PINE, SCOTS

*Pinus sylvestris*
[PY-nus sil-VESS-triss]

**Family:** Pinaceae

**Names:** forest pine, scotch pine, Norway pine, Scots fir, Colophonium, Pine, Pino Albar; Tall, fur, fura, martall, skogstall, vanlig tall (Swedish); Furu (Norwegian); Skov-Fyr (Danish); Metsämänty, Mänty (Finnish); Waldkiefer (German)

**Description:** Coniferous tree growing to 100 feet with a straight, cylindrical, unbranched trunk and a conical crown. Has reddish brown, deeply fissured bark, fine linear needlelike leaves that grow in pairs. From late spring to early summer orange flowers appear and the female variety turn into small green cones. These swell and take two years to ripen into woody, grayish oval cones. It is hardy to zone 2. It is in leaf all year, in flower in May, and the seeds ripen from March to June. The scented flowers are monoecious and are pollinated by the wind. The plant is not self-fertile. It is noted for attracting wildlife.

**Cultivation:** Native to mountainous regions of Europe and north and west Asia, Scots pine is now widely distributed throughout the northern hemisphere. Thrives in a light well-drained sandy or gravelly loam. Trees grow well on poor dry sandy soils. Fairly shade tolerant. Prefers a light acid soil, becoming chlorotic at a pH higher than 6.5. Trees can succeed for many years on shallow soils over chalk. Tolerates chalk for a while, but trees are then short-lived. Tolerates some water-logging. Dislikes poorly drained moorland soils. Established plants tolerate drought. Very wind resistant, tolerating maritime exposure. Tolerates atmospheric pollution. Fairly long-lived, to 200 years or more and quite fast growing, but trees are very slow growing in wet soils. Young trees can make new growth of 1 metre a year though growth slows down rapidly by the time the tree is 18 metres tall. This species is extensively used in cool temperate forestry as a timber tree. Plants are strongly outbreeding, self-fertilized seed usually grows poorly. They hybridize freely with other members of this genus. Cones take two seasons to ripen. Plants are easily killed by fire and cannot regenerate from the roots. A good food plant for the caterpillars of several species of butterflies. This tree has over
50 species of associated insects. Leaf secretions inhibit the germination of seeds, thereby reducing the amount of plants that can grow under the trees. Plants in this genus are notably susceptible to honey fungus.

It is best to sow the seed in individual pots in a cold frame as soon as it is ripe if this is possible otherwise in late winter. A short stratification of 6 weeks at 36°F can improve the germination of stored seed. Plant seedlings out into their permanent positions as soon as possible and protect them for their first winter or two. Plants have a very sparse root system and the sooner they are planted into their permanent positions the better they will grow. Trees should be planted into their permanent positions when they are quite small, between 30 and 90cm. Plant them out when they are about 5 - 10cm tall. With a very good weed-excluding mulch they establish very well. Larger trees will check badly and hardly put on any growth for several years. This also badly affects root development and wind resistance.

Cuttings. This method only works when taken from very young trees less than 10 years old. Use single leaf fascicles with the base of the short shoot. Disbudding the shoots some weeks before taking the cuttings can help. Cuttings are normally slow to grow away. The leaves are gathered in summer. The stems are usually harvested when the tree is felled.

History: It was used by Native Americans to prevent scurvy, and to stuff mattresses to repel lice and fleas.

Constituents: The leaves of Scots pine contain a volatile oil (consisting mainly of alpha-pinene, but also including beta-pinene, delta-limonene, and other constituents), tannin, resin, terpenes, pinipricin, lignin, camphene

Properties: antiseptic, anti-catarrhal, stimulant, tonic

Energetics: bitter, warm

Meridians/Organs affected: liver, kidney

Medicinal Uses: Scot's pine has quite a wide range of medicinal uses, being valued especially for its antiseptic action and beneficial effect upon the respiratory system. It may be used in cases of bronchitis, sinusitis or upper respiratory catarrh, both as an inhalant and internally. It may also be helpful in asthma. The stimulating action gives the herb a role in the internal treatment of rheumatism and arthritis. Scots pine branches and stems yield a thick resin, which is also antiseptic within the respiratory tract. It is a valuable remedy in the treatment of kidney, bladder and rheumatic affections, and also in diseases of the mucous membranes. Externally it is used in the form of liniment plasters and inhalers. The leaves and young shoots are antiseptic, diuretic and expectorant. They are used internally for their mildly antiseptic effect within the chest and are also used to treat rheumatism and arthritis. There is a tradition of adding the twigs to bath water to ease nervous debility and sleeplessness, as well as aiding the healing of cuts and soothing skin irritations. The seeds are used for bronchitis, tuberculosis and bladder infections. A decoction of the seeds may be applied to suppress excessive vaginal discharge.

Dosage:
Infusion: pour a cup of boiling water on ½ tsp of the dried leaves and let infuse for 10-15 minutes. Drink 3 times a day
Inhalant: Bring 2-3 handfuls of the twigs to the boil in 4 pints of water, simmer for 5 minutes and then use as an inhalant by covering the head with a towel and inhaling the steam for 15 minutes. Repeat often.
Bath: Leave 3 handfuls of twigs to stand in 1 ½ pint of water for half an hour, then bring to the boil, simmer for 10 minutes, strain and add to the hot bath
Tincture: Take 1-2 ml 3 times a day

Flower Essences: For those with guilt, self-blame, self-criticism, inability to accept oneself. Pine helps the Self to learn true forgiveness by quite literally being for giving: learning to give oneself nourishment rather
than withholding love from oneself; learning to release rather than retain energy. The individual is encouraged to move forward rather than stay entangled in self-deprecation and emotional paralysis. At its highest level, Pine teaches self-acceptance and inner esteem as a pathway to the soul’s realization of its own sacredness and divinity.

**Aromatherapy Uses:**

**EXTRACTION:** Essential oil by dry distillation of the needles. Gum turpentine is produced by steam distillation from the oleoresin. An inferior essential oil is also produced by dry distillation from the wood chippings, etc.

**CHARACTERISTICS:** Pine needle oil is a colorless or pale yellow mobile liquid with a strong, dry-balsamic, turpentine-like aroma.

**BLENDS WELL WITH:** cedarwood, rosemary, tea tree, sage, lavender, juniper, lemon, niaouli, eucalyptus and marjoram

**ACTIONS:** antimicrobial, antineuralgic, antirheumatic, antiscorbutic, antiseptic (pulmonary, urinary, hepatic), antiviral, bactericidal, balsamic, cholagogue, choleric, deodorant, diuretic, expectorant, hypertensive, insecticidal, restorative, stimulant (adrenal cortex, circulatory, nervous), vermifuge

**CONSTITUENTS OF OIL:** 50-90% monoterpenoid hydrocarbons: pinene, careen, dipentene, limonene, terpenes, myrcene, ocimene, camphene, sabinen; also bornyl acetate, cineol, citral, chamazulene, among others.

**USES**

**Skin Care:** cuts, lice, excessive perspiration, scabies, sores

**Circulation, Muscles and Joints:** arthritis, gout, muscular aches and pains, poor circulation, rheumatism

**Respiratory System:** asthma, bronchitis, catarrh, coughs, sinusitis, sore throat

**Genito-urinary system:** cystitis, urinary infection

**Immune System:** colds, flu

**Nervous system:** fatigue, nervous exhaustion and stress-related conditions, neuralgia.

Other Uses: a fragrance component in soaps, detergents, cosmetics, toiletries (especially bath products) and, to a limited extent, perfumes. Employed as a flavor ingredient in major food products, alcoholic and soft drinks. The distilled resin produces turpentine.

**Toxicity:** Do not use if prone to allergic skin reactions. Take essential internally only under professional supervision.

**Culinary Uses:** Inner bark - dried and ground into a powder and used in making bread. It is often mixed with oatmeal. A famine food, it is only used when all else fails. A vanillin flavoring is obtained as a by-product of other resins that are released from the pulpwood.

**Cosmetic Uses:** From the distillation of pine wood by steam pressure, pine oil, with a scent like that of juniper oil, is obtained and is used to impart its refreshing scent to bath essence. It is also used in the manufacture of brown soaps which have the distinctive pine fragrance.

**For the bath:** Mix 1 tsp of pine oil with 1 Tbsp of nonylphenol in a jug or basin. Add 1 fluid ounce of triethanolamine alkyl sulphate and mix in a pint of water in which balm or bergamot have been infused. Pour into the bath as the water runs in.

**Other Uses:** A tan or green dye is obtained from the needles. A reddish yellow dye is obtained from the cones. This tree yields resin and turpentine. Turpentine has a wide range of uses including as a solvent for waxes etc, for making varnish, medicinal etc. Rosin is the substance left after turpentine is removed. This is used by violinists on their bows and also in making sealing wax, varnish etc. Pitch can also be obtained from the resin and is used for waterproofing, as a wood preservative etc. A fiber from the inner bark is used to make ropes. The roots are very resinous and burn well. They can be used as a candle substitute. The leaves are used as a packing material. The fibrous material is stripped out of the leaves and is used to fill pillows, cushions and as a
packing material. Wood is light, soft, not strong, elastic, durable, rich in resin. Used in construction, furniture, paper manufacture etc. A good fuel but it is somewhat smoky.

References:
The Encyclopedia of Medicinal Plants
The Illustrated Encyclopedia of Essential Oils