The substances of the beehive have held a revered place throughout history among the ancient cultures of Egypt, Greece, Rome, China, the Middle East and the Slavic and Native American peoples. Beehive substances have been mentioned in virtually every religious text ever written including the Bible, the Torah, the Koran and the Scrolls of the Orient.

The honeybee has been fulfilling its genetic programming since well before man first appeared on earth. Experts have long theorized that bees came into being when flowering plants began blossoming in profusion. Fossilized remains of pollen, leaves and even flowers have been dated back to when dinosaurs ruled the land, more than 125 million years ago. Bees and flowers are so dependent on one another for their very existence that the experts say they must have invented one another. Many plants depend on the bees for the pollination they require. (Over 100,000 species of plants would become extinct without the pollinating work of the bee.) Without these plants, life as we know it, perhaps all life, would become impossible. Bees must have the carbohydrates they glean from the nectar present in the hearts of blossoms as well as the proteins they require from the pollen they collect.

The production of pollen by the plant is an extraordinary, powerful step in the food chain. Primal forces of nature are harnessed inside the tiny pollen grain. Bees collect pollen from the flowers and mix it with their nectar, transforming it into a nutrient-dense, natural super food (a single granule of bee pollen contains 500,000 to 5,000,000 spores from as many as 1500 blossoms). The bioactive ingredients found in bee pollen number in the thousands. These include enzymes, bioflavonoids, carotenoids, essential fatty acids, free amino acids, natural chelated minerals and whole vitamin complexes.

Somewhere back in the long-forgotten, misty recesses of time some early human had an irresistible taste of honey. How did it happen? Maybe a hive had grown to such great size that the branch of the tree where it was fastened gave way. Perhaps the frightened colony swarmed elsewhere when their waxen metropolis cracked open as it crashed to the ground. But what inspired that first human to actually pick up a piece of comb, poke in a finger, take that first taste and then greedily suck the comb clean?

However it may have happened, we do know that primitive man not only fought the bees for their honey, but also feasted royally on the bee pollen stored in the comb and even ate the eggs and larvae. Aboriginal tribes still feast on bee grubs and still regard bee pollen and honey as well worth the price of a few stings.

Ancient Egyptians, Orientals, Hebrews and South American natives often applied a combination of honey mixed with
bee pollen to wounds, burns and boils, while Orientals used honey and bee pollen mixed with fruit or vegetable juice as a health drink. Greek physician Hippocrates noted that “honey and pollen cause warmth, clean sores and ulcers.” Greek athletes regularly ate honey and pollen daily which they claimed increased their strength and vigor. It even appears in Homer’s *Iliad* as the “food of kings.” Norse mythology states a belief that honey and bee pollen were the secret to the eternal life of their gods.

Whether or not bee pollen is the secret to eternal life, many studies have shown a correlation between its consumption and healthy longevity. The work of Dr. Nicolas Vassilevich Tsitsin, noted Russian chief biologist and botanist and an acknowledged expert on genetics, studied a small village in Soviet Georgia in which more than 200 individuals were over 125 years of age. Not only were they healthy but most were working every day. They were active in village activities and coincidentally they were also beekeepers. While they sold away the pure clean honey from the combs of their hives, these individuals regularly ate the “dirty honey,” the thick residue which accumulated on the bottom of the hives. Laboratory analysis confirmed that this life-prolonging dirty honey was honey mixed with large chunks of bee pollen.

Dr. Tsitsin attributes the remarkable health and extended life spans of these Soviets to the scientifically-documented action of bee pollen and says that taken regularly and in sufficient amounts, bee pollen will prolong the life span of man for many years. Bee pollen’s potential impact on longevity is certainly impressive. When you review the nutritional components identified in the accompanying side bar and the multitude of health benefits attributed to its use, they present a compelling argument for its inclusion in any basic anti-aging program.

Bee pollen is recognized as an immune system enhancer for its ability to strengthen the body against viral infections. It is effective in relieving fatigue, improving concentration, the treatment of asthma and of allergies and in confronting skin problems and inhibiting wrinkles. It can also help women with painful menstrual cramps or menopausal women with hot flashes. It can relieve headaches and heart palpitations. As well, pollen can increase sexual potency, fertility and it especially benefits the prostate. Regulation of colon problems is another one of its uses, as is a diuretic action of the kidney and bladder. There is even anecdotal evidence of pollen’s effectiveness for children with attention deficit disorder (ADD).

The United States Department of Agriculture conducted a research experiment which suggests that bee pollen has anti-cancer properties. The conclusion of the project states that “the ingestion of pollenized food delayed the onset of mammary tumors.” William Robinson, who headed the study, found that the cancer cellular growth rate slowed to about half the original rate in mice, while an Austrian report also found bee pollen to be helpful in reducing symptoms of radiation sickness in patients treated by radiation for cervical cancer.

Propolis is another wonder from the beehive. Research shows it offers antiseptic, antibiotic, antibacterial, antifungal and even antiviral properties. Propolis is nature’s premiere preventive. It is so powerful in action that it is often called “Russian penicillin” in acknowledgment of the extensive research the Soviets have mounted on this natural medicinal from the beehive.

What’s in Bee Pollen?
Bee pollen is packed with many different nutrients: amino acids, antibiotic factors, DNA/RNA, enzymes, glucosides, hormones, minerals, vitamins and other ingredients not determined yet.

**Amino Acids/Protein.** There are 22 amino acids in bee pollen, including all of the essential ones in highly-concentrated amounts, making it an extremely usable and complete protein. Weight for weight it is higher in protein than steak, eggs or cheese, without large amounts of fat.

**Antioxidants.** Being rich in phytochemicals, including flavonoids, carotenes and phytosterols, bee pollen provides a host of important antioxidants including lycopene, selenium, quercetin and beta carotene.

**Antibiotic Factors.** Bee pollen has the capacity to regulate intestinal bacteria, thereby neutralizing toxic wastes and improving blood health.

**DNA/RNA** (or deoxyribonucleic acid and ribonucleic acid) carries the genetic coding of the plants from which the bees found it. It is found in pollen since pollen is the part of the plant responsible for reproduction.

**Enzymes.** Rich in enzymes, pollen therefore promotes improved metabolism and digestion. It contains 18 different enzymes including amylase, diastase, phosphatase, pepsin and trypsin. Enzymes are necessary for all bodily functions and because bee pollen is such a rich source, it greatly assists the body.

**Glucosides.** These are natural sugars that are involved in the creation of energy in the body. One main glucoside is rutin, which is important for its ability to help capillary walls resist infection, improve heart function and respiration, promote better healing and coagulation and control hypertension by regulating blood flow.

**Hormones.** Pollen contains plant hormones that activate and assist the body’s own endocrine glands to allow them to function better. This is especially true for men since it can also lead to an increased sperm count.

**Minerals.** There are 27 different minerals in pollen including calcium, magnesium, iron and potassium. As well as: boron, chlorine, copper, iodine, molybdenum, phosphorus, selenium, silicon, sodium, sulfur, titanium and zinc.

**Vitamins.** All known vitamins, from A to K, are found in concentrated amounts in bee pollen. They are provitamin A, B1 thiamin, B2 riboflavin, B3 niacin, B5 pantothenic acid, B6 group pyridoxine, B9 folic acid, B12 cyanocobalamin, biotin, choline, inositol, vitamins C, D, E, K and rutin.

Bee pollen even contains vitamin B12, which is rarely found in plants or their products. B12 is essential for metabolism of fat, carbohydrates and protein, as well as blood cell and bone marrow formation and for healthy skin and nervous system. With all the other vitamins present, it therefore makes an excellent addition to the diet to ensure healthy functioning of all bodily processes.

What is Propolis?
Propolis is the sticky resin which seeps from the buds of certain trees (the bees prefer poplar) and oozes from the bark of other trees, chiefly conifers. You might not notice propolis
The new shoots the poplar puts forth in wax mixture as a caulking compound to on the underside of the bee's abdomen. called "bee glue," and carry it home in trunks of trees.

Propolis is used to slickly line the interior of brood cells in preparation for the queen's laying of eggs, a most important procedure. With its antiseptic properties the propolis insures a hospital-clean environment for the rearing of the brood.

The bees themselves select propolis from plants in their flying range which show the highest possible biological resistance. That secretion we see oozing from trees and leaf buds is essential to the defense of the tree. It has a marked biological activity which controls numerous phytopathic microorganisms, fungi and viruses which would otherwise destroy or inhibit healthy growth of the species. These secretions are particularly effective in holding back the development of competitive flora, which would otherwise develop and steal nutrients and growing space from the trees themselves.

Propolis is the strongest antibiotic found in nature. It has no toxic side effects, no contraindications nor upper limits of ingestion. Unlike chemical antibiotics produced in a drug laboratory, the body does not build up a tolerance to this natural substance from the beehive nor become accustomed to its effects. The ingester will receive as much benefit from a bee propolis tablet taken at the last of his life as he gets from the first one he ever ingests. In regular use propolis builds resistance to respiratory distress, flu, coughs and colds and more. Propolis assists the immune system and does not inhibit its action, as lab-produced antibiotics do.

Propolis demonstrates strong antimicrobial properties against various bacteria and fungal infections. Even streptococcus bacteria has been shown sensitive to propolis. The experts say that at least part of this documented bacteriostatic power can be attributed to the galangin, caffeic acid and ferulic acid content of propolis.

Royal jelly has shown to be helpful in the treatment of:

- Arteriosclerosis
- Varicose veins
- Deficiency states—States of malnutrition and, in general, in all states of convalescence, royal jelly benefits the organism. Simple stress, physical or mental exhaustion, so frequent in modern life, is rapidly corrected by treatment with royal jelly.
- Sexual deficiencies
- Pediatrics—Cases of serious hypertrophy in nursing infants; in feeding of premature infants; in serious dystrophy's of childhood.
- Psychiatry—Royal jelly mimics that of amphetamines without the harmful side effects; effective with psychic asthenias of the aged and in cases of senility in general; anorexia nervosa, cases of anxiety, depression, shock and senility; long-standing insomnia.
- Gastrroduodenal ulcer
- Arthritis
- Parkinson's disease
- Skin disorders—Royal jelly acts as a bactericide and antibiotic while revitalizing the skin. Successful in eczema, neurodermatitis and impetigo.

Several studies show that caffeic acid esters present in propolis are a potent inhibitors of human colon and enocarcinoma cell growth, that they also suppressed colon tumor growth volume in animals.

As with bee pollen, propolis represents both preventative and therapeutic properties in a self-managed natural health/anti-aging program.

What is Royal Jelly?
Royal jelly is the rich royal milk fed to the queen bee for her entire life. This thick fluid is creamy in consistency and milky white in appearance. Royal jelly is synthesized in nurse bees' bodies during the digestion of bee pollen, accounting for its remarkable quantities of hormonal substance and the strong proteins found in its highly nitrogenous composition.

It is known that royal jelly is exceptionally rich in natural hormones, offers an abundance of B vitamins (including thiamin, riboflavin, pyridoxine, niacin, pantothenic acid, biotin, inositol and folic acid) plus vitamins A, C and E. With 20 amino acids, royal jelly is a highly concentrated source of rich proteins, including cystine, lysine and arginine. It possesses important fatty acids, sugars, sterols and phosphorus compounds as well as acetylcholine. Acetylcholine is important in the transmission of nerve messages and assists in the production of glandular secretions. Royal jelly is rich in nucleic acids. The nucleic acids in royal jelly include DNA (deoxyribonucleic acid) and RNA (ribonucleic acid), the very stuff of which life is made. Gelatin, one of the precursors of collagen, is another component of royal jelly. Collagen is a powerful anti-aging element that keeps one youthful.

The presence of gamma globulin, an infection-fighting and immune stimulating factor, has been documented in royal jelly. And not surprisingly, royal jelly also contains decanoic acid, which exhibits strong antibiotic activity against many bacteria and fungal infestations. Without this built-in antibiotic factor science points out that the richness of royal jelly would offer an excellent growing medium for all kinds of harmful microbes. Mother Nature takes care of her own.
Copyright of Total Health is the property of Total Health Holdings LLC, and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.