

# BEGINNERS' BOX

## Beekeeping Safety

**The first time** you take the lid off the hive, hear the buzzing, and find yourself surrounded by bees can be a little scary for some, for others it's like "oh wow... cool", but keeping yourself safe is relatively easy. Many tactics for beehive safety involve plain old common sense. Though we have been conditioned to think of them as attackers who live to sting us, bees are by nature defensive and reactive. *Bees become defensive only when threatened in some way.* They release an alarm pheromone (a smelly chemical that alerts the other bees of an attack), and then the odor gets the hive up in arms and the beekeeper is in for a bad day. One of the keys to beekeeping is doing your best to avoid putting the bees on the defensive.

**What's that smell?** It is advisable not to come to any beekeeping activity wearing perfume, cologne, or scented hair products as bees are attracted to floral and sweet scents. Because scents and pheromones are so important to life in a bee colony, they also are an easy way to cause a defensive response. When you're on the way to visit your bees, avoid fragrances (hair products, perfumes, aftershave or deodorant) and other odors or fumes. For example, you might want to avoid filling your car with gas on the way to your hives.

**See the light** Most of bees natural enemies are dark colored. A beekeepers wearing dark colored clothing may be mistaken for a bear, skunk or raccoon. Especially new blue jeans seem to upset them, perhaps it's the smell of the dye) – older jeans are ok. We recommend that you wear light colored clothing. There is a reason most beekeeper clothing is white.

**Make the move** When working with or in close areas of bees, particularly bee-hives, move slowly. When handling bees on equipment, be gentle and careful. Dropping a top cover, box or frame of bees is a sure way to upset the bees and a likely way to get stung. Bees are sensitive to movement and light. Remove your jewelry when you work with them. The sunlight glittering off your rings or watch may agitate your bees. Tuck or tie back long hair, both to keep it out of the way and to keep it from moving in the wind.

**Timing is everything** When handling bees, it's important to remember that a hive is moody. Knowing the natural rhythms of your bees is essential for staying safe. If you take the time to consider a few things before working the hive, your next bee encounter is bound to be more enjoyable. If possible, choose a day that is bright, sunny and warm. Rainy or hot, muggy days can make bees more defensive. Thunderclouds or storms are to be avoided, as environmental factors during these times are thought to cause bees to be more irritable.

Working the hive on a colder day can be dangerous for the bees. The way bees stay warm is to bunch together in a cluster. Honey bees begin to cluster if the temperature drops below about 57 degrees. If you work the hive after the cluster has formed, you may cause the bees to become disorganized, and they may not get their cluster rebuilt before the temperature drops, causing the hive to be more susceptible to the cold. If you must manipulate them during colder weather, do so in the morning to give them plenty of time to get their cluster organized again before temperatures plummet. One of my cold weather rules is: If the bees are not flying in and out of the hive, then it's too cold to open it.

You can't always manipulate the hive at the best possible time, *so getting to know your bees is essential.* The mood of the bees changes from day to day. If you open the hive and the bees seem agitated, you can always close the hive and come back another day.

**Beekeepers protect themselves** by wearing a veil, gloves, long-sleeved shirts and long pants, or a one-piece coverall and a smoker. Regularly checking a bee hive's progress ensures the hive's strength and health. During these checks, beekeepers observe for new brood; storage of pollen and honey; and individual bee health indicators (pest and diseases). They also monitor the space available for the laying queen. Protective equipment is recommended at least until you are familiar with and comfortable with your bees and know your bee's level of aggressiveness. The veil is the most important piece of protective gear. Most beekeepers will not work bees without it. Being stung on the face or neck is more dangerous than other places. A sting to your eye or inside your mouth or throat could be particularly harmful.

*Be sure to wash your beekeeping gear regularly.* Alarm scents stay in the fabric and can upset the next hive you approach even if garments look clean they should be washed regularly.

**Smoke 'em if you got 'em** One of the great tools of the beekeeping trade is the smoker. Smoke has been used for centuries to help control bees. Remember the alarm pheromone that gets the bees excited and triggers their defensive responses? The smoker masks those scents. Also when the bees smell the smoke they think their home might be burnt up, so they gorge themselves on honey to have resources to build a new home. When the bees gorge themselves they are not inclined to sting you and die because they are holding resources to build a new hive.

A smoker is a relatively simple tool. It consists of a container for fuel (anything from pine needles to cow chips) and a bellows of some type. Using a smoker is often referred to as an art form. It sometimes takes a little practice, but the key seems to be patience. You aren't getting the most response if you puff a couple of times and then start working. Most resources agree that waiting at least two minutes after applying smoke to the bees is optimum. Giving the smoke time to take affect can save time in the long run. Don't over smoke them, you want them to smell the smoke not choke on it.

Rev. Langstroth makes a strong point in his book about treating the bees with sugar water instead of stressing them out with smoke. I started this year "smokeless" – only using sugar water spray. My hive kit has both a smoker and sugar water sprayer. My preliminary findings are that on my calmer hives a few sprays with a sugar water mist is just fine with the bees and me. Spraying them with sugar water is much easier than firing up the smoker. On my more aggressive hives the sugar water is not enough to keep the bees calm. So I'm back to smoking, but only on my hives that are more defensive by nature.

**Unavoidable stings** In the end, however, you will get stung. Prepare yourself for that eventuality. No matter how much protective gear you wear or how much research and planning you do, you will be in close proximity and you will get stung. You will get used to the occasional sting. The sting pain goes away quickly in most cases. Some swelling is normal.  
*If you know that you are deathly allergic to bee stings, beekeeping isn't the right vocation for you.*

**Attitude makes all the difference** None of this preparation, protective gear, timing, smoke or lack of deodorant will do you any good if you don't approach the bees with the right attitude. Bees are like dogs, they can smell fear (quite literally). When working bees, it is imperative that you are calm, cool and collected.

Calm, sure movements are best. Stay relaxed. Don't work too fast or with quick jerky movements. Bees are sensitive to vibrations, so bumping or banging on the hive can set off their defensive response.

In the beginning you may feel awkward and frightened. Don't worry, this will pass with time and practice. Wear more protective gear until you get comfortable. Make sure your equipment is in top form and that your gloves fit you well to make manipulating the bees easier. Eventually you'll be the old hand in the business.

## **Ensuring Neighbors' Safety**

There are two schools of thought about how to work with urban neighbors. Some choose not to tell anyone about their hive until or unless there is a complaint. Others are up front about their beekeeping, providing fresh honey and openly addressing misconceptions about honey bees."

A smart beekeeper will take proactive approaches to reduce neighbors' bee concerns. For example, if weather is dry, honey bees will use a neighbor's swimming pool as a water source. Putting a bird bath or other water supply in the area will reduce the likelihood that bees will become a poolside nuisance.

Choosing the bee hive's location carefully will reduce safety concerns as well. For example, bee hives shouldn't be placed near sidewalks or play areas where bee air traffic may pose a threat. Instead, the urban hive should be tucked into the corner of a yard away from regular human activity. If needed, beekeepers can help direct the flight pattern of their honey bees by installing a section of 6- to 8-foot-tall privacy fence 6 feet in front of the hive entrance. Bees leaving the hive will fly up and over the fence achieving a height where they will not encounter children playing or a neighbor working in the yard.

Hive swarms are nearly impossible to predict or prevent. Some beekeepers will take a precaution of setting up a bait hive. A bait hive is an empty hive that can be easily accessed and claimed by a bee swarm, reducing the risk of swarming bees in a neighbor's tree.

Some beekeepers keep an extra pair of gloves, veil and coverall in order to invite curious neighbors for a bee-hive inspection. Creating educational opportunities can go a long way to dispelling safety concerns about honey bees.

Bee Safe and Bee happy

Cameron Crane