

# THE MARIN BEEK NEWS

Volume 9, Issue 6

June 2017

## What You Missed

Our May meeting featured a presentation by Randy Oliver. Randy is a commercial beekeeper. His sons are in the process of taking over the business. He is also a frequent contributor to The American Bee Journal.

According to Randy, the most important thing you can do is get out and go through hives with someone who has kept bees for a while.

If you understand the biology of bees you can be a successful beekeeper. You can't change the bee's behavior so you need to understand it.

There are no rules for bees. Basically, they need a dry cavity, flowers and to manage the parasites.

- Recipe for healthy colonies
  - Keep colonies young and vigorous
  - Provide good nutrition
  - Recruitment - the rearing of new bees.
    - As long as they can recruit new bees then they can thrive.
    - East coast has had problems with recruitment because of the bad weather. Bees have not been able to produce new young.
  - Attrition – bees aging or feeling sick and flying off to die (altruistic self-removal)
  - Growth when recruitment exceeds attrition.
  - At some point you reach equilibrium, about 42 x the number of eggs a queen lays in a day.
  - Manage towards two goals. Never go into a hive without a plan
    - Maximize recruitment
    - Minimize attrition
  - Copy consistently successful local beekeepers (not necessarily loudest beekeeper).
  - Bees are animals; it is just basic animal husbandry.
    - Learn to ask the bees.

See What You Missed on Page 2

## What's the Buzz?

Our next meeting will be on Thursday June 1, 2017 at the American Legion Log Cabin, 20 Veterans Place, San Anselmo, CA, starting at 7:30 pm. The meeting will feature Gadgets and Gizmos. Join us and see what gadgets and gizmos your fellow Marin Beekeepers have cooked up to make their beekeeping lives easier.

### Upcoming Meetings:

County Fair  
See County Fair Time on page 6 to find out how to enter exhibits or sign up to work in the bee booth.

**THERE IS NO REGULAR CLUB MEETING IN JULY.**

**August 5, 2016, starting at 6 pm.**

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- Pay attention to the interface between the honey and the brood on a comb.
  - Honey = energy stores
  - Brood = a protein demand
  - Open honey or nectar = energy interface
  - Pollen/ bee bread = protein interface

The only bees that consume and digest pollen are the nurse bees. They consume it, process it and convert it to jelly. They feed all of the other bees in the hive. Fresh pollen stimulates the nurse bees to produce jelly. This triggers recruitment. Colony population responds to pollen availability, not necessarily length of daylight.

Jelly is the perfect food. It allows a queen to lay many times her body weight every day. They will feed the queen jelly to stimulate egg laying. When there is no pollen they will follow the queen and consume eggs to recycle the protein.

Young brood produces pheromone to stimulate pollen foraging, E. beta ocimene (which also suppresses the swarm impulse).

#### Seasonal Phases:

1. Late-winter coming out of hibernation
  - a. When it is cold, you can put a piece of insulation on the top and reduce the moisture buildup
2. First pollens start to come in.
  - a. The spring turnover
  - b. Toughest time of year for bees
  - c. Adult bees start to decrease
  - d. Brood start to increase
  - e. Can cause a problem with not having a sufficient number of bees to provide for all the brood.
3. Seasonality of parasite problem
  - a. Disease is the inability of your immune system to fight off parasites
4. The Linear Growth Phase
  - a. Once the brood nest is established the colony will grow linearly until they get the urge to swarm, about 60 days.

5. Growing colonies quickly consume food reserves.
  - a. Risky time since they will consume their stores quickly. Bees may need to be fed and given protein.
6. Protein and pollen stimulate buildup
  - a. "wet" brood = good nutrition (plenty of jelly in the larvae)
  - b. "dry" brood = insufficient nutrition (will probably have problems down the road)
  - c. When they get crowded you will see nectar backfill in the brood nest. This will lead to swarming.
  - d. After a swarm the bees can recover quickly as the capped brood emerges. Emerged bees cover 3x the area of capped brood.
  - e. Bees try to reach their maximum population when the nectar flow is on.
7. Honey Flow Begins
  - a. Bees store honey to survive the winter. It becomes more important than brood rearing.
  - b. They will start filling up whatever cells they can, even the brood nest. This forces the brood nest down.
  - c. The stronger the hive, the more honey they will produce. They have a greater portion of bees to gather nectar and process into honey.
  - d. You can tell when your hive needs more room: The mid-aged bees will start to produce white wax since there is no place to store nectar. If you see white wax it is the time to get them to draw comb.
  - e. You can trick the colony into storing excess honey by enlarging the cavity (put on more supers).
8. Summer Pollen Dearth
  - a. Little recruitment during pollen dearth.
  - b. Short life of workers is a way to keep the colony alive, otherwise they might starve.
  - c. Lack of pollen and poor brood pattern, no young larvae.
  - d. This is not necessarily bad since the smaller amount of brood may reduce the

varroa load.

- e. You can rejuvenate a colony with protein feeding. Also converts the age of the colony as more young bees are produced.
  - f. Varroa and parasites catch up during late summer downsizing phase. Varroa per number of bees increases.
    - i. When varroa load exceeds 25% on the pupae the colony will not survive.
    - ii. You will see pupae dying, bees that can't emerge, and deformed winged virus.
  - g. When varroa population increases they will switch from living on nurse bees to living on foragers so that they can drift to other colonies.
9. Fall resumption of brood rearing (a second nectar flow).
- a. Create winter stores
10. First Frost – cessation of brood rearing.
- a. Emergence of Survivor (long lived) bees. They don't make brood food but store the fat on their own bodies.
11. The fall turnover
- a. The short lived summer bees will fly off and die. About half the adult workforce will disappear.
12. Midwinter virus and noseema buildup.
- a. Deformed wing virus (DWV).
  - b. Israeli Acute Paralysis Virus
13. Midwinter initiation of minor brood rearing (mid-December)
- a. Can feed pollen and artificially buildup colonies in midwinter.
14. First Pollens in spring coming in

Go online to [Scientificbeekeeping.com](http://Scientificbeekeeping.com) for more on Randy's research.

## Beekeeping Classes

Upcoming classes with Bonnie Morse, Bonnie Bee & Company:

**San Rafael: Summer and Fall Hive Management class series**, Class room sessions: Wed. 7/12 – 7/26, 6:30pm – 8:30pm, San Rafael Community Center, Field Day: Sat. 8/12, 9:30am – 12:30pm, location TBD. [Register through San Rafael Community Center](#). Course code 26729

What's the Buzz continued from Page 1

There is no regular meeting of the Marin County Beekeepers in August. Instead, please plan to join us on August 6th at the home of Neil and Mary Nordquist, 2072 Hatch Road, Novato, CA for the annual potluck dinner. Sign up will be online again this year. Go to: <http://marinbees.org/wp> and click on Club Resources for more information on the event and to sign up to bring a dish. Everyone should bring their own plates, utensils and drinking glasses. This is a **GREEN "ZERO WASTE" EVENT**. All items should be brought in a reusable or recyclable/compostable container. Please plan on taking your recyclables / compostables / garbage with when you *leave the event*.

Directions to Neil and Mary Nordquist, 2072 Hatch Road, Novato:

Take the San Marin Drive/ Atherton Avenue exit from US101. Turn west onto San Marin Drive.

Continue on San Marin Drive to Simmons Lane, the first stop sign. Turn left onto Simmons Lane. Follow until you come to a stop light at a T-junction with Novato Boulevard. Turn right onto Novato Boulevard and then make a left turn at the next light onto Wilson Avenue. Follow Wilson for approximately 1 1/4 miles.

There will be stop signs at Center and Vineyard Roads on the way. Hatch Rd will be a right turn shortly after Wilson narrows.

The Nordquists are 1/4 mile down Hatch Road on the right. 2072 is on the mailbox just before the gate. Please park on the street and walk in through the gate.

See What's the Buzz on Page 4

**September 7, 2017**

Kate Frey, Bee Friendly Gardens.

**October 5, 2017**

Gro Amdam, Reverse Aging in Honey Bees.

**November 2, 2017**

TBA

**December 7, 2017**

Janet Brisson, owner of Country Rubes, Small Hive Beetles

**January 4, 2018**

Marin Beekeepers Panel on Community Breeding.

**February 1, 2018**

Mace Vaughn, Habitat

**March 1, 2018**

Leo Sharaskin, Practical Beekeeping / Natural Beekeeping.

**April 5, 2018**

Samuel Ramsey, Varroa Research

**May 3, 2018**

TBA

**June 7, 2018**

TBA

## Hive Tips

By Bonnie Morse, [Bonnie Bee & Company](#)

**The flow is still on in most areas!!! Prevent your bees from swarming: make sure there is adequate space in the brood chamber.**

- o **Strong hives are building quickly.** If your bees are starting to get crowded, add more space. Most importantly – be sure there is contiguous space in the brood chamber. If you add additional space, but there is only honey between it and brood area, you will not prevent brood area congestion – which is the cause of swarming.
- o **Adding a new hive body above the brood with new frames?** Help entice bees to move up by adding a frame of with built out comb in new box. Are you a new beekeeper who doesn't have any frames with built out comb? Help entice the bees to move up by pulling a frame with young brood (young larvae & eggs) up into the new hive body from area below. Nurse bees will stay with these bees and their presence above will entice building in the new hive body. If you do this:
  - Be sure frame you pull up is kept directly above other brood frame(s) for easy access by nurse bees.
  - Replace frame you pulled in lower box. At this time of year (warmer temps so bees can break cluster to access food in different parts of the hive), you can place the replaced frame in the brood cluster area, OR between outermost brood frame & food frame, OR outside last frame in the box.
- o **You can also add a box between the bottom board and lowest box.** This can give foragers space at night and can limit congestion. Although, the bees won't necessarily build comb in this box and it would likely be beneficial to remove the empty space in the fall.

**What if you find queen cells?** If they have already started getting ready to swarm, it is highly unlikely you can stop the process. If there are uncapped cells and you see eggs, it is likely the swarm has not happened yet. Find the queen and take her with a split – just be sure there are no queen cells on the frames you take! That will likely stop the bees from swarming. Keep in mind that if you keep the split in the same yard, the foragers will likely return to the original hive. So be sure to add plenty of bee bread and nectar / honey so that the split colony has enough to sustain themselves

before the house bees make the transition to foraging.

- **A Simple Formula for Splitting: #7 Split = 2+2+2+1 (for a 5 frame nuc box)**
  - 2 frames of brood (one capped, one mixed age that has eggs/young larvae from which bees can start queen cells)
  - 2 frames of food (include pollen and nectar/capped honey)
  - 2 frames of bees shaken in (preferentially from brood frames that have a lot of nurse bees; return brood frames to parent hive after shaking bees into your split)
  - 1 empty frame
  - Check split in 2-3 days to be sure they are making queen cells (no queen cells? Are you sure you didn't get the queen?)
  - After ensuring that bees have queen cells, then be patient and wait for about 30 days +/- . By then, if the queen successfully returned from her mating flight(s) you will likely see capped brood.
- Cleaning out a winter dead out in preparation for the arrival of new bees?
- Check frames closely for the presence of American Foulbrood. While chances are more likely that your bees perished for another reason, this highly contagious disease continues to be found in colonies in Marin. Do yourself – and your neighboring bees – a favor and educate yourself on the signs. Unsure? Ask for help on the Buzz.
- **If you haven't done so already, it's time to set up your bait hives!**
  - If you plan to set out bait hives this year, now is a good time to do so. (We've already had two move-ins this season.)
  - Review Tom Seeley's book, Honeybee Democracy, for complete details on what his research has shown that swarms prefer in a nesting cavity.
  - No time to read? Local beekeepers report success with the following set up:
    1. Deep hive box
    2. A couple of frames with empty built out combs (if you have them) in the center surrounded by empty frames with starter strips (or just empty space – but you'll need to add frames soon after they move in or else they will start building from the top of the box).
    3. Entrance reducer set to medium
    4. Box above the ground 2-3' (higher if you are able)
    5. Optional: Spray lemon grass tea (boil

lemon grass until you make a dark tea) or other substances mimicking queen pheromones on the top of the frames and entrance of the hive.

6. Wait to observe scouts!

- Have a bait hive tip? Post it to the Buzz!



**Watching a Swarm Move In**

## County Fair Time!



Join in the fun at the Marin County Fair. The official Fair entry form deadline, Thursday 11 May 2017 has passed. However, if you didn't enter but still want to participate you can fill out a form and pay the entry fee when you bring in your entries on June 9 and 10. You can download the forms or simply fill it out at the exhibit hall. There are entry forms and the 10 category descriptions for the Adult Honey Department on the Fair website, under Competitive Exhibits.

<https://www.marinfair.org/~media/files/fair/2017/exhibit-pdfs/honey.pdf?la=en>

Entry forms are available at

<https://www.marinfair.org/~media/files/fair/2017/exhibit-pdfs/entry-form.pdf?la=en>

Please don't be shy, enter as many categories as you wish, you still have time to get your entries prepared. Exhibits will be received over 2 days at the Exhibit Hall at the back of the Fair Grounds, **Friday, June 9, 3 pm to 7 pm & Saturday, June 10, 10 am to 5 pm.** Judging will be on Sunday June 11 by Michele Ferrante, the chef/owner of Gira Polli, in Mill Valley.

This is an opportunity for all of us to participate in a little good-hearted competition with other beekeepers on all types of hive products: honey, beeswax, and candles. Cash prizes are associated with the first 5 places. There are two big prizes, the Best of Show and the Barney Salvisberg Award, a founding member of Marin Beekeepers. Again, this year each will have additional monetary awards. All the exhibits are on prominent display at the bee booth during the fair (ribbons included) for your friends and neighbors to see, and we can showcase the many different hive products produced locally in Marin. There is still time to assemble and get your entries in.

Next up is staffing the bee booth inside the exhibit hall

during the Fair which this year is from **Friday 30 June to Tuesday 4 July.** This is our club's opportunity to do outreach and get the word out about our little "trusts" and hopefully dispel some misinformation the public has about bees. We get to talk about bees, show off the observation hive (a fresh one every day), look for the queen and enjoy the various reactions.

Even as a "newbie" you have more knowledge than most of the public. The club also gets paid from the Fair to help continue our excellent list of speakers.

We staff the bee booth with 2 people during each 3- to 4-hour time slot. In exchange, each staffer receives a pass to get into the Fair and each time slot will have one car pass to the exhibitors' parking lot in back of the exhibit hall. The rest of the day you can enjoy the other parts of the Fair.

The entertainment web site is at:

[https://www.marinfair.org/2017/concerts\\_menu/all-concerts](https://www.marinfair.org/2017/concerts_menu/all-concerts) (included with entry) special events and attractions, especially the fireworks display each night at 9:30 p.m. The sign-up schedule will be sent to the Buzz soon. Email me your preferences to: Dan Stralka at [Stralka.daniel@epa.gov](mailto:Stralka.daniel@epa.gov) Please sign up and join in the fun! **See the list on the following page for time slots that are still available.**

The important dates are:

### **May 11**

Entry forms due in with this year's entry fee of \$2.50 per entry.

### **June 9 and 10**

Drop off exhibits in the Fair building at the back of the Fairgrounds

Friday, June 9: 3:00 to 7:00 p.m.

Saturday, June 10: 10:00 a.m. to 5:00 p.m.

We can accept late entries even if you hadn't submitted a form. Fill out the forms before you come to expedite the processing.

### **June 11**

Judging by Michele Ferrante, chef/owner Gira Polli in Mill Valley

### **June 16**

Finalize Bee Booth sign-up.

### **June 30- July 4**

MARIN COUNTY FAIR!

### **July 5**

Entry retrieval and collection of awards.

# Volunteers Still Needed!

We still need some more volunteers to assist at the fair, two people for each time slot. Attached the schedule as it stands now, please email Dan Stralka at [Stralka.Daniel@epa.gov](mailto:Stralka.Daniel@epa.gov) with your preferences. This is a great opportunity for the club to interact with the public and get the message out about honey bees. Remember that you get a pass to get in the gate and while not at the booth, have the rest of the day to see the fair, listen to the music and there are fireworks every night. Attached is the fair entertainment web site. Please come and have a good time.

<https://www.marinfair.org/2017>

Remember that entries are to be dropped off at the fair building Friday June 9 and Saturday June 10. Judging will be on Sunday. With all the rain this winter, I am looking forward to seeing plenty of exceptional entries.

## 2017 MARIN COUNTY FAIR BEE EXHIBIT TWO PEOPLE PER TIME SLOT

	FRIDAY JUNE 30 (CHILDREN'S DAY)	SATURDAY JULY 1	SUNDAY JULY 2	MONDAY JULY 3	TUESDAY JULY 4
11:00 a.m. to 3:00 p.m.	Richard and Karen Hyde 415-602-081	Jason Pavao 415-505-0555  Cherie Bremer-Kamp 415-203-9692	Steve Lamb 415-412-6125	Bonnie Morse 415-250-9720 & Gary Morse 415-699-5856	Jeff Kent 415-454-8654
3:00 p.m. to 6:30 p.m.	Brenda McCormick 707-225-7088  Peter Bauer 415-305-0489	Cecil and Tyler Nielsen 415-505-3591	Jennifer Berry 415-205-7440	Bill Papendick 415-479-4262	
6:30 p.m. to 10:00 p.m.	Cecilia Lannon 415-531-1927				Mary and Neil Nordquist 415-897-3048

Each time period has 2 volunteers and 1 parking pass; please coordinate. If you can't make it for your assigned slot, please arrange for a replacement and call the others on your shift. Please wear your Marin Beekeepers name tag; holders are at the booth. I will be coordinating the observation hives.

After the fair, please provide feedback on what worked well, what can be improved, and the best questions you received. Thank you all. Enjoy the fair! Questions? Call Dan, (415) 381-1249.