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How to Start a Honey Bee Farming Business

HONEY IS ONE OF THE OLDEST SWEETENERS ON EARTH. LUCKY FOR US, IT ALSO HAS MANY HEALTH BENEFITS AND USES.

ZAMBIA AGRIBUSINESS SOCIETY | Lusaka, Zambia

How to Start a Honey Bee Farming Business

— Production guidelines —

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Zambia Agribusiness Society

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How to Start a Honey Bee Farming Business

Figure 1. Honey on the honeycomb

Introduction

Rearing of honey bees is called *Apiculture*. Keeping bees at a large scale for commercial purposes as a business is increasing in this fast growing world.

Apiculture is related to agriculture or is a part of agriculture.

Apiculture or bee keeping business need less investment of money and labourers with great care of them and a strong relationship between the human being (beekeeper) and the bees. It is not too hard to keep bees as a business; if you did not have some knowledge about them and the apiculture since bees are wild in nature. One can easily learn apiculture and can earn more money as profit with less effort.

Honey is one of the oldest sweeteners on earth. Lucky for us, it also has many health benefits and uses. Honey is so good and is listed as power foods that should be in your kitchen right now.

Read on health benefits of honey and make use of this golden sweetener.

- Honey cleans blood and arteries.
- Use of honey is also beneficial to the throat infection.
- Use of honey by children is the best technique to increase their memory power at the small age

- Use of honey avoids a cough, colds, digestive problem, eye disorders, blood pressure etc.
- Honey is also used in the cosmetic
- A teaspoon of honey with fresh butter prevent you from fever.
- Use of honey provides lots of energy to the body & helps in increases athletic performance.
- Helps prevent cancer and heart disease.
- Reduces ulcers and other gastrointestinal disorders: Anti-bacterial and anti-fungal

Hence, above are some of the health benefits of using the honey in our diet. From the above mention, it also has some more advantage.

Types of Honey (Most Popular)

There are more than forty types of honey, each with unique properties & a distinctive taste. Each kind of honey has different types of flavonoid profiles which depend on the floral nectar source. The most popular of the honey are:

- Alfalfa
- Manuka
- Blueberry
- Clover
- Wildflower
- Buckwheat
- Orange Blossom

However, the honey quality varies for each type. Darker & denser honey contains a higher amount of antioxidant content. Monofloral honey (honey from a single plant species) contains the lowest glycaemic index (GI). For example, the honey found from Black Locust tree; named locust honey has 32 GI while the commercial honey; named Clover honey, contains highest glycaemic index (about 70)

Honey beekeeping has a rich history; the text of our ancient ancestors has shown that the first sweat tested by them was honey only, from bees which dwelt in the mountain caves and forest. Our ancestors discovered bees hive for that divine gift; named honey. It is then followed by the poor landless and unemployed people and spread over with time. The technique of beekeeping can vary from person to person, and from region to region.

There are two techniques;

1. Traditional and
2. Modern Honey bee farming

Here is a complete detail on both of these techniques:

Traditional Bee Farming

This technique was practiced from time immemorial by the Indian people. People used to maintain bees in the old-fashioned clay houses, in wooden logs, in the hollow of the tree stem or in the cracks of the wall, and much more.

To get honey from honey-filled roofs, chopped “chhattas” are either squeezed or boiled on a fire and is the common idea used by the Indian people. Then filter that collected honey with a clean cloth. By following this method, you will get only muddy and unclean honey, which is sold at a lower rate in the local market. Since there are many imperfections in the removal of the honey from the bees’ hives by the ancient times.

So to get improvement in the production of the honey, modern techniques are developed by the new generation, which is detailed below.

Modern Bee Farming

This technique has also been developing from a long time ago and is popularly run by most of the new bee farmers. In this technique, bees are followed in the modern man-made wood contaminant and are called as modern beekeepers. Bee rearing in a wooden box is also beneficial because it does not harm the bee eggs since it is protected by the wooden box. Honey can also be easily taken out from the box by the beekeeper. Since proper care and a relation of the beekeeper with the bees are the main factors which affect the production of the honey. One can easily earn high amount of profit with low investment.

Raising the Bees in a wooden box is also beneficial because it does not harm the bee eggs since it is protected by the wooden box. Honey can be easily taken out from the

box by the beekeeper. Since proper care and a relation of the beekeeper with the bees are the main factors which affect the production of the honey. One can easily earn high amount of profit with low investment.

There are many techniques in the modern bee farming. The various techniques are listed below in more detail: –

- Top bar hive method:

This method of bee farming is highly adopted by the people because of its advantage:-

  - Top bar hive is light in weight.
    i. It is too easy to harvest honey in the top bar hive method
    ii. Bees experience low stress while creating honey through Top bar hive.

Top bar hive method has been used as traditional method in many countries; i.e. in Greece and Vietnam for over a long time and this method is common in Africa for honey collection. Top bar hive does not have any frame, because of this, the comb cannot be reused after one-time honey extraction. Which further result in less honey production and finally affecting the profit also. This method is followed by those people, who are keener on having bees in their garden than in honey collection from these bees.

The initial investment in this method is low and require little equipment than the other methods.

However, this method has some disadvantages, listed below: –

- Usually, comb becomes fragile and it is hard enough to collect honey from that.
- These combs could be re-used by the Bee for letting additional honey into that comb.

a. Horizontal Frame Hives

This method is better than the fixed comb method and top bar hive due to the mobile frame which is used to collect honey. In this method, after a one time collection of honey from the hive, one can set it again for recollecting the honey.

This method is widely adopted for commercial honey collection. Generally, it can be maintained well for tropical agriculture.

b. Vertical Stackable Frame Hive Method

This method is commonly used by the people of the United States and other surrounding countries. The main advantage of this method is the large size of the hives. The Rose hive is the latest modified design of this method.

The major weakness of the Rose method is the space needed. It requires 2-3 boxes as big as the nest. So there is need of lots of frames when one is going to raising the bees as a business. It has been assumed that Rose method bear all the advantage and limitation of this type of method. In this method, there is additional brood and one can easily increase his hive by adding framed boxes to the main hive. This will give advantages to you as you can collect all the honey by removing the entire box of honey in the place or removal of single frame box at once.

Bee Colonies:

Castes in the bee colony

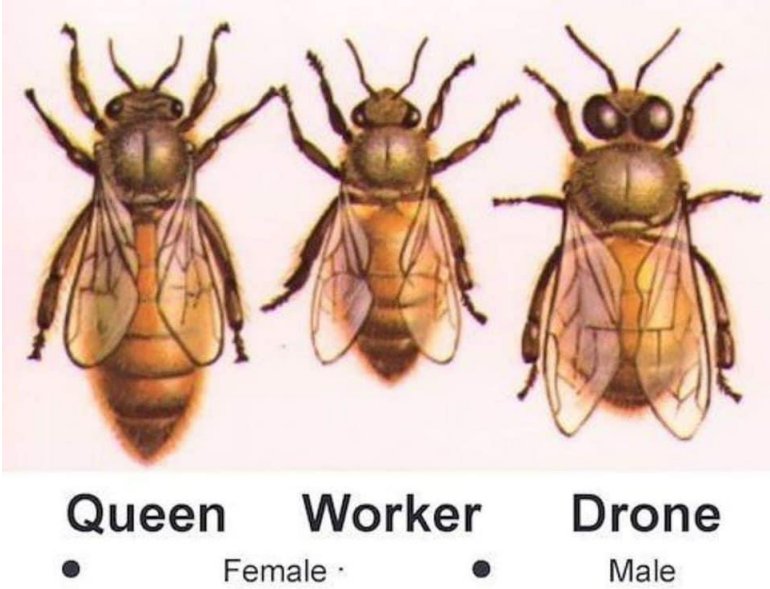

Figure 2. Castes in a bee colony

Each and every bee colony is made up of three types of bees; castes in the bee colony is according to bees' work. These three are: –

- **A queen bee**; usually, the only single fertile female of the colony.
- **Female worker bees**; which are present in large numbers, generally around more than 30,000 in a particular colony.

- Male drones; which are present in hundreds of numbers in a particular colony for the breeding purposes.

Different Species of Honey Bees

There are 5 important species of honey bees and they are listed below.

- Indian hive bees
- Little bees
- Rock bees
- Dammer bees or Stingless bees
- European bees or Italian bees

Advice before Starting a Bee Farming Business

Beekeeping business needs some field related knowledge and also the practical knowledge of the bee-human relation, etc. Here below are some of the suggestions to the new grower for how to start the bee farm and how to make it more and more profitable.

Bee-Human Relationship. First off try to understand well the relationship between the human beings and the bees by visiting the bee farm; nearby your region and try to raise your experience with the bees' colony. It will help you to manage well these bees from start onwards.

Construction of Bee Farm. Learn the construction and management requirements for the bees and try to prepare better systems for them.

Toolkit. Think about the tools to utilize for the beekeeping business and related things before starting it. It will help to manage your investment well.

Size. Start raising bees at the small level, in the beginning, generally fewer hives so that you can manage them well and able to draw out your mistakes from the start of the business. You can increase your beekeeping business with your increasing experience.

Equipment. You must take care of the equipment used for the raising of bees. Take care that they should be prepared in accordance with the local environment. Equipment has a big role in the success of bee farming since proper use of them increases your profit and also the experience of good bee farming.

Marketing. Think of marketing your business and try to contact your customer from the beginning onwards. Usually, the bakeries and chocolate makers are the biggest customers which use honey regularly during the whole year. Try to contact them directly.

Basic Requirement of a Honey Bee Farm

Here are some basic needs of the bee farm by which one can improve his honey collection: –

- **Clean water source**; by natural or artificial source should be available.
- **Tree covered area or shade**; so that bees can shade from the excessive heat of the sun.
- **Cool atmosphere**; Try to maintain the moisture of the surrounding. It will affect your profit. Excessive moisture will affect the honey bee farm and also the honey ripening.

Basic Requirements to Start a Honey Bee Farm

To start a commercial beekeeping business, we need some basic requirements for the honey bees. Below is a list of these essential needs, learn them:

You should be well aware of the human-bee relationship because a happy relationship with your bees is cause to quality honey production in higher amounts & they do not leave your hives.

You should have a good knowledge of bees' colony & local flora.

Site Requirements in Honey Bee Farming

Selection of a suitable site is also an important task. A proper site for your beekeeping business leads to better results by more honey collection. So, in the selection of the site for your bees' farm, learn the following.

Select a location for your farm which has a dry atmosphere with no dampness. A high RH level in your atmosphere will restrict the bees flight while collecting honey & also in reaping the nectar. As mentioned earlier, a good source of clean water is essential for the quality production of honey. So, provide a pure source of water; natural or artificial. Also, trees in your bees' farm will provide you a shady & cool place, which protect from the wind. Your site should contain at least some old hive to realize the bees, a sympathy toward them. If not present, construct an artificial one from wooden materials. Also, pollen yielding plants are essential around your bees farm because they directly

enhance your honey collection via providing a good source of pollen for the bees & also, minimize their traveling distance for collecting honey. This causes fast & quality collection of honey.

Equipment Needed For Honey Bee Farming

For commercial beekeeping business, you need some essential equipment to conduct different kind of activities on your bee farm.

Here is a list of all the equipment, which is essential for bee farming. Acquire them

- Honey Extractor
- Bee venom Collector
- Smoker
- Food graded plastic made queen cage
- Queen gate
- SS hive tools of L shaped & curved shaped
- SS knives
- Pollen Trap
- Royal Jelly production & extraction Kit
- Thin & thick beekeeping brushes
- Iron hive tools of L shaped & curved shaped
- Hive gate
- Propolis Strip
- Queen Excluder
- Queen rearing kit

However, a visit to your nearby apiary is a good idea to know more about those essentials of beekeeping business.

Management of Bees for Pollination in Honey Beekeeping Business

A good source of pollen for your bees is essential for your business because it directly influences your profit via enhancing rapid & quality honey collection.

To save your bees energy, it is better to place the honey collection hive near to any pollen yielding plants because they directly enhance your honey collection via providing a good source of pollen for the bees & also, minimizes their traveling distance for collecting honey. This causes fast & quality collection of honey. Also, if you want to migrate the bees hive, then migrate them near to any yard, in the start of flowering, just after that. Place honey collective hive to provide a site for your bees. It is likely more beneficial to place 5 hives for the Indian bees. Provide enough place to the bees for the collection of honey pollen & to store that collected honey.

Pests and Diseases

Pest:

The common insects or pests that attack the bee hive are parasitic mite Varroa destructor, Wax moths, Wax beetles, Brood mite, Wasps, Tracheal Mites, Ants, Birds, Bee mites, etc.

Disease:

The common insects or pests that attack the bee hive are European foulbrood disease, Sac-brood disease (SBV), stone brood disease, American Foul Brood, Nosema Disease, Thai sac brood virus (TSBV), Chalk brood disease, etc.

Controlling measure

Please consult your local horticulturist for controlling particular pests & diseases, observed on your farm

Benefits of Bee pollination

Crops that benefit from Pollination

Vegetable crops: Cucumber, carrot, pumpkin, coriander, cabbage, cauliflower, melon, onion, radish & the turnip crop.

Fruits & nuts: Apricot, strawberry, apple, almond, peach, citrus, & the litchi crop

Harvesting of Bee Products in Honey Bee Farming

Friends! Honey beekeeping business is a multipurpose business. Along with honey collection, beekeeping business has many other products that should be harvested timely to get more profit from it.

The main products of beekeeping business are Bees Wax, Bee Venom, Honey, Propolis, Royal Jelly, & Pollen. However, the main product is the Honey. Timely and proper harvesting of honey is more beneficial to the grower.

So, for collecting good quality of honey, start collecting honey in the ending of flowering season. The method of collecting or harvesting honey varies on the basis of honey collecting hives, used for bee farming. Like in top-bar hives & in traditional hive, harvesting of only those comb should be done which contains ripen honey with fine layer surrounded by white beeswax. However, there are many honey extractor equipment which are available on the market. Acquire a good one & make use of it for honey extraction from super comb.

Conclusion

Commercially, the business of keeping honey bees is the most profitable one that can give you rapid income in a very short time. As there is great demand for honey in the market because of its lots of health benefits, there is no need of marketing your business.

Anyone can start this business at a small scale or as commercial business. If you want to start this beekeeping business at large scale, with an initial investment of about 1 or 1.5 lac, you can start it. It is a good thing to start with less hive, because it will help in raising your practical knowledge of bee farming with low care & management. Initial investment depends on your strength and the best time for starting this business is to start in late August to early September.