

SETTING UP YOUR APIARY

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Whether placing bee hives in a backyard setting or on multiple acres of land, there are several factors to consider when deciding where to place the apiary.

FOOD – NECTAR AND POLLEN SOURCES

Honey bees require both pollen and nectar from plants for their survival. When setting up an apiary, get to know the flowering resources in the area and when they bloom. If possible, take steps to ensure that the bees have reliable nectar and pollen resources throughout the year. Regular monitoring of the bees will help determine how much food they are bringing into the hive at various times of the year and will allow the beekeeper to gauge when to feed them sugar water. (Refer to ENTO-096, *General Maintenance of Honey Bee Hives* for more information on feeding bees).

Bees are known to travel up to 2 miles or more for food. However, longer distances are a high energy investment and it is better for bees to find food closer to their hive. Each colony is slightly different in the distance its bees will travel for pollen and nectar, so monitor the colonies carefully if they need additional feeding.

WATER SOURCES

Honey bees also require a reliable water source, especially when temperatures are high. They may consume up to a gallon of water a day. Water can be from a natural or artificial source.

The beekeeper should provide a water source if there is not one available within 100 yards of the hive. Bees generally like “dirty” water instead of clean, fresh water and will often be seen at a muddy puddle or birdbath, as opposed to a clean bucket of water. If providing a watering bucket or bowl, be sure to place straw or

pebbles in the water so the bees have a spot to land and avoid drowning.

PLACEMENT OF THE HIVE

Place the hives in a spot that is fairly level. Hives do not have to be perfectly level, and a slight slant toward the entrance allows for moisture to be expelled.

To avoid the cold north wind entering the hive during the winter, the hive entrance should not face directly north. If possible, place the hive entrance facing east or southeast.

Even if hives are set far from potential passersby, it is nice to have some sort of barrier (i.e., dense vegetation, paneled fence) to separate the hives from people. Face the entrances away from potential foot traffic so the bees can avoid hitting passersby when they exit.

A geographic barrier of dense trees or shrubs separating hives from neighbors allows a space to walk through to “brush” bees off if they are following the beekeeper when leaving the hive (Fig. 1). The beekeeper needs to create adequate distance to walk from the hive to allow bees to leave them before returning indoors.



Figure 1. Apiary with a barrier of trees and shrubs, separating hives from a street. These hives are also in full sun in the morning and full shade in the afternoon.

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Hives can be placed in either the shade or the sun, but bees will face difficulties in either situation. Shaded spots will provide an attractive environment for small hive beetles, and full sun may require more water for cooling. A good recommendation is to place the bees in a spot with morning sun and afternoon shade.

URBAN BEEKEEPING

There are many ways to ensure that urban beekeeping does not disturb neighbors or passersby. Some beekeepers place bees on roofs (Fig. 2), while others utilize fencing (Fig. 3). All urban beekeepers should prevent their hive from swarming and re-queen their bees every 1 to 2 years to ensure gentle genetics. (Refer to ENTO-096, *General Maintenance of Honey Bee Hives* for more information on requeening hives.)

Swarming will result in virgin queens mating with feral drones, thus potentially introducing Africanized genetics into the colony. Over time, the colony will grow more defensive and become a threat to public safety.

Place hives away from high traffic areas and make sure the entrance faces away from locations where people will be walking or congregating. Utilizing tall, solid fencing around the bees will force the bees to fly up and over the fence—thereby flying over human heads, making it less likely that they will fly into a person and sting them (Figs. 3 and 4).

Be sure to provide water and food for the bees when necessary, to avoid the bees from visiting neighbors' pools or hummingbird feeders.

Always check with the local city, municipality, and homeowners association to ensure that bees are allowed.

For more information on maintenance of honey bee hives, please check out these resources:

Varroa mite management:

<https://honeybeehealthcoalition.org/resources/varroa-management/>

Seasonal to-do list: <https://thbea.com/wp-content/uploads/2019/04/THBEA-NewBee-Brochure-2018.pdf>

Inspection, pest management and identification, and other resources:

<https://txbeeinspection.tamu.edu/beekeepers/>

AgriLife Learn, Beekeeping 101: <https://agrilifelearn.tamu.edu/s/product/beekeeping-101/01t4x000002ciQPAAAY>



Figure 3. Backyard bees (Randy Mass)



Figure 2. Urban beekeeping on a roof (Thomas Lawson)

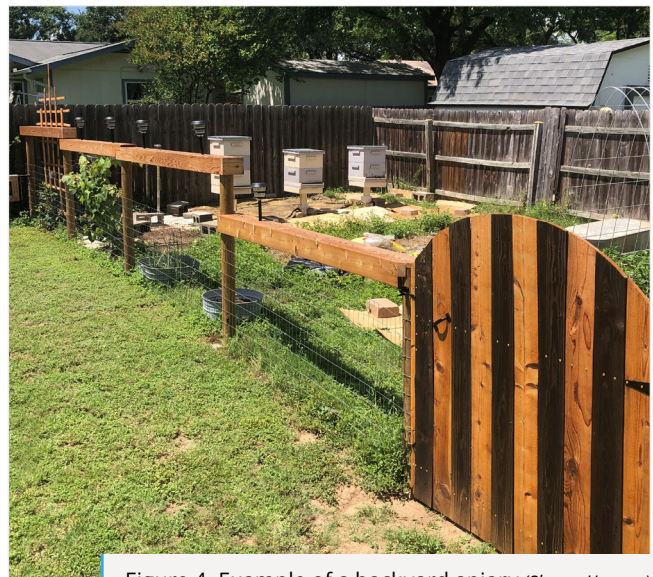


Figure 4. Example of a backyard apiary (Shawn Hansen)