



The Buzzz

The Monthly Newsletter of the Gilroy Beekeepers Association

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GBA News

Got Honey? Need to rent the club extractor? Contact Pete Garcia to schedule a time. (408) 310-4000

Our September meeting will be held on Tuesday September 6th. This meeting is our annual bar-b-que dinner. This year we will be meeting at the Syngenta facility on Hecker Pass Road (Hwy. 152).

The address is 2280 Hecker Pass Rd, Gilroy, CA 95020

There will be a brief business meeting and social hour beginning at 6:00 PM and dinner will be served at 7:00 PM. The menu will be tri-tip and chicken from Hwy 152 Bar-b-que in downtown Gilroy. Member with last names starting A-M please bring a desert to share. Members with last names starting N-Z please bring a side dish to share. There will be a \$10 per person charge to partially cover the cost of the tri-tip and chicken.

You will be receiving an evite to the dinner. It is **IMPORTANT** that you RSVP this evite and indicate if you are bringing a guest with you to the dinner. Also, please indicate your choice(s) of either tri-tip or chicken in the evites comments box so that we know approximately how much of each item we will need.

Santa Cruz County Fair

September 14 thru 18

Gilroy Beekeepers Association will be hosting a booth at the Santa Cruz County Fair from September 14th thru 18th. It will be located in the "Bug Building". The theme is "Protecting the Pollenators". We are looking for volunteers from the club to work at the booth. Any level of beekeeping expertise is welcome! If you are able to volunteer for a 4 hour time slot (1 day) you will get a day pass and parking pass. If you volunteer more than 2 days (8 hours total) you'll get a wristband and parking pass. The Fair hours are Wed, Thurs, Fri Noon-11:00pm. Saturday 10am-11pm, and Sunday 10am-10pm. There is a special Education Day on Sept 15 from 9am - 12noon. Those interested please Email me with the day(s) and times you would be able to volunteer. Please respond by September 5th so I can secure the passes and create a schedule. My email is diters@verizon.net.

At the September dinner we have several items of business to take care of. First is the election of officers. Since we had limited nominations this will hopefully be an easy task.

Nominees for officers

Current nominees are:

Immediate Past President – Wayne Pitts

President – Dave Stocks

Vice President Grant Wolfe

Secretary - Randy Fox

Treasure - Vicki Basham

We also need to decide where our 2016 research contribution will be made. We raise money for research by having our raffles at the meetings. Last year we donated the raised funds to the UC Davis Master Beekeeper Program. This year we have three worthy places to choose from.

UC Davis Master Beekeeping Program. The mission of the California Master Beekeeper Program is to provide science-based education to future stewards and ambassadors for honey bees and beekeeping. The Apprentice level is designed to build a solid foundation of basic beekeeping skill and knowledge. Participants may stop at this level or continue on to the more advanced levels: Journeyman and Master levels. Raised funds are used to purchase bees and equipment to further the above objectives.

California State Beekeepers Association Research Fund. The CSBA allocates approximately \$100,000 each year to research. Researchers are invited to propose their projects and the selection committee selects 5-7 projects for funding. Since the CSBA is composed mainly of commercial beekeepers who

have mortgages to pay and lots of expenses, the goal is usually to find solutions to problems that are directly affecting the bees and the member's ability to continue being a beekeeper.

Project Apis M funds research studies, purchases equipment for bee labs at our universities, supports graduate students and provides scholarships to young bee scientists to encourage their pursuit of science-based solutions to honey bee challenges.

Please be ready in September to vote for the group that you think most deserves our help

News from the Bee World

The Following article is courtesy of the American Bee Journal

Pesticides Used to Help Bees May Actually Harm Them

In general, honey bee health has been declining since the 1980s, with the introduction of new pathogens and pests. Pesticides beekeepers are using to improve honey bee health may actually be harming the bees by damaging the bacteria communities in their guts, according to a team led by a Virginia Tech scientist.

The discovery, published in the journal *Frontiers in Microbiology*, is a concern because alterations can affect the gut's ability to metabolize sugars and peptides, processes that are vital for honey bee health. Beekeepers typically apply pesticides to hives to rid them of harmful parasites such as Varroa mites.

"Although helpful for ridding hives of parasites and pathogens, the chemicals in beekeeper-applied pesticides can be harmful to the bees," said Mark Williams, an associate professor of horticulture in the College of Agriculture and Life Sciences and lead author. "Our research suggests that pesticides could specifically impact the microbes that are crucial to honey bee nutrition and health."

For the project, the team extracted genomic data from honey bees that lived in hives that were treated with pesticides (three different kinds) with those that were not. Samples were pulled from hives in three separate Blacksburg locations.

Honey bees from chlorothalanyl-treated hives showed the greatest change in gut microbiome, said Williams, who is also affiliated with the Fralin Life Science Institute.

Looking ahead, the team plans to investigate the specific changes in gut microbiota activities that affect honey bee survival. Honey bees are the foundation of successful high-value food production.

"Our team wants to better describe the core microbiota using bioinformatics to help best characterize the microbes that support healthy honey bees and thus stave off disease naturally," said co-author Richard Rodrigues, a postdoctoral researcher at Oregon State University and formerly a graduate student in Williams' lab.

Other authors include Troy Anderson, a former assistant professor of entomology at Virginia Tech; Madhavi Kakumanu, a postdoctoral scientist at North Carolina State University and former Virginia Tech graduate student in Williams' lab; and Alison Reeves, a former graduate student in Anderson's lab.

In Virginia, the approximate rate of hive loss is more than 30 percent per year, and continued losses are expected to drive up the cost for important crops that bees make possible, such as apples, melon and squash.

The follow items come courtesy of Western Apiculture Society

HERE'S THE COLONY-KILLING MISTAKE BACKYARD BEEKEEPERS MAKE

By Dan Gundeerson, Fargo ND on Moorhead Public Radio website

Jonathan Garaas has learned a few things in three seasons of backyard beekeeping: Bees are fascinating. They're complicated. And keeping them alive is not easy. The Fargo attorney lost hives in his first two years as a novice beekeeper. With nine hives now established near his home and a couple of University of Minnesota bee classes under his belt, he feels like he's got the hang of it, although it's still a challenge.

Every two weeks, he opens the hives to check the bees and search for varroa mites, pests that suck the bees' blood and can transmit disease. If he sees too many of the pinhead sized parasites, he applies a chemical treatment.

"You can get the book learning. You can see the YouTubes. You can be told by others," he said, but "you have to have hands-on experience. When you start putting it all together, it now starts making sense."

Scientists wish every beginner beekeeper was as diligent.

While experts welcome the rising national interest in beekeeping as a hobby, they warn novices may be inadvertently putting their hives — and hives for miles around — in danger because they aren't keeping the bee mite population in check.

Many hobbyists avoid mite treatments, preferring a natural approach, but that's often a deadly decision for the bees, said University of Minnesota bee expert Marla Spivak.

National surveys by the Bee Informed Partnership show backyard beekeepers in fact are taking the greatest losses nationally," and those losses are often the result of an out-of-control infestation of the varroa mite, said Spivak.

Varroa mites arrived in the United States nearly 30 years ago. But they've become a bigger problem in recent years.

Researchers partly blame backyard beekeepers who don't treat their hives.

Untreated hives can spread mites and viruses to other hives within several miles, Spivak said. Healthy bees will invade a dying hive to steal the honey. When they do, they also carry mites with them back to their hives.

"The combination of the mite and the viruses is deadly," said Spivak.

The University of Minnesota Bee Squad, a group that provides beekeeping education and mentoring in the Twin Cities, is seeing more healthy hives rapidly infested with mites and the viruses they carry.

Fall is an especially critical season, said Rebecca Masterman, the Bee Squad's associate program director.

"That late season reinfestation means that your bees are going through winter with a lot of mite pressure and it's really hard for them to come out of that and survive," she said. "It's something that is important enough to really try to get every backyard beekeeper in the country to at least be aware of it."

Masterman said she's also encouraging commercial beekeepers to check their bees more often for surprise mite infestations.

A new online mite monitoring project lets beekeepers anywhere in the country share data on mite infestations and will help researchers track the spread, she added.

A mite control experiment set up this summer should provide more information about the best methods for treating mites in bee colonies.

Bees face other challenges beyond mites, including poor nutrition, disease and pesticides. Even veteran beekeepers say it takes more effort to keep their bees alive.

Beekeepers are independent, so Spivak said she doesn't like to tell them how to care for their bees. But the mite and virus threat to bees, she added, is something that can be controlled.

"I really understand why some people might not like to have to treat their bee colony for mites. It just sounds so awful. It's such a beautiful bee colony and to have to stick some kind of a treatment in there seems so unnatural," she said.

But our bees are dying," she added. "And it's very important to help do whatever we can to keep them alive."

<https://www.mprnews.org/story/2016/08/03/backyard-beekeeping-mites-untreated-kills-bees>

A variety of articles regarding the use of Formic and Oxalic acid for treating Varroa and Tracheal Mites.

<http://www.honeybeeworld.com/formic/>

The follow items come courtesy of Bee Culture Magazine.

Researchers identify how queen bees repress workers' fertility

Researchers from New Zealand's University of Otago have discovered the molecular mechanism by which queen honeybees carefully control worker bees' fertility.

It has long been known that worker bees have a very limited ability to reproduce in a hive with a queen and brood present, but in their absence, a third of them will activate their ovaries and lay eggs that hatch into fertile male drones.

It is queen pheromone that represses worker bee fertility, but how it achieves this has remained unclear.

<http://www.beeeculture.com/catch-buzz-researchers-identify-queen-bees-repress-workers-fertility>

Approaches and Challenges to Managing Nosema Parasites in Honey Bee Colonies

The microsporidia *Nosema apis* (Zander) and *Nosema ceranae* (Fries) are common intestinal parasites in honey bee (*Apis mellifera* L.) colonies. Though globally prevalent, there are mixed reports of *Nosema* infection costs, with some regions reporting high parasite virulence and colony losses, while others report high *Nosema* prevalence but few costs. Basic and applied studies are urgently needed to help beekeepers effectively manage *Nosema* spp., ideally through an integrated pest management approach that allows beekeepers to deploy multiple strategies to control *Nosema* when *Nosema* is likely to cause damage to the colonies, rather than using prophylactic treatments. Beekeepers need practical and affordable technologies that facilitate disease diagnosis and science-backed guidelines that recommend

when, if at all, to treat infections.

<http://www.bee-culture.com/catch-buzz-approaches-challenges-managing-nosema-parasites-honey-bee-colonies>

From the Internet

For those of you who are gardeners as well as beekeepers, a couple of articles about bees and Cucumber Mosaic Virus on tomatoes was in this week's Economist.

<http://www.economist.com/news/science-and-technology/21704783-strange-tale-collaboration-between-plants-pathogens-and-insects-bee-kind>

National Geographic has a similar article but with interesting links:

<http://www.nationalgeographic.com/people-and-culture/food/the-plate/2016/08/the-curious-case-of-the-bumblebee--the-virus-and-the-tomato/>

How to build a hotel for wild bees

Help out your local bee population by building them a place to nest.

<http://www.mnn.com/your-home/organic-farming-gardening/stories/how-build-hotel-wild-bees>

This month in the Beeyard

My September Beekeeping To-Do List

By Serge Labesque

Decisions, decisions: How many, and which hives to take into winter?

In spite of the summer triage of the colonies, many beekeepers still have more bees than they were planning on taking into winter this year. This could be considered a good problem to have. But, is it really? Indeed, many hives in any one area can be too many; yes, too many, because a high density of hives means poor nutrition for all the colonies when dearth arrives. Furthermore, this sort of imbalance between the quantity of bees and the amount of available nectar and pollen leads to widespread robbing behavior and, with it, to the dissemination of pests and diseases.

Beekeepers also have their limits. They may not have enough equipment on hand, the time or necessary dedication to take good care of large apiaries. In the end, they may not manage their colonies responsibly.

To avoid this situation in the first place, we can, and maybe should, exert restraint on our desire to have always more bees, particularly at a time when the number of beekeepers is climbing sharply around us. But this is a point we will have to remember next spring.

Right now, with fall only a few weeks away, we need to deal with the present condition of our large apiaries: How many of these colonies should be kept? How do we choose and manage the ones we will retain? What should we do with the others?

The answer to this conundrum may be found inside the hives around the end of summer, if not earlier. When the bees have enough stores to cover their needs, when they are healthy and their brood nests look good, they can be launched into winter without hesitation. For the hives that do not meet these criteria, it is necessary to promptly figure out what may have caused their poor condition, and then to act accordingly.

Let's say that beekeeper mistakes such as harvesting more than surplus honey and creating the colonies too late in the summer were avoided. Then, a widespread lack of stores among the colonies is indicative of an excess of bees in the area. When this happens, the combination of colonies is a good option. It is actually a correction of excessive colony multiplication.

Apart from the pervasive influence of environmental factors, we may see considerable disparity among colonies, even though they may be in the same apiary and receive similar care. Some of them may be nicely supplied and preparing for winter, while others are without stores. Although the odds are not in favor of small colonies, it is possible to overwinter them as nucs by shrinking the volume of their hives. This hive volume reduction, which restores the balance between the bee populations and the size of their nest cavities has a strengthening effect, and provides the bees with better overwintering conditions. Alternatively, the populations and stores of colonies that are failing may be united, as long as they are not diseased. In some instances, they may still be requeened. On the other hand, I do not consider feeding and treatments to be acceptable options. Indeed, if the colonies cannot make it to spring without these crutches, that would demonstrate that they were not meant to; no regrets. But, if they surmount the challenge of winter, certainly we will have plenty of good bees to refill our apiaries and to give to other beekeepers.

September in the apiaries

Honey bee colonies have developed a remarkable system to prepare for winter. They work at it during most of the warm season by gathering and processing food. Yet, some of the tasks they perform during the latter part of summer and in early fall have vital importance for them.

Most evident to beekeepers are the accumulation and compact organization of the stores inside the hives. At the end of summer, the bees bring nectar and pollen into the brood chambers and even into the brood areas. When the honey flow is light or nonexistent, which is usually the case in this area at this time of year, they relocate uncapped honey within the hives, moving it from distant parts of the hives into the brood chambers. In doing so, they leave behind patches of capped honey surrounded by empty comb. Although the bees move uncapped honey, they leave the beebread they did not consume in place. Most of the leftover pollen is soon covered with a glaze of honey. It will be available to the bees months later, when they need proteins to raise their young in the middle of winter.

As the stores take over the upper parts of the brood chambers, the brood nests are gradually repositioned into the lower parts of the hives. Soon, the combs of the brood chambers, being filled with brood and stores, become honey bound. In the spring, when the colonies are growing, this condition would almost certainly drive the colonies to swarm, but not in early fall, as the populations are shrinking. However, swarms may still issue in the fall. But these swarms are frequently absconding swarms, bees fleeing stressful conditions, and, unless ill-timed, they are not reproductive swarms.

As the fall equinox approaches, there is a brief spike in brood production. Its timing is important, because a few weeks later this brood will become the nurse bees that will nurture the developing winter bees. They will all benefit from the stores that are filling the brood chambers. If drones are still present, they are promptly eliminated, and no food will be wasted on them. Good nutrition is truly a key element in the preparation of the colonies for winter.

The timely and adequate response by the bees to seasonal cues to prepare for winter is an important trait to observe and note. It shows a good level of adaptation to their local conditions. The bees that possess it have better chances of making it successfully to next spring than other colonies. Yet, this is not sufficient to ensure their survival. Good health, queens and in-hive conditions will also be necessary.

The bees have their method so well-figured out that I try hard not to interfere with it. But this does not mean doing nothing, and I still feel responsible for managing the homes I supplied them with. So, the colonies are inspected around Labor Day. Their strength, brood nest, health, stores, and overall state of readiness are noted. A management plan that will be executed over the following month or two is devised for each colony. The volume of the hives is somewhat reduced by removing unused empty frames from the upper parts of the hives, or, when the honey flow has been generous, by harvesting with moderation some of the surplus honey; preferably the dark honeydew honey so that the bees are left with the lighter honey for the cold months. Pressing some of the wax capping of small patches of honey with the hive tool will entice the bees to remove and relocate the honey. The emptied frames will be taken away later. When this is done, the honey should be barely exposed but not to the point of dribbling down the combs, or a robbing situation might be triggered. The monitoring trays are examined to figure out how the colonies are handling the varroa mites. The size of the hive entrances may have to be adjusted so that the colonies can defend them against robber bees and yellowjackets. Occasionally, the beekeeper may decide to combine or requeen some colonies.

A second round of hive inspections will follow, about one month later, to verify that the colonies are on track and to further reduce the volume of the hives. That, too, will be a good opportunity to take old and misshapen combs out of use.

In summary, this month:

- Assess the colonies, their health, queens, brood nests and stores.
- Monitor the progress of the colonies in their preparations for fall and winter.
- Requeen or combine hives that are not performing satisfactorily and those that have failed or failing queens.
- Reduce the unused volume of the hives (Follower boards greatly facilitate this.)
- Consolidate honey in honey supers (Reduce the volume of the honey supers with follower boards).
- Manage frames in preparation for fall culling of the old and misshapen ones.
- Beware of yellowjackets and of the risks of robbing. If necessary, reduce the entrances of developing colonies and of those that are under attack.
- Avoid hive manipulations that can trigger robbing.
- Provide and maintain sources of water.
- Provide some afternoon shade, if possible.
- Ensure that hives are adequately ventilated.

- Harvest surplus honey, if there is any, and with moderation.
- Extract and bottle surplus honey.
- Return wet frames and cappings to the bees for cleaning (by placing them above hive top feeders or inner covers during the evening).
- Render wax from discarded frames and from cappings.
- Beware of the fire danger when using the smoker in dry-grass areas.
- Routinely clean and scorch tools and equipment.

Serge Labesque © 2016

Drippings from the Extractor

by Dave Stocks

Drippings from the Extractor

by Dave Stocks

Years ago I used to be a deer hunter. On the few occasions when a buck was unfortunate enough to run in front of my sights, we would prepare it for the butcher by field dressing it. This involved the removal of all the unwanted parts. Deer season in Santa Clara County is August and September. The yellow jackets can be horrendous. It's not unusual to see a hundred yellow jackets trying to devour the carcass. After all, they are meat eaters. Fast forward to mid-August. After being lulled into the belief that this wasn't going to be a bad year, the yellow jackets arrived with a vengeance. They were everywhere: around the bee hives, menacing the hummingbirds and irritating everyone who tried to sit outside. I broke out the traps, bought new attractant at Lowes and placed the traps around the yard.



Trap with store bought attractant after four days

The result, maybe fifty yellow jackets after several days. The bees, the hummingbirds and the wife were still being harassed! What to do? Then I remembered my hunting trips. As luck would have it, Laura (my most beautiful wife) had just taken the last of the Thanksgiving turkey out of the freezer. She probably thought I would be craving a turkey sandwich. Anyway, while she wasn't looking, I snuck a piece and placed it in a trap. The trap was hung on the fence, not too far from my hives. Within a couple of hours, there were at least seventy-five captured in the trap. I considered the experiment a success. And the best part? Two yellow jackets inside the trap, fighting over a piece of turkey!!

But there's more! In the infamous words of Paul Harvey, the late radio personality, "And now the rest of the story". With the success of the turkey, I wanted to fill more traps. To my dismay, Benji the dog had made a major score off the kitchen counter! What to do? Well, there in the deli compartment of the refrigerator was a package of turkey bologna. What did I have to lose? A better question perhaps was what did the yellow jackets have to lose. Within two hours I had over two hundred yellow jackets in



The bologna trap after two hours

the trap! My new favorite meal? You guessed it, turkey bologna.

We've all dealt with aggressive bees. Sometimes we can't even walk into the bee yard without being met by a bee whose whole intent seems to be to sting us. And when this happens, we are quick to blame the bees. But maybe we shouldn't rush to a quick judgment. We need to stop for a second and consider if perhaps we're the cause of the bee's aggressiveness. We have all heard how bananas mimic the bee attack pheromone. But are there other things which are making our bees aggressive? Let's consider a couple. Keep in mind I have no scientific proof that these are fact. I do have the observations of longtime beekeepers.

I have a friend. who, every time he walked into his garden would get stung. He didn't need to get within fifty feet of his hives before being met by a bee intent on stinging. I could walk right up to his hive and not have any issues. After much consideration it was confirmed that the cause of the bee's aggressiveness was his sun tan lotion. Each time he went outside to work, he liberally applied the lotion.

I'm not sure of the brand, but it wasn't bee recommended. This wasn't an isolated case. I have another friend who experienced a very similar event.

Another example of beekeepers antagonizing their bees involves the personal protection clothing we wear to protect us from stings. Consider this. Every time a bee stings, she leaves a little message to other bees that they should do the same. Visualize the beekeeper working his bees. It is inevitable that he will be stung. Now visualize the beekeeper who goes a whole season, or longer, without washing his protective clothing. That clothing has hundreds of beacons that say "sting me here".

We should also consider the possible effects of detergent and fabric softener fragrances. Are they possible causes of bee aggressiveness?

So what's the message? Before we blame the bees, make sure we're not the cause!

The remainder of the year has a lot in store for the GBA. In addition to the September bar-b-que, Sharon McCray will speak at our October meeting on planting for pollinators. This will be followed in November by Dr. Elina Niño who will bring us up to date on her work at UC Davis. We'll close the year with our annual Christmas dinner. It should be a great way to finish the year. However, it does not come free. In addition to your contributions for the meals, the association subsidizes some of the rest of the cost. The association also pays an honorarium to the speakers. This is paid entirely from our treasury. That money primarily comes from your dues. The point of this? If you enjoy what this association provides, and haven't paid your dues, please do. And have we got a deal for you! Pay your dues at the October meeting and be considered paid in full through December 2017. Thanks in advance.

The President's Message

September – The Official Control Varroa Month

September is generally the month that varroa starts to exceed the threshold where damage to the hive may result if some action is (or has) not been taken. There are multiple methods to handle varroa; one is to use a brood less period to seriously hamper the mites reproduction rate. This method depends on one factor in the mite lifecycle. The mite can only reproduce in a sealed cell.

- Cage your queen; keep her in the hive
 - JzBz's queen cage is the easiest to use
- Wait 28 days before releasing her
 - All brood has hatched
 - All mites are now in the phoretic stage
- If you choose to treat – do it 3 days before releasing the queen
- When she starts laying again, it will be 8 more days before sealed brood

Details on using a JzBz cage as a queen catcher. Each cage has the capability of being opened up and then reclosed. The photos below describe how to open the cage.



top





To use it as a queen catcher, open as shown in the photos, find the queen, gently place the large opening over the queen. She will then start to walk up the sides of the cage, when she is completely in, close the cover and then the cap. It is also a good idea to have the pipe plugged before you start.

Calendar of Events

Meetings

Monday September 5, 2016

Santa Clara Valley Beekeepers Guild

6:15 pm

<http://beeguild.org/>

Dwell Christian Church San Jose

1292 Minnesota Ave San Jose CA 95125

Tuesday September 6, 2016

Gilroy Beekeepers Association

7:00 pm

Old City Hall, 7400 Monterey Rd.

Gilroy, Ca

<http://www.gilroybees.com>

Wednesday September 7, 2016

Santa Cruz Beekeepers Guild

6:30 pm

El Rio Mobile Home Park, 2120 N. Pacific Ave.

Santa Cruz, CA

<http://santacruzbees.com>

Thursday September 8, 2016

Beekeepers Guild of San Mateo

7:00 pm

Trinity Presbyterian Church

1106 Alameda de Pulgas

San Carlos, CA

<http://www.sanmateobeeguild.org/>

Saturday September 10, 2016

Monterey Bay Beekeepers

8:00 am

Black Bear Diner

2450 N. Fremont Street,

Monterey CA 93940

<http://www.montereybaybeekeepers.org/>

Classes and Conferences

2016 WESTERN APICULTURAL SOCIETY OF NORTH AMERICA ANNUAL CONFERENCE

DATES: OCTOBER 13 - 15, 2016 (Bee Buzz Social evening of the 12th)

PLACE: ALA MOANA HOTEL, WAIKIKI BEACH, HONOLULU, HAWAII

WEBSITE: <http://WWW.WESTERNAPICULTURALSOCIETY.ORG>

Oct 20: World of Honey: California. Info <http://honey.ucdavis.edu/events>

November 15-17: California State Beekeepers Association annual conference, San Diego, CA

<http://www.californiastatebeekeepers.com/events.html> Book your room at

<https://gc.synxis.com/rez.aspx?Hotel=58621&Chain=11910&arrive=11/15/2016&depart=11/18/2016&adult=1&child=0&group=1114CSB>