BEE *BUZZ*

AUGUST 2022

Inside this issue:

OLD TIMERS' WAY

By Ken Schaefer

If you have been a beekeeper around long enough the names Carl (father) and Gene (son) Killion not only ring a bell but also inspired awe. As a kid in 1906 Carl cut down a bee tree and started his first hive. The number of hives grew and Carl specialized in producing comb honey. His son served in WW II and after the war they formed Killion & Sons Apiary. They operated out of a small town called Paris, Illinois.

In 1951 they broke a world record of producing 17 comb honey supers from one hive and averaging 14 supers each from 100 hives (336 combs from each hive). The honey source was sweet clover. Gene said that he could stand on the bed of his truck and see clover in bloom as far as he could see in every direction. To achieve this record much manipulation had to be done; such as, bees forced down to a single brood box, queens clipped, queen cells removed, and supers rotated or removed. They also used innovation like follower boards and slotted racks.

Carl served as Chief Apiary Inspector for 38 years until 1970, followed afterward by Gene. American foul brood was once a major problem. Through their efforts this disease was brought down to less than 1% in 50 years. Gene passed away on June 19, 2022, at the age of 98. I had the pleasure of meeting both as they would often give talks at our meetings. Gene wrote a book "*Honey in the Comb"* which can still be found.

Late Summer with The Bees

This exerpt was taken from the book titled "How To Do Things" a compendioum of new and practical farm and household devices, helps, hints, recipes, formulas and useful information from THE FARM JOURNAL ***copyright 1919***

Watch Out for Robbers

It may be wise to contract the entrances of the hives for a short period to prevent robbing, and in the case of weak colonies this is absolutely necessary, for as a rule strong colonies are amply able to repel robbers, while the weaker colonies are the ones which suffer.

In sections of the country where buckwheat is abundant and constitutes the main flow, the beekeeper will be kept busy, and swarming may be resumed on a large scale.

August in Southern Illinois by Ken Kloepper

DISCLAIMER: The most important thing to remember is that you cannot manage honey bees by a calendar. Location, topography, climate, weather, floral resources , and management goals are all factors to consider.

- August is considered by many to be the month that marks the beginning of the beekeeper's year.
- Beekeepers usually notice colonies bearding in hot humid temperatures. Adding a couple of small 3/8" shims at the corners of the top supers can increase ventilation and help cool the hives.
- Inspections in August will often reveal that the amount of brood is really starting to decrease in the brood nest. At the same time, the varroa mote population is reaching its seasonal peak!
- Beekeepers must manage hive mite counts now to 2-3% or risk losing colonies over winter. It is advisable to perform follow up mite counts after treatment are completed to determine the treatment effectiveness.
- Colonies that you intend to overwinter need to be:
    - Strong—consisting of a minimum of 5 or 6 brood frames well covered with healthy bees, Consider joining or balancing hives.
    - Well Provisioned—adequate and well-arranged honey and pollen stores. Feed 2:1 sugar syrup & pollen substitute as needed.
    - Disease Free- contact Dept of Agriculture apiary inspector if suspected, for advice!
    - Low Mite Counts—treatments applied early to reduce counts is critical. Delays intreating colonies with counts higher than 3% usually results in loss as it will be too little too late!
    - Re-Queen—consider replacement of old queen with a young mated queen.
    - In Appropriate Hive—adjust the hive to brood nest boxes only and remove queen excluders.

The Beekeepers Calendar of Important Events

Source: David Burns, EAS Certified master Beekeeper @ www.honeybeesonline.com

August and the Bees: Since the nectar flow will end this month the bees will become much more flighty, searching for nectar which is now not as plentiful to find. The bees are making a final effort to store up for winter, searching for final nectar sources. Golden rod and Aster plants can provide an average nectar flow in the fall.

August and the Beekeeper: If you have multiple hives, you must be careful not to let a strong hive rob a weak hive. If nectar is still coming in, continue to place supers on the hive. Be carful not to open up the hive for extended periods as other hives may try and rob the hive while it is opened. I usually place a 5 gallon bucket in my bee yards and fill it with 2:1 sugar water, 2 parts sugar and 1 part water. Then, I will fill it with clean sticks so the bees will not drown. After a few hours the bucket will be covered with thousands of bees. Don't put this close to your hose. This is a great way to feed your bees and to prevent them from robbing other weaker hives. If you have just one or two hives, this will not be necessary.

How to Make a Robbing Screen—by Dennis Hessel

A robbing screen is designed to confuse robbing bees so they don't get access to the inside of the hive. The bees that belong in the hive will know the way back into the hive, but the robbing bees will try to enter the hive straight on based on the smell coming out of the hive and be blocked.

It is best to put the robbing screen on late in the evening so that the foragers leaving in the morning will learn the way out and back in. If you put it on during the day the foragers already out of the hive will come back and try to enter straight into the hive like the robbing bees.

Materials needed:

38 " of ¾" x ¾" wood for 8 frame hives and 44" of ¾" x ¾" wood for 10 frame hives or a piece of 1x5 15" long

8 hardware clot or window screen 6" x 12 ¼" for 8 frame hive or 6" x 14 ¾" for 10 frame hive

4 nails 1 ½" nails or screws

Wood glue

3/8" staples

Staple Gun

Hammer

Screw driver

Drill

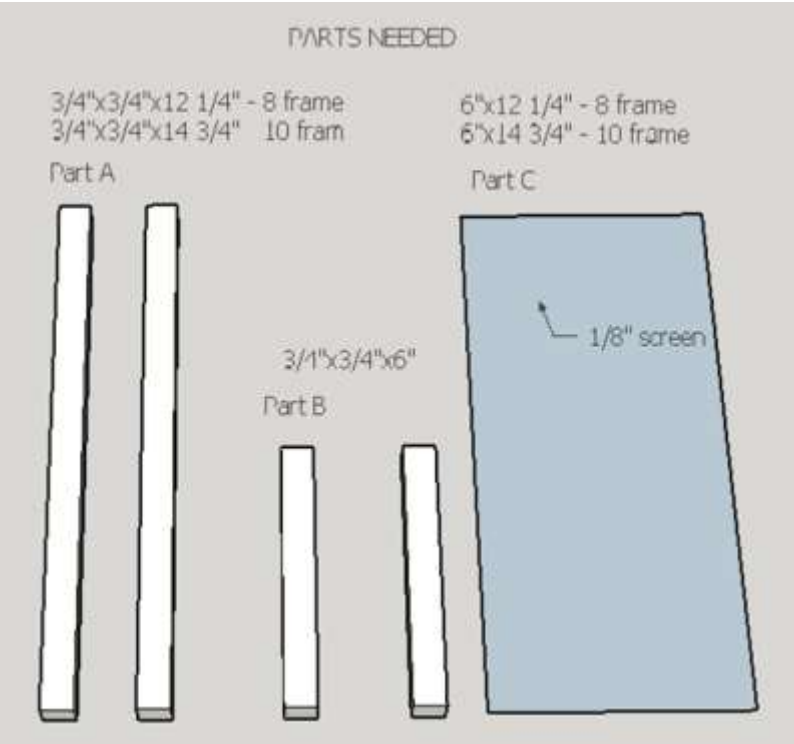
Small drill bit

Saw

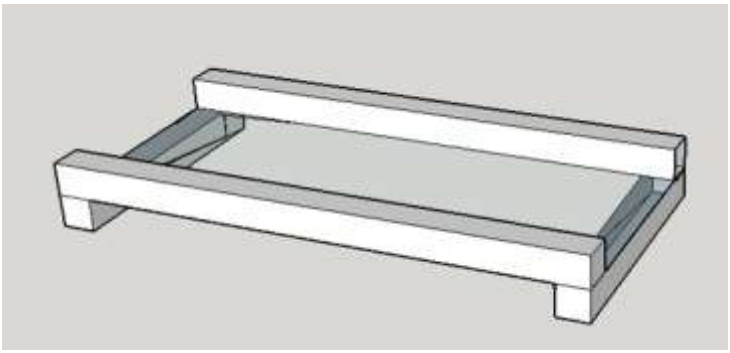
Ruler

Pencil

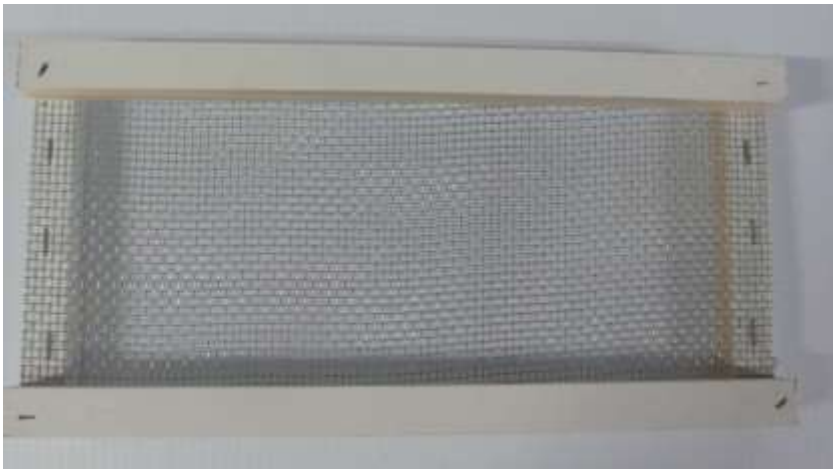
A brad nailer or crown stapler



1. Measure the inside width of your bottom board rails to get an exact measurement for Parts A. 8 frame hives should be around 12 1/4: and 14 ¾" for 10 frames.
2. Rip the 1x5 into pieces ¾" x ¾" you will need 3 pieces when you are done
3. Cut two pieces to length to match the width measurement you got in step #1
4. Cut two pieces 6" long parts B.
5. Cut the screen material to 6" wide and the same size as the part A cut in step 3.
6. Lay parts B on the work surface.
7. Lay the screen on top of parts B.
8. Lay parts A on top of the screen and parts B. Square everything up and glue the corners where parts B and A meet. (see drawing to right)



9. Drill a pilot hole for the nail or screen in the corners (the narrow parts may split otherwise) and nail (screw) the corners.
10. Staple the scree to parts B turn over and staple screen to parts A.



Completed Screen

Place the robbing screen on the bottom board in front of the entrance to your hive with 6" parts B next to the hive body. This leaves a 3/4" gap for the bees to exit out of the top.

Looking into the Future….

- ⇒ Make nomination for Beekeeper/New Beekeeper of the Year
- ⇒ Consider becoming a director on the board
- ⇒ Get a head start on what you have to do next month

SEPTEMBER AND THE BEES: The bees will still be working fall flowers but in most states, the amount of honey produced in September will be minimum. The days are still warm enough to allow the bees time to gather more last-minute nectar prior to the first major hard freeze or frost which will kill the flowers.

SEPTEMBER AND THE BEEKEEPER: This is the start of the beekeeper's year! What you do in September will determine how well your bees do next year, and how well they overwinter. Here's your work list for September:

1) ***Consider requeening.*** You don't have to, if your queen has done well. But it is advisable to requeen in September. If you can afford to requeen your hive each year, it would be best to do so in September. A new queen means a much younger queen who has stronger pheromones and who will be more apt to lay eggs more efficiently in the Spring. In a future lesson I'll teach on how to requeen a hive.

2) ***Take off all your supers.*** There is no need for them now, and you will want to tighten up the hive by removing excess supers.

3) ***Weigh your hives.*** This is guess work unless you invest in a hive scale. Find something around the house that weighs around 70 pounds. Lift it up slightly with one hand. This will give you an idea what 70 pounds feels like. Now, go to your hives and with one hand, slightly lift the back. Only lift it an inch or two so that you can sense how heavy it feels. It needs to feel around 70 pounds. If not, you will want to start feeding the hive 2:1 sugar water.

Because robbing is a problem this time of the year, here's what I suggest. But first let me discuss my experience with feeders. My favorite feeder is the front feeder, the one that slips into the front of the hive opening at the bottom and a mason jar slips down into it. However, in the fall, bees from other hives can make their way to the front feeder, and eventually rob the hive. So, I do not use this entrance feeders during the fall. By the way, this is called a Boardman feeder.

Top feeders are large reservoirs of sugar water above the hive, usually made of plastic and they have a small space where the bees can climb into a screened area and go down into the reservoir to consume sugar water. Here's what I don't like about that. If the top cover does not cover it well, bees from other hives make their way into the top of the feeder and drown or rob the hive. If you make the top cover fit tight enough to keep robbing bees out, then the sugar water cab mildew and mold. And, once I had a top feeder break and leak 2 gallons of sugar water onto my hive, drowning and disrupting the hive for several days. There are some nice top feeders available, but I don't like to use top feeders.

Frame feeders are feeders that slip in between your frames, and actually take the place of a frame. Essentially it is a thin bucket that is about the size of a frame and the bees can eat from within their hive. These require going deep into the hive to load and they aren't perfect either.

So, what you should do during September is purchase our fall feeder system. Or you can make your own. Our system resembles a brood chamber size super but with a bottom. A round hole with a mason lid is placed in the bottom of the feeder. Now, you place your mason jar in the lid and place your inner cover and top cover on this feeder. These work great and the feeder winds up being right over the cluster, so you can even feed the bees long into the winter if needed.

Also, stay out of your hive as soon as you finish your hive work. Propolis is the glue that holds all the pieces of the hive together. Every time you open your hive, you break the propolis seal. If you do this late in the year, when warm days are over the propolis will never seal again, and your hives can be blown a part in the winter by bad winds. So, plan to get out of your hives early enough so the propolis can reseal on a warm day.

SCBA BEEKEEPER OF THE YEAR AWARD

Each year the St. Clair Beekeepers Association presents the Beekeeper of the Year and New Beekeeper of the year award. This award is presented to an individual who has contributed in a substantial and positive way to beekeeping; a person who sets high standards and who is looked upon as a resource of beekeeping knowledge.

Qualification for Beekeeper of the Year

Must have kept honeybees for at least 5 years and an active participant of the SCBA for the same time.
Be a member in good standing in the SCBA for 5 years
Influential in new beekeepers by teaching or mentoring new beekeeper(s).
Should show evidence of willingness to share information with other beekeepers as well as being a creative beekeeper.
Must have a good working knowledge of "all aspects of beekeeping including diseases, mites, State laws, Integrated Pest management, etc. Evidence of this would include being a presenter at the SCBA Introduction to Beekeeping, or being a presenter at a membership meeting.
Evidence of participation in public service relating to beekeeping (i.e., schools, fairs, service clubs, removal of swarms, etc.)
Show evidence of marketing honey, related items, NUCS, queen rearing, sell hives or equipment.

Some nominees may not fit into some or all of the above criteria and that is ok, we understand that some nominees are inspirational and passionate about beekeeping or have made such an impact on beekeeping in geographical covered by the SCBA that they deserve to be recognized.

The nomination process is easy. Write a letter outlining the accomplishments and how the nominee has impacted beekeeping. And provide the following information:

Nomination Statement: *general statement of support*

Brief statement of why individual is being nominated, including overview of major accomplishments and contributions to beekeeping.

Nominee: *contact information for nominee*

Nominee's name, address, phone number and email address

Person making nomination:

Your name, address, phone number, and email address for the nominee.

Beekeeping Experience: *background in beekeeping*

Years

Number of hives Number of apiaries

Is the nominee a honey producer, a commercial pollinator, a Queen Breeder?

Education (i.e., presentations attended, conferences attended)

Advance Beekeeping (i.e., pollination, swarm removal, NUC production)

Other (i.e., Master-beekeeper, special skills such as queen rearing)

Beekeeping Association activities: *membership and participation in local, regional, and national beekeeping organizations*

Association memberships

Association service (i.e., committee membership, newsletter editor, media liaison)

Beekeeper Service: *participation in recruitment and education of beekeepers*

Organizing activities (i.e., establishing new group, chaired club project)

Instructional programs (i.e., short course instruction)

Meeting presentations

Journal articles

Mentored beekeepers

Community Outreach: *activities promoting beekeeping to the general public*

Educational displays (i.e., agricultural fairs, science fairs, nature museums)

Media reports (i.e., newspaper, radio, TV)

School programs

Talks to non-beekeeper groups

New Beekeeper of the Year Award

This award is presented to an individual who has contributed in a substantial and positive way to beekeeping; a person who sets high standards and who is looked upon as a resource of beekeeping knowledge.

Qualification for New Beekeeper of the Year

Must have kept honeybees for at least 1 year and an active participant of the SCBA for the same time.
Have worked with a mentor.
Currently has a minimum of two hives
Regularly attend club meetings and events
Must have a good working knowledge of all aspects of beekeeping including bee biology, diseases, mites, State laws, Integrated Pest management, etc.
Show a willingness to learn and ask questions

Some nominees may not fit into some or all of the above criteria and that is ok, we understand that some nominees are passionate about beekeeping or have worked hard to gain knowledge and experience with regard to beekeeping and they deserve to be recognized.

The nomination process is easy. Write a letter outlining the accomplishments and how the nominee has met the above qualifications, and provide the following information:

Nomination Statement: *general statement of support*

Brief statement of why individual is being nominated, including overview of any accomplishments or contributions to beekeeping.

Nominee: *contact information for nominee*

Nominee's name, address, phone number and email address

Person making nomination:

Your name, address, phone number, and email address for the nominee.

Beekeeping Experience: *background in beekeeping*

Years
Number of hives Number of apiaries
Has nominee successfully overwintered a colony?

Beekeeping Experience: *background in beekeeping continued….*

Education (i.e., presentations attended, conferences attended)

Advance Beekeeping (i.e., swarm removal, NUC production)

Beekeeping Association activities: *membership and participation in local, regional, and national beekeeping organizations*

Association memberships

Association service (i.e., committee membership, newsletter editor, media liaison)

Offices held (i.e., Executive offices, Committee chairs)

The nomination period for these awards is open from August 1st until October 31st. These awards are presented at our annual Holiday Party in late November. Nominations and documentation of support should be emailed to our club secretary , k.hentrich21@gmail.com who will forward them to the officers of the club. All nominations will be treated fairly and equally thru the process of determining a winner of the award, which is up to the officers to decide.

Good and Faithful Servant

Consider the bee. She has five eyes: three simple ones on top of her head, two compound ones with thousands of lenses. And she has 5,000 nostrils –nose enough to smell an apple tree two miles away. She has two sets of wings, which can be hooked together in flight so they flap as one, 16,000 times a minute. And no matter how she zigzags her dizzy dance of the flowers, she always beelines it back to her home and her job there. She may be a street cleaner, a water carrier, a nurse, a sentry, a mason, an engineer, or an air conditioner. If she is the last, she may fan 12 hours at a stretch in the hive, on top of 12 hours spent gathering nectar outside. Busy as a bee is no overstatement; she literally works herself to death, all for the single teaspoon of honey spread upon your breakfast toast, the entire quota of her few short weeks of life. A one pound jar of honey on your table represents 50,000 miles as the bee flies, or a girdling of our globe twice around.

Let us not take the bee for granted again. All her dipping into dandelions and daisies and snapdragons is no joyous game but an instinctual obedience to an ordinance of nature that command "while the earth remaineth, seedtime and harvest shall not cease". There are 100,000 species of plants which could never properly form seeds without the bee. Without her, our bread would not be sweet; indeed there would be no bread or wine either. And so, in many churches, beeswax candles are used at the traditional service of bread-breaking and wine-drinking; it is a way of paying tribute to our good and faithful servant, the bee.

Around the Bee Yard

- Provide additional supers as needed
- Remove and process full supers
- Harvest honey
- Place empty honey frames above inner cover (if there is a hole in cover) for the bees to reclaim
- Freeze and protect comb stored outside the hive
- Protect unused supers with para Dichlorobenzenes/Para Moth
- Test for varroa mite
- Inspect colonies once for congestion, queen-rightness, diseases, and stores
- Search for markets for honey
- Start thinking about fall schedule and duties

WE ARE GROWING…

Welcome these new members that joined the club in June. Lucas Barker,Natalie Long, Brad Moose, and Robert Stuckey

A Little Bee Humor

Q: What letter makes honey?
A: b
Q: Can bees fly in the rain?
A: Not without their little yellow jackets!
Q: Why did the bee started talking poetry?
A: He was waxing lyrical!
Q: What does Pooh Bear call his girl friend?
A: Hunny!
http://jokes4us.com/animaljokes/beejokes.html

Okay new guy, someone stole the top shelf honey yesterday and the dearth is upon us. Get out their and look for fresh nec-

HELP! I NEED A QUEEN!

Introduction by Charity—Woodard-Davis

At some point in your beekeeping life you will worry about a colony being queenless. Keep this article by Megan Milbrath on file to refer to before ordering a queen and save yourself some anxiety and possibly some money! Now that we have started the march toward winter (impossible to believe since it's so dang hot outside, but the bees know it!) and you have pulled your honey supers you will be checking the queen status and brood health in your colonies before the worst of robbing begins and it becomes even more difficult to do inspections.

You may not see open brood in the brood nest and panic thinking the colony has lost its queen. First remember it takes incoming nectar and pollen to stimulate the colony to raise brood and we have begun the painful time we call "the dearth". Secondly we have had periods of intense heat and this affects the normal activities of the colony, including brood rearing, as the bees spend more time regulating the temperature and other environmental aspects inside the hive.

So don't automatically panic! Read this article, and learn about the options you have. Find more helpful information from Megan on her website www.sandhillbees.com

HELP! I NEED A QUEEN!

(ACTUALLY, YOU PROBABLY DON'T) *by Megan Milbrath*

Did you just discover that one of your hives does not have eggs or brood? It's time to panic! Get on the phone, get out your wallet, and get a queen back in that colony immediately!! Actually, before you do that, read this article. Your colony is probably going to be just fine without you. And if it won't be fine, you aren't going to solve the problem by adding a queen[1]. While it is a normal reaction to think that you should hurry and buy a queen for a broodless hive, jumping to purchase a queen isn't usually the correct solution for that colony, nor is it the most sustainable way to run your apiary. Before you pick up the phone, determine the following:

1. Why is my colony queenless?
2. How long has my colony been queenless?
3. Am I really sure that the colony is actually queenless?
4. What do I need to do to make the colony queen right and functioning (i.e. do I need to purchase a queen)?

1) Why is my colony queenless?

There are three ways that colonies lose queens: supercedures, swarms, and CBS (Clumsy Beekeeper Syndrome).

Supercedure

Colonies naturally replace 'old' queens. If you did not replace your queen last year, the colony will likely chose to replace her in a process called supercedure. Supercedure is the process where the bees replace queens by killing the old queen, and raising a new one from a cell. In Michigan, where I live, this generally happens in early summer/ late spring- just after swarm season. If your colony is overwintered, but didn't swarm / still has the original queen, it is common and *expected* for the bees to replace the queen at this time. If you don't replace your queens with young ones in the fall, the you should be prepared for colonies to superceded in

Even if you do have young queens some will be superceded because they are injured, sick, not well mated, etc.

We also see that many purchased packages will supercede the purchased queen a few weeks after they become established. I don't know exactly why this happens, but I have a theory:

Bees don't do things randomly – they have cues that guide their behavior. The workers are constantly assessing the queen by evaluating the age structure of the colony. A properly functioning queen will be laying continuously in the spring, and you would have all ages of bees in the hive, in the right proportions. If she was laying inconsistently, then you would have bees of random ages, and a big break in brood laying. This is what we get in packages, which are randomly shaken together, and the bees experience a brood break. You wouldn't see this age structure in nature, unless there was a problem with the queen. Think about the scenario in a package – bees from all different colonies and ages just thrown together, and a queen who just starts laying at a really key time in the season. She doesn't look that great to her colony, but there is no way to explain to the workers to give her a chance, because you just paid a lot of money for her. They let her lay enough to raise some brood and then they replace her. Queens also get replaced if they are sick or are damaged from transport – if your package was heated at all, or she was sick, then the bees may also supercede around the same time. It is really common for packages and overwintered colonies with old queens to supercede in late spring/ early summer.

If your colony is from a package started a few weeks ago, or is an overwintered old queen, then they may be in the middle of a supercedure event. In this context you would not see eggs, but there would be room for a queen to lay them - open, clean cells in the middle of the brood nest.

Swarming

In Michigan, our main swarm season is in May. Every spring, good overwintered colonies will split themselves. By June we are mostly/ usually out of reproductive swarm season, but we are just getting into crowded swarming season. Many beekeepers in the north underestimate how fast and strong the honey flow turns on, and don't leave enough space for incoming nectar. In a crowded swarm, the colony splits because their beekeeper has not provided them with enough space. By space, I mean drawn comb above the brood nest. The bees start to fill in the brood nest with nectar, the queen has nowhere to lay, and the colony swarms.

You can tell if the colony has likely swarmed, because there will be a lot of nectar in the brood nest - there will be little or no room for a queen to lay eggs.

Something else/ you killed her

Sometimes you kill a queen when working the hive (it happens to the best of us), or she can die from disease.

In all three of these scenarios, the colony will have started the process of replacing the queen. The bees will take a young larva and feed her to become a queen, a virgin emerges, gets mated, and comes back and everything is just fine - usually. Problems generally arise is when the virgin doesn't make it back from her mating flight (she gets hit by a car, eaten by a dragonfly, blown off course), and the bees don't have any more young larvae to make a new queen. In that case the colony is 'hopelessly queenless' - they don't have a queen, and they don't have the new larvae to make a replacement. In order to know what to do next, we need to determine how long the colony has been queenless.

2) How long has my colony been queenless?

To understand how long the colony has been queenless, look at the brood. Remember, that workers are eggs for three days, larvae for 6, and capped for 9 - emerging from their capped cells on day 21 (drones on day 24). You should be able to get some information, even if you can't tell the exact date. If you see only capped worker brood, then you know that the queen has been gone for at least 9 days, but less than 21. If you see some old larvae, she stopped laying/died/took off about a week ago.

Almost always the colony is fine, and it is the beekeeper's expectations that are the problem. Usually the process of queen replacement happens just fine, but it takes longer than we expect, so we tend to panic rather than wait patiently. Even worse, beekeepers can mess up the replacement by digging in the hive when there is a delicate cell, a flighty virgin, or a virgin trying to come back from a mating flight. If we know how long the queen has been gone, we would know when we should expect to see here - we can use basic math to tell us when we should start to freak out[2] about not having a queen in the hive.

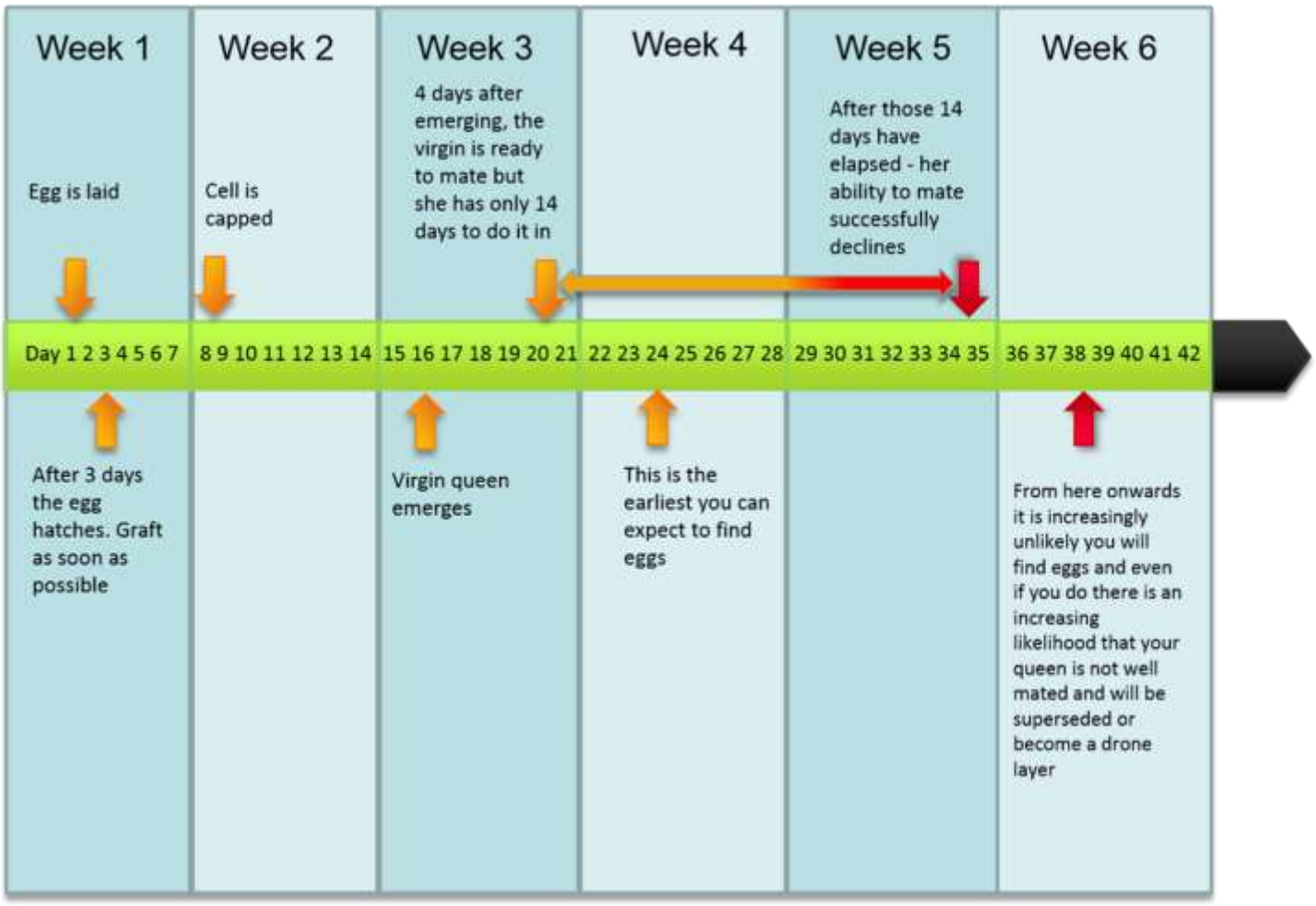
Day 1 – Queen death – no more laying in the colony. The bees will raise up a new queen cell, using a young larvae. If the colony is swarming or superceding, they will have started the queen cell before the queen dies. In an emergency (e.g. you squished her), they will start the next day.

Day 8 - 14 – the queen emerges from her cell. It takes 16 days for a queen to go from laid to emergence. Generally they start with a young larvae, so we can expect a new virgin about 2 weeks after the queen is gone. In a swarm, where they don't leave until she is capped (day 8

after the egg is laid), she will hatch out in just over a week.

One week after emergence (Day 15 – 20)– The new virgin gets ready for her mating flights. She needs about a week to just be a virgin, eat up, harden her wings before she goes out to mate.

We are already 2 -3 weeks out, and the queen may still need 2 weeks to get mated properly! The mating process can happen quickly (replacement after a swarm in great weather), or it can take weeks and weeks if you have a lot of bad weather (like most Michigan springs). This handy figure from Beespoke.info does a nice job of showing just how long it can be. It is starting to make sense why your mentors and teachers keep harping on you to take good notes, isn't it!



http://beespoke.info/wp-content/uploads/2014/06/QueenRearingTimeline.png

Once the mated queen returns the bees will ready cells, and she can start laying. Remember she will only start with a small patch of eggs, so if you can't normally see eggs, or you don't patiently and carefully look in the exact part of the nest where she starts, you may miss them if you look at this stage.

As you can see, your colony may be without a visible sign of a queen for weeks, but the colony will be just fine with no intervention. Let's say that you called me for a queen, I took your money, gave you a beautiful mated queen, and you and put her into this hive. The workers would eat out the little candy plug, and then either they kill her or the virgin would kill her. That new queen wouldn't even stand a chance, and you would have wasted a perfectly good, raised-with-love queen (and your time and money to get her). To avoid that scenario, we have to know if we really are queenless, or if they are just in the process of making a replacement.

3) Am I really sure that the colony is actually queenless?

Just because you don't see brood doesn't mean your colony is queenless. They may be in the process, as described above, or the queen may not have any place to lay.

Nectar bound

If a colony is nectar bound, the cells that normally would contain brood are filled with nectar. This happens when there is a strong honey flow, a strong colony, and not enough drawn comb on the hive. When there is no space in the hive to put incoming nectar, and the bees put it in the brood nest. Queens need cleaned, polished, empty cells in the brood nest, so if there are no open cells, she can't lay. Eventually, this will drive the colony to swarm. If this happens, not only will you lose the queen, but the new queen will return, and also won't have anywhere to lay (and if you buy a queen, she also wouldn't have anywhere to lay). Your nectar bound hive could have a great queen running around in there, but you won't see eggs or brood. To remedy this situation, you need to do two things 1) get boxes on there as soon as you can (or extract capped honey), and 2) mark your calendar to get your act together earlier next year. You will need to give them enough room to move the nectar out of the brood nest AND to accommodate all the incoming nectar if the flow is ongoing. If you have a huge colony that swarmed this may be 3 boxes of drawn comb. That seems like a lot, and it is! It is a really clear example of just how far you were behind on supering your over wintered colony! If you don't have drawn comb, it is much harder, because they can't just move nectar onto foundation. You can use a process called 'checkerboarding' (https://honeybeesuite.com/how-tocheckerboard-a-hive/), but it will still take time for them to rearrange everything. Make sure you prioritize having drawn comb ready early next year.

How can you tell if your colony still has a queen when it is nectar bound? You can add a frame of emerging brood, or good drawn comb into the broodnest - giving the queen space to lay. Come back in three days, and you should see eggs. If there are no eggs, then they likely already swarmed, and are in the process of queen replacement.

Protein deprived

Different colonies respond differently to changes in incoming food. Some bees are more 'thrifty' than others - meaning that they will quickly shut down brood production when food gets scarce. The bees will actually eat the eggs that the queen is laying. This can be a nice adaptation for bees that survive well in different climates, and if you replace the queen in this context you can be removing some nice genetics. If you see that there is room to lay for the queen, make sure that you also look to see that there is stored pollen. You should see a nice ring of stored pollen around the area of the brood nest, or even some extra frames. If the colony does not have stored pollen (and some honey/nectar), then they are likely starving, and you are likely not queenless, they just aren't raising young, because the beekeeper is letting their animal starve. In this context, feed them as quickly as possible (sugar water and protein patty), and get out there and plant some flowers and flowering trees.

You can do a test to determine if your colony is actually queenless. Add a frame of eggs and young larvae from another healthy hive into the suspect colony, and come back and check on it in a few days. If your colony is really queenless, then they will start to draw out queen cells. If you see queen cells, you can either wait to let them emerge, or you can then call me for a queen.

4) What do I need to do to make the colony queen right and functioning (do I need to purchase a queen)?

Be patient. If your colony is in the process of requeening, the best thing you can do is wait. Use the calendars above, and figure out when the very last day you could expect it to right itself. Write that date down, and put a note on your hive not to open it until that time. Go have a beer, build frames, watch them coming and going from the entrance, but leave them alone. If you go digging in the hive too early, you may not get any new information, and you may disrupt a queen cell, an agitated virgin, or a runny new queen. Let them do their thing. If your colony *is* hopelessly queenless (no queen and no brood), the worst has already happened. It can't get hopelessly queenless-er. If you catch it now, or if you catch it 2 weeks from now (even if it is a laying worker), the actions are still the same (see below). There is no 'catching it just in time.' Either it is fine, and you will come back and there will be a queen, or it is not fine, and you will deal with it. There is no 'be emergency' situation where you need to take action today.

Pay attention to what you see in the brood nest. "I didn't see any eggs" is not that informative. When you look in the brood nest, where you expect to see brood do you see 1) nectar, 2) nothing, or 3) multiple eggs with spotty drone brood. Is there enough food for the colony?

If you see nectar in the brood frames, then make sure they have room to pull it out. If you don't see pollen, feed them. If you see nothing, then you can put a frame of brood in from a healthy colony to test for queen cells. If you see signs of laying workers, which is literally the worst case scenario, you can follow the instructions below.

Usually, if you wait, the bees just requeen and are fine.

If they aren't fine, then you can add a frame of eggs, and they can try again, and then are fine.

If they really aren't fine (laying worker), or you don't want to take the time for them to raise another queen, then combine them with another hive. If it is small, just add the box to another hive, or shake the bees off the frame in front of another hive. If it is big, you can combine it by placing it over a functioning colony, with a single sheet of newspaper in between the boxes.

Just make sure that the bees up top have an entrance to get in and out. https://honeybeesuite.com/how-to-combine-colonies-with-newspaper/

Laying worker

If the queen has been gone for long enough that there is no more brood some workers in the colony will start to lay eggs. Because the workers have never mated, the eggs are unfertilized, and can only develop into drones. You can recognize a laying worker colony by multiple eggs in the cell (the workers are enthusiastic, but not talented at laying), and later, but scattered drone brood in cells where workers would normally develop. https://beeinformed.org/2011/05/20/laying-worker-2/

A laying worker colony is genetically dead – they can't reproduce (swarming, raising new queens) to carry on their genetics as an organism. If you add a queen to this scenario, the bees will not accept her – they are too far gone and there is no natural mechanism for them to see a queen in a laying worker colony and think that she is okay- It isn't like a queen would just show up in a tree cavity in a little cage out in nature. Just like the package supercedure scenario, the workers would take one look at the age structure of the colony, and think she is doing a horrible job and kill her.

IF YOUR COLONY IS HOPELESSLY QUEENLESS, YOU DON'T HAVE A COLONY – YOU HAVE A BOX OF BEES.

Remember, that a colony is a super organism. It needs to have a queen, brood of all the right ages, and all the right age worker bees (nurses, house bees, foragers, etc.). Just because you have a hive with bees in it doesn't mean that you have a colony or that it needs to be saved as its own independent organism. As a sustainable beekeeper, you will always be combining and splitting, so that all your colonies are fully functioning. You'll read in some places that you can bring it back by successively adding frames of brood, and then adding a queen. That is true, but what you have done is combined it with another colony (you added brood, nurse bees, and a queen with entirely different genetics), you just did it in a way that was slow and highly laborious). If you really want to have the extra colony, combine it now, and make a proper split later when it is all healthy and happy. Don't try to resurrect a zombie.

Here is another handy resource for troubleshooting a colony with queen cells. - "There are queen cells in my hive - What should I do?"

http://www.wbka.com/wp-content/uploads/2013/06/There-Are-Queen-Cells-In-My-Hive-WBKAWAG.pdf

[1]I realize as I write this, that my business is to sell queens. It may look like a terrible business decision to talk all my customers out of the product that I sell, but I think of it differently. I don't want to send my precious, limited, raised with love and care, wonderful queens to their death in a colony that won't accept them. I'd rather that they go to a colony where they can shine and really get the job done. Plus, better educated beekeepers have more fun, and stay in beekeeping longer. Sustainable apiaries are important for bee health, and for long-term customer relationships!

[2] Actually, there is never really a time when you will need to freak out when you are queenless. Keep reading, and you'll see that it always works out fine.

August Meeting…

The club met on Sunday July 31 at the Willoughby Heritage Farm in Collinsville. We met under a pavilion with nature all around us. After a potluck meal the topic of the day was small hive beetles, followed by an open question and answer session. Some of the topics included we– winter feeding methods, how to get a double deep down to a single, how to treat for small hive beetles, and what to do with empty honey supers.

Marc Mayhew, program director, answers questions from the members.

St. Clair Beekeepers Association

Promoting interest in bees and beekeeping in Southern Illinois.

Email: stclairbees@gmail.com

The purpose and function of the St. Clair Beekeepers Association is the promotion of interest in bees and beekeeping by such means as encouraging...

- Good beekeeping practices
- The utilization of bees for pollination of agricultural crops
- The dissemination of information about bees and beekeeping

Meeting Dates for 2022....

Below are the meeting dates for 2022. They are subject to change.
Aug 28th - Outdoor meeting 6 Mile Museum,3279 Maryville Rd, Granite City, IL
Sept 25th - Outdoor meeting location, Rich and Darla Perkins, Freeburg
Oct 28th - St Clair Count Farm Bureau, Belleville
Nov 18th - Madison County Farm Bureau, Edwardsville
Dec – no meeting
If anyone would like to host the July 31st meeting at their apiary please let Program Director, Marc Mayhew, know.

NEXT MEETING DATE

Our next membership meeting will be held outdoors on Sunday, August 28th at 2:00pm at the Six Mile Museum, 3279 Maryville Rd, Granite City After the business meeting State Apuary Inspector will talk about diseases and pests in the bee hive.

Link to Google Maps