



East Texas Beekeepers Association

March 1, 2018

March Report by Dick Counts

Les Jeske will be our guest speaker at the March meeting. Les is an experienced beekeeper and will be talking about honeybee nutrition. Join us at the March meeting and enjoy Les' presentation.

I receive many phone calls from a wide variety of people asking questions about honeybees. The most common questions are from people looking for bees, beekeeping equipment or beekeeper training. ETBA is very fortunate to have people who can respond to our needs. President Matt can supply bees and queens. He has also developed a series of beekeeping training classes that cover several areas of beekeeping from getting started to raising queens. Eddie Collins raises and sells bees, as well as producing hive products. He also has available quality woodenware from the bulk purchases he makes for his own operation. I serve as a point of coordination for bee suppliers to help you find bees and hives. Like Eddie, I also have woodenware purchased at bulk discounts. I also teach beekeeping training classes and am available by phone to respond to a million questions including contacts for honeybee removal when necessary. If you or someone you know is a resource for bees, equipment, training or assistance, please share that information with us.

Our 2018 Beginner's Beekeeping class is doing well. Students have taken their boxes home to paint. We will soon be sending the boxes to Eddie for him to begin the process of starting the new hives. We are projecting hives to come back to us in late April or early May.



ETBA has been without a Honey Queen for a couple of years. We are in discussions to restart our Queen Program. **We are looking for a volunteer to be our Queen Coordinator and chaperone.** The only requirement for this role is that you are a member of ETBA, are female, and are available to donate time to the program.

Please talk with me if you are interested in helping support our Honey Queen program.

President—Matt Thomas

Vice President—Eddie Collins

Treasurer—John Holladay

Secretary—Bridgette Thomasson

Ex. Director and Reporter—Dick Counts

Honey Queen Chair—vacant

Director-at-Large—Stan Brantley

Program Director — Joe Laws

Webmaster—Ken Wilkinson

Newsletter Editor—Trish Wilson



Next Meeting
March 1st
United Methodist Church

405 West Main in Whitehouse
6:30 PM



TOPIC: “What is so super about the honey bee?”

Hello ETBA, this month I am sharing my 4H beekeeping essay with you! I hope you enjoy it and maybe even learn something from it! I really enjoyed researching it and writing it!!

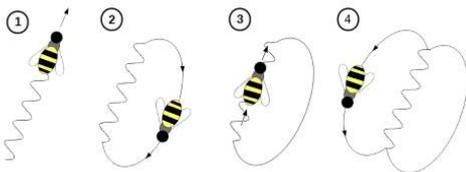


Honey Bees could be considered a modern-day superhero. They generate over 15 billion dollars annually through pollination. One third of all our food is thanks to these super bees. However, did you know that honey bees have one of the most complex pheromonal communication systems in nature? With a single dance, worker bees can communicate distance, direction & quality of a nectar source.

Of all the ways that honey bees are super, besides pollination, the most interesting way is their complex communication. Honey bees communicate in two different ways: odors and dances. Inside a strong beehive there can be 20,000 to 60,000 bees, and to operate effectively they need to communicate. Pheromones are the primary method to communicate. Bees possess 15 known glands that are used to produce an array of different pheromones each with a different meaning, and reaction from the bees. Each different caste of the honey bee: queen, worker, drone, has its own pheromones. All pheromones are known as either releaser or primer pheromones.

Primer pheromones affect the bee who is receiving the pheromone in a physiological way; it will trigger complex and long-term changes in the receiver, which will affect its behavior and its own development. Releaser pheromones are not long term at all only affecting the receiver, at a behavioral level only.

The queen bee's pheromone, the Queen Mandibular Pheromone (QMP), is vital to hive operations. QMP is a primer pheromone the queen releases from her mandibles and the workers distribute around the hive. QMP has three main long-term effects. It discourages the raising of queens and prevents the worker's ovaries from developing. QMP also tells the hive that the queen is alive and well, or “queen-right.” QMP also affects behavior; it keeps a swarm together, and while the queen is on her mating flight it attracts drones to mate. QMP also attracts something around the queen known as the retinue. The retinue is more commonly referred to as the queen's court and consists of 8-10 workers surrounding the queen. Their feeding and cleaning her is their top priority. They also rub on the queen to get the pheromone on them then distribute it throughout the hive, thus allowing other bees to smell her. Among many other pheromones are the alarm pheromone and the worker pheromone, both playing an important role in the hive. While super-heroes each have their unique power, the queen bee outshines them all with her ability to control 30,000-60,000 bees with a single smell.



Aside from using pheromones, workers use dances for other communication. **Honey bees have four main dances they use while communicating, the waggle, the sickle, the round, and the tremble dance.** The foraging workers are the primary users of the dancing language, since the dances refer to location of nectar and pollen sources. The most common dance in the hive

is the waggle dance. The **waggle, or wagtail dance** consists of the dancer vibrating from side to side quickly in a straight line, then turning to the left or right alternately to return to where she started. The waggle dance is a way for the foraging scouts to recruit other foragers to a new-found nectar source. The waggle dance communicates direction based on the sun's position. Dancing at different angles tells the bees which way to go related to the sun. Not only does the dance indicate direction, but also distance. This makes the waggle dance the most accurate dance the bees do. Based on how long it takes the dancer to complete one circuit, one half circle, communicates to the recruits just how far away the nectar source is.

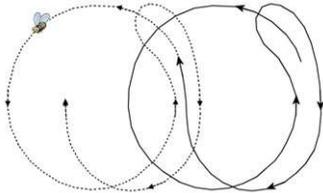
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TOPIC: "What is so super about the honey bee?"

Giving different recruits a taste of what she collected helps the dancer to attract more recruits: the more vigorous the dance, the richer the resources.

The waggle dance is mostly used to communicate distances that are greater than 88 yards.



If the food source is less than 88 yards, the bees do a dance known as the **round dance**. The dancer moves in a circle often changing the direction of the dance. This communicates that the source of the nectar is less than 88 yards from the hive. Sharing nectar and dancing vigorously will also tell the bees the quality of the pollen source.

The **sickle dance** is another dance that bees do when the distance is too small to do the waggle dance. Subspecies of honey bees that do the sickle dance do not perform the round dance. Like the waggle dance this dance does provide direction, by the angle at which it is performed. As the nectar source gets further away, the dance begins to resemble the form of the waggle dance.

The last dance honey bees do, and might be the most interesting, is the **tremble dance**. While the tremble dance does not guide foraging bees to the nectar sources, it does play an important role in the hive. The tremble dance occurs when a foraging bee returns to the hive with high quality nectar. If the forager perceives that there is a delay in offloading her nectar, she will start to perform this dance. The tremble dance lets house bees know that there is shortage of receiving workers, and lets other foragers know to slow down and not collect as much. After the tremble dance there is a significant increase in the number of workers receiving nectar and pollen.

While communicating inside the hive may not be the most recognized benefit of this super insect, it is certainly remarkable. Understanding the pheromone communication system of the honey bee inside the hive is important not only to the honey bees, but also to the beekeeper. Knowing that QMP attracts swarms, allows beekeepers to lure swarms to empty boxes.

Since the alarm pheromone resembles the smell of bananas can tell the beekeeper to quickly get out of that hive before something bad happens. X-ray vision is a more commonly known super power, however, our super heroes essentially use mind control with smells and dances. Now that is super !

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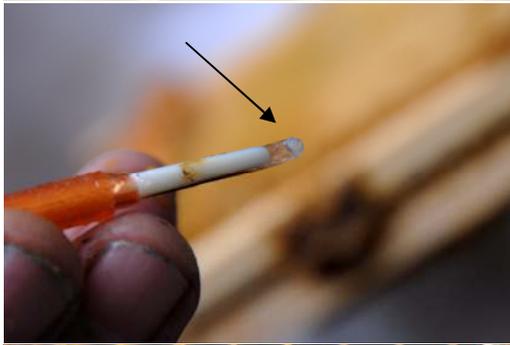
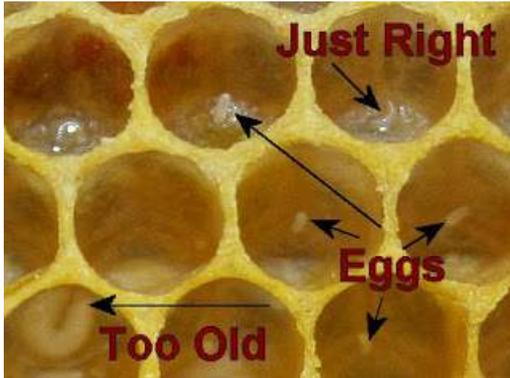
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President's Letter *by Matt Thomas*

Raising a Few Queens

Last month's article dealt with choosing an apiary suitable for your bees. It is much more difficult to keep healthy bees if they are not in yards or locations that are rich in nutrition and have suitable other resources and protection. Like the forager, you and I have to scout out potential good sites. Your bees will thank you and so will your pocket book.



This is probably one of the most exciting times in all the beekeeping seasons. What we affectionately call build-up. The bees get better each week. You have to really pay attention to the last part of February and early March. The queens have been working furiously and populations can get out of hand. If you have a two deep configuration and have been feeding your bees since mid January you can expect by the end of February your colonies will be monsters. In-between Mid January and the end of February you should have been looking in on them. We had such a good fall flow the bees had more than adequate honey stores. I will break open some honey combs and let the colony eat it and the nurse bees build comb with it. If you have 6-8 frames of brood or more as of February 20th you can anticipate another deep box will be needed. Since there isn't a honey flow, they will still need syrup. That large of a population of bees needs pollen and syrup. What will you do with your big hive/s? Will you split them? Will you shake nurse bees out of them so you can raise some queens? I wouldn't recommend you split them and walk away and come back in two weeks. You would be putting that colony behind.

This is the easy way to raise a queen if you're not inclined to shake bees. Go into a good colony and kill the queen. Come back in 5 days and count how many you have. Make sure you're feeding syrup. On **Day 7** you can split your hives. On **Day 9** you can extract the queen cells, cut them out of the comb and put them in the split/s you made two days before. **Day 5** will give you an indicator of how many splits you will be able to make. Make sure you leave a cell in the colony you killed the queen in. This is a pretty reliable method for raising a few queens. Make SURE you don't lose track of the days. Also, every split you do will require syrup. **Most splits are made up of 2 frames of brood, 1 frame of pollen and 1 frame of honey.**

There are other, more effective ways to raise queens. I shake nurse bees from big colonies in the apiary into a 5 frame nuc box. Shaking bees this way helps control population as to prevent swarming. I pack that little nuc box full of nurse bees. It takes an enormous number of nurse bees to raise 45 good queens. Once I make up the cell builder with a honey, couple of frames of pollen and an empty foundation or comb, I put the grafting frame with cups in to the cell builder the day I make it up so they can clean it up. The next day I come get the frame out, shake the bees off of it and take it to the grafting room. It takes me 20-30 minutes to graft **4 day olds** for 30-45 cells. Once grafted I go and gently set it back in to the (queenless) cell builder. In five days I will come and check and give a real quick count of how many I have and gently set the frame back into the colony. **Day 9** : I take them out and go put them in the mating nucs or splits that I made up. It is pretty easy to do it. Make sure you are feeding them syrup while raising the queens. My last two classes will explore this fun process.

I hope you have a wonderful beekeeping season.

Blessings,

~ Matt

Practical Experiences in the Beeyard by Stan Brantley



There is an old Texas saying that someone tore down the barbed wire fence between Amarillo and the North Pole and let the cold weather come to East Texas. But don't worry about it because it will be repaired soon and winter will be gone.

The cold we had during February is not good for bee brood. Between cold fronts, the queen has moved into laying mode. She lays eggs and then we have another cold front. The bees in the hive will try to cover all of the new brood to keep it warm and may not form their protective cluster. If they do not cluster, some of the bees may die. You will see the effect as a pile of dead bees on the ground in front of the hive. Inexperienced beekeepers may see the pile of dead bees and think, "Someone has poisoned my hive." However, as long as the queen survives, this is not a catastrophic event for the hive. When the weather warms again, the queen will resume laying. As we move closer to March, there will be less frigid weather and fewer instances of "chilled brood" or bees dying trying to protect the new brood.

With March, there will be a weather and world change in our area. The weather will begin to warm and the world will turn green with the budding of new leaves. Blossoms will start popping out in the yards and fields and the early blooming trees will line the roadside and fill the woods. Brood production will skyrocket and hives will begin to fill with the new season bees. Bees will be consuming stores at an increased rate to support the increased brood. Make sure your hive has not run out of stores. If the hive is light, feed 1-to-1 sugar syrup to ensure that the queen has adequate food to continue laying. The eggs layed now are going to be the first field bees that will collect the honey crop you hope to harvest!

There are a few tasks you need to do now to prepare for the spring honey flow. If you have any residual medications in your hive, now is the time to remove them. If you use double brood boxes, check and see if your bees are in the top box. If so, a warm day in early March is a good time to reverse the boxes. If your supers have been stored under moth crystals, check and make sure that they safely made it through the winter and are ready for use. Clean and repair any that suffered moth damage. Remember to remove the supers from the moth crystals at least a couple of days before you put them on the hive and let them air out. If you install the supers and the bees start pouring out to the hive, you did not let them out-gas long enough.

Beekeepers have different opinions about when to put supers on the hive. Some install supers when the Wild Plum trees start blooming. Others add supers by the calendar date. Whatever method you use, your goal is to have a hive full of bees with supers in place just as the spring blooming begins.

Unless you are in an area known for an unusually strong flow, most East Texas hives will produce one or two supers of honey during the spring. Areas with outstanding forage could produce three to four supers of honey. The question then becomes, "Should you add multiple supers at the same time or start with one and add the others later?" There are pros and cons to both approaches. Your goal is to ensure that the bees have adequate super space to store honey; otherwise they can start storing it in the brood boxes, creating space problems for the queen and possibly start a swarming activity. Ideally, you want to stay at least a half a super ahead of the bees. Add the next super when the first is half full, and then the same for any additional supers that are needed. However, if you will not have access to your bees for a while, then go ahead and add the next super. You do not want to run out of super space during the spring flow.

Be prepared for anything when doing your hive inspections and have a few tools in your beekeepers box. During a recent inspection of a double brood hive, the frames in the bottom box were so propolyzed I could not pry them out. The bees were in the top brood box so I removed the bottom box and set it on its side. I hit the bottom of the end bars with a hammer until the frames were loose enough to pry out with the hive tool. After scraping the end bars and the hive rests to clear off wax and propolis, I put the frames back inside and placed the box on top of the other deep containing the brood nest.



The Got Questions?

The group will be open 6:00-6:30 before the meeting. Join us if you are a new beekeeper or have some beekeeping questions.

If you have not joined us before, ask someone to point you to the Got Questions? Room. We will try to help you find some answers.

F.Y.I. by Joe Laws



The March Speaker is

LES JESKE

Subject: Honeybee Nutrition

See you there!

Joe Laws, Program Director



...from the Editor

Illustrations for Peter's Research Article:

"What is so super about the honey bee?"

The Waggle Dance

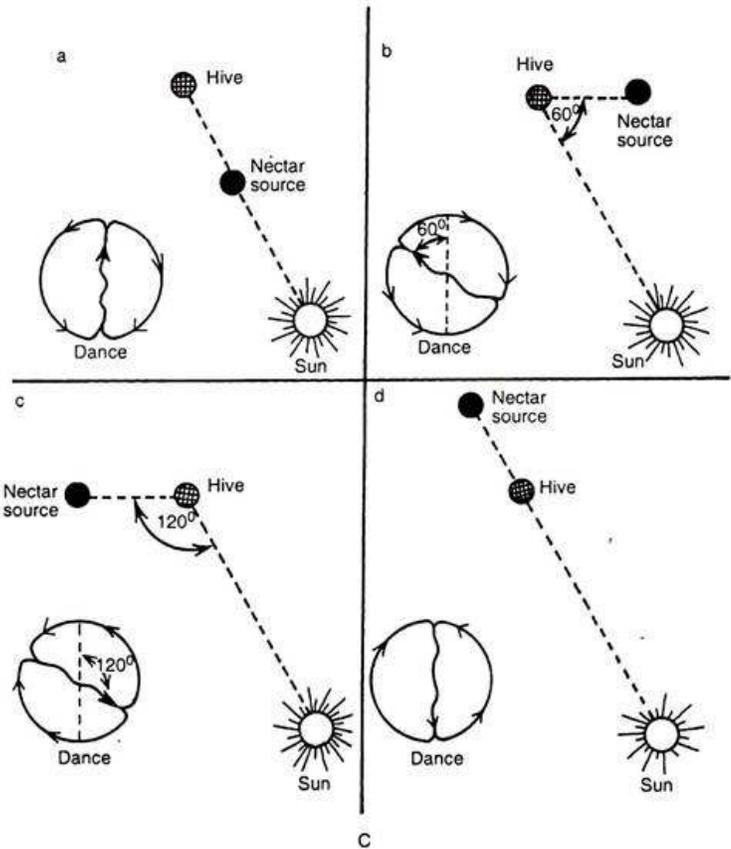
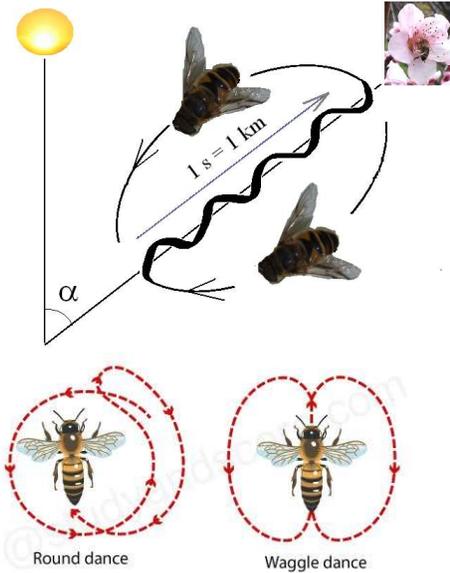


Fig. 18.75 (Contd.): C. Diagrammatic illustrations of a worker honeybee's tail wagging dance in relation to food sources from the hive with the position of the sun.

"Bee-ing Like-minded"

Do you have news you would like to share with the club members?
Are you looking to purchase or sell honey, equipment, bees, volunteer, etc?
Have a question or idea you thought of after the meeting?

Send a *detailed email to: Trish.etba@gmail.com

If it is of interest & room allows, I may be able to include it in the following month's newsletter.

*It has to be Honeybee related and include your contact info.