



Basics of Beekeeping: Keeping a Healthy Hive and More

As a beekeeper you'll want a healthy hive for healthy bees; learn about bee stings and harvesting honey, too.

(From *The Basics of Beekeeping* by Cherie Langlois, page 2 of 2)

Keeping a Healthy Hive

Beekeeping chores change throughout the year and the yearly “to-do” calendar will vary as to where a beekeeper lives. “When the bees are actively foraging nectar and pollen, you inspect your hives several times during the season,” says Blackiston. “The busiest times are at the start and end of the season, when you get them going for the year (spring) or put them to bed for the winter (autumn).”

A beekeeper conducts inspections to determine the health and productivity of the colony, Blackiston explains. When you examine frames, you’ll be looking for signs that the queen is alive and laying eggs like she should: capped brood in a compact pattern, tiny white eggs at the bottom of cells. Depending on the time of year, you’ll also assess whether the colony needs additional food stores, more nectar storage space, increased ventilation, medication, swarm control measures, a new queen and more.

Your colony will also require protection from parasites, diseases, pesticides and predators. Varroa mites, a pest from Asia that arrived in the United States during the 1980s, can destroy a colony within a few seasons. Foulbrood, a bacterial disease, kills larvae and pupae, while the protozoan disease *Nosema* targets the adults’ intestinal tracts. To combat these and other health problems, the Robertsons medicate their colonies with miticides and antibiotics in the fall and spring. They run hot-wire around their apiaries to protect the hives from honey-hungry black bears. Other pesky predators include ants, rodents and raccoons.

About Bee Stings

Honey bees are basically harmless insects when not actively defending their hive from an intruder. But for a beekeeper who works with thousands of bees per hive, an occasional sting comes with the territory. The bad news? Bee stings hurt (expect some swelling, itching and redness), and for a small number of people can lead to life-threatening allergic reactions. When stung often enough during the season, however, beekeepers like Robertson and Blackiston report that they build up a tolerance and experience little in the way of side effects.

Still, you can do plenty to reduce the chances of being stung while working your bees. “The main thing is to have your bee gear on and have it on correctly,” says Robertson, who recently received a sting on the ear when he neglected to zip his veil completely. “Start your smoker up and before you do anything to the bees, puff once or twice into the bottom of the hive. Then, before you completely open the hive, puff them again in the top. But don’t over-smoke them.”

Blackiston offers these additional tips to keep you from irritating the bees and crying out: Try to inspect your hive during pleasant daytime weather, when most of the bees are out foraging. Take your time and keep your movements gentle and calm—no swatting! Get a good grip on the frames so you don’t drop them and avoid causing other bee-disturbing vibrations. Wear clean, light-colored clothing; bees seem to dislike strong body odor and dark colors. Finally, don’t excite the bees into a feeding frenzy by leaving sugar syrup or honey in open containers near the hive.

If you do get zapped, remove the stinger by scraping it out with your fingernail so you avoid squeezing more venom into your skin. Puff smoke on the site to cover the alarm pheromone that may attract other bees (workers only sting once and the one that got you will soon die). Wash and dry the area and apply an ice pack. Antihistamines can help ease swelling and itching. If you’re stung on the mouth or throat, experience swelling in these areas, difficulty breathing, or signs of shock, call 911. To be on the safe side, Blackiston keeps an EpiPen emergency sting kit—available by prescription—on hand in case a guest has a severe allergic reaction.

Harvesting Honey and Honey Types

It’s no wonder the Greek and Roman gods favored offerings of honey. Ranging in shade from pale gold to amber to rich brown, this viscous fluid is as lovely and fragrant as it is sweet. Honey, used as a sweetener long before white cane sugar, is a pure and natural food that needs no processing to make it fit for human consumption. Valued as a folk medicine since ancient times, honey has antimicrobial and wound-healing properties and also contains healthful antioxidants. Last year Americans consumed over 381 million pounds of this sticky ambrosia.

Beekeepers can harvest honey in several forms, including comb—which requires special hive equipment—and extracted, the most popular type here in the States. After the first season, a healthy hive can produce anywhere from 45 to 100 pounds or more of extracted honey each year, depending on where you live, the weather and other factors. To



harvest this treasure trove, you'll need an uncapping knife to cut open the wax combs, an extractor to spin the honey out, and a strainer to filter out bits of wax and other debris. A five-gallon plastic bucket with a spigot is useful for bottling the strained honey. Extractors aren't cheap (\$250 and up), but beekeepers with only a few hives can check into renting or borrowing one from their local beekeeping association.

If the only honey you've tried is commercial clover, you'll be surprised to discover that honeys made from different nectar sources have varied tastes, colors and aromas. Sweet-scented lavender, delicately flavored fireweed, dark buckwheat: these honeys acquire their names from the dominant flowers visited by the bees. Beekeepers place their hives within large tracts of the specific source and harvest honey immediately after the bloom finishes. When bees gather nectar from a wide variety of nectar plants—as they do for most hobby beekeepers—the resulting harvest is called wildflower honey.

The Robertsons' hives yield wildflower, raspberry, fireweed, blackberry and cooking honey. They sell these natural products from home and from their booth at the Olympia Farmer's Market. For every 100 pounds of honey harvested, the beekeepers glean one or two pounds of beeswax, which Virginia Robertson transforms into long-burning, dripless candles and honey-scented figurines. "I also sell a lot of wax to customers who make salve, soap and ointments," she says.

Another product valued by beekeepers is propolis, the sticky, plant-derived substance bees use for hive improvements. "Propolis has remarkable antimicrobial qualities; the Chinese have used it in medicine for thousands of years," explains Blackiston.

Many beekeepers also obtain income by renting their bees out to pollinate crops. With their bodies coated in branched, pollen-snagging hairs, Honey bees can efficiently pollinate hundreds of different plants as they collect nectar and pollen for the colony's use. About 90 crops in our country depend, at least to some extent, on bees for pollination, including apples, alfalfa, blueberries, cotton and cucumbers. The increased agricultural production connected to Honey bee pollination is estimated to exceed a whopping \$14 billion a year.

If the art of beekeeping seems a bit complicated—especially after you start dipping into bee books and buzzing about the net—don't despair. "Get in touch with local beekeepers. They're more than happy to share the information they have," says Virginia Robertson, who wryly notes that her husband sometimes overlooks customers when he's discussing beekeeping with someone. "Beekeepers love to talk bees."

About the Author: Cherie Langlois is a freelance writer and hobby farmer based in Washington.

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