

September/October 1999

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### Operating in the Red

As with any other business, you cannot operate a publishing venture at a loss very long before it attracts attention. My "From the UC Apiaries" newsletter has attracted such attention. Over the years, I have been a bit too lenient with many of my subscribers and they are a year or two behind in their renewals. Thus, I will run this article in this and the next newsletter.

Anyone, who fails to pay for a year 2000 subscription before February 2000, will no longer receive a "hard copy" of the newsletter. A subscription renewal form is located on page 7, positioned so that when you cut it off and return it, your name and address are already there. Be sure to check for address corrections.

However, anyone with access to the internet can read the newsletter articles free by going to my "url" and selecting what you wish to read. The site needs some

renovation and we have to get our departmental web master situation straightened out. With time the site should work well.

### Varroa and Apimondia

Although I attended sessions every day they were available at Apimondia, I couldn't get to all the concurrent sessions. I tried to attend the sessions on honey bee mites and diseases, since they are critical to beekeeping success.

Perhaps the most interesting report was given by Denis Anderson from Australia. He analyzed samples of Varroa mites collected from many places in Asia and from 32 countries around the world where they are problematic.

There already were reports that some Varroa couldn't reproduce on Apis mellifera. After his study of mitochondrial DNA, Anderson says that is because there are at least 5 species of Varroa that we now

have lumped under the name Varroa jacobsoni.

It appears that two "haplotypes," Korean and Japan/Thailand are the mites causing damage in the Americas, with the Korean type most common. Anderson's studies suggest that these mites are not the same as V. jacobsoni and they need new species names. However, that will depend upon how convinced the taxonomy referees are with his explanation.

Another study, by Dr. Brenda Ball, in England, showed that acute bee paralysis virus (ABPV), slow paralysis virus (SPV), deformed wing virus (DWV), and cloudy wing virus (CWV) all were involved in the collapse of different colonies infested with Varroa.

Subsequent antibody studies suggested that the mites were involved in transmitting ABPV, DWV, and SPV. More interesting was the fact that Varroa-infested colonies, that were determined to be free of virus diseases, persisted with high infestation levels. Some of these colonies had over 10,000 mites in them with no apparent problems.

What this means to us as beekeepers is that we can no longer say that colonies must be treated as soon as a mite is noticed. In the mid-1990's, it was a good bet that a colony would collapse if it had a thousand or more mites in it. Studies by Mike Hood and Keith Delaplane have upped that injury threshold to about 6,600 mites in southeastern U.S. Obviously; things are changing for the

better in terms of living with Varroa.

### Coumaphos and California

Since my last newsletter, I have learned that Mann Lake, Ltd. has become a licensed pesticide dealer in California. That company is the sole supplier of CheckMite+® (10% coumaphos) strips. You may want to use those strips this fall or next spring, to eliminate Varroa mite populations that may be developing resistance to fluvalinate (the active ingredient in Apistan® strips).

I also learned something about the "permit" that I stated you must have to use the product. In fact, that "permit" turns out to be a "Private Applicator Certification." Obtaining the certification involves interpreting an insecticide label and calculating the amount of formulation and water to use on a crop to comply with the label. You can take as long as you need to figure out the answer - your answer should match one of the multiple-choice entries on the answer sheet.

Then in addition to "Use Reports," you will be requested to file a "Notice of Intent" to the agricultural commissioner before using the product. As you will see, the intent form was not designed with beehives in mind.

This same Notice of Intent is what is used to get 48 hour warning to beekeepers who request notification of Group I insecticide applications within a

mile of their apiary locations.  
Welcome to the big leagues!

CSBA 1999 Convention

The annual convention of the California State Beekeepers is being held a week earlier than

usual this year. The dates are November 12-14. The meeting place is the Hanalei Hotel in San Diego. If you hurry, you may still be able to get the CSBA special reduced room rate: call (800) 882-0858. The program appears on the following page.

**CALIFORNIA STATE BEEKEEPERS' ASSOCIATION**  
**110th Annual Convention**  
**Hanalei Hotel**

2270 Hotel Circle North, San Diego, CA 92108 [(800) 882-0858]  
**November 9-11, 1999**

Monday, November 8

3:00 pm Board of Directors' Meeting

Tuesday, November 9

8:00 am Registration and Commercial Exhibits Open  
9:00 Opening Ceremonies and Committee Reports  
10:00 Break  
10:15 "Red Imported Fire Ants" - **Mohammed Zubaidy**, CDFA.  
10:45 "Gleanings from Apimondia" - **Glenda Wooten, Frank Pendell, Gene Brandi, and Bob Miller**,  
California Beekeepers.  
11:30 "Beekeeping in South Africa" - **Robin Mountain**.  
12:00 noon **Research Luncheon** - "Overview of Research at Penn State" - **Jennifer Finley**, The  
Pennsylvania State University, University Park, PA.  
2:00 pm "Report on Rob Page's Research" - **Eric Mussen**, UC Davis.  
2:30 "Honey Marketing Panel" - **Ann Beekman, Steve Conlon, Russell Heitkam, and Sheri Pendell**,  
California Beekeepers and Entrepreneurs.  
3:15 Break  
3:30 "Varroa and Its Effects on the Immune System of Queens" - Jennifer Finley, Penn State University.  
4:00 "All Burned Up" - **Leslie Ferguson, Jr.** (Moreno Valley, CA) and **Roger Stark** (Insurance Provider).  
6:30 **Pool Side Buffet, Music and Dancing**

Wednesday, November 10

8:00 am Registration Continues, Exhibits Open  
8:00 "Cranberry Pollination" - **Bob Seifert**, Wheatland, CA.  
8:30 "Update on Small Hive Beetle" - **Patti Elzen**, USDA Honey Bee Lab, Weslaco, TX.  
9:15 "Pollination Contracts" - **Carl Powers and Shannon Wooten** (California Beekeepers), **Joe Traynor**  
(Bakersfield pollination broker).  
10:00 Break  
10:15 "Honey Queen Visit" - **Anna Kettlewell**.  
11:00 "Controlling Varroa with Natural Compounds" - **Patti Elzen**, Weslaco, TX.  
11:30 **Lunch** - With afternoon and evening open

Thursday, November 11

8:00 am Registration Continues, Exhibits Open  
8:00 "Honey and Health Research" - **Marcia Cardetti**, National Honey Board.  
8:30 "Update on Honey Board Changes" - **Steve Conlon**, National Honey Board.  
9:00 "Report on Christine Peng's Research" - **Eric Mussen**, UC Davis.  
9:30 "Outlook on Almond Industry" - **Chris Heintz**, Almond Board of CA, Modesto, CA.  
9:30 - 12:00 **Ladies Auxiliary Brunch**  
10:00 Break  
10:15 "Report from American Honey Producers Association" - **V. P. Lyle Johnston**, Rocky Ford, CO.  
10:45 "Report from American Beekeeping Federation" - **Exec. Dir. Troy Fore**, Jesup, GA.  
11:15 "Redgum Lerp Psyllid and AHB Update" - **David Kellum**, County Entomologist, San Diego, CA.  
12:00 noon **Lunch**  
1:30 pm **CSBA Annual Business Meeting**  
3:30 **Auction**  
6:45 Social Hour  
7:30 **Annual Awards Banquet**

Friday, November 12

8:00 am Board of Directors (Breakfast Meeting)

## New Pollinators Booklet

The American Association of Professional Apiculturists (AAPA) has just published its second in a series of Technical Bulletins (the first was on Varroa). The new 18-page, full color booklet is titled "Bee Pollinators in Your Garden."

Beginning with a brief summary on the value of bees for pollination and an explanation of pollination, the booklet goes on to describe what makes an insect a bee. Bumble bees and honey bees receive a bit more attention than the other bees, but burrowing bees, mining bees, leafcutting and mason bees, digger bees, carpenter and alkali bees are discussed, also.

Suggestions are made for attracting and housing solitary bees on home properties. Warnings are included about exposure of bees to insecticides.

Included next is a substantial list of references on detailed information about solitary bees. The list includes five web site addresses that relate to solitary bees. The booklet finishes up with sources of materials for housing and obtaining honey bees, bumble bees, and many species of solitary pollinators. It would make a perfect gift for any gardeners that you know or a nice introduction to pollinators for anyone.

Copies of the booklet can be ordered from Dr. Marla Spivak, AAPA Sec/Treas., Entomology Dept., 219 Hudson Hall, University of Minnesota, 1980 Fowell Avenue, St. Paul, MN 55108

or (612) 624-4798 or by e-mailing her at spiva001@maroon.tc.umn.edu. Costs of booklets vary with number ordered. The costs are: 1-9 = \$2.50 each plus shipping, 10-99 = \$2.00 each plus shipping or 100-999 = \$1.50 each plus shipping. More than 1000 = \$1.00 each plus shipping.

## Newton Apiaries

It is hard to imagine that I had to go to Apimondia to discover the full line of apiary products sold by Newton Apiaries, not too many miles south of me in Fresno.

I knew that Keith Newton sold a protein supplement for honey bees packaged in a 30-ounce, industrial caulking gun tube. The supplement is advertised to have a shelf life of one year (refrigerated). For easy delivery to the bees, "Just open the lid and push the 4-inch spout between the frames and pull the trigger." The product is called "Brood Booster" and contains vegetable oil, high fructose corn syrup, soy flour, brewers' yeast, and powered whey or non-fat dry milk.

Another product in a tube is "Grease Booster." The components are "liquid vegetable shortening and powered sugar often in combination with TM (oxytetracycline). This mixture is directed toward tracheal mite control, but make sure that you use the TM type mixture only for about a month in the spring and a couple weeks in the fall or you are likely to select for a TM-resistant strain of Paenibacillus larvae, causative agent of American foul-brood.

Another product that Keith sells is "Liquid Bee Smoker." The idea isn't new, but the packaging is. Keith has taken the sort of liquid smoke material that is used to add "barbecue" flavor to foods and repackaged it into one-ounce "pillows" that provide enough concentrate to make up 16 ounces (1 pint) of spray bee calmer. It is used instead of smoke. It won't burn out and it won't start a fire. In fact, it can be used to cool red hot, overheated truck brakes (ask Keith about that).

When you contact Keith he will send you a brochure describing prices and a couple items not mentioned here. Newton Apiaries, 6539 W. Olive Avenue, Fresno, CA 93722, e-mail: calfbman@aol.com or [www.beekeeping.com/LBS/](http://www.beekeeping.com/LBS/) on the web.

#### Sticky Boards - Another Source

If monitoring for Varroa mites with sticky boards is part of your normal routine management practices, you might be interested in the following product. IPM Technologies, 4134 N. Vancouver Avenue, Suite 105, Portland, OR 97217, has made available quick and easy to use sticky boards.

The sample that was sent to me is 12x20". It is heavy-duty poster board thick and comes with the glue applied (no printed grid markings). To use one, just peel off the plastic backing, apply the screen (a flexible plastic mesh) that is purchased separately, then slide along the bottom board.

For more information and prices, call (503) 288-2493. If you are interested in purchasing some, call the toll free order number: (888) 476-8727 or FAX (503) 288-1887. All their products can be seen on their homepage - [www.ipmtech.com](http://www.ipmtech.com).

#### "Solid Entrance Regulator"

That is the name of an adjustable, plastic, four-piece entrance reducer that was displayed at Apimondia by Yasaeng Beekeeping Supplies from Korea.

The device has two major, rectangular portions, one of which is about twice the length of the other. Together they span the whole entrance.

In the "vertical positions," the rectangles have about two-thirds of their lengths cut partially out to allow bees to pass. While in the vertical position each reducer has a vertical slot that fits a multi-position, multi-purpose moveable (removable) "grate." The grate for the longer rectangle contains only ventilation holes, but it can be slid horizontally to provide an adjustable bee entrance.

The grate for the shorter rectangle has half ventilation holes and half queen excluder legs. Since it can slide horizontally, you have the choice of entrance plus ventilation, ventilation only, queen excluder plus ventilation, or queen excluder, only.

Rotated 90 degrees, with the grates installed, the colony is completely closed up. I hope you

wouldn't have to use that position!

For more information, check out their website at [www.royal-jelly.co.kr/mainenglish.htm](http://www.royal-jelly.co.kr/mainenglish.htm). You will see some other interesting things, too, like a portable single frame carrier. Since there are no prices listed on the web page, the mailing address is: 176-2, Hwa Jung 1-Dong, Seo-Gu, Kwang Ju, Korea, phone: 82-062-3400/3401.

### Protect Your Skin

The following article was published in the September 1999, issue of the Pomology Post. The author works on safety issues for State Fund, an insurance company affiliated with the California Farm Bureau Federation.

**Farmers can grow a lot of things: but not new skin. Take steps to protect yours: by Bob Kean, State Fund.**

Farmers make up an occupation group that's traditionally been at risk for developing skin cancer as a result of overexposure to the ultraviolet rays of the sun. It's a hazard that's almost impossible to avoid, I know. After all, what - besides mushrooms - can growers grow without sunshine? Since staying out of the sun is not an option for most food and fiber producers, let's talk about what can be done to decrease the chances of frying your skin.

For starters, use sunscreen faithfully. And I do mean faithfully. Don't assume that because it's overcast or windy that you can't get a nasty burn. Reflective surfaces, such as

shiny equipment, sand, metal, and water - even irrigation water - can all intensify the sun's rays.

Also remember that the most likely time for agricultural workers to be overexposed to the sun diminish considerably before and after these hours. But don't think that because you are out picking fruit at 7 a.m. or checking irrigation water at 7 p.m. that you can't get sunburned. Protect your skin whenever you're outside - no matter what time of day it is.

As far as sunscreens go, don't borrow your kid's tanning oil with sun protection fact (SPF) of 2 or 4. Use a sunscreen that has a SPF of at least 15. The SPF number isn't some random figure designed to sell more sunscreen. It defines how long a person can stay in the sun before burning. Look for a sunscreen that will filter all UVB rays and at least some UVA rays.

The American Cancer Society recommends that sunscreen be applied about 20 minutes before going outside (a good time to put it on is right after you wash your face or shave in the morning) and re-applied if you perspire heavily.

A dermatologist I know likes to say farmers should use a total sunblock of 30 or 45 SPF because they are so stingy with sunscreen application. Be generous, it's your skin you're saving.

Speaking of skin savers, don't let high temperatures lure you into going shirtless or wearing tank tops. An opaque, light-colored and light-weight shirt

will keep skin from being the first surface the sun finds.

A light-weight Panama hat or other wide-brimmed hat with a bandana that falls down over the neck are good choices for headgear. Even though baseball caps have become almost part of the farmer's "uniform" they do nothing to protect the ears which are a fairly common spot for sun cancer to start.

Damage to the eyes is often overlooked when talking about the dangers of ultraviolet radiation. That's scary, especially when you consider that eyes are six times more sensitive than skin to the sun's rays. UV light damage significantly increase the chance of eye disease, such as cataracts.

To keep sun exposure to the eyes at a minimum, workers should wear sunglasses that block 99 percent of both UVB and UVA rays. If you're concerned about losing them, or don't want to put up with sweaty glasses sliding down your nose, buy a strap that hooks onto the frame and tightens in back. These eyeglass holders can be found at any sporting goods store.

Even if you follow all the advice about sunglasses, sunscreen and opaque clothing, you should still examine your skin at least every three months to see if there are any changes in it's color or texture. Don't forget your neck and back! If you can't see these areas clearly, get someone - such as your spouse - to check them for you.

The American Cancer Society says the warning signs for skin

cancer includes changes in moles, birthmarks or localized areas of the skin. Watch for changes in size, color, surface characters, shape, sensation, and persistent bleeding or crusting.

Anyone who finds any of these changes to their skin should see a doctor immediately. Don't put it off. Some skin cancer develops slowly, but melanoma - the most deadly kind - can develop rapidly and spread to other body organs in a short amount of time.

Many growers will go out to protect their crop from damage. After all, it's an investment. Your health is an investment too, including the health of your skin. So protect it - because you can't disk your skin under and grow a new one next year.

#### UCD Trailer Warning

This tid-bit of information was disseminated at UC Davis to give us a good head start at remaining in compliance with Federal Highway Administration laws concerning trailers. Since this might pertain to some beekeepers, I will share it with you. (Continued on page 8)

"By June 1, 2001, trailers produced before December 1, 1993 with an overall width of 80 inches and a gross vehicle weight rating (GVWR) exceeding 10,000 lbs. are required by the Federal Highway Administration (FHWA) to have retro-reflective markings suitably similar or identical to those on new trailers. This means older trailers need to be marked with red and white reflective tape along both sides and the back. There are additional requirements to mark upper rear corners. The tape must meet DOT-2 certification. There are options for other color combination; however, the use of other than red and white is not recommended.

The full text of the law can be found in Part IV, Department of Transportation Federal Highway Administration, 49 CFR Part 393.13 and is also available from the

Federal Register for Wednesday March 31, 1999. The entire final rule may be viewed at <http://www.jjkeller.com>. Look under Keller Solutions, on the left list, then choose Reference Materials, followed by Retrofitting Older Trailers with Conspicuity Markings - Final Rule - 03/31/99" (22nd item down).

Sincerely,

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