



NMBKA

New Mexico **Beekeepers** Association

nmbeekeepers.org

Beekeeping Basics

Starting beekeeping does not have to be an expensive hobby, but as with any hobby, you can decide how much you wish to invest in the process. You can be pretty minimalistic or you can go “top-of-the-line” on just about every component.

There are three components to Basic Beekeeping: 1) Your Personal Equipment, 2) Your Hives, and 3) Your Bees.

1. Your Personal Equipment

The first items are essential: Your Hat and Veil, a Smoker and a Hive Tool. You can purchase these new from a beekeeper supplier for under roughly \$100.

You will also need a light-colored light weight long-sleeved shirt or bee coat to keep the bees from entering your clothing. This can be something you already own, a long-sleeved button up or denim work shirt. Your jeans can also do for the bee pants. Commercial bee suits with pants, jacket and veil run over \$100. If you choose to wear your own pants and long-sleeved shirt, you should plan on securing the bottom of your pants legs and sleeves with either a rubber band or with a long Velcro strip. You do not want bees climbing from off the ground where they've dropped and up your legs! A pair of work gloves or leather gloves completes your minimal outfit.

A Smoker is the next essential element to your bee gear. The smoker is used to mask the alarm pheromone of the bees and to cause your bees to put their energy into feeding on their honey stores in case they must flee, rather than defending themselves against you. Remember, any time you enter their hive, you are an intruder to the colony and your goal is to make this as simple and as painless for all involved as possible.

Finally, you need a Hive Tool to help pry the frames or bars off the hive, to scrape and straighten cross-combing. It is your in-hive tool.

You need this equipment anytime you enter your hives.

2. Your Hives

Hives are the boxes bees live in. The colony is the group of bees; they live in hives (of many sorts). There are three types of hives currently in use in New Mexico and each type has its own passionate followers. There are Langstroth Hives, Top Bar Hives (TBH), and Warré Hives.

•Langstroth Hive

Langstroth Hives were invented by the Rev. Lorenzo Langstroth in 1852. “The advantage of this hive is that the bees build honeycomb into frames, which can be moved with ease. The frames are designed to prevent bees from attaching honeycombs where they would either connect adjacent frames, or connect frames to the walls of the hive. The movable frames allow the beekeeper to manage the bees in a way which was formerly impossible.” (Wikipedia.com)

This type of hive revolutionized beekeeping worldwide and is the hive that is transported across the country by beekeepers who follow the blooming of crops. The key factor in the Langstroth Hive was that it allowed for ‘bee space’ – the space bees need to move inside the hive (and will build into their own hives in the wild. Langstroth’s hive allowed the comb (on frames) to be easily removed and avoided tearing hives apart, as had been done when

bees lived in trees, clefts of the rocks or even in skeps. Now, beekeepers could truly ‘keep bees’ without destroying the hives as they collected the honey.

Boxes are added on top of the Langstroth to expand the colony’s capacity for brood or for honey storage.

The start-up cost is about \$300.

• Top Bar Hives

Until the 19th century, bees lived in hollow trees, caves in the rocks, and perhaps in woven grass baskets called ‘skeps’. Top Bar Hives were refined in the era of the Peace Corps to give peoples a low-cost set up for managing bees. The Top Bar is essentially a trough with bars across the top; the bees build their comb along the bars. The beekeeper removes the bars that are filled with honey at harvest time. The two most popular types of TBH prevalent in New Mexico – a design by New Mexican Les Crowder and a slightly modified design by TJ Carr of Albuquerque. Mr. Carr took the Crowder design, modified it’s dimensions and added ventilation and an observation window. Both of these designs can be built by someone with even minimal woodworking experience.

Top Bars have both advantages and disadvantages. As you manage and inspect your hive, you are lifting out only one bar at a time so there is less strain on your back. You can also place the hives at the height you prefer to work at. They do require more maintenance to care for the bees, but they do quite well here in NM. The TBH has a fixed volume and cannot be expanded as the Langstroth and Warré hives can be. The way to expand the colony is to split the colony into another hive and start a new colony there.

A TBH can be built at home using your own materials. Purchased it will run \$150 and up.

• Warré Hive

The Warré Hive was developed by Abbe Warré of France in the early 1900s. Abbe Warré wanted a hive that was easy to build, required minimal maintenance, suited the bees preference for a hive and still produced honey. The Warré hive expands by adding boxes to the bottom of the hive, raising the stack higher and higher. There are online plans if one wishes to build one’s own Warré. The purchased cost is about \$300.

3) Your Bees

Bees come in several ways.

Honeybees can be purchased as a package in the springtime for about \$150/package. A package of bees contains 3-4 lbs. (about 12,000 – 16,000) bees, a feeding jar, and a mated queen.

Bees can be purchased as a ‘nuc’. The ‘nuc’ or ‘nucleus’ is a small bee colony that has been created from a larger colony. You receive a small box with frames and bees that includes a mated queen. This is seen as an advantage in that the queen is already laying eggs in the comb and may give the new beekeeper a 1-3 week head-start on the growth of the colony.

Most installed packages and nucs should be considered first year hives and the goal is to build them strong enough to survive the first winter. The hives you build this year are the hives you will most benefit from next year as they will then be in a position to



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produce honey. Nucs cost about \$200.

There are a few other options. These options involve hives that have survived a winter in the location that you would like to keep bees and may be more acclimated to your specific environment or climate, then the bees purchased from an out-of-state breeder. The first option is to catch a swarm. You can also build/buy a hive and attempt to lure a swarm. Another possibility is to get something called a split from a beekeeper who wants to prevent their hive from swarming.

• Types of Bees

There are several types of bees, which may or may not be available. All of these are subspecies of *Apis mellifera*, the Western Honey Bee. The most common bee on the market in New Mexico is the Italian or Italian hybrids. These are lovely golden-banded bees. They are relatively gentle, happy to produce honey and are usually the bee of the bee packages. The Italian bee is considered a 'good beginner bee'.

Caucasian bees originated in Eastern Europe in the central Caucasus mountains. They are gentler than the Italians.

Carniolans originated from the southern Austrian Alps and in southeastern Europe. This is the second most popular subspecies of honey bee; the Italians being the first. These bees have shown themselves to be particularly good at defending themselves against various insect pests.

Russian bees are reputed to have resistance to both the Varroa mite and the Tracheal mite.

4) Other Considerations

Your learning never ends when you take up beekeeping. Start with your local library or online articles about beekeeping. Ask other beekeepers which are their favorite books/authors on beekeeping. There are both good and bad YouTube videos available, so read the comments and use your best judgment.

Join a local beekeeping society, or if there is not one easily available, start meeting with other local beekeepers to share and to gain knowledge. This is a vital part of beekeeping – the encouragement and support of others who've traveled the beekeeping road longer than you. The New Mexico Beekeepers Association (NMBKA) is a good place to start. NMBKA and several local NM hobbyist groups maintain active Facebook pages or websites.

Be aware of local neighborhood covenants and city regulations regarding beekeeping. Some neighborhoods and some cities do not permit beekeeping – know what regulations will affect you.

As a good neighbor and a responsible beekeeper, place your hives where their flight line does not intersect a sidewalk or walkway. They don't intend to run into people, but accidents may happen and often people react more poorly than do the bees. Place your hives where the bees have an easy flight access to their hives without having to fly through yards or across pathways. Hives should ideally be placed with their opening facing the east/south-east. Wind is not a friend to bees, so you want to place your hives in a more protected area or create a windbreak.

Keep water available at all times for your bees. Keep your OWN water available or else your bees will go to the ponds, pools, dog dishes of your neighbors. Your neighbor may not appreciate finding frantic bees in his or her pool or having their pet Rex get

stung by a bee as he's drinking from his dish. A container of water with floaties on top to prevent the bees from drowning works well. Some use a 2 gal galvanized chicken waterer with wine corks floating around the rim so bees can alight on the corks to get their water. Bees go through a lot of water mid-summer, and water evaporates quickly here in NM. Provide water in a shaded spot for your bees.

Monitor your bees' health about every two weeks once they begin flying in the spring (IF it's not very windy AND over about 65 degrees.) As a beginner, figure on about 1 hour per hive when checking your bees. Each inspection, you are checking on the health of the colony by looking for the queen – or evidence of her presence in the form of eggs and larvae – and any indication of disease.

You will also want to monitor for signs the hive is preparing to swarm. Swarming depletes – for at least a time – the work force in the hive; and can be a large expense to you or your neighbor if the swarm takes up residence in the walls or attic of a home, or another inconvenient cavity. As a beekeeper, swarming management is part of your responsibility to your community. (See the NMBKA handout Swarm Prevention, also available online.)

In the fall, if you have surplus honey, you will need to separate the honey from the comb – a topic not covered here.

5.) Web Resources

There are many resources available on the internet. Check these out for education, information and conversation with fellow beekeepers. The focus here is on local New Mexico resources, along with a group of national and regional beekeeping organizations.

- New Mexico Beekeepers Association: www.nmbeekeepers.org
Facebook group: www.facebook.com/groups/nmbka
Facebook page: www.facebook.com/NMBeekeepers
- Albuquerque Beekeepers website: www.abqbeeks.org
- Four Corners Beekeepers Association website: www.4corners-beekeepers.org
- Sangre de Cristo Beekeepers on Yahoo Groups
- Sacramento Mountains Beekeepers on Facebook
- Southern New Mexico Beekeeping on Facebook
- Southern New Mexico Beekeepers on Facebook
- American Beekeeping Association: www.abfnet.org
- American Honey Producers Association: www.ahpanet.com
- Western Apicultural Society:
www.westernapiculturalsociety.org

6.) Last Thoughts

Bee keeping is a passion, avocation or hobby that requires a commitment. Once you have obtained your equipment, your hives and your bees, then the learning begins. It will require time to manage and maintain your hives, but will bring great pleasure. Happy beekeeping!