

## Health

## Bee Pollen - Health from the Hive

by LISA FLYNN STEC

A single granule of pollen is far too small to be seen with the naked eye. Yet this tiny dynamo is capable of producing new life in the form of a flower, a fruit, an entire tree. Spread by bees or the four winds, this microscopic substance carries all the energy required for the growth of a plant.

A human being would have to labour many hours to collect a thimbleful of the ultra-fine powder. But a hive of bees can gather over sixty pounds of it each spring. These magnificent team workers extract pollen by brushing flowers with their hairy legs. The delicate particles cling readily to this type of surface. Grains taken from each flower are mixed with a bit of nectar, formed into a tiny ball, and carried back to the hive where they serve as food for the developing larvae.

For centuries, pollen has been esteemed as a valuable nutrient in many corners of the world. Both Egyptian Arabs and the Burma Chinese make use of it as a foodstuff and a medicine. Athletes of ancient Greece and Rome consumed it in quantity to increase stamina and prolong the years of youthful vigor. Norse mythology tells us of the magical food responsible for the immortality of the Gods. Is your daily cuisine? - ambrosia, a savoury blend of honey and beebread (pollen).

Devotees have voiced grandiose claims for this abundant natural food and call it a promoter of youth, an energizer, a builder of disease resistance. Only in fairly recent times have these claims been put to the test.

**Investigation**

In the 1940s Dr. Nicolai Tsitsin, biologist and botanist, conducted longevity studies in the Soviet Union. A region known as the Caucasus boasts of an unusually high number of centenarians (people who have reached the one century mark). Tsitsin wrote to two hundred of them and asked each to disclose his or her exact age, occupation and principle food. One hundred and fifty obliged him with a response. Many individuals reported that they were beekeepers by trade and all listed honey as their principle foodstuff.

Further investigation turned up an even more significant discovery. Dr. Tsitsin found that, for economic reasons, these beekeepers usually sold the "pure" honey gathered from their hives. What they saved for themselves was the waste matter that collected on the bottom. Most of this residue was composed of pollen that had fallen from the bees legs. It is this factor that Dr. Tsitsin held responsible for the extraordinary longevity of his test subjects.

Subsequent studies were conducted by Dr. Emil Chauvin of the Institute for Bee Culture in Burres-sur-Yvette, France. Test mice were fed pollen, exclusively, for a period of two years. The animals experienced no harmful effects from their

new diet. In fact, they demonstrated greater energy and an increased rate of reproduction. Another group of mice ate a normal diet supplemented with pollen and fared better than a third group given no pollen at all. Dr. Chauvin also gave pollen supplements to a test group of children and adults. He found this addition to their diets extremely beneficial in case of colic infection, chronic constipation, and chronic diarrhea. It also proved helpful to anaemic children by producing a rapid increase in red blood cells. In ailing individuals it appears to speed the process of convalescence. It is Chauvin's belief that beebread has a natural antibiotic action and can regulate intestinal functions while destroying harmful microbes in the digestive tract. Like yoghurt, it encourages the propagation of obliging intestinal "flora". Pollen is believed to contain a growth-producing factor valuable in the treatment of sickly, underweight children.

**Remarkable**

Studies conducted at Geneva's Bonny Laboratories have shown this remarkable foodstuff provides virtually every nutritive



Bill Flynn with propolis in its raw state. This piece is the amount collected over a year from 700 to 800 hives and will be processed in Denmark.

element essential to life. No other edible can begin to compare. In fact, French agriculturist Alin Caillas has reported that thirty-five grams can satisfy the average individual's nutritional needs for one day.

Extensive analysis has indicated that pollen is a storehouse of protein, vitamins and minerals. It is a superb source of the entire B complex chain and also contains notable amounts of Vitamins A, C, D and E. About thirty-five percent of its content is protein, half of which is in the form of readily assimilated free amino acids. Forty percent is comprised of various types of natural sugar. Five percent is fats, three percent minerals and mineral carrying elements, (oligo-elements) and three or four percent is moisture. The remaining material is a combination of trace elements such as folic acid and biotin.

Even when it is compared to such nutritional marvels as sprouted grains, royal jelly and yeast, pollen comes out ahead. It may well be the most complete food in nature. What's even more impressive is the fact that beebread is usually eaten in the raw state and enters the body in its complete form for the greatest degree of utilisation. What could be more health giving than a near-perfect food eaten in its natural state?

*'Helpful to anaemic children by producing a rapid increase in red blood cells'*

Athletes in the Soviet Union have taken their cue from the sportsmen of ancient Greece and Rome. Many of the U.S.S.R.'s Olympic medal winners are firm believers in the powers of bee pollen. Dr. Naum P. Joirisch, of the Academy of Science, considers it a biological stimulant which regenerates the organism and slows the process of aging.

Numerous studies have pointed to the value of pollen in the treatment of nervous and endocrinological illness. It has been found to increase the appetite of the sick and debilitated and to improve the overall functioning of the healthy. When taken from certain plants, it may even contain traces of estrogen and androgen.

Pollen is an absolute essential in the hive. A lack of it will cause the queen to cease reproducing and the workers to stop building honeycombs. Without a sufficient supply the colony dies.

Humans can certainly manage without it, but those who have tagged pollen "the only perfect food" would never dream of trying.