

INDOOR BEEKEEPING

WHAT IS IT EXACTLY?



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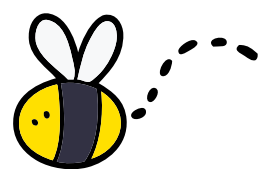




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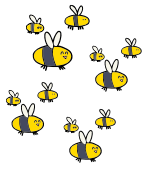


Indoor beekeeping is not only fascinating but it is also one of the most rewarding hobbies. If you have been considering venturing into apiculture (beekeeping) then this is one of the avenues you may consider.



However, you need to understand the specific laws and regulations that apply to your specific state before you even start. Fortunately, in most US states a hive or two is allowed and this will provide honeybee products sufficient for your needs.





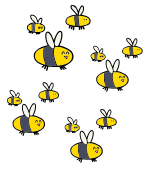
WHY INDOOR BEEKEEPING?

Beekeeping has been around since human existence began. The honeybee is just but one among the many bee species that exist out there. Other species include solitary bees, bumblebees, and many others. They are all known for the critical role they play in pollinating plants. Most of them are wild and lack of forage and habitat loss has led to the demise of most of these species.

Most professional beekeepers began as hobbyists or part-time beekeepers and eventually became professionals. You do not need plenty of space to be a beekeeper. Indoor beekeeping in particular can be done within your house (as the name implies). Current technologies have led to the invention of some sophisticated in-house hives that not only complement your interior decor but they also create a home for bees to thrive and produce the sweet honey and other honeybee products.

The indoor beehive has been designed with safety in mind and therefore those that fear getting stung should not fret. With bees being some of the easiest insects to manage, all you need to do is learn, commit, and practice. That is all that is required for successful indoor beekeeping. The most important thing to do is ensure the bees get a healthy and comfortable environment. It should be free from noise, pollutants and chemicals, and should be well-sheltered.





IMPORTANT POINT TO NOTE FOR INDOOR BEEKEEPING

Understand Legal Requirements

Honeybees are just like any other domesticated stock. You are required by law to maintain the bees after you decide to keep them. The law and regulations may vary from state to state and that is why it is important that you get acquainted with the laws within your area before you become a beekeeper. The general rule is to ensure the bees are kept in a healthy environment and that they do not become a nuisance to those living within the area.



It is also important to understand that it is not morally or legally right to abandon your hive when you lose interest in beekeeping. Hives that have been neglected usually become a source of infection to neighbouring colonies.

They may also swarm and cause harm to people and livestock within the neighbourhood. It is always wise to dispose of the hive to someone who is interested in keeping the bees.

Neighbours

Before you begin keeping bees it is prudent to tell your neighbours that you will be a beekeeper. Expect the good news to scare some of your neighbours. This is not required by law and you are not obliged to disclose.



One of the main advantages with honeybees is that they only forage on nectar and pollen in flowers unlike wasps that tend to be carnivores. The bees will never bother your neighbours unless provoked.



The honeybees will be aggressive when you open the hive for inspection. Therefore, do weekly inspection when neighbours are not nearby. Pets and children should not be nearby when doing this. You should also have the right protective gear when undertaking this.

Choose a Quiet Strain of Bees

All bees are not the same. To ease your indoor beekeeping, replace aggressive colonies by re-queening with a gentle strain. Nonetheless, various factors have to be considered before a colony is replaced.



For instance, the manner of handling the combs, type of clothing, hive handling, and time of handling. A professional apiarist will analyse all these before recommending a replacement.

WHERE DO YOU GET THE BEES?

There are basically two ways of **getting the bees** for your indoor hive:

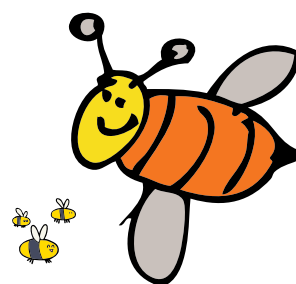
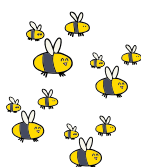
Nucleus Colony

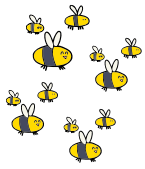
This is the most popular method where you purchase a small bee colony. You can get this from a reputed bee equipment supplier or those who rear bees for sale. The best time to get a nucleus is during September and October. The nucleus colony comes with a queen, honey, 3-4 combs, a brood, and the worker bees. This small colony will drastically grow into a strong and self-sustaining bee colony.

Bee Swarms

This is your second bet. Honeybee swarms are collected from tree branches or any convenient place where they have settled.

The bees are collected and transferred to your new hive. This requires some skill and experience to be successful.





YOUR ULTIMATE BET FOR INDOOR BEEKEEPING

The BEEcosystem

You have probably heard the revolutionary BEEcosystem. This is a new technology for keeping bees indoors within an urban city. The entire system is a hexagonal hive made of cedar. It is small enough for easy management and is also big enough to produce sufficient honey for household use.



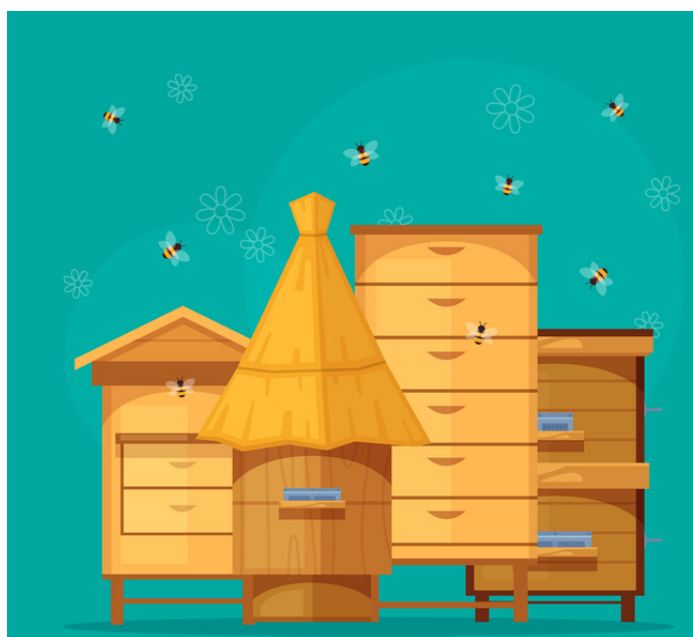
The urban part-time or hobbyist beekeeper will find the BEEcosystem fascinating. It can be compared to a fish aquarium, only that this one has no water and it harbours the territorial honeybee.

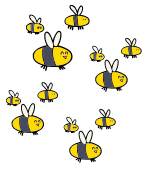
The environment within the system is friendly for the bees and has been designed in such a way that it can be placed either indoors or outdoors. It also has a light filtering cover that ensures the bees natural cycles are never interrupted by indoor lighting.

When it comes to bee movement, the BEEcosystem comes with a transfer tube that directs the bees to the outside world. These are fitted with sliding windows so as to facilitate free movement. The modular design of the unit also allows for future expansion.

In terms of safety, this unit is friendly and it comes with the honeybees already stocked. All you are required to do is mount the system on the wall. It has other additional features as well, including: a cleaning drawer for debris collection, a top feeder for feeding when resources are scarce, and a wall bracket for attachment.

While the BEEcosystem is quite a popular indoor beekeeping system, it is not the only one. Other indoor observation hives such as the **Toughtimbers Observation Hive** are more readily accessed and you have the benefit of setting it up yourself.





HONEY BEE BEHAVIOR

The bee colony is a complex and self-sustaining system. Bees can survive and thrive even in the wild thanks to their excellent sense of coordination and organization. The colony behavior is essential to comprehend since it helps the beekeeper better manage the bees. If you plan to keep indoor bees, then this information will serve you well.

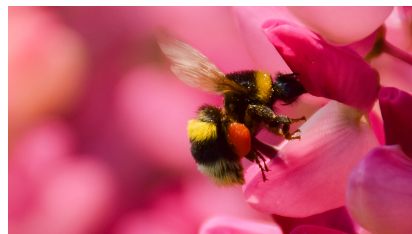
Communication is important for the bee colony and it is similar to that of man. Bees are able to respond to various stimuli such as light, chemicals, and physical movement using their sensory organs. Communication serves many purposes in bees including:

Safety of the colony

It is required for mutual protection. It is a way of signaling the colony about potential danger around them.

Food sources

Bees are able to communicate to each other about various sources of food. This is necessary for the survival of the bee colony.



Young ones

Within the bee colony is a beehive of activity including nurturing for the young ones. All these activities are well coordinated thanks to the way bees communicate. Without communication it becomes difficult to segregate duties within the bee colony.

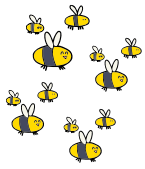
Procreation

It proves impossible to accomplish mating if there was no way of communicating. The bees are able to signal each other when it is time for mating and this helps build the future generation.

Honey comb construction

Communication is required during construction of honey combs. Bees are excellent at doing their work since they are highly organized. The worker bees are able to carry out their duties since they can communicate with each other.



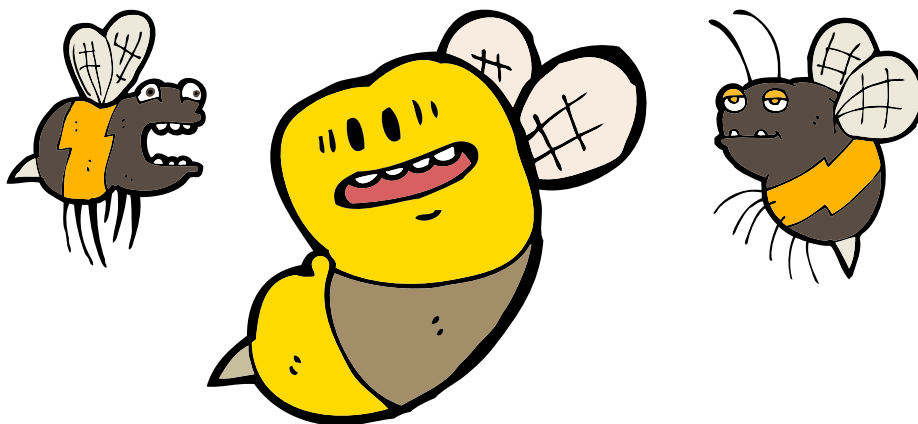


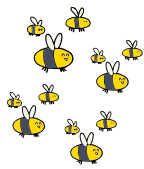
COMMUNICATION TYPES IN A BEE COLONY

One of the most popular types of communication in honeybees includes chemical communication this is highly developed and is also referred to as pheromone communication. It is used when communicating needs that include food sources, mutual protection, or mating. The pheromones are the chemicals secreted by certain glands. Some of the pheromones secreted by bees include; sex attractant, alarm odor, scent gland secretion, aphrodisiac, queen substance, swarm orientation pheromone, and swarm stabilization substance. All these substances are important to the bee colony.

A second type of communication in bees is the mechanical type which entails touch, sound, and optical communication. The antenna does an excellent when it comes to mutual begging or dancing. The bees also use sound signals in communicating. As for optical communication, this is used during dances.

Just like in the wild or outside hive, the bees will communicate within an indoor beekeeping system. The design of the indoor hive makes it possible for the bees to thrive and still venture outdoors as usual. Bee behavior is important and hence the need for every beekeeper to get acquainted with how bees communicate and behave.





WHAT ABOUT SWARMING

When it comes to swarming, any indoor beekeeper should be well acquainted with this natural phenomenon in bees. It mainly occurs as a way by which the bee colony can increase their numbers and proliferate the future generation. Overcrowding in the hive is one of the reasons for swarming.

As numbers increase, the bees rear additional queens in preparation for swarming. They will then split into two and depart. Swarming occurs during flowering seasons and literally means a loss of economic value to the beekeeper. Remember a swarm is made up of a queen bee and a number of worker bees.

Some common causes of swarming:

- Overcrowded hive which results in insufficient queen substance.
- Natural drive, common with certain bee strains especially within the tropics.
- Seasons – space declines immensely during honey flow seasons when most of the comb cells are rich with honey. This forces the bee colony to divide.

You can prevent swarming

Despite the fact that swarming occurs naturally in bees, it is possible to watch out for signs and prevent it from occurring. Some of the signs of swarming in honeybees include:

- Swarm cells built along the edges of combs.
- Bee clusters at hive entrance.
- Lots of drone cells and drones.
- Bee behavior becomes aggressive.
- A characteristic rocking movement of the bees.
- A hissing sound produced by the bees.



How to Prevent Swarming

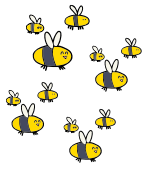
Once you notice some of the signs of swarming, you should take corrective action. Do the following to control swarming:

- Divide the colony – this will create more space in the hive.
- Swarm cells should be destroyed to prevent the emergence of new queens.
- Switching weak colonies with stronger ones so as to boost the weaker ones.
- Changing queens in what is referred to as de-queening and re-queening. Introduce another queen that does not tend to swarm.
- Clipping queen wings is another temporary solution.

Other common beehive challenges include absconding and migration. The bees will migrate due to genetic factors, when seasons change, and when there is scarcity of nectar and pollen.

Absconding on the other hand occurs when there are pests, diseases or predators. Unfavorable weather, chemicals, fire, and poor management also cause absconding. You can prevent these through proper hive management.





WINTERING INDOOR BEES

Winter is a tough season for bees whether they live in the wild or indoors. As an indoor beekeeper it is your responsibility to ensure that the bees stay in a favorable environment during winter months and all other seasons. Wintering in indoor beekeeping entails the following:

Temperature control

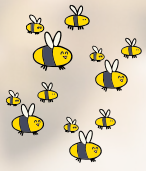
It should be approximately 5°C or more or less by 1°C. Anything above or below this may result in bee consuming the honey reserves. Install a temperature control system and if possible use a back-up power supply.

Ventilation

Ventilation should be adequate within the indoor hive. Remember honey bee colonies produce excessive heat, moisture, and carbon dioxide due to respiration and therefore adequate ventilation is required. This will help eliminate excess heat, carbon dioxide and heat generated when multiple colonies are wintered indoors

Avoid any disturbances

Indoor hives should have the least amount of light and should be free from noise and vibrations. Lights should be minimized or avoided if possible. You can use light traps at hive entrance, use window coverings, build two set of doors as entry points to the building, or install red indoor lighting. All these will help create an environment that is favorable for indoor bees.



A FINAL WORD

Indoor beekeeping has gained popularity with the hobbyists and small-scale beekeepers. The advent of the BEEcosystem in particular is a complete game-changer. You can now keep bees even within an urban setting. However, beware of the state regulations before you begin keeping the bees.

Are you an indoor beekeeper or have you ever tried indoor beekeeping? Leave a comment below and let us know what your experience is/was like.