

## BIOLOGY AND MEDICINAL PROPERTIES OF THE PINE TREE

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**Abstract:** *This article provides a brief overview of the biology of the pine plant, the chemical composition of its aerial parts, and detailed information on the use of a suspension prepared using the aerial parts of this plant against skin diseases and the results obtained.*

**Keywords:** *Pine, biology, dome, phytoncide, alcohol, water, skin diseases, swellings on the body, scurf, pseudo-wrinkles.*

Pine is a genus of coniferous trees and shrubs belonging to the Pinaceae family. Mainly found in the forest zones of North America and Eurasia, less common. Distributed in the tropical and subtropical mountains of the Northern Hemisphere. About 100 species of pine are known. In Russia, 12 species are found in the wild and 70 species are acclimatized. In Uzbekistan, pine does not grow naturally. However, species of its family, such as black pine, fir, fir and cedar, such as Pallas or Crimean pine, common pine and Schrenk pine, are cultivated. Pallas or Crimean pine can reach a height of 15–20 (30) meters. Its branches are wide and long. Its needles are 8–15 cm long, thin, hard and sharp-pointed, and dark green in color. The cones are large, 6–10 cm long, 4–5 cm wide, and the needles are rhombic, shiny, brownish-yellow. Pine is a thermophilic and light-loving plant. It lives up to 150–500 (600) years. It reproduces by seeds and is often grown as an ornamental plant on city streets and avenues. The wood of all pine species is used in furniture making, construction, and in the production of wood, as well as for the production of pitch and turpentine.

**Bark.** Most pines have thick bark, but some species have thin bark. The branches are simple "pseudo-folds", which actually resemble a ring of tightly coiled branches. Most pines produce only one branch per year, but some are multi-nodular and can produce two or more branches per year.

**Cone.** Pines are monoecious, with male and female cones on the same tree. The male cones are small (1–5 cm long) and only shed pollen for a short time (usually in spring, and in some species in autumn). Female cones mature within 1.5–3 years after pollination, depending on the species. Mature female cones range in length from 3–60 cm.



Figure 1. Pine and its cones.

Research: Pine needles are collected in May, when they are fully grown, and some are collected with branches. Then 200 ml of 96% ethyl alcohol is poured into a transparent lidded container and 100 g of washed and cleaned pine needles are chopped with a knife or scissors and poured over the alcohol. The transparent container is tightly closed with a lid. Then it is shaken vigorously. The container is wrapped in black polyethylene cellophane and placed in a dark place (basement) for 40 days. We can also tell that the ointment is ready by the color of the alcohol turning light green.

	Pine leaves and branches	96% ethyl alcohol	Suspension mass
	100gr	200ml	290gr
	200gr	400ml	580gr
	300gr	600ml	870gr

This ointment is intended for topical use only and has a positive effect on the human body against skin colds and various rashes and swellings that occur as a result of them. It also has the ability to smooth the skin. It cannot be used on children.



Figure 2. Pine cones and a glass container for preparation.

Conclusion. The phytoncides (complex ethers) contained in pine in the ointment, together with alcohol, are considered a cure for many skin diseases. As an external treatment, it is applied 2 times a day for 1 month.

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