POPLAR, BALSAM

*Populus balsamifera ssp. balsamifera*
[POP-yoo-lus bal-sam-EE-fer-uh]
(syn *Populus balsamifera*, *Populus tacamahacca*, *Populus candicans*)

**Family:** Salicaceae

**Names:** Carolina poplar, Balsa Poplar, Tacamahac, poplar buds, balm buds, balm of Gilead, balsam, black poplar, cottonwood, hackmatack poplar, poplar balsam, rough barked poplar, tacamahac, tacamahac poplar, tackamahac; Balm Of Gilead Poplar, Black Cottonwood, Eastern Balsam-Poplar, Hai T'Ung, Poplar, Tacamahaca, Tacomahaca, TzU T'Ung, Western Balsam Poplar; Balsampoppel (Swedish); Balsampoppel (Norwegian); Balsam-Poppel (Danish); Palsamipoppeli (Finnish); Balsam-Pappel (German)

**Description:** A fast-growing hardy deciduous tree of the willow family with aromatic, triangular dark leaves that are whitish underneath. It may grow 60-80 feet tall with a trunk about 18 inches in diameter. The branches are smooth, round and deep brown. The leaves are ovate, gradually tapering and dentate, deep-green above and smooth on both sides. Possibly a hybrid between the balsam poplar and the eastern cottonwood. Produces abundant ‘cotton’ when in flower and has a tendency to sucker. In America the leaf buds are in bloom in April, and this is the official part and time for collection. The buds are balsmamic, somewhat sticky, and exude a resinous substance of a fragrant odor, which, in medicinal properties, somewhat resembles the gum myrrh, with a bitterish, balsamic, and somewhat pungent taste. These buds must be soaked in alcohol to dissolve the resin before they can be used in an infusion, as water alone does not extract all their virtues. The balsamic juice is collected in Canada in shells and sent to Europe under the name of Tacamahaea. It is hardy to zone 2. The scented flowers are dioecious and are pollinated by the wind.

**Cultivation:** An easily grown plant, it does well in a heavy cold damp soil, though it prefers a deep rich well-drained circumneutral soil. Growth is much less on wet soils, on poor acid soils and on thin dry soils. Does not do well in exposed upland sites. Dislikes shade, it is intolerant of root or branch competition. A fast-growing and generally short-lived tree, though specimens 150 - 200 years old have occasionally been recorded. This is a pioneer species, invading cleared land, old fields etc, but unable to tolerate shade competition and eventually being out-competed by other trees. Poplars have very extensive and aggressive root systems that can invade and damage drainage systems. Especially when grown on clay soils, they should not be planted within 12 metres of buildings since the root system can damage the building's foundations by drying out the soil. The seed must be sown as soon as
it is ripe in spring. Poplar seed has an extremely short period of viability and needs to be sown within a few days of ripening. Surface sow or just lightly cover the seed in trays in a cold frame. Prick out the seedlings into individual pots when they are large enough to handle and grow them on in the old frame. If sufficient growth is made, it might be possible to plant them out in late summer into their permanent positions, otherwise keep them in the cold frame until the following late spring and then plant them out. Most poplar species hybridize freely with each other, so the seed may not come true unless it is collected from the wild in areas with no other poplar species growing. Cuttings of mature wood of the current season’s growth, 20 - 40cm long, November/December in a sheltered outdoor bed or direct into their permanent positions. Very easy. Suckers in early spring.

**History:** Balm of Gilead has been used for several thousand years to soothe inflamed or irritated skin.

**Properties:** stimulant, expectorant, tonic, diuretic, anti-scorbutic anodyne; Anti-inflammatory; Antiseptic; Cathartic; Febrifuge; Stimulant

** Constituents:** a soft balsamic resin, a yellow volatile oil, principally humulene with cineole, bisabolene, bisabolol; gallic acid, malic acid, salicin, populin, mannitol, chrysin, fixed oil, tectochrysin, arachidonic acid, trichocarpin.

**Medicinal Uses:** Balsam poplar has a long history of medicinal use. It was valued by several native North American Indian tribes who used it to treat a variety of complaints, but especially to treat skin problems and lung ailments. In modern herbalism it is valued as an expectorant and antiseptic tonic. The buds are used as a stimulating expectorant for all conditions affecting the respiratory functions when congested. In tincture they have been beneficially employed in affections of the stomach and kidneys and in scurvy and rheumatism, also for chest complaints.

The leaf buds are covered with a resinous sap that has a strong turpentine odor and a bitter taste. They are boiled in order to separate the resin and the resin is then dissolved in alcohol. The resin is a folk remedy, used as a salve and wash for sores, rheumatism, wounds etc. It is made into a tea and used as a wash for sprains, inflammation, muscle pains etc.

The bark is cathartic and tonic. Although no specific mention has been seen for this species, the bark of most, if not all members of the genus contain salicin, a glycoside that probably decomposes into salicylic acid (aspirin) in the body. The bark is therefore anodyne, anti-inflammatory and febrifuge. It is used especially in treating rheumatism and fevers, and also to relieve the pain of menstrual cramps. A tea made from the inner bark is used as an eye wash and in the treatment of scurvy.

It is an excellent hemorrhoid treatment. For burns it lessens pain, keeps the surface antiseptic and also stimulates skin regeneration. The tincture is a very effective therapy for chest colds, increasing protective mucus secretions in the beginning, when the tissues are hot, dry and painful. Later, it increases the softening expectorant secretions when the mucus is hard and impacted on the bronchial walls, and coughing is painful. Are aromatics are secreted as volatile gases in expiration. This helps to inhibit microorganisms and lessen the likelihood of secondary, often more serious, infections.

It treats dry scaly skin eruptions (like psoriasis and dry eczema), long-standing coughs, joint and muscle pain, and external inflammations. Highly regarded as a tonic. Also has diuretic properties. Made into pastilles or an ointment, it is most excellent for chest troubles and rheumatic ailments. The plant was also thought to reduce breast-milk production by Culpeper. Studies have demonstrated that balm of Gilead buds have significant expectorant, antibacterial, antifungal, and anti-inflammatory properties. Research undertaken into the bud resin of this and other poplar species has been largely prompted by the resin’s chemical similarity to
propolis, a naturally antibiotic resin that is gathered by bees and used in the construction of hives. Breast-feeding mothers should not take this herb internally even though it has not been proven to reduce milk production. Do not take if allergic to aspirin.

**Solvent:** alcohol

**Dosage:** Fresh Plant tincture, 1:2, 30-60 drops. Dry Plant Tincture, 1:5, 70% alcohol, 15-30 drops, both up to four times a day.

As a tea, 1 teaspoonful of the buds to 1 cupful of boiling water and leave to infuse for 10-15 minutes. Drink 3 times a day or more until effective

**Externally:** the buds are chiefly used in the form of ointments and plasters for counter-irritant purposes

**Remedy:** For fresh buds, slowly boil 1 part by weight of crushed plant in 4 parts by volume of water, simmering for about an hour. Add 1 part by volume of vegetable oil, let the mixture stand until cool, stirring several times, and decant off the oil from the water and exhausted buds. The vegetable and bud resin are lighter than the water, dissolve together, and float on top. Pure resin is too potent for topical use and the steeped oil can be used as it is. The dry buds can be blended with 10 parts olive oil, poured into a jar for a couple of days, reblended and strained. For burns, animal fat is preferable to vegetable oil, and you have a choice of lard or butter. If using butter, clarify it first by melting it and pouring the butterfat off the top; used unsalted, sweet butter, as salted butter is often partially rancid. Use 1 part by volume of crushed fresh or dry buds, and cook over a very low heat in 2 parts of lard or butterfat for at least 3 or 4 hours. It’s best to let the mixture harden overnight, reheat it the next day, and then pour the salve into jars, straining through a cloth draped over a sieve or colander. The buds themselves are antioxidant, so no preservative is necessary.

**Combinations:** Coltsfoot, red sage and white horehound will combine well with it to enhance its actions on the respiratory system, while chickweed will aid its strength in external applications

**Flower essence:**

Indications: inconsistent emotional and sexual response, often resulting from shock and trauma or a lack of grounding. Healing Qualities: for the release of physical and emotional tension associated with sexual trauma; balances the circulation of life force energy in the body; helps to ground and synchronize our sexual energy with planetary cycles and rhythms.

**Cosmetic Uses:** **Body Lotion:** Place the buds in a large glass jar to treat with spirits of wine to remove the resin. Leave for several days, frequently shaking up. Strain and add to warm lard, to which 1 cupful of almond or olive oil has been added. Just before it is cool, pour into screw-top jars and massage into the body for sunburn or when exposed to drying winds.

**Culinary Uses:** Inner bark is best used in spring. Mucilaginous. The inner bark is often dried, ground into a powder and then used as a thickener in soups etc or added to cereals when making bread. The catkins are eaten raw or cooked and have a bitter flavor.

**Other Uses:** An extract of the shoots can be used as a rooting hormone for all types of cuttings. It is extracted by soaking the chopped up shoots in cold water for a day. The resin obtained from the buds was used by various native North American Indian tribes to waterproof the seams on their canoes. The resin on the buds has been used as an insect repellent. The bark has been burnt to repel mosquitoes. The dried buds are used in potpourri.

**References:**
