

Hudson Valley Beekeeping: How to Raise a Bee Colony, Harvest Honey, and Prevent Colony Collapse Disorder

The bee's knees: The Valley is abuzz with honeybees and their keepers

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Beekeeping is an odd sport for sure," says Ulster County's Megan Denver. "I mean, who would want to keep stinging insects in a box?" Well, luckily for Denver, the owner of <u>Hudson Valley Bee Supply</u> in Kingston, it seems there are hundreds of people here in the Valley clamoring to set up colonies right in their own backyards. Why, you may ask? The reasons vary from helping to pollinate crops and harvesting (and possibly selling) honey to doing their part to knock out Colony Collapse Disorder (CCD) — the malady that is causing a steep decline in the honeybee population. "All different kinds of people come to the store — those who just want to help the environment and those who are really into honey," says Denver. "People are very receptive to beekeeping nowadays."

There are numerous varieties of bees, but most domestic hives are composed of honeybees — those small, black-and-yellow-striped insects that Winnie-the-Pooh often followed around. A typical hive (or colony) consists of 40,000 bees. Most are worker bees, which are responsible for almost everything that goes on in the hive: collecting nectar and pollen, caring for the baby bees, keeping the hive clean, and feeding the queen. The rest are drones: male bees whose sole purpose is to mate. And, of course, there's the queen bee, who is at the center of the hive and lays all of the eggs.

Honeybee colonies ride out the winter by huddling together at the bottom of the hive (in most other bee species, only the queen survives by burrowing underground). The insects weather the cold by flapping their wings to generate heat and eating the honey that they produced earlier in the year. Throughout the spring and summer months, they collect nectar from various plants (and in turn pollinate the flora, which helps it reproduce) and bring it back to the hive. The bees then dehydrate the nectar, cap it in the honeycomb's cells, and voilà! Honey to last the winter. "Bees go into the winter with 60 to 90 pounds of honey, which they store in the upper part of the hive," explains Denver. "We like to say they keep honey in the attic."

Throughout the rest of the year, beekeepers open the hive a few times a week to monitor its progress, making sure the queen is laying enough eggs and checking to see if the hive needs cleaning or if there is enough nectar to feed the babies. Aside from bravery, the beekeeper needs some special equipment for this task, including a hive tool (a small metal gadget that looks like a paint scraper), a smoker, and a Hazmat-esque suit and protective veil to guard against stings. "The hive is completely controlled by pheromones. The smoke masks the 'alarm' pheromone," Denver explains. "But if you're very gentle and move slowly, you're not likely to be stung all the time." New Paltz beekeeper Grai St. Clair Rice agrees. "A bee will only sting if you slap her or squish one of the others," she says. "They release a pheromone that tells the others, 'Hey, Sally just got squished, get this person out.'"



Hudson Valley Bee Supply, which opened in January, offers a number of beekeeping courses, including the \$35 introductory seminar, "Are Bees for Me?" Another course teaches students how to properly harvest the honey without taking too much from the colony. The trick, Denver says, is to keep making the hive taller, fooling the bees into thinking they need to increase production. "That's when you see those beehives that look like they're five or six feet tall," she savs. "It's not doing anything bad to them, just taking the extra." The class also demonstrates how to uncap the cells, spin the honey out using a centrifugal extractor, and then bottle the sweet surplus. Although this can be done periodically throughout the summer, Denver recommends doing it just once a year, in the autumn. "It's a very sticky process," she says. "Everything gets sticky: the dog, the doorknob, you."

And as its name implies, the company also sells the honeybees themselves. "We grow our own bees and divide our own hives," Denver says. "When customers take them home, we put them in frames in a cardboard box, then into the car with the AC on, and people just drive it home. If you can get over the nervous part, it's really cool."

For those who might want to approach beekeeping in a slightly different way, Rice and partner Chris Harp teach organic beekeeping in New Paltz and Rosendale via their organization, HoneybeeLives. "Our beekeeping practices are not to do any prophylactic treatment," says Harp, who explains that many beekeepers use antibiotics to prevent bees from getting sick when they don't actually need the extra fortification. "They're like humans," he says. "If we keep taking antibiotics, we wear out the good things in our system." Their classes also stress the importance of forgoing the use of plastic, and encourage beekeepers not to manipulate the hive too much. "We're just trying to take care of the bees," says Rice.

The pair points to the declining honeybee population as evidence that many beekeepers in the U.S. are not properly caring for their charges. "We're in a cataclysmic position right now. The national average is a 30 percent winter loss; 25 years ago, it was 15 percent," says Harp. If the bee population continues to drop so drastically, it could begin to affect our nation's food supply, since bees are responsible for pollinating numerous fruits and vegetables, among other plants. Several additional factors contribute to Colony Collapse Disorder — chief among them the use of pesticides, and the agribusiness practice of having bees pollinate just one crop at a time. "That's like a human eating only soda pop while pregnant," explains Harp. "The embryo doesn't get a nutritious, balanced diet to develop properly."

Part of the reason why CCD is so hard to combat, according to Rice, is because it is so widespread. "But on a small scale, you can plant good forage — like sunflowers or goldenrod — in your neighborhood," she says. "And don't freak out about your dandelions. They're a big part of building the honeybee's immune system."

Rice and Harp recommend that rookie beekeepers take informational classes and join a bee club, which offers opportunities to get hands-on experience with apiaries. They also reassure those with smaller backyards that bees don't necessarily need lots of space, but rather good forage plants from which to collect nectar and pollen. In short, almost anyone can take up the hobby. "It's wonderful to see new beekeepers get these big eyes when we hand them 20,000 stinging insects," says Rice. "They get so excited."



## National Holiday

August 17 is National Honeybee Day. HoneybeeLives marks the occasion with a lecture at their New Paltz apiary aimed at "the general public, gardeners, and wannabeekeepers," says their Web site. Harp and Rice discuss the anatomy of a hive, the purpose of each bee, and Colony Collapse Disorder, among other topics. Admission is \$30 and preregistration is required. 845-255-6113; www.honeybeelives.org

## **Helping Hands**

Donna Simons, founder of Pound Ridge Organics — an organic food co-op — is on a mission to help honeybees. "It's funny, because I've always been a little afraid of bees," she confesses. "But these bees are so docile." This year, she started a program called the Pound Ridge Organics Honeybee Project, through which co-op members host a hive or two on their property. And that's all they need to do; Ardsley-based beekeeper Jean Japinga — who provides the bees and helps set the hives in appropriate locations — regularly visits to maintain a healthy colony. At press time, Simons had found homes

for six hives, with more scheduled to be placed. "Anybody who's hosted a hive will get honey at the end of the season, but no one is looking to get anything out of this," says Simons. "We all have to help the bees, because without them we're in big trouble."



Bees deposit their nectar into the honeycomb

## The Great Debate

Eating locally produced raw (unheated) honey has long been touted as a antidote for allergies. The theory goes that bees carry allergy-inducing pollen back to their hives, which winds up in their honey. If allergy sufferers eat a small amount of honey each day, they will eventually build up immunity to that pollen and thus no longer have a reaction. But there is no consensus as to whether or not this is actually true. Little scientific research on this topic exists, and a quick Google search yields a number of articles that swear by the practice — and an equal number that decry it as having no effect whatsoever.

"Beekeepers have a million opinions on everything," says Megan Denver of Hudson Valley Bee Supply. "I believe a teaspoon of raw, local honey each day can absolutely build an immunity." Grai St. Clair Rice of HoneybeeLives is more skeptical. "Most people are allergic to wind-borne pollen, but bees don't pollinate wind-borne pollen," she says. "What they pollinate with is too heavy and falls to the ground. I would say eating honey does nothing for those types of allergies."

So, can consuming local honey cure allergies? The question remains.

Have honey on the brain? Next month we'll delve deeper into the sweet snack, and let you know where you can get your paws on some local jars.