

THE MARIN BEEK NEWS

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May 2011

What You Missed

Our last meeting featured a talk by Maryann Frazier, Senior Extension Associate at Penn State University. She is an expert on pesticide use and honey bee health. Her focus at Penn State has been to work on an IPM approach to control honey bee diseases and mites. The title of her talk was "Synergistic & Sub Lethal Pesticide Doses and Honeybees"

Studies in North America show that pollinators are in decline (including bats, butterflies, beetles, bees, etc.). European studies in Britain and the Netherlands have show declines in both pollinators and insect pollinated plants. This research can be viewed at www.sciencemags.org.

Maryann has been working with Pesticide Investigating Group. She is also working with the CCD working team headed by Dennis Van Engelthorpe.

She believes that CCD is related to pesticide use and this has been a growing issue – particularly in commercial setting. There are many complex problems related to showing the relationship. One problem is that pesticide testing has not included bee testing for crops that are not necessarily pollinated by bees. Example: corn is not a bee pollinated crop, so pesticide testing for products to be used on corn has not included bee

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What's the Buzz

Our next meeting will be on Thursday, May 5, 2011 at the American Legion Log Cabin, 20 Veterans Place, San Anselmo, CA, starting at 7:30pm.

Special Guest Speaker



Our guest speaker will be Randy Oliver, scientist/migratory beekeeper. Randy researches worldwide scientific literature and beekeeping practices, applying his knowledge to practical beekeeping. Randy will speak on strategies for management of colonies for the small scale beekeeper.

Upcoming Meetings:

June 2nd, Jeremy Rose, author of Beekeeping in Coastal California. He is co-founder of the California Bee Company, which promotes the health and well-being of honey bees by using natural management methods, and breeding queens with mite-resistant behaviors. He will have his book available to buy at the meeting

June 30th to July 4th, The Marin County Fair. See inside for information about fair entries and sign up staff the bee exhibit.

testing. However, bees readily visit and collect pollen from corn.

Her team has been testing bees, wax, pollen, and honey. Tests screen for 170 different chemicals. In '07 – '09, more than 1000 samples were tested. These samples were from CCD study, apple orchard study, migratory study and beekeeper submitted samples. Honey bee products are an excellent indicator of environmental pesticides.

Findings:

- Up to 39 different pesticides were found in the samples with an average of 6+ different pesticides per sample.
- Only 7% of over 1100 samples, including controls, showed no signs of pesticides.
- 129 (of 170) different pesticides and metabolites were found.
- 51 of these are systemic or partially systemic pesticides.

Synopsis of selected pesticides found in wax, pollen & bees:

- Imidacloprid was found infrequently, but when found was in highly toxic levels.
- Fluvalinate & Coumaphos, both beekeeper applied miticides, were found frequently and in high levels.
- Chlorpyrifos & Chlorothalonil, fungicides used in crop production, were frequently found, and though in non toxic levels (based on LD50), still highly present and concerning.

The USDA added honey as a commodity to the PDP (Pesticide Database Program). In 2007 – 2008, 744 honey samples were analyzed. The processing of honey may mitigate residues found in raw honey. The analysis revealed that the number of pesticides in honey was low compared with wax, however the top pesticides found were beekeeper applied miticides: Coumaphos, Fluvalinate, and the breakdown of Amitraz.

Why less in the honey than wax samples? Many pesticides are easily dissolvable in fats (e.g. wax), but not in liquids (e.g. honey). For more info, go to USDA Pesticide Database Program:

<http://www.ams.usda.gov/AMSV1.0/ams.fetchTemplateData.do?template=TemplateC&navID=PesticideDataProgram&rightNav1=PesticideDataProgram&topNav=&leftNav=ScienceandLaboratories&page=PesticideDataProgram&resultType>

Key concerns about pesticide exposure include:

- Exposure (kinds, amounts, combinations)
- Systemic pesticides
- Fungicides
- Adjuvants/synergists
- Metabolites
- Labeling / lack of adequate warnings (particularly for untrained homeowners)

Herbicide concerns with respect to pollinators:

- Reduce forage
- Reduce nesting habitat

Insecticide concerns with respect to pollinators:

- Lethal/toxic
 - Depending on class/mode of action
 - Toxic effect (multiple pesticides)
- Sublethal doses
 - Behavioral effects
 - Learning & retention
 - Foraging behavior
 - Physiological effects
 - Immune system function
 - Longevity
 - Larval development
 - Adult behavior & physiology

Possibilities of interactions with pesticides include:

- Similar (additive)
- Independent
- Synergistic
- Antagonistic

Recommendations:

- Monitor and control varroa using “soft” chemicals
- Reduce pathogen and pesticide build up by regularly culling old comb, recycling comb and/or irradiation of old comb (especially important for dead out colonies)
- Based on wide spread resistance and these findings, fluvalinate is NOT recommended. Use of off-label products should NOT be considered.
- In communities with growers, maintain contact with them to minimize pesticide exposure to colonies.
- Monitor and control Nosema disease

For more information: Center for Pollinator Research, ento.pdu.edu/pollinators

Fair News

The 2011 Marin County Fair is fast approaching. This is a fun annual July 4th event in which we can all participate on two levels.

First -- staffing the bee booth inside the exhibit hall during the Fair. This is our club's opportunity to do outreach and get the word out about our little "trusts" and hopefully dispel some misinformation. We get to talk about bees, show off the observation hive, 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 receives a donation from the Fair for our participation.

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. Check out the website, <http://www.marinfair.org>, for entertainment (all included with entry), special events and attractions, especially the fireworks display each night at 9:30 p.m.

The sign-up schedule will be circulated during the next two meetings. Please sign up and join in the fun!

Second -- 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. 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.

The important dates are:

May 11

Entry form deadline for exhibits. Fair participants from last year you should have received an entry package. If not, or if you are entering for the first time, there will be entry forms and category descriptions for the Honey Department at the next meeting. It is also available on the Fair website, <http://www.marinfair.org>, under Competitive Exhibits. Please don't be shy; enter as many categories as you wish even if you are not yet sure that you will have an entry prepared.

June 10 & 11

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

Friday, June 11: 3:00 to 7:00 p.m.

Saturday, June 12: 10:00 a.m. to 5:00 p.m.

We can accept late entries even if you hadn't submitted a form, but please make every effort to send in your forms by May 13.

June 12

Judging - judge to be announced

June 30th to July 4th

MARIN COUNTY FAIR!

Other Items of Interest

2011 Marin Bee Census Survey

Help us track the local bee population by participating in our third annual Bee Census Survey. The survey allows us to track colony success/failure rates, as well as the bee keeping practices which produced those results.

In 2010, 87 local beekeepers participated in the survey. Our goal is to have 100 beekeepers participate in the 2011 survey and we are 40% of the way there. Please take 10 minutes to contribute the statistics of your colony losses and survival from April 1, 2010 - March 31, 2011:

<http://www.surveymonkey.com/s/MCR996W>

Survey will close on May 12.

Upcoming Workshop:

Gardening for Native Bees, taught by Marissa Ponder, Research Assistant, UC Berkeley

Saturday, June 4th, 11am – 2pm (best time of day for bee viewing)

Location: Central San Rafael Cost = \$25

Limit 15 people

Learn about the often overlooked stars of a healthy garden – the local pollinators. There are over 1600 types of bees in California. In this hands on workshop, Marissa will help identify native bees in the garden as well as the plants and gardening practices which help encourage them to take up residence in your yard.

Space is still available!

To sign up, send an email to Bonnie Bollengier: bonbollengier@yahoo.com