

TIPS AND TRICKS

Useful tips on smoking bees, working swarms and removing bees from supers in order to extract honey.

Smoking Bees



Within and outside the hive, bees communicate extensively by smell. Nectar, pollen, diseases, other insects, brood, the queen, drones – everything in the hive has an odor. As complicated as the bees' odor communication system appears to be, the manner that beekeepers have developed to overcome the bees' ability to perceive odors – both inside and outside the hive – is to puff cool, white smoke in and around the hive. For reasons not clearly understood, smoke stimulates bees to move to honey stores and engorge on honey. This can clearly be seen after applying smoke to a colony.

Early smokers were little more than a smoldering fire beneath or near a hive. Later, tobacco pipes were modified to direct smoke into hives as were other early devices. After evolving through many different designs and styles, beekeepers in North America have a small, but adequate range of smoker designs from which to choose. The years of numerous smoker designs being commercially manufactured seems to have passed.

Smoker fuels are as numerous as are the beekeepers who use them. However, common fuels are: grass clippings, pine straw, sumac pods, cloth rags, rotted wood, wood shavings, and burlap. Essentially, anything can be used that produces cool, white billowing smoke and has not been treated with pesticides or with fire retardants.

Under normal conditions, smoke is effective for about 2-4 minutes before needing to be reapplied. Only use enough to turn the bees back into the colony and direct smoke into the hive. Attempting to smoke bees outside the colony is generally an ineffective way to get them to move where you want them.

Working a Swarm



Swarms are, without a doubt, both a blessing and a curse. The blessing part is that a swarm can be harvested and put to work in an apiary.

The first thing to do with a swarm is collect it. At times easy, sometimes impossible. Swarms high in the air can be collected with vacuum devices, long ladders, or heroic gymnastics. Most can be collected into bags, boxes, supers or whatever and transported to permanent housing; ensure that there is enough ventilation, however, putting a strong swarm into an air-tight container is a recipe for disaster! Swarms are generally the gentlest of bees, but if left exposed for several days, they can become hungry and much more defensive. Always have a lighted smoker ready when working swarms.

Once collected and transported, a beekeeper can do many things with this bunch of bees. The deciding factor is often the size of a swarm. Large swarms, 4 or 5 lbs. Can easily run themselves. Smaller swarms, 1-3 lbs. Can be combined with other swarms for a large colony; or added to a large colony to boost its nectar and pollen gathering capability during a major flow.

To be safe, all swarms should be considered infested with both tracheal and Varroa mites and treated accordingly. And, the queen heading that swarm is from essentially unknown heritage. To be certain of the future of that new colony, requeening as soon as possible should be considered.

Gathering a swarm can be the most exciting activity a beginner or seasoned veteran can experience. No two calls are ever alike, and no two swarms are the same.

Removing Bees from Supers in Order to Extract Honey

Probably the oldest and most direct technique to remove honey from bees was to bundle up as much as possible – probably at night – and just tear into the colony, in the process taking numerous stings. The development of smokers to subdue bees was a major advancement in honey removal. Using a lot of smoke, however, is not recommended as it can easily permeate the wax combs and contaminate the honey.

Aside from taking excessive numbers of stings, removing honey during cold weather periods is a simple way to take honey from bees. Practically all the bees will be in the cluster and not in the supers. Though bees don't care for the procedure, they can be brushed from combs with a soft bristle brush. This procedure is simple and cheap, but can result in a substantial number of bee stings. The old standard still applies. Take the honey when the fewest bees are at home.

Bee Traffic-Flow Control Devices to Remove Honey

Various types of bee valves (e.g. the Porter Bee Escape) and escape boards are available that will allow bees to move from supers but not return to them. The Porter bee escape fits in the inner cover (Bee Escape + Inner Cover = Escape Board). This model of escape board and others that work on the same principle, is put beneath honey supers. Cool nights are a great help in the successful use of escape boards because bees move back to the brood nest area leaving the supers. Advantages are: (1) bee escapes and escape boards are inexpensive, and (2) they are simple. Disadvantages are: (1) without cool nights, bees may be slow to move down, (2) robber bees may enter cracks and take honey, (3) supers are handled twice (once to put on the escape devices and a second time to remove them), and (4) a second trip to the yard may be required.

Blowing and Chemicals to Remove Honey

High volume-low pressure air devices can be used (e.g. a shop vacuum, leaf blower) or can be purchased commercially to remove bees from supers. They are fast but often expensive. However, easily obtained leaf blowers are changing that. The downside of these devices is that they do put a lot of bees in the air, and cause considerable confusion in the bee yard during harvest. Bee yards located near high human populations can get out of control. Chemicals can also be purchased and used by soaking false covers that have a cloth interior. These so-called "fume pads" remove bees quickly, but the downside is the strong odor that permeates everywhere when they are in use.

