



Mild

BEE BREAD

Predigested Fermented Pollen



What is Bee Bread?



Bee bread is an extremely nourishing fermented, enzymatically activated food made by the bees from plant pollen, nectar and bee saliva. Regurgitated nectar and the bees' salivary secretions inoculate the pollen with a wide range of lactic acid bacteria and yeasts that ferment and transform the bee pollen into bee bread, a treasure trove of bioactive peptides, essential amino acids, carbohydrates, fatty acids, organic acids, vitamins, minerals, enzymes, prebiotics, probiotics and phytochemicals.



Other Names

Bee bread has also traditionally been known as 'Ambrosia' (food of the Gods), 'Perga' and the 'Fountain of Youth'. Since ancient times bee bread has been used by a variety of cultures for its nutritional and therapeutic properties. And scientific research suggests that bee bread exhibits antimicrobial, anti-inflammatory, anticancer, neuroprotective and hepatoprotective properties.

Alchemical Creation



Bee Bread is an “alchemical” bee creation. Foraging bees visit a variety of flowers and in the process collect pollen grains. The bees mix the pollen with saliva and regurgitated nectar from their honey stomachs which are rich in lactic acid bacteria (LAB) including lactobacillus species. This sticky pollen pellet which is rich in LAB is then attached to their hind legs for transport to the hive. In the beehive the pollen pellets are packed into honeycomb cells and covered with honey.

Over a period of time the bee bread undergoes a lactic acid fermentation which is similar to the process involved in the formation of yoghurt (and other fermented milk products) and renders the pollen more digestible. The microbial species involved in this fermentation process also have the ability to produce enzymes, vitamins, antibacterial substances and organic acids. The fermented bee pollen is now called “bee bread” and has a broad range of natural probiotic bacteria and enzymes. The fermentation process also explains why bee bread is sour, because it contains lots of lactic acid produced by the LAB. Pollen sheaths are dissolved during the process of fermentation rendering the bee bread more readily absorbable. Proteins are degraded to peptides and amino acids, starches are metabolized into simple sugars, and vitamins become more bioavailable.

Bee bread is therefore characterized by a higher nutritional value than fresh pollen, and is more biologically active and easily digestible due to the high content of easily digestible sugars, fats, minerals and free amino acids. And as a result of the fermentation process, bee bread has an exceptional shelf life compared with dried or frozen pollen in which nutritional values are rapidly lost.



Pristine Environment



In the remote lush green forests of India and the awe-inspiring Himalayan Mountains resides the world's largest honey bee, *Apis dorsata*, that builds its nest out in the open on vertical cliffs and tall trees to avoid predators and for increased exposure to direct sunlight. Each wild beehive contains the purest honey and bee bread that is packed with phytonutrients and free of contaminants and pollutants. Rosita wild bee bread is carefully and sustainably harvested from these naturally occurring wild hives to protect the wild bee colonies. Harvesting also supports the indigenous communities and helps protect the wild forests of India and their rich biodiversity.



Our mission is to educate people about the potential of pure, wild & raw bee bread and other bee products and to nourish our bodies the way nature intended.



Sustainable Harvesting



Honey hunters use sustainable and bee friendly collecting methods to harvest the wild honey combs which in turn stimulates the growth of wild beehives. The free-range wild bees in these hives constantly contribute to the environment, pollinating plants to foster biodiversity. Bees are actually directly responsible for pollinating one third of the food we eat. We are passionate about showcasing how important the honeybee is for the environment and the myriad health benefits derived from high-quality bee derived products.



Some of the sustainable methods used to procure Rosita bee bread include the following:

- Tribal honey hunters are trained with the government forest departments for ethical harvesting of bee products from wild bees.
- Tribals protect and support the wild bee population using sustainable and non-intrusive methods.
- Bee bread and honey are always collected during times when there is plenty of flora. This way the colony is not affected and keeps on multiplying naturally.
- Unethical practices including removing the whole hive from the branch or chopping down an entire tree to access the hive are strictly prohibited as these practices destroy the whole colony. Instead, the honey hunters are trained to cut out only the part of the honeycomb which contains honey and bee bread and to leave the rest of the hive intact. This is also done without killing or harming the bees.
- Our harvesters only collect excess honey from the hive. Honey is always left in the hive so there is food for the bees. The bees are quick to rebuild the hive which helps sustain the bee population in the wild.
- Special precautions are taken by honey hunters to protect the forests from wildfires.
- Wild bees pollinate the surrounding flowers and create more honey. Pollination allows plants to reproduce, contributing to the surrounding ecosystem.
- We ensure that the tribals are paid well for their labour, expertise and vast knowledge of the forest lands. This is extremely tough and challenging work and they should be rewarded. Fair Trade practises are adhered to.
- Extraction of bee bread is done in the most hygienic way to ensure our customers get the very best quality raw bee bread.
- Packaging is environmentally friendly by reducing the use of plastic to the bare minimum.
- Every jar of bee bread purchased indirectly improves the life of a tribal honey hunter community.

Harvesting Honeycomb containing Rosita Bee Bread(1)



Harvesting Honeycomb containing Rosita Bee Bread(2)



Harvesting And Extracting Rosita Bee Bread

Rosita wild bee bread is produced by the largest and most aggressive bee species known, *Apis dorsata*, which are typically more than twice as long as their European cousins. This species exists only in the wild and cannot be kept inside man-made hives. *Apis dorsata* colonies build very large nests in the open air (high on cliffs or in high trees) consisting of a big, single comb which can be up to two meters in length. The comb is permanently covered by a curtain of up to 100,000 worker bees, several layers thick, forming a protective barrier.

Specialized native honey hunters harvest the wild honeycombs. These hunters are village tribals with exceptional skills including: tracing the nests by carefully observing foraging bees; climbing trees or rocks; opening nests; and calming the bees. Traditional honey gathering is usually done on a moonless night to minimize the number of flying bees once the colony is disturbed.

The tribals that harvest bee bread for Rosita have a “honey season” that lasts from March until July. During this season they move deep into the forest in search of wild honeycombs. Honeycomb is their most prized and highly ranked food source.

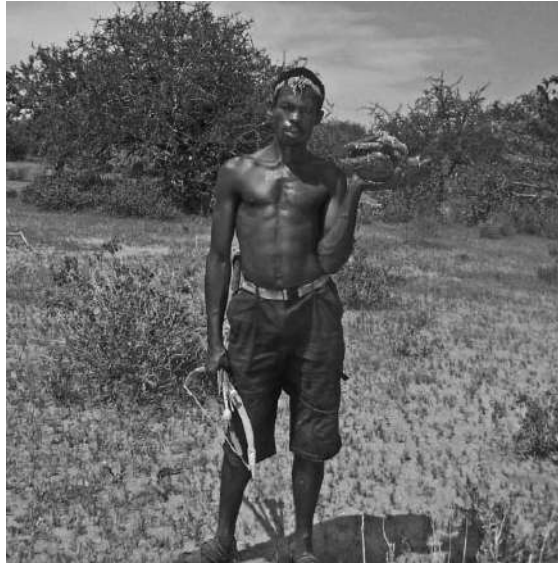


Paleolithic Cave Art Depicting Honey Gatherer.

Once the honey hunters spot the giant honeycombs, in the branches of the tall trees, they hike into the dense forest to get to the bases of the trees. They then quickly ascend the trees by either climbing or making their way up a makeshift rope ladder, through a dense cloud of swarming bees. When the forager reaches the honeycomb he typically uses smoke to scatter the honey bees from their hives, using a bundle of smouldering grass between thumb and forefinger. A trail of smoke drifts upwards towards the agitated bees. The smoke engulfs the bees and dulls the response of the guard bees, who would otherwise sound the alarm in response to a threat. The bees become disorientated and dramatically less aggressive, a desirable effect considering the aggressive nature of these wild rock bees. It also drives thousands of bees out of their nests exposing the cream-coloured honeycomb. The exposed honeycomb is cut and placed in a bucket which is carefully lowered to the ground using a rope.

The acquisition of bee bread in large quantities is difficult and involves its extraction from the honeycomb cells. It is strongly compacted by bees and firmly embedded in the honeycomb cells. It is therefore necessary to collect bee bread by hand, a cumbersome job and one that assures the highest microbiological purity. There are a variety of methods for extracting bee bread from a honeycomb. A great deal of these methods have serious disadvantages. Some of the methods result in considerable losses of nutrients and vitamins present in bee bread – proteins, amino acids, B vitamins, folic acid and vitamin C. Others are inefficient and cannot be applied to obtain significant quantities of bee bread. The method used should therefore preserve the nutritional properties and vitamins present in bee bread and allow for a sufficient yield. Rosita wild bee bread is obtained using a secret method and one that completely preserves all of the nutrients present in wild bee bread thus ensuring the highest quality product. No heat, chemicals or water are ever used to remove the bee bread from the honeycomb cells.

Paleolithic Food



Hadza honey hunter with honey, bee larvae and bee bread.

The abundance of rock art depicting honeycombs, swarms of bees and honey collecting scenes at several sites throughout the world suggests that Paleolithic man consumed wild bee products, including honey, bee bread and brood (larvae). Such art dates to as many as 40,000 years ago and has been found in Africa, Europe, Asia and Australia. Furthermore, it is very likely that early hominins were exploiting beehives long before the practice was represented artistically.

Bee derived products are indeed an ancient human food. Combined, honey, bee bread and bee larvae are excellent sources of energy, fat, protein and micronutrients and represent high quality food sources that have been targeted for much of human history and may have competed with fire in terms of their evolutionary importance. The enlarging hominin brain would have greatly benefited from the energy provided by even a modest amount of these foods. Honey, bee bread and larvae may have supplemented scarce resources during the dry season. The ability to find and exploit beehives with stone tools may have been an innovation that allowed early hominins to nutritionally outcompete other species and may have been a crucial energy source to help fuel the enlarging hominin brain.

There is now a growing consensus in the medical world that our gut microbiomes (a vast community of trillions of bacteria and fungi that have a major influence on our metabolism, immune system and mood) play a major role in the operation of our immune system, and that the richer and more diverse the community of microbes in your gut the lower your risk of disease. And it so happens that the Hadza people, who live in a remote part of Northern Tanzania and are one of the last remaining hunter-gatherer tribes in the world, have the most diverse human gut microbiomes on the planet. Tim Spector, Professor of Genetic Epidemiology at Kings College London, showed that after three days on a forager (Hadza) diet, his gut microbial diversity increased by an amazing 20%, and he was able to detect rare forms of bacteria often associated with good health. His diet included a variety of animal species (most of which are birds), tubers, wild berries and honeycomb full of honey, bee bread and bee larvae.



What Makes Rosita Wild Bee Bread Special



- Rosita wild bee bread is a unique and rare product. It is a wild & raw superfood produced by wild honey bees that are not kept in hives and therefore not exposed to modern beekeeping practices which can contaminate bee derived products. Such bee bread is considered by local honey hunters to be a health treasure. Finding bee bread that is truly wild is rare! And it is likely that a great deal of them will be adulterated and not genuine. Even some of the domesticated bee breads are produced by humans using honey and pollen and not produced by the bees themselves! That is why Rosita decided to team up with a wild honey expert and his group of tribal honey hunters to ensure a 100% genuine product. And supporting small, artisan producers is the right thing to do.
- Bee breads biochemical richness varies upon the flora diversity of the region and the time of the pollen collection. Rosita bee bread is sourced from some of the most pristine areas of the world including the Himalayas. The wild bees forage on a variety of Ayurvedic wild naturally growing medicinal flora with health supporting properties such as Neem, Sweet Neem, Jamun and many more!
- Rosita bee bread is derived from wild bee hives and wild giant rock bees that cannot be domesticated and are free from any form of human intervention. This means that the wax, honey and bee bread are free from residues of medicines which are commonly used to maintain domesticated hives and prevent bee diseases.
- Commercially farmed bees are commonly treated with antibiotics, suffer stress, eat synthetic food instead of their own honey and bee bread and are forced to fly in fields sprayed with pesticides. All this destroys the bees' healthy bacteria which is their defence against disease. The honey and bee bread produced by commercial bees are therefore of inferior quality. Wild bees that nest high up in trees and cliffs do not suffer from any of these problems. Their honey stomachs are full of friendly bacteria and the honey and bee bread they produce are of a superior quality teeming with friendly bacteria, antioxidants and phytochemicals.
- Our bee bread is totally raw, never heated or dried. It comes straight out of the hives and into the jars without any steps in between. Rosita believes that bee bread should be as fresh as possible. Freshness ensures product integrity and biological efficacy. Drying is likely to impact its nutritional and therapeutic value and is strictly avoided.
- Studies by Lund and Karolinsky (Universities of Sweden) have identified unique lactic acid bacteria present in the honey and bee bread of *Apis dorsata*.
- Sensitive crystallisation is a qualitative method devised by a team of researchers led by Ehrenfried Pfeiffer in 1930-1950. It highlights the quality of biological substances. Researchers using this method said that wild bee bread from *Apis dorsata* was the most powerful substance they had tested for the past 11 years.
- Wild (*Apis dorsata*) bee bread sourced by our honey hunters, from the same areas they use to harvest Rosita bee bread, was previously compared to European (*Apis mellifera*) bee bread and won the best bee bread award in both a German Apitherapy Congress (Passau 2015, 2016) and a Romanian Apitherapy Congresses (Brasov 2014).
- Rosita bee bread has undergone a peer-reviewed scientific study which looked at the physicochemical and functional characteristics of bee bread from the EU and India, produced by *Apis mellifera* and *Apis dorsata* bees, respectively. Higher values for all parameters were quantified from bee bread and bee bread extracts from *Apis dorsata* bees. These values included total phenolic content, flavone/flavonols, flavanones, radical scavenging activity and total antioxidant power (the ability to scavenge reactive oxygen species associated with a variety of diseases). The researchers suggested that the results could be explained by the multitude of botanical species present in the areas where *Apis dorsata* bee bread is harvested. (Bobis 2017)
- Rosita bee bread has a unique taste, unlike any other bee bread out there! It tastes tangy, with citrus and fruit flavours and dissolves easily in the mouth.
- Wild forests are stressful environments for plants and results in them producing chemical compounds, known as phytochemicals, which help protect the plant from attacks by insects and diseases. These phytochemicals are also present in the nectar that is collected and used by the bees to produce honey and bee bread. Wild bee bread and honey are therefore rich sources of protective phytochemicals with a vast array of health supporting properties.

Nutritionally Rich Superfood

Nutrients in Wild Bee Bread

Vitamins

Water Soluble Vitamins

B1, B2, B3, B5, B6, Biotin, Folate, and C.

Fat Soluble Vitamins

Provitamin A Beta-Carotene, D, E, and K.

Phenylalanine, Leucine, Valine, Isoleucine, Arginine, Histidine, Lysine, Methionine, Threonine and Tryptophan.

Including: W-3 and W-6 fatty acids.

Nutrients

Others:

Prebiotics, Probiotics, Phytosterols, Acetylcholine, Lecithin, Organic Acids, Saccharase, Amylase, Phosphatases, Catalase, Diastase, and Ribonuclease.

Minerals

Potassium, Phosphorus, Magnesium, Manganese, Calcium, Iron, Zinc, Copper, Sodium, Chromium, Selenium, Iodine, Cobalt, Molybdenum, Nickel and Silicon.

Polyphenols (flavonoids: quercetin, apigenin, isorhamnetin, kaempferol, chrysin, naringin, naringenin, rutin; phenolic acids: p-coumaric acid, ferulic acid and caffeic acids) and lipophilic antioxidants such as α -tocopherol, carotenoids (including lutein, B-cryptoxanthin and B-carotene) and Coenzyme Q10.

Antioxidants

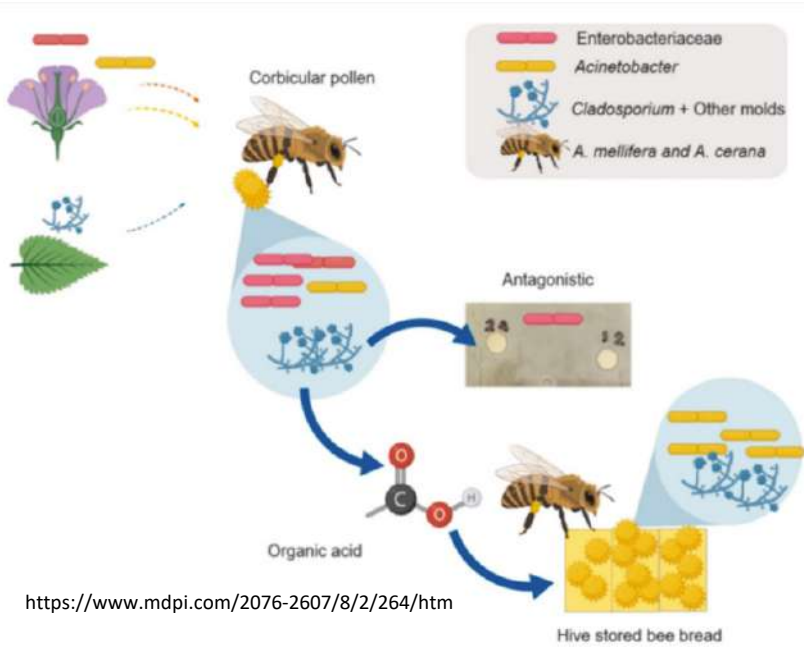


Bee bread has extensive nutritional and therapeutic properties and has been known and used for thousands of years. It is often recognised as a perfect food. The chemical composition of bee bread varies according to plant sources, season, and soil type. Bee bread is abundant in proteins, free amino acids and all the essential amino acids (including phenylalanine, leucine, valine, isoleucine, arginine, histidine, lysine, methionine, threonine and tryptophan), carbohydrates and fatty acids (including ω -3 and ω -6 fatty acids). Bee bread also contains a wide variety of other health promoting compounds including fat soluble vitamins (provitamin A beta-carotene, D, E, K) and water soluble vitamins (B1, B2, B3, B5, B6, Biotin, Folate, C); minerals and trace elements (including potassium, phosphorus, magnesium, manganese, calcium, iron, zinc, copper, sodium, chromium, selenium, iodine, cobalt, molybdenum, nickel and silicon); essential oils; enzymes (including saccharase, amylase, phosphatases, catalase, diastase, ribonuclease); prebiotics and probiotics; phytohormones (including auxins and gibberellins); phytosterols; lignans; triterpenes; natural antibiotics; carotenoids and organic acids (including lactic acid which improves the stability of bee bread). Other minor constituents of bee bread include decanoic acid, gamma globulin, nucleic acids, lecithin and acetylcholine.

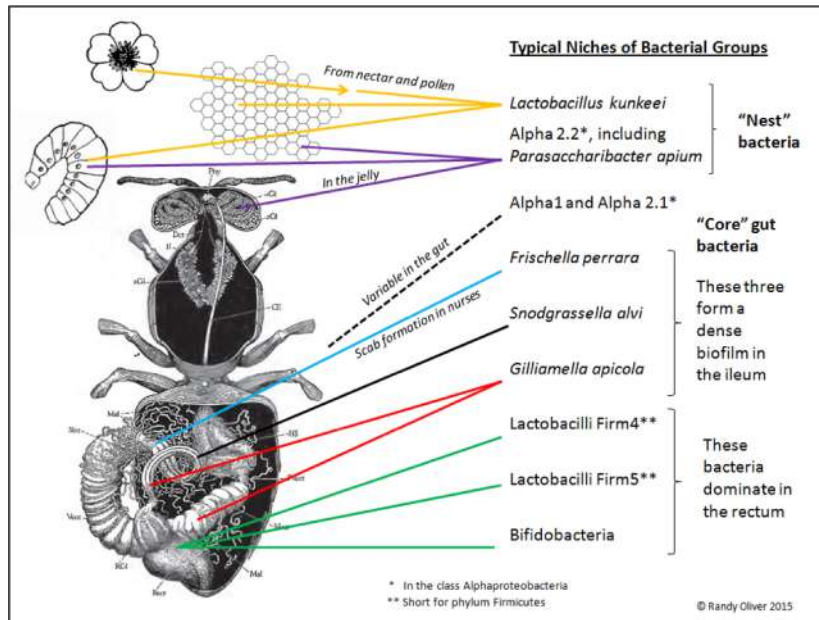
Some of the natural antioxidants present in wild bee bread include polyphenols (flavonoids: quercetin, apigenin, isorhamnetin, kaempferol, chrysin, naringin, naringenin, rutin; phenolic acids: p-coumaric acid, ferulic acid and caffeic acids) and lipophilic antioxidants such as α -tocopherol, carotenoids (including lutein, B-cryptoxanthin and B-carotene) and coenzyme Q10.

Xi Chen and colleagues at Nanjing University in China found that bee bread contains lots of small RNA molecules called microRNAs. microRNAs play a pivotal role in gene regulation. Emerging evidence in recent years suggests that dietary microRNAs can be absorbed into the circulatory system and organs of humans and other animals, where they may possibly serve as a novel functional component of food by regulating gene expression and biological processes.

A Naturally Fermented Food



“Historically, people of all cultures have consumed the world's greatest natural blend of healthy bacteria in the form of honey”, says Medical Microbiologist, Alejandra Vasquez, from Lund University. A large battery of beneficial lactic acid bacteria that can fight bacterial infections resides within honeybees. These bacteria include 13 different types: 9 species of Lactobacilli and 4 species of Bifidobacteria. This is in comparison with the 1-3 different types found in commercial probiotics. The honey bees have used these bacteria for 80 million years to produce honey and their bee bread, which they produce to feed the entire bee colony. The microbial communities of bee bread produce a myriad of active antimicrobial compounds - such as proteins, enzymes, peptides, organic acids, and bacteriocin - thus further contributing to its bioactivity. And it has been established through scientific research that bee bread exerts significant antimicrobial activity against diverse pathogens. In the peer-reviewed open access scientific journal PLOS One, researchers explain that the bees have these healthy bacteria in their honey stomachs which they acquire as newborns from the adult bees that feed them. "As humans have learnt to use honey to treat sore throats, colds and wounds, our hypothesis is that the healthy bee bacteria can also kill harmful disease bacteria in humans.....", says Alejandra Vasquez.



Another group of substances present in bee bread are “prebiotics.” These are nondigestible food ingredients, including oligosaccharides, that promote the growth of beneficial microorganisms, and in particular probiotic lactobacilli and bifidobacteria which are important representatives of lactic acid bacteria.

Potential Health Benefits



Beebread with live bacteria under the electron microscope

In many countries bee bread and other bee derived products are implemented in apitherapy (treatment using bee derived products) for a large variety of impaired health conditions. A Russian study by Dr. Nicolai Tsitsin 1945 questioned one hundred and fifty Russian centenarians in the Caucasus region of Russia about their diet, age and occupation and found that the majority of them worked as beekeepers and nearly all of them regularly consumed honey enriched with pollen.

Due to its nutrient rich profile, bee bread may act as an antioxidant, antimicrobial (antibacterial, antifungal, antiviral) and anti-inflammatory. Moreover, bee bread may help to improve intestinal flora, support the digestive and immune system, act as a detoxifying agent, support liver and prostate health, support urinary health, alleviate allergies such as hay fever, support fertility and libido, support triglyceride and cholesterol levels within the normal range, support cardiovascular health, improve concentration and memory, support nervous and endocrine system functions, reduce fatigue and fight exhaustion. It has also been suggested to have anti-aging effects and is associated with increased longevity. Interestingly, supplementation of livestock and poultry diets with bee pollen has been shown to enhance growth performance, immunity responses and carcass quality, and has been considered an excellent substitute for antibiotics.

According to the American Apitherapy Society, bee bread has been used by Olympic athletes in a bid to strengthen their immune system, boost performance and improve their crucial recovery time after performance. Early Egyptians and the ancient Chinese believed it to be a rejuvenator and medicine. Even the ancient Vikings are said to have taken honeycomb and bee bread with them on their long voyages.

Quality

Once harvested Rosita Wild & Raw Bee Bread is immediately stored at low temperatures (-18 °C). A bee bread sample is then sent to the Export Inspection Agency in Mumbai (Ministry Of Commerce & Industry, Government Of India) where it undergoes microbiological and heavy metal testing. Only if the results are satisfactory can it be awarded a Veterinary Certificate which is essential for the bee bread to clear customs in the United Kingdom (UK customs has one of the most stringent requirements in the world). Rosita bee bread was actually the first to obtain a phytosanitary and veterinary certificate for export from the Government of India.

Once the certificates are issued the bee bread is packaged for transport in a HACCP certified facility and sent to the United Kingdom where it is bottled into glass jars in a BRCGS Certified facility in Scotland. The BRC Global Food Standard is the best in the world and BRCGS Certification demonstrates that the facility complies with a BRCGS Global Standard for food safety, packaging and storage.

Test Results

The specifications for Rosita wild bee bread are as follows:

Microbiological Analysis

Test Parameters	Test as per Party Specification	Test Method Ref
Total plate count	< 1000 cfu/gm	AOAC 990.12
E.coli	< 10 cfu/gm	AOAC 991.11
Coliform	< 10 cfu/gm	AOAC 991.14
Staphylococcus aureus	< 10 cfu/gm	AOAC 2003.11
Yeast & mould	< 100 cfu/gm	AOAC 2014.05
Salmonella spp.	Not detected/25 gm	ISO 6579-1:2017
Shigella sp.	Not detected/25 gm	ISO 21567:2004
Moisture	12% – 15 %	FSSAI Lab Manual
Ash	1.9% – 3.0%	FSSAI Lab Manual

Heavy Metal Analysis

Lead	<0.5 ppm	PTH/CHEM/SOP/084
Cadmium	< 0.03 ppm	PTH/CHEM/SOP/084
Mercury	< 0.01 ppm	PTH/CHEM/SOP/084
Arsenic	< 0.5 ppm	PTH/CHEM/SOP/084

Remarks: The sample meets the requirements for above parameters as per Party Specification.

SUPPLEMENT FACTS

Serving size: 1 tsp. (approx. 3g)

Servings Per Container: About 30

Amount Per Serving		% Daily Value
Calories	15	
Vitamin E	0.5 IU	2.0%
Folic Acid	8 mcg	2.0%
Iron	0.5 mg	3.0%
Magnesium	9 mg	2.0%
Zinc	0.4 mg	4.0%
Copper	40 mcg	4.0%
Manganese	0.3 mg	14%
Omega-3 fatty acids	60 mg	†
Omega-6 fatty acids	100 mg	†
Lactic Acid	86 mg	
Polyphenols	84 mg	†
Flavonoids	40 mg	†

† Daily Value not established

Ingredients

100% Wild & Raw fresh bee bread from wild giant rock bees (*Apis dorsata*).

Free from....

100% wild & raw bee bread from wild giant bees. No Preservatives, No Additives, No Artificial Ingredients, No Colourings, No Stabilizers, No Anti-Caking Agents, No GMOs are present in Rosita wild bee bread. Naturally Gluten-Free. Absolutely nothing is ever added. Never dried. Freshly collected by tribal honey hunters, frozen and packed straight from the hive without any steps whatsoever to preserve its raw, original state and maintain its full nutritional value.

When to avoid

Interestingly, while allergy to Bee Pollen is not uncommon, allergy to bee bread is rare.

However, bee bread is not recommended for people with a history of anaphylactic shocks or those allergic or hypersensitive to bee products and bee stings.

How to use

Wild & Raw bee bread should be consumed daily. It is suitable for both children (over the age of 3) and adults, and the recommended dose is 1 teaspoon per day (approx. 8 nuggets) for adults and ½ teaspoon per day (approx. 4 nuggets) for children, preferably 30 minutes before breakfast or meals. Can be chewed or allowed to dissolve in the mouth. Active adults can increase the dose to one teaspoon twice per day or as required.

How to store

Store your bee bread in its sealed glass jar in the refrigerator or freezer. Help yourself to small amounts daily. Bee bread may be frozen and defrosted without altering its beneficial properties.