

THE MARIN BEEK NEWS

Volume 11, Issue 4

April 2019

What You Missed

Our last meeting featured a talk by [Billy Synk](#), Director of Pollination Programs, Project Apis m. Billy's talk was about "Cover Crops – Bridging Pollinator and Soil Health and the Seeds for Bees Program."

Project Apis m

It funds and directs research for projects that wouldn't get funded otherwise or get done quicker because of their support.

Alarming trends:

Honey bees are the canary in the coal mine for the sustainability and vitality of our food supply

Why are bees having problems?

Pests
Pathogens
Poor Nutrition

Forage is the common solution – better nutrition can mitigate the other two Ps

Project Apis m saw the need to supplement forage for bees when commercial crops are not producing. They created seeds for bees – goals for healthy bees, smart farming, and changing practices

Encourage planting of cover crops:
Feeds the bees
Feeds the soil

Mustard, clover, vetch can be used to provide a much longer period where food is available to the bees.

Colonies provided with natural forage have lower pathogen loads and higher overwinter survival than those fed protein supplements. Also, when reared in pollen-limited hives bees communicate less efficiently.

Why should a grower plant bee forage:
Increases foraging effort
Increases pollen collection
Increases brood

What's the Buzz?

Our next meeting will be on Thursday April 4, 2019 at the American Legion Log Cabin, 20 Veterans Place, San Anselmo, CA. starting at 7:30 pm. The meeting will feature [Rachael Bonoan](#), Post doctoral researcher, Tufts University and Washington State University. Her talk is titled "Why Bees Like Dirty Water".

Upcoming Meetings:

May 2, 2019

[Mark Winston](#), Professor and Senior Fellow, Morris J. Wosk Centre for Dialogue

June 6, 2019

[Tom Seeley](#), Department of Neurobiology and Behavior, Cornell University, "Darwinian Beekeeping"

July

No meeting – Marin County Fair

August - TBA

Annual Marin Beekeepers potluck

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Creates stronger hives, better crop pollination

In addition to stronger colonies, bee forage benefits include:

- Increased organic matter
 - 1% organic matter = 19000 gallons per acre of water holding capacity
- Prevents erosion
 - Soil lost to erosion can't be planted.
- Increases water filtration
 - Economic losses associated with poor water filtration have been estimated as high as \$486 per acre in 1992.
 - Water can tend to seal the soil so that the water runs off. Cover crops allow the water to percolate into the soil.
- Increases nitrogen.
- Suppresses weeds.
- Suppress nematodes.
- Decomposition of mummy nuts.
- Tends to reduce soil temperature
 - Microbes tend to die off above 90 degrees. Soils without cover crops often reach temperatures in the mid-90s.

Seed for Bees program for commercial growers

4 seed options :

- Pam mustard mix – low water requirement
- Pam clover mix – little higher water requirement
- Wollypod vetch – single seed (doesn't recommend)
- Pam wildflower mix

1st year enrollees are eligible for \$2k discount off their total seed purchase (50 – 120 acres)

2nd year enrollees are eligible for \$1k discount off of their total order

All enrollees receive:

- Wholesale pricing
- Free shipping
- Free technical advice

Bio-fumigation with brassicas

Mustard produces natural chemical to kill nematodes when it is disked into the soil.

Seed for bees is expanding its acreage in California every year with the same funds for the program. Growers are finding that the benefits outweigh the costs,

Flower borders and Cover crops in almond landscape,

researched by Neal Williams, UC Davis.

He studied five different seed mixes as cover crops and borders of commercial fields

Both honey bees and native bees visited the cover crops. While there was no direct correlation between the use of cover crops and yield from commercial crops there was no decrease in yield.

Ground temperatures with cover crops were lower but in the region where the nuts were growing there was no difference in temperature.

Colonies in orchards with mustard mix were about 3 frames larger than those without the mustard mix.

Survival rate for colonies was much higher in areas with cover crops.

Beekeeping Classes

Classes with Bonnie Morse:

Intermediate Beekeeping (Saturday, April 6, 9:00am – 12:00pm, \$60)

An overwintered colony has explosive growth potential.

This class will focus on space management: expanding hive size for spring, swarm prevention- and if that fails, swarm capture, and setting up bait hives for swarms.

Location: The Fairfax Backyard Farmer, 135 Bolinas Rd, Fairfax

Register through [The Fairfax Backyard Farmer](#).

Limited to 12 people.

Field Workshop: Beekeeping Basics (Sat., May 11, 9:30am – 12:30pm, \$65)

You have your bees, now what?? Learn tips and techniques for using smoker, bee brush and hive tool. Will look into how to work your frames and what to be looking for to determine health of your queen and the colony as a whole. As urban beekeepers, it is important to prevent swarming (to the best of our ability), so you'll learn what causes swarming, how to prevent, and how to recognize early warnings that a colony is making preparations to swarm. You'll also get to see what a laying worker colony looks like (we inevitably have a few from queens who didn't successfully return from mating during our nuc production) and techniques for making it queenright.

Location: TBD (Marin)

Limited to 20 people.

[Register through The Fairfax Backyard Farmer.](#)

Field Workshop: Intermediate Beekeeping (Sat., May 11, 1:30pm – 4:30pm, \$65)

An overwintered colony requires different spring

Farm Day

Thursday, March 21, 2019
9:00 am to 12 noon
Marin County Fair Exhibit Hall



Searching for the Queen

Marin Beekeepers' exhibit is always popular at Marin County Farm Day. This year, visitors were treated to frequent queen sightings in Dave Peterson's observation hive, saw honey in the comb and how it is extracted, learned that most "bee" stings are really yellow jacket stings, what honey bees do for us and what all of us can do to help honey bees and other pollinators.

Thank you to our volunteers this year

Local Bee Suppliers

Jennifer Berry

jennifer-berrybees.com

5-frame medium nucs. Check her website for ordering / availability

Bonnie Bee & Company

Bonniebeecompany.com

Sold out for spring 2019, but available to help split surviving colonies to make increases.

Roy Crumrine

Anythingbeesusa.com

Medium nucs, deep nucs and queens.

Catherine Edwards

Richmond, El Sobrante, Pinole: 5 frame nucs

Contact: catherine.edwards6@gmail.com

Dave Peterson

Nucs on deep frames. \$185 each. Contact for availability.

dpeterson307@aol.com

management than a new colony. Some of the topics covered will include space management in the hive, queen issues (when you might need to replace and how you do that), and splitting a hive (for colony increase, swarm prevention, or as a method of varroa control).

Location: TBD (Marin)

Register through [The Fairfax Backyard Farmer](#).

Hive Tips

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

Warm, sunny days are here and swarm season has started!

- 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 **Are they already making preparations to swarm...**i.e. swarm cells? You won't stop swarming by adding more space. You can take a split with the queen – and without any frames with queen cells – to (likely*) stop them from swarming. This is basically a swarm (except they will get some comb and perhaps some food). By removing the queen and part of the colony, you have done what they were already planning to do. Now, leave the original colony (with queen cells) alone for at least 3 weeks to do what they were already planning to do – get a new queen to replace the one that left in the "swarm".
 - * **"likely"**... if they are left with too many bees, they could still have a secondary swarm with a virgin queen.
- 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

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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.
- **Bees not quite ready for more space above?** But you are concerned about swarm prevention? Add space BELOW. A super below your other hive bodies will give queen potential space to expand into and also give space to returning foragers.
- **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.
- **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 one move in 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!



Installing a Bait Hive

Need Equipment in a Hurry?

If you find your growing colony – or recently acquired swarm – or split made to prevent a swarm – is in need of equipment ASAP, we have a source in Marin county for bee equipment! The Fairfax Backyard Farmer. 135 Bolinas Rd, Fairfax, CA. [415-342-5092](tel:415-342-5092) Open Wed – Friday, 11am - 6pm, Sat noon – 6pm, Sun noon to 5pm.

Swarm List

Activities in and around your hives are picking up and the brood nest is expanding. Soon the first swarms of the spring will start to emerge. You should manage your hives to minimize swarming. While it is the way the honey bee propagate and is totally natural, better for you to keep strong colonies from losing half their workforce. This can be done by strategically adding space for the brood nest to expand and for additional pollen and honey storage. You can also create a managed swarm by splitting your strong colonies to expand your apiary or replace lost stocks.

As a service to the Community and for the benefit of our members, the Club maintains a Swarm Reporting System on our website. By subscribing to the SwarmList, you can participate in the fun of collecting swarms and extractions. When a swarm is reported via the website, an email notice goes out to all who have subscribed with all the pertinent information about the swarm.

Generally the first to reply is in charge of collecting the swarm, doing the extraction or passing it back to the SwarmList. There are limits after your first capture (see the attached Protocol. Some swarms are very easy to collect, some can be more arduous -- high in a tree, in a shrub or bush and tree and structural extractions can run the gambit. Every beekeeper should experience the fun of swarm capture

You can self-subscribe to the list, as with the Buzz. Just go to:
http://just109.justhost.com/mailman/listinfo/swarms_marinbeekeepers.org. All you need to do is enter your email address. There is really no need to establish a password.

The following is Swarm Protocol that, if you intend subscribe, you should read and understand the rules of the road, so to speak. Good swarm hunting.

Swarm Collection Protocol

Marin Beekeepers has a Swarms List Server just for those members interested in collecting swarms and doing extractions. You can go on and off the Swarms List as your interests change from time to time by visiting the Swarm List Subscription Site:

http://cx99.justhost.com/mailman/listinfo/swarms_marinbeekeepers.org

If you plan to join the Swarms List, please read \ the Swarms List Protocol below:

When a swarm is reported to the Web Site, the Report is sent to all subscribers on the Swarm List automatically. The Report includes the site

address or some distinguishing description in the Subject Line for ease of follow up and identification.

If you are interested in collecting the swarm, immediately **Reply to the Swarm List e-mail, before contacting the reporting party**, indicating your intent to collect the swarm with a 'REPLY ALL' **using the original subject line** and keeping the email string continuous. That way the reporting party will not get multiple calls from members wanting to get the swarm and others on the Swarm List will know it is being handled.

Then attempt to contact the party reporting the swarm, ASAP. Try to determine if you have all the right equipment and right size ladder before heading out.

Since swarms often move after a few minutes or sometime in the first 24 hours, please arrange to do the capture as soon as possible.

If, after investigating the swarm, you decide you are unable to collect it for some reason, i.e. too high, inaccessible, or requires an extraction you don't wish to perform, you need to immediately put a message to that effect back out on the Swarm List Server. Again using "REPLY ALL", **using the original subject line** and adding any additional information that might be helpful to the next responder. That way others, more up to the challenge, can collect the swarm. As the first responder, please follow up and make sure the reporting party gets some resolution.

If, when you arrive, it turns out to be wasps or yellow jackets and the home owner wants to exterminate the nest, you should not do so yourself. Generally, an extermination license is required to kill any pest, including honeybees. Foam spray cans for this purpose are available at most hardware and garden supply stores which may be applied by the homeowner, but not others without the proper license. It is generally not legal even for extermination companies to kill a beehive – in special circumstances professional exterminators are allowed to exterminate beehives that cannot be rescued and are a nuisance or hazard to individuals or the public. One licensed, local exterminator who specializes in bee removals and exterminations is listed below.

William Johnson
ATCO Pest Control
(415) 898-2282 Main
(415) 328-4468 Cell

See Swarm List continued on Page 6

- **After you have collected one swarm during each year, please wait a minimum of two hours before your reply to another swarm report for the rest of the season.** This will give others a chance to respond -- especially early in the season when many members are looking to repopulate hives lost over the winter months. Remember we have over 300 members. If no one else responds after a minimum of two hours, it's OK to jump back in and go for it. **The Swarm Subcommittee will monitor the replies and is authorized to unsubscribe Members that don't adhere to this Protocol.** Members who are unsubscribed may re-subscribe after one month.
- **If the Swarm Listing is a "Structural Extraction", the waiting period for the second reply will be a minimum of 24 hours. The Swarm Subcommittee will monitor the replies and is authorized unsubscribe Members that don't adhere to this Protocol.** Members who are unsubscribed may re-subscribe after one month.
- The Swarm Subcommittee will monitor the requests for extractions to make sure every one receives a suitable response. If no one replies with a willingness to take on a difficult extraction, the Committee will attempt to find a Member willing to do it. Members willing to do a complicated extraction will be contacted on a rotating basis to find someone to do the work.

When responding to a swarm call you are expected to assume some responsibilities as listed below. Please:

- Contact the reporting party to determine more information and arrange the details of your plan to capture the swarm or extraction. If you plan to charge for your efforts, **please mention your fee structure in the first conversation.** If you charge for simple swarm collection, you should mention that some members might perform this service in exchange for keeping the bees.
- Arrive at the appointed time and collect the swarm. If after evaluating the situation, it is more complicated than you anticipated, please have another discussion of any changes you might want to make in your fee structure.
- Most beekeepers don't charge for a simple swarm collecting. If it is to be more difficult or time consuming, you can ask a fee or donation to the Club based on the time and effort expended. \$50 - \$75 per hour is not unreasonable. Some quote a flat fee for extractions. If the job requires carpentry

repairs, make sure that you discuss if you can do the repairs or if they will need a carpenter or contractor. This work should be left to qualified individuals.

- Be sure the swarm is on the property of the reporting party or in public space. If not, you need to get the permission of the actual landowner before proceeding.
- Make it clear to the party **you are acting as an individual and not as an official representative of Marin Beekeepers.** The Club is acting only as an automated referral facilitator.
- If you will need to cut or trim branches, be sure to get permission first and clean up any limbs or branches left behind. In most cases the homeowner can dispose of the trimmings, but you should clean up and deposit the debris as directed or haul it away.
- Under most circumstances, **you should leave your catch hive near the swarm site and return after dark** to be sure that you have retrieved all the bees. This is especially true when the swarm is near where people will be passing by. If you capture the swarm and take it away during the day, the scouts and foraging bees will return to the site of the swarm and be a nuisance to the homeowner.
- Every effort should be made to insure the survival of the collected colony. The reporting party has made an effort to report the swarm and has a reasonable expectation that the bees will be saved. It is our duty to make this happen.