



Le Butineur

Pollinium.fr, créateur de biodiversité



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- Beehive history -

How do bees produce wax?

Newsletter of bees of ADELAC

Summer 2018

Committed to protect biodiversity, ADELAC invests in sponsorship of bees. Come and get an inside peek of the incredible life of foraging bees. If you are a nature lover, you will certainly enjoy it.



- Beehive history -

Honey – yes sure, but not only

Honey is, undoubtedly, her bestseller, but a bee has much more than one product on the shelves. She has several other wonders in stock.

First of them is pollen, which the insect collects from the flowers. Yellow, orange, red, black... the colour of the pollen varies depending on the plant, but it doesn't influence its nutritional qualities: rich in proteins and vitamins, it is used to feed the larvae. Its medicinal properties are also very useful to men.

But what is equally surprising and less known is that bees collect propolis from the buds of some trees and use it both as insulation material and draught-proofing, as well as a protection against potential dead predators in the beehive. They cover them with this substance to avoid the rotting of the corpses. Due to its antiseptic, anti-inflammatory and healing properties, the substance is used in many pharmaceutical preparations.



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Wax is useful both to a man and a bee, which produces it from her wax glands. It's an essential element that allows her to stockpile food and bring up the queen's larvae.

Rare and precious, royal jelly is produced to feed the larvae, especially the future queens. In six days of the ultra rich diet, the royal larva multiplies its

weight by 2000! As it stimulates immune defences, royal jelly can also be found in pharmacies.



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Bees have wax glands, which, as their name indicates, allow them to produce the fatty substance between their 12th and 17th day.

The more foraging bees bring back pollen and nectar, the more wax bees will have to work: it's thanks to them that the storage and egg-laying cells are built.

In its natural state, a swarm produces itself the totality of its wax honeycombs. It's an operation that requires a great deal of energy and that reaches its peak in spring or at the beginning of the summer.

To simplify the task, a beekeeper will provide wax foundations that are ready to use!



- Bees and men -

Industry and services

Bees have an extraordinary capacity to collect in abundance the natural raw materials they need. Within a few kilometres, they collect litres of floral nectar as well as kilos of pollen. As they're keen on phytotherapy, they scour buds in order to collect propolis. Without these basic materials, a beehive will weaken and it can even die if these products contain toxins.

These products are then transformed collectively in an immense plant which is, actually, a beehive with its battalions of workers: nectar becomes honey, pollen 'bees' bread' for the larvae, propolis turns into an antiseptic fungicide which is necessary to ensure the hygiene of a beehive. This process can

be compared to an industry that produces ready-to-use and useful goods.

Bees can also be compared to a service company. By transporting pollen from one flower to the other to ensure their pollination, bees provide an ecosystem service, which will transform a flower into a fruit or a grain. Connecting actors to foster their development and their productivity is a perfect definition of a service company.

Henri Duchemin,

apiculteur, sociologue et fondateur de Melilot Consulting.
Retrouvez ces rubriques sur : <http://melilotconsulting.com>



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- Beehive history -

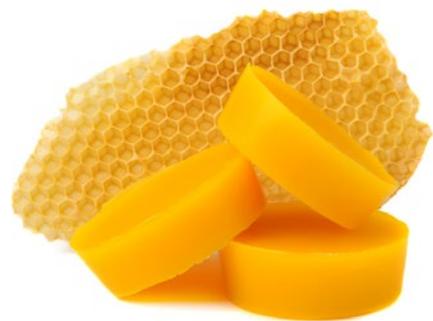
Wax foundation sheets - a little help to bees

To save their time and energy, a beekeeper will prepare the work for the wax bees by giving them wax foundations. These foundations, which are about 1mm thick and which are inserted in the frames, contain the moulds of the honeycombs to be built on their both sides. Once they are inserted in the beehive, the wax bees will continue to produce their own honeycombs based on the pre-formed ones.

The wax used for the production of the wax foundations simply comes from beehives themselves. At the end of the season, a

beekeeper removes the old frames, extracts and purifies the wax and then sells it in the form of bread to the sheets producers. The latter then transform the wax into the wax foundations thanks to a bee wax foundation machine before reselling it.

Wax is also used in the wide variety of areas: candle production, furniture polish, cosmetics, pharmacies, as waterproofing or food additive etc.



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Brief

Proverbs and sayings

«Be like a flower – blossom to your fullness and let the bees rifle your heart.»

Râmakrishna



It's the quantity of honey that wax bees have to consume in order to produce 1kg of honey.



Although pollen makes bees happy, it makes those who are allergic to pollen cry. Several red alerts about grass pollen have been launched over the last few weeks in France by the National Network of Aerobiological Surveillance (le Réseau national de surveillance aérobiologique). Don't forget your handkerchief!