

# Apitherapy Fact or Fiction?

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# Apitherapy

- Definition - The use of hive products for medical purposes
- We will expand this definition to include nutritional uses

- Apitherapy includes honey, pollen, propolis, royal jelly, and bee venom
- Beeswax is used in medicine but it is an inert substance and is not thought to have active medical properties

Pure & Natural



Honey

First Honey  
from the  
NC ZOO Bees  
for the  
NCSBA

# Claims for Honey

- Nutrition
- Vitamins and Minerals
- Antioxidants
- Digestive
- Sore Throats
- Allergies
- Antibiotics (also burn treatments)

# Nutrition

- Honey has 60 calories per tablespoon and per volume is sweeter than sugar (sucrose)
- Except for contaminants in honey, the calories are all carbohydrates

# Vitamins and Minerals

- Honey does contain trace amounts of most water soluble vitamins
- Honey also contains trace amounts of some minerals
- Honey is a better source of vitamins & minerals than is sugar, but all of these things are in trace amounts.

# Antioxidants

- Honey does contain varying amounts of some antioxidants
- There is no scientific evidence that honey is a good source of antioxidants for humans

# Digestion

- Honey is a mixture of glucose ( blood sugar) and fructose ( fruit sugar) and it is very easily digested by humans
- Except for people who are very ill, this digestive advantage is of minimal value

# Sore Throats

- Scientific tests have shown that honey is as good as or better than any of the common OTC remedies for sore throats
- Honey coats the throat and it also has antibacterial properties

# Allergies

- Honey is widely used by individuals to treat allergies such as hay fever
- There is considerable testimonial evidence but no real scientific evidence that honey will cure allergies
- People who suffer from hay fever are dealing with wind-blown and not insect-carried pollen
- The value of honey for treating allergies is still uncertain, but there does not seem to be a downside to this remedy

# Antibiotics and Burns

- Honey does have antibacterial properties
  - It is acidic with a pH of 3.5 to 4.5
  - It is a super-saturated ( hydrophilic) solution
  - It produces hydrogen peroxide
- Honey has been and is an effective treatment for cuts, scrapes, and burns
- Problems: It is messy and there is no dosage control

# Manuka Honey

- This is a honey from the North Island of New Zealand
- It does seem to be more effective than most honeys in treating bacterial infections
- Tests have shown this honey to be effective when applied dermally, but there is no evidence that it is effective orally

# Bee Pollen



# Supplemental Facts

## Supplement Facts

	Amount Per Serving	% Daily Value
Calories	60 Tablets	
Total Carbohydrates	3 g	1%*
Dietary Fiber	1 g	4%*
Sugars	2 g	*
Protein	1 g	2%*
Bee Pollen	5 g	*

\*Daily value not established.

**Warnings** Caution: Bee products may cause allergic reactions in some people.  
Due to honey content, not recommended for children under two.

# History of Pollen in Apitherapy

- The use of pollen for nutrition and medical purposes goes back at least 5,000 years
- Example: Charles Butler in his book *The Feminine Monarchy*, 1607
  - Pollen will cause hair to regrow
  - Pollen will cause gray hair to back to its natural color
  - Increased vitality in men
  - Thickens thin blood (anemia)
  - Pollen will regulate a person's weight

# Nutritional Value of Pollen

- Bee Pollen does contain protein and a number of minerals and vitamins
- Economic value of protein in bee pollen?
  - Compare to a meat product such as ground beef
  - There is also the question of whether the protein is usable protein by humans. Not all protein ( pig's feet, chicken's feet, feathers, and finger nails) are usable by humans

# The Story of President Reagan and Bee Pollen

- During his presidency in the 1980's he was shot in an assassination attempt
- He not only survived, but his surgeon said, this is a man in his sixties with the body of forty year old man
- Ronald Reagan ate pollen bars almost everyday and this led to a temporary fad of increased pollen sales

1995

**Y.S. ECO BEE FARMS**

Organic

**Ultra Mega Strength**  
**Super Premium Quality**

**PROPOLIS**

**1000**

Supp

Serving Size

Amount Per

Bee Propolis  
equivalent

\*% Daily Value

Other ingredients  
magnesium

4332



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Propolis is  
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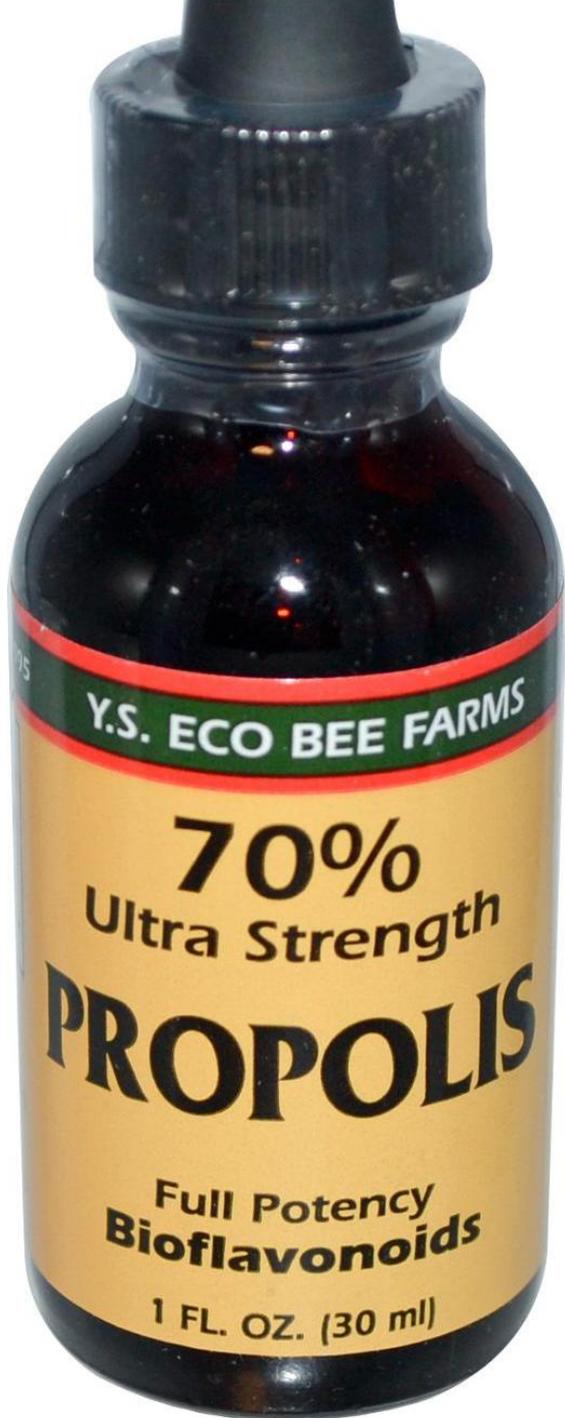
Generations  
and develop  
\*\*\*

# Supplement Facts

**Amount Per Serving    % Daily Value**

**Bee Propolis Extract (2x) equivalent to  
1,000 mg natural state    500 mg    \***

**\*Daily value not established.**



Y.S. ECO BEE FARMS

**70%**  
Ultra Strength  
**PROPOLIS**

Full Potency  
**Bioflavonoids**

1 FL. OZ. (30 ml)

# Definition of Propolis

- Propolis is a gummy resin produced by woody plants which is collected and modified by honey bees for use in the hive. Propolis has antibacterial properties and forms an air-tight and water-proof substance when it dries. Beekeepers often call propolis bee-glue.

# Medicinal Uses

- Propolis has shown to be an effective for the following uses
  - Treatment of scrapes and cuts to prevent and to control infections
  - Treatments of scrapes and cuts to form a medicated bandage
  - To treat stomach ulcers
  - To treat hearing loss in special cases
- Pollen has also been used historically as an all-purpose tonic. If it tastes bad, then it must be good for you
- It has little, if any, nutritional value

Y.S. ORGANIC BEE FARMS

**100% PURE**

**Ultra Mega Strength**

**Genuine, Freeze Dried**

**Royal Jelly**

Royal Jelly  
nutrient  
queen  
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## **Storehouse of Nutrients - Mega Strength**

Dietary Supplement - Full Potency & Purity Guaranteed

**Royal Jelly** contains life forming highly nutritional complexity of nature's superfood that queen bee feeds on and incredibly lays 2,000 eggs per day. Storehouse of naturally occurring nutrients: full array of B-vitamins, essential amino acids, fatty acids, phytosterols, enzymes, acetyl choline, gamma globulin, lecithin, natural hormones, 10-HDA, catalytic factor "R" and many more.

**Free** of yeast, salt, preservatives and common allergens.

# Nutritional Value

- Royal Jelly is a high protein substance that is rich in the water soluble vitamins
- It is a highly nutritious food for honey bees and somewhat less so for humans
- The cost of including royal jelly in most human diets is prohibitive
- It takes one cell of royal jelly to produce one queen honey bee – do the math

# Historical Uses of Royal Jelly

- As with pollen it goes back thousands of years
- There is a story of royal jelly being used to save the life of a Catholic Pope. This led to the idea that royal jelly had health benefits
- In the Orient, royal jelly is sold as an aphrodisiac for older men

# Bee Venom

- Bee Venom is used for a number of medical issues, some of which are scientifically supported and some which are not.

# Desensitization to Bee Stings

- A small number of people are allergic to bee stings and can suffer a systemic reaction which can result in death
- Bee Venom therapy can be used to desensitize (cure) these people.
- The process involves injecting small, but increasing, amounts of bee venom into the patient over a period of time --- about six months.
- This process is endorsed by the medical community

# Bee Venom for Inflammation

- Bee Venom has some anti-inflammatory properties
- It has shown promise in treating some forms of arthritis and other joint inflammations
- There has always been some claims that beekeepers have less arthritis than do non-beekeepers. However it may be that beekeepers generally are more active

# Questionable Uses of Bee Venom

- This includes treatment for MS, CP, and similar disabilities
- In particular there has been on and off again interest in bee sting therapy for these conditions
- The problems with this kind of treatment are
  - The patient may be allergic to bee venom
  - Bee venom itself, in sufficient amounts, can be deadly to a person
  - Young children, older adults, and those with compromised immune systems are often highly at risk.
- There is a definite downside (risk) to these treatments

# Apitherapy Summary

- There are nutritional benefits to bee products such as honey, pollen, and royal jelly; but there are limitations
- Honey and propolis both have anti-bacterial properties and they are relatively safe to use
- Bee Venom also has its place in medical treatments but venom can be very toxic if not used properly
- Any medicinal uses of bee pollen are questionable
- In all cases one sure consider the negative risks that are associated with a treatment as compared to the potential benefits.