I would run around finding every possible pine cone in the yard. I remember one time finding 400 pine cones and actually getting 4 whole dollars for my efforts. Probably not a bad price to pay for my mother to have me out of her hair for a couple hours. It was endlessly entertaining to me as well. I would gather the fallen needles and braid them together though I never did figure out how to make a basket like I was trying to do.

I spent many a summer day trying to defend my pine tree from the ravages of elderbugs that yearly infected its jigsaw puzzle bark by using the fire-hose attachment and flushing them out of the bark crevices. It never really worked but it never stopped me from trying. I have tried a tea of the needles, and it has a lovely orange flavor and is very pleasant on a cold snowy day. I even got one of my more skeptical friends to have some too and he actually liked it. It is warming and stimulating, it was sweet and refreshing, with a strange taste of citrus and pine.

End Notes:

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