East Texas Beekeepers Association

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June Report *by Dick Counts*

By the time you read this, I will have attended Texas Beekeepers Association SUMMER CLINIC. This years' clinic was held at Clint Walker's Honey Farm and processing plant at Rogers, Texas. Sure did want to say Honey House. But Walker Honey Farm is much more than just a place to extract honey. They also make honey wine, have a retail store, cool rooms and hot rooms, woodworking rooms, paint rooms -- you name it, Clint has it. Rogers, Texas, ever heard of it? No, I didn't think so. Well, it is just southeast of Temple on Hwy 190, maybe 10 miles. Clint always welcomes beekeepers. Don't fail to stop if you are ever close. For you digital beekeepers, here is the link to the Walker Honey Farm website: http://www.walkerhoneyfarm.com/

Over the past year, we have been seeing more and more articles about insecticides and herbicides and their adverse impact on our bees. Several groups and individuals have been looking at the effect of the herbicide Roundup on bees. A fellow beekeeper and author of the Small Beekeepers Journal, Terry Ingram, is involved in a court case concerning his bees and Roundup use. We will talk a little about this at the meeting.

Bees are at work making honey, though most beekeepers with whom I talk are unhappy with their pace. We seem to be in slow gear after all of those late season cold fronts. However, bees can fill a super quickly when a good nectar crop becomes available. Keep an eye on your supers and be ready to add another if that one starts to fill.

I did not forget!! We had 93 present at our last meeting. We shared a good Q&A session and Mike Rappazzo made an interesting presentation about what is happening in his bee yard. At the June meeting, Linda Pelham will talk about uses for beeswax left over from extracting. We will also have our last auction of the year. This will be a short auction focusing on nicer items. We suggest you bring nicer items, particularly beekeeping related items. We also have a special item that has been donated to ETBA for this auction. I am going to say this next statement in all caps to catch your attention — NO RAFFLE. That's right! NO RAFFLE, auction only.

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HONEY QUEEN REPORT by *Vi Bourns*

This is the time we all have crowded hives, so figuring they need more room, I am ready to extract. The queens in my 8-frame hives are waiting for more space. Many bees are hanging out on the boxes. I thought I would try 8-frame hives to avoid the heavy lifting of the larger 10-frame honey supers. However, I find I am having to work harder to keep enough brood space available for the queen. So much for being different! Being different is not always the most wise thing to do!

My next step in beekeeping is learning to mark queens. Before I endanger a queen, I will learn the process and practice on drones. So that will be my next new adventure. I'll let you know how it goes!

The Royal Court has been pushed to fulfill all the requests for presentations before the end of school. Our Queen and Princess came through like pros. They are experts at sharing about the honey bee, often many times in a row. Children especially love learning about bees and viewing the bees at work in the observation hive.

I recently read an article released April 29, 2013, from the Guardian called "Bee harming pesticides banned in Europe". The article stated the European Union recently voted to ban the use of three pesticides containing Neonicotinoids: Thiamethoxam, Clothianidin, and Imidacloprid, in an effort to reduce Colony Collapse Disorder. This sparked my interest to research and learn more about neonics and bees. This month, I will concentrate on how neonicotinoids work and how they affect bees.

Neonicotinoids (neonics) are a new kind of insecticide whose name literally means "new nicotine-like insecticides". They are the world's most widely used insecticide (from corn crops to pet, lawn, and garden care products) and are extremely harmful to honey bees as well as many other insects and animals.

Unlike many insecticides which are toxic when applied but only effective over a short period of time, neonics are persistent in soil for anywhere from 30-100 days. The plant easily uptakes the chemical through its roots. It is then spread to all parts of the plant ,including the pollen and nectar. As you can see, the use of this chemical can have a long term affect on the bees.

Jerry Hayes, the Chief of the Apiary Section for the Florida Dept. of Agriculture (also the writer of "The Classroom" in the American Bee Journal), said "the interesting thing about Colony Collapse Disorder is that bees are leaving the colony and not coming back, which is highly unusual for a social insect to leave a queen and its brood behind. They are seemingly going out and can't find their way back home". Imidacloprid has the same effect when used to kill termites . Once the termites have eaten/ingested the product, they go out to feed and then can't find their way back home.

Neonicotinoids work as an insecticide by blocking specific neural pathways in the insects' central nervous systems. Even sub-lethal doses of the chemicals impair bees communication, homing and foraging ability, flight activity, and ability to discriminate by smell, learning, and memory. It also causes harm to bee brood developments as well as reproduction and immune system function (causing normal organisms to turn pathogenic).

Recent mappings of the bees genome found that a honey bees' ability to detoxify chemicals is much lower than that of other insects, making them especially vulnerable to neonics. However, bees have two check systems to protect their colony. When foraging in a new area, scout bees are sent to inspect the nectar and pollen. If they are remotely affected, they are expelled from the hive immediately and the colony will completely avoid the area. Also, each time the foragers return to the hive, they are cleaned off by nurse bees, which keeps the colony from coming in contact with lethal doses of chemicals. However, it leaves the bees particularly susceptible to sub-lethal exposures to any contaminants they encounter.

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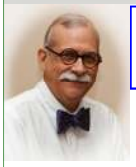
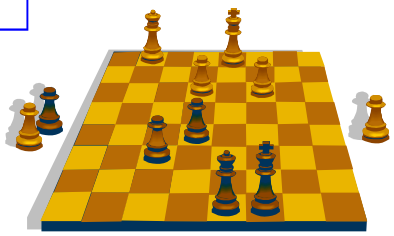


President's Letter *by Gus Wolf*



Now, if it were a chess board that I was monkeying with in a bee hive, I'd be fine. Except its not, it's a bee hive. I can see and identify all the pieces on the board, they are easy to discern. Pawns? Easy. King? Easy. Queen? Real easy. But transfer that into a hive and I can find everything but the queen. I am terrible at finding the queen! Last fall, I bought two queens, marked to help me find them later. The workers promptly groomed all the paint off them and they have vanished as far as I'm concerned. Oh, something is laying eggs in those hives, lots of them. But I can't find her.

I did have some luck, though, on a swarm that we picked up a few weeks ago. There is a nice big golden queen in there, laying a'plenty. With five frames and a moderate amount of bees, she's easy to find. But soon all her new brood will begin to hatch out and I'll have another hive with a phantom queen. Perhaps someday I'll develop the skill but it won't be soon enough!

Hayden and I picked up another small swarm in Gladewater last Friday. They had clustered on the edge of a canopy at one of the schools. They were about eight feet up and right above where the children would come out to board their bus. We went well after school hours and brought our equipment. You would think that if two people in funny suits carrying tools and a stepladder would be on school property after hours, someone would come out to investigate. Not so. It took about 30 minutes from set up to drive off for us to grab our little prize. I let Hayden go up the ladder and fetch the living ball of bees.

The queen must have been in the nuc because many stragglers started to go in the box. I had covered the entrance with a piece of plastic queen excluder. But today, when I went to look at the bees, I could not find the Queen. My guess is she knew I was coming and decided to walk around on the bottom board with all the other occupants. Perhaps next time I'll find her.

Since the last column, I had another good sized swarm move into some of the boxes that are stacked outside my shed. Just before the May newsletter, if you'll remember, a large swarm had moved into some of the boxes. Nope, I have not found the queen but she's laying eggs like crazy. There are frames of capped brood and it may be time to add a super or maybe split that hive. The new swarm may not have a very good queen. It looks like a spotty brood pattern, not real consistent. I may have to combine that hive with another one. Of course, that means I'll have to find at least one queen. Good luck. Maybe I'll just leave well enough alone.

Having these two swarms move in where they could easily be observed gave me opportunity to observe scout bee behavior up close – twice. The first time, I was not sure what I was seeing. For a day or so, bees started showing up and going in and out of the boxes. They ignored the boxes for months before hand. Now, all of a sudden bees take an interest in them. More and more bees show up and fly in and out and all around, acting all excited. It would almost look like a small hive moved in. This second time around, I told Hayden, "A swarm is going to move in today or tomorrow." And sure enough, the following afternoon they showed up. I thought perhaps one or two scouts show up and tell the swarm about what they have found. But it appears to be a decision by growing consensus, with a large contingent of scouts agreeing on the location. It was interesting to see the behavior twice within a short period of time. I just wish I could use the information to help me find queens.

Honey Bee Pollen

Hello, East Texas beekeepers! I hope your bees are doing well as we gear up for summer. Several weeks ago, my family and I spent an evening catching up with some friends, a family in Houston. As we talked, our conversation drifted to beekeeping and honeybees. Uncle Scott mentioned hearing about crushed bee pollen a few years ago. He decided to try some and ordered a bottle from overseas. After consuming all the pollen over the course of a few weeks, his allergies were completely gone and he hasn't experienced them since. This form of pollen interested me, so I searched for more information and found some things that surprised me.

Each individual grain of pollen has three layers that protect the highly nutritious filling. First comes the sticky polenkitt, which coats the outside of the granule and is easily-digested and rich in lipids. The next layer, the exine, acts as a tough barrier which can withstand temperatures up to 350 degrees Celsius as well as high pressures. The intine is the secondary wall. While not as strong as the exine, the intine is still very difficult for bees or humans to break down. All these barriers make it difficult for honey bees to reach the nutrition they need to raise healthy larvae.

However, honey bees do have a viable method to release the "good stuff" inside the pollen grains. They mix the pollen with saliva and nectar to create bee bread. The microorganisms and enzymes from the saliva help break down the layers of the pollen from the outside of each grain, while the moisture from the nectar encourages the pollen to germinate, starting in the heart of the pollen grain. The saliva breaks down the pollen layers from the outside to inside, and the nectar encourages the pollen to break down the barriers from the inside to the outside. This dual-action breakdown system allows the bees to enjoy the nutrition inside the pollen.

Human saliva, unfortunately, does not affect pollen grains the same way honey bee saliva does. Some sources estimate that humans can extract less than half of the nutrients in raw, unprocessed honey bee pollen. However, scientists have found unique methods for extracting pollen's hidden nutrients. One way of doing this is by osmotic shock, allowing the pollen grains to absorb enough water so their tough layers burst. Another method involves crushing the pollen to a powder form to try to crack the exine and intine layers. A final method uses crushed pollen powder mixed with a variety of enzymes that decompose the tough walls even further. Regardless of the processing method, some believe bee pollen can be very effective in treating allergies by building up one's immunity to plant pollens.

All this information shows just another level of complexity in the world of beekeeping. It is amazing how the more you know about honey bees and beekeeping, the more you realize how much there is yet to learn! I look forward to seeing you at the next meeting! ~Martha

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An article from soilassociation.org says: "Small doses of neonics on thousands of bees over time is affecting individual bee's ability to work and communicate effectively as part of a colony. Success relies on the integrity of a nervous system where each synapse is crucial. Because lots of bees in each colony are behaving sub-optimally, this can lead to the sudden, and devastating, outcomes that we've been witnessing in recent years."

Next month, I will be writing on the many ways bees are exposed to Neonicotinoids.

I hope to see some of you at the TBA Summer clinic on June 1st, and if not then at the next meeting!

~Hayden

Practical Experiences in the Beeyard by Stan Brantley

June is a wonderful month! The bees have new honey in the supers, mostly capped and ready for you to remove and extract. Honey is ready to be extracted when most of the cells in the comb are capped. The general rule of thumb is 80% capped. If in doubt, hold the frame upside down and give it a hard downward shake. If the honey does not "rain" out of the frame, it should be safe to extract.

Extract as soon as possible, same day is best, no later than early tomorrow if you can't extract today. Do not leave the supers setting for several days in the honey house or garage. The hive beetles will find them quickly. Just because you do not see them, don't think that beetles are not present. They are naturally present in the environment and will be drawn to the smell of your supers. Without the protection of the bees, the beetles can ruin a box of honey very quickly.

After extraction, you may want to return the supers to the hive for the bees to clean up. Do this late in the day to reduce the risk of starting a robbing frenzy. This gives the bees all night to clean up the sticky supers and be calmed down by morning.

If you wait until July to extract, then you could consider storing them "wet" with paramoth crystal to protect against wax moths. Check periodically and add additional paramoth crystals as they evaporate.

Since I work alone now, I have to be "smarter than the average bear" when working my hives. I use a fume board to push most of the bees out of the super into the boxes underneath. After the fume board has time to work, I remove the super and stand it on end (short side down), with the bottom bars facing me, and blow out the remaining bees with a small gas-powered leaf blower. Do not blow from the top bar side as this will cause the bees to get stuck in the burr comb that is inevitably built on the bottom of the frames. While the super is still standing on end, I slip my metal drip pan against the bottom, tilt the box and pan back against my leg, slip it in my waiting two wheeled cart, and take it to the pickup. After the super is in the truck bed, I cover it with a tow sack to keep robbing bees off of it.

If your bees are in a double brood box and did not put much honey in your super, you may want to consider taking the three outside frames from each side of a 10-frame box (two frames from each side of an 8-frame box). The frames can be extracted or stored in a freezer and put back in the box for winter stores later in the year. Replace the frames with drawn comb or new foundation if you do not have drawn comb. This should be done only in the top brood box, giving the queen more room to move upward and lay.

I have written about the growing interest in using all Medium boxes to build a hive. Last week, another beekeeper told me that he had read my articles and understood the concept but he just ran into the reality of it in his beeyard. He had one hive with a Deep and a Medium brood box, the Medium box was the top brood box. The bees had filled the Medium brood box with honey before starting to put it in the super above a queen excluder. In other words, his brood box was now honey-bound. However, since both the top brood box and the super were Mediums, he switched several frames of honey from the brood box with empty frames from the super, giving the queen more room to lay. In his next hive, the top brood box was also full of honey. However, it was a Deep. He could not swap frames with the super which was Medium.

Here is a reminder of a basic fact when putting together a hive. Be sure the frames and the box match. Deep frames in deep boxes, medium frames in medium boxes, and shallow frames in shallow boxes. If you are a newbee and are not sure, tilt the box up and look at the frames from underneath. The bottom bars should be very close to the bottom of the box. If one or more of the bottom bars is not within 1/2 inch of the bottom of the box, you have the wrong sized frames. Bees will fill the space between the bottom of a "too short' frame and the top of the frame in the next box with a mass of burr comb and propolis, essentially gluing everything together.

Looking toward the upcoming hot and dry season, unless we have some unusual rains, we can expect to see forage diminishing and the beginning of the season of "dearth". As natural forage wanes, bees will become more opportunistic about robbing weaker hives. If you have hives that are not strong, consider putting on the entrance reducer to help them guard against robbing. Feed new or weaker hives as needed. Make sure all hives have access to water. Hives will begin to use more water for cooling as the summer temperatures rise.

Got Questions? New to beekeeping? I will be at the meeting early and will try to help! Look for me in the classroom just inside the double doors on the far side of the Friendship Hall. Join us 6:00 to 6:30 with your beekeeping questions.

The Bee Gardener *by Bobby Howell*

Among the things I want to touch on in this article is the growing interest in using bee forage crops as a combination with groundcovers and smother crops.

Seeds for the clovers, grains and other plants have long been available, but only in bigger lots centered on the bigger farmers and growers. Now, there are several mail-order sources that offer them in packages as little as one pound and, in a few instances, in small seed packets. It's the small packets that most of us should be interested in, since most of the club's members are small-scale beekeepers -- back-yarders as we used to be called and the term I like best.

The plants and seeds that have grabbed my attention most are Japanese Buckwheat, New Zealand White Clover, O'Connor's Strawberry Clover, white and yellow sweet clovers, and fava (or Broad Beans).

Buckwheat is not a recent development. It has been around a long time, but not much in this region of East Texas and Northwest Louisiana. Buckwheat honey was once the main honey in the Northeast and could also be found in the Midwest. Buckwheat kind of lost favor some years ago, but the Japanese rescued it. They wanted the seed to grind into flour to make noodles. The problem was the Japanese didn't like the shape of the seed. So they did something about that and now Japanese Buckwheat has been found to make a great hot weather cover crop and forage for the beneficial insects, especially our honeybees. However, it does not tolerate frost.

Fagopyrum esculentum buckwheat is the type that does best in our climate. Plant it as soon as spring veggies are harvested and it will be blooming in 30 to 40 days. It will be in full bloom for a few weeks and will be so thick the grasses will be smothered out. When the seeds start to form (turn red) cut it down, let it decompose for a few days, dig it in, and plant fall veggies.

I love New Zealand White Clover because it acts a lot like White Dutch Clover, but with some better characteristics. New Zealand is a groundcover clover that will reach only about 8 inches high. It is probably the most heat tolerant and drought resistant of the clovers. It will grow in full sun or light shade and is great to plant under fruit trees. It will thrive on many soil types and drainage situations. Makes great honey, too. Plant it in summer and well before frosts.

O'Connor's Strawberry Clover gets its name because the blossoms look like strawberries. It is a dwarf ground-cover clover much like New Zealand and you plant it so it can be established before frosts.

The sweet clovers have had my interest for a while. This year I planted a small spot of the white. It is doing well so far, but rabbits love it, too. Some of the whites are annuals, but the yellow is a biennial.

I am sure most of us have heard of fava or broad beans. Fava make a great smother crop, a good food source for us, and a great forage for the honeybees. Favas are a cool weather plant. You can plant them in late summer for a fall crop or very early in the spring. In areas like ours, they might even live through the winter and frosts. Favas grow fast, flower early and grow tall, from 2 to 6-feet high. They bloom profusely and the flowers have black or dark blue or deep purple eyes. You can plant them thickly. This is one plant I am going to try this year.

Fava Beans

Most perennials are best planted in the fall in our region, but many annuals can still be planted, if you hurry. Mexican sunflowers can be planted through June and still expect to get a good bloom.

I have started plants from root divisions, cuttings, etc., for Mexican Bush Sage, catmint, Mexican heather and hardy hibiscus. They will be ready to share with you at the July meeting. I also have planted seeds for Korean Evodia or Bee-Bee trees. I hope to have them at the July meeting.

Oregano

A note or two: Oregano makes a great honey plant. It is cold hardy, grows fast, and blooms like crazy. There are white blossom types, pink blossom types and purple blossom types. It is great in the ground or in container. I give it a 9.5 out of 10. I have a Greek Oregano plant that is flat-out awesome.

If you have questions, I prefer to not receive phone calls but will be happy to connect with you at wild@eastex.net.