

OUR ORGANIC ROYAL JELLY



Boosts
the immune
system

Quality
control

We offer **freeze-dried royal jelly extracts of «type 1»**, standardized to conforming to the ISO 12824 standard, standardised to 4%-5%-6% 10-HDA.



THE ORIGINE OF ROYAL JELLY

Used since ancient times for its essential nutrients, royal jelly offers many beneficial effects.

Royal jelly is the richest substance produced by bees in the hive. It is used to feed the larvae so that they become adults. Only the queen bee can feed on royal jelly throughout her life, which explains the name royal jelly. Thus, the queen bee can live up to 5 years, as opposed to a few weeks for worker bees. The queen can lay between 1000 and 2000 eggs per day in season.

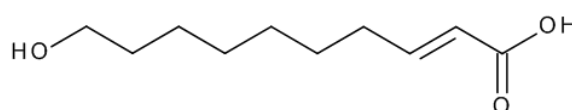
THE COMPOSITION OF THE ROYAL JELLY

The composition of royal jelly is not constant, it varies according to the climate and the geographical area.

However, it is always particularly rich in nutrients such as water, proteins, sugar, fatty acids, vitamins, salts and amino acids.

Royal jelly has a specific molecule: **10-hydroxy-decenoic acid (10-HDA)** which represents 50% of the lipids.

10-HDA is the main active ingredient in royal jelly. It is a fatty acid of the omega 3 family (an important component of neurons and cell membranes). This fatty acid ensures the proper functioning of the brain, and also contributes to the proper functioning of the heart and vision.



10-hydroxy-decenoic acid (10-HDA)

[Learn more](#)

OUR ORGANIC ROYAL JELLY

THE ISO 12824 STANDARD FOR THE QUALITY OF ROYAL JELLY

Since 2016, the ISO 12824 standard specifies the production requirements and health rules for royal jelly. This standard has established a minimum content of 1.4g of 10-HDA per 100g of fresh royal jelly, which represents the content naturally present in the product.

This standard has also made it possible to distinguish two qualities of royal jelly according to the diet of the worker bees. Type 1 royal jelly comes from worker bees fed exclusively with pollen, nectar or honey. Type 2» royal jelly comes from worker bees fed with other foods such as sugar syrups, proteins, etc.

Obtaining «type 1» royal jelly is a guarantee of naturalness, authenticity and quality.



QUALITY CONTROL OF OUR ROYAL JELLY

Our royal jelly undergoes a highly improved quality control. The quality of the product is controlled at the source, allowing full traceability and guaranteeing a high quality harvest of fresh royal jelly.

The beekeepers collect the royal jelly by hand. In order not to deteriorate the active ingredient of the royal jelly, it will be stored in a refrigerator directly after harvesting for the so-called «fixed» beekeepers, or stored in «burrows» and then transported in freezers within 2 to 4 days for the so-called «mobile» beekeepers.

In addition, in order to strengthen quality control while guaranteeing the interests of the beekeepers, an annual contract has been drawn up. This contract highlights important points such as

- packaging: containers must be carefully cleaned to avoid contamination and labelled with the beekeeper's name
- the quality of the raw material: the antibiotic residue content must be very low to meet the various certifications and standards.

A quality assurance system allows us to analyse antibiotic residues using the LC-MS-MS method (liquid chromatography with tandem mass spectrometry), which guarantees a stable, high quality royal jelly.

Our freeze-dried extracts are obtained using equipment that allows the purification of royal jelly under frozen conditions while maintaining the various nutrients and active principles of the product in order to guarantee all the benefits of royal jelly.

[Further information](#)

OUR ORGANIC ROYALE JELLY



THE BENEFITS OF ROYAL JELLY

Royal jelly is a general stimulant for the body which helps to preserve the immune system. It is also a very good energy carrier that helps to fight against fatigue and helps to combat stress.

Energy	379.6 kcal
Fat	0.4 g
Carbohydrates	57.5 g
Protein	36.5 g
Water	3.3 g

NUTRITIONAL VALUES
INDICATIVE (per 100g)

In addition, it can be used in cosmetic creams to nourish dry skin.



TO GO FURTHER... ON STUDIES ON THE BENEFITS OF ROYAL JELLY...

Biological activity and molecular mechanisms are an important part of the research on royal jelly.

Various articles have reported the therapeutic efficacy of royal jelly in particular on Parkinson's disease and the effect on the nervous system. Royal jelly could also be used to alleviate the side effects of anti-cancer drugs.

The application of royal jelly in this field has broad prospects for the coming years in terms of scientific research.

REFERENCES

Stoner KA, Eitzer BD. Using a hazard quotient to evaluate pesticide residues detected in pollen trapped from honey bees (*Apis mellifera*) in connecticut [J]. *Plos One*, 2016, 11(7): e0159696.

Böhme F, Bischoff G, Zebitz CPW, et al. From field to food will pesticide contaminated pollen diet lead to a contamination of royal jelly [J] ? *Apidologie* , 2017(7621): 1 8.

Zheng WJ, Park JA, El Aty AMA, et al. Development and validation of modified quechers method coupled with LC MS/MS for simultaneous determination of cymiazole , fipronil , coumaphos , fluvalinate , amitraz , and its metabolite in various types of honey and royal jelly [J]. *Journal of Chromatography B*, 2018, 1072: 60 69.

Zheng WJ, Park JA, El Aty AMA, et al. Development and validation of a simple solid-phase extraction method coupled with liquid chromatography triple quadrupole tandem mass spectrometry for simultaneous determination of lincomycin , tylosin a and tylosin b in royal jelly [J]. *Biomedical Chromatography*, 2017.

Pina A, Begou O, Kanelis D, et al. Targeted profiling of hydrophilic constituents of royal jelly by hydrophilic interaction liquid chromatography tandem mass spectrometry [J]. *Journal of Chromatography A*, 2018, 1531: 53 63.

Tu XJ, Sun FY, Wu SY, et al. Comparison of salting out and sugaring out liquid liquid extraction methods for the partition of 10 hydroxy 2 decenoic acid in royal jelly and their co extracted protein content [J]. *Journal of Chromatography B*, 2017, 1073: 90 95.

Inoue Y, Hara H, Mitsugi Y, et al. 4 hydroperoxy 2 decenoic acid ethyl ester protects against 6 hydroxydopamine induced cell death via activation of Nrf2 ARE and eIF2 α ATF4 pathways [J]. *Neurochem Int* , 2018, 112: 288 296. [8] Chen D, Liu F, Wan JB, et al. Effect