

PROPOLIS

Bees, those little alchemists who know perfectly combine the vital energy of the sun and flowers, offer us different products to delight our taste buds and our health: honey, pollen, royal jelly and propolis. The latter is perhaps the least known, in spite of having been used in Ancient Egypt.

Propolis (from the Greek pro polis, "before the city") is a soft substance, gummy and balsamic made by bees from the buds harvested resin of trees, mainly poplar (95% of European propolis), but also different conifers, alder, willow, horse-chestnut, birch, plum, ash, oak and elm. Once in the hive, this resin is mixed with wax and with an enzyme secreted by the glandular system of bees, to make a kind of putty with a powerful antibiotic potency.

With this substance, propolis, bees line the walls of the hive, build real barriers of defense, clog and seal the possible cracks to create a solid, tight and at the same time, disinfected habitat. The hive entrance is also imbued with propolis, so as to have a contact at each entrance or exit. Indeed, 50 to 60 thousand bees live in a place where each has a living space of less than one cubic centimeter. If a single bee was sick, she would contaminate in a very short time the entire hive. They also use it to coat and cover small animals or insects that have entered the hive and, after being killed, can not be evacuated outside by the bees, thus avoiding any putrid decomposition process that would put the lives of whole community in danger.

Similarly, the Egyptians used propolis for embalming to preserve the bodies from putrefaction, but they also used it for its therapeutic properties. Aristotle notes as a "remedy to cure skin diseases, wounds and abscesses" in his History of Animals. At Ist century AD, Pliny the Elder praised its beneficial qualities, writing: "It removes stings and which are returned in the flesh, it reduces swelling and softens the hardening of the skin. It reduces the nerve pain, cures ulcers, abscesses, boils, often incurable". Also, the famous Greek physician Galen was referring in his treatises and recommended use. We could say that, over the centuries, this remedy has been widely used beekeeping by humans. But it is especially during the second Boer War in South Africa (1899-1902), as propolis reached its peak of use because of its excellent results in disinfection and healing wounds. Among the researchers who have actively contributed to a better understanding of propolis in recent decades, we must mention the versatile Professor Rémy Chauvin and Danish K. Lund Aagaard.

The average amount of propolis that bees can produce per hive and per year depends on the breed of the insect, but it varies between 150 g and 300 g. Until recently, the harvest was done by scraping it off the frames and walls of the hive, with the disadvantage of providing contaminated propolis of various impurities (wax, wood chips, vegetable fibers, fragments of bees...) inadequate consumption. Today, the beekeeper put in place a grill on top of plastic honeycombs, the bees are rushing to plug the holes with

propolis. This process facilitates the collection and improves the quality of the final product.

There are different propolis according to geographical origin, climate and, especially, botany. However, many components are found consistently and fairly stable, which determine the broad therapeutic properties of all propolis. Currently, more than 300 substances have been identified: flavonoids (fifty), wax (30%), essential oils (10-15%), pigments, resins and balsams (50%), pollen (<5%), provitamin A, B vitamins (mainly B3), vitamins C and E, amino acids (7 of 8 essential one), calcium, magnesium, chromium, zinc, manganese, silver, silica, cobalt, iron, polyunsaturated fatty acids, polysaccharides and significant amount of trace elements.

This varied and complex composition attribute to propolis antibacterial broad spectrum (staphylococci, streptococci, coliforms...), antitumor, radio and photoprotective, fungicidal (Candida albicans), anesthetic (three times more potent than morphine), anti-inflammatory, healing, antioxidant, hemostatic, analgesic, immunoestimulantes (stimulates antibody production, phagocytosis and functioning of the thymus), antiviral (herpes), antispasmodic, antiparasitic (Trichomonas), thermostabilisantes, regulating metabolism and anti-ulcer .

*From the therapeutic point of view, its efficiency was demonstrated primarily on **respiratory** sphere (tonsillitis, pharyngitis, laryngitis, rhinitis, sinusitis, hay fever, flu, bronchitis, tuberculosis, catarrh...), at the **digestive system** (oral hygiene, caries, gingivitis, mouth ulcers, periodontal disease, neuralgia and dental infections...) and **dermatology** (abscesses, boils, chilblains, cracks, warts, wounds, cuts, burns, radiodermatitis, varicose ulcers, some forms of eczema, calluses...). Propolis can also be used to strengthen prevention field through the winter or during travel to tropical countries, for example.*

In trade, we can find propolis in the pure state in various dosage forms: paste, pellet, capsule, tincture, cream, syrup, mouthwash, etc.. But also in association with natural products such as honey, royal jelly, various medicinal plants and essential oils. Here's a simple recipe to enrich a good thyme tea: mix thoroughly 10 g of propolis powder and 500 g of liquid honey. Protective effect guaranteed!

Propolis is a natural product of absolute safety. The few small side effects that sometimes occur (mucosa irritation, diarrhea) are linked to an overdose compared to the sensitivity of the subject or use too long. In such cases, it is sufficient to decrease the dosage or stop taking. Therefore it is appropriate to begin with escalating doses and always following the advice of a good therapist, especially people with allergies. It should be noted that there is a very slight risk of cross-allergy if allergic to the famous "Tiger Balm" and balsam poplar (Populus balsamifera).

The absence of formal cons-indication and incompatibility, the rare side effects or incidents are therefore of propolis, given its many properties of its wide scope of activity

and its high efficiency, high natural therapy much to solve a large number of disorders and conditions of our daily lives.

** The information presented in this article has informational purpose only and does not exclude nor does not replace any medical or pharmacological care.*

LEARN MORE:

- Centre for Ecological Apiculture. <http://www.thiele-und-thiele-consult.de>
- British Beekeepers Association. <http://www.bbka.org.uk>
- Bee Vital: Sustainable Medicine. <http://www.beevitalpropolis.com>
- The Practical Beekeeper. <http://www.bushfarms.com/bees.htm>
- Fearnley, James. *Bee propolis: natural healing from the hive.*
- Hill, Ray. *Propolis: the natural antibiotic.*
- Fearnley, James and Dr. Wander, Philip. *Propolis in oral health care.*

