



photo by Pete Leighton

To bee or not to bee

Recent honeybee scares have brought a lot of attention to the little black-and-yellow bug. But what can you do to help them? It's more simple and rewarding than you think.

PICTURE A FARMER'S LIFE: WAKING AT DAWN TO THE TRUMPETING CRY of a rooster, tending to animals, weeding, sowing, planting, keeping pests at bay and eventually harvesting crops that will feed thousands. It's easy to see and admire a farmer's hard work in this process, but behind the scenes another creature is toiling away to help grow the food we eat — without the honeybee, modern-day agriculture could not exist.

Humans discovered the benefits of honey thousands of years ago. Rock paintings dating back to 13,000 B.C. depict honey harvesting. Unfortunately, early forms of honey extraction usually destroyed the hive. It wasn't until the 19th Century that beekeepers began taking individual rows out of the hive and extracting the honey. These "moveable hives" left the rest of the hive



photos by Mary Hart

How honey is made

Forager bees (older worker bees who have made their way up the bee corporate ladder) leave the hive to gather nectar, then return and give the nectar to younger worker bees in the hive, who digest it using enzymes to break up the complex sugars into simpler ones. The digested nectar is deposited into an empty cell in the honeycomb where other worker bees fan it with their wings to dry it out. Once it's sufficiently dried, a bee seals up the cell with wax and voila! Honey is made.

Bees also collect pollen, which is used as a protein source for their young. This is one way bees help to pollinate crops — as they travel from flower to flower collecting pollen and nectar, they inadvertently leave behind some pollen from the last flower they visited. Bee pollen can also be eaten, and some even believe it has medicinal benefits.



Top, first-time beekeepers, the Harts, were happy to see their hive survive its first winter on their property. Above, Don Hart inspects the hive to make sure the bees' numbers are satisfactory, and that they're producing enough honey.

unharmful and modern beekeeping really took hold.

The moveable hive has a secondary benefit. It allows beekeepers to transport the entire hive so they can loan out their colonies to farmers who need crops pollinated, making beekeeping an even more lucrative business.

Because the honeybee is currently the only pollinator that can be transported and used to efficiently pollinate monocultured crops, it is essential to our agriculture industry. Without it, crops would fail on a massive scale as native pollinators are simply not up to the task.

While all this makes beekeeping sound rather serious, the best part about it is that nearly anyone can do it. It's relatively inexpensive, and New Jersey offers a wealth of resources to help novice beekeepers start and maintain a successful colony.

Drawing a crowd

Tim Schuler first learned about beekeeping as a child, when he watched his father raise bees in their backyard.

Since 2007, he's held the role of state apiarist (beekeeper), whose job is to spread knowledge about bees and beekeeping across the state. In his role, Schuler inspects hives and answers questions from novice and expert beekeepers alike. He also does a little beekeeping himself, with 200 of his own colonies. One of his biggest goals is to attract more New Jerseyans to the hobby of beekeeping.

"We really need more beekeepers in this state," he says. According to the Department of Agriculture, New Jersey's 10,000 bee colonies, valued at \$250 per colony, represent a \$2.5 million honeybee industry and contribute to successful production of nearly \$200 million worth of fruits and vegetables annually. No wonder the bee holds the distinction of being the official state insect.

Part of Schuler's education efforts means going from town to town, educating the general population about the many benefits of beekeeping.

"There are many people who confuse honeybees with wasps and hornets," he

Swarming

Occasionally, bees will leave their hive together to find new digs elsewhere. Often the reason is simply the original hive has outgrown itself and become overcrowded, so half the bees leave to form a new colony.

The mass of bees will exit the hive and find a nearby shaded branch or bush to cluster on, while some workers go out to scout a potential new home.

If you spot a swarm by your house, don't panic. Honeybees are by nature not aggressive, and swarms are extra docile as they've gorged themselves on honey before leaving the hive. Visit cjba.njbeekeepers.org/swarms.htm to find a list of beekeepers from your county who will be willing to remove the swarm and find the bees a proper home. If left alone, the bees will typically leave in a few days, but to prevent them from forming a new hive anywhere on or near your home, it would be best to let a professional remove them.



Garden Designs by Elizabeth

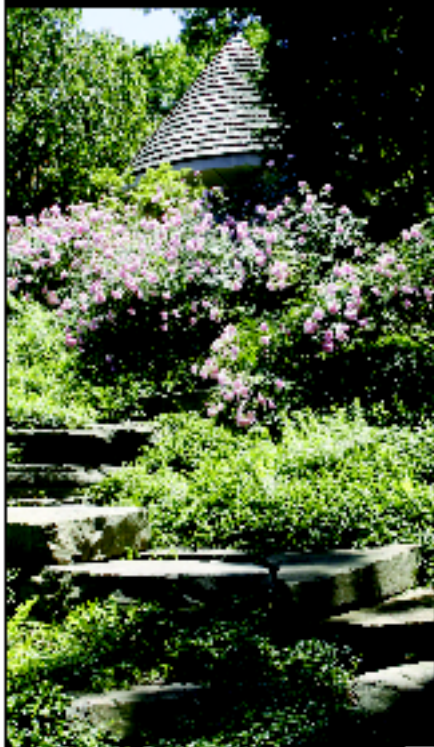
973-445-3643

Award Winning
Professional Landscape Designer

Walks ~ Walls ~ Patios ~ Plantings
Design/Install Services

Garden Rooms

are an
EXTENSION
of your
HOME



Visit us at

www.StatileandTodd.com

908-204-9918

your country house

Gardening with bees in mind

Want to help bees, but don't want to become a beekeeper? Plant a bee garden. It's an easy and beautiful way to contribute to the health of the bee population. A bee garden is also a good idea if you do want to be a beekeeper, as it provides a stable, close-to-home food source for your hive.

The most important part of a good bee garden is variety — the more types of flowers, the more likely it is that bees will want to eat there. Ten or more flowers is ideal. Also, bees cannot see red, so colors in the blue spectrum are more visually attractive, although any flower that produces nectar will be enticing. Last, it's a good idea to choose flowers that bloom at different times, that way your garden will attract bees from spring until fall. Here are a few suggestions to get you started:

Mountain bluets, daisies, aster, marigold, clover, lavender, hyssop, sunflowers, butterfly weed, goldenrod

You can also ask at your local gardening center — some sell wildflower seed packets specially made for bee gardens. Just spread the seeds, water and once the flowers have blossomed, wait for the bees.

says. "Honeybees are not aggressive. Unless they think you're attacking their hive, they're not going to sting you. And they have a multitude of benefits to the local environment." Currently there are still three municipalities in the state that ban beekeeping within their borders.

Schuler and the New Jersey Department of Agriculture work with Rutgers University and members of the New Jersey Beekeeping Association to run an annual three-day class in April for "bee-ginning" beekeepers, which offers hands-on instruction and lectures on all the basics a new beekeeper needs to know. The class has become so popular, it now attracts students in the hundreds, and the New Jersey Beekeeping Association (NJBA) has seen a rise in its numbers by nearly 45 percent over the past few years, according to Schuler.

"Putting a hive in your backyard is one of the easiest things a person can do to help their environment," Schuler says. "And once people get started, they really love it. I can't tell you how many times I've gone to inspect a hive and seen a chair sitting near the hive. Beekeepers love to go outside and sit near the hive and watch the bees come in and out and work. It really is fascinating."

The hobby does seem to be a ther-

apeutic process for "new-bees" Mary Hart and her husband, Don, of Basking Ridge. The Harts just started up their first hive last spring, having been inspired previously by all the news about the struggling honeybee population.

Hart, a cancer survivor, says the hobby has been a part of the recovery process for her. "It's another part of moving on with your life, living and doing the things you enjoy," she says. The Harts knew nothing about beekeeping and learned all they needed to know from a beekeeper friend of theirs.

The hive they started last spring survived the winter, and the Harts are looking forward to harvesting honey this summer to give away as gifts. The bees themselves have also been seen as a gift to their neighbors.

"We made sure to check with our neighbors before getting the hive," Hart says. "Our property borders a farm in the back, and the owner was very excited to hear we were putting a hive in."

Beekeeping 101

If you want to start a hive, you must purchase a queen bee and some worker bees. There are literally thousands of types of bees, and dozens of breeds of honeybee that can be used for a domesticated hive. Many

beekeepers in New Jersey begin with a breed of Italian bee, which is known to produce a lot of honey and is capable of surviving colder winters. The problem? This bee is especially susceptible to a type of parasite, the Varroa mite, that can cause an entire hive to die off.

The mite was so damaging, in fact, that in the '90s it killed off practically every wild honeybee hive in America. The only bees that survived were domesticated hives maintained by beekeepers. Scientists eventually developed a pesticide that could be applied to beehives to kill the mites, but the unfortunate consequence is that today, many of the mites that survived are immune to them.

Some New Jersey beekeepers are now buying Russian queen bees, known to be more resistant to the mite, or hybrids of several different breeds. And a small number are now breeding their own queens to sell to other local beekeepers.

Mary Kosenski, co-owner of E&M Gold Beekeepers, is one of those

breeding her own queen bees for sale. She and her husband began raising bees in Tinton Falls 12 years ago, and once diligently applied all the pesticides and antibiotics they were told would keep parasites and disease away. For the past few years, however, they've stopped giving their bees any sort of chemicals altogether.

"By using those pesticides we were, in effect, just creating stronger versions of the pests, and we didn't want to use such strong chemicals around a food product anyway," Kosenski says. "Since we stopped treating our hives altogether, we've lost a lot of bees, but over time we're seeing more and more survive."

In addition to breeding queens, Kosenski and her husband also maintain about 100 hives and sell honey via their Web site, www.emgoldbeekeepers.com. She has suggestions for anyone interested in starting up the hobby.

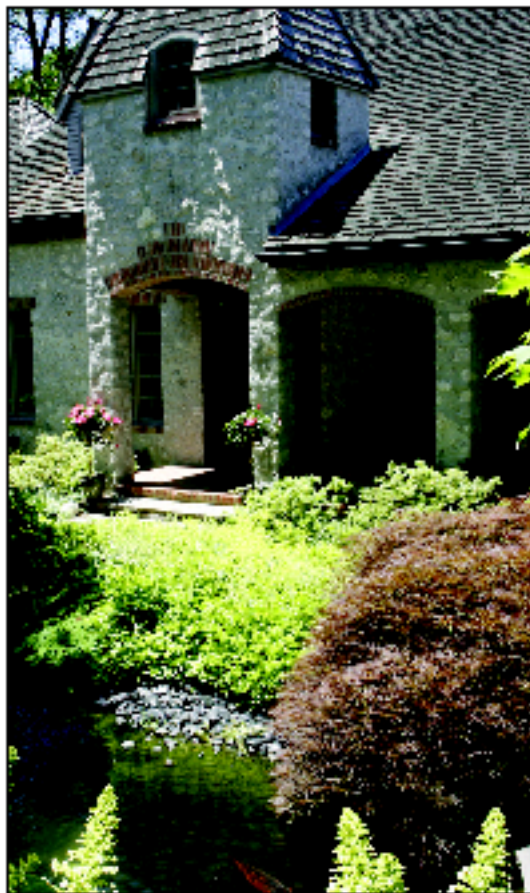
"First, join the New Jersey Beekeepers Association," Kosenski says. "Depending on where you live,

they may even have a local chapter where you can attend meetings and learn from others in the business. I also highly recommend taking the beginner's class held at Rutgers in April."

It's best to place the hive away from strong winds and under partial shade, and avoid low spots where cold, damp air can accumulate in the winter.

Try to make sure the flight path of the bees between the hive and nearby flowers avoids a heavily trafficked area (such as a sidewalk or playground), and provide a nearby water source so bees don't flock to your neighbors' swimming pools. Of course, it's also important to first make sure the town you live in allows beekeeping. For more specific rules about beekeeping, or to sign up for the Bee-ginners Beekeeping class at Rutgers University, visit www.state.nj.us/agriculture/divisions/pi/prog/beeinspection.html. **NJC**

Lindsay Bosslett is a former managing editor for and frequent contributor to New Jersey Countryside.



- ❖ Landscape Design
- ❖ Specimen Tree Planting
- ❖ Hardscape Construction
- ❖ Water Management
- ❖ Landscape Illumination
- ❖ Full Service Lawn Care
- ❖ Complete Tree/Shrub Care

...and Compliment Your Lifestyle

*Let Statile and Todd
decorate with nature's palette
and expand your living space.*



Visit us at

www.StatileandTodd.com

908-204-9918