Issue 22—April 2012

Kelley Bee News

Modern Beekeeping

Photo by Ellen Hector

> That buzzing-noise means something. If there's a buzzing noise, somebody's making a buzzing-noise, and the only reason for making a buzzing-noise that I know of is because you're a bee.
> And the only reason for being a bee that I know of is making honey.
> And the only reason for making honey is so as I can eat it.
>
> ~ Winnie the Pooh

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The Buzz

As you read this month's newsletter, parts of it may be familiar. We serve beekeepers from the sweltering south to the still-chilly climes of Canada, so we'll be rerunning some articles as spring topics are just starting to be applicable to northern beekeepers.

This newsletter covers spring / summer topics. There's a lot going on in apiaries this time of year and we'll continue to try and be a relevant source of information for you. But, as you've probably learned, when you ask three different beekeepers on how to do something, you'll likely get a half dozen different answers as they talk themselves in and out of things. While the lack of clear black-and-white answers may be frustrating at times, that's one of the sunny sides of beekeeping. If something doesn't work for you, there's always something else to try. (On the flip side, if something does work for you, there's no guarantee it will happen again.) We welcome your questions and insights (just email our editor) so others may learn as you learn or refine what you do.

Swarming is soon to be a hot topic, and next month we'll feature a variety of articles on that practically inevitable event. Until then, Michael Bush shares some insights on it this month; this issue also includes information on beekeeping in the south, raising queens, springtime inspections and our upcoming Field Days, among other topics.

We're also thrilled to announce the launch of the Walter T. Kelley Blog, featuring online versions of our feature newsletter articles. This format makes it much easier to access the articles from any internet connection, share, comment, and communicate. You can also subscribe to the blog and receive emails when new articles and/or comments are posted. Please go to kelleybees.com/blog/ and check it out!

And, please let us know how we can better serve you.

Thanks for your loyalty.

Sincerely,

Jane Burgess
CEO/Partner
The Walter T. Kelley Company

Healthy Bees

Springtime Inspections

By Sean Burgess, Kelley Employee & Beekeeper

Editor's Note: As our newsletter serves a large geographic area, we're rerunning this for our northern beekeepers.

As you read this, I hope that spring has arrived in your part of the world and with the warmer days and nights, plant production is in high gear and your bees are taking full advantage of the foraging opportunities available. As you observe your hive entrances you should be seeing lots of activity as the bees perform their various tasks while building their colony's strength. A thorough inspection of your hives should be performed when daytime temperatures reach 50 degrees and above.

Generally I like to choose a warm sunny day in the afternoon for my inspections. I like the afternoons because a large portion of the colonies' field force will be out foraging and the sunshine will give me a much better view into the individual cells on the foundation in my frames. Most of the time, I will smoke my hives lightly at the front entrance and under the covers prior to beginning my inspections. I believe it is beneficial for the beekeeper to have a plan prior to opening a hive. That plan may consist of the following:

Observing the bees at the bottom of the outer cover and the top and bottom of the inner cover: I am looking for my queen (rarely found on this part of the woodenware, but I have) but also for any abnormalities in my bees such as deformed wings, obvious mites, small hive beetles, odd behavior, hairlessness, trembling or just about anything that I feel is not normal and could be an indication of other problems.

Where are the majority of my bees: are they all in the top box if wintering in a two deep box arrangement or are they divided between the two boxes including the developing brood?

Drones: It is always good to know that you have mature drones in your hives especially if splitting colonies or raising queens.

How are the stores: pollen, honey and or nectar?

What does the brood, and the various stages it may be in, look like—eggs, larvae in different stages of development, capped brood and emerging brood?

How is the pattern my queen is laying? Is it solid with few holes missed or is it spotty with drones developing amongst worker brood

Am I only seeing the obvious larger drone cells or is there the flatter cappings of developing workers?

When I observe my capped brood cells are they only slightly convex or are they sunken and perforated?

Am I seeing any white mummified larvae at the front of the hive or in the cells?

Is the uncapped larvae in my cells pearly white in color?

Am I seeing any queen cells being constructed and if so, where are they on the frame (not to be confused with emergency queen cups).

Is there room available for my queen to lay eggs in or do I have an abundance of nectar, honey or pollen filling most cells?

Such a sad sight ... hundreds of dead bees, with obvious stores of honey and pollen. Readers, any insights / theories on what happened to this hive? Photo by C. Rosenthal.

This list may seem daunting to the uninitiated, but as your career as a beekeeper matures this will become second nature. You will also be able to make good educated guesses as to how to deal with various problems.

Why do I observe the bees on my covers?

As stated above, I want to make sure my queen is not wandering around up here because I am going to set these covers on the ground and she is too valuable to treat this way. Also because there are fewer bees here and they are easier to examine in a quick check. That is not to say the other bees in the hive should not be examined, this for me, is just my natural starting point.

Why do I want to know where the majority of my bees are?

As the winter cluster consumes stores in the first deep brood box they will travel in an upwards direction. Sometimes the queen will establish a brood pattern that comprises part of the bottom box and part of the top box. A popular method for years (somewhat controversial) is to reverse the brood boxes—moving the top to bottom. If your brood nest is divided you should not do this as it may spread the resource of nurse bees out too thinly to adequately cover and care for the brood.

Why look for drones?

Drones are integral part of the makeup of your colony. Even though their sole purpose is to mate with queens, the abundance or lack of drones will help you to better understand your colonies workings. Drones

Here's a great brood pattern.

will emerge about 24 days after the unfertilized egg has been laid and they will be sexually mature at about 35 days. Knowing these numbers will help you when doing walk-away splits or grafting queens.

How are the stores: pollen, honey and or nectar?

When bees are starting out in the spring you may not have reliable sources of nectar and pollen. In many cases supplemental feeding will be required. If using antibiotics such as Fumagilin-B for the prevention of Nosema disease this will be an opportunity to deliver it with your sugar syrup. Knowing the amount of food already available in the hive may help you to determine if they are consuming or storing this medicated syrup. In addition, if a brood nest becomes bound with pollen and honey, it can start the bees towards swarming tendencies. By monitoring your hives you will also know when you are approaching the time to add supers.

What does the brood, and the various stages it may be in, look like?

By knowing your bee math you can get a determination of hatching rates, and by recognizing healthy brood in all stages you can determine overall colony health. In a lot of cases by spotting problems early you can help your colony to thrive.

How is the pattern my queen is laying? Is it solid with few holes missed or is it spotty with drones developing amongst worker brood?

By watching what your queen is doing you will be able to spot problems with her. If I saw a spotty pattern and drones mixed with workers it would indicate to me that she is on her way out. This is the time to re-

queen. You do not want to miss an entire brood cycle or leave the luck of the hive to a virgin, or worse yet, develop laying workers.

When I observe my capped brood cells, are they only slightly convex or are they sunken and perforated?

While seeing perforated sunken cappings can indicate a serious brood disease (American Foulbrood, AFB) it can also be caused by chilled brood. They will present in a similar fashion in the early stages. Chilled brood is generally caused by a lack of nurse bees to keep them warm and the larvae dies and the cap sinks in on it. In AFB you will see a sunken cap and perforations where the bees have gone to remove the cap but were driven back by the fumes. If this is the case you should do the rope test by stirring the contents of the cell with a toothpick and slowly withdrawing it. If the contents rope out you may have AFB. If there is no roping it is probably not AFB. If you are in doubt you should call your state apiarist for an inspection. If the inspector suspects AFB a sample will be sent in to a qualified lab for analysis.

Am I seeing any white mummified larvae at the front of the hive or in the cells? Are the uncapped larvae in my cells pearly white in color?

White mummified larvae at the door or in the comb probably indicate Chalkbrood. Chalkbrood is generally thought not to be that serious of an issue. We normally see this in the springtime during periods of unsettled weather. In a lot of cases you will see the mummies that the bees have hauled out of the hive on the landing board and also in the comb at the fringes of the brood pattern. If you crush one of these white mummies and it crushes easily you can be sure this is what it is. Normally as the weather and nutrition improves it will clear up on its own. In severe cases it may be necessary to requeen as some queens tend to be more prone to it. A break in the brood cycle may help. When I observe Chalkbrood I generally will lightly tap my frame to dislodge the mummies but if these exist on a frame with brood I would resist this action. The mummies are loose in the cells and the bees can take care of them pretty easily. Uncapped larvae in a healthy hive are pearly white in color. Any darkening of the larvae or any developing rings around them can be an indicator of a problem.

Am I seeing any queen cells being constructed? And if so, where are they on the frame? (Not to be confused with emergency queen cups)

Queen cells resemble a peanut in shape when fully developed, and have a lot of stippling on the outer surface. These can be found on various parts of the foundation and can be an indicator of what's happening in your hive. It has been commonly observed that if a queen cell is being built in the middle to upper parts of your foundation, this is an indication of supercedure. In the case of supercedure this means that the bees

Beek Hint

Julian in Louisiana shared some information on how to combat weeds, small hive beetles, and Varroa. Notes Julian, "This works great when used in conjunction with screen bottom boards. I conduct a beekeeping class and this is just one of the many tips and tricks shared with the class."

Great for weed control and will aid in control of small hive beetles. Place the roll roofing under hive stands. Then place salt around edge of roll roofing. Photos courtesy of Julian Laine Jr.

currently do not like their present queen and are preparing to replace her. This may be due to the queen wearing out or an injury. If a cell or cells are being constructed at the lower parts of foundations or frames this probably indicates the bees are preparing to swarm.

Emergency queen cups are present in almost every hive I have seen. I believe the bees construct these to have a quicker way of growing a queen should the need arise. I have observed that my Russian hybrids construct a lot more of these than my other colonies. This is probably due to the fact that these bees tend to swarm more.

These are just a few of the things to look for in your colony. If you understand what you are seeing in most cases you will be able to make an educated determination if action needs to be taken.

Happy Beekeeping,
Sean Burgess

Questions or comments about this article?
Please go to kelleybees.com/blog.

Raising Queens

By Sean Burgess, Kelley Employee and Beekeeper

The next logical step for the serious beekeeper (in my opinion) is to understand and be able to raise your own queens. Raising queens can be as simple as doing a walk-away split and allowing the bees to raise their own queen, or as complicated as "breeding" as in instrumental insemination or using instrumentally inseminated queens to produce viable offspring. The techniques I am going to describe below are the ones that I have had personal experience with, both success and failure. These fall into the category of raising and not breeding.

Why raise queens?

If you understand the process that bees use to raise queens you will have a much more intimate knowledge of your colonies. If you actively pursue queen raising you will become a better beekeeper.

Sometimes raising queens may come from economic necessity, availability of supply, desirable trait propagation, or for income. For whatever reasons you decide to raise queens you will need a good working knowledge of developmental periods of the different castes. The chart below is averages and may vary due to weather and genetics. The numbers represent days.

Caste	Egg	Larvae/Capped Cell	Pupae	Emergence	Fertility
Queen	3	7.5-8.5	8 till emergence	15-16	23 & up
Drone	3	9-10	10 till emergence	23-24	38
Worker	3	8-9	10 till emergence	18-22	NA

Knowing these cycles will help you. For instance you wouldn't want to introduce a virgin queen in the spring if you didn't have mature drones for mating. This will also help you as to the timing of grafting, making cell builders and mating nucs.

Let's first talk about the simplest way to grow a queen.

Walk-away Splits as Swarm Prevention

It is a species' inherent nature to want to increase and propagate its numbers. Honeybees do this when their nests become overcrowded and in some races even when overcrowding has not occurred. I personally would rather manage my hives for swarm prevention than to try to catch them 20 feet up a tree. This requires careful attention to your colony. Normally you will see most swarming activity on the first strong honey flow in your area.

On doing your regular inspections you should note the available empty cells that your queen can lay eggs in. If the majority of cells contain eggs, larvae, stores of pollen, honey, and capped brood they may begin swarm preparations. Note the emergency queen cups and observe them for the presence of eggs and further enlargement of their structure. Generally swarm cells are built towards the bottom of frames and supercedure cells are built closer to the top. If in a two-deep brood nest situation, be sure to tip up the top box and observe the bottom of the frames for queen cells. It is best to keep on top of this as once the bees go into swarm mode it is hard to talk them out of it. The queen will quit laying eggs and begin to slim down in anticipation of flying with the swarm. The workers will cut down foraging activities and begin to gorge on honey and the scouts may begin to seek a new home. As the new queen cells approach maturity the swarm will launch with the old queen and up to 70% of the colony. By keeping the brood nest open and adding room (drawn comb is preferable but blanks will do) as needed you can help to prevent this from occurring.

In a walk-away split, either into a nuc box or an 8- or 10-frame hive body, you want to transfer a good mix of eggs, open and capped brood, pollen, honey, and enough nurse bees to cover the brood. If you have a frame that contains swarm cells I would identify the largest (queen cell) with the most stippling or cratering on the surface and move this to the split.

I would also eliminate the other queen cells or use these in other splits. (Another option for these queen cells is to create a queen bank and bank them for other uses. If doing that you will need to secure the cells into queen cages so when they emerge they are confined. It is generally thought that if you have attendants also in the cage their survival may be better. A good queen bank is queenless and full of young nurse bees and open brood. I would not hold virgins for more than eight days in a bank or you may create drone laying queens).

A beautiful queen cell.

Generally the largest queen cells will be the most viable as they have been fed better in the larval stage. These splits can be left in the same yard you're splitting from or moved to another yard. If moving the splits, you may want to close the entrance prior to transferring the frames. These splits will need to be fed even during a flow as they contain mainly nurse bees and any foragers transferred on the frames will return to the parent colony. I would also reduce the entrance on this split as it should be considered weak and not able to defend itself as well from robbers.

If you have been on top of your observations through inspections you should have a pretty good idea of when that queen cell is going to hatch. From the chart above you know that if the queen cell is capped it will emerge sometime in the next 7-8 days, maybe sooner if you discovered it late. A queen cell will form a darkened ring around the bottom just prior to emergence.

I do not like to disturb new virgins and I will resist the temptation to open this hive for a period of days. When she emerges she will need a period to dry and depending on weather and mating success (multiple mating flights) it can be seven or more days before she lays an egg.

When you do open this hive for inspection you should do it rapidly but thoroughly and look for the queen and the presence of eggs. If you find eggs you know she has been successful. If eggs are not observed and you are certain she is not in the box you can assume one of two things; she is either on a mating flight right now or something has occurred while she was on her flight, and she's not coming back. In this case I would wait until the next day and inspect the hive again for her presence.

If she is lost and you have no hope of her coming back there are several things you can do;

- Add another frame of eggs and nurse bees from a donor hive and let the split raise their own queen.
- Recombine the split with the original parent colony on the top using the newspaper method (while still having prevented the original from swarming).
- Add the split to another strong colony.
- Buy a queen from a supplier and introduce it to the split.

Walk-Away Splits for Increase

In a nutshell everything above applies to this type of split only you don't have the availability of a queen cell. One thing you want to make certain of when doing this split is adding a frame which contains fresh eggs. The bees can make their best queen from a recently hatched egg (larvae) when it is between 4-20 hours old. Because of the time of the queen's cycle you can tell from the chart that it will be at least 23 days before you will see any eggs from a queen raised this way. It would be advisable to check on the progress of this split through this cycle and adding a frame of open and capped brood may be necessary to prevent this split from developing laying workers.

Double Screens

As the name implies a double screen is two screens sandwiched between wood. They have closable openings on 3 sides. This is a method best used in swarm control (in my opinion) when you have limited resources. As in the walk-away split for swarm prevention, you prepare your split box in the same fashion, only when completed, you set it on top of a double screen that is placed on the colony below. Open the entrance opposite the colony below and allow the nurse bees to tend to the virgin queen. If the virgin is successful in her mating and returns and lays eggs you can then split off this box and move to another location. If the virgin does not return simply remove the double screen and recombine the colony while still preventing the swarm.

Grafting

This method of raising queens is probably the most intimidating to newer beekeepers but is employed exclusively by commercial and serious beekeepers everywhere. Once the basic techniques are learned and perfected it is the best way to raise large numbers of queens and gives you the best chance in selecting the traits you want in your queens. While certain individuals will employ slightly different methods of this, this is the one that I am most familiar with.

Day 1- Queen Mother Colony

- Select a strong colony that has the traits that you are trying to propagate such as gentleness, overwintering capabilities, rapid spring buildup, disease and mite resistance and or honey production, this is your parent or queen mother colony.
- Find the queen in this colony and confine her to a single box with the use of a queen excluder if multiple boxes are in use.
- You may additionally want to purchase our Cat# 19-LM Queen Grafting Excluder Frame which will confine her to a single frame face. This will allow workers to come and go but she will be forced to lay eggs in available empty cells. Note the date and time of her confinement.

Queen Grafting Excluder Frame , Cat # 19-LM

Day 2- Prepare Cell Builder

- Transfer one frame of young larvae and capped brood along with three frames of pollen and honey stores from a strong colony into a 5-frame nuc box. Keep the frame of transferred brood in the center of the nuc box and fill in the sides with the frames of stores. Additionally you will want to shake nurse bees from about 4-5 frames of brood into this cell building nucleus colony. If possible remove this box some distance away to help reduce drifting, reduce the entrance and provide feed.

If using our queen rearing starter kit:

- From your Queen Rearing Starter Kit remove the bars from your cell bar frame and insert the desired number of pin cell cups into the groove, spacing these about ¾" apart. Make sure that these are fastened securely so they will not fall out as this can be detrimental to your graft. Be sure to place a cloth over these bars so as not to allow dust to settle into the pin cell cups. You may want to rear more queens than you need due to the unpredictable nature of your grafting and mating success. I would do twice as many as needed.

Kelley's Queen Rearing Starter Kit, Cat # 447

Day 3

- Inspect your nucleus cell building colony for the presence of any started queen cells. If any are detected remove them.
- Returning to the parent colony, inspect the frame that the queen has been confined to. You are looking for egg hatch and the presence of new larvae. Eggs will hatch up to day three from being laid. The best queens are raised from larvae that are

4-20 hours old. These larvae will have barely begun to take on a "C" shape. The rings which will form on the larvae eventually will not be visible or just beginning to form at this time.

- If properly aged larvae are seen, release the queen back to the colony and carry the frame of larvae to your grafting area. This area should be well lit and warm.
- Have your cell bars with pin cell cups laid out along with your grafting tool.
- A lighted magnifying glass can be helpful and is available, our Cat # 297.
- With the Chinese grafting tool in hand, slide the quill down along the side of the cell so the quill slides under the royal jelly and the larvae, remove in one motion straight up.
- Deposit the larvae into your pin cell cup by pushing on the plunger while doing your best to keep it in the same position and centered in the pin cell cup.
- After filling the cups on the bar, cover the bar with a cloth for warmth and to keep foreign material from entering the cells.
- Once you have completed your grafts reinsert the cell bars gently into your cell bar frame with the cups oriented downward.
- Cover this frame with a cloth and take it carefully to your cell building unit.
- Remove the cloth and place this frame into the center of your cell building unit.
- Note the date and time.
- Return the frame that you grafted from, back into the parent colony.
- Continue to provide liquid feed to the cell building unit.

Lighted magnifying glass , Cat # 297

Refer back to your notes as to when you confined your queen. Realize that from the date the grafted larvae eggs were laid you will have emergence of the new queens in 16 days plus or minus one day. If you have accidentally grafted larvae that were older, they will emerge earlier and could kill all the other developing queens in your graft. This is also why you inspect your cell building unit prior to installing your graft.

Painting Your Mating Box

As in all of your beekeeping equipment, you only paint the outside of your boxes to protect and preserve the wood from the elements. Note that your mating boxes have three different opposed openings; it may be beneficial for you to paint these three sides of the mating box in different colors for a higher queen return success.

Day 12-13

Now is the time to make up your mating box

- Install three frames into each compartment of; open brood, stores and bees.
- You may want to stuff grass into each individual compartment's opening.
- Place this box near a readily identifiable landmark such as on a tree line.
- If they can be placed in shade, the grass can be left in place until you install your queen cells.

- It would be good if this can be placed two miles from the colonies of which the frames were removed from to prevent drift.
- Be sure not to transfer the queens from donor hives into your mating boxes, they need to be queenless.

Day 14

- Because we know the queen may emerge from her cell as early as day 15 in warm weather we need to place her into our mating box no later than day 14.
- Going back to your cell building unit, remove the cell bar frame and gently remove the pin cell cups containing the largest and most stippled of the cells.
- Place each individual cell into one of the queen cell protectors.
- With gentle handling, bring these to your mating boxes and press the cell protectors containing the queen cells into the wax between two frames.
- Remove the grass from the openings.
- By day 23-28 from the time the eggs were laid, you should see a pattern of eggs developing if your queen has been successful in her mating.
- These queens can now be removed and placed into splits that have been queenless for 24 hours or in the case of requeening an existing colony, placed into hives where you have removed the queens 24 hours earlier. You may want to use a queen introduction cage for housing her until acceptance.

What if I have extra queens from my graft?

The round queen cages can be used to hold and confine extra emerging virgins in your cell builders.

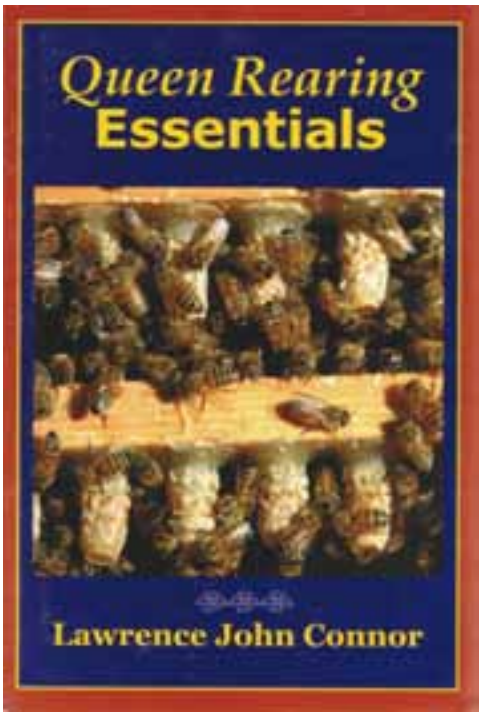
These can be banked for a time in your cell building unit and used later.

These cages can also be used as introduction cages for your virgins.

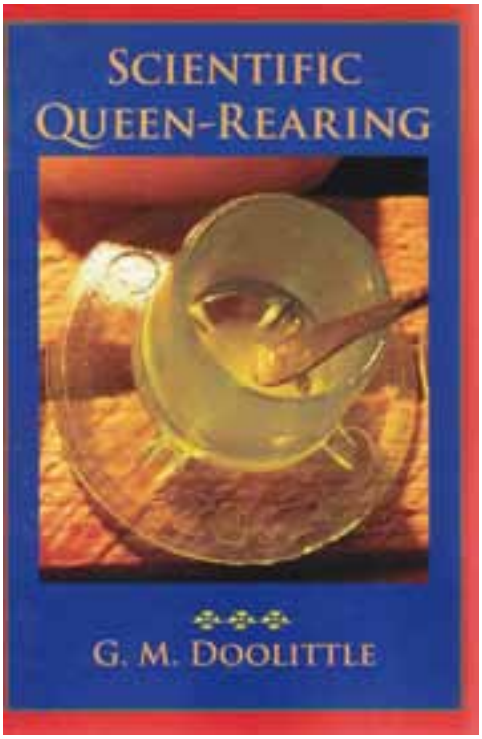
The raising of queens has been extensively covered in many books and I encourage you to read them and formulate a plan as to how you will proceed. The above methods have worked for me and I will continue to use them. Because of the nature of our operation and needing to get a lot of cycles through our cell builders we also utilize incubators. That subject is for another article.

Happy beekeeping,
Sean Burgess

Questions or comments about this article?
Please go to kelleybees.com/blog.



Queen Rearing Essentials,
Cat # 688



Scientific Queen Rearing,
Cat # 659
Just a few of the many excellent books available from Kelley's:

Keeping Bees in the South

By Sean Burgess, Kelley Beekeeper & Employee

If you keep bees in the southern parts of the United States you may face different challenges than you do in the North, but you also have some decided advantages as well. I travel to southern Mississippi on a regular basis in support of the Kelley Company commercial beekeeping operation. I just returned from our Mississippi yards the 23rd of February; the temperature was in the mid seventies. We have mature drones and we have completed our first graft of the season. The bees were bringing in pollen and our open feeders were packed with bees taking up syrup. This is one of the decided advantages of being in the southern parts of the US, our ability to get a huge jump on the season with rapid colony build up and queen rearing.

Another advantage is the fact the bees are able to fly several times a week, year round, for cleansing and foraging. Due to the mild temperatures, we are able to closely inspect our hives for any problems they may face. There are very few weeks when a hive cannot be opened due to cold temperatures.

As you might guess all this activity requires the bees to have a supply of syrup, and if you are stimulating brood rearing, a supply of pollen substitute as well. While it seems there is always something they can find in nature, we supplement them with 1-1 sugar syrup with Honey-B-Healthy and pollen patties in an open feeding arrangement. This is a good way to feed a lot of bees in a hurry. Our open feeders were packed with bees last week and the pollen substitute was also being consumed rapidly. In this area of the country we have a lot of small hive beetles and the patties can be a magnet for them. This is why we have placed them some distance from the hives and not directly on top of the frames. We have placed these up off the ground on top of a fence post. This is sort of like a bird house with no solid sides but slats to allow entry. This helps to keep them away from predators like raccoons, skunks, armadillos and opossums.

Cat # 77-HBH

As the season progresses we will stop feeding the pollen patties as the bloom will be coming on heavy. In February though, a lot of pollen is being collected from maples, plums, turnips and other ornamentals and flowering trees.

I was amazed how rapidly the bees were brooding up; in fact we were able to split a bunch of hives and were adding second stories to many more. Aside from needing more bees for increase, we are also getting a jump on swarm control this way.

Cat # 77G-HBH
Honey B Healthy, available of course from Kelley's!

In our part of the country we have not experienced any problems with Africanized bees and our yards are checked yearly. We have the typical problems with Varroa, but one of the hardest pests to fight is the Small Hive Beetle (SHB).

Even here in west central Kentucky these pests are wintering over well in my colonies and I am sure they will continue to be a problem for beekeepers in a lot of areas as they spread. Because there does not seem to be a silver bullet for the SHB I feel we need to attack them on every front that we have at our disposal.

We have witnessed first class sliming and have had many colonies killed or had them abscond because of severe infestations that were left unchecked.

In my opinion one of the worst things you can do is nothing. If you just hope for the best you will be severely disappointed. Never give the bees more room than they can safely patrol. The addition of second stories to hives when they are not ready and under attack is a sure recipe for disaster and would not follow any best

beekeeping practice in any sane world. In addition if you are using division board feeders remember this is a wonderful breeding ground for SHB in severe infestations especially when using pine straw as floats.

Some of the measures we have used to combat SHB are:

- Ground treatments - salt water and Gardstar
- Salting our bottom boards
- Keeping hives in full sunlight
- Beetle traps in and outside of the hives

Salt

While we have no empirical data for this, we are finding salt to be an effective method to help us deal with SHB. While bees are attracted to salt and I believe it to be an important element in their diet, there seems to be a lethal level and care should be used when applying it inside of active hives.

Using Salt

We get our mineralized salt from the Co Op by the 50# bag. This is the same salt you mix with cattle feed.

Solid Bottom Boards

Hives will be broken down and we will scrape and clean our solid bottom boards. We will then sprinkle salt liberally on the bottom board. Any SHB larvae leaving the hive that crawl through the salt will die. Ever put salt on a slug? Same principle, as the salt desiccates the larvae.

SHB Dead-outs

We scrape any slime off the bottom boards and apply salt to dry out the residue, both on empty box walls and bottom boards. We will then tip these on their sides to let them dry further before storing or reusing.

As a Ground Treatment

Using 25-gallon sprayers, we will treat the ground around our hives with a salt water solution. This will work in a twofold manor. One is to kill any pupating SHB larvae in the ground and also to help control weed growth. Remember that salt is a corrosive and you will need to clean anything metal that comes in contact with the salt water solution by thoroughly rinsing with clean water. Avoid getting any salt or salt water on your brood frames as this may be lethal. Rain will diminish the salt waters effectiveness and you may need to reapply.

Nosema Disease

Another thing to watch out for is Nosema disease. This is present everywhere bees are kept and is not confined to the south but this is the time of year to treat. It is recommended to treat each colony with 1 gallon of medicated syrup in the spring. This is mixed with 1-1 syrup by weight and 1 teaspoon of the antibiotic Fumagilin-B. This disease is evidenced by extreme fecal matter on the outside and sometimes inside of your colonies. This disease will normally present in the springtime and sometimes be lethal and contagious if left unchecked. Especially in the case of Nosema Ceranae which seems to be more virulent than Nosema Apis. Remember if using Fumagilin-B in a feeder you should use an internal one. Fumagilin-B will break down rapidly in sunlight losing its effectiveness.

Another method of delivery would be to spray it directly on your bees across the top bars. You will need to pay attention as to how much is being delivered at one time. Our preference is to spray our bees once a week for three weeks using about a third of a gallon per application. Remember if you are going to soak your bees make sure they have adequate time to preen and dry before cold night time temperatures. Re-

member to always follow the manufacturer's recommendation for using any chemicals and never use any kind of medication when honey supers are in place.

Poisonous Plants

One of the things that can affect your colonies and queen breeding operations in the south in the early spring is the yellow Jasmine vine. As a mono crop this can be toxic to honeybees. Usually there are other things blooming and this is not too much of a problem, however a well respected queen breeder I know says it will cut his queen production down by as much as 35%. He also mentions that when the oaks start to bloom the jasmine is on its way out.

Varmints

Ever walk out to your bee yard and fall into an armadillo hole? This is not much of a problem in the north mainly because there aren't any armadillos, but down south they are common. I remember one morning getting out of the truck and stepping directly into a hole and wrenching my knee and back. This is a bad way to start your day. Make sure when you find them to stick a branch or marker nearby so you don't do it again.

Also remember to keep an eye peeled for snakes; there are some huge rattlers in the south. Fire ants are another common problem in the south. While they don't seem to affect the bees much it's not too fun having them up your britches. They leave a nasty little welt and can burn and itch. Spiders can also be a problem. I don't know what it is about the handholds on beehives that Black Widows like but I sure find a lot of them there, also Brown Recluse are present as well.

While I have not had a problem with them, feral hogs have been known to topple hives. This is mainly from their rooting around activities.

As you can see there are advantages and disadvantages to being in the Deep South. To me, the positives outweigh the negatives. Oh, and by the way, that thing they talk about, southern hospitality? It is alive and well and I enjoy it every time I am there!

Happy beekeeping,
Sean Burgess

Questions or comments about this article?
Please go to kelleybees.com/blog.

Narrower Frames: A Decision!

One of our customers led a concerted effort to gauge your interest in being able to purchase narrower frames. (See our February and March 2012 issues.) We've received a growing amount of favorable feedback, and have decided to do it.

Due to increased production demands on "standard" sizes though, we're busy filling those customers' orders. Come June-July however, we'll build the equipment to produce those, which will make the narrower frames available in the August-September time frame. (New equipment must be built as the changes are drastic enough they cannot be done with changes to our current equipment.)

Thanks for patience, your feedback, and especially your confidence in Kelley's as the go-to place for innovative, cost-effective beekeeping supplies!

Questions or comments about this article?
Please go to kelleybees.com/blog.

Bee-Havior

Editor's Note: As our newsletter serves a large geographic area, we're rerunning this for our northern beekeepers who are receiving their bees over the next several weeks.

Care and Installation of Package Bees

By Stacy Hill, Kelley Employee and Beekeeper

If you are an established beekeeper and can use drawn combs on which to install your package you should do so. If you can just give them two or three drawn combs it is a big advantage. This allows the bees to get to work without having to draw combs from the foundation first.

Four Important Points

1. Feed package bees heavily until the colony is well established. Pure cane sugar and water mixed in a ratio of 1 part water to 1 part sugar, or high fructose corn syrup works well. This is for spring feeding. Consider using a feeding stimulant like Honey B Healthy that is added to your sugar water and treating with Fumigilin B for prevention of nosema.
2. Keep entrances reduced to a small size. This prevents robbing and conserves heat.
3. Do not add supers or a second hive body until the bees draw out 7 of the 10 frames.
4. Do hive inspections to check the condition of the new hive, on a weekly basis, until the hive is well established.

Care of the Package on Arrival

If weather conditions are poor when the package arrives, you can hold the package for several days in a dark room or basement where the temperature is close to 50° F. You should feed the bees in the package by using a clean spray bottle to mist with a mixture of sugar and water (50/50) on the screen of the cage and allow the bees to gorge themselves. You should repeat this process morning and night. If you do not do this, the sugar syrup in the can shipped with the package can go dry and your bees will starve. Bees die of heat quickly—do not leave them in the sun or in a place that is hot.

Installation of Packages

Install the package late in the afternoon. This helps prevent drifting. It is well to mist a little syrup on the screen of the cage 15 minutes before you are ready to move them to the hive for installation. This quiets them down and they will be better natured. There are several ways of installing a package of bees. We recommend the following methods.

A couple newbees install their bees via the shake method.

Method 1

Remove one frame from your hive. Store the frame in a dry cool place. This frame will be put back into your hive several days later. Tap the cage lightly a few times on the ground to jar all the bees to the bottom of the cage. Do not let queen the cage slip down into the cage. With a firm grip on the can, remove it, pull the queen cage out of the package and immediately return the square lid to the hole of the cage. This prevents the bees from getting out.

While Newbee Pete struggles to remove the cork, the worker bees investigate their new home & caretakers.

Now that the queen cage is removed, inspect your queen to make sure she is alive and in good condition. Carefully remove the cork from the candy end of the queen cage. The bees will release the queen from the cage by eating the candy (it usually takes a few days for them to do this). You may choose to take a small nail and make a hole through the candy. This will help release the queen sooner.

Bees don't typically get this excited during an install, but these ladies were! It was probably due to a combo of warm humid weather & a long ride from Kentucky.

Place the queen cage, screen side facing up, between frames 5 & 6 in the hive body. Again, tap the package lightly a few times on the ground to jar all the bees to the bottom of the cage. Remove the square lid and begin to gently shake the bees from the package over the tops of the frames and the queen cage. Once you have shaken the bees from the package, place the inner cover over the hive upside down. You can now close up your hive with the top cover. Once you have shaken the bees from the package and closed up the hive, place the package on the ground in front of the hive so that the few remaining bees can fly out and into the hive. You will need to feed your bees on a regular basis. We suggest using a Boardman entrance feeder with package bees to prevent drowning. You can open the can of syrup that came with the package and use the remaining syrup to feed with.

In about three days, you will want to go into the hive to make sure the queen has been released and is alive. If she is still inside the cage, you can choose to leave her there a day or two longer or release her yourself. To do this, hold the queen cage down inside the hive body and carefully pull back the screen to release her. Remove the queen cage and place the frame you removed before installation back inside the hive body box and return the inner and outer cover.

Method 2

With this method, you do not have to shake the bees from the package. Follow the same procedures as Method 1, except remove five frames from your hive. Place the queen cage, screen side facing up, between frames 2 & 3 in the hive body. Again, tap the cage lightly a few times on the ground to jar all the bees to the bottom of the cage. Remove the square lid and place the package down inside the hive body in the space of the frames you have removed. In about three days, make sure the queen has been released and is alive. Remove the queen cage and package and place the five frames you removed before installation back inside the hive body box and return the inner and outer cover.

Stacy shipping your package bees!

Questions or comments about this article?
Please go to kelleybees.com/blog.

Bee-Yond & Bee-Hind the Hives

Vanishing of the Bees: A documentary about honeybees, our food supply, and you!

By Elizabeth Forbes

Editor's Note: Elizabeth is a backyard beekeeper in Bowling Green, Kentucky, keeping bees because she is "fascinated by their finely tuned social system and the important role they play in our environment." She has four hives, and noted that she could "write an essay on what I love about bees."

The Allen County Beekeepers Association, in cooperation with Au Naturel Farm, the SKY Farmers Market, the Earth Ministry of Christ Episcopal Church, and Falling Springs Flower Farm have all joined in an effort to co-sponsor a free, public screening of the award winning documentary, Vanishing of the Bees.

For those who may not be familiar, Vanishing of the Bees follows two commercial beekeepers as they try to keep their businesses afloat after discovering massive bee die-offs in their hives. First brought to light in 2006, the mysterious phenomenon later named Colony Collapse Disorder continues to plague honeybee colonies and beekeepers in the United States and around the world. The search for answers leads these men on a journey around the globe, and they uncover research to suggest the use of systemic pesticides in our industrial farming practices is having sub-lethal effects on the honeybee's ability to navigate, forage for food, and fight off diseases and pests. If these pesticides, used on a growing number of our fruit and vegetable crops, are killing our honeybees, what might they doing to us? Many compare the plight of today's honeybee to the proverbial "canary in the coal mine." What are these bee die-offs telling us about the health of our environment and our food supply? If you care about what you eat and what you feed your family, and/or you consider yourself a nature enthusiast, or if you just love honeybees, this eye opening film is a must-see.

This free showing of Vanishing of the Bees will take place on Earth Day, Sunday, April 22, 2012 at 2:00 p.m. in the Auditorium of Mass Media & Technology Hall (MMTH), on WKU's campus. Following the film, we will have a panel discussion and allow for questions and answers. Our hope in having a panel discussion is to put this topic into perspective while offering solutions to families on ways to promote healthier pollinator habitat, farming, and eating.

Others who have donated their time, talent and resources to this event include the Warren County Beekeepers Association, and local friends of the bees Shanna Paul, Tom Meacham, and Michele Boling. We sincerely hope you will join us! For more information, please contact Elizabeth Forbes at eforbes30@insightbb.com.

Editor's Note: There are other showings of Vanishing of the Bees occurring around the world. A partial listing may be found at http://www.vanishingbees.com, where you may also obtain a copy of this critical video.

Questions or comments about this article? Please go to kelleybees.com/blog.

Show Schedule

2012 West Virginia State Beekeepers Association Spring Meeting
- Saturday Apr 14, 2012
- Harrison County Recreation Complex/4-H Center south of Clarksburg, WV

21st Annual Young Harris Beekeeping Institute
- Thursday May 10, 2012
- The Young Harris Beekeeping Institute is located in the Maxwell Center on the campus of Young Harris College.

2012 Alabama Beekeepers Association 6th Annual Picnic
- Saturday May 19, 2012
- Cullman County Fairgrounds in Cullman, AL

ABeeCs

A Bee Space, Pollen, Wax and Propolis Primer

It's the time of year when there are lots of new beekeepers. For the next several months, we'll be publishing some bee basics, many of them excerpted from writings by the late Walter T. Kelley, our founder. The following is from the highly recommended publication: HOW TO KEEP BEES AND SELL HONEY by Walter T. Kelley.

Bee Space

Bee hives and supers must be accurately made to provide the correct bee space inside the hive so that the bees can pass freely. A bee space may vary from 3/16 to 3/8 of an inch. If it is smaller the bees cannot get through so they will seal it up to keep out moths and other enemies. If the space is over 3/8 of an inch it will be too wide so they will proceed to bridge it with cross combs. The accepted standard for a bee space used in the manufacture of bee hives is 5/16 of an inch. This space is allowed at the top side of the supers and hive bodies. People who make homemade equipment seldom realize the importance of this bee space and as a result the parts become too badly propolized to be serviceable.

Pollen

Pollen is the powdery-like substance that the bees gather from the flowers. It is produced on the stamens, the male part of the flower, and normally varies in color from a light cream, yellow, and even to a deep red. The bees store this pollen in pockets on their back legs and it is a common sight to see the bees going into the hive with large balls of this pollen on their legs.

Look at all that pollen. Photo courtesy of C. Hubbard

Only a small part of the pollen is collected on the legs of the bees and much of it collects on the tiny hairs covering the bee's body and this is dusted on the female parts of other flowers as the bees go from flower to flower thereby producing cross pollination. It is this cross pollination work that the bees accomplish unintentionally that makes bees so valuable in the production of many fruits and legume seed crops.

Pollen is normally stored in the brood nest just outside the ring of brood in a frame, as it is the main part of the young bees' diet. It is not uncommon, however, to find nearly solid combs of pollen in the frames on the far sides of the brood nest and it is not uncommon to find a few cells in frames of honey near the brood nest, especially when queen excluders are not used.

Beeswax

Many uninformed people believe that pollen is what the bees make beeswax of but this is not true, although wax is colored by pollen. Beeswax is secreted from glands on the underside of the bee's abdomen in a process similar to the secretion of milk by a cow. The bees chew these tiny wax scales into a plastic form and somehow unite these into honey comb that appears to be all of one piece.

Propolis

Propolis is the general name for the bee glue that is gathered largely from the buds of trees. It is used by the bees to fill up cracks and will be found in quantity at the ends of frames. It is also used to seal in enemies found in the hive such as wax worms, mice, etc. The grey Caucasian bees glue up their entrances and use so much propolis that few beekeepers care to keep them on this account although they are very gentle.

Questions or comments about this article?
Please go to kelleybees.com/blog.

Bees Overseas

Project in Senegal, Africa

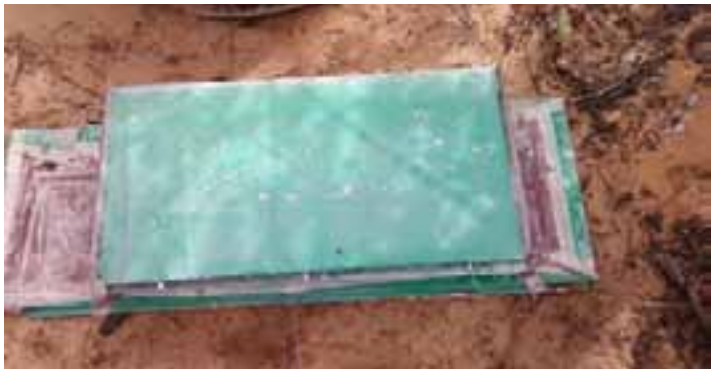
By Lady Spirit Moon

As a Certified Beekeeper and owner of BEe Healing Apiary, I came upon Jean Cheikh Ndiaye and his friend, Ousmane Faye, through TECA, an Apimondia beekeeping forum. The original purpose of the relationship was to exchange beekeeping ideas, apitherapy knowledge, and anything and everything for the sake of biodiversity. French is the main language of the area, but English-speaking Jean is the one who now communicates with me through emails and Skype.

Over the summer Ousmane spoke of using cement for the hives because wood and aluminum are very expensive in Africa when working with Apis Mellifera. Cement is nearly half the cost and more durable during the rainy season, which runs from June to October. Intrigued by the idea of cement hives, I offered the fellows a $100 grant (came out to about $96 in Africa) toward making 30 cement hives.

Ousmane covering boxes with aluminum.

They create their hives one at time by taking the gabarit with them the long distance to the Kébémer city where they set up their operation to make the hives on the spot, rather than transport the cement boxes and risking damage.



The gabarit is a vinyl coated form used to make a hive.

Late summer I mentioned I needed help in my apiaries in 2012. Jean asked if he could come to the USA to learn beekeeping. When I remembered him telling me he didn't know what a swarm or a split was, I tentatively jumped at the idea. The Center for Honeybee Research wants to teach Natural Beekeeping to the world, especially to all the farmers. As Ambassador for the Center, I thought this was a great opportunity for everyone.

Jean had other commitments, but his brother Andre planned to be at BEe Healing Apiary from mid-February through August, 2012, to learn Natural Beekeeping, apitherapy, and herbology. Andre has studied Biology at the Cheikh Anta Diop University in Dakar, known as Dakar University. After Jean received his passport violence broke out because of the presidential election and no one was allowed to leave the country. If and when Jean arrives, we will help with part of his plane ticket, provide room/

Sand is put in middle of the squared wooden-frame creating the inside ledge for the comb frames.

Wood is used for the sides and top to create the cavity of the hive.

Paper is then wrapped and taped around the wood.

The gabarit is locked around the paper-covered box, leaving about a 1" space for the cement walls.

Cement is carefully poured over the mold.

A tin can is used to make the air hole in the hive's bottom.

The finished hive.

board, and pay a small monthly stipend in exchange for 20-30 hours a week of labor.

There are two goals to accomplish with this project:

1. Teach Natural Beekeeping everywhere we can, to help the honeybees survive and sustain without treatments.
2. Start an International Beekeeping Student program for the Center. The Center also plans on using BEe Healing Apiary for research/studies, allowing the interns first-hand experience at learning how to figure percentages of Varroa in each hive and how to test for the hives' hygienic behavior, among other things.

Ousman's son in front of a finished hive.

If Andre completes his internship, he will go back and help build their business to 100 hives. We will be with them on the first leg of their journey through emails and Skype. After getting his business off the ground, it is our hope he teaches others Natural Beekeeping through workshops.

A double cement hive.

Editor's Note: If you'd like to assist in this effort, BEe Healing Org. is accepting donations through http://beehealing.org/buzz.html. There is a donate button most of the way down that page.

Questions or comments about this article?
Please go to kelleybees.com/blog.

BeeCause

Kelley's Hive Raffle Funds Future Beekeepers

By Bobbi Heider

Tri-County Beekeepers Association (TCBA) was founded over 35 years ago to support beekeeping in Ashland, Holmes, and Wayne counties of Ohio. Today, TCBA has over 200 members throughout Ohio and neighboring states. Aside from their monthly meetings, they show off bees and beekeeping at local community events and host what many believe to be the largest one-day beekeeping workshop in the United States. They have also added a New Beekeepers Course, which shows new beekeepers everything a beekeeper might want to do with their bees or hives throughout the year.

Saturday March third was the 34th annual workshop held by TCBA. The workshop offered many programs, including a children's program, cooking contest, hands-on activity room, and a large vendors' area.

With over a thousand in attendance, TCBA did not do things by themselves. Bees have never been as exciting and fun as they were with the Lorain County Beekeepers, who held special sessions for beekeepers up to the age of seven.With two dozen speakers, topics ranged from sustainable beekeeping, bee plants, how to handle swarms, beekeeping equipment, and raising your own queens. It was a difficult choice for many which topics they wanted to hear about.

Door prizes were awarded throughout the day, and tickets were sold for an "Education Raffle". This year the prize was a complete beehive donated by Walter T. Kelley Company. At the end of the day, the winner of the hive was announced, as well as the recipient for TCBA's Scholarship Award.

Rhonda Griffen, winner. Photo courtesy of Bobbie Heider.

This year, the winner of the hive was Rhonda Griffen. She and her husband are first year beekeepers. She claimed the hive as "hands-off" to Mr. Griffen, saying he already had five of his own.

This year TCBA announced not one, but two winners of the scholarship. The scholarship was originally created to assist ATI students taking the beekeepers course. Today, the scholarship is used to assist individuals who show an active interest in wanting to become a beekeeper, but may not have the resources to begin.

Bala Fodor is a 14-year-old who is interested in raising bees on his family's farm. He has planted an orchard and realizes how important bees are for pollination. He realized how few bees there are in his area, and wants to do what he can to change that. He has a great support system with his parents and has attended both the beginner classes and monthly TCBA meetings.

Brian Miller is a 16-year-old who understands the complexities of bees and beekeeping. After studying bees and their place in the natural environment he decided to become a beekeeper. He has attended several TCBA workshops.

Scholarship winners Bala Fodor (left) and Brian Miller. Photo courtesy of Bobbie Heider.

For more information about the Tri-county Beekeepers or any of their programs, you can visit www.tricountybeekeepers.org. The monthly meetings are usually held on the last Wednesday of the month at the Honey Bee Laboratory on the ATI/OSU campus in Wooster, Ohio and all are welcome.

Bobbi Heider got into bees 3-1/2 years ago when her husband Joe came home from an errand and asked if he could get a pet. She said "sure" before realizing he meant a hive of 30,000+ honey bees. They currently have 16 colonies and are active members of Tri-County Beekeepers Association as well as Stark County Beekeepers Association.

Questions or comments about this article?
Please go to kelleybees.com/blog.

Featured Products

Those swarms are going to happen, be prepared for quick and easy capture now.

Swarm Harvestor, Cat # 890-SH

Swarm Trap, Cat # 89

Swarm Lure, Cat # 89-L

More great products like these at kelleybees.com!

Good New / Bad News

The good news is, more people than ever want to help these critical insects, and are entering beekeeping for the first time or expanding their apiaries. This is good for the bees, for the planet, and for all of us.

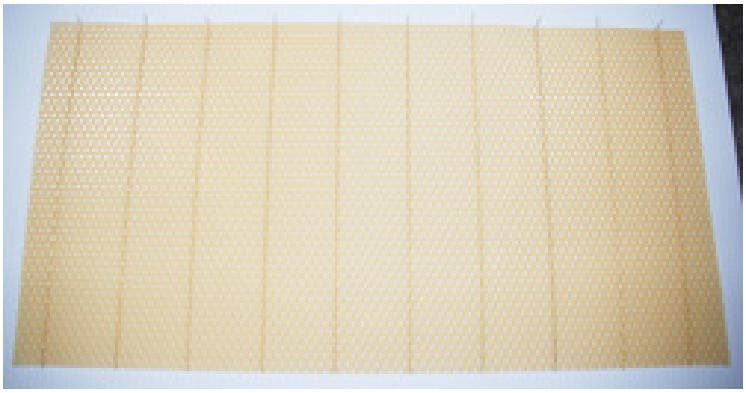
The bad news? We are sold out of package bees, but we're working on obtaining more packages. Any announcements of this potential availability will be at www.kelleybees.com.

We heartily recommend this product, as a feed supplement and as a drench:

Cat # 77-HBH

Cat # 77G-HBH

And of course, for a new swarm or the expansion of your existing colony, you need foundation. Kelley's has all sizes and styles.



FAQs

Please note: Correspondence submitted to the Kelley Bee News Modern Beekeeping newsletter (or subsequent publications) becomes the property of the Walter T. Kelley Company. We reserve the right to print or not print any correspondence and it may be edited for length and/or clarity. It may be published or republished in any format or medium and/or licensed to others for publication. If we publish your correspondence, we may attribute it to you and may include your name and city, unless you expressly request that you remain anonymous.

Q: Spring has sprung here in Michigan; it is 75 degrees mid-March. Any reasons I shouldn't consider making a split now?

A: Kelley's beekeeper Sean Burgess fielded this question for us, answering:

Do you have drone brood? Remember, from egg lay it will be 38 days for a drone to be mature. A queen's fertility starts at 23 days from egg. You can try to pin a drone down with your finger and if he struggles hard to get away he is probably mature.

You only need put about ½ frame of brood in different stages into a nuc. Remember you must have eggs on that frame for them to have a good shot at making a healthy queen. They make their best ones from larvae that are between 4-20 hours old. So the recipe is;:

- Brood frame with clinging nurse bees.
- 1-2 frames of stores placed on either side and fill in the ends with drawn blanks.
- Shake an additional 2 frames of nurse bees on top of the frames in the nuc.
- Spray them down with 1-1 syrup but don't drown them.
- Reduce the entrance.

Q: How do I prevent swarms?

A: Great question—and likely, an especially hot topic for this year because the unusually warm weather has encouraged faster build-ups.

Unfortunately, the only guaranteed way to prevent swarms is to not have bees. Luckily, there are some things you can do in an attempt to minimize swarms.

Next month we'll be discussing swarm control in depth, but until then, here's some insight on swarming and prevention from expert beekeeper Michael Bush, whose a website is www.bushfarms.com/bees.htm:

There are two main types of swarms: reproductive swarms and overcrowding swarms.

Overcrowding swarm: Since it's the simplest and can happen anytime, let's briefly look at the overcrowding swarm. The factors that seem to contribute are:

- No place to put nectar so it gets stored in the brood nest.

Prevention: add supers.

- Honey or pollen clogging the brood nest so that the queen has nowhere to lay. Prevention: remove combs of honey and add empty frames so that the bees will be occupied drawing wax and the queen will have somewhere to lay and the bees will have more room to cluster in the brood nest.

Kelley's swarm trap in action, catalog #89.

- No place to cluster near the brood nest. The bees like to cluster near the queen (who is in the brood nest) and this clogs the brood nest making it crowded.

Prevention: Slatted racks give room to cluster under the brood nest. Follower boards on the outside give room to cluster on the sides of the brood nest. These are a 3/4" wide top bar with a sheet of plywood or Masonite or similar material in the middle the size of a frame. One on each end replaces one frame in the brood nest.

- Too much traffic congesting the brood nest.

Prevention: a top entrance will give foragers a way in without going through the brood nest.

So basically, if you keep supers on and provide ventilation you can prevent an overcrowding swarm.

Reproductive swarm: The bees have been working toward this goal since last winter. The first mistake people make about preventing swarms is they think you can just throw on some supers and they won't swarm. But they will. Yes, it's nice to have room for them to store the honey, so the supers are helpful, but bees intend to swarm and the supers will not deter them from the plan to do a reproductive swarm.

When pollen starts coming in in the spring, bees rear more brood to build up. They also start using up the honey they have stored. This is used to feed brood and it also makes room for more brood.

When the bees think they have enough bees they start filling all of that back in with honey, both to stop the queen from laying, and to have adequate stores in case the main flow doesn't pan out. As the brood nest gets backfilled it makes more and more unemployed nurse bees. These nurse bees start doing a keening buzz that is quite different from the typical harmonious buzz you usually hear—more of a warble.

Once the brood nest is mostly full of honey they start swarm cells. About the time they get capped the old queen leaves with a large number of bees. Even if you catch the swarm, the hive has still stopped brood production and has lost (to the swarm) a lot of bees. It's doubtful it will make honey. If there are still enough bees, the hive will throw afterswarms with virgin queens heading them.

If I don't catch them in time, once they make up their mind I always make splits because not much will dissuade them. Destroying queen cells only postpones the inevitable at best and most likely will leave them queenless. My guess is that most people destroy the queen cells after the hive has swarmed without realizing it.

If you catch them trying to swarm between about two weeks and just before the main flow, a cut down split with the old queen and all but one frame of the open brood in a new location is a nice swarm prevention method. Leave the old hive with all the capped brood, one frame of eggs/open brood, no queen and empty supers. Usually, the old hive won't swarm because they have no queen and hardly any open brood. Usually the new hive won't swarm because they have no foragers. This is best done just before the main honey flow.

I often just put every frame that has some queen cells on it with a frame of honey in a two frame nuc to get good queens.

When Bees Come Forth in the Spring

By Sean Burgess, Beekeeper & Kelley Employee

When bees come forth in the spring
Exalt with joy that this brings
Through long cold days they have survived
And on the flow we hope they thrive

And so we move through our days
As seasons change before our gaze
Sometimes we thrive sometimes we fail
As time grows short in twilight's veil

Beyond the harvest of nectar sweet
Beyond the summer and the heat
Beyond the fall with golden days
Beyond our time when visions haze

We hope the bees continue on
And man will right what has been wrong
That flowers grow and fields bloom
And summer's buzz remains the tune

But, of course, the real object is to avoid the swarm and the split (unless you want to do the cut down split) so you'll have a bigger stronger hive that will make more honey.

Opening the Brood Nest

This, of course is what we want to do; interrupt the chain of events. The easiest way is to keep the brood nest open. If you keep the brood nest from backfilling and if you occupy all those unemployed nurse bees then you can change their mind.

If you catch it before they start queen cells, you can put some empty frames in the brood nest. Yes, empty. No foundation. Nothing. Just an empty frame. Just one here and there with two frames of brood between. In other words, you can do something like: BBEBBEBBEB where B is brood comb and E is an empty frame.

How many you insert depends on how strong the cluster is. They have to fill all those gaps with bees. The gaps fill with the unemployed nurse bees who begin festooning and building comb. The queen will find the new comb and about the time they get about 1/4" deep, the queen will lay in them. You have now "opened up the brood nest." In one step you have occupied the bees that were preparing to swarm with wax production followed by nursing, you've expanded the brood nest, and you've given the queen a place to lay. If you don't have room to put the empty combs in, then add another brood box and move some brood combs up to that box to make the room to add some to the brood nest. In other words, then the top box would probably be something like EEEBBBEEEE and the bottom one BBEBBEBBEB. The other upside is I get good natural-sized brood comb.

A hive that doesn't swarm will produce a lot more honey than a hive that swarms.

Nationally recognized expert Michael Bush is coming to Field Days this year! You'll soon be able to make your reservation for this space-limited event via the website or by phone.

Questions or comments about this article?
Please go to kelleybees.com/blog.

Walter T. Kelley Field Days 2012

Beekeepers—not only from all over Kentucky but also from all over the United States—make their way toward the Walter T. Kelley Company each spring for the annual Field Days. This year's is June 2nd, rain or shine, in Clarkson.

The cost is $25 for adults, $20 for seniors, and $12 for children, and includes lunch of an excellent honey barbeque provided by Stone Hill Honey Farm.

We're bee-yond ourselves with excitement over the top-notch speakers we have this year. Keynote speaker is the esteemed Dr. James E. Tew, Associate Professor of Entomology at The Ohio State University. Michael Bush, nationally recognized bee expert and regular contributor to this magazine, will also be conducting educational sessions throughout the day, along with other great speakers and hands-on demonstrations from splitting to queen rearing. We will soon be taking pre-paid admissions mid-April via the website or by phone; you will be required to present your paid invoice when coming to the June 2nd field day!

Attendance is limited to 500, so mark your calendars to make reservations when the time comes.

Sweet as Honey

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After Ivy and Bill let us know they were missing our January newsletter, we emailed them that copy, along with the note that all back issues may be retrieved from www.kelleybees.com, under "Education." Their reply?

"Thank You very much, didn't know about Education. Now have all the copies. They are very good."

Thanks for the kind words Ivy and Bill, and thanks to everyone for reading and letting us know how we can make this newsletter better for you.

Please check out the repository of newsletters. Beekeeping information is very seasonal. While an issue may say 2011, there's still plenty of helpful information applicable in 2012 and beyond.

Great newsletter, do you have any pictures of hives that had the SHB what the mess looks like?
M. Chlipala

Readers? We'd like to share your photos, along with any others bee-related. Please send them to KelleyBeesEditor@gmail.com, thank you!

I loved your last article (Dronings from a Queen Bee) on going to the party and "bee-ing" an introvert. That would also describe me.

You are dead on about the conversation with educated people. I happened to be holding up the wall at a New Year's Eve party hiding behind the planter (so similar, huh) and word got out. Before I knew it there were 10 or 15 people around asking questions. It was fun.

Samuel and I have been very busy. We started out last year with 5 hives and lost 2 during the year through our "learning curve." I'm happy to report I got a chance to open the 3 hives that overwintered and they are doing well.

Young beekeeper Samuel, preparing for the 2012 season. Photo courtesy of Pat Mcgrath.

To help my new addiction, I have ordered 10 new hives! (Are beekeepers crazy or what?) Samuel and his brother have been helping me assemble them and we will be ready when we pick up our new swarms in April. For Christmas Samuel got his own smoker so needless to say he can't wait for spring and the chance to get back into the bee yard.
Pat M.

I ordered your Basic Beginners Kit last Sunday I believe. It was delivered on Wednesday. I have to tell you I'm really impressed with the way you people take care of business.
Thanks, M. Jahr

Hello, just wanted to say thanks for the help I received from Stacy with a small problem I had. She was very pleasant and took the time to understand my problem. Five stars for her and Kelley Bees. Anyone can make a sale; it takes people like Stacy to make a customer. Thanks again to Stacy!
Mark S.

I've really enjoyed the newsletter for the last several months; you do a great job!
Best, Shannon

I am a 21-year old business student with four hives. My dad used to keep bees when I was younger and I loved to help him and eat the honey fresh off the frames. A few summers ago we dug out everything from the barn and got started again. It is a fun project for the summer that I can work on with my dad and I can practice my business skill I learn at school. My parents sell the honey for me while I'm 12 hours away at school so I can have spending money. I love my bees and I love my dad!
Holly F.

Photo courtesy of Holly Feltham.

Dronings from a Queen Bee

Death by Cuddling

By Charlotte Hubbard

When nieces Sydney and Samantha were ages four and six, one of their friend's parents died of cancer.

My brother-in-law consulted with experts about how to discuss a parent's illness and death with such young children. He then faced the difficult task of explaining to my nieces the unexplainable—that sometimes people die early.

The girls studied him, wide-eyed and solemn.

He then assured the girls that their Mom and Dad were working hard to stay healthy, and visiting the doctor regularly, so nothing was probably going to happen to them for a long, long time.

After a lengthy pause, four-year-old Sydney broke the silence with a cold "Really Dad? Or so you think!"

Sydney's assessment of reality was chilling, but it has served as a family punch line ever since.

I thought of it recently, when I was pondering my role in the household, my "hive." Beyond question, I am the household's queen bee.

Or so I think.

Upon thinking about it, I'm not so sure.

Worker bees are the hive members who gather and prepare food, feed their hive mates, and clean up after them, among other duties. My hive mates are two cats who only move from in front of the gas stove long enough to eat, a dog whom I let out (and in) 4,000 times daily, and the occasional visiting (grown-up) child who greets me with a laundry bag, and then a hug.

Melvin, unhappily wearing a bee hat.

Uh-oh. The definition of worker bee fits me to a T.

There are times though when I feel more like a queen bee. Recently, after a long day at work, I returned home, worn out and crabby.

Part of the crabbiness was due to hunger—I'd left the lunch I packed on the kitchen counter. That lunch had included an awesome chicken salad sandwich.

Part of the crabbiness was finding my lunch sack on the kitchen floor, ripped open next to a chewed-open sandwich baggie. Gee. I wonder who did that? Maybe some or all three of the critters staring at me through seemingly innocent eyes (and breathing chicken salad breath)?

The critters then leaned against my ankles, herding me toward their still-full food bowls.

Normally I feed the critters in the late afternoon. As they'd eaten my lunch, their food bowls weren't empty, but in their little brains, it was time to be fed.

Or so I thought. Perhaps they weren't herding me toward the feeding dishes at all. Maybe they had something else in mind. Maybe, just maybe, I am their queen bee, and double uh-oh. You see, when a hive is preparing to swarm they stop feeding the queen; that would explain them eating my lunch.

The next step in swarm preparation is chasing the queen around the hive, thinning her down for flight. While I haven't yet lost those extra holiday pounds, maybe the animals weren't chasing me so I'd feed them, but instead to thin me down.

Later that night, I snuggled on the couch to do one of my favorite things—read about honeybees. With winds whistling out of the north, I was a bit chilled. My animals cuddled around and on top of me. The dog consumed the majority of the couch she's not allowed on. Chloe the slender cat meatloafed on my shoulder; Melvin the obese cat settled his enormousness on my lungs, making it hard to breathe. One of the glorious advantages of pets is that they warm up humans quite nicely, although sometimes they're too warm.

I turned to Wikipedia, and upon reading this entry, my blood ran cold. It confirms that I'm this hive's queen bee, and that I'm in trouble: "When a new queen is available, the workers will kill the reigning queen by "balling" her, colloquially known as "cuddle death"; clustering tightly around her until she dies from overheating."

No, it can't be. My hive mates are just being affectionate, friendly ... right?

Or so I think.

Questions or comments about this article?
Please go to kelleybees.com/blog.