
Beekeeping Made
Simple
Written By ~ Mrs. Joseph Wood

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Greetings!

My name is Jeanette Wood, also known as Mrs. Joseph Wood. I am delighted to bring to life a series of books that have been in the making for many years. The *Made Simple* collection was written in hopes of making tasks and skills from the past *Made Simple* once again. I remember the books I read, and all the questions I had when we first lived off the grid. It didn't take long before I realized that some books were written by people who had never lived like I was living. They had book knowledge perhaps but no real life experience. After some searching I found books and resources that really helped, those are the resources I have listed for you to consider in this e-book. I also found people who had lived the life we were living that could give me valuable information; information I benefit from still today. I have included this real life living type of information for you to glean from. You'll also find photos of my children, husband and myself throughout the book. This is not an exclusive source of information, but rather a helpful tool that offers you all the SIMPLE information you need to get started and keep going!

Make sure you look for our other titles in the *Made Simple* collection:

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Introduction to Beekeeping:

So you're thinking about getting your very own hive of bees? Well, then you probably have a lot of questions too. Grab yourself your favorite beverage and join me as I answer the most common questions we are asked or questions we remember having ourselves.

Timothy was five years old when he first began to sit in the apple trees with jar lids of sugar water just waiting for the bees to discover him. Timothy would sit for hours as these tiny creatures crawled all over him enjoying the tempting treat he had brought them. There were days that I would only see him if I looked out my kitchen window, where I had view of the apple trees, or if he was running full speed into the house to ask for more treats for his "friends". It wasn't long before Timothy wanted to know how these bees lived and how he could be a keeper of the bees. We started buying simple children's books about bees, then purchased some videos, and purchased more and more books. We attended State Beekeeping conventions, local chapter meetings, and talked with many professional beekeepers. Timothy was blessed with his first two hives when he was eight years old. He's learned along the way and today, at the age of 11, Timothy has six hives that are all thriving. He's lost hives due to long winters and Mommy not knowing we should have fed them, neighbors using Sevin® Dust that poisoned them, and also had to leave his first two hives in CA when we moved to KS. All in all, Timothy has done very well and is learning more and more as he works with his bees and observes their behavior.

Getting to Know the Honeybee

There are several species of the honeybee, each with their own characteristics. Timothy has both the Western honeybee and the Russian honeybee. He chose these based off of what was available in our area. Timothy prefers the Russian honeybee over the Western and is excited to expand his Russian colonies. The Russian honeybee is actually a hybrid bee that came from the Italian, Carniolan, Caucasian, a little German black bee; however, once they came to the U.S. they have been maintained as "Russian Bees" by a closed population program. Russian bees are prized for their resistance to mites.

The Western bees are prized for their ability to build up early in the spring, as well as their ability to handle the winter months. There are lists available online that can highlight the differences between the breeds. I would encourage to visit Beekeeping Starter Kit. Com where they give you a basic comparison chart highlighting the pros and cons. For our family, the main factor of the bees that we're concerned with is their hardiness, gentleness and, of course, production.

Anatomy of the Worker Bee

Timothy often tells me that if people understood the honeybee, they wouldn't be so afraid of it. Understanding not only the anatomy, but also the sociology of bees is important for successful beekeeping. I will go into the sociology of the hive later but for now let us take a look at this amazing creature, the honeybee. The worker bee, always a female, is the smallest of the hive and typically lives six weeks (they do live longer in the winter months) The drone is a male bee used for mating with the queen. They live approximately 8 weeks, never gather honey and usually die in the fall. The queen bee is the largest of the bees in the hive. She can live to be four years of age if she is healthy. It will be important for you to be able to identify a bee in the hive as you go and inspect your hives on a regular basis. We'll talk more about this later.

The honeybee is divided up into three main parts:

1. The Head
2. The Thorax
3. The Abdomen

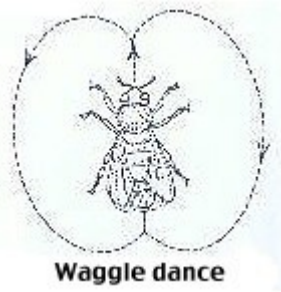
- The main features on the head of the honeybee are eyes, antennae, mandibles, and proboscis. The honeybee has two large compound eyes with over three thousand lenses that allow the bee to see ultraviolet light. Because of this special ability, bees are able to see which flowers are full of nectar. The compound eyes are also used for color, light and direction. Three simple eyes in the shape of a triangle rest on top of the bee's head. These simple eyes, also known as Ocelli, act as light sensors which can detect the sun even on cloudy days. The Ocelli is vital in telling the bee how much light is present. The Antenna is used to detect smells much like a nose. It is also used to measure the speed of flight and the direction of smells. Jaws, often

- referred to as Mandibles, are located on each side of the proboscis they are quite strong and assist the bee in eating pollen for food, cutting and shaping wax, feeding baby larvae and the queen, cleaning the hive, grooming themselves, and for fight. The Proboscis, or the tongue's, main function is for drinking up nectar, honey or water; it is also used to transfer substance between bees.
- The areas of interest on the thorax are: The forewings, hindwings, and legs. If you look at the picture above you can see the head and then the thorax directly below the head and before the large abdomen. The wings of a honeybee beat 250 times per second. While the forewing of the honeybee is larger than the hindwing. It's main function is for flight and assisting the hindwings to cool the hive.. The hindwings on the other hand are used for flight but since they are connected to the forewings with "hooks" called, Hamuli they work in harmony together creating an effective mechanism to keep the hive cool. A bee has six legs. The legs of the honeybee are for movement but also to assist in gathering treasures for the hive. Front legs move apart the flowers and dust off her antennae while the middle legs are used to brush off the pollen that collects on the hairs that cover her. The hind legs have sacks called pollen baskets. Take a look at this picture we captured of a bee with full pollen baskets. The legs carry pollen and propolis. The hair on the legs help in dusting off pollen and other substances. They also use their legs to help clean their antenna.

- The abdomen is the largest part of the honeybee, holding two stomachs inside of her. The honey sack that is used for storing nectar that she will use to make for honey later, and the other, Midgut, where she digests her food. Beeswax is also secreted on the underside of the abdomen and critical in hive development. Tucked up under the abdomen, toward the end of the bee, is the stinger. A worker bee has barbs that prevent her from being able to pull her stinger back out of her victim once she has released her stinger. This leads in her death and is something she is well aware of. Honeybees will only sting when they feel threatened or fear you stealing from their hive. A queen bee can sting multiple times and a drone does not have a stinger at all. To keep from being stung it will be critical to understand how the honeybee lives so we can prevent any unnecessary demise.

Understanding the Honeybee Behavior

You may be asking, "Why is it important for me to understand the honeybee behavior?" It is through much observation of the honeybee that we have been able to learn how to care for them successfully. Unlike the bumblebee that only has an average colony of 300-400, the honeybee will often live in colonies with 40-80 thousand bees. They communicate with dances, as well as special pheromones that give information regarding mating, food production, danger, and other important hive activities. Using pheromones, bees can tell one another when to store up on honey and when not. They tell each other where there's danger and when it's time to create a new queen for the hive. However, it is with a dance that they tell each other where to find the pollen source. Known as the Waggle Dance bees communicate by a series of movements that tell the location and distance of the nectar and pollen source using the sun as their compass. The bee dances in a half circle one direction, turns around and runs straight while wagging her tail then she dances in a half circle the other direction. The following video by PBS is a great visual for the Waggle Dance. It also includes some other information we've already reviewed in this chapter of introduction to the honeybee.



THE WAGGLE DANCE

If you are curious to learn more about this fascinating method of communication between the honeybee I would encourage you to visit: Waggle Dance Diagram

ACTIVITY: I often teach my children how to do the Waggle Dance by teaching them the behavior of the bee and then having them 'dance' to show where lunch is. It's a fun hands on activity that allows children to understand the language of the honeybee. Have the children watch the video and then discuss with them how to walk in a half circle at a rate that indicates how far away the food source, lunch, is located. The faster the loop is made the closer the food supply. Then using the sun as their compass have them walk up the center of the loop to indicate how far away from the sun the food source is located.

1 .

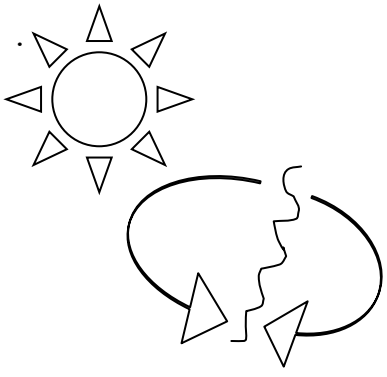
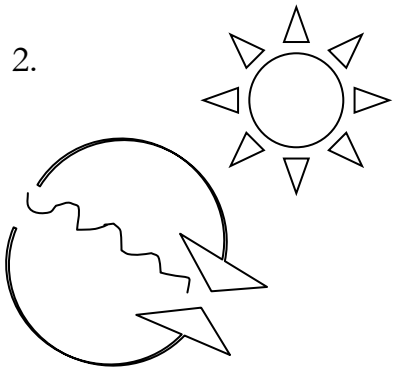


Figure 1 shows that the food source is located right of the sun where figure 2 shows the food source is to the left of the sun.

2.

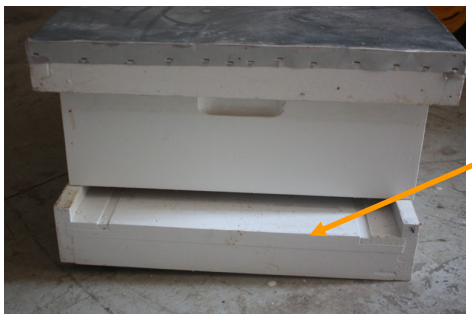


Beekeeping Equipment:

Getting started in beekeeping can seem overwhelming and expensive to say the least. Like other new tasks we take on we want to know the facts, what works, what doesn't and what's really needed for the project. I am going to list the basics of what you need to get started in beekeeping successfully. I have listed several resources of suppliers you may want to contact in our Resource Chapter. Keep in mind, I am not recommending any one specific supplier. We have purchased kits already made for us, do it yourself kits, and home made kits from friends. I would caution you from buying used equipment, as disease can spread to your healthy colony if the previous colony had a disease. I'm confident we make the right decisions when we consider the resources the Lord has given us and wisely put them to use as He directs.

Understanding the Construction of the Hive

Bees have been kept in a variety of shelters including: Skeps, logs, jars or other containers. However, in 1853 the Rev. L.L. Langstroth published a book called, "The Hive and the Honey Bee" in which he describes through his close observation and study a pattern that is now used as the standard bee hive all over the world. Boxes, and hanging frames had been discovered prior to Langstroth. It was the space requirements of bees that Langstroth is known for discovering. Langstroth noted that bees failed to build comb between a space of 1/4 to 3/8 of an inch. If the space was smaller the bees would use propolis to glue it up, and it it was larger the bees would build comb in that space. Therefore, bee hives now provide what is called "Bee space". This realization of bee behavior caused beekeepers everywhere to take note and use equipment that was recognized as "natural" to the bee. Frames in a box are not spaced at least 1/4 of an inch from the sides of the box and not more than 3/8 of an inch. This space 'discovery' was also applied to the boxes and inner covers. When this "bee space" is violated, the bees will cement everything together, making it almost impossible to remove frames or boxes. Therefore, while bees have been kept in all sorts of shelters, none have been as successful as our modern beehive equipment. Let's take a look at the equipment in detail. A hive is made up of several parts, each for their unique purpose.



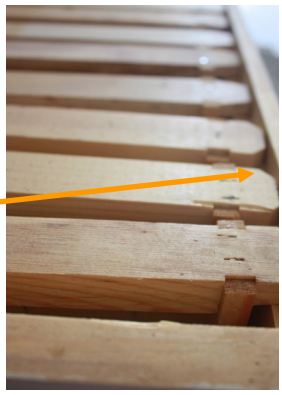
Beekeeping Equipment Description with Photos:

Bottom Board- The bottom board is used to support the hive as a "floor" to the hive with a 3/4 inch rim around three sides and open on the front. It extends

about 2 inches in front of the boxes which rest upon it. This space in front of the hive entrances is called a "landing" and is carefully guarded by guard bees against "strangers" such as bees that do not belong to their colony and wasps. It's fun to note that the guard bees will not allow "strange" bees in the hive unless they come bringing food for the hive. I guess we could all learn a lesson or two about hive hospitality.

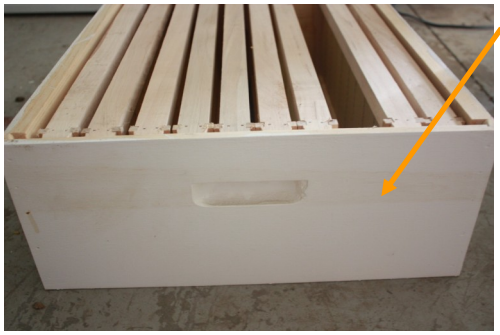
Entrance Reducer– Is used in association with the bottom board. It is a thin piece of wood that is used to restrict the entrance of the hive so that the front opening is substantially smaller. This prevents drafts from entering the hive, as well as mice that may be looking to make a home in the hive over the winter. Typically, this equipment is used in the winter or with a weak hive.

Hive Body– Each of our hives have two hive bodies. However, when you're first starting your hive you will only put one hive body on your bottom board. Too much room leads to doodling which is where the bees start making a mess and creating extra unnecessary comb. Bees grow and multiply fast so I would encourage you to buy everything you need for one complete hive even though you only start with one box. I would imagine under good circumstances you could be putting the second hive body box on in a less than a month. You may be asking, what is the hive body? Let me explain. The hive body is a box can vary in size depending on where you make your purchase. It is the inside dimensions that are critical! The inside dimensions based off the Langstroth 10 frame hive will be 9 19/32 inches in height by 14 11/16 inches from side to side on the front of the hive to 18 5/16 inches from side to side for the side of the box. A rabbet is provided on the top side of the box fronts which the hanging frames use as a resting place.

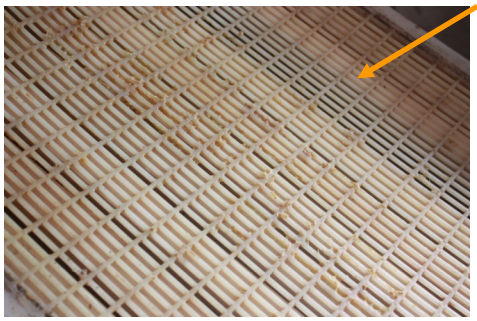


Frames– A frame is made up of a top bar, usually 1 1/8th of an inch wide and 19 inches across the top. There are two sizes of frames. One for the body hive where bees build comb, brood, and some honey. The second is for the "supers" I will talk about that part of the hive in just a moment. You can purchase frames that are empty on the inside (have no foundation).

I don't like this method since it delays honey production because the bees must first be busy building the wax comb of the frame. We typically use frames that already have a foundation included. We have used both the wax and the plastic foundation. The nice thing about the wax frame is that when you're collecting a swarm they will more easily go where there is wax. We haven't had really good results with the plastic frames being that attractive to the swarm we tried to collect. It's important to note that frames come in different sizes, as you can see in the photo. Make sure you buy frames that are the correct size for the box you are using. If you buy a kit often the frames are included. Make sure you get a 10 frame hive box since they are the most universal and you won't have a problem with adding equipment in the future. Some special notes to mention about the frames: You'll notice that each cell has six sides. It's also important to note that while the bees build on these frames they have the cells tilted back so that the honey doesn't simply spill out. This is why an extractor is needed when harvesting honey and why we can just tip the frames over and pour the honey out. Also note, that if you don't fill your hive body with frames, you'll have yourself one big mess to deal with. Refer back to my notes about "bee space" and you'll understand what will happen if bees don't have their optimum space for building.



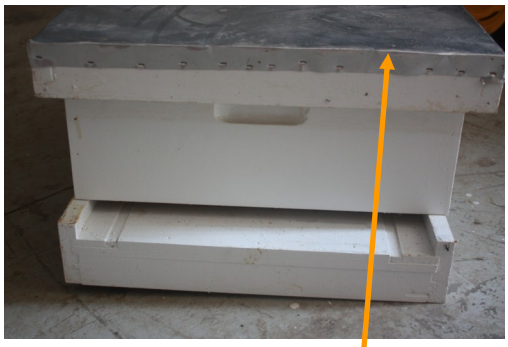
Supers- Supers are boxes used to collect the surplus honey from the bees. They look just like the hive boxes but are typically much smaller. They come in a few different sizes. Shallow supers are 5 3/4 inch and use 5 3/8 frames. Medium supers are 6 5/8 inch and take the 6 1/4 inch frames. Deep supers are 9 9/16 inches and use the 9 1/8inch frame. There are also comb honey supers but that's another conversation.



Queen Excluders– A queen excluder is a plastic screen with openings large enough for the worker bee, but too small for the queen to get through. It is used to keep the queen out of your supers so that you don't have the bee larva in the cells. The worker bees will go up to the supers once they need the extra space for honey storage and start building comb and honey on the foundation you've provided. Because we want to do everything as natural as possible, we will not take all the honey from the hive. While we might give them a couple of supers we will only take a few frames of honey and leave the rest for them in the winter

months. When we prepare our hives for the winter we remove the queen excluders and the all the bees will now eat freely from the supers until the Spring harvest is abundant once again.

Inner Cover– An inner cover is used to provide insulation against heat and cold as well as prevent the bees from gluing the top cover and the top of your hive frames together. When you use an inner cover, removing your top cover is easy and helps you with access to the hive.



Top Cover– The top cover fits on the top of the hive and is usually telescoping down around the inner covers and an inch or so down over the top super. This picture shows what is called a telescoping cover.

Feeders: Top Feeder vs Entrance Feeder–

Timothy prefers to use the top feeders instead of the entrance feeder since it means fewer trips to the hive. With the entrance feeder it's not uncommon to have to refill it every other day. I had a bad experience with a top feeder that was allowing the bees to get into it and then drown. I guess for me it's just safer not to take the chance and make extra trips to the hive instead. I also like to use the entrance feeder when I am treating my hive with raw apple cider vinegar, something we'll discuss later.

Bee Brush– The bee brush is nice for being able to gently remove bees from the frames as we inspect the hive for a productive queen, mites and frame condition. It is one tool that if you had to wait you could. They are nice and inexpensive but when you're trying to frugally get started I understand every penny counts.

Hive Tool– The hive tool may appear insignificant however, a good hive tool is indispensable. Hive tools are used to pry hive bodies and supers off when the bees have used propolis

to seal them together. It will only take you one time trying to pry these boxes or frames apart by hand to decide that the hive tool is a good friend to the beekeeper. You could easily use a screwdriver too but the problem that we've found with that is that people actually take it and use it for a screwdriver and then it's hard to locate when we take our regular trip to the hive. The hive tool is a good investment in my books!

Smoker– As a beekeeper your best tool, in my opinion, is your smoker. However, you must know how to use it, and use it correctly. It is best to use a dry material, we like to save the lint from the dryer to get our smoker started, along with some dried leaves or pine needles we have on the property. Getting your smoker started and producing a nice cool smoke for the hive is something that just comes with time. We've had plenty of learning situations with keeping our smoker burning for the duration of our inspection of the hives. Did you know that smoke doesn't make the bees sleepy? Rather, it causes them to become disoriented and go into a survival mode where they begin to collect honey from the hive that they can carry off in fear of a fire destroying them. Once their tummy is loaded up with their resources they are unable to bend their abdomen to sting and appear more calm.

Bee Suit with Veil– These can get expensive, especially the child sizes. We always go with good quality suits that include the zip on veils and quality gloves. We've learned our lesson that just because you're wearing gloves doesn't mean you won't get stung. It takes a good glove to prevent the bee from being able to get their stinger through to your skin. We've also learned that bees can crawl into very tiny spaces so the zip on veils that completely cover the head is our veil of choice. There are people that go to their hive with nothing more than a veil and others that don't even use that. Since Timothy is a child and I'm allergic to bees we've just always used much caution in working with the bees.

There are other tools such as a pollen trap, propolis trap, extractor, uncapping knife and then countless variations of the equipment. Oh, and don't forget the goodies. Lots of beekeeping goodies from jars to labels to books and décor.

On average, our hives consist of a bottom board, entrance reducer (in the winter), 2 hive bodies (with 10 frames) a queen excluder and then 1-2 supers for our honey collection. We place an inner cover on top of that, then our top feeder with a rock on top of it to protect against the high winds that we experience here in KS. We like using pollen traps, as well as the propolis traps, from time to time but only sparingly. As far as the tools needed for extracting your honey, we went our first year without having to make that investment. I would encourage you to get the basics and grow from there.

Installing Your First Package of Bees

Buying Bees

We talked a little bit about the different types of honeybees in chapter one. I encouraged you to check with beekeepers in your area and ask them where they purchase their bees from. Springtime is typically the best time of the year to get started with bees. You have a variety of options from buying a complete hive or a 3-4 frame nuc box from someone, or catching a swarm. My favorite way to acquire bees is to buy a package. Around here it is a once a year affair. A package of bees is typically 2 lbs or approximately 8000 bees. People call in their order, boxes of bees are shipped on the back of flatbed pickups, and brought to a location where we all meet for an early morning of bee pick up. It's fun to talk to others that we meet there. Some are commercial beekeepers, others long time hobby beekeepers but no matter who you talk to, if you're listening, you can glean some type of helpful information. Make sure you check the can of syrup that is in the box of bees you've picked up so that you know they have plenty of food. Also look to see that the queen bee is alive and well. She will be in a separate small cage inside your package. Take care to put your bees into their hive as soon as possible. I've heard all type of sad stories of people leaving them in the truck only to discover they were dead once they returned. If it is at all possible you'll want to install your bees before it is too hot in the day so morning or evenings are when we install our bees. Here are some steps to make sure that your package of bees are installed correctly.

1. Set up your hive box in the location of your choice. When picking the location of your hives consider the weather, need for shade, wind break, water nearby and make sure that your entrance, if at all possible, is facing toward the morning sun. Make sure to include an entrance reducer when setting the hive box up. This will be helpful for the first few days especially if there are other hives near by.

2. You'll want to make sure to have your feeder set up with your hive as well as their food. When installing a package of bees we will most often use a 50/50 sugar to water ratio for food. We've used organic sugar when we've done this. I don't use any chemicals in our hive so if you hear people suggesting you treat the hive with chemicals make sure you've thought about the consequences. I was reading a report the other day saying that bees treated with the harsh chemicals are weaker than

those hives that were not treated. I don't know the science or the research behind this study but I do know I'm not comfortable with using chemicals to treat the hive. In our Natural Beekeeping chapter I will go over some of the things we've done to keep our hives healthy, naturally.

3. Not only should you set up your hive box and feeder but make sure you have you're wearing protective gear, have your hive tool as well as a spray bottle with sugar water to spray the bees (only if it's not rainy).

4. Spray your box of bees with your sugar water syrup that you have in a spray bottle. Be liberal in this, only if it's NOT a rainy day or you'll risk making them too cold and they will die. Once you've sprayed them well then hit the box on the ground a few times so that all the bees drop to the bottom. Spray them again to minimize any flying.

5. Remove the queen cage shaking off any bees that may be attached.

6. Cover the hole in the package until you are ready to install the bees.

7. Examine your queen carefully to make sure she is still alive. IMPORTANT! Do not open up the queen cage. All too often people will make this mistake and then have the queen fly off from them. You only want to examine her through her cage. Hang the queen cage in the hive by using some wire that is on the cage to hook over a frame. Make sure the side that is screened is facing out so that bees can see her, smell her and care for her. You will leave your queen like this in the hive for at least 3 days to ensure that the colony of bees have accepted her.

8. Once your queen is in the hive you'll need to tend to the rest of the bees that have been waiting for you. Simply remove four frames from your hive body and set aside. Then take your box of bees and shake them out into the hive body box where you removed the frames. This can take a few minutes to complete. Make sure you dump some of the bees over the queen so they know she's there. Once you have the package of bees emptied into the hive, simply put the four frames back in the box.

9. Wait three days then return and let the queen out of her cage. This should go very smoothly.

10. Make sure you check your hive in about a week to make sure your queen is productive and your bees have began building up comb.

Photos of Timothy Installing a Package of Bees

I have a photo of Timothy setting up the hive. You can see he's using an entrance feeder. He also has his entrance reducer in place and is removing frames to begin the installation process.

Entrance reducer

Entrance Feeder

Spraying off the bees with a sugar water mixture to keep them from flying

Hanging the queen into her new hive

Natural Beekeeping

Natural Beekeeping offers great benefits for both the bees and the beekeeper. However, it also means that we must take great care to learn, study and examine the needs of our bees and try to find the solution naturally before it's too late.

Feeding: We had done things in a natural manner on the farm for many years when I finally started thinking about how we manage our bees. We've never used any antibiotics or chemicals in our hives but I was feeding them white sugar mixture at different times in the year. I started thinking, reading, and prayerfully considering how I can feed the bees so that their immunity is not weakened by the sugar. I don't claim to have all the answers. I still feed organic sugar to my hives but only when it's absolutely necessary. What I mean by absolutely necessary is when the bees will die if I don't feed them. I've been considering feeding them honey but my research is still incomplete. There are some that say, "NEVER under any circumstances feed bees honey from another hive" as it is possible to spread disease. There are many things to consider on that subject for now, I continue with making my own organic syrup and giving it when the demand presents its self. Since we're on the topic of feeding, I'll make note that I feed a 1:1 ratio when I do feed.

Timothy makes trips to the hive as needed or at least once a week. This trip to the hive is crucial in keeping an eye out for mites, queen cells and the overall health of the hive. It is on these trips that we enjoy bringing treasures to the bees from our kitchen. As discussed in "The Complete herbal Handbook for Farm and Stable" Juliette de Bairacli Levy observed the natural desire that bees had to eat the salt from the rocks near the ocean. Therefore, we will take Celtic Sea Salt out to our hives on a regular basis. It is important to note that common table salt can actually poison your bees and decrease their lifespan, especially if given too much. However, if you are giving Celtic Sea Salt to the bees and in limited quantities (approximately 1 scant teaspoon per quart of water) research suggests it will actually increase the longevity of your bees! If you would like to do more research on this subject I encourage you to review Bob Horr, Ph.D. who wrote an article on this exact subject for the American Bee Journal, "Salt--An Important Dietary Supplement in Honey Bee Nutrition?"

Juliette also discusses the desire bees have for fresh ground whole wheat flour. I noticed that our bees seemed delighted when we brought them this healthy supplement.

Bees would gather around us and quickly roll in the flour as we watched nearby. We would giggle when, at times, bees would become so full with flour they couldn't fly straight. We noted that they would immediately return to the hive where they would take the wheat back to the hive to use as a healthy protein source. Such an easy way to bring our bees pleasure and so much fun to watch. I want to stress that we don't provide fresh ground wheat but a few times a year;. typically in the spring as the hive is growing so large, and then again in the fall. Perhaps we should feed them more often. That's the process of natural beekeeping. Learning what the bees need by observation and offering to give them the only assistance they need not become a handicap for them. Healthy bees are strong bees and vise versa.

Other than the wheat and salt we also will give our bees raw apple cider vinegar. (ACV) Bees love vinegar, especially wine vinegar! We started doing this when we learned that one of our hives had mites. We were told to treat them chemically and after much consideration we decided to try something different. I used the entrance feeder and filled the jar 3/4 of the way with water adding 1/4 cup of honey and 1/4 cup of raw ACV. We didn't know what if anything this would do however we noticed that the bees were very happy to drink what he had brought to them. By morning the next day the jar was empty. A few days later we inspected for mites (which were pretty serious, although not completely taking over the hive). Timothy ran back to the house excited at his discovery; not one mite was seen in the hive. That's been the only time we've had mites and how we treated it. I've talked to beekeepers about what we did some think we're crazy others say they've done the same thing with successful results. However, I'm not aware of any official research available on this topic. If any of my readers find some I would love to look at it.

On page 419 of "The Complete Herbal Handbook for Farm and Stable," Juliette says, "I am convinced that the only improvement on bee organization is the use of a queen excluder, preventing the bee from laying larvae in the upper stories (supers) which make difficulties later on, when the bee-keeper desires to take away frames of pure honey without larvae mixed in the combs." I can say that I tend to agree with her. Bees are quite intelligent creatures and do a wonderfully attentive job in their survival.

Plants:

It's a common error between beekeepers to learn all they can about bees and neglect learning about the very plants those bees need for their survival and success as a colony. Here on our farm, it's not uncommon for us to plant some Kale, garlic, turnips and the

such just for the enjoyment and benefit of the barn animals. In the same token, we enjoy planting plants that are preferred by our bees. Bees love aromatic plants such as: lavender, rosemary, thyme, sage, bee-balm, basil, and marjoram. Strangely enough, they also enjoy bitter herbs such as: wormwood, rue, mints (especially peppermint), berries, roses, and most of the borage family. Bees will also enjoy fruit trees, ivy and honeysuckle. This is not a comprehensive list, only a collection of some of the favorites. I would encourage you to plant bee loved plants each year. We like to scatter wildflowers around our hives each spring. Bees will travel 2-3 miles a day to gather the nectar they desire so don't think you have to plant all of the plants next to the hives.

Pests:

The honeybee has their share of enemies from mice and wasps, to mites, ants, and skunks. We've learned a few tips to help keep these pests away from our hives. It's important to note that the healthier a hive is the better it can defend it's self from enemies such as these. It is my opinion that thinking natural in pest control is an effective solution for beekeepers.

Ants– For ants we have found coffee grounds from our local coffee shop to be quite effective. Simply scatter around the outside of the hive and the ants will stay away. You do have to replace this since the bees also seem to enjoy the cof fee. In fact, we've often teased come honey harvest season, we're curious what flavor of coffee our honey will taste like. I would also like to note that, if do decide to you use a chemical to kill ants it will also kill your bees.

Mice– We've found that an entrance reducer put up every fall has kept our hives free of mice. I know others have kept mice away with a lavender essential oil. We've never had the need to try this method. I would like to see more research on the use of essential oils with bees.

Mites– I mentioned the use of honey water with raw apple cider vinegar earlier. I wanted to also make note that many organic beekeepers have found the use of winter mint essential oil mixed with a sugar water to be quite effective. Again, since I am not experienced with the use of essential oils in the hive I can't offer you any great counsel here. I share this concept with you in hopes that as we learn more about beekeeping naturally, it will be something for us to consider and learn more on the topic. There is even talk about using coconut oil to treat for mites. I am very curious about this and will look forward to the research that becomes available.

Skunks– It's important to note that skunks aren't the only enemy. Livestock can destroy hives quickly so considering your hive location is critical. With skunks we've decided the best option is making sure all hives are at least 18 inches off the ground. Skunks are tricky creatures. They typically come in the evening hours, scratch on the landing board of the hive so as to excite the bees. When the bees come out of the hive to see what is happening the skunk simply eats them. The tell-tale signs that this is happening to your hives is most often flat grass around hive, scratched up ground or bottom boards. Make sure you resolve this issue quickly as skunks have very healthy appetites.

Wasps– Wasps can be a real problem here on our farm. We've had the most success by making our own natural wasp traps. It's important for you to know that wasps are attracted to protein sources such as dog or cat food in the spring and sweet items in the summer. Therefore, when making up your recipe consider the time of year and create an attractive lure. I have detailed instructions for you on the next page along with photos and the recipe. It's important that you make sure whatever you do to lure the wasp won't also lure your bees into the trap. If you find the bees are attracted to your summer recipe then I'd encourage you to stick with the spring recipe. The meat in the mixture will keep the bees away.

Spring Recipe:

1 cup water

4 drops of dish washing soap

1 tsp of vinegar

2 Tbs of canned dog or cat food

Vegetable oil as needed

Summer Recipe:

1 cup fruit juice or soda

4 drops of dishwashing soap

1 tsp of vinegar

Vegetable oil as needed

Homemade wasp traps should be placed away from children play area or eating areas in your back yard since it will be attracting the insects to that site. To have the best results with this method of wasp control I encourage you to start early in the season before the situation gets out of control.

Step 1 Cut the bottle approximately . 2 inches under the funnel.

Step 2 invert the portion you just removed from the soda bottle and insert it back into the bottle with the funnel facing down.

Step 3 fill the bottom of the bottle with water

Step 4 add your drops of dish soap

Step 5 add 1 tsp of vinegar which is thought to keep the bees away from the trap

Step 6 Drill holes in each side so you can attach your hook to hang the trap

Step 7 add some oil around the opening so that insects will 'slide' into the trap as they are investigating it

Did you know?

According to the National Geographic "Wasps are distinguishable from bees by their pointed lower abdomens and the narrow "waist," called a petiole, that separates the abdomen from the thorax.

They come in every color imaginable, from the familiar yellow to brown, metallic blue, and bright red. Generally, the brighter colored species are in the Vespidae, or stinging wasp, family."

Beekeeping Management:

While we may not use chemical treatment plans to manage our hives there is still a great deal of management that goes into natural beekeeping. Careful preventative management can save you many troubles and much expense. I have included a monthly checklist for you to consider, Keep in mind that geographical location will change the needs and specifics of your management program compared to mine. It's important for us to remember that bees are not domestic animals. There is no difference between your bees in the hive and those that live in the wild. We need to carefully observe the individual bee and colony behavior in order to help us meet the demands and needs they have. Otherwise, they will move on or die!

January	Begin a bee journal to keep your yearly notes in. Number your hives and note what happens in each colony throughout the year.
	Work on building or repairing your bee equipment.
	Join a bee association
	Order your package of bees for the spring
	Check the front of your hives for skunks
	Subscribe to a beekeeping magazine
February	Take a new beekeeping class with a friend
	On a warm day check your bees and make sure they still have food. You may have to move frames around to provide them with more food since they tend to cluster together and not utilize the food outside that cluster
March	Check your bees to see if your queen is laying eggs.
	Prevent swarming by having plenty of room for the queen to lay and plenty of room for the bees to store nectar
	Repair and replace any damaged equipment
	Check for mice
April	Help someone else get started in Natural beekeeping

April Continued

Watch for swarms!

Equalize hives to minimize swarming. Simple take healthy brood from your hives and transfer it to a hive that is smaller or a weaker colony.

WARNING: NEVER move frames unless you know where your queen is. Find your queen first!

You should see several frames of brood in your hive this time of year If you don't there is a problem. Perhaps your queen is not laying eggs or you don't have enough worker bees to care for them. The queen will not lay more eggs than the colony can care for.

Clean and scrape off your bottom board

Use a screened bottom board will help with Varroa mites and give your colony some ventilation

Check the level of your hives, they should tip slightly forward

Entrance reducers can be removed anytime after the first of April

Plant some trees and shrubs for your bees

May

Wear as much protective clothing as what makes you comfortable when working with your hives. Work slowly with the hive, moving to fast or sudden movements agitate the bees.

Use your smoker each time you go to check your bees

Organize your bee tools in a toolbox that is accessible

The best time to work with bees is during the middle of the day when the field bees are out collecting nectar

Work each hive from the side or back not from the front which is the bee flight path

Inspect your frames

May Continued	Get your supers on the hive
	Use a queen excluder in-between your super and your brood box
	If you use medications on your bees remember to NEVER medicate them when a super is on the hive– it's illegal!
	Keep the grass mowed down in front of the hive
	Keep supers on until honey is capped
	Do not feed bees during a honey flow
	If you see bees hanging outside the hive don't' fret. They are typically just trying to keep cool on these hot days.
	Keep up your record keeping
	Consider collecting pollen
June	Check suppers. Add suppers as needed. Move partially capped frames to the outer edges of the super and the unfilled frames to the center to encourage even filling.
	Consider entering the fair with your honey products from the hive.
July	Water is essential. Make sure your bees have access to water. If they don't have any near by consider using a chicken water feeder and placing that off to the side of the hive for your bees.
	Harvest your early honey which will be lighter than your later honey that will be darker. It makes your honey more valuable if you're selling two different types of honey.
August	Check your hives for mites
	Record your honey yield and colony size
	Check for swarm cells and remove them to prevent a late swarming

August Continued	Provide water for your bees
	Buy pretty jars to showcase your honey.
	If you have pollen traps on make sure to discontinue their use. Bees need pollen to raise bees to winter over.
September	Harvest any fall honey and get it extracted
	Check the moisture of your honey
	Complete a fall inspection of your hive.
	Get your entrance reducers put in place toward the end of the month.
	Check your hives for stored honey. Most colonies will need 50lbs of honey to winter successfully. The top deep super should be packed full of honey. If this is not the case you will need to consider feeding your bees. You would want to use a 2:1 ratio meaning 4lbs sugar to 2 lbs of water.
	Make sure your queen is healthy. You should see set brood in all stages when you examine the frames
	Make sure that your hives are tipped every so slightly so that no rain water will run into the hive.
October	Make sure all your hives have heavy bricks on them to keep the winds from blowing them off
	Inner covers should have the deep side down over the winter months.
	Check your frames for honey, brood chambers and mites.
November	Check your hive honey storage it should be full of honey!
December	Monitor hives for flight on warm days
	Monitor the food in each hive. Feed if needed
	Remove any snow built up in front of your hive entrance

Regular Visits:

When you take your trips to the hive make sure you're looking at the various stages of larvae in your hive, also check the honey storage, you may need to clean up messes from their doodling, and especially look for swarm cells. Since these things are hard to describe with words I am going to use some pictures from our past trips to the hives over the years.

Doodling: Here we have a frame where bees have been "doodling" Timothy knocked off the excess of comb a few times and they finally decided to stop playing and got to work. Your hive tool is a great instrument for removing these creative messes.

Queen Cells: Are often found on the lower edges of the frames so make sure you pull your frames out and inspect them well. You can tell that they are much larger than any other cell the bees have made. Locate your queen and check the other frames for good brood development. If you know your queen is healthy, check the space you've given your bees and make sure it's enough. If you need too, add another box and make sure you remove these cells from the hive. This will help detour your bees from swarming.

Eggs It can be hard to spot eggs in the new comb. The best way to describe it is what looks like a little spots of sugar in the cell. Healthy larvae is always glistening white.

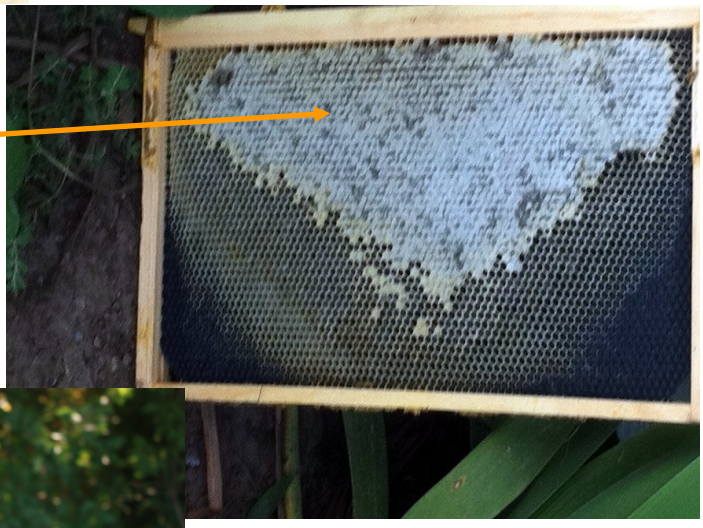
Eggs

Larvae is easier to spot in the hive. It looks like a pearly white worm that is coiled up inside the cell. Purpae is larvae that has been capped as shown in this photo. If you see eggs you do not need to worry about locating your queen; you know you have one. In rare cases you could have a laying worker bee. That is not normal or anything I would suggest you would have to worry about.

When you examine your hives you'll notice frames with brood capped as well as frames with honey capped. I have included two photos so you can understand the difference.

Notice how the brood capping is raised and opaque in color.

The honey that is capped is flat and much different in color. Capped Honey



Enjoy your trips to the hive. Take your time to effectively get to know your bees activity. Not only is bee watching enjoyable, but it can help you notice the first signs of any problems.

Splitting a Hive

I mentioned splitting a hive in the monthly checklist however, I would like to go into more detail for you about the subject here. Splitting a hive can be most advantageous when trying to prevent a colony from swarming. It is also beneficial in assisting you in building a new hive or strengthen a weak hive you might discover is struggling. I would suggest that a good strong hive should be anywhere from 60-80,000 bees. The strength of your colony will have much to do with the health of your queen so make sure you see that your queen is alive, and working well within the hive. It can be hard to spot eggs in the new comb so take your time. You should see different stages of growth happening in your hive. Learn to tell the difference between drone brood and worker bees. Splitting a hive is a great way to prevent swarming. Simply divide the colony in two units. Move the old queen with half the hive to a new location and allow the bees left behind to raise their own queen which they may already be in the process of doing if you see them developing swarm cells. You will suffer the quantity of honey that you typically get from a hive however you'll expand your apiary and now have two hives for next years honey production instead of only one.

Did you know?

Bees demonstrate the beauty of cooperation! One colony of 60,000 bees will produce far more honey than two colonies of 30,000 bees.

Catching a Swarm:

We've talked about ways to prevent our bees from swarming but now let's talk about ways to catch bees that do swarm. My son, Timothy, was blessed by some local friends with a swarm of bees they found under their chicken coop. This is an excellent way to add to your apiary but does take some patience. We were blessed enough to have a friend that has been involved in beekeeping for 20 years help Timothy. If you'd like to see our home video of the experience you can watch those by going to YouTube.

Timothy's first trip to inspect the swarm he's wanting to collect

Timothy's second trip to examine the swarm he's collecting

Timothy went out the next day and did collect this swarm which is now part of our apiary and doing very well. Once you let people know you've got bees, chances are you'll start getting calls about swarms of bees that have invaded peoples' barns, picnic tables or other less attractive areas. There are times that the location of the swarm would make it near impossible for the beginner to collect. However, it's important to consider the time of year that you'll be gathering the swarm. If you're not sure if a swarm is

worth the trouble or danger of gathering consider this age old proverb:

"A swarm in May is worth it's weight in hay

A swarm in June is worth a silver spoon

A swarm in July isn't worth a fly"

Photos from Our Apiary:

Collecting Honey

Gathering this golden treasure from the hive is not only a fun and rewarding skill but delicious as well! As I have previously mentioned we collect honey very sparingly from our hives. We don't want to have to feed them artificial foods so we make sure to never take from a hive its first year and in the second year we only take a few frames at most. The third year a hive is established is most commonly known for its most abundant supply of honey. Keeping hives healthy throughout this time isn't by chance and it will take those careful trips and preventative measures we've talked about previously to see a hive become established and thrive in your apiary. When it's time to collect honey, you will need some tools to do so.

A honey extractor will be necessary for the process. There are several different variations to this tool making its price fluctuate. For our family, we have the four frame extractor that is non electric. We did see the value of purchasing the stainless steal option for the longevity of Timothy's beekeeping experience here on the farm.

You'll also need a capping knife. Again, these come in different variations making the price vary between them. We purchased the heated capping knife after talking to several experienced beekeepers.

When you have gathered capped honey frames from your hive, you'll want to find a safe location for extracting the honey. Keep in mind, bees will find you soon enough so while we've extracted honey in our front yard I'm not sure we would ever recommend that to someone as a viable option. We were using the back door for a few days until the bees decided there was nothing left to glean. You'll also want to note, that wherever you decide to extract your honey is going to get sticky. Therefore, pick your location carefully. Frames are inserted inside the extractor on their ends. Two frames on each side. Simply use the turn crank handle or plug your extractor in, if it's electric. Allow the honey to spin free from the frames and soon you'll have honey ready for your enjoyment. Place a five gallon bucket under your spout to collect the honey when you're ready. You may want to strain your honey another time before consumption.

Sweet Recipes:

Well, you've extracted your honey from the hive successfully; congratulations! This is an exciting time when you can enjoy the fruit of your labor. Honey is much more than a sweetener used in our tea or favorite desserts. Honey was once prized for its medicinal benefits. If you've not read the book, "Honey the Gourmet Medicine" by Joe Traynor I strongly encourage you to do so. Not only are the antibacterial properties of honey discussed but the history of honey as medicine, how we can benefit from it today, honey for infants and much more!

Some of my favorite honey recipes are the simple ones. Nothing tastes better to me than a cup of hot herbal tea with just a scant teaspoon of honey. My children love to mix honey and home made peanut butter together for a creamy, sweet peanut butter sandwich. We do use honey, as well as coconut oil, as a medicine in our home. When we know sickness is going around, we simply start taking 3 Tbs of honey a day.-two tablespoons each morning and one tablespoon at night before bed. Author Joe Traynor suggests that honey before bed will actually make you sleep better.

If you're interested in preserving food with honey, "Putting it up with honey" by Susann Geiskopf-Handler offers a complete, easy to understand, resource on the topic.

Did you know?

Granulated honey is not "bad honey." Simple warm it up in a bowl of hot water or in the window with the warm sunshine coming through and in most cases it will return to its liquid state.

Honey Caramel– by Elisha Wood

1/2 cup honey

2 Tbs Molasses

1/8 cup butter (too much will make it runny)

Heat all ingredients over med/high heat until it is a rich dark color but before it burns. Test in cold water until it is the texture of caramel but not a hard crack candy. Remove from heat and pour over fresh popped corn for a scrumptious family snack.

Glossary

Alarm Pheromone– Pheromone released by worker bees during an emergency

Apiary– Where honeybee colonies are located often called the bee yard.

Bee Space– "1/4"-"3/8" space that bees live in

Bee Veil– A cloth or wire netting for protecting a beekeeper's face, head and neck from stings.

Bee Venom– the poison secreted by glands attached to the bee's stinger

Bottom board– the screened floor of a hive

Brace Comb– Comb that is built between parallel combs, adjacent wood, or two wooden parts us as top bars

Brood– the term used for all immature stages of bees: eggs, larvae, and pupae

Brood Chamber– the part of the hive in which the brood is reared

Capped Brood– Pupae whose cells have been sealed as a cover during their nonfeeding pupal period.

Cappings– The thin, pure wax covering of cells filled with honey; the coverings after they are sliced from the surface of a honey-filled comb when extracting the best beeswax.

Cell– A single hexagonal (six sided) compartment of a honey comb

Cluster– A group of bees hanging together for warmth

Colony– Adult bees and developing brood living together including the hive they are living in.

Comb– A sheet of six-sided cells made of beeswax by honey bees in which brood is reared and honey and pollen are stored.

Comb Foundation– A commercially made sheet of plastic or beeswax with the cell bases of worker or drone cells embossed on both sides

Comb Honey– Honey produced solid in the comb, made in plastic frames and sold in round, plastic packages.

Compound Eyes-A bee's sight organs, which are composed of many smaller units called conditions.

Drone– A male honeybee

Drone Comb– Comb measuring about four cells per inch in which the queen lays unfertilized eggs that become drones

Drone Layer– A queen able to produce only unfertilized eggs, thus drones

Egg– The first stage of a honeybee's metamorphosis.

Entrance Reducer– A wooden or metal device used to reduce the large entrance of a hive to keep robbing bees out and to make the entrance of a hive to keep robbing bees out and to make the entrance easier to defend, and to reduce exposure to wind and the elements outside.

Extracted Honey– Liquid honey removed from the comb with an extractor.

Fanning or Scenting– Worker bees producing Nasanov pheromone and sending it out to bees away from the colony as a homing beacon

Feeder– Any one of a number of devices used to feed honey bees sugar syrup including pail feeders, inhive frame feeders, hive top feeders, and entrance feeders.

Fertile Queen– A queen that can lay fertilized eggs.

Forager– Worker bees that work (forage) outside the hive, collecting nectar, pollen, water and propolis.

Frame– Four pieces of wood/plastic (top bar, a bottom bar, and two end bars) designed to hold foundation/drawn comb.

Hive– A man-made home for bees

Hive Tool– A metal tool used to open hives, pry frames apart, and remove wax and propolis

Honey– A sweet material produced by bees from the nectar of flowers, composed of glucose and fructose sugars dissolved in about 18 percent water: contains small amounts of sucrose, mineral matter, vitamins, proteins and enzymes.

Honey Flow– A time when nectar is available and bees make and store honey.

Honey Stomach– A portion of the digestive system in the abdomen of the adult honey bee used for carrying nectar, honey or water.

Inner Cover– A lightweight cover used under a standard telescoping cover on a bee-hive.

Larva (Plural, Larvae)- The second (feeding) stage o bee metamorphosis: a white, leg-less, grublike insect

Laying Worker– A worker that lays drone eggs, uusually in colonies that are hopelessly queenless.

Marked Queen– Some queen producers will mark the queen with a dot on her back so that she will be easier for you to identify once in the hive.

Mating Flight– The flight made by a virgin queen when she mates in the air with sev-eral drones.

Nectar– A sweet liquid secreted by the nectarines of plants to attract insects.

Nuc or Nucleus– A small, two—five frame hive used primarily for starting new colo-nies.

Nurse bees– Young bees, three to ten days old that feed and take care of the develop-ing brood

Ocellus– simple eyes (30 on top of a honey bee's head. Used primarily as light sensors.

Package Bees– Screened shipping cage containing three pounds of bees usually a queen, and food.

Pheromone– A chemical secreted by one bee that stimulates behavior in another bee. The best known bee pheromone is queen substance secreted by queens that regulate many behaviors in the hive.

Pollen– The Male reproductive cells produced by flowers, used by honey bees as their source of protein.

Pollen Basket– A flattened area on the outer surface of a worker bee's hind legs with curved spines used for carrying pollen or propolis to the hive.

Pollen Trap– A mechanical device used to remove pollen loads from the pollen bas-kets of returning bees.

Pollination– The transfer of pollen from the anthers to the stigma of flowers.

Propolis– Sap or resinous materials collected from the buds and wounds of plants by bees, then mixed with enzymes and used to strengthen wax comb, seal cracks, and reduce entrances, and smooth rough spots in the hive.

Pupa– The Third stage in the metamorphosis of the honey bee, during which the larva goes from grub to adult

Queen– A fully developed female bee capable of reproduction and pheromone production. Larger in size than the worker bee

Queen Cage– A small cage used to ship the queen for a colony of bees.

Queen Cell– A special elongated cell, in which the queen is reared. Usually an inch or more long, has an inside diameter of about 1/3 inch, and hangs down from the comb in a vertical position, either between frames or from the bottom of a frame.

Queen Excluder– Metal or Plastic grid that permits the passage of workers but restricts the movement of drones and queens to a specific part of the hive.

Rabbet– A narrow ledge on the inside upper end of a hive body or super from which the frames are suspended.

Requeen– Replacing an existing queen with a new queen.

Robbing– bees stealing honey from a weaker colony

Royal Jelly– A highly nutritious glandular secretion of young bees, used to feed the queen and young brood.

Scout bees– Forging bees, primarily searching for pollen, nectar, propolis, water, or a new home.

Smoker– A device used to produce smoke, used when working a colony.

Super– A hive body used for storing surplus honey placed above the brood chamber

Swarm– Above half the workers, a few drones, and usually the queen that leave the parent colony to establish a new colony.

Swarm Cell– Developing queen cell, usually found on the bottom of the frames reared by bees before swarming.

Thorax– The middle section of a honeybee, that has the wings and legs and most of the muscles

Uncapping Knife– A specially shaped knife used to remove the capping from sealed honey.

Worker Bee– A female bee whose reproductive organs are underdeveloped. Worker bees do all the work in the colony except for the laying of fertile eggs.

Worker Comb– Comb measure about five cells to the inch in which workers are reared.

A Beekeepers Resources

State Associations:

- Alabama

Alabama Beekeepers Associations

Madison County Beekeepers Association

- Alaska

AK beekeepers Yahoo forum

Alaska Honeybee Home Page

Southcentral Alaska Beekeepers Association

- Arizona

Beekeepers Association Of Central Arizona

- Arkansas

Arkansas Beekeepers Association

- California

San Francisco Bay Area Bee Clubs

- Colorado

Northern Colorado Beekeepers Association

Boulder County Beekeepers Association

- Connecticut

Connecticut Beekeepers Association

- Delaware

- Delaware Beekeepers Association (offline)

- Florida

Florida State Association of Beekeepers

Tupelo Beekeepers Association

- Georgia

Georgia Beekeepers Association

Tara Beekeepers Association Newsletter

Cherokee Beekeepers Club

Metro Atlanta Beekeepers Association

- Hawaii

Hawaii Beekeepers Association

- Idaho

Inland Empire Beekeeping Association

- Illinois

Illinois State Beekeepers Association

Heart of Illinois Beekeepers Association

- Indiana

Indiana State Beekeepers Association

- Iowa

Iowa Honey Producers Association

East Central Iowa Beekeepers Association

- Kansas

Northeastern Kansas Beekeepers Association

Kansas Honey Producers Association

- Kentucky

KDA State Apiarist

Allen County Beekeepers Association

- Louisiana

Louisiana Beekeepers Association

- Maine

Maine State Beekeepers Association

- Maryland

Maryland State Beekeepers Association

Allegheny Mountain Beekeepers Association

Anne Arundel County Beekeepers Association

Association of Southern Maryland Beekeepers

Bowie-Upper Marlboro Beekeepers Association

Central Maryland Beekeepers Association

Hagerstown Valley Apian Society

Howard County Beekeepers Association

Montgomery County Beekeepers Association

- Massachusetts

Middlesex County Beekeepers Association

Essex County Beekeepers Association

Worcester County Beekeepers Association

Barnstable County Beekeepers Association

- Michigan

Michigan Beekeepers Association

Southwest Michigan Beekeepers Association

Southeast Michigan Beekeepers Association

- Minnesota

Minnesota Hobby Beekeepers Association

- Mississippi

Mississippi Beekeepers Association

- Missouri

Missouri State Beekeepers Association

Boone Regional Beekeepers Association

Midwest Beekeepers Association

- Montana

Montana Deptartment of Agriculture Beekeepers Programs

- Nebraska

Nebraska Beekeepers Association

- Nevada

Nevada Beekeeping Directory

- New Hampshire

New Hampshire State Beekeepers Association

Pawtuckaway Beekeepers Association

- New Jersey

Central Jersey Beekeepers Association

New Jersey Beekeepers Association

- New Mexico

New Mexico Beekeepers Association

- New York

New York State Beekeepers Clubs

- North Carolina

North Carolina State Beekeepers Association

Macon County Beekeepers Association

- South Carolina

South Carolina Beekeepers Association

South Carolina Beekeepers Newsletter

- South Dakota

South Dakota Meeting Information

- Tennessee

Tennessee Beekeepers Association

Nashville Area Beekeepers Association

- Texas

Texas Beekeepers Association

East Texas Beekeepers Association

Capital Area Honeybee Stewards

North Texas Beekeepers Association

Beekeeping Associations in Texas

Houston Beekeepers Association

Harrison County Beekeepers Association

- Utah

Utah Beekeepers Association

- Vermont

Vermont Beekeepers Association

- Virginia

Virginia State Beekeepers Association

Loudoun Beekeepers Association

Tidewater Beekeepers Association

- Washington

Puget Sound Beekeepers Association

Washington State Beekeepers Association

(download pdf file of Washington contacts here)

- West Virginia

Mid Ohio Valley Beekeepers Association

West Virginia Beekeepers Association

- Wisconsin

Brown County Beekeepers Association

Wisconsin Honey Producers Association

- Wyoming

Wyoming Beekeeping

Books:

- ABC and XYZ of Bee Culture, A. I. Root
- American Honey Plants F. C. Pellett
- A Year in the Life of an Apiary, Keith S. Delaplane, Ph.D
- Beekeeper's Handbook, Daine Sammataro and Alphones Avitabile
- Beekeeping in the United States, USDA Ag Handbook #335
- Honey Bee Biology and Beekeeping, Dewey M. Caron
- Honey Bee Pest , Predators, and Diseases, R. A. Morse
- Honey in the Comb, E. Killion
- Honey Plants of North America, John H. Lovell
- How to keep Bees and Sell Honey, Walter T. Kelly
- Starting Right With Bees, A. I. Root Co.
- The Hive and the Honey Bee, edited by Dadant and Sons
- The Biology of the Honey Bee, Mark Winston
- What do you Know?, Clarence H. Collinson
- First Lessons in Beekeeping C. O. Dadant
- Books for Kids:
- The Bee Tree, Patricia Polacco
- The Life and Times of the Honeybee, Charles Micucci
- The Magic School Bus Inside a Beehive, Joanna Cole and Bruce Degen
- Questions and Answers about Bees, Betty Polisar Reigot
- First Lessons in Beekeeping, C.O. Dadant
- Honey, the Gourmet Medince, Joe Traynor
- Letters from the Hive, Stephen Buchmann with Banning Repplier
- Putting it Up with honey
- Bee Pollen, Royal Jelly, Propolis and Honey, Rita Elkins, MH
- Beekeeping Self Sufficiency, Joanna Ryde
- Hooray for Beekeeping, A Bobbie Kalman Book
- Close-up of a Honeybee, Virgil E. Foster
- Beekeeping for Dummies, Howland Blackinston
- Honeybees at Home, Lynee Harwood
- The Complete Herbal handbook for Farm and Stable, Juliette de Bairacli Levy

Books for Children:

The Bee Tree, Patricia Polacco

The Life and Times of the Honeybee, Charles Micucci

The Magic School Bus Inside a Beehive, Joanna Cole and Vruse Degen

Questions and Answers about Bees, Betty Polisar Reigot

Videos:

Bee Tales From the Hive

Introduction to Beekeeping

City of Bees

Journals:

- American Bee Journal,
- Bee Culture

Suppliers:

Dadant

Blue Sky Bee Supply 1-877-529-9233

Websites:

Go Beekeeping. Com Offering online classes in beekeeping.

Organic Beekeeping

Bush Farms

Bay Area Beekeeping Resources

I hope this book has encouraged you that beekeeping, while complex, is a relatively easy skill to learn. I encourage you to take your time, get to know your bees and have fun! There's an amazing world of discovery, organization and cooperation within the hive.

All for His Glory,

Mrs. Joseph Wood