

# Honeybee Basic

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*Pictures courtesy of Terri Stokes*

You may have noticed a good deal of "buzz" about honeybees lately, thanks to books and movies like "The Secret Life of Bees" and "The Bee Movie", documentaries about bees disappearing, and sensationalisms of "killer bees". Or you may have noticed them near where you live and wondered if you need to worry. Honeybees have been in decline in recent years in part because of a problem called colony collapse disorder, but in larger part due to the overuse of pesticides and turfgrass, and could use our help.



I love honeybees because I love to garden. And I love the bees. They're truly fascinating. I can get lost watching them bee dance, talking to each other, sharing nectar, and the downy furred youngsters emerging from their cells. I have to remind myself to get back to work. Then again, I also like to eat. If you need incentive to help rather than harm honeybees, consider the following. At least 1/3 of ALL of U.S. crops depends on honeybees and would disappear without them, including over 100 different crops worth \$15 billion annually. Some of the crops that would



disappear if honeybees did are alfalfa, almonds, apples, cantaloupe, berries, broccoli, citrus fruits, cucumbers and soybeans, among many, many others. Imagine no apple pie, pickles, or guacamole. And of course, meat products would be affected without some of the crops such as alfalfa. Honeybees are the best pollinators of any crops because of flower fidelity, meaning each bee visits only one flower source per outing. If she went from apple blossom to dandelion, like other pollinators often do, she would collect nectar but no flowers would be pollinated. In addition they play a hand in many other products we use, such as beeswax candles, cosmetics and furniture polish.

Some people are afraid of bees because of a fear of being stung. It helps to know that bees have no desire to sting. Unlike the wasps and yellow jackets whose behavior they are often blamed for, honeybees die when they sting. They will sting with good reason - when they feel they must protect their brood (their babies), their queen (the hive's mother), and their food supply, all necessary for their future. Or if they are being stepped on or swatted leading to death anyway. I'd sting too under those circumstances.

If you are worried about 'killer bees', know that while the Africanized threat is real, they are generally "watered down" in this area, meaning they have mated with European bees and while they may still have bad attitudes, they are not what you often hear about. The Africanized bee is still a honeybee with one sting, they are just much more aggressive and defensive and will follow the threat in large numbers and do not leave after a few moments and distance from the hive, as the European bees do. They will stay with you, so get in a house or building. It's helpful to know about them, but much hype and fear have been added to the truth, based on the pure Africanized strains that originated in South America. I have collected many wild bee swarms and bees from structures and have never come across any that were a problem. One of my original hives had a few Africanized tendencies, mainly visible in their movements, and probably had an Africanized grandparent, but I still had no problems with them. A new queen will also correct problems, as a hive tends to have the same qualities as its queen.



If you have honeybees nearby, say in a tree, a few tips will help you coexist peacefully. They will not harm the tree. They are actually the only creatures that throughout their life cycle destroy nothing. Bees don't eat plants or other creatures, nor destroy any in building a nest, which they do by producing their own wax. Even butterflies eat their host plant as caterpillars. In gathering food, bees instead help the plant to exist. Many people choose to leave bees in the tree when they learn the facts.

First and foremost, they can be sensitive to a lawnmower being run near their home. I mow right next to my hives, but a few precautions help. If it's an overcast day they can be grumpy, so I leave them alone and mow later. Look at the hive before starting the mower or getting too close to it. You can tell if they are in a bad mood or are upset by something - maybe a raccoon tried to attack them the night before. Just leave them alone a couple of days and you should see them return too normal. Try to always have someone they are familiar with mow. They get to know people that are around them and will tolerate them more readily. My grandfather once had a wild hive in a shed that he mowed beside and was never bothered, but when my brother - a stranger - did, he was stung. Wear light colored clothing, such as a white shirt. Their main predators - bears, raccoons and skunks - are dark and it helps to not look like them. Bees see in larger clumps of colors, and then rely on other senses. I've worn a bright yellow shirt and had them land on me, only to leave disappointed after a few minutes of checking turned up no nectar. This leads to the next point of not swatting a bee, which might be easier said than done for some. I've had hundreds of bees surrounding me at a feeder on my porch on a number of occasions and the only time I was stung was when I was distracted over something else and absentmindedly swatted at one close to my face, something I knew better than to do. I was reminded. It's best to be still or move slowly and let them move on. I know that sounds hard, but when I patiently allow them to crawl on my arms or shirt for a moment, I've never been stung. They won't stay long when they find no nectar, pollen or water, and they have no interest in harming humans or anything else. They are very 'busy' as you might have heard, getting the honey made and feeding the young.

If, however, you swat anyway and do get stung, immediately scrape the stinger off with a thumbnail. When they sting they release a pheromone telling others there was a problem significant enough for them to die, bringing other bees to alleviate the threat. Removing the stinger quickly also allows in less venom, which helps the reaction be milder. Squeezing the stinger to pull it out with your fingers will push more venom in. Reactions vary by person and location of the sting, but generally include initial pain for a few seconds, followed by some degree of swelling, then itching for several days. Swelling and pain tend to be worse around the face, which can be protected while mowing if desired by a simple mosquito netting rigged over a ball cap, or something similar. To treat a sting, you'll want to take an antihistamine, such as Benadryl, as soon as possible to reduce the reaction, and it can be treated topically with an antihistamine or anti-itch cream as well. People have also had success with peroxide, a baking soda/water paste, aloe vera, or Listerine applied to the sting. In areas prone to swelling, such as the face, applying an ice pack helps. Taking ibuprofen can reduce swelling as well.

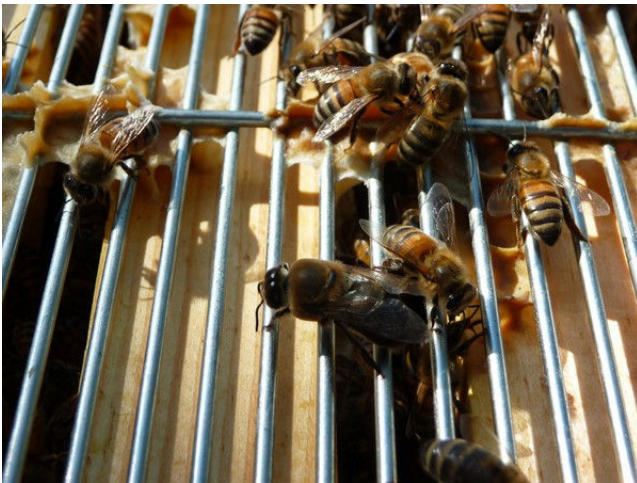
Honeybees swarm, normally in spring, to continue the species, to compensate for losses by fire, disease or starvation, and when they run out of room for a growing family. Like us, some leave the nest for a larger or new home. It's an awesome sight, and bees are at their most gentle at this point, not yet having a new home to defend. A swarm leaves the hive and hangs out nearby while scouts find a new



home (roughly half stay, dividing it). This can take a couple of hours to a couple of days, so you'll want to act quickly and call a beekeeper to remove them so that new home isn't in a cavity of your home, porch or shed. I don't charge to remove a swarm, because the bees are so gentle and frankly, they're fun. Some beekeepers will to compensate for the drive, work and equipment. A swarm requires some work to be part of the apiary, and has to be sequestered while checked for disease and usually requeened with a purchased queen.

Once in a structure, it's much more difficult, and potentially expensive. It's then necessary to open the structure to remove the colony and it's nest. People that decide to kill the bees have a much bigger problem. One is that bees keep the hive at a certain temperature year round and without them to regulate it, the honey will overheat and seep through walls, creating a real mess. And without the bees to keep them out, other pests, such as mice and roaches, can arrive, attracted by the honey. I much prefer the fastidiously clean little bees. It is also likely another wild hive will find the resources and move in, going back to square one. So do try to correct the problem as soon as it's noticed, preferably in the swarm stage.

Chances are, however, the bees you see in your garden will be from a colony whose hive you never see. They will fly a mile or even more to forage when need be. So now that you know how to avoid potential problems, how can you help the honeybees and enjoy them?



First, be aware that insecticides, organic or not, will kill the bees. It's one of the biggest problems faced now. Try to use non-chemical controls, many of which will work better long term, as they don't kill off all of the beneficial insects along with the bad. Don't ever spray chemicals when a plant is in bloom - always do so before or after the bloom period, and spray at dawn or dusk if you must spray, so it will at least dry before bees are foraging. This includes flowering trees, even mesquite, which are huge sources for bees. Notify any nearby beekeepers a day or more before you plan to spray, so they are able to contain their bees in the hives.

Next, bees, like all creatures, need water. They use it to air-condition their hives and regulate honey as well as to drink. I keep sources of water in different spots and on the ground in addition to birdbaths, to allow bees, butterflies, toads, lizards, and even raccoons to have a drink. For bees and butterflies, I put floats, rocks or sticks partway in the water, because they need something to hang onto and stand on to prevent drowning.



When planting, try to plant in large blocks of the same color, which will attract bees, butterflies and hummingbirds. Look for bee friendly plants and trees, which are often the prettiest anyway. Not all flowers have nectar or pollen honeybees can use. Honeybees or many other pollinators for instance, don't frequent most bulbs. They do love most herbs and many veggies. Check the attached list for just a few suggestions. Let wildflowers (and weeds if you can) go to bloom before mowing them down. Many, such as dandelion, henbit, thistles, horsemint, black-eyed Susan, and milkweed (which is also larvae food for Monarch butterflies) are wonderful plants for bees and honey. They often look beautiful in flower as well, and mowing can be maintained after the bloom. Or if you have a large space, let some be naturalized with wildflowers.

Finally, just enjoy the honeybees and the abundant garden they will help you create. Feel free to get close to watch and study them as they explore flowers. As long as you're not swatting them, they don't mind and won't even pay attention to you, and they are fascinating to watch. The main thing you'll need to be careful of is getting 'bees in your bonnet' like I did and ending up with thousands and thousands of girls to enjoy and care for. The more you're around honeybees and learn about them, the better you will like them.

And then there's the honey...

## HONEYBEE TRIVIA

- Honeybees live only about 6 weeks in summer. They literally work themselves to death, wearing out their wings.
- The Romans used to pay their taxes with honey.
- Honey was found in the tombs of Egyptian Pharaohs - and was still edible!!
- Newlyweds from long ago drank mead (honey wine) for one phase of the moon (one month) to assure the birth of a son. From where the term honeymoon comes.
- The honeybee hive is one of the most sterile and cleanest environments to be found in nature.
- Bees won't eliminate in their hive. They are capable of 'holding it' for a few months until a warm day arrives when they will take cleansing flights.
- The bees you see are all female. The few males in a hive, drones, do nothing but fly to areas for mating queens.
- A foraging bee makes from 100 to 1500 flower visits to fill her stomach with 70 milligrams of nectar, 85% of her body weight.
- Honey has an antibiotic property and is an antiseptic, thanks to the bees' enzymes.

## SOME OF THE GOOD HONEYBEE PLANTS

- Trees: Maples, Black Locust, Citrus, Tulip Poplar, Tupelo, Willows, Basswood, Sourwood, Mesquite, Desert Willow, Vitex, Texas Mountain Laurel, Redbud, Yaupon Holly, Magnolia, Fruit Trees.
- Agricultural: apples, soybean, clovers, cotton, cherry, plums, canola, alfalfa, buckwheat, hairy vetch, cucumbers, beans, squash, and many other vegetables.
- Wildflowers: dandelion, henbit, purple loosestrife, thistles, fireweed, sunflower, perennial sages, milkweed, black-eyed Susan, smartweed, horsemint, joe-pye weed, goldenrod.
- Shrubs: redbud, privet, saw palmetto, sumac, holly, hawthorns (Indian Hawthorn), honeysuckle, serviceberry, summersweet, vitex.
- Herbs: most are good, particularly thyme, rosemary, mints, lavender, borage, anise or lavender hyssop (agastache), bee balm.
- Flowers: Carolina Jessamine, daisy, aster, coneflower, hibiscus, ice plant, Mexican mint marigold, salvias, yarrow, Turk's cap, columbine, cleome/spider flower, poppy, sunflowers, bachelor's buttons.
- This is certainly not an exhaustive list, but will give an idea. Many plants with small delicate flowers, such as perennial salvias have, are ideal.