



# The Buzzzzz

The Monthly Newsletter of the Gilroy Beekeepers Association

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## Photos of the Month



*Photo by Bob Weseloh*



*Photo by Verona Flint*

Thank you to both Bob and Verona for the excellent photographs of carpenter bees in action

## GBA News

Thank you to Jeannie and Pete Garcia for taking on the hosting of the Association extractor. If you have honey to extract, you can contact Pete and Jeanne at 408-310-4000. There are some other interesting "committees" in the works. Paula Joiner has offered to spearhead a group to develop lesson plans for school visits. The advantage of this is the consistency of the presenter when talking to different age groups. If you are interested in talking to any age group, stay tuned. We will be seeking volunteers.

There appears to be interest in the Association having the ability to supply nucs. This would be a voluntary program where members supplied bees to those interested as an alternative to buying packages. It's still in the initial stages of planning but has real potential. Hopefully we will be forming a group in the near future to work out the details.

The GBA now has two hives at the Gilroy Demonstration Garden. We still have some issues related to insurance, but hopefully we can start using it as a meeting site in the very near future.

## News from the Bee World

The following come courtesy of Fran Bach.

### **Bees Diversify Diet to Take the Sting Out of Nutritional Deficiencies**

While pesticides and pathogens pose clear threats to honey bee health, the need of bee colonies for balanced nutrition is gaining increasing appreciation. As colonies are kept in agricultural areas for crop pollination, they may encounter nutritional deficits when foraging predominantly on one pollen source. In California almond orchards for instance, 1.6 million colonies are kept every year, despite the risk of low floral diversity, which can reduce the life expectancy of bees.

<http://www.beeeculture.com/catch-buzz-bees-diversify-diet-take-sting-nutritional-deficiencies>

### **NATION'S BEEKEEPERS LOST 44 PERCENT OF BEES IN 2015-16**

Beekeepers across the United States lost 44 percent of their honey bee colonies during the year spanning April 2015 to April 2016, according to the latest preliminary results of an annual nationwide survey. Rates of both winter loss and summer loss—and consequently, total annual losses—worsened compared with last year. This marks the second consecutive survey year that summer loss rates rivaled winter loss rates.

The survey, which asks both commercial and small-scale beekeepers to track the health and survival rates of their honey bee colonies, is conducted each year by the Bee Informed Partnership in collaboration with the Apiary Inspectors of America, with funding from the U.S. Department of Agriculture (USDA). Survey results for this year and all previous years are publicly available on the Bee Informed website.

"We're now in the second year of high rates of summer loss, which is cause for serious concern," said Dennis vanEngelsdorp, an assistant professor of entomology at the University of Maryland and project director for the Bee Informed Partnership. "Some winter losses are normal and expected. But the fact that beekeepers are losing bees in the summer, when bees should be at their healthiest, is quite alarming."

Beekeepers who responded to the survey lost a total of 44.1 percent of their colonies over the course of the year. This marks an increase of 3.5 percent over the previous study year (2014-15), when loss rates were found to be 40.6 percent. Winter loss rates increased from 22.3 percent in the previous winter to 28.1 percent this past winter, while summer loss rates increased from 25.3 percent to 28.1 percent.

The researchers note that many factors are contributing to colony losses. A clear culprit is the varroa

mite, a lethal parasite that can easily spread between colonies. Pesticides and malnutrition caused by changing land use patterns are also likely taking a toll, especially among commercial beekeepers.

A recent study, published online in the journal *Apidologie* on April 20, 2016, provided the first multi-year assessment of honey bee parasites and disease in both commercial and backyard beekeeping operations. Among other findings (summarized in a recent University of Maryland press release), that study found that the varroa mite is far more abundant than previous estimates indicate and is closely linked to several damaging viruses. Varroa is a particularly challenging problem among backyard beekeepers (defined as those who manage fewer than 50 colonies).

“Many backyard beekeepers don’t have any varroa control strategies in place. We think this results in colonies collapsing and spreading mites to neighboring colonies that are otherwise well-managed for mites,” said Nathalie Steinhauer, a graduate student in the UMD Department of Entomology who leads the data collection efforts for the annual survey. “We are seeing more evidence to suggest that good beekeepers who take the right steps to control mites are losing colonies in this way, through no fault of their own.”

This is the tenth year of the winter loss survey, and the sixth year to include summer and annual losses in addition to winter loss data. More than 5,700 beekeepers from 48 states responded to this year’s survey. All told, these beekeepers are responsible for about 15 percent of the nation’s estimated 2.66 million managed honey bee colonies.

The survey is part of a larger research effort to understand why honey bee colonies are in such poor health, and what can be done to manage the situation. Some crops, such as almonds, depend entirely on honey bees for pollination. Estimates of the total economic value of honey bee pollination services range between \$10 billion and \$15 billion annually.

“The high rate of loss over the entire year means that beekeepers are working overtime to constantly replace their losses,” said Jeffery Pettis, a senior entomologist at the USDA and a co-coordinator of the survey. “These losses cost the beekeeper time and money. More importantly, the industry needs these bees to meet the growing demand for pollination services. We urgently need solutions to slow the rate of both winter and summer colony losses.”

This survey was conducted by the Bee Informed Partnership, which receives a majority of its funding from the National Institute of Food and Agriculture of the U.S. Department of Agriculture (USDA) (Award No. 2011-67007-20017). The content of this article does not necessarily reflect the views of the USDA.

A summary of the 2015-2016 survey results has been added to previous years’ results publicly available on the Bee Informed Partnership’s website at <https://beeinformed.org/>.

### **THREE NON-PESTICIDE REASONS BEEKEEPERS LOST 44 PERCENT OF BEES IN 2015-16**

*By Hank Campbell, President of the American Council on Science and Health*

*This entry was posted in Chemicals and Environment May 11, 2016.*

The Bee Informed Partnership takes an annual survey of commercial and backyard beekeepers in order to track health and survival rates of honey bee colonies. The latest results show that colonies declined 44 percent during the year spanning April 2015 to April 2016.

That sounds alarming, and it is in contrast to studies showing that bee numbers are not in decline, they were instead at a 20-year high last year.

How can the claims be so different? Should we be alarmed or not?

There are three reasons why lazy journalists who rewrite Friends of the Earth press releases are not only getting it wrong claiming pesticides are a cause, they are misrepresenting the data:

1) Surveys are not studies. Beekeeping has become a fad and that means a whole lot of amateurs have killed a whole lot of bees. Despite what the kind of people who go into amateur beekeeping in the last few years think, you can’t just stick a hive in your backyard and watch the awesome power of nature take over. Well, nature will take over, but it will be the mean kind of nature – the bees will die. More

bees are killed in truck accidents than due to pesticides, but that doesn't show up in surveys or in press releases from environmental groups. If I were a bee, I'd be really 'stressed' about being hauled on a truck out to some place that will sell or rent me to an amateur beekeeper likely to kill me with incompetence.

2) They use both winter loss and summer loss combined. Lots and lots of bees die during the winter, and the harsher the winter the more they die, so this combined number doesn't have much validity because it hasn't been gathered long enough – only six years. On the other hand, the more recent term Colony Collapse Disorder is actually a recurring that has been documented for as long as beekeeping has been documented. See reports in the years 950, 992, 1443, 1853, 1868, 1891, 1896, 1903, 1905, 1918, 1919, in the 1920s, the 1930s, the 1960s, 1975 and 1995. During those early years they had low literacy. Imagine how many collapses would have been recorded if everyone knew how to write.

The real difference this year over last: 3.5 percent. In nature, that is statistical wobble.

3) One-off results are not really telling much of a science story. Activists are promoting this latest number as an impending Neonicotinoid pesticide doomsday only your check or credit card donation (act now!) can prevent, but scientists recognize there are many factors contributing to wild swings in bee deaths. The biggest culprit is the varroa mite, a deadly parasite that rapidly spreads spread between colonies but doesn't show up in surveys. And there are changes in climate and land use that make a difference – weather is the big reason northern Europe seemed at one point to have more bee losses while Australia, which uses plenty of neonics pesticides, had no decline in bees at all.

Though journalists are making this a pesticide issue, the scholars behind the work don't. "We're now in the second year of high rates of summer loss, which is cause for serious concern," Dennis vanEngelsdorp, an assistant professor of entomology at the University of Maryland and project director for the Bee Informed Partnership, said: "Some winter losses are normal and expected. But the fact that beekeepers are losing bees in the summer, when bees should be at their healthiest, is quite alarming."

He said much the same thing last May, and implicated parasites. "Our biggest surprise was the high level of varroa, especially in fall, and in well-managed colonies cared for by beekeepers who have taken steps to control the mites. We knew that varroa was a problem, but it seems to be an even bigger problem than we first thought. Moreover, varroa's ability to spread viruses presents a more dire situation than we suspected."

Indeed. They are, as he called them, dirty hypodermic needles that are a vector for viruses.

Who will be impacted most by these mites? Small beekeepers, like the amateurs in point 1, who don't have any varroa control strategies in place, and due to that lack of knowledge or unwillingness to engage in pest control, their problem will result in even good beekeepers who control mites losing colonies as the disease spreads.

Estimates of economic "value" say honeybee pollination is worth up to \$10 billion annually. At some point it might make sense to pay Natural Resources Defense Council donors to not become amateur beekeepers thinking they are saving Gaia. They are probably doing more harm than good.

<http://acsh.org/news/2016/05/11/87403/>

## Presidents Message

by Wayne Pitts

I am sure by now all of you have heard about the "killer" bee attack in Concord that killed two dogs. If not the story is at this link: <http://www.sfchronicle.com/bayarea/article/Killer-bees-probably-are-i-the-Bay-Area-to-stay-7514169.php?t=d76169726f&cmpid=twitter-premium#photo-10086585>

This follows on the news article last summer that told us we have "killer" bees in the area. Well it turns out that the bees were not Africanized but regular run of the mill European bees that we all have. <http://www.sfgate.com/bayarea/article/Insects-in-Concord-attack-were-regular-honey-7943086.php>

What happened to cause this problem? Something we all could do if we didn't think of the repercussions. The beekeeper in question moved the hives in the middle of the day. What do the returning foragers do when they return and their home is missing? They start an ever expanding circle of flight looking for their hive. Unfortunately, that circle extended into the next door back yard when the two dogs, most likely barking and snapping at the bees, were stung. The release of alarm pheromone, along with the dogs becoming even more agitated probably caused more bees to sting. Now even more alarm pheromone is in the air, causing even more problems. Close to a perpetual motion event, only limited by the number of bees that haven't stung anything yet. Not a good thing for us. People will remember this event for years.

How to keep this from happening in your bee yard? Only move hive(s) at night. If you must move them in the daylight, seal the hive up the night before. If you must move an unsealed hive in the daytime, leave a box with comb in it in the old hive location, this gives the foragers a place to come home to. If left in place for 3-4 weeks the foragers will have died. If it must be moved, be sure to do it at night or seal at night and move the next day.

## **June in the Beeyard**

### **My June Beekeeping To-Do List**

By Serge Labesque

#### **For bees' sake, we *must* talk.**

There are markedly diverging views among beekeepers and bee scientists on how to take care of the bees.

True, we all have the right to express our opinions. When the health and survival of important natural resources such as the honey bee are at stake, we even have the moral obligation to speak up, argue, and debate. But while we are at it, we would also do well to listen and be ready to change our ways. We might learn something we did not know, and we, as well as the bees, would be better off for it!

Certainly, I, among many others, have not shied away from this responsibility in regard to the wellbeing of the honey bee... ad nauseam for both you and me! However, I can say that my opinions are not inflexible. Indeed, they have evolved over the years; to the point that I now object to many of the beekeeping practices that I had used in my own apiaries, some for several years. I have also abandoned beliefs that I had firmly held. This shift is the result of reflection and apiary trials that I ran when other beekeepers suggested that I was erring. It's a process that can be disorienting. Fortunately, I adhere to fundamental principles and values that help me sift through the information I am exposed to, the predominant one of these being to not interfere with natural selection.

Although I frequently expose my thoughts in these lines, I want them to be challenged. If they are not strong enough to withstand the rebuke, I search for alternatives. In this never-ending quest, the bees themselves are some of the best and most honest critics. Aren't they ultimately the referees as well as the beneficiaries or the victims of all our choices and decisions? So, please do not hesitate to criticize what I say or write, because the discussion will benefit us all. Whether we are beginning beekeepers or long-time practitioners, we owe it to the bees to question the validity of each other's ways.

Routines, traditions, beliefs and habits are only pale excuses that maintain the status quo and prevent us for making progress. They are not wisdom. At best, they may be temporary crutches we can use while we look for better ways. Progress requires that let go of ineffective or damaging ways, and that we seek real improvements. So, let's talk about what these might be... open-mindedly.

### **June in the apiaries:**

The spring honey flow ended quite suddenly in early May around my home. As soon as the purple vetch bloom was over, there was no good bee forage in this area besides the short-lived flowers of a few catalpa trees and a derisory patch of blackberry bushes. The California buckeye trees bloomed profusely though. It did not take more than a few days for the effects of this noxious combination of dearth and toxic pollen to become noticeable. Signs of robbing behavior could be seen at the hive entrances. I promptly narrowed them. The bees became more defensive, too, but the brood chambers of the hives were even more dramatically affected: The brood, surrounded by diminishing stores, became spotty. The signs of a honey flow had vanished and comb building had stopped. Altogether it was a harbinger of a tough summer.

During those spring months, I had the chance to visit several apiaries that offered an extremely contrasting picture. Particularly in urbanized areas, the colonies were flourishing. The feverish activity of the foragers was unabated and their supers were filling with light and fragrant spring honey. The brood nests were bursting, demanding ever more space. What a striking difference, sometimes only a few miles away! Beekeeping may not all be about location, but it certainly counts hugely.

As we saw last year, this wide range of conditions will undoubtedly persist into early summer and beyond. The enduring drought will penalize the colonies that are located in areas of non-irrigated vegetation, whereas hives will be overflowing with bees and honey elsewhere. Bees and beekeepers have to adjust to their own micro-environments. In view of this, I consider that I may have allowed my apiaries to hold too many hives this spring. So, my current plan is to reduce their numbers quite soon in order to allow those that I will keep to build their stores and strength up during the summer.

Colony propagation and the production of young queens were quite successful this spring. However, the inspections that followed revealed that the mostly cool weather we experienced in April and May had delayed the mating flights of many young queens. A few actually did not mate successfully or in a timely manner, and therefore they became drone layers. This underscores the importance of not turning our backs on the young colonies we created, as they may be given a second chance, a queen, a queen cell, or simply combined with another colony that is queenright.

In general colony health is very good, although signs of European foulbrood show up occasionally in places where colony nutrition is questionable.

At this time of year, and with swarming becoming less of a concern, we switch from spring hive management to summer beekeeping practices. This includes continuing to ensure that water is available to the bees without any interruption. Begin by adjusting the entrances of the hives. This is a very easy way to facilitate the work of the foragers and to ensure that the colonies can defend themselves against robber bees: At the daily peak of foraging activity, the foragers should be able to enter and exit the hives without struggling. Otherwise, they will be wasting time and energy, and the hives will be less productive. Inside, the bees might also have difficulty in regulating temperature and humidity. However, the entrances should remain defensible by the guard bees, particularly in the case of young and small colonies.

Our open-hive inspections are less frequent now than they were up to the division of the colonies and, although the brood nests are to be checked for health and queen conditions, we pay a little more attention to the management of the honey supers. When we perform these inspections, we need to be careful not to create robbing situations. We may harvest surplus honey as it becomes ripe. This is a good way to keep the hives under a reasonable height. Wet, harvested frames will be returned to the hives in the evenings to avoid triggering robbing.

It is beneficial to make sure that the hives receive the early morning sun during the summer, so that the foragers fly out early to collect nectar before the sun and the breeze dry it. On the other hand, providing some shade in the afternoon can spare the bees unnecessary water foraging to control heat.



Empty frames may still be left in the hives either to give the bees the option to expand in the space they provide or to build comb, should the conditions allow. They also facilitate air circulation when the weather warms up.

Of course, we must be careful with the hot smoker in areas of dry grass!

**In summary, this month:**

- Inspect hives when the foragers are out in large numbers.
- Keep an eye on the health of the colonies.
- Provide adequate air circulation through the hives.
- Be aware of situations and manipulations that can trigger robbing.
- Make sure the components of the hives fit tightly to prevent secondary entrances that might allow robber bees to enter.
- Ensure that sources of water are continuously available to the bees.
- Provide filtered afternoon shade, if at all possible.
- Adjust the size of the hive entrances to match the forager activity and reduce the risk of robbing.
- Follow-up on the development of young colonies.
- Evaluate the quality of young queens. Replace failing or undesirable queens.
- Combine or requeen inherently weak colonies or those that are not developing properly.
- Perform hive divisions and raise queens, where and when conditions are favorable.
- Monitor swarm traps.
- Keep some equipment at the ready to catch the occasional swarm.
- Manage honey supers (less space is needed as the nectar flow decreases).
- Harvest surplus spring honey.
- Discard old and misshapen combs.
- Render wax from discarded frames and from cappings (separately).
- Routinely clean and scorch tools and equipment.

Serge Labesque © 2016

## Plant of the Month

by Randy Fox

### Buckwheat (*Fagopyrum esculentum*)



Buckwheat is a plant cultivated for its grain-like seeds, and also used as a cover crop. Despite the name, buckwheat is not related to wheat, as it is not a grass. Instead, buckwheat is related to sorrel, knot wood, and rhubarb.

With the exception of the tartary variety, buckwheat can be used as a honey crop. It has a long blooming period, especially in September when other sources of nectar are limited. The honey is dark in color, and has a strong flavor unpleasant to some persons but highly favored by others. Buckwheat was once an important honey crop in this country, especially in the Northeast where climatic conditions are most favorable to nectar flow. When buckwheat was commonly grown, it was one of the beekeepers' greatest sources of nectar, and the supply of buckwheat honey generally exceeded the demand. However, because of the decline of buckwheat as a grain crop, buckwheat honey now is so uncommon that it may command a price higher than that of almost any other honey.

Buckwheat is considered a major nectar source for our bees and flow is enhanced by adequate moisture combined with clear, still days and cool nights. Under these conditions, an acre of buckwheat may support a hive of bees and yield up to 150 pounds of honey in a season in some locations. Reports are that it is possible for a strong colony to glean 10 pounds of honey per day while foraging buckwheat. Although buckwheat is one of the most dependable and highest yielding honey plants, it normally yields nectar only during the morning and bees are unable to complete a full day of nectar collection. As a result, bees working buckwheat may not be very amiable to the beekeeper should he visit his hives in the afternoon.

Buckwheat may fill a special need for the beekeeper since the honey flow comes late in the season when other nectar is scarce. Thus, it may be possible to obtain a crop of buckwheat honey in an area where an earlier flow has been harvested from other sources. The variety Tokyo is reported to produce a lighter colored honey than most buckwheats.

Buckwheat will germinate at temperatures ranging from 45° to 105°F. Freshly harvested seed of some types may not germinate until after 30-60 days of drying and storage. The seed may retain its viability for several years, but seed that is no more than one-year-old is best to use for planting. Buckwheat plants will emerge from the soil 3-5 days after planting. The time required is influenced by depth of seeding and the temperature and moisture content of the soil.

#### **Climatic Requirements:**

Buckwheat grows best where the climate is moist and cool. It can be grown rather far north and at high altitudes, because its growing period is short (10 to 12 weeks) and its heat requirements for development are low. The crop is extremely sensitive to unfavorable weather conditions and is killed quickly by freezing temperatures both in the spring and fall. High temperatures and dry weather at blooming time may cause blasting of flowers and prevent seed formation. Generally, buckwheat seeding is timed so that the plants will bloom and set seed when hot, dry weather is over. Often seeding is delayed until three months prior to the first killing frost in the fall.

#### **Soil Requirements:**

Buckwheat grows on a wide range of soil types and fertility levels. It produces a better crop than other grains on infertile, poorly drained soils if the climate is moist and cool. It is an efficient crop in extracting phosphorous of low availability from the soil. In addition, buckwheat tends to lodge badly on fertile soils. It is often better suited than most other grains on newly cleared land, on drained marsh land, or on other rough land with a high content of decaying vegetative matter.

Buckwheat has higher tolerance to soil acidity than any other grain crop. It is best suited to light to medium textured, well-drained soils such as sandy loams, loams and silt loams. It does not grow well in heavy, wet soils or in soils that contain high levels of limestone. It grows well where alfalfa or red clover would not. On soils high in nitrogen, lodging may occur and cause a reduction in yield. Once lodged, a buckwheat plant does not return upright. Crusting on clay soils may result in an unsatisfactory stand because of poor seedling emergence.



## Drippings from the Extractor

by Dave Stocks

By now, we are all aware of the endless problems affecting our bees and other pollinators. It seems that each month, as I put this newsletter together, a new issue has arisen. Unfortunately, a lot of these we can't do anything about. There are however some things we can do to lessen the impact. To me, the first and foremost is providing a chemical free pollinator habitat, not just for our bees but for all pollinators. I can't imagine that we will ever see the elimination or at least stricter controls of pesticides. They are here to stay. We can however, create a "safe haven" in our own yards by planting plants that provide a continuous nectar and pollen source and growing them chemical free. Letting our neighbors know what we are doing won't hurt either.

Admittedly, I'm a bit of an introvert when it comes to talking with the neighbors about pollinators and what's good for them. As a way of breaking the ice, I've placed the following sign in my front yard. If just one neighbor asks about its meaning, it will have been a successful. I'm not saying we all need to put a sign up. However, if you think it helps get the message out, please consider it. Signs are available from organizations like the Xerces Society and the National Wildlife Society



As always, Randy Fox has written an excellent plant of the month article. This time he talks about buckwheat (*Fagopyrum esculentum*) which is a cultivated plant. When you talk about buckwheat, there

is often confusion between *Fagopyrum esculentum* and the native buckwheats, most notably California buckwheat (*Eriogonum fasciculatum*).



California buckwheat (*Eriogonum fasciculatum*)

For several years now I have questioned putting plastic foundation into my hives. I've even gone as far as eliminating it altogether. My main concern was whether or not the plastic used is food grade and more specifically BPA free. Phone calls made to the larger suppliers were not helpful! When questioned, one stated their foundation was food grade but not BPA free. The other promised to get back to me "tomorrow". Thanks to my lovely wife Laura, I have been able to find two small suppliers that offer food grade, BPA free plastic foundation. The only problem I see is that both are wax covered and we know that wax coating can contain pesticide residue. I am currently trying foundation from both companies. If you're interested the two companies are Perma-dent and Pierco. Perma-dent is located in South Dakota and does not have a web site. If you're interested, their phone number is 605-345-3211. Pierco is located in southern California. They can be found at <https://www.pierco.com/>.

## **Calendar of Events**

### **Meetings**

#### **June 1, 2016**

Santa Cruz Beekeepers Guild  
6:30 pm  
El Rio Mobile Home Park, 2120 N. Pacific Ave.  
Santa Cruz, CA  
<http://santacruzbees.com>

#### **June 2, 2016**

Beekeepers Guild of San Mateo  
7:00 pm  
Trinity Presbyterian Church  
1106 Alameda de Pulgas  
San Carlos, CA  
<http://www.sanmateobeeguild.org/>

#### **June 4, 2016**

Monterey Bay Beekeepers  
8:00 am  
<http://www.montereybaybeekeepers.org/>

#### **June 6, 2016**

Santa Clara Valley Beekeepers Guild  
6:15 pm  
<http://beeguild.org/>  
Dwell Christian Church San Jose  
**1292 Minnesota Ave**  
**San Jose CA 95125**  
**Topic: Plants for Bees**

#### **June 7 , 2016**

Gilroy Beekeepers Association  
7:00 pm  
Old City Hall, 7400 Monterey Rd.  
Gilroy, Ca  
<http://www.uvasgold.com/gba/>

### **Classes and Conferences**

October 13-15: Western Apicultural Society Conference, Honolulu ,HI

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

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

<http://www.californiastatebeekeepers.com/events.html>