

THE MARIN BEEK NEWS

Volume 12, Issue 11

December 2020

FROM THE EDITOR

Happy Holidays! Fall is well underway, with our first major rainfall of the season in mid-November. Though the rainfall has been enough to coax tiny seedlings from their patient dormancy to begin the greening of our "Golden Hills", not much precipitation can be seen in the near future. It's too early yet to predict what kind of winter we will have, but in some places the Eucalyptus are beginning to show off their white flowers. I have a pretty strong nectar flow in Mill Valley and Tiburon, with drones still being raised in those hives. The weather has yet to reach temperatures too low for bees to forage, and on these warm, sunny days it sure is a pleasure to watch the bees returning with basketloads of white, yellow and coral-colored pollen.

I've just finished testing in all of my apiaries to determine the success of their fall mite treatments, and was pleased to see that all but a couple in each location were at zero for mites. So far I'm most impressed with the oxalic treatments, though thymol for the colonies without honey supers also showed great results, so I'll use that as the alternative this spring to prevent any potential mite resistance to the oxalic.

If you're like me, winter is no time to slack off. I spend the dark days in the woodshop next to the well-stocked wood-burning stove, repairing old equipment and building new. Once again I'm expanding my production and will be adding more mating boxes to my inventory. I figure I have about 12 weeks until the very beginning of swarm season, so I hope to get some good R&R between now and then, if the rains will cooperate.

May your Holiday season be merry and bright, and may we soon have some relief from COVID to ring in the New Year. -jennifer



DECEMBER SPEAKER

Thursday, December 3rd at 7:00pm PST. Maryann Frazier will be presenting "Beekeeping in Kenya", with an auction afterward to benefit a new bee education center in Kenya.

For over 25 years, Frazier held the position of senior extension associate in the Department of Entomology at Penn State and is responsible for honey bee extension throughout the state and cooperatively

across the Mid-Atlantic region. She worked collaboratively with other members of PSU Department of Entomology to understand how pesticides are impacting honey bees and other pollinators. In addition, she works with a team of U.S. and Kenyan researchers to

understand the impacts of newly introduced varroa mites on East African honey bee subspecies and helping Kenyan beekeepers become more productive.

Maryann has taught courses in beekeeping, general entomology and teacher education and was involved with the Department of Entomology's innovative public outreach program. Maryann was a participant of the 2016 Bee Audacious event in Marin, and is featured in the documentary "The Pollinators."

So how about this fundraiser? In light of COVID, Maryann and her Kenyan research partner, Elliud Muli, believe the best use of funds raised will be to either build another room for the school or building a dorm. Tune in on Thursday to hear more about this!

Join Zoom Meeting

<https://us02web.zoom.us/j/83197901409?pwd=MkNHY0tSOHdBU3lpRDV6bUZqTlVBdz09>

Meeting ID: 831 9790 1409

Passcode: 759436

More information on Auction Items continued later in the newsletter.

WHAT YOU MISSED

Michael Smith was November's guest speaker for the regular monthly meeting. Michael completed his PhD in 2017 with Tom Seeley, in the Department of Neurobiology and Behavior at Cornell University. His talk for the club shared his work on studying honeybee colony puberty, and how workers detect that their colony can "afford" to invest in raising drones. Michael set up a series of experiments to try to determine what conditions lead to workers raising drones. A few plausible explanations were that the hive must reach a critical size, that it must feel crowded, or that it is somehow temperature based. To test each of these possibilities, he set up different types of experiments. His most interesting test was that of overcrowding. Crowded populations can afford to specialize, similar to what you see in cities like New York, where stores such as "Brooklyn SuperHero Supply" (think SF Mission's Pirate Supply Store) can thrive. In this case, the ability to afford specialization might lead to raising drones. He set out to make a hive feel crowded, and his method was to insert a moving wheel that raked across the brood comb, gently touching the bees. He jokingly referred to the device as a "Touching Machine" and this device had many modifications to make it work inside observation hives. Ultimately, Michael's work was unable to pinpoint the exact conditions that prompted drone brood, but was able to rule out crowding and the size of the hive. He will continue his work to further explore how temperature influences hives and prompts them to enter "puberty", otherwise known as drone production.

One of Michael's observations was that when you begin to see drone comb being built, that is an indication that swarming season is only a few weeks away. Hives invest first in drones, second in making new queens. This information could be used to determine the beginning of swarming for hives and give beekeepers a few weeks to prepare. Catch Michael online at <http://collectivebehaviour.com/people/michael-smith/>



ITS TIME TO RENEW YOUR MEMBERSHIP

Dues Paid After the February 6th Meeting, Will INCREASE TO \$30.00

NOW is the time to Renew Your Membership for 2021.

Membership Dues remain at \$20.00 for another year. Memberships include all family members residing in the same household and are for the calendar year. Renewals are due by the January 2 Meeting and delinquent after the February meeting.

We need to hear from you.

Please renew your membership Online at www.marinbeekeepers.org. Doing so will make it much easier to update the Roster. Even if you can't make it to the meetings you

should continue to support the club with your membership dues. There are many benefits from being a member:

- Use of the Club's extractors, electric uncapping knives, wax-melter, hive carrier, embedding tool, and other beekeeping equipment;
- Free subscription to the Marin Beekeepers Newsletter (multiple times a year). Back issues on the website make for good background information and beekeeping tips;
- Preferred registration for beekeeping workshops (usually 4 or 5 per year) and special events,
- Check out books, magazines and catalogs from the Clubs extensive library.
- Free admission to our monthly meetings where we have speakers among the foremost bee experts in the country (normally a \$10 donation);
- Subscription to our "BUZZ" email listserv

which is where we converse online about beekeeping in Marin;

- Subscription to our "SWARMS" email listserv which is where we notify members of any swarms that need hiving;
- Subscription to our "Event List" email listserv which is our general notification list of events and workshops.

The best and easiest way to pay your 20201 dues is online at www.marinbeekeepers.org.

You do not need to sign in or use a password. Just click on "become a member", fill out the form and submit. Be sure to complete the payment section at the end, which is via PayPal. You do not need to have a PayPal account to pay using a credit card. There is a small transaction fee added to your dues that is assessed by PayPal.

Or... you can mail a check payable to Marin Beekeepers to our Treasurer:

Mary Nordquist
2072 Hatch Rd.

CLUB DRIVERT ORDER

David Peterson is coordinating a Drivert Sugar order for the club this year. Here's what David has to say about the order:

In the past, a member has organized a group order of Drivert Bakers Sugar. However, she is no longer keeping bees and won't be doing so going forward. I have been unable to find a local source to purchase this type of sugar. I have found a San Rafael baker who has agreed to place the order for us. Previously the price was \$40 for a 50 pound bag. I don't have a price yet but would expect it to be about the same.

If you would like to order a bag or more, please let me know right away as we will be ordering in the coming week. You might also share a bag with another beekeeper. I will get the price out to everyone as soon as I know how much. When we get the price you will send me a check and I will pay the baker. We will set a two hour window to pick

up your order in San Rafael or arrange for someone else to get yours. I can take a limited number home with me for later pick up if the time isn't workable for some.

You might wonder: WHY DRIVERT SUGAR? The reason is that the sugar dissolves rapidly in warm tap water. No need to boil. So if you are feeding your bees sugar water, it makes it much easier, mix and stir. I have 8 humming bird feeders at my house and the drivert is perfect for this use. **Best of all, it can be fed directly to your bees.** The bees will take the sugar in directly when spread on the inner cover - I use a 1&1/2" spacer and add some powdered pollen substitute as well. See the attached pictures and go to this site for more information:

<http://honeypedia.info/invert-sugar>

Between my birds and bees, I go through about 5 bags a year for 10+ colonies and 8 bird feeders.



EXTRAS BY JENNIFER BERRY

Methods for our Unique Climate

Fall is upon us, and soon the rains will come and, if we're lucky, we'll have many days in a row with rain and cool temperatures. I've heard folks say that to crack the propolis of a hive in winter to inspect will cause the death of the colony, and I'm here to say it simply isn't true. You may have seen the article I wrote last month outlining some of the ways our coastal California climate is like no other in the US. Winter inspections fall under that "unique" category as well. You can make quick inspections whenever daytime temperatures reach 55 or above without hurting the hive, and that will allow you to make corrections that would save otherwise doomed colonies.

You don't have to take my word for it, though. Researchers at Appalachian State University have been collecting inspection data since 2013 from different regions across the US as they develop remote hive monitoring devices. Contrary to their original hypothesis that winter inspections were leading to hive death, the one factor that led to greater overwintering among the hundreds of hives they tracked were the number of winter hive inspections, especially in California. (See their online presentation [here](#).)

Let's face it, California has warm winters. Bees will begin foraging between 50 and 55 degrees, and so far we haven't had a single day below 55 in Marin and many of us still have drones in our hives. We can take advantage of our unique mediterranean climate and check for winter hive issues.

You'll want to keep the inspections

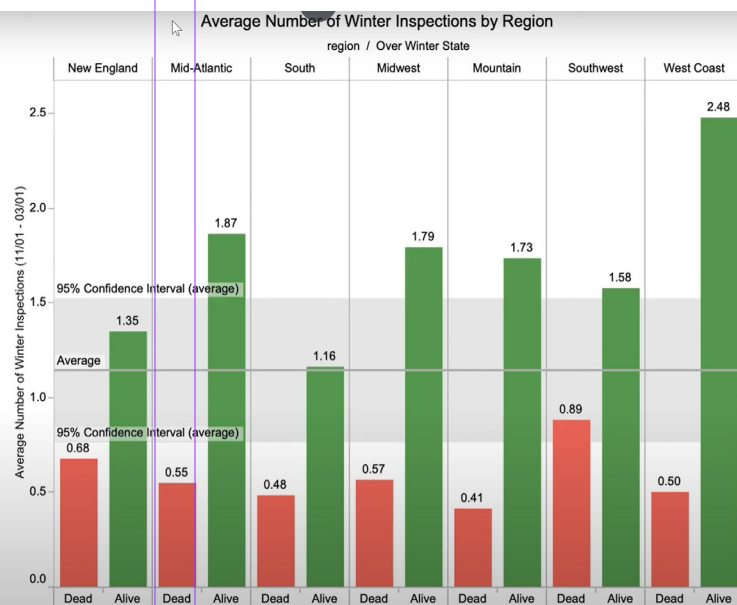
short, so skip the urge to find the queen or even see eggs, but focus on what's most important this time of year. Instead, you'll look for seasonal problems, which include fungal infections, moisture problems, mite infestations, and starvation. Give a quick inspection under the inner cover to see the overall population and area the hive is occupying. Pull a frame out of the center and make sure the brood is covered in bees and that there aren't any dead bees with their butts sticking out. Look for



signs of mites by the spotty brood pattern, dead or sick larvae, uncapped pupae, and nurse bees with deformed wing virus.

Winter is the prime time you'll see chalkbrood in hives. The telltale sign is seeing the green and white mummies in and around the entrance. Treatments for chalkbrood include ProDFM probiotics, supplementing pollen and nectar, and

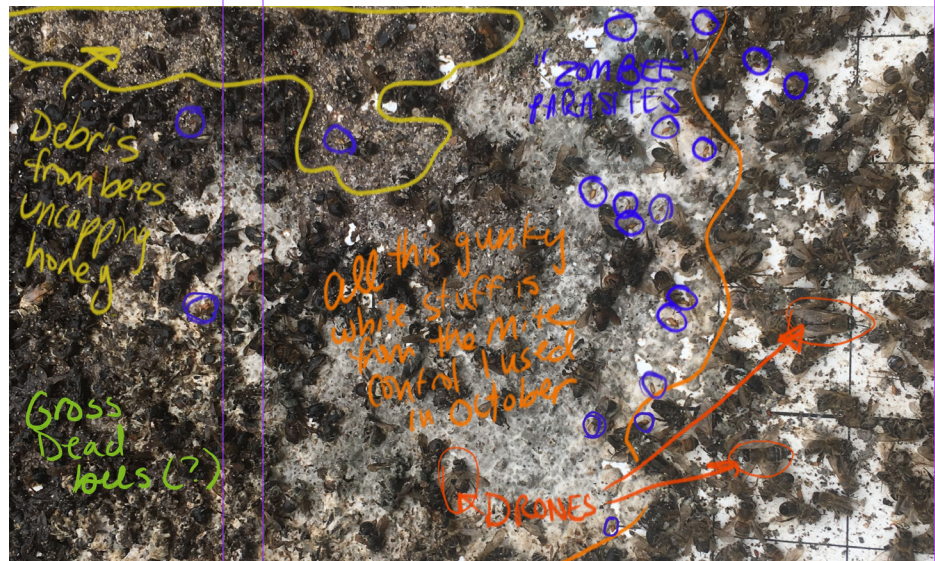
Average Number of Inspections on a hive during the Winter Season (11/01 - 03/01)



essential oils like Geranium and May Chang, which are naturally anti-fungal.

Excess moisture dripping down from the inner cover can be corrected by insulating hives or ventilating. Some folks swear by using desiccants in the hive to pull out extra moisture, and I use dry drivert sugar for that purpose so it both dries the hive and gives them food they'll take in an emergency. Oxalic acid is the best mite treatment in the winter because it can work with cooler temperatures, unlike formic acid. Starvation is a major factor in overwintering, and can be detected when bees die at the edge of the cluster with their heads in the combs, butts sticking out. If the hive cluster can't reach food resources, simply rearranging a few frames to bring food closer can save a hive. If no winter stores are available then removing empty combs to crowd the colony and feeding dry drivert sugar under the inner cover will save them.

You will want to avoid opening hives for any duration on rainy cold days, but that doesn't mean you can't make informed inspections. I talked to beekeeper Richard Hyde about assessing the health of hives by monitoring the bottom boards,

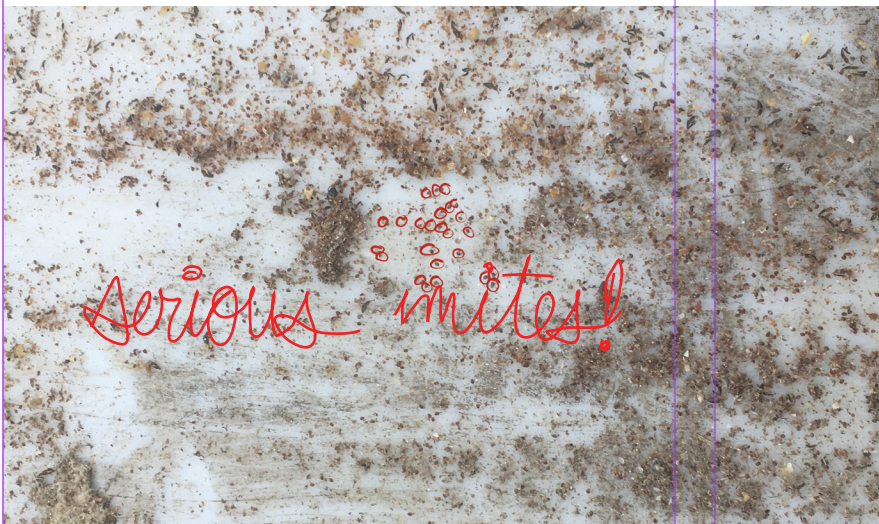


hours. From the debris that falls he can tell whether a hive needs mite treatment, where in the hive the bees are clustered, whether they are uncapping stored honey, see insect pests like wax worms, and if they have chalkbrood or not. With small hives at 2-3 boxes he will treat if the mite count on the

boards is greater than 10-15, and with larger hives he treats if the mites reach a count of 40 or more on the monitoring board. He also checks about 3 weeks after treatment to make sure it was effective. I asked Richard if he coats the monitoring sheets with oil or anything to make the mites stick, and he says that just gums everything up and makes a mess. As long as you have a gap so the bottom board isn't scraping the top of the monitoring board then you should be able to make a good assessment of the hive without the need for it to be sticky.

One last check you can do in the winter is to see if the hive has enough honey. Simply lift the back of the hive an inch or two to estimate its weight, and if it doesn't feel heavy enough, plan to get in there as soon as you can to feed. It's not unusual in the early spring for beekeepers like myself who make splits and raise new queens to have to do the work in the rain.

We've learned to get in the hive and get out quick, and our hives are never worse for it. The grumpy bees usually remind us to keep it short and take us to task. Simply put: there's no reason to lose hives in the winter when you can still take action to be a good steward. Your bees deserve it.



which is something he's been keeping records for over many years. Every 30 days or so, Richard slides a white plastic insert in the bottom of the hives just on top of the bottom board (some have slots for this purpose) and checks the insert after 24

UPCOMING CLASSES AND WORKSHOPS

...with Bonnie Morse

Backyard Beekeeping (December 19, 9:00am – 12:00pm, \$65...a portion of fees from this class will be donated to local pollinator garden projects in 2021)

Considering becoming a beekeeper? Take the first step by learning about this fascinating and important pollinator. This is a great time of year for new beekeepers to start planning so equipment is ready and bees are ordered in time for the season.

In this class, you'll learn about the roles of the queen, workers and drones within a colony and how they interact with seasonal cycles. Learn about basic considerations you'll need to take into account before jumping into this exciting new hobby including where to place your hive, equipment options and sources, bee sources, and time required.

[Registration: The Fairfax Backyard Farmer](#), 135 Bolinas Rd, Fairfax

In 2021: Except for outdoor field workshops, which will be limited in size and in which all participants will be required to wear face masks, class sessions (until further notice) will be via Zoom.

Beginner Beekeeping class series (9 hours, \$185)

Know you want to keep bees? Classroom sessions will include basic bee information, seasonal cycles of a colony, equipment options, where to place your hive, how to get bees and tips on working with your equipment. When the weather warms up, there will be a field session so you can observe and practice working with your tools and bees.

\$30 discount if you already took the Backyard Beekeeping Class. Some of the information will be repetitive, but there's a lot of information, so probably not a bad thing! Class room sessions: Saturdays, January 23 & 30, 9am – 12pm

Field Day: Sat., March 20, 9:30am – 12:30pm, location TBD, tent. San Rafael (Rain date April 3)

[Registration: The Fairfax Backyard Farmer](#), 135 Bolinas Rd, Fairfax

Evaluating Your Yard as a Pollinator Habitat (Saturday February 20, 3 hours, \$65)

Want to make your yard a pollinator paradise but aren't sure where to begin? You'll have an opportunity to submit photos of your yard you want to improve prior to the class so it can be evaluated. There will also be a presentation on garden maintenance and plant selection that can help guide your yard management decisions to improve supporting biodiversity...and limiting your needed inputs (financially and timewise).

[Registration: The Fairfax Backyard Farmer](#), 135 Bolinas Rd, Fairfax

...with Jennifer Berry

Jennifer will be leading Intro to Beekeeping workshops through AirBnB Experiences until the rains begin in earnest, Fridays and Saturdays from 10:30 to 12:30. Beekeeping Experiences max out at 10 people and are \$60/person. Geared towards those who are interested in checking out beekeeping for the first time, but Jennifer can also tailor a workshop to any experience level or specific topic for groups wanting to sign up. More info at <https://www.airbnb.com/experiences/1154725>



GARDENING INFO



Creating Pollinator Habitats Across the Bay Area

What is 10 x 10 +10?

The individual actions we take collectively add up. Small contributions to habitat and larger restoration efforts make a difference! Imagine what we could achieve if everyone created a 10' x 10' garden for pollinator habitat and donated \$10 to a larger project? The possibilities to help reverse loss of biodiversity would be endless.

To Be(e) Involved, Simply

10'x10' : plant a 10' square space with pollinator friendly plants...preferable native to your area.

+\$10 : Buy a sign to bring attention to your pollinator habitat and to donate \$10 to a regional habitat restoration project.

Currently, signs are available at [Fairfax Backyard Farmer](#) and [Heidrun Meadery](#).

The cost of the sign helps pay for expenses related to the website as well as the donation for a restoration project.

Visit tenbytenplusten.com

for more information and to share your garden.

Better yet, email Kate at kateaswisher@gmail.com to share your garden pics and stories.

She'll be working on the 10x10+10 instagram and helping to promote the program in Marin.

LOCAL BEEKEEPING SUPPLY STORES

BACKYARD FARMER in Fairfax

We continue to stock drivert sugar, pollen patties for feeding.

Full complement of hardware and tools as well as quality British made protective half jackets with fencing veils We always keep in stock plenty of assembled waxed and ununassembled pine mediums and deep boxes and frames

We have Honeybuckets with gates and plenty of hex honey jars for harvesting as well as an extractor for rental as well as robbing screens for late season yellow jacket control.

Jim Normandi

[The Fairfax Backyard Farmer](#)

135 Bolinas Rd
Fairfax Ca 94930

Fairfaxbackyardfarmer@gmail.com

415-342-5092

Open Wed-Fri 11am - 6pm Sat 12 - 6pm

& Sun 12- 5 pm **Closed Mon - Tue**

BIOFUEL OASIS in Berkeley

Beekeeping supplies, backyard chickens, and more. Classes online.

141 Ashby Ave, Berkeley

(510) 665-5509

Open Mon-Fri 11am - 6pm, Sat 10 - 4pm, and

Sun 12 - 4pm

MANN LAKE in Woodland

Beekeeping supplies, backyard chickens, and more.

500 Santa Anita Dr, Woodland, CA 95776

(866)880-7678

www.mannlakeltd.com

Open Mon-Fri 8am - 6pm, Sat 8pm - 4:30pm

Closed Sundays



ABOUT THE MARIN BEEKEEPERS CLUB

We are people who share an avid interest in honey and native bees. We are a mix of hobbyists as well as professional beekeepers. We have a wide range of interests, covering bee biology, pollination, survivor stock bee breeding, health aspects of bee products, international beekeeping, and other bee-related topics.

We welcome you to attend our meetings and to become a member. <https://marinbeekeepers.org/become-a-member/>

Monthly meetings are typically on the first Thursday of the month and usually feature a knowledgeable speaker and/or project and includes informal sharing of information by members throughout the meeting (\$10 donation for non-members).

Meetings are a good way to learn about beekeeping. Please consider becoming a member whether you have bees or not.

Membership costs \$20 per calendar year and includes:

- Free admission to all meetings
- Access to the Club's honey and extracting equipment
- Subscription to the Club's "MarinBuzz" listserv
- Access to the swarm email listserv
- Free subscription to the Marin Beekeepers Newsletter (multiple times a year)
- Preferred registration for beekeeping workshops (usually 5 -6 per year) and special events (ie: annual Celebration of the Bees)



Subscription to our BeeLegal email listserv which is where we are working to make beekeeping legal across Marin

Mary Nordquist serves as our Treasurer and is the only official officer of the Club. The Nuc serves as the informal team to oversee the functioning of the Club through regular volunteer work. Thanks to all of you who step forward when needed!

Current Nuc Members are the following:

Karen Hyde: karen@hyderanches.com — Club Meeting Refreshments

Richard Hyde: rh@hyderanches.com — Workshop Coordinator

Steve Lamb: stlamb1@gmail.com — Farm Day Coordinator

Bonnie Morse: bonniemorse10@gmail.com — Speaker Coordination, Survivor Stock

Gary Morse: gpmorse@comcast.net — Survivor Stock

Mary Nordquist: neilmary@verizon.net — Club Treasurer

Neil Nordquist: neilmary@verizon.net — Equipment Coordination

David Peterson: dpeterson307@aol.com — Membership Coordinator, ListServ Management, Equipment Coordination

Dan Stralka: stralka.daniel@epa.gov — Annual Marin County Fair Coordinator

Rob Tysinger: rob@tysingerengineers.us — Equipment Coordination

Marina Wright: marinamay53@gmail.com — Librarian

Jennifer Berry: jenniferberrybees@gmail.com — Editor of the Newsletter

Thursday night's Guest Speaker Maryann Frazier will be raising funds to support her community-based projects in Kenya. Here are a few images of what they've been able accomplish so far:



Our first project; water collection system. This is the first time kids had access to water at the school.



"Did you know that nearly 1/2 the households in Kenya earn less than \$100 per month? Pick something useful up from the auction while donating funds to a valuable cause where your \$ will be stretched to maximum limits!"

Our second project was a solar powered pump and overhead tank.

This system is now being used by the entire community!



December 2020 Marin County Beekeepers Fundraiser for Kenyan school

Tune in Thurs. 12/3 at 7:00pm to learn about beekeeping in Kenya and the projects Maryann has already successfully completed. Join Zoom Meeting:

<https://us02web.zoom.us/j/83197901409?pwd=MkNHY0tSOHdBU3lpRDV6bUZqT1VBdz09>

All prices are retail before sales tax and shipping. New items can be yours for 75% of retail price. Gently used items for 50% of retail.

THANK YOU to Molly Haro, John Radin and Maryann Frazier for their contributions!

See an item below you want to reserve? Email Bonnie:

Bonniebmorse10@gmail.com with "Kenyan fundraiser" in subject line. First come, first reserved.

Want to just donate? Send check made payable to Maryann Frazier with "Kenyan fundraiser" in memo line to:

**Maryann Frazier
c/o Bonnie Bee & Company
PO Box 3835
San Rafael, CA 94912**



(Note: cash donations are not tax deductible.)

1. <https://www.dadant.com/catalog/tools/smokers/m00928-smoker-4-x-10-stainless-steel-with-shield>

Hardy used. Value \$45.95
YOURS FOR \$23.00

2. Ross Round 10 frame super (with wax foundation)

<https://www.mannlakeltd.com/r-r-complete-super-kit>

New. Value \$135.95.
YOURS FOR \$102.00



3. Oxalic vaporizer

<https://blueridgebeecompany.com/product/oxalic-acid-vaporizer/>

Value \$49.95
YOURS FOR \$37.50

AUCTION ITEMS, continued



4. Cut comb boxes with cutter
<https://www.blueskybeesupply.com/cut-comb-boxes-full-size-case-of-50-or-100-cc-50-cc-100/>

<https://www.mannlakeltd.com/comb-cutter-4-1-8-square>

Value: \$69.95, YOURS FOR \$52.50

5. Ventilated suit, 2 XL
<https://www.dadant.com/catalog/clothing/suits/ventilated-suit-2x-large-v012502xl>

\$154.95

YOURS FOR \$77.50



6. Gloves
<https://www.dadant.com/catalog/clothing/gloves/new-rubber-gloves>

4 pairs: 1 new, 3 barely used

Value: \$13.95 each

YOURS FOR \$7.00 (each)



7. Bee themed face masks (made locally)

Value: \$20 each.

YOURS FOR \$15 (each)

8. 5 gallon food grade bucket with Easy Lid

Value: \$18.90

YOURS FOR \$10.0



9. Unassembled frames (no foundation): #9 deep, #33 medium.

Value: \$69.30

YOURS FOR \$34.50



10. Metal Bee yard sign / stake:

Estimated value: \$60 each

YOURS FOR \$30 (each)

AUCTION ITEMS, continued

11. Large black duffel bag
Estimated value: \$60
YOURS FOR \$30



BONUS: When you commit to buying an item(s), you'll be given address and instructions for a contactless pickup in San Rafael. You'll also have an opportunity to pick an item from the "grab bag" table....includes misc. hive tools, Boardman feeder, frame rest, gently used sugar roll testing kit, etc.

Items from Kenya: These items available for minimum 200% of estimated retail value (\$25 each). In other words, you can have any of these for a minimum \$50 donation. We'll take bids on these items up until Thursday, December 11, 5pm. (You will be notified if you are outbid.)

1. Maasai blanket / shuka



2. Baby girl's dress with shells



3. Woven baskets (min. \$50 each)
Approx 6" x 6" x 6"

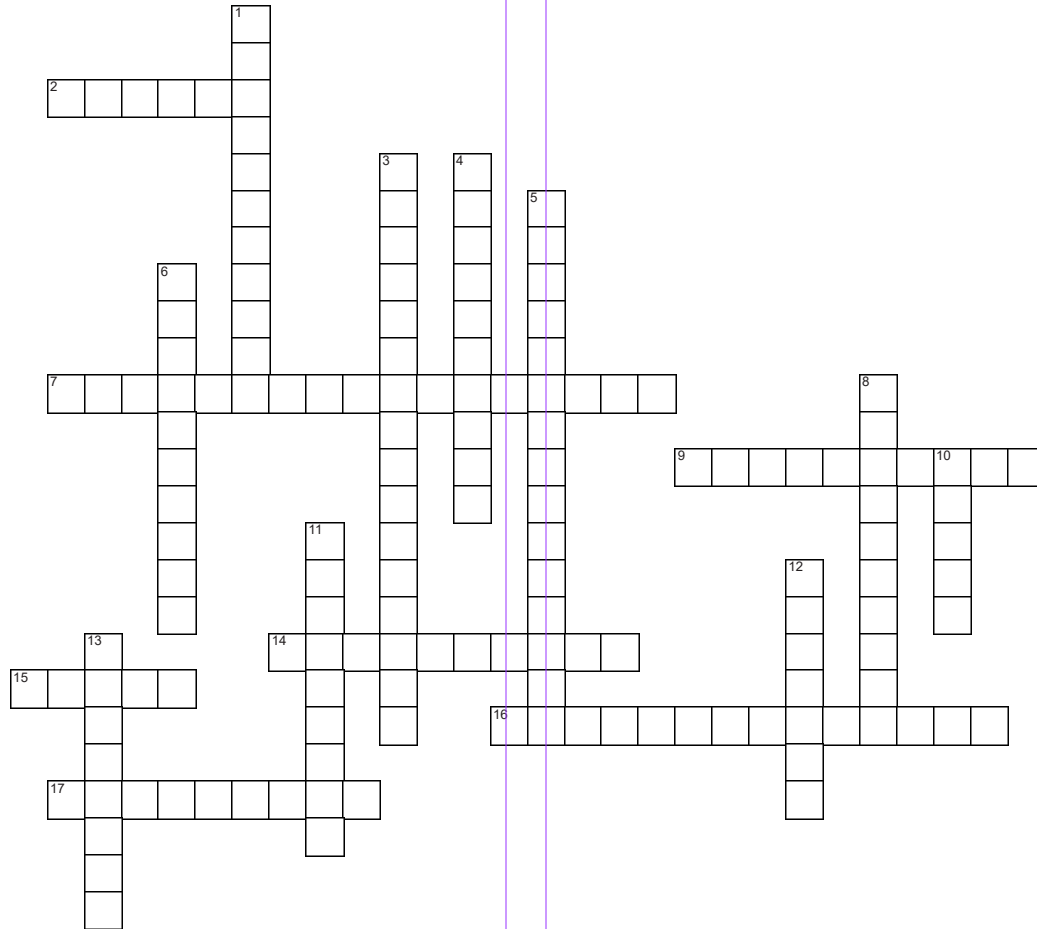


4. Elephants and Bees Project t-shirt,
women's approx M size, scoop neck

5. Elephants and Bees Project cap



MARIN BEEKS NEWSLETTER CROSSWORD PUZZLE



Across

- 2. One of many ethnic groups in Kenya and Tanzania
- 7. Functional gardens for insects
- 9. A tradition for Marin's December meetings
- 14. Bee butts sticking out of combs
- 15. Maryann's fundraiser will support communities in this country
- 16. Marin mead company
- 17. Bees will keep this animal from your garden in Kenya

Answers will be posted in the January newsletter

Down

- 1. Winter in California
- 3. Best rainy day inspection tool
- 4. Marin club member best known for his mead skills
- 5. Michael Smith's invention
- 6. Cool-weather fungus
- 8. Winter mite treatment
- 10. Universal tool of beekeepers and honey hunters alike
- 11. One method of dealing with hive moisture
- 12. Winter bee food
- 13. Other way to deal with hive moisture

ANSWERS TO THE NOVEMBER CROSSWORD PUZZLE

