

Styrax balsam

For the Storax tree, see *Styrax*.

Styrax (storax) balsam is a recent natural resin isolated from the wounded bark of *Liquidambar orientalis* Mill. (Asia Minor) and *Liquidambar styraciflua* L. (Central America) (Hamamelidaceae).^[1] It is often called benzoic resin, a similar resin obtained from the Styracaceae plant family.

1 Composition

Purified storax contains circa 33 to 50% storesin, an alcoholic resin, both free and as cinnamic esters. Contains 5 to 15% cinnamic acid, 5 to 15% cinnamyl cinnamate, circa 10% phenylpropyl cinnamate; small amounts of ethyl cinnamate, benzyl cinnamate, and styrene, Some may contain traces of vanillin. Some sources report a resin containing triterpenic acids (oleanolic and 3-epioleanolic acids).^[2]

2 Uses

Styrax has a pleasant, sweet, balsamic, slightly spicy odor. Storax and its derivatives (resinoid, essential oil, absolute) are used as flavors, fragrances, and in pharmaceuticals (Friar's Balsam).^{[1][3][4]}

American styrax resin (*Liquidambar styraciflua*) is chewed like gum to freshen breath and clean teeth.^[5]

3 History

Mnesimachus, Aristotle, Theophrastus (*Historia Plantarum*), Herodotus, and Strabo are the first ones to mention the styrax tree and its balsam. In ancient Greece, styrax also denoted the spike at the lower end of a spearshaft.^[6]

Pliny (*Historia Naturalis* 12.98, 15.26; 24.24) notes the use of styrax as a perfume, while Scribonius Largus drank wine flavored with styrax.^[7] Ciris mentions storax as a fragrant hair dye.^[8] Dioscorides (*De materia medica* 1.79) reports its use as incense, similar to frankincense, having expectorant and soothing properties.^[9]

The 10th century Arab historian al-Masudi listed storax gum (*may'a*) as a spice in his book *Murūdj al-dhahab*

(*Meadows of Gold*).^[10]

Chao Ju-Kuan, a 13th century trade commissioner in Fukien province, described liquid storax gum as a product of the Somali (*Po-pa-li*) coast.^[11]

Linnaeus, who determined the scientific names of plants, thought that storax was extracted from the tree called in modern Hebrew *livneh refu'i* which he termed *Styrax officinalis*. However in the light of tests made in Israel it is very doubtful if a sap with medicinal or aromatic qualities can be extracted from this tree. The storax of the ancients was probably extracted from a different tree, seemingly from the *Liquidambar orientalis* which grows wild in northern Syria and may even have been grown in Israel; from it is extracted an aromatic sap with healing qualities called *storax liquidis*. This may possibly be the biblical balm, though other sources conclude that the biblical balm is Balsam (opobalsamum).^[12]

Styrax benzoin is a more humid Asian species, reported from India, Cambodia, Laos, Myanmar, Thailand, Vietnam, Java, Sumatra, and Malaysia. Thus, this species historically would have needed to be imported from outside Israel.^[5]

In the nineteenth century, styrene was isolated by distillation of storax balsam.^[13]

In North Africa, for mystical purposes, women burn benzoin and styrax in potsherds.^[14]

4 Safety

Storax resin is “generally regarded as safe” (GRAS), but at low levels, for example, circa 15 ppm in candy and 25 ppm in baked goods.^[2]

5 See also

- Opopanax

6 References

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