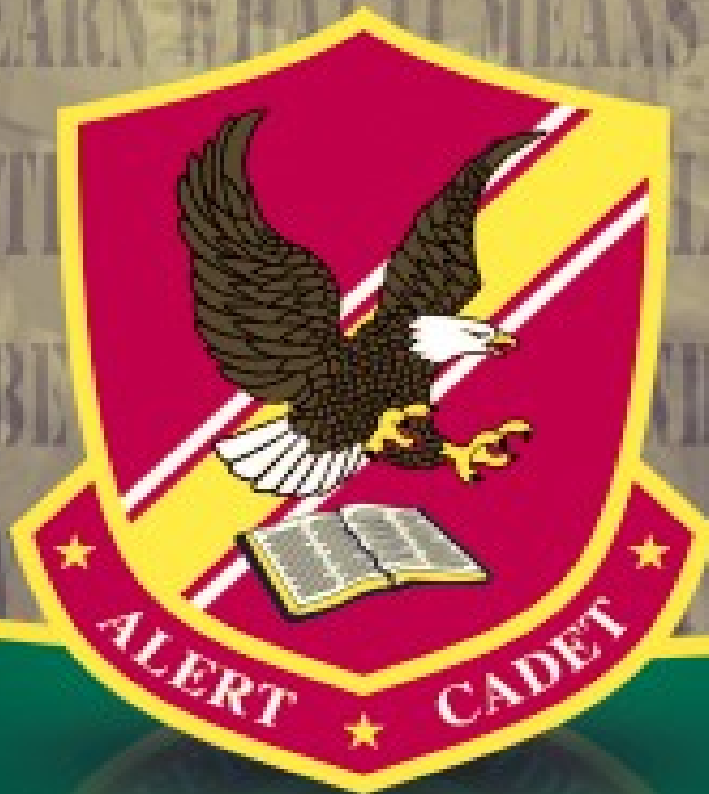


BEEKEEPING Specialty

by
Spc. Timothy Bongard



Specialist Project

Advanced Level

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1.

WELCOME

In this Specialty Handbook on Beekeeping, you will learn how to buy the equipment you will need, prepare an area for your beehive, set up a beehive, put the bees into the hive, take care of them, and eventually harvest some well-earned honey! **WARNING:** If you are allergic to bees do not try bee keeping!

You will get the chance to work hard, get stung:), and memorize Scripture and a character quality that you will be able to put to use. Work hard and try to learn as much as you can. The more you know, the easier it will be to work on your bees and hive!



Imagine when your house caught fire you called 9-1-1, and the firefighters were told there was a fire. Instead of rushing, they walked to the engines and slowly drove to your house. The fire might burn your house to the ground because the firefighters were lazy. Well, some of us have a bad habit of doing that same thing, even if it isn't as serious as a fire. If we aren't diligent as a floor sweeper or a room cleaner, how can we be trusted to be a diligent firefighter?

Have you ever been tempted to lay around and allow others to do the work? When we hear Mom say, "time to clean your room," do we feel like saying, "I did it yesterday. I don't feel like doing it today," or "sister can do it"? Even if we do the job that we were asked to do, why do we sometimes take twenty to thirty minutes to do the job that was only meant to be a ten-minute job? We are just being lazy.

The Bible says in Colossians 3:23-25, "And whatsoever ye do, do it heartily, as to the Lord, and not unto men; knowing that of the Lord ye shall receive the reward of the inheritance: for ye serve the Lord Christ. But he that doeth wrong shall receive for the wrong which he hath done: and there is no respect of persons." So, if we are half-heartedly doing the jobs that we are told to do, we are not doing them as unto God.

Have you ever seen a honey bee flying from flower to flower? Have you wondered what they were doing? The bees are collecting nectar to make honey. It takes twelve bees an entire lifetime to make one teaspoon of honey. Those twelve bees have to visit at least two million flowers.

In a hive there is generally one queen bee, a few thousand drones, and tens of thousands of worker bees. Worker bees are the most diligent and hard-working of the three. They are always working on making honey, feeding larva, collecting nectar, and protecting the hive. If the worker bees weren't diligent, the hive would die off, because none of the other bees would get fed.

3. While the worker bee is the best example of diligence, the drone is the epitome of laziness. They mate with the queen and then sit around and eat from the honey that the other bees make.

The queen regenerates the hive by laying upward of two thousand five hundred eggs per day, which means in a queen's lifetime, she can lay up to two hundred thousand eggs! That's a lot of eggs! If a queen honey bee were lazy, the rest of the hive wouldn't be able to survive.

It is the same way with us. If we aren't diligent, nothing will get done. The rest of our "hive" will have a very hard time being able to do everything.

Diligence

VS

Slothfulness

**Visualizing each task as
a special assignment from
the Lord and using all my
energies to accomplish it.**

4.

Now, memorize the character quality on the previous page and quote it to your dad/son. On the lines below, have your dad/son help you write three goals for three ways you can be more diligent in the jobs/chores you do.

Example: When dad tells me to stack a row of wood, I will do it diligently instead of slowly.

#1:

#2:

#3:

Now ask your mom/wife two ways she thinks you could improve in diligence and write them below.

#1:

#2:

Now establish with your dad/son dates for when you will have your goals accomplished. Write them down below and have your dad hold you accountable to them. Even if you “*accomplish*” your goals, never quit working on them.

#1:

5.

#2:

#3:

#4:

#5:

SCRIPTURE MEMORY

Memorize and quote the following verses to your father/son.

Proverbs 10:4 “He becometh poor that dealeth with a slack hand: but the hand of the diligent maketh rich.”

Proverbs 12:24 “The hand of the diligent shall bear rule: but the slothful shall be under tribute.”

Proverbs 13:4 “The soul of the sluggard desireth, and hath nothing: but the soul of the diligent shall be made fat.”

Proverbs 22:29 “Seest thou a man diligent in his business? he shall stand before kings; he shall not stand before mean men.”

6.

PREPARATION

First thing you need to do for preparation is to find a location where you will put your hives. You won't want them to be where they can get flooded, so higher ground would be better.

Also, you will want the area to be level. You can level it by putting wood under a crate on the side that is lower or you can just level it by digging.

You might want to consider putting them well away from where kids or pets will be. If you have a hedge or solid fence between the hive and the yard that is used by family and pets, when the bees leave the hive and return to the hive they will travel no lower than the height of the barrier you have created.

You can put the hives in the woods, but the edge of the woods, or a field, will be better because the sunlight will hit them more.



7. To prevent rotting, you want the hives to sit on something such as a hive stand, a hive pallet, a regular pallet, or something you make that will keep the hives off the ground.

Next you will want to fence in the area to keep out animals. If you have bears you may want an electric fence. Make sure you put a door in the fence for you to get in and out.



There are many tools needed for beekeeping. First, you will need a hive tool, which is used for prying supers, brood boxes, frames, and lids. Also, it can scrape wax off the top of frames and other things.

The next tool is a smoker, used to make the bees move. Most people burn cedar chips, but you can use any kind of wood chips. With the smoker, you might also want to get a torch to start the smoker.

8.

Start the smoker by putting in a handful of wood chips and lighting them on fire. Let the chips burn for about thirty seconds before adding more wood chips until you fill it up, giving the smoker ten to fifteen rapid pumps of air until it starts putting out a lot of smoke.

You will need a varroa mite checker and 70-90% **cleaning** alcohol for use with the checker.

If you don't like to be stung by bees, you will need protection. You can get a hood, a half-body, or a full-body bee suit. Most people prefer the half-body bee suit because it is easier to put on, take off, and move around in. You can get gloves, but if you have more than one hive you take the risk of spreading diseases from hive to hive. Choose according to your budget and anticipated preference.

For harvesting honey, you will need an extractor. Options are electric or hand-crank. If money is the main concern, start with a hand-crank extractor. For an uncapping knife, there are electric and non-electric versions. Both of these usually can be bought online or at a local bee or farm store.

Also needed are a capping scratcher and, for extracting, two food-grade buckets. On one of them you will want a spigot at the bottom for bottling honey. For the hive itself, you need to decide whether you want a ten-frame or eight frame hive. A ten-frame hive will hold more honey and give the bees more room, which optimistically means getting a larger quantity of honey when you harvest.

If you get the eight, you may have to add more supers/brood boxes because if the bees feel cramped for space they might swarm. However, the ten is more expensive, much heavier when it is full of honey, and takes up more space when stored.

The hive usually comes with a base, two brood and super boxes, a queen excluder, and a lid. When you have everything needed, it is time to purchase the nucleus colony (nuc), which is a small, established, and fully functioning honey bee colony. It comes in a box with five brood frames. Three of the frames will have brood in all stages, one will have honey, and the last will be for extra room.

9.

The final step is to assemble the hive and nuc/hive package together. First, put the base on the hive stand/crate which you prepared earlier. Second, put the brood frames into the brood boxes and put them on the base. Third, put the queen excluder on top of the brood boxes to keep the queen from laying eggs in your honey. Fourth, put the super frames in the super box/boxes and put it/them on top of the queen excluder. Don't put too many supers on, but enough so they don't feel tight. Lastly, put the lid on top.

When you get your nuc, you will take out the frames out of your bottom box and replace it with the ones you bought. If there is lots of pollen when you get the nuc, you shouldn't have to feed them. But, if you get them in early spring or late fall, feed them, so they can make wax and honey, for about three weeks using a sugar water. You can buy a feeder or just make your own.

Check on the hive at least once a month throughout the year. To keep them from swarming, you want to be sure your bees have enough room.

You are also checking for varroa mites, a parasite that attacks honey bees. Too many varroa mites is a common cause of hives dying. For this check, you need a cardboard box, the mite checker, and cleaning alcohol. Into the checker, pour the alcohol up to the fill line. If it does not have a line, put in approximately one cup. Then take out a brood frame, but be absolutely sure that the queen is not on it. She is larger and has no hair on her abdomen.

Next, knock as many bees as you can from a brood frame into the cardboard box and pour about one-half cup of them (approximately three hundred bees) into the checker. With the lid on, shake the checker lightly until the bees die, then hold it right-side-up and count the mites at the bottom.

If there are over three mites, you need to use some type of varroa mite treatment such as Formic acid treatment. You can look up more treatments or ask a local beekeeper what they use. To avoid having the bees becoming immune to the treatment, do not use the same treatment more than twice in a row.

Project 1

10.

Have your father/son help you make a list of the tools above. Then as you get them, mark them off below until you have them all.

Using the checklist below, collect the needed tools.

For the hive:

- :Hive tool
- :Varroa mite checker
- :70-90% cleaning alcohol
- :Smoker
- :Wood chips
- :Torch (optional)
- :Bee suit (hood, half body, or full body)
- :Bee hive
- :Nuc
- :Paint brush (not made of animal hair)

For harvesting:

- :Extractor (manual or electric)
- :Uncapping knife
- :Capping scratcher
- :Food-grade buckets (2)
- :Spigot
- :Cheese cloth/honey filter
- :Canning jars/honey containers

Before you start harvesting, you need to research for your area when are the honey flows are. After a honey flow, you can check your supers, and if they have capped honey, you can harvest it. Capped honey is when the honeycombs are full of honey and have a wax layer on top of the cells you may not be able to harvest any honey your first year.

At the time you choose for harvesting, you start by collecting the supers. You will want as many bees as possible out of the supers when you take them to where you will be extracting. Open the lid and take each frame out, brush the bees off and put each frame into a separate, empty box. If you choose to smoke them, make sure you don't smoke them too much or your honey will start to have a slight smoky taste.

When you get the full supers to where you are going to extract, take out the frames one at a time, using the hive tool if needed. Then, use the uncapping knife to scrape away the wax caps that the bees have made over the honey cells.

Next, put the frames into the extractor. Don't try to fit more frames in than what it is designed to hold. Once you have spun the frames, you need to turn them around and extract the other side. Pour the extracted honey into one of the food grade buckets that you have washed with hot water. Then you can put the frames back into the supers

Make sure the bees have enough room in the hive when you are finished. You can put the supers that you emptied back on the hive to let the bees clean them up. After a few days they will be clean and you can put them away somewhere safe for the next Spring.

Now you get to bottle the honey you extracted. First, you will need to decide whether you want to use canning jars or actual honey containers. The actual honey containers look fancier, but unless you are planning to sell honey, they are not worth the added expense.

12.

The honey needs to be filtered, using a honey filter or cheesecloth that will only allow the honey through. Next, pour the filtered honey into the food-grade bucket that has the spigot.

Now put a jar under spigot and slowly turn the spigot to let the honey pour into the jar until it reaches the top. When you turn the spigot off, let the honey stop dripping before you move the jar away. Put the lid on and make sure you get it tight. Remove any honey on the outside of the jar, as honey can cause dust and dirt to stick to the jar. Now label the jar, indicating the canned honey is raw.

When you have emptied the bucket of honey, with hot water and dish soap, clean the extractor, buckets, and all the other equipment you have used. Now, find a spot where you can store your equipment, keeping in mind that the honey scent produced by your equipment can attract bees.



13.

Project 2

Have your father/son help you write a list of the people who have helped you become a beekeeper. Then take a jar of honey to each person on the list. Make sure to tell them how thankful you were for their help.

After you have written their names, write how they helped you.

(Example) Joseph Hanson: helped give advice on which hive to buy.

14.

Congratulations on finishing this beekeeping specialty handbook. Stay diligent and be a hard worker for God! Enjoy your honey!

Websites you can use to help you as you work with your bees.

AmericanBeeJournal.com

BeeInformed.org

<https://www.udemy.com/course/beginning-in-beekeeping>