

BEEKEEPING ISSUES TO
CONSIDER IF YOU HAVE
NEIGHBORS

John T. Ambrose, Ph.D.

SOME COMPARISONS BETWEEN HONEY BEES AND HUMANS

There are many similarities and many differences. Both honey bees and humans have a sense of sweetness and “like” honey. The most important sense of a bee is the sense of smell, but for humans it is the sense of vision.

OF BEEHIVES PER LOT

There is no set number but the minimum should be two hives assuming (we are talking about a typical lot size). However, too many hives is a serious issue – a city lot is not the place for a queen rearing operation or other activities that involve a large number of hives.

SET-BACKS

Again there are no magic numbers but hives should not be placed directly on or very close to a property line. This is a less of an issue if your property faces an uninhabited, woody area etc. Our right to keep bees wherever we want to do so ends when our bees interfere with our neighbors use of their property.

Reasonable Set-Back

- A reasonable set-back is ___ feet from the property line if there are no barriers between your beehives and the neighbor's lot.

ALTERNATIVES TO SET- BACKS

- Set-backs are less important depending on which direction your hive(s) are facing. Hives facing the neighbor's lot are more of a challenge than those facing away from the lot. However, you are probably setting yourself up for a problem if you place your hives on or very close to the property line.

Barriers

- An important consideration but not always the perfect solution.
- A barrier should completely hide your hives and be a perennial barrier.
- The barrier should be 8 feet tall or higher so that the bees will fly over the heads of your neighbors

Other Considerations on Hive Placement

- It is almost always a mistake to put your hives in a situation in which they are facing or even near high density use areas such as sidewalks, playgrounds, etc.
- Do you really want hives in your front yard?
- The perfect location may be in your backyard surrounded by a fence but also consider the health of your bees.

Hive Location cont.

If you must move a beehive then try to move it either forward or backward from its current location and not to the side. Otherwise, you may have to deal with lost bees flying around.

WATER SOURCE

- This is one of the non-negotiable considerations. You must have a water source for your bees.
- It must be closer to your hives than is ANY water source on your neighbors property.
- It must be a perennial water source- don't set-up a dog dish of water and then forget about it.

Water Source, cont.

- Bees prefer water that has a bit of flavor, so water with some vegetative debris is more attractive to the bees than is fresh water. Save the Evian for use in your house when you entertain the neighbors.
- A serious problem that you probably can not solve is if your neighbors have a swimming pool. Consider moving your bees to a new location.

WORKING YOUR BEES

- Best time of day – when the foragers are out working
- Worst time of day:
 - Late afternoon or evening
 - When it is rainy or cloudy
 - Temperatures below 60 degrees

Working Your Bees, cont.

- If you must work your bees under less than desirable conditions, then consider:
- Is this timing important for the bees or to meet your schedule?
- If it is important to go into the hive, then keep your time to a minimum

Working Your Bees, cont.

(Feeding)

- There are numerous good ways to feed your bees if the feeding is inside the hive.
- Never set up an open feeding system where the bees can collect sugar water or honey residues in the yard – this can lead to robbing.

Working Your Bees (Epi-Pen)

- Consider getting an epi-pen. This can be used for yourself if you seem to be having an allergic reaction. It might also be used if a neighbor is having a reaction.
- This is something to seriously think about. I wouldn't necessarily tell my neighbors that I have a pen in case my bees sting them.

SWARM CONTROL

- We beekeepers all know that bees in a swarm are usually very docile (except for a dry swarm).
- But the thought of thousands of stinging insects in the neighbor's yard does concern most non-beekeepers.
- You should practice good swarm control.

Swarm Control, cont.

- Re-queen your colonies when the queen is a year old. Mark your queens.
- Do a Swarm Reversal in the early spring, usually in February. Swap the positions of your two hive bodies so that there are empty frames in the top chamber.
- Be sure your colonies always has empty space for brood and honey storage.

Swarm Control, cont.

- If your colonies are low of food, then feed them.
- Announce to your neighbor, local police and fire department, etc. that you are available to collect swarms. If you do collect a swarm invite your neighbors to watch.

EDUCATE YOUR NEIGHBORS

- Local Importance = pollinations of gardens, flowers, etc. and provision of food for wildlife such as birds.
- Emphasize that your bees will actually reduce stinging episodes because they are very gentle and will reduce the local number of yellow jackets.
- Understand what an allergic reaction really means.

Educate Your Neighbors: National Importance

- We are at risk of losing honey bees in the U.S. and they are vital to our economy.
- Honey bees not only provide honey, but they also pollinate 1/3 of our daily food supply.
- Honey bees also provide many products, in addition to honey, that we use on a regular basis.

Educate Your Neighbors: Local Expert

- Become the local expert on bees and share your knowledge.
- Share your knowledge not only with your neighbors but also with schools, church groups, etc.

SWEETEN YOUR NEIGHBORS' ATTITUDES

- Provide them with some honey, particularly during the holidays.
- Invite them to watch you work your bees – do provide protective gear and show them how gentle your bees are even when you work the hives.
- Don't hide your bees – let your neighbors know that you are doing them a favor by keeping bees

QUESTIONS

General Differences

- Size
- Lifespan
- Cold-blooded vs. warm blooded
- Behavior of bees is more innate and for humans it is more learned

LET'S LOOK AT THE FIVE
BASIC SENSES OF EACH

Sense of Hearing

- Honey bees are deaf for airborne sounds
- They can “hear” or “feel” substrate sounds
- Human Example = Thomas Edison
- Bee Example = Piping and quaking
- **BEEES ARE VERY SENSITIVE TO INTENSE AND RAPID VIBRATIONS**

Sense of Vision

- Bees can see but their vision is very different from our sense of vision
- Bees have five eyes
 - three ocelli and two compound eyes
- Ocelli are light receptors
 - tell bees when to leave and when to return to the hive

Sense of Vision, cont.

- Compound Eyes – brokenness and motion are more important than shape
- Von Frisch Experiments
- Both bees and humans can see colors which is unusual in the animal world.
- Bees color spectrum goes from ultra-violet to yellow, they are color blind for red.
- Humans color spectrum goes from blue to red, color blind for UV.

Sense of Vision, cont.

- Bees rely on UV vision in several ways:
 - locating the sun on a cloudy day
 - nectar guides of flowers
 - not flying over large bodies of calm water
- Motion is very important to bees (all social insects) from a protective response

Sense of Touch

- Used for Food Exchange and other functions

Sense of Taste

Similar to humans

- Can sense the four following tastes: salt, sour, bitter, and sweet
- A bee's sense of sweetness is almost identical to that of a human
- Can taste with their tongues and their feet

Sense of Smell

- Most important honey bee sense
- Almost everything a honey bee does is related to odor
- Only visit flowers that have an odor, but don't visit all flowers with odors
- Hive Odor' can distinguish between hive mates and other bees

Sense of smell (Pheromones)

Queen pheromones - Queen substance keeps colony functioning - can do so even if queen is missing.

Worker pheromones – produce two types: an attractant and an alarm substance

Pheromones, cont.

- Worker Attractant Pheromone
 - lemon like odor and used to ID lost queen,
 - food source, and new home-site
- Worker Alarm Pheromone
 - solvent like odor and used to announce a
 - danger
- We can produce odors that are alarm-like!!

Things Honey Bees Collect

- Honey bees only need to collect four things to survive: water, propolis, pollen, & nectar
- Bees can make mistakes especially in the spring and naïve foragers can collect substitutes such as sawdust for pollen.
- Bees will also collect sugar substitutes, as will wasps, when nectar is in short supply so this can be a problem at outdoor summer activities.

Honey Bees Being Blamed for Yellow Jacket Activities

This can happen throughout the year
but it is most common in the summer
at outdoor gatherings with food and
in the fall