



## Quality

B-Haven Apiary is committed to quality. We keep our products completely natural.

Honey bees have health issues just like any other organism. Bees suffer from a number of different diseases, parasites, and afflictions. The list includes: American Foul Brood, European Foul Brood, Chalk Brood, Sac Brood, Bald Brood, Chilled Brood, Nosema, Dysentery, Half Moon Disorder, Tracheal Mites, Varroa Mites, Braula, Wax Moth, Laying Workers, Mice and Ants.

Many apiaries use various medications such as: Fumagilin, Terramycin, Tetra-B, and Tylan, to combat these disorders. Unfortunately medications have adverse side effects.

First of all, anything (including medication) added to a hive has the possibility of ending up in the honey comb. Contaminated honey comb, means tainted human food. At B-Haven Apiary, our goal is to produce products that are natural and healthy. We thus, in good conscience, will not add medications to our hives.

The second side effect of medicating hives is that diseases and insects can quickly become immune to medications which lead to medication resistant diseases and insects. This results in more health issues for the bees and ends up with a viscous, escalating disease-medication cycle. This is a contributing factor to Colony Collapse Disorder. B-Haven Apiary is committed to healthy, long term bee populations. We allow the bees to combat disease and pests themselves. This does possibly result in higher hive losses in the short term. We believe that in the longer term, this strategy is better for the environment, the bees, and for human kind.

## Colony Collapse Disorder

Colony Collapse Disorder (CCD) is a relatively new phenomenon (2006), which results in the sudden disappearance of worker bees from a hive. The inevitable result is a dead hive. The causes of CCD are not completely understood. The following is our opinion regarding the main contributors of CCD:

1. Hive medications.

As previously mentioned; hive medications can lead to super bugs and diseases that are very hard to control with medications.

## 2. Pesticides.

Pesticides are commonly used for residential and commercial agriculture. Pesticides can be harmful and fatal to bees. Honey bees have small hairs on their bodies that trap pollen. During foraging, bees can be thought of as little dust mops, flying from flower to flower, which enhances pollination. These little dust mops not only trap pollen, they pick up many other things in the environment - such as dust, paint and yes pesticides. As a result, the bees return to the hive bringing the environment with them. Honey bees can be thought of as environmental canaries. Canaries were once used to detect harmful carbon dioxide levels in mines. Honey bees are modern day canaries in that healthy bee populations are an indicator of a healthy environment.

## 3. Inbreeding.

There are a limited number of honey bee species in the United States: Italian (*Apis Mellifera Ligustica*), Caucasian (*Apis Mellifera Caucasca*), and Carniolan (*Apis Mellifera Carnica*).

The reason the list is limited is that it has been illegal to import honey bee queens into the United States for the last 100 years or so. The purpose of this legality is to prevent the importation of disease, pests, and African Honey Bees (as known as killer bees). The adverse side of this legislation is that domestic honey bee stocks have become inbred and lacking in genetic diversity. The result is poor disease and pest resistance.

The good news is that honey bee breeders are hard at work developing resistant hybrids. These traits are called hygienic behaviors. In addition, the Federal Government has allowed some wild Russian queen bees to be imported. This has resulted in a number of Russian hybrids.

There are currently three commercial hybrids: Russian, Buckfast, and Minnesota Hygienic.

At B-Haven, we are currently using a Russian-Carniolan hybrid. We have found this hybrid to have great vigor, excellent honey production, great disease resistance, and awesome hygienic behavior. There are very few dead bees around our hives. We commonly see our bees carrying away dead or dying bees. This behavior helps rid hives of disease.

## Bee Food

Bees, as well as many organisms, need carbohydrate and protein to survive as a colony.

When an egg hatches, a grub emerges that requires massive amounts of protein to rapidly grow and pupate. For bees, nectar is their carbohydrate and pollen is their protein. Pollen is too complex for grubs to digest, so worker bees create a type of predigested pollen called royal jelly. Royal jelly is fed to grubs to satisfy their food requirements.

Nectar will ferment, so to preserve it, the bees dehydrate it down to roughly 17% fluid and add various microbes to make it sterile and antiseptic. Honey is hygroscopic (attracts water), so the bees cap the honey cell when it is complete.

Pollen will also rot, so to preserve it, the bees ferment it and add various microbes. The result is bee bread, which is much more nutritious to bees and humans than pollen. Bee bread essentially tastes like pollen mixed with honey.

Commercial bee pollen is collected by adding a screen to the hive entrance. Bees carry pollen in pouches on their rear legs. When the bees reenter a hive with a screen, the pollen is scraped off. So, commercial bee pollen is essentially flower pollen. Bee bread is a food that bees make and is more useful for human consumption.

## Bee Society

A bee colony consists of a single queen, males (drones), and workers (sterile females).

A virgin queen embarks on a maiden flight, during which she will mate with as many males as possible. She stores the sperm internally and never mates again once she has found a hive (home). She spends the majority of her life laying eggs. She is fed and cleaned by worker bees. A queen can live for up to three years. We add a new queen to each hive each spring to ensure hive vigor.

Drones do not work; their only purpose is for reproduction. They mate once and only once. The act kills them. During the winter, the worker bees will often cast the drones from the hive if food is scarce. So the life of a drone is exciting but catastrophic. Studies have shown that human males exhibit similar behavior in bars, taverns, and night clubs.

Worker bees are all infertile females. The hive creates a queen bee by feeding a grub, massive amounts of royal jelly. Worker bees do all of the work: build cells, feed grubs, take care of the queen, turn pollen into bee bread, and turn nectar into honey. The field worker bees are also infertile females that collect honey, water, and pollen.

## Allergies

The use of honey to combat allergies is well documented.

When field bees return to the hive, they not only bring in water, pollen, and nectar, they also bring in dust, pesticides, and other environmental debris (remember the bee dust mops). The result is that honey contains small amounts of pollen and environmental debris. This makes honey very helpful in combating environmental allergies. Honeycomb is even more helpful, since the bees are constantly walking on the comb. Bee bread is the best help for allergies since it contains pollen, honey, and comb.

Each geographic area is unique in its environmental challenges. Local honey contains trace amounts of pollen and other environmental particulate. Thus, the best honey for dealing with allergy problems is honey from your local area.

We, at B-Haven, recommend honey as a good allergy preventative. For those with minor allergy issues, try honeycomb. For those who really suffer from pollen blooms, check out bee bread.

## Organic Honey

In the United States, honey can only be labeled as organic if it has been produced apart from unnatural compounds. The list includes pesticides, solvents, paints and any other industrial or residential chemicals. Bees will travel up to four miles to forage. Organic honey can only be produced in a four square mile area that is free of any and all chemicals used by mankind. This is a tall order in this here United States. So honey, that is legally labeled organic, is very rare and very expensive.

We at B-Haven reside in the Silicon Valley and thus realize that producing organic honey is impossible. Our honey is completely natural in that we do NOT add anything to the hives, but our honey is NOT legally organic.

## Products

B-Haven produces the following all natural products:

### 1. Honey

Pure, unfiltered, raw, natural honey.

Honey has medicinal benefits as it contains antimicrobial agents. It is useful in treating minor burns, wounds, acne, and sore throats.

Heating honey keeps it from crystallizing but kills some of the beneficial microbes and decreases its medicinal effectiveness. Our honey will crystallize with time but that proves that it is raw and untouched – just as it was made by the bees. If you prefer liquid honey, we suggest storing it in a warm area. You may use the microwave or oven (at the lowest temperature).

We do NOT filter the honey, we do NOT add anything to our honey and we do NOT heat the honey. We simply strain the honey with a cloth mesh to remove comb, bees, and any other debris.

### 2. Honeycomb

This is great on toast with cheese or peanut butter. It is a natural form of chewing gum. Honeycomb is pulled straight from the hives and bottled.

### 3. Bee Bread

This is the perfect health food. It contains both carbohydrate and protein, which makes it a great snack. Bee bread is awesome for dealing with serious allergy problems. Bee bread is pulled straight from the hives and bottled.

### 4. Bees Wax

As previously stated, honey is collected by straining honey comb with a cloth mesh to separate the honey from the comb. The left over comb is not pure, in that it contains debris and a small amount of honey. The left over comb is purified by liquefying it in a solar melter. When the liquefied comb mixture cools, it solidifies into three strata, (due to differences in densities). The honey is the heaviest so it settles to the bottom. The bees wax is next. And the debris floats to the top and is discarded. The resulting bees wax has a number of uses: candles, soaps, and balms (to name a few). The resulting honey has been slightly cooked by the solar melter, so some of the beneficial microbes have been destroyed. But the solar honey has a stronger pollen flavor and is thus excellent for cooking purposes: sauces, marinades, brines, and as a sugar substitute in baking recipes (bread for example). Since cooking destroys most of the honey microbes, we prefer to use solar honey for cooking.

## Conclusion

B-Haven is committed to producing the best possible honey bee products. Quality comes before mass production. We focus maintaining a long term, sustainable, natural apiary. We encourage you to contact us for more information. If you are interested in researching this fascinating subject then check out the following:

- The American Bee Journal

<http://www.americanbeejournal.com>

- The University of California at Davis Department of Entomology

<http://entomology.ucdavis.edu>

- The Honey Prescription

By Nathaniel Altman, [www.HealingArtsPress.com](http://www.HealingArtsPress.com), 2010