



## KEEPING BEES IN POPULATED AREAS - TIPS FOR SUBURBAN BEEKEEPERS

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Keeping bees successfully in a populated area requires an intimate understanding of basic bee biology, property rights, and human psychology. It is possible to keep bees in crowded suburban areas, on tiny city lots, and on roof tops in large or small cities without problems. Even in a city, a hive or two of honey bees will find enough forage to sustain themselves and yield a surplus of honey for harvest.

Beekeepers in suburbs and cities need to manage their bees so that they are not a nuisance to their neighbors. By understanding the circumstances under which bees will bother people, we can take measures to alter these circumstances so that the bees do not create a problem.

### BEE FLIGHT PATTERNS

Bees flying from their hive to gather food will fly 3-6 feet above the ground. This may make them an annoyance to people who might be passing by. Planting a hedge or erecting a fence at least six feet high, forces the bees to fly above head level. Alternatively, hives can be placed on a roof top which starts them flying at a level at which they will not bother people.

Fences, hedges, and roof tops also provide seclusion which is very important. Keeping hives out of sight helps protect them from vandalism and theft. However, this is not the only factor involved. Bees out of sight are less often objects of worry and controversy. To a beekeeper, a row of well kept hives generates a feeling of calm and serenity; to a non-beekeeper, they may symbolize a threat or be a discomfort. So, "out of sight, out of mind" will keep both beekeeper and beekeeping neighbors in a better frame of mind.

### LOCATIONS FOR COLONIES

Bee hives ideally should be in such a condition that the bees are content and "happy." A good location is where they are in full sun the whole day. Bees in the shade tend to be more aggressive. The hives should be dry and the bottom boards should slope forward so that rain water can run out the front. Hive stands help elevate the bees off the ground. This makes it easier to keep the hives dry by letting air circulate under the

bottom board. Placing the hives 4-6 inches off the ground also makes it less likely that weeds or grass will obstruct the entrance.

### ENTRANCES

Top entrances should probably be avoided in congested areas during the summer season. Whenever a hive with a top entrance is opened and hive bodies moved, hundreds of confused bees will be flying around because their entrance is gone. Field bees flying around the beekeeper's head might make things more uncomfortable for the beekeeper as well as for his/her neighbors. By providing a bottom entrance only, and working at the side or from behind the hive, the bees are not impeded from flying home even when all the upper boxes have been removed. Keeping equipment in good repair so that cracks or chips in the hives don't provide extra holes for flight is also helpful.

### WHEN TO INSPECT COLONIES

The bee's sting is primarily for defense of the colony. Whenever a colony is opened or otherwise disturbed, it is potentially in its most dangerous state. Only when the hive itself is disturbed will the bees attack in any numbers.

During a nectar flow, many of the older workers will be in the field foraging. This is the best time to examine the colony. During the summer, especially between honey flows, more bees will be in the hive and the situation can change. During such a time of dearth, there will inevitably be some robbing going on which will make the bees even more defensive of any intrusion into their colony. Leaving cappings or honey exposed, or leaving a colony open for more than a few minutes may precipitate a robbing situation which can lead to thousands of angry bees in the air. Any hive that is weak should have its entrance reduced; otherwise other stronger hives may attempt to rob from it. While there is a honey flow in progress, robbing is much less likely to occur.

Weather and time of day also have an influence on the disposition of a bee colony. Examining bee hives early in the morning, late in the afternoon, during cold weather (below

65°F), in rain or when the sky is overcast may make the bees angry and more likely to attack. To minimize problems, the hives should be attended to only on warm sunny days, preferably in the middle of the day. This may vary according to other factors including the types of flowers that the bees are working. Many flowers produce most of their nectar only during part of each day and unless there are alternate sources, the bees will have nothing to do the rest of the day. The beekeeper should understand the subtleties of flows and be observant enough to determine when the bees are bringing in nectar. An obvious indicator would be heavy flight activity at the entrance.

Weather on the previous day will influence the nectar yield of flowers. If it has rained the nectar will be more dilute (watery) making it less attractive to the bees. They may not forage heavily until the sun has evaporated the nectar to a stronger (and sweeter) concentration.

## **WATER**

Honey bees need water to cool the hive and to dilute honey for feeding their young. Bees generally collect water from the nearest source, although they prefer standing water that is warm, has some organic material and is located in very shallow pools. Some beekeepers keep a faucet running, leaving a steady trickle to flow over some boards. This assures a continuing supply of fresh water.

A backyarder's bees could easily collect water from other sources, but this may present a problem. Bees collecting water at swimming pools, bird baths, and wading ponds quickly could become a nuisance. Neighbors could get stung or they might avoid using an area where the bees are because they are afraid of them. The aesthetics of having a number of dead bees floating around in the water leaves something to be desired. Once bees start using a particular water source, it is very difficult to keep them from returning to it. The solution lies in providing a constant supply of water close to the hives as soon as the bees start flying in the spring.

## **STINGING BEES**

Angry bees are attracted to movement, animal odors, and vibrations. Opening a hive while your next-door neighbor is mowing their lawn is definitely a good way to get them stung. If the bees are particularly touchy about lawn mowers, one might tactfully recommend that the lawn be mowed on cool evenings or early in the morning when the bees are less likely to fly. A good general rule is not to disturb the hives when anybody in the immediate area is likely to be outside.

Beehives, like people, vary in temperament. Generally, if there is a mean hive, replacing the queen will alleviate the problem. A beekeeper should never keep a hive of aggressive bees near houses or where people will pass close by. Sometimes the progeny from an individual queen will vary widely in disposition. As a queen uses up the sperm of one of the

approximately 5 to 12 drones she has mated with, she begins using the sperm of another, at which point her daughters effectively have a new father. As a consequence, a gentle hive may become mean even though it still has the same queen.

## **KEEPING CONTROL**

Whenever a bee hive is opened, the beekeeper must keep it under control at all times. A typical bee hive contains thousands of workers all capable of stinging. The bees have an elaborate and organized system of defense. If we chose to ignore this system, the consequences could prove disastrous. A beekeeper in a remote area may bundle himself up or take a number of stings and ignore them. These alternatives are not available to the urban or suburban beekeeper because of proximity to his neighbors.

Smoke is the most important tool for anyone opening a hive. Smoke should be used in moderation; however, the smoker should be capable of producing large volumes of smoke on short notice. The beekeeper should smoke the entrance, smoke under the cover, and periodically smoke the frames while the hive is open. Jarring the hive or frames may anger the bees so the beekeeper should work carefully and without haste. Keep the frames freely movable by going through the brood chamber several times a year. Using nine frames will make it easier to remove the first frame in inspection. Any excess comb should be removed.

The folly of wearing gloves cannot be overemphasized, stings on hands are easily removed and the pain quickly passes, yet many beginners insist on using gloves. Stings on the gloves are not felt, yet because of the scent associated with the sting, they anger other bees in the hive to attack. The attack builds and the beekeeper ignores it until the bees find an opening. Thus, the beekeeper may lose touch with the mood of his hive. By working with bare hands, one will be less clumsy and also will be less likely to let the bees get out of control.

## **PUBLIC RELATIONS**

If one is on speaking terms with his neighbors, that friendship may be encouraged by giving them some honey at Christmas. It's amazing how interested and cooperative people become when presented with an occasional jar of honey. Show them the difference between wasps and bees and they will be less likely to blame you for every sting. Be careful and tactful - befriending a neighbor is a lot easier than calming them once they have become angry with you and your bees.

## **TIPS FOR SUBURBAN LOCATIONS**

### **Consider neighbor first ....**

A successful bee hobbyist's bee colonies do not interfere with or bother the neighbors. Evaluate every hive manipulation and the natural biology of honey bees with your neighbors foremost in mind. Your objective should be to insure that

your neighbors have no reason to complain. In most instances where neighbors complain, bee colonies must be relocated.

#### **Keep gentle bees ....**

In populated areas, it is imperative to maintain gentle colonies. Mean colonies, colonies that attempt to sting each time examined or bees that hover around the bee veil after the colony is closed are better in the open country. If a colony becomes mean for any reason, requeening with a new queen of gentle stock will usually change the temperament.

#### **Know bee biology ....**

The suburban bee hobbyist must have a better-than-average knowledge of apicultural practices. Since bees and beekeeping are so complex, keep a reference book close at hand. A subscription to a bee journal will help. Membership in a state or local beekeeping organization is another source of information as well as enjoyment; enrollment in a correspondence course or short course will be extremely helpful. Delaware has a beekeeping short course in the spring, and correspondence courses are available from other neighboring states.

#### **Halt swarming ....**

Although swarming bees are quite gentle and little inclined to sting, always practice good swarm prevention to keep your colonies intact and insure that they do not swarm. Although not all factors of swarming biology are known or understood, sufficient room in the brood chambers and adequate honey storage area will keep swarming at a low level. The reversal of brood hive bodies every 10 days during swarming season is an excellent method of insuring sufficient brood rearing room. For colonies that persist in queen rearing, dividing the colony is the best means of avoiding swarming. Know how to capture swarms - this is a civic contribution.

#### **Keep water source nearby ....**

Maintain a water source close to the colonies. When water is not close, bees may visit swimming pools, bird baths, hanging wash, etc. Bees need water to dilute honey when nectar is scarce and to aid in hive ventilation when temperatures get too high. When using open containers to supply water, place floating blocks, wire or some structure for bees to stand on while they gather the water.

#### **Conceal hives ....**

Put a hedge and/or fence around your colonies. This will remove the hives from view, cut down on vandalism, and most importantly, cause the bees to fly upwards and over people's heads when foraging from the hive. Shrubs and trees attractive to honey bees can be planted when constructing such hedges to increase bee pasturage.

#### **Stop robbing ....**

When manipulating and examining hives, keep robbing at a minimum. A robbing condition produces aggravated bees and greatly increases searching behavior when little food is

available; this often produces mean colonies. To prevent robbing, spare equipment stored outside should be bee tight. When examining hives, cover honey supers. Do not leave honey supers open and make examinations short when robbing is prevalent.

#### **Honey handling equipment ....**

If you don't have the proper equipment, arrange to get together with other beekeepers or a bigger operator to extract honey. The proper equipment can be too great an investment for the starting individual and other methods of honey removal and wax rendering are messy and seldom worth the time and effort. A group going together on equipment or paying a small fee to a beekeeper with the proper equipment will get the honey extracted sanitarily and efficiently.

#### **Beekeeping equipment ....**

See that you have access to sufficient equipment for the number of colonies you want to maintain. It is best to use equipment of standard dimensions and to keep the equipment painted and in good shape. Few suburban locations can support more than 5 colonies without affecting individual colony yields. Hobbyists often find they have too little equipment and too many colonies for the apiary location and time available.

#### **Register your bees ....**

Register your bee colonies with the appropriate state agency so that they can be inspected for disease. Most states, including Delaware, require colony registration. Write to: Apiary Inspection, DE Dept. of Agriculture, Dover, DE 19901

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