

Setting Up Your Apiary

Molly Keck¹ and Omar Martinez²

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-PU-180, 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 honey bees typically forage close to the colony at first and will gradually increase their range, if necessary, to find suitable resources. 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. Be sure the location stays dry throughout the year, avoiding low or wet areas.

Beekeepers use different types of hive supports. Backyard beekeepers often leave more space between colonies to make management tasks easier, while sideliners and commercial beekeepers commonly place hives on pallets for greater efficiency and easier transport. Position hives at a height that’s comfortable for you; this makes inspections much easier (Figs. 1 and 3). If possible, place the hive entrance facing east or southeast. This allows the sun to warm the entrance, encouraging the bees to start foraging early. Avoid facing the entrance north so that the cold north wind does not whip into the hive in winter.

Keep hives at least 25 feet off property lines and allow a minimum of a 10-foot flight path before encountering trails, sidewalks, people, livestock, etc. Even if hives are set far from potential passersby, it is a good idea to have some sort of barrier (i.e., dense vegetation or 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



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

¹ Senior Program Specialist, Bexar County Office

² Extension Program Specialist, Agriculture Program

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.

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 beekeepers should prevent their hive from swarming and re-queen their bees every year to ensure gentle genetics, but this is especially important for urban beekeepers to follow. Refer back to the [ENTO-PU-180 General Maintenance](#) fact sheet for requeening information.



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

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



Figure 3. Backyard bees (Randy Mass)

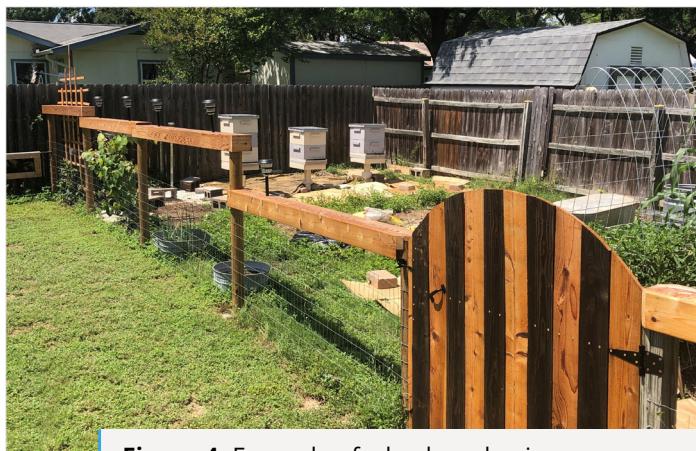


Figure 4. Example of a backyard apiary (Shawn Hansen)

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 having the bees visit neighbors' pools or hummingbird feeders.

Always check with the local city, municipality, and homeowners association to ensure that bees are allowed, and take extra precautions to prevent any issues that may arise for your neighbors.

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/global-search/beekeeping%20101?c__results_layout_state=%7B%7D

WARNING

Under Texas law (Chapter 87, Civil Practice and Remedies Code), a farm animal professional or farm owner or lessee is not liable for an injury to or the death of a participant in farm animal activities, including an employee or independent contractor, resulting from the inherent risks of farm animal activities.