



Sept/Oct 2010

ListProc Newsletter
Yellowjacket Bait
Aussie Bees
Apitherapy

2009 Honey Crop
CSBA Convention
Cell Size / Varroa
Nematodes for SHB

Prices: Queens and Almonds
Bee World Revived
Seedless Citrus

Newsletter E-mailed to You

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Yellowjacket Bait Again Available

It was around a decade ago that we lost the use of flowable microencapsulated

diazinon (Knox Out 2FM[®]) as a yellow-jacket bait poison. As long as the wasps did not taste the insecticide, they would take the contaminated bait back to the nest and share it with their brood and other adults. It was amazing! Often in 48 hours the colonies were out of business and the area was clear of yellowjackets.

Fairly recently, a new microencapsulated product, Onslaught[®], containing esfenvalerate, has become available to be incorporated into yellowjacket baits. Formulating the bait is about the same as it was for diazinon – about ¼ teaspoonful of the insecticide in about 12 ounces of the bait. Be sure to follow the label (or labeling) that comes with the insecticide and bait stations.

Yellowjackets are attracted to many odorous potential foods when their seasonal prey runs out and they shift to scavenging. A website states that raw chicken and fresh tuna are good bait substances, but it is difficult to mix the chemical evenly into those. Canned, fish-based cat food works

quite well. Try a couple different potential flavors without insecticide to see which product is most attractive to your local population. Then put about three ounces in each bait station and things should get better quickly.

You can find this product on the web (www.domyownpestcontrol.com) sold as the Alpine Yellowjacket Bait Station Kit. A multi-year supply (one pint) of microencapsulated esfenvalerate and four bait stations – that look like over-sized, plastic prescription bottles with a hole in the side and a string for hanging – costs about \$85 before tax and shipping. Sounds like a lot of money for a small amount of product, but if you need to clear out yellowjackets in a hurry (wedding reception, fair, outdoor BBQ, your own peace of mind), this is a good investment. If Onslaught stores as well as Knox Out did, it will keep up to a decade. If you want more empty Alpine bait stations, they start at about \$13 each before tax and shipping and are reduced to about \$34 for four.

CAUTION – It is against the law to put pesticides, including insecticidal wasp baits, into used food and drink containers. The last thing you would want is for someone to accidentally eat or drink your poisoned bait.

Aussie Bees Prohibited?

The Almond Board of California announced to its growers that there is likely to be an announcement in the Federal Register that USDA APHIS will suspend importation of honey bees from Australia, very soon.

Catch the Buzz, the “ezezine” from Bee Culture (to which you should subscribe), contained that message and some reflections on the closure from Kim Flottum.

Kim wonders where the 30,000 to 100,000 colonies of honey bees, being used for almond pollination, will come from if they are not imported from Australia. He mentions Mexico and Canada.

If hived colonies of honey bees from Mexico came into California, would the introduction of substantially more Africanized honey bees (AHBs) be a problem? he asks. It is unlikely that they would be much more problematic than many similar colonies that currently originate in Arizona. If they came in as AHB packages, then there would have to be a great deal of requeening or AHBs would become much more abundant.

As for Canada, right now the U.S. allows only the importation of queens and bulk bees, but not bees on combs. It is unlikely, but perhaps possible, that Canadian beekeepers would consider hauling their wintering colonies down to California for almond pollination. If that were the case, in the future could U.S. colonies on combs be allowed to enter Canada, reciprocally?

Kim also wonders how many beekeepers would be willing to intermix their colonies with those that might be carrying colony collapse disorder (CCD), whatever that is.

All this leads to the question: “Where will the bees come from for next season’s almond pollination?”

Bearing almond acreage continues to increase. It is well over 700,000 acres. At two colonies per acre, that pushes the demand to over a million colonies of honey bees, or nearly half the colonies reported annually to the USDA in the U.S. With luck, California beekeepers can provide around 500,000. The rest have to come from out of state.

It is obvious that the carrot that attracts beekeepers to truck their colonies to California is the rental fee. The beekeepers have to believe that all the preparatory work and effort, the shipping expenses, and the minimal exposure to lethal conditions will be financially rewarding.

Keeping a colony of honey bees at or above eight frames of bees in February can be a difficult task if the colonies go into fall in areas where late summer and fall pollen supplies are scarce. Then, the beekeepers have to feed surprising amounts of pollen substitutes to keep brood rearing going. To get an idea of what that process looks like, simply enter Nutra-Bee in your browser and watch the video with the title: “feeding bees Nutra-Bee pollen substitute in California.” Keith’s bees get two, five-pound feedings each winter.

Just as in past years, I suggest that growers and providers of pollinators find each other soon and remain in contact until the bees are moved out of the orchards in March. The best surprise is no surprises at all. Things happen, and each side should know about them.

A good pollination contract goes a long way toward presenting the expectations on both sides of the contract. You can see an example contract on the PAm (Project *Apis m*) website.

Apitherapy Course

Coming real soon in Universal City, Calif, is the Charles Mraz Apitherapy Course and International Conference (CMACC). Scheduled for Thursday, Nov 11, through Sunday, Nov 14, the conference will include such topics as: the ancient art and science of apitherapy, the medicinal use

of products from the beehive: honey, pollen, propolis, royal jelly, bee venom and beeswax.

Held in conjunction with the International Conference on Biotherapy, the event is designed to provide information to physicians, naturopaths, acupuncturists, massage therapists, alternative medicine practitioners, researchers, beekeepers and everyone interested in apitherapy. The course includes hands-on-workshops on bee venom therapy and a trade exhibit featuring apitherapy books, products, and resources.

We have missed the earliest preregistration deadline, with two more looming. The Thursday evening reception now will cost \$35 and after October 22 will be \$45. The current course fee of \$275 will rise to \$325 on Oct 23. The conference fee also is \$275 now and \$325 later. Combined fees for both major sections, are \$425 (a \$125 savings) now, and \$475 (a \$175 savings) later. Students with valid IDs can register for both sections for \$250 now or \$275 later.

To obtain a copy of the preregistration form to complete and submit by mail, or to register on-line, please go to: www.apitherapy.org.

2009 Honey Crop

The U.S. honey crop for 2009 appeared to be a mixed blessing. For those who produced a good crop, the reward was the highest average annual bulk honey price ever recorded. The average price was \$1.44 a pound, up from \$1.42 last year.

However, the crop was the lowest ever recorded for the country. The total production was 144 million pounds, (cont. page 6)

**California State Beekeepers' Association
121st Annual Convention
2010 Tentative Convention Program
Embassy Suites Hotel, San Luis Obispo
November 16-18, 2010**

Monday, November 15

3:00 pm CSBA Board of Directors' Meeting

Tuesday, November 16

8:00 am Registration & exhibits open

8:30-10:00 Opening Ceremonies & Reports of Standing Committees
National Anthem & Flag Salute Gene & Christine Brandi
Welcome & Call to Order Roger Everett, President CSBA
Invocation Richard Ashurst
President's Message Roger Everett
Memorial Service Gene Brandi
Reading of Rules Dr. Eric Mussen
Reports of Standing Committees

10:00-10:30 Exhibitors' Break

10:30 "Coconut Oil – *Varroa* Treatment or Food Ingredient?" – Dr. Eric Mussen, UC-Davis

11:00 "Honey and Health" – Dr. Ron Fessenden

11:30 "Protecting Your Business" – Karla Dare

12:00 p.m. Lunch

2:00 "College Beekeeping" – Scott Jeffrey

2:30 "TBA" –

3:10-3:30 Exhibitors' Break

3:30 Almond Industry Update

4:00 Almond Pollination Panel

6:30-8:00 Welcome to San Diego & New Member Reception

Wednesday, November 18

7:00 a.m. American Sioux Honey Assoc. Member Breakfast Meeting

8:00 Registration & Exhibits open

8:30 "Pesticide Continuing Education" – Larry Lima

9:00 a.m. "Department of Pesticide Regulation's Efforts in Bee Protection" – Rich Bireley, CA DPR

- 9:30 “American Beekeeping Federation Update” – Jerry Brown
 “American Honey Producers’ Association Update” – TBA
 “Honey Importer/Packer Board Update” – TBA
- 10:00-10:30 Exhibitors’ Break
- 10:30 “Project *Apis m* (PAm) Update” – Christi Heintz
- 11:00 “Heat Stress: What You Need to Know” – Representative of State Compensation Insurance Fund
- 11:30 “TBA” –
- 12:00 Noon Research Luncheon – “**Varroa Control: Developing New Products**” – Dr. Frank Eischen, USDA Honey Bee Lab, Weslaco, TX
- 2:00 pm Research Auction
- 7:00 Resolution Committee Meeting
- 7:30 Research Committee Meeting

Thursday, November 19

- 8:00 am Exhibits open
- 8:30 **CSBA ANNUAL BUSINESS MEETING**
- 10:00 Exhibitors’ Break
- 10:30 “Almond Pollinator Studies” – Dr. Gordon Wardell, Paramount Farming Co.
- 11:00 “Beekeeping from a Slightly Different View” – John Miller, Newcastle, Calif
- 11:30 “Pesticide Residues and Honey Bee Health” – Judy Wu, WSU & UMN
- 12:00 p.m. Lunch
- 12:00-2:00 **CSBA Ladies Auxiliary Business Meeting & Luncheon – Madonna Inn**
- 1:00 Exhibits Close
- 2:00 “Essential Oils and Honey Bee Viruses” – Dave Wick, BVS, Inc., Missoula, Mont
- 2:30 “Apiary Research Commission Update” – TBA
- 3:00 “Interaction of *Varroa*, *Nosema*, and Nutritional Stress on Honey Bee Colonies” – Dr. Frank Eischen
- 4:00 “Panel on Honey Bee Nutrition”
- 6:30 Social Hour – No Host Bar & Silent Auction
- 7:30 p.m. Annual Banquet, Awards & Auction

Friday, November 19

- 8:00 am CSBA Board of Directors’ Meeting

down 12 percent from the 2009 total (163.8 million) and way off the not-too-long-ago average of 200 million pounds or better.

As usual, the top four honey-producing states included: North Dakota – 34.6 million pounds; South Dakota – 17.8 million; California – 11.7 million; and Florida – 10.2 million. Actually, Florida production was matched by Montana production, so perhaps the big four are in for a readjustment.

The number of honey producing colonies in California for 2009 is listed as 355,000. A year ago that number was 360,000. Average colony production in 2009 was 33 pounds a colony, which is very similar to the drought years of the late 1970s. In 2009 California's average production was 51 pounds, closer to the "normal" of 60 pounds.

For the first time in a long time, it is possible that this year beekeepers in California are going to report a substantially better honey crop. Not all places produced good crops, but some beekeepers took their colonies to the right places and were pleasantly rewarded.

Comb Cell Size and *Varroa*

There still is plenty of interest in the idea that placing European honey bees on combs with smaller cell sizes reduces the reproductive abilities of varroa mites.

Authors M. Coffey, J. Breen, M. Brown and J. McMullan from Ireland and England conducted an experiment designed to determine if smaller cell size benefitted *Apis mellifera mellifera* (the German black bee). In this case, combs of standard-sized cells (5.4 mm) and reduced-sized cells (4.9 mm) were intermixed in the same brood chambers of four experimental colonies.

At periodic intervals, sticky boards were used to determine natural mite fall and sections of combs were removed and frozen. Then each cell was opened and examined for mites.

The smaller-sized cells actually attracted more female mites. Numbers of mites per cell size were pretty similar, as were number of offspring per cell. The mite populations increased at practically the same rate in both cell sizes. So, this study mimics the results obtained by Berry, Owens and Delaplane on honey bees in Georgia.

The Coffey, *et al.* paper, Brood-cell size has no influence on the population dynamics of *Varroa destructor* mites in the native western honey bee, *Apis mellifera mellifera*, can be reviewed in *Apidologie* 41(5): 522-530 (2010).

Nematodes for Small Hive Beetle Control?

Researchers are always on the lookout for biological control agents to solve pest problems. Following significant research into the safety of these agents (we don't want them to eat up the good guys), they are tested to determine if they can reduce or eliminate populations of the pest.

In this case, Jamie Ellis and a whole host of cooperators from around the world, tested 10 strains of seven species of nematodes to see if they would attack small hive beetle larvae and pupae and if they would persist in the soil.

Studies began in the lab and then progressed to the field. The researchers identified two species of nematodes that appear to show promise in reducing levels of small hive beetles. They are *Steinernema riobrave* Cabanillas, Poinor & Raulston 7-12

strain and *Heterorhabditis indica* Poinor, Karunaka & David. I believe that both of those nematodes are on the commercial market in the U.S. and producers can be found using a web browser.

If you wish to see the details of the article, Susceptibility of *Aethina tumida* (Coleoptera: Nitidulidae) Larvae and Pupae to Entomopathogenic Nematodes, find this issue of the Journal of Economic Entomology 103(1): 1-9 (2010).

Queen and Almond Prices

In earlier times, some California beekeepers used to say that prices of package bees were related to the price of honey by some sort of formula. Now they can't remember saying that.

However, northern California bee breeder Frank Pendell decided to see if any sort of relationship exists between the prices of honey bee queens and the price to rent a colony of honey bees for almond pollination.

Surprisingly, there is a quite tight relationship between the two. In 1993 the price of a queen was \$5.75 and the pollination price was \$30. That made the queen price 19 percent of the pollination price. Obviously, queen prices have gone up quite a bit, but so have pollination rental prices. Frank's data revealed that in 2006 a queen cost \$22.50 and almond pollination cost about \$125.00. That still is 18 percent. In fact, the percentage of almond pollination per queen varied as follows from 1993 to 2006: 19, 17, 17.8, 18.1, 19.4, 19.4, 19, 18.75, 20, 18.8, 19, 15.6, and 18. For something that isn't calculated and applied to prices, that is an amazingly good fit.

Bee World Revived

After a five-year integration with the Journal of Apicultural Research, the International Bee Research Association (IBRA) publication, Bee World, has come back to the market as a stand alone publication.

Each edition contains very interesting apicultural articles that are a bit less formal than refereed journal articles. However, some of the past review articles have become world standards. Regular features include: The Appliance of Science by Norman Carreck, A View from Across the Pond by Keith Delaplane, Museum Musings, Plants for Bees, Book Reviews, News, and much more.

Articles in the June issue demonstrate the varied content one might expect to find: A Canadian Approach to Sustainable Pollination, Bearding Phenomenon, Discrimination of Western Honey Bee Populations in Turkey, Beekeeping in Russia Today, What Happened to the Boy Scouts' Beekeeping Merit Badge?, An Apiary of the 10th Century, and Bee Bole Architecture.

Bee World is sent to individuals who become IBRA members. The cost is the current equivalent of 30 British pounds. In addition to the periodic journal, members receive access to back issues of Bee World, Buzz Extra, and issues of the Journal of Apicultural Research that are two years old or older.

If this seems interesting to you, you may contact IBRA at its website: www.ibra.org.uk.

Good, Seedless Citrus Coming?

Citrus researchers at UC Riverside have spent substantial portions of their careers trying to develop seedless citrus that have highly desirable public acceptance. It seems as if that work paid off in a new variety called 'DaisySL.' The scientists took buds from the seedy diploid mandarin (tangerine) cross of Fortune and Fremont, named Daisy, and irradiated them. The resulting new variety has very few seeds, is moderately easy to peel, has finely textured fruit, and is juicy, with a rich, sweet, distinctive flavor when mature.

On experimental trees, DaisySL matures in mid-December and holds its quality into February, making it an excellent holiday fruit. Professor Mikeal Roose and staff scientist Timothy Williams, Department of Botany and Plant Sciences, feel that they finally found a variety that will make big strides into the world of desirable fruit. They

waited eight years to be certain that things were as good as they seemed. It took another three years for breeders to determine under which conditions the trees do well. Now, it will be about 2015 before we begin to see the fruit in our markets. That is due to a couple years for the nurseries to produce the budwood, another year to grow a tree, then about three more years before the trees are truly in production.

Sincerely,

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