Volume 32, Issue 10 The Newsletter of the Sonoma County Beekeepers' Association October 2010

The Monthly Extractor

Our goal is to increase interest in and knowledge of bees and beekeeping for the hobby and commercial beekeeper, and to educate the general public in the value of bees.

Monthly Meeting –Oct. 11th-Annual gadget night. Everyone bring your favorite beekeeping gadget…homemade or store bought, we want to see what makes beekeeping easier and/or more fun!
Harvest Fair-Oct.1-3- Our exhibit will be in the courtyard next to the garden building. Thanks to all who volunteered!

From the President
"THE SHORT END OF THE STICK..."

Country singer, Trisha Yearwood sings, "Her daddy says...He ain't worth a lick...When it comes to brains, he got the short end of the stick!"

When it comes to brains, did honey bees get, "the short end of the stick?"

***How do honey bee brains compare to the fastest supercomputers we have today? Our fastest computer can compute one billion computations per second. A honey bee brain can compute one trillion computations per second!

***The brain size of a honey bee is nearly the size of a sesame seed--less than a million neurons, while our human brain has around 80 billion neurons. We cannot afford to take honey bee brains for granted, just because bees are so small and live a short time (we do too--on a different scale!). The more we learn about bees, the more they astonish us!

***What about instinct, pheromones and automatic BEE-havior? Any beekeeper will tell you that honey bees are both predictable and unpredictable! Ettamarie often says, "The bees write their own books--they don't read the same bee books we read!" Bee intelligence and their decisions often surprise us! This is what makes beekeeping so fascinating! It is true that some bee behavior is inflexible with instinct guiding their response. But scientists do not fully understand honey bee learning and decision making or what it is that triggers their responses.

Bees learn from older bees how to do some hive jobs. They use what they learn from experience to decide how to respond in the future. They utilize symbolic communication that is very close to human communication. Bees form some lifelong memories. They know how to conserve valuable energy by hanging almost motionless together in a swarm. They remember, organize their decisions and process how many landmarks they pass during foraging flights. Honey bees do 59 distinct behaviors that scientists have classified; Dolphins have only about twice as many--123.

***One third of a bee brain is called Mushroom Body Neurons. This is largely undeveloped in a house or nurse bee until the bee starts to forage. Then this brain area develops rapidly and is used in critical memory storage. If the hive has a shortage of foragers, some of the nurse bees will switch jobs and become foragers. This job transition, whether triggered by age or social cues, involves changes in thousands of genes in the honey bee brain; some genes turn on and others turn off. It actually allows bees to learn and utilize additional brain power to perform very complex foraging tasks for nectar, pollen, water and propolis. Bees must make flying decisions, weather condition decisions, visual, scent tracking and tactile decisions, sharing perfect directions with their sister's--giving and following directions the first time (as a guy, I have a hard time with this one!), dealing with bee enemies and unexpected, unfamiliar situations. Last of all, when to sacrifice their life for their hive!

***Stop signals...if foraging bees perceive a danger at the location they are foraging, and upon returning to the hive find another bee communicating that location in a "waggle dance", the bee that knows that there is danger there will give a "stop signal" by buzzing at 380 vibrations/second and butting with it's head the waggle dance bee who will immediately stop (no arguments). No more bees will go to this life threatening location. This benefits the hive. It is a decision made through learning and experience. We humans would benefit by having our own behavioral "stop signals"!

"One of the most painfully idiotic myths surrounding honey bees is that their behavior is limited, compared to animals of "higher intelligence". THIS IS NOT TRUE...when all these inputs come together and the bee has to decide what to do, the decision is not a predetermined behavior, it is learned behavior from experience." From Insect Brains and Animal Intelligence.

Scientists are still discovering how honey bee brains work! The closer I look, the more amazed and awestruck I become! My point is that by appreciating bee intelligence as we work WITH our honey bees; we need to respect their brain complexity and responses that rival our own human brain.

No one I know can say, "Honey bee brains 'got the short end of the stick"!!!

From the President, *Emery Dann*

BOARD MEETING MINUTES

Submitted by Darlene Taylor, Secretary

BOARD MEETING MINUTES 9/13/2010

All present were: Sierra Castillo, Emery Dann, Randy Sue Collins, Thea Verling and Darlene Taylor. Meeting came to order at 5:05 pm.

First of all we had an income and expense report from our treasurer, Thea. The Harvest Faire and SCBA's involvement was discussed, as well as vendor participation at our booth. Randy Sue motioned that vendors pay 10% of their sales from the fair to SCBA. Thea seconded the motion, all members voted and the motion was passed.

We will be making a sign to post at Friedman's on Santa Rosa Ave. in the gardening section stating the least harmful way to use pesticides in regards to honeybees. The sign will be in both English and Spanish.

Randy Sue gave us a "Big Bee Event" report. There were sixty-six people who came in from the street. Many were attracted by Ettamarie's observation hive standing outside the entrance of the theatre as well as Randy Sue's daughter Devon, dressed up in her bee costume! All in all it was a great success and SCBA brought in almost $4,000.00. PFSP donated some items for the auction and it was agreed by the board that we would donate the money we made on the items back to PFSP.

Randy Sue motioned that SCBA apply for a corporate credit card with a limit of no more than $5,000.00. Motion was seconded by Sierra, all members voted and the motion was passed.

Randy Sue motioned that SCBA find a CPA to file our taxes. Motion was seconded by Darlene, all members voted and the motion was passed.

More topics discussed were whether to have our February meeting on the regularly scheduled time which falls on Valentine's day; bringing a speaker here from back east to talk at one of our meetings on apitherapy; the new prices of our hats and t-shirts and car stickers with SCBA logo on them for renewing members; award presentations at the December meeting; our contract with the 4H building; insurance payments; Emery will check into insurance coverage for our directors and officers; the Seed Bank in Petaluma planning to do a screening of the "Vanishing of the Bees" movie and SCBA's involvement in it. Thea motioned that we plan to do the Seed Bank event before Christmas. The motion was seconded by Darlene, all members voted and the motion was passed.

Submitted by,
Darlene Taylor, Secretary

GENERAL *MEADING* MINUTES (ha ha) 9/13/2010

Meeting began at 7:03 with 53 folks present. Newcomers to the meeting were: Michael Baker who was visiting from England, he has had bees for two years and has a 40 year beekeeper as a mentor, also Michael has been on our yahoo e-mail group and feels like he already knows some of us who post on it; Eric who lives at Todd Rd. and Stony Point Rd. took a bee class in college and has a hive in a barrel.

In the meantime, our presenter for the evening - Byron Burch was outside starting to make mead! Byron has been with The Beverage People for many years and handed out catalogues listing their many brewing, mead making and cheese making supplies, plus recipes and interesting articles. They are located on Piner Rd. in Santa Rosa for anyone who needs equipment or ingredients in trying their hand at mead making. As the mead was on the boil, Byron gave us little tastes of some flavored meads that he had recently made. There was the mango ginger which was very unusual at the first sip, and then a surprising after taste. Then came the cinnamon flavored mead reminiscent of hot apple cider but much more concentrated and sweet. They were both quite yummy! Mead dates back several thousand years and is the oldest recorded alcoholic beverage. Mead making practice died out around the 1600's and has been rediscovered in the U.S. during the last 30 - 40 years. In a large stainless steel kettle with a spout, sitting on a large propane burner, 5 gallons of water were added. The best type of water to use is the softest water available, such as reverse osmosis or even rainwater! The water was heated until warm and then the honey was added until dissolved. The best type of honey to use is a lighter, more delicately flavored honey. Eucalyptus honey is not a good choice for mead. The mixture was heated until boiling, left to boil for 5 minutes or so while skimming the surface of foam with a large spoon. Added to it was a nutrient mixture to make a healthy yeast, tartaric acid which raises the acidity, clarifies and makes mead taste less flat and adds stability, and a protein called iris moss which is also a clarifying agent. A coil attached to a cold water hose was inserted into the mixture to help speed the cooling process although if time is not a factor you could just allow it to cool naturally to room temperature. An ideal temperature for mead is 85 - 90 degrees. The mixture was then poured into a carboy, a fermentation lock was put on top, where upon Byron packed up and hauled the mead mixture away only to add the yeast at home. The fermentation process takes from 3 - 4 weeks, after siphoning up to 4 weeks, and then racking away for 3 - 6 months in a cool dark place.

Following Byron's very interesting (and tasty) presentation, Ettamarie shared her experience of the New Haven Bee Event that took place on September 11th at Davis University. Eric Mussen was there speaking on CCD, fantastic artwork was displayed, folks toured bee friendly gardens and free Hagen Daaz ice cream was consumed!

Submitted by,
Darlene Taylor, Secretary.

My October Beekeeping To-Do List

By Serge Labesque

It's CCD's fourth birthday! The spotlight of the media has moved away from the bees even though colony losses were as high this year as when this crisis began.

Wouldn't it be "convenient" if a definite and single cause of CCD could be found? Wouldn't this be convenient especially if it happened to be some sort of pathogen, a virus or a fungus, for example? Scientists and chemists would look for a cure. They would concoct more of their "silver bullets" that beekeepers would dump into their hives to "save the bees". Then we would all go on with our lives, satisfied that human intelligence had once again beaten a scourge. Aren't we great?

Let's stop deluding ourselves: What is killing bees is us! It is our greedy way of life. We have destroyed vast expanses of our environment and wasted or spoiled natural resources, such as water, that once were taken for granted. The air we breathe is increasingly polluted, the atmosphere is warming up, and climate is changing. Because we are trashing the "Blue Planet", many species, including the honey bee, have a hard time coping. Many have already gone extinct because of our actions.

Bees lead lives that are tightly intertwined with nature. They live on pollen, nectar and a little water... when they can find them. Our agricultural practices have so profoundly transformed our environment with large expanses of monocrops that insect pollinators no longer have access to the diversified nutrition they need. Whatever they can collect is frequently contaminated by chemicals of all sorts. Who is guilty of creating this deadly environment? All of us are, farmers, chemical companies, legislators and consumers.

And the beekeepers, you may ask?

They are just as guilty when they provide bees to the growers who want their "green deserts" pollinated. This is because the pollination services they fulfill allow the current terrible agricultural model to exist and expand.

All together, we form quite a beautiful gang, don't we? At times, growers and beekeepers may disagree and quibble about how to split the loot and, when problems occur, they may point fingers at each other. But they do this only as long as the current large-scale agricultural system is not challenged.

Yes, it would be very convenient to discover that a pathogen causes CCD. We could keep our heads in the sand. A mystery would be solved. The blame would be placed onto something other than ourselves. We could blissfully continue abusing natural resources... for a few more years.

Sobering.

Fortunately however, besides the above-mentioned mainstream opportunists, there are a few progressive people and organizations working to create a healthier future and necessary habitat for pollinators. They are environmentally conscious individuals of all kinds, including some passionate and daring farmers and beekeepers. Let's join them now to grow their numbers and to contribute to their effort. Progress can easily be made in many different ways: by choosing carefully the food we buy in order to support and encourage local producers, by growing plants for pollinators, by eliminating the use of toxic substances, by keeping bees responsibly...

Indeed, some humans are great!

October in the apiaries:

By the end of this month the fate of our colonies will be sealed until next spring. It would be nice to have a crystal ball to figure out in advance what the future holds for our colonies. For sure, this could spare us some worries, potential grief and some unpleasant work as well. But in fact, the bees provide us with a sort of crystal ball! It is their brood nests, because the brood is the future of a colony.

Besides completing the consolidation of their stores, the most important task that the bees have to perform in the fall is to raise well fed winter bees. We need to find out whether this is happening or not in our hives. It may take a couple of cursory but focused inspections of a brood nest to first assess a colony and then to complete its preparation for winter. At times, when the colony is unmistakably on track, a single peek at the hive contents may be sufficient.

I like to make the first of these inspections in the early part of October. It amounts to a quick look at the stores and at the brood nest. Since the fall flow is essentially non-existent around my apiaries, this inspection indicates whether the colony has enough honey and pollen to make it through the winter, or if feeding will be needed. I make a note of any shortage. The brood nest should be compact, densely filled with brood and snugly surrounded by stores. In the spring, similarly loaded frames would indicate honeybound conditions and congestion of the brood chambers, which could lead to swarming. But this is different. Autumn is upon us and the colonies are winding down. The open-to-sealed brood ratio should be low, indicating that the queens are slowing down. This brood will become the first of the winter bees. It would be a mistake to stimulate brood rearing at this time of year. This is because we do not want the winter bees to get exhausted too early in their lives by untimely brood rearing duties. So, unlike a few weeks ago, providing space for egg laying and feeding with light syrup at this point in the fall are two actions that are to be avoided. Not to be missed, as always when reaching brood, is to verify that the colony is healthy. As this manipulation is being performed, we can remove frames that have become unnecessary to the colony and in particular the frames that hold aging or undesirable comb.

Colonies that are found to be unfit and unlikely to make it through the winter can be combined, as long as they are healthy. I like to pair them into two-queen colonies, a method that I started experimenting with several years ago, and that has brought remarkable results.

The hives that are light on stores but otherwise in good condition will receive some feeding a week or two later. This is occasionally necessary with the late spring or summer nucs that were unable to build up satisfactorily because of the summer dearth. These will be over wintered in very compact quarters.

The entrances of most colonies are further reduced at this time, because of the increased risk of robbing and pressure from yellow jackets. Mouse guards, if not already in place, are also added.

Feeding, when necessary, should be done with heavy sugar syrup (2:1). It is best to do this in the evenings, and in the second half of the month, as this helps shrink the brood nests, thus sparing the queens and the young winter bees from untimely tasks. The syrup is then provided at the rate of one quart per day. At this rate, it seldom takes more than four or five days to build up the stores of the colonies that need it most.

The second inspection is done late in the month or in some cases even during the first days of November. This is the very last chance of the season to make corrections. Most often, this amounts to removing frames that are unused by the bees.

In regard to the configuration of the hives, I like to keep my colonies rather narrow and relatively tall, with the reduced number of frames surrounded by follower boards. Along with these simple pieces of equipment, hive top feeders and ventilated lids create very favorable conditions in the hives during the winter, by helping eliminate excess moisture.

The frames that are to be culled can still be placed in a solar wax melter and the wax rendered on nice sunny days.

This month:

- Harvest the last of surplus honey, if there is any.
- Give wet frames and cappings to the bees (do not delay this or it may take a long time for the bees to clean them up).
- Verify that the bees have organized their brood chambers and that the stores are packed around and above the brood. Ensure that there is some comb with empty cells, but also with pollen centered above the brood nests, between frames of honey.
- Feed hives, as necessary.
- Reduce hive volume to match colony strength and needs.
- Maintain adequate and safe ventilation through the hives.
- Remove old and misshapen frames from hives.
- Combine hives that are too weak or that have undesirable or failing queens.
- Beware of the last yellow jackets of the season and of any instance of robbing. If necessary, reduce entrances of small colonies and of those under attack.
- Install mouse guards.

<u>At home:</u>

- Extract, bottle, and enjoy harvested honey.
- Render capping wax. This wax may be saved for future in-hive use.
- Routinely clean and scorch tools and equipment.
- Cull old and misshapen combs.
- Safely store unused equipment.

Serge Labesque © 2010

Beekeeping Classes at Santa Rosa J.C. by Serge Labesque

<u>#9046 Intermediate Beekeeping for fall, Winter & Early Spring</u>
2 Wednesdays 10/13 & 10/20
6:30pm-9pm
Bech 1999
Contact:
Community Education
Santa Rosa Junior College
1501 Mendocino Avenue
Santa Rosa, CA 95401
(707) 527-4372 (office)

Tom Fujiyoshi

Our resident expert on the Warre Hive Tom Fujiyoshi died in September. We were fortunate to have him bring the one he so beautifully handcrafted before he installed his bees in it. His wife Marilyn, our plant lady, told me that he liked to see the various kinds of hives and duplicate the ones he liked.

Our condolences go to Marilyn and the Fujiyoshi family.

Reminder to those who want to purchase ad space that the business card size ad is $5, the 1/4 ad is $10, and the 1/2 page ad is $20. Classified ads are free to members.

The three association extractors are housed at Ken Schlosser's home, (707) 829-5360 cell481-2880; Janet Leisen’s home 707- 528-2085 and Ettamarie Peterson’s home 707-765-4582. The rent is $5 a day but free the first day.

Member Ad Space

home in early May) I dust with powdered sugar and feed sugar water when I feel it is needed.
No deposit required, $150, please RSVP by emailing ApriLLance@aol.com or call 707-431-1569 & leave message. Thank You! April Lance

What's In Bloom

Sunflowers, squash, pennyroyal (in the mint family & makes the honey taste like mint if the bees get enough of it), Japanese knotweed (an invasive weed), asters, Michaelmas daisies (a tall aster), coyote brush and borage if it has water.

October Recipes

Honey Poached Pears

From Parade, Nov.22, 2009
½ orange
½ lemon
2 C. water
½ C. honey
¼ C. sugar
1 star anise
3-inch cinnamon stick
4 ripe, firm pears, with stems

Peel strips of orange and lemon zest (avoid the pith) and toss into a 2 ½-3-quart saucepan. Stir in juice from the fruit along with other ingredients, except pears. Boil for 5 minutes.
Peel the pears and arrange in the pan so that they are covered with as much syrup as possible. Partially cover the pan, lower heat, and gently poach the pears, turning occasionally, for 30 to 40 minutes or until tender. Remove from heat, lay a circle of wax paper over the pears, and cool. Serve at room temperature

Mead Making Recipe

Sent to us by Robert Groves from England. He is one of our yahoo list members.

For your interest - in the August-September 2010 edition of Winemaker Vol 13 No 4. On Page 80 is an article by Don Dixon, Master Meadmaker, from Flinton, Pennsylvania. He was the Grand Champion of the 2010 WineMaker International Amateur Wine Competition which he did with a mead. Interesting story which might be useful for the Extractor. His prize winning Orange Mead recipe as follows :-- U.S. quantities.

3 lb. (1.4 kg) of honey
7 Pints (3.3 Ltr) of water
9 large oranges with zest.
3 tsp. acid blend
1/4 tsp tannin
3/4 tsp energizer
1 campden tablet
3 packages of dry Champagne yeast.

I assume this is for a gallon although seems to me to be rather generous and may well make gallon and a half. Bob.
(Go to the Beverage People for ingredients and more directions. –Editor)

Tip for making tomato sauce from your own tomatoes

If you have excess tomatoes and are using them to make a sauce, add a little honey while they are cooking to cut the acid down.

Honey Oat Applesauce Bread

From Sacramento Beekeepers Association Newsletter
If you like to bake gifts for friends and neighbors, this is a nice substitute for fruitcake.

1 C. applesauce ½ C. honey
1 tsp. salt 2 eggs
1 tsp. cinnamon ½ tsp. nutmeg
1 ½ C. sifted flour 1 tsp. baking powder
1/3 C. vegetable oil 1 tsp. baking soda
1 C. seedless raisins (or SunMaid Fruitbits)
1 ½ C. rolled oats ½ C coarsely chopped walnuts

Preheat oven to 350°F. Beat together the eggs and honey until smooth; add applesauce. In separate bowl sift together the flour, baking powder, soda, salt and spices. Blend into the egg mixture. Stir in the oil, oats, raisins and nuts until all blended. Spoon batter into 1 greased 5 X 9" loaf pan or 4 mini-loaf pans. Bake at 350° for 1 hour (or about 20 minutes if mini-loaves).

Trivia

Michael Fisher shared this gem on our Yahoo list about wax making after reading it on the Warré List
Posted by: "David Heaf" david@dheaf.plus.com davidheaf
"The initially cylindrical, tube like cells take on their typical hexagonal form only when the bees raise the temperature of the wax to between 37

and 40°C . Cell construction sites viewed under a thermocamera glow from the activity of worker bees that heat the wax to the point where the thin wax walls slowly start to flow. Due to the inner mechanical tensions of the walls, the result-as one can observe also when two soap bubbles come in contact-is that the shared wall becomes perfectly straight. In this way, the sidewalls between the tightly packed wax cylinders are also stretched out in a straight line, gain a completely smooth surface, and a thickness of 0.07 mm, and form an angle relative to one another of exactly 120°." (Tautz, J. (2008) Buzz about bees. Springer. p. 173)
David Heaf North-West Wales, UK
http://warre.biobees.com/index.html
David Heaf's beekeeping pages:
http://www.bee-friendly.co.uk

USDA CONSERVATION PROGRAMS BEING UPDATED TO HELP HONEY BEES

An immediate threat to the agricultural industry is that the migratory commercial beekeepers who provide the vast majority of pollination services are struggling to stay in business. Their major problem is lack of available bee forage during the "off season." This means that specialty crop producers and their rural communities are at risk, as well as the healthiest and most nutritious portion of the human diet, including many fruits, vegetables and nuts. For the past two years, Partners for Sustainable Pollination has been submitting comments for rulemaking open comment periods to regulatory agencies such as the U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) and Farm Services Administration (FSA) to strengthen grower incentive programs which can help growers provide nutritious forage for honey bees and all pollinators.

USDA is taking positive steps to implement the 2008 Farm Bill conservation provisions for managed (honey bees) and native pollinators. Recent actions by USDA contain a number of bee-beneficial actions, including a commitment to work with the beekeeping industry and include a number of incentives to reward growers for establishing honey bee forage and other pollinator habitat.

In responding to recommendations from the beekeeping industry, the NRCS has worked closely with Dr. Marla Spivak, a leading honey bee researcher based at the University of Minnesota, and Kathy Kellison, executive director of the California-based advocacy group, Partners for Sustainable Pollination (PFSP) to develop the new honey bee liaison position, CRP technical requirements and other pollinator-beneficial steps,

At this point, beekeepers can help further by alerting growers to the bee-beneficial provisions in the CSP, CRP and other conservation programs and encouraging them to take advantage of the information and incentives to plant bee forage—and make beekeepers welcome on their land.

Chance to See Vanishing of the Bees

By Randy Sue Collins
Sonoma County Beekeepers' Association presents a FREE screening of the Vanishing of the Bees movie at the Seed Bank - 199 Petaluma Blvd., Petaluma
Thursday, October 28th - 7pm -9pm
Movie synopsis:
Honeybees have been mysteriously disappearing across the planet, literally vanishing from their hives.
Known as Colony Collapse Disorder, this phenomenon has brought beekeepers to crisis in an industry responsible for producing apples, broccoli, watermelon, onions, cherries and a hundred other fruits and vegetables. Commercial honeybee operations pollinate crops that make up one out of every three bites of food on our tables.
Vanishing of the Bees follows commercial beekeepers David Hackenberg and Dave Mendes as they strive to keep their bees healthy and fulfill pollination contracts across the U.S. The film explores the struggles they face as the two friends plead their case on Capital Hill and travel across the Pacific Ocean in the quest to protect their honeybees.
Filming across the US, in Europe, Australia and Asia, this documentary examines the alarming disappearance of honeybees and the greater meaning it holds about the relationship between mankind and mother earth. As scientists puzzle over the cause, organic beekeepers indicate alternative reasons for this tragic loss. Conflicting options abound and after years of research, a definitive answer has not been found to this harrowing mystery.

Gadget Night

Gadget Night is a fun night. Over the years we have been introduced to many different gadgets. Some of these are made by our members and some are found to be useful for beekeepers although they were not made originally for us. It is amazing what a little "thinking outside the box" will do. Bring something to share on Monday, October 11.

SCBA Executive Board 2010

Pres. Emery Dann 707-527-9711
president@sonomabees.org
Past Pres Michael Johnson. 707-789-0900
pastpresident@sonomabees.org
1st Vice Pres. – Randy Sue Collins
707/833-5232 vicepresident@sonomabees.org
2nd Vice President –Sierra Castillo
707/217-1722 vp2@sonomabees.org
Secretary –Darlene Taylor
secretary@sonomabees.org 707-823-3753
Treasurer Thea Vierling
treasurer@sonomabees.org 707-833-2492
Librarian –ShariLyn Bunce
librarian@sonomabees.org 707-707-538-7190
Reps. at Large Hector Alvarez 707- 579-9416
Serge Labesque nonprofit@sonomabees.org
707-996-3149
Historian –Jackie Whitford 707 836-7278
bloomfieldbeeshoney@gmail.com
Editor Ettamarie Peterson –
editor@sonomabees.org 765-4582
Swarm Chairperson- Sean Straw
swarms@sonomabees.org
Extractor Techs- Call Ettamarie 765-4582 or
Ken Schlosser 707-829-5360 or cell 481-2880
or Janet Leisen 707- 528-2085

Regular monthly meetings of the Sonoma County Beekeepers' Association are held on the second Monday of each month, at 7 pm. The meetings cover a wide range of topics of interest to beekeepers. Everyone wanting to learn about honeybees is cordially invited to attend. You do not need to be a member nor a beekeeper to attend these meetings. Please contact the treasurer to pay dues.

The Monthly Extractor
Sonoma County Beekeepers' Assoc.
P.O. Box 98
Santa Rosa, CA 95402-0098
POST MASTER: RETURN SERVICE REQUESTED

Table of Contents

Oct. 11th- Gadget Night-Bring your favorite beekeeping gadget!
4-H Foundation Center in Rohnert Park

Harvest Fair-October 1,2, &3-

Showing of film Vanishing of the Bees-Oct. 28th 7p.m. at the Seed Bank-199 Petaluma Bvld. Petaluma