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**The Diminishing Buzz of Bees and The Wonders of Honey**  
By Katy Budge

*About Colony Collapse Disorder (CCD) ... in American bee colonies  
... The importance of bees to the food we eat ... The health benefits of honey*

The carnage was immediate.

I was cresting the Cuesta Grade, heading south into San Luis Obispo when I drove into a swarm of bees or they flew into me. No matter. The six or seven dozen little spatters of nectar on my windshield meant that there were now that many fewer bees alive, at a time when they – or we – can ill afford it.



Windshields notwithstanding, bee populations are under siege from a variety of fronts, including decreasing habitats, pesticide use, mites, viruses, and the latest enemy – Colony Collapse Disorder (CCD), an insidious new nationwide onslaught straight out of the X-Files. Beekeepers come out to find their previously healthy colonies decimated, with populations collapsing almost overnight.

“I’ve lost 90 percent of my bees,” said Jim Reeder of Bizzy Bee Apiary in Paso Robles. “I had 260 colonies in mid-June of last year. Today I have 26.” Like most apiarists, aka beekeepers, Reeder makes the vast majority of his income – an estimated 90 percent of it – not in honey production, but in renting out the bees for pollination work, so the timing of all this couldn’t be worse.

“I’m usually really busy in January and February, especially working almonds,” he said, “but it will be mid-July or August before my colonies are viable again.”

Speaking of almonds, and specifically of the California almond industry. Bees are responsible for pollinating the estimated 400,000 acres of almonds in the state, a crop worth about \$2.2 billion and generates 1.092 billion pounds of product for domestic and foreign consumption. But obviously, bees are a crucial partner to other crops as well. Nationwide, a Congressional report stated that “The monetary value of honey bees as commercial pollinators in the United States is estimated at about \$15 billion annually,” and it’s also estimated that about a third of the food we eat has been pollinated by insects, about 80 percent of that by bees.

So let’s nip this CCD in the bud, shall we? Well, at this point, that’s far easier said than done. As Reeder explained, “We get used to seeing certain things, things you can readily identify like mites or viruses.” About CCD, he admitted that “after 30 years in this business, I haven’t even got a hunch.”

Indeed, researchers are being forced to take an almost scattershot approach to CCD. Are the bees simply dying in the field, or just leaving the hives for some reason? Are they under attack from an imported pesticide, or under attack from mites that have developed a resistance to pesticide? Are they being stricken with a disease carried by known species of mites, or from some entirely new vector not yet identified?

To make matters even stranger, the weakened colonies – typically an easy target for bees looking to establish new colonies or honey-loving pests – are completely ignored for as long as two weeks. Though the United States Department of Agriculture has been faulted for ignoring the problem, the agriculture industry itself is definitely sitting up and taking notice, partnering with apiarists nationwide and pledging money to support research. Hopefully, there will be some sort of breakthrough soon, especially since the extent of CCD isn’t even fully known. The first cases were only reported towards the end of 2006, and most northern states haven’t sufficiently warmed up to have active colonies yet.

### Sweet Talk

OK, enough doom and gloom. Let’s go to our happy place and talk about something sweet, as in honey!

The practice of beekeeping, or apiculture, dates back to about 700 BC, and honey has figured prominently in the annals of human history: from Zeus, to King Tut, to the Bible, to a bear named Pooh. It’s no wonder food that we’ve put so much importance on honey, since honey is evidently a wonder food.

First of all, liquid honey won’t spoil because of its high sugar content and low moisture content. Secondly, it offers a huge range of health benefits; the following is a very short list of its purported properties:

- daily consumption raises antioxidant levels, decreases cholesterol or increases “good” HDL cholesterol
- causes less blood sugar level rise than sugar, making it a better choice of sweetener for diabetics
- though not a significant source, does contain iron, manganese, potassium, zinc, amino acids, Vitamin B2, and Vitamin B6
- can boost muscle recuperation after vigorous workouts
- eating local honey can minimize attacks of hay fever and allergies
- contains anti-bacterial properties so it can be used as a topical ointment to prevent infections, and even in treating burn patients
- and, it tastes good!



The degree of some of these properties can depend on the type of honey – whether it’s a dark honey, or even from a particular food source. You may scoff at this, wondering how something as “wild” as a bee can produce only a certain kind of honey, such as sage, eucalyptus, madrone, vetch, or even cactus.

As Jim Reeder explained, “they lock themselves in on one food source because of the scout bees reporting back the location of nectar, and they’ll stick to that source until it runs out and the scouts start letting them know about a new source.” The switch in food sources is evident within the hive in a couple of days because of the gradual shift in the color of the honey.

Different honeys not only vary in color, but also in taste and texture. Sage honey is light colored with a delicate taste, while a melaleuca honey from Australia is dark colored with a strong taste that’s not for everyone. Similarly, while most honeys are fairly “pourable,” I found a cactus honey from Bennett’s Honey Farm in Fillmore that’s more like a thick spread.

If you want to try out some of these different honeys, as well as learn more about bees and beekeeping, Pipestone Vineyards in Paso Robles will be hosting their second annual Honey Seminar with Jim Reeder on Saturday, July 21. Cost is \$25; for reservations, call Pipestone Vineyards at (805) 227-6385, <http://www.pipestonevineyards.com>. I attended this event last year, and I have to admit that one of the most amazing things about this seminar is seeing Jim work with his bees. He selectively breeds the bees for anti-aggression, meaning that he wears just a t-shirt and jeans when dealing with his hives! He does note however, that he would never choose to wear a yellow shirt, since that’s the color bees most readily identify as a food source.



*Jim Reeder of Bizzy Bee Apiary in Paso Robles  
at the 2006 Bee Seminar at Pipestone Vineyards*

### More about bees and honey ...

Honey bees have to fly about 55,000 miles to make one pound of honey, and the average honey bee makes just 1/12 teaspoon of honey during her lifetime.

For a host of general information about honey, check out the National Honey Board’s website, which offers everything from nutritional information to recipes.

Honey can be substituted for sugar in cooking, but you will have to adjust the amount because honey is sweeter than sugar and contains more moisture. You can find some guidelines at <http://homecooking.about.com/od/specificfood/a/honeytips.htm>.

You can make your own yard more bee-friendly by eliminating your use of pesticides, planting food sources, and providing bee-habitat. Here’s more information about what to plant and making nesting boxes ([http://www.mercurynews.com/houseandhome/ci\\_5616353?nclink\\_check=1](http://www.mercurynews.com/houseandhome/ci_5616353?nclink_check=1)), and general information about bees and other invertebrates is available at [www.xerces.org](http://www.xerces.org).