February 2011

w.a.s. journal

The Journal of the Western Apicultural Society of North America

Visit the WAS website at groups.ucanr.org/WAS/

Aloha! from Hawaii

Plans for the 2011 Western Apicultural Society Conference are well in hand. We are looking forward to welcoming everyone to the elegant Hapuna Beach Prince Hotel, which offers five-star accommodations and is located on one of the longest white sand beaches on the Island. There are four restaurants and a wide range of spa and recreational activities. Check it out online at http://www.princeresortshawaii.com/hapuna-beach-prince-hotel.php.

Please note that CONFERENCE REGISTRATION FORMS need to reach WAS Treasurer Jim Bach by **AUGUST 10th** to get the earlybird rate, but **HOTEL RESERVATIONS must be made by MARCH 31st** to get the conference special rate ($139.00 per night plus $32.20 in tax and gratuity), buffet breakfast included.

Call the hotel at 1-888-977-4623 or 808-880-1111 (local) and specify the WAS conference. Conference rates usually are not available online. After March 31st, rooms will be available on a first-come-first-served basis and the ratemay be higher (on the hotel web site room rates start at $195/night). One night's deposit is required when reservation are made. Cancellations of reservations after fourteen (14) days prior to arrival (i.e. August 28th) and any no shows will result in loss of deposit. Breakfst will NOT be included with bookings made after March 31st.

We suggest you PHOTOCOPY the forms so you don't lose other information in the Journal.

Conference Program

Under the Hawaiian sun, the conference will host an array of topics and guest speakers. The program will cover four main areas of interest:

(1) State of Hawaii Beekeeping; Hawaii offers one of the best places in the world to raise colonies for honey production and queen rearing. Successful beekeeping operations and methods will be explored as well as current honeybee projects in the state.

Wakefield mango orchard in Hawaii Photo by Colleen Klungness

Western Apicultural Society of North America

2010 - 2011 EXECUTIVE COMMITTEE

President
Antonie Botes
PO Box 551701
Kapa'au, HI 96755
808-285-6677
behivehawaii@gmail.com

Past President
Dr. Dewey Caron
15965 Queen Victoria Place
Portland, OR 97224
302-353-9914
dmcaron@udel.edu

1st Vice President
Jennifer Bach
PO Box 65
Papaaloa HI 96780
808-640-0278
jennaloha@hotmail.com

2nd Vice President
James K. Smith
19909 122nd st.
Bonney Lake WA 98391
253-222-4824
james.k.smith@boeing.com

Secretary
Betty Farber
3249 Schubert Rd,
Kamloops BC V2B 6Y4 Canada
250-579-8518
ian_farber@telus.net

Treasurer
Jim Bach
PO Box 397, Selah WA 98942
509-910-6861 (cell)
jcbach@fairpoint.net

DIRECTORS

British Columbia
Ian Farber
3249 Schubert Rd.
Kamloops BC V2B 6Y4 Canada
250-579-8518
ian_farber@telus.net

Saskatchewan
Alvey Halbgewachs
3047 Lacon St,
Regina Sk S4N3A9 Canada
306-757-3147
cechalb@sasktel.net

Alaska
Dr. Joe Carson
PO Box 110828
Anchorage AK 99511
907-727-8200
dr.joecarson@gmail.com

California
Archie Mitchell
1520 N B Court, Lompoc CA 93436
805-291-3279
archibald_178@hotmail.com

Colorado
Beth Conrey
1617 White Water Ct.
Berthoud, CO 80513--8444
970-532-0329
Bee2Apiary@q.com

Nevada
Thomas J. Muncey
1927 G St, Sparks NV 89431
775-358-0467

New Mexico
Melanie Kirby
PO Box 317
Truchas NM 87578
505-689-1287
ziaqueenbees@hotmail.com

Oregon
Herb Brasington
1881 NE Ashberry Dr,
Hillsboro, OR 97124.
503-648-9118
herb@hwbsystems.com

Utah
Skip Jones
2586 W 500 St.
Salt Lake City UT 84104
801-973-8281
Skip@jonesbee.com

Washington
Jim Bach
PO Box 397, Selah WA 98942
509-910-6861 (cell)
jcbach@fairpoint.net

Parliamentarian
Tom Muncey
(See Nevada)

Conference Speaker Program Coordinator
Jenny Bach
(See 1st Vice President)

Journal Editor/Historian: Fran Bach
PO Box 397, Selah WA 98942-0397
Phone 509-573-4245
febach@fairpoint.net

Each state/province in Western North America is entitled to elect one Director to the governing board of the Society. Directors meet before and after each general meeting and set policy and guidelines for the operation of the business of the Society. Throughout the year, they serve as the liaison between the Society officers and the members in their respective states/provinces. They are responsible for recruiting new members, keeping track of state/provincial concerns and advising the membership of their activities through this Journal.

(2) Alternatives to Conventional Beekeeping. A hot topic in Hawai'i, renowned alternative/organic beekeepers will be invited to talk about their methods. Speakers will be selected who can present data on the effectiveness of their methods.

(3) New research. The latest completed research on a wide range of topics from Canada and the U.S.

(4) Recovery and Rebuilding Colonies. Coping with colony losses unfortunately is another hot topic locally as well as in Canada and on the U.S. mainland. Experts will be invited to speak on methods to build up local stocks.

In addition, to the program of speakers, this year's conference will include two excursions; one to Captain Cook on the leeward side of the island and the other to the Hamakua Coast on the windward side. Both excursions will feature visits to local apiaries and honey operations. They will occur concurrently so conference goers will have to decide which side of the island to visit.

Air Travel

Kona Airport (KOA) is the closest airport to the hotel.

The best way to comparison shop for air fares is to go to 'www.cheaptickets.com' on the internet. They are really good, and push you on to test other discount ticket companies as well.

The cheapest fares we found as this issue was going to print were on DELTA AIRLINES, through 'www.kayak.com', for $407, including taxes and fees, though this flight makes three stops between Seattle and Kona.

HAWAIIAN AIR showed as $438 (including taxes and fees) if you book online and fly out of Seattle; $625 out of Portland; $678 out of Los Angeles; and $696 from San Francisco. Hawaiian does not fly out of Vancouver BC so you would need to find a connector to use them. Bellingham airport, just minutes across the border into Washington, is excellent, has lots of parking space, and has the additional advantages of being very easy to get into and out of, and reducing the long security line-ups in Seattle. Great for any US connections from BC's lower mainland.

ALASKA AIR flying out of Seattle, via Los Angeles, is about $462 including taxes; $545 from Portland; $577 from Bellingham and $626 from San Francisco. Oddly enough, flying directly out of LA costs $730; $653 from Vancouver. There may be some additional service fees, especially for Canadians traveling via the US so check carefully.

DELTA AIRLINES price out of Seattle is also about $462 -- flying on Alaska Air as their sister airline; $759 from LA; $674 from Portland and $704 from San Francisco; $645 from Vancouver.

These flights assume arrival September 12th and departure September 16th, so are only an example of what is available.

Bear in mind that it is some distance from Honolulu to Kona so those great deals you see advertised to Hawaii are only part of the picture. And the cheapest rates usually mean one or more stops and plane changes, non-refundable e-tickets etc. so research your travel options carefully.

Canadians need PASSPORTS.

Travel in Hawaii

The conference hotels are a forty minute drive from the airport and twenty minutes from the nearest town, so are quite isolated.

THERE IS NO SHUTTLE SERVICE available for air passengers to the hotel and back. The options are rental car or taxi. If you want a rental car, the best way is to go to 'www.Priceline.com' and take advantage of the 'Name your own price' option. You'll save a lot! If you aren't into negotiating, book your car at the same time as your flight if you need one. It is always cheaper to rent at the airport than in town later.

There are reports that one needs to be extra vigilant about damage to rental vehicles from previous use, so check them out carefully before leaving the lot, including under the front and rear of the vehicle.

If you plan to take a taxi, give your flight information to the hotel concierge (808) 880-1111 before leaving home and tell them that you want to take advantage of the WAS Conference discount with Hamakua Taxi Service. Outgoing, check at the concierge's desk in the hotel well in advance of departure.

The taxi service operates 4 and 7 person vans. The cost of the trip ($75 plus tip and taxes) can be split among the total number of passengers. You may want to arrange with friends to share the cost of a taxi or rental vehicle.

If you rent a vehicle from the airport:

• As you leave the airport access road, turn left onto Queen Kaahumanu Highway 19 and drive north towards Kawaihae 27 miles or for about 30 minutes.

• Half way there (or in about 15 minutes) you will come to a stoplight (near the Waikoloa Resort area). Continue north bound.

• You are within 2 miles of the Hotel when you see signs for the small town of Puako.

• Pass the state highway sign for Hapuna Beach State Park, go over the overpass and shortly thereafter, look for the entrance to Hapuna Beach Prince Hotel on the right side.

• Enter this driveway and the guard will direct you to the hotel, located oceanfront.

Second Annual Hawaiian Natural Honey Challenge

The Second Annual Hawaiian Natural Honey Challenge will be held concurrently with the WAS Conference at the Hapuna Beach Prince Hotel. Persons attending the conference are invited to attend the public tasting Tuesday evening. There is a nominal fee for participation collected by the Big Island Beekeepers Association.

Contact Cary Dizon, President, Big Island Beekeepers Association, P.O. Box 603, Kurtistown, HI 96760, (808) 966-7421, biba@bibahawaiibees.org or the BIBA web site http://bibahawaiibees.org for more information.

Come and enjoy the sweetness of Hawaii. It's an event not to be missed!

Jenny Bach

WAS 1st Vice President and Speaker Program Coordinator

Rainbow Falls, Hilo HI. Photo by Colleen Klungness

WAS Presidents to date

1978 Norman Gary (California)
1979 Lucien Alexander (Oregon)
1980 Randy Barker (British Columbia)
1981 Charles Duncan (California)
1982 William P. Nye (Utah)
1983 John Edwards (Washington)
1984 Eric Mussen (California)
1985 Mike Burgett (Oregon)
1986 Doug McCutcheon (British Columbia
1987 Tom Muncey (Nevada)
1988 Dan Mayer (Washington
1989 Stan Williams (California)
1990 Mark Shelton (California)
1991 William P. Nye (Utah)
1992 Mike Burgett (Oregon)
1993 Mark Winston (British Columbia)
1994 James Bach (Washington)
1995 Eric Mussen (California)
1996 Russell Messing (Hawaii)
1997 Eric Mussen (California)
1998 Eric H. Erickson (Arizona)
1999 Leonard Joy (Nevada)
2000 Fletcher Miller (Alaska)
2001 Mike Burgett (Oregon)
2002 Eric Mussen (California)
2003 Jaquie Bunse (British Columbia)
2004 Jerry Bromenshenk (Montana)
2005 Steve Sheppard (Washington)
2006 Adrian Wenner (California)
2007 Diana Sammataro (Arizona)
2008 Mark Pitcher (British Columbia)
2009 Eric Mussen (California)
2010 Dewey Caron (Oregon)
2011 Antonie Botes (Hawaii)

A sample of some of the amenities at WAS 2011 conference headquarters.

Left: one of the beautiful sea-view guest rooms at the Hapuna Beach Prince Hotel. (Most rooms have an ocean view; a few are terrace view)

Bottom left: The breezeway outside meeting rooms.

Bottom right: Hotel pool and beach.

WAS MEMBERSHIP RATES

Individual	$20.00 US
Junior	$15.00 US
Senior	$15.00 US
Senior Couple	$20.00 US
Couple	$30.00 US
Association	$20.00 US
Commercial	$100.00 US
10-Year	$200.00 US
Couple 10-Year	$300.00 US
Benefactor	$500.00 US
Patron	$1000.00 US

WAS NEWSLETTER ADVERTISING RATES

(Payable in US funds only)

- black & white only available

Full page (7.25" x 9.75"	$150 per issue
Half page (7" x 4.5" or 4.5" x 7").	85
Quarter page (3..5" x 4.5" or 4.5" x 3.5")	50
Business card (3.5" x 2" or 2" x 3.5")	25
Up to 25 words *(incl header & contact info)*	10
26 - 50 words	.20

Make check payable to Western Apicultural Society and mail to Newsletter Editor.

WESTERN APICULTURAL SOCIETY
2011 ANNUAL CONFERENCE

Hapuna Beach Prince Hotel, 62-100 Kauna'oa Drive, Kohala Coast, Hawaii 96743

September 12-15, 2011

Pre-Registration Form (SEND by August 10 th)

Name(s): _____
As you wish it (them) to appear on your name badges

Current mailing address: _____

City, State/Province: _____ ZIP/Postal Code: _____

Telephone number: _____ Email: _____

CONFERENCE RATES	Cost per person		No. of Persons		Total
Full (4-day) Conference Package					
Pre-registration (by August 10th)	$115.00	x	_____	=	_____
Delayed registration (after August 10th)	$130.00	x	_____	=	_____
Daily registration (lunch/breaks included)	$ 45.00				
Tuesday		x	_____	=	_____
Wednesday		x	_____	=	_____
Thursday		x	_____	=	_____

EXCURSIONS (included in registration, excursions run concurrently, choose <u>ONE</u> per person)

Hamakua Coast	x	_____	
Captain Cook	x	_____	

AWARDS BANQUET (Thursday) $ 35.00 x _____ = _____

ANNUAL DUES (US funds) not required for attendance at conference = _____

($20 – Individual, $15 – Junior/Senior, $30 – Couple, $20 – Senior couple, $20 – Association, $100 – Commercial, $200 – (10 Yr) Life, $300 – Benefactor, $1,000 – Patron)

TOTAL CONFERENCE REGISTRATION PAYMENT = _____

Pre-registration forms and payments must be received no later than <u>August 10, 2011</u>. Payments must be in U.S. funds and either a check or money order (no credit cards)made out to Western Apicultural Society.

MAIL TO: JIM BACH, CONFERENCE REGISTRAR/WAS TREASURER, P.O. BOX 397, SELAH, WA 98942.

Full refund if unable to attend as long as cancellations are made by September 11. No refunds after that date or for no-shows.

6 February 2011

HAPUNA BEACH PRINCE HOTEL
ISLAND OF HAWAII

Return Reservation Form

Aloha! We look forward to welcoming you to Hapuna Beach Prince Hotel. Reservation Deadline: Friday, August 11, 2011. Please note the block of rooms for your Conference may fill before the deadline date. We urge you to make your reservation as soon as possible. Reservations received after this date will be accepted on a space-available basis. Use one reservation form per room.

GROUP NAME: WESTERN APICULTURAL SOCIETY
GROUP DATES: September 12 - 15, 2011

NAME: _____

Names of people accompanying in your room:_____

ADDRESS: _____

CITY, STATE, ZIP: _____

PHONE: _____ **EMAIL:**_____

ARRIVAL DATE: _____ **DEPARTURE DATE:** _____

NOTE: Your rates are special and contracted for this program only. Reservations three (3) days prior to and three (3) days after the listed program dates will be confirmed on space available basis. Check-in begins at: 3:00 p.m./Check-out: 12:00 p.m./Late checkout charge will apply. Room attendant gratuity is discretionary at a suggested rate of $2.50 plus 4.166% tax per room per day. Porterage for groups is an automatic $8.00+ tax per person round-trip charge which will be applied to your individual guest folio.

Hotel Parking: Self Parking is complimentary. Valet Parking is $20.00 plus tax per day.

Room categories are limited and based on availability. Reservations accepted in order of receipt.

HAPUNA BEACH PRINCE HOTEL
Run of House Single/Double - $139.00
Reservations booked by March 31, 2011

****Early Bird Special $139.00 with daily breakfast buffet for two at the Ocean Terrace****

Rollaway charge of $40 plus tax per day will apply when one is requested. The third person charge is $60 plus tax per day. (Maximum occupancy of EITHER three (3) adults, OR two (2) adults and two (2) children 17 or younger are permitted in a room.)

SPECIAL REQUESTS: _____

(Floor, bedding type, non-smoking room, etc.) *Although every effort is made to accommodate, a special request cannot be guaranteed and will be based on space availability in order of request.

ONE-NIGHT DEPOSIT REQUIRED (plus tax) to guarantee your reservation. You may apply to a major credit card.

Cancellation of reservations after fourteen (14) days prior to arrival and any no shows will result in loss of deposit.

(Name on card) _____

Number _____ Exp. _____

Signature _____

OR enclose check payable to: Hapuna Beach Prince Hotel.

PLEASE MAIL COMPLETED FORM TO: **Central Reservations Office**
Prince Resorts Hawaii
100 Holomoana Street
Honolulu, Hawaii 96815

OR FAX TO: **(808) 944-4491**

Toll-Free phone: **1-866 PRINCE 6 (1-866-774-6236)**

Preventing Robbery

Dr. Eric Mussen,
UC-Davis CA

We are rapidly approaching a time of the year when robbing becomes problematic for beekeepers. When the weather allows for forager flight, but plants are not providing nectar and pollens, honey bees are apt to drop by next door and see what they can steal from the neighbors. The length of time that bees rob depends on the climate. Here, in the Davis area, we have nectar and pollen dearths in late spring and a big one in late summer and fall. We can have flight conditions throughout the winter, but the worse problem spans the time from mid-September to November.

Robbing is a problem for honey bee researchers, small scale beekeepers and beekeepers with thousands of colonies. At UC Davis, we still have the portable, four-sided, eight foot tall, folding screen cage that Dr. Laidlaw would wrap around him and a hive so that he could work in the hive, unmolested, during the fall. Otherwise, he no sooner would have the cover off the hive and hordes of robbers would descend on the combs.

Some beekeepers are convinced that if you remove all the covers (lids) from the hives at once in an apiary, robbing isn't a problem. I'm going to try that in Davis, sometime, to see if it works as well as the Canadian proponents claim that it does. I'll never hear the end of it from Susan Cobey and Elizabeth Frost if it doesn't work!

I believe that the better choice, feasible at least for those with fewer hives, is the use of robber screens. These screens interfere with robbing bees yet provide wide expanses of the entrance to be used for hive ventilation. Serious ventilation is critical on our hot fall days.

The original robber screen that I saw being used at UCD was a wooden-framed section of screen that covered about half of the entrance. A slot cut in one end held a piece of lath that could be slid down the entrance to reduce the entrance to zero, if necessary. Normally, it was left with about a 1.5 to 2 inch hole for the bees to defend. Still, if the colony behind the screen was weak for some reason, it really got targeted. A pile of freshly killed bees would be lying on the ground every day for weeks.

Then, we learned a bit more about robbing behavior and a new screen design became possible. Robbing honey bees tend to hover in front of a neighboring hive, swinging to the left and the right, as if trying to find an unguarded opening through which to enter quickly and undetected. Robbing foragers fly with their hind legs dangling down, similar to the way paper wasps dangle their legs. It does not appear that robbing honey bees enter the hive by landing on it and walking in.

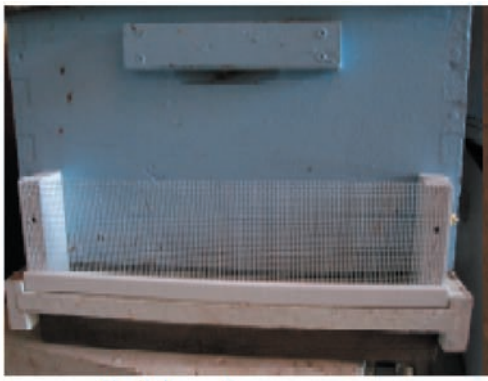
Therefore, if you place a full-length screen across the front of the hive, you can block out the robbers. But, what about the hive inhabitants? Would they be screened in? Yes, if you fit the screen tightly, everywhere, top and bottom, to the hive body. Instead place a four-inch-high robber screen across the body of the hive, leaving a gap of about two inches from the screen to the hive, so the resident bees can crawl or fly over it. If you install the screen in the morning, the resident bees learn within hours to crawl up over the screen to get out and get back in. Eventually, a number of them learn to fly diagonally across the

hive entrance and not touch the screen. And, the bees have no difficulty carrying bodies of dead bees and other debris over the screen.

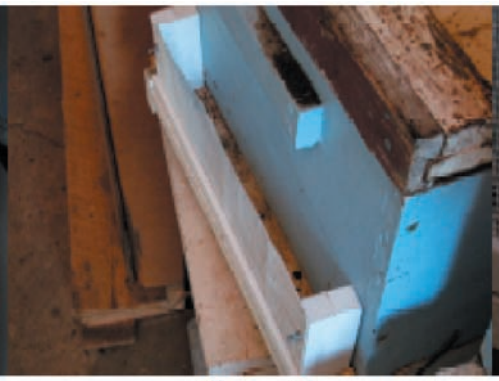
Intuitive behaviors are interesting. Potential robber bees leave from their original colony by going over the robber screen, but don't do the same when they try to enter a neighboring hive. They hover around the fronts of screened hives and never get in; then, they go back home over the top of their own screen. We aren't sure, but it appears that these robber screens also deter marauding yellowjackets, that can kill and eat a surprising number of honey bees around the hive entrance. Yellowjackets appear not to access this type of robber screen, either. I am still waiting for reports on the value of this screen from some beekeepers experiencing severe problems with yellowjacket predation.

It may be a bit difficult to visualize the screen I have described, so I am including a few photos (below) that should clear things up. The screens can be nailed to the fronts of the hives or held on with hook and eye latches. If nailed on, use nails with two heads on them (8d 2 ° inch bright duplex), so that the screen can be nailed solidly into the hive front but the nails can easily be grabbed when you wish to take them out.

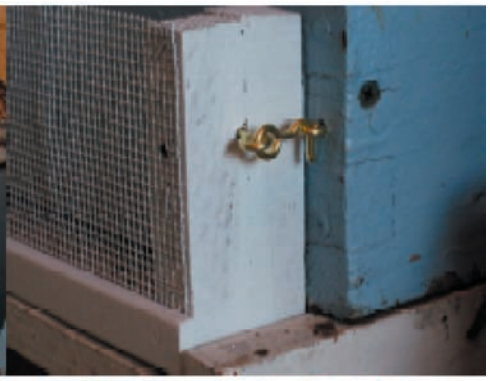
You can tell from the photos that this screen was made by hand with simple tools (hacksaw, wood glue, beehive frame nails, drill, hammer, Arrow stapler and 3/8 inch staples, white spray enamel paint). The bees do not have problems negotiating my crooked apparatus, as long as it is bee-tight in the right places and lets them get out behind it.



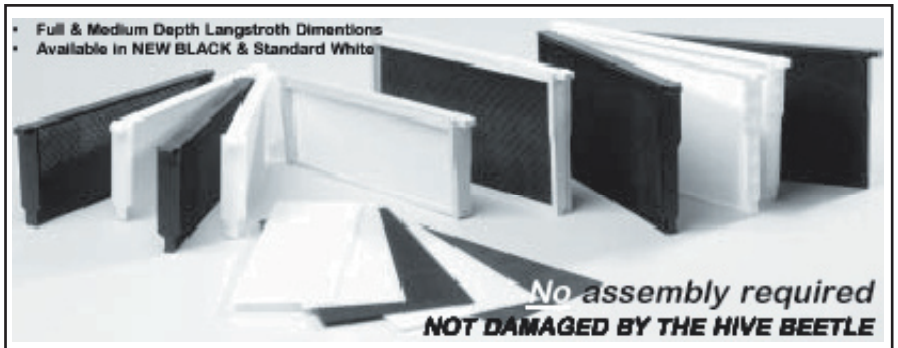
Robber Screen



Open Top



Hook and Eye Latch



Honey bee health, nutrition and pollination research at Oregon State University

Dr. Ramesh Sagili,
Oregon State University

The Honey bee lab at Oregon State University is currently focusing on three important areas of research 1) Honey bee health 2) Honey bee nutrition and 3) Honey bee pollination. The following paragraphs very briefly discuss experiments pertaining to each focus area.

Honey bee health: We conducted a comprehensive analysis of honey bee health in Oregon. Since 2009 we have randomly sampled honey bee hives across the state to evaluate the intensity and prevalence of Varroa, tracheal mites, Nosema and pesticide residues in the comb. Additionally we also analyzed bee samples for nutritional status (hypopharyngeal gland protein content). We are also tracking the survival status of these sampled hives throughout the year. This study will provide us a better understanding of the factors that are involved in colony losses. Also, this study has helped us establish a baseline index for honey bee health in Oregon. Individual beekeepers have benefited by specific information available to them pertaining to their colony health by following appropriate control measures. 85 % of the sampled hives had Varroa and the percentage of infestation was 5.6 percent. Tracheal mites were found in 39% of the sampled hives. 48% of the sampled hives had Nosema infestation with a mean of 1.3 ± 0.4 million spores per bee. This project is unique in the sense that we will be able to correlate incidence of pests and diseases with nutritional status of the hive and also will be able to study interactions among these factors.

Honey bee nutrition: In the wake of deteriorating honey bee health and absence of evidence to implicate any single pathogen for the honey bee colony losses, bee nutrition has attained greater importance than ever. Nutrition is the key in dealing with all the major pests and diseases in honey bees. There exists a huge gap in knowledge about the role of nutrition in colony losses. Some studies have suggested that nutritional stress as a result of habitat loss might be significantly contributing to the recent rapid honey bee colony declines. Nutrition is not only important for the colony growth and worker longevity but also plays a vital role defending against pathogens. This project addresses a large gap in our knowledge of nutrition on honey bee physiology, health and colony growth. Pollen is the primary source of protein for honey bees and is vital for colony growth and development. In one study we are evaluating effects of pollen quality (diversity) on honey bee physiology, colony growth, behavior and immunocompetence. In a flight cage environment we examined and compared the effects of consumption of single source pollens (such as almond, blueberry and meadowfoam) versus multiple source pollens on honey bee physiology and colony growth. Preliminary results suggests that single source pollen treatments reared significantly less brood and had significantly lower hypopharyngeal gland protein content and immunocompetence (phenoloxidase and prophenoloxidase activity)compared to multi-source pollen treatments. This experiment is expected to increase our understanding of possible effects of consumption of single versus multi-source pollen on honey bee physiology and colony growth. Findings from this study will be helpful to provide beekeepers appropriate suggestions to maintain optimal nutrition.

In another study we examined the potential use of brood pheromone to stimulate protein consumption during fall season in Oregon. Each week protein supplement consumption and colony growth were measured in brood pheromone and control treatments. Results indicate that brood pheromone treated colonies consumed significantly higher protein supplement and reared significantly higher amount of brood during the experimental period.

Honey bee pollination: The goal of this project is to enhance pollination efficiency of honey bee colonies rented by carrot seed producers by using brood pheromone technology. Brood pheromone is an apicultural tool that can be used to increase foraging stimulus in honey bees. This project is a collaboration between OSU honey bee lab, COSI (Central Oregon Seeds Inc.) and COARC to address pollination challenges being faced by carrot and onion seed growers in Central Oregon. Synthetic honey bee brood pheromone was tested in honey bee colonies to enhance pollen and nectar foraging in bees in order to increase overall pollination. Fields of carrot seed producers were selected for conducting the experiments. Preliminary results suggest that experimental fields that received brood pheromone treated colonies had higher bee visitations on umbels. We will collect final yields of the experimental fields to see if increased bee visitations translate to increased yields.

Nucleus Hive Utilization

Harry Vanderpool
Salem, Oregon

If asked, "What are the most powerful, basic components in beekeeping?", how would we respond? Good queen stock and beekeeper training with ongoing education top my list.

With all of the basics in place, beekeeping really boils down to a series of specific manipulations applied to honey bees and their hives. With this in mind, tools find a place on our list. One of the most powerful tools that I depend on in my operation is the nucleus hive, or nuc.

To begin this discussion, we need to back up a bit and take a look at what we strive to achieve with our honey bee hives. Often, we talk about products of the hive which include honey, wax, pollen, etc. Many times however, the hive itself is the product.

If you have a few hives to pollinate your home orchard and you time your brood levels around tree fruit bloom, your hives are the product that you need to meet your goal.

If you have many hives and provide pollination services for grower's crops, your strong healthy hives are the product that's anticipated.

These are examples of the hive as the end product; but product of what? To some degree, your hive's success is the product of your thoughtful maintenance, inspection and manipulation. Good job!!

Unfortunately, bees don't always read the same books that we do. From time to time in the course of the year despite our best efforts and intentions, some hives are going to come down with a bad case of B.B.B.

With all of the clamor in the news of C.C.D., little attention has been paid to the main cause of hive losses that plague us all, B.B.B. or Bad Bee Behavior. Swarming, supercedure, and queen balling are but a few of the impulses in our colonies that often result in queen issues. In my rather large circle of beekeepers, the consensus is that fewer than 70 percent of these hives successfully requeen themselves. Weather and other environmental issues can drive the numbers down further. Beyond a very narrow point in our hives" brood cycle, the only solution for hive recovery after a bout of B.B.B. is in the competent hands of beekeepers to repair.

OK, OK!! I'm not a very good beekeeper if I blame all of my problems on bees. Actually, sometimes B.B.B. strikes as Bad Beekeeper Behavior! How many of the above listed queen problems could have been avoided by better hive management?

Do you find yourself a victim of B.B.B. ? I sometimes do. But as a small commercial beekeeper, (325 hives) I must have a method of instant repair to keep all hives at full strength throughout the year.

So that summarizes problem #2; maintaining strong, queen right hives in the face of chaos.

Problem #1: Are you as tired as I am of scrambling around in the early spring trying to find queens? I'm tired of it, but more than being tired, I'm doing something about it. Over wintering nucs annually, provides me with young, premium queens in the spring when often none are available. Further, do you really want queens sold in the earliest spring during questionable mating and nutrition weather?

Assembling nucs in summer for the purpose of over wintering allows you to sit back and choose between the very best queens available nation wide, reared and mated during optimum conditions.

I will share details of my annual program, but be aware that dates and nuc maintenance will vary from region to region.

July 15th is my target date to make up nucs in Oregon's Willamette Valley. One does not want to start nucleus hives too early and risk congestion or too late and not build up and plug out adequately for the long trip through winter.

Since I cannot assemble 60 nucs in one day, it may take many days to complete the task. Accordingly, the recipes will vary with date to achieve the same result. Keeping the target date of 7/15, let's start with nucs assembled on 7/1.

Recipe: One frame of mixed brood with adhering bees and one frame of honey with adhering bees centered in the nuc. One frame of open comb. Two frames of foundation placed to the outside. Place the queen cage between the frame of brood and honey. WOW!! Now that is a weak start! No, actually by fall it will be wall to wall bees and heavy with honey.

Now my recipe for 8/1: Two frames of brood with adhering bees centered in the nuc. One frame of open comb. Two frames of sealed and capped honey to the outside. One shake of bees. WOW!!! What a change a month makes! Recipe is all a matter

Above - Nucs at Salem workshop

of timing around your local nectar flows and weather. Both of the recipes will produce very similar result.

When the nuc is made up, I place a piece of tape on the lid with the date. This date means DO NOT TOUCH for AT LEAST 10 days. We want the queen to be released in the dark, quiet and calm of the hive and to begin egg laying and pheromone distribution without disruption or disturbance of any kind.

One more very important tip: do not take a nail and poke a hole in the candy. Who ever started that idea? The candy plug is a time delay device; don't compromise this very important element of queen introduction.

Regularly feed syrup throughout fall as long as they will take it in order to send them as heavy as you can into winter. Don't worry; they'll make it!

Lastly I'll share my recipe for nucs made for immediate use (10 - 15 days after queen intro) during the busy season. These are used to requeen hives or fix screw-ups.

Recipe: 2 - 3 frames of brood with adhering bees centered in nuc. Two partial frames of honey to the outside. After installing queen, do not overlook the date that you place on the lid. This hive will explode and swarm out if not used in a timely manner.

I try to start all new queens in nucs if possible. Acceptance is regularly at 98%.

I hope you have as much fun and success with nucs as I do. I consider nucleus hives as the engine of my operation.

Probiotics for Bees?

Dr. Diana Sammataro,
Tucson AZ Bee Lab

The health of honey bees is threatened today by stresses that humans place on bees during commercial pollination and honey production. These stresses culminate in diseases and colony losses, and lead to a loss of pollination and decreased honey yields.

Swedish researchers first discovered a unique flora of thirteen different lactic acid bacteria (LAB) from genera Lactobacillus and Bifidobacterium located in the bees' honey stomach. Results from further work showed that LAB flora are present in American bees as well.

It is believed that bees and LAB evolved together in a tightly-knit symbiosis that benefits the honey bee colony. The LAB complex appear to protect the nectar from fermenting until enough water is evaporated for it to turn into honey. One way that the LAB do this is through the inhibition or crowding out of other microbes. For example, LAB have been shown to inhibit yeasts from the genus Saccharomyces, the most commonly found yeasts in honey.

In addition, LAB have also been shown to reduce the prevalence of the honey bee pathogen Paenibacillus larvae, the causative agent of American foulbrood. These bee honey stomach LAB are broadly similar to beneficial bacteria used by humans, such as those found in yogurt, that have been employed as probiotics for humans and animals during the last decade to improve health and digestion.

We believe that honey bee LAB hold similar potential to improve honey bee nutrition and health. Work in our lab will explore the beneficial microbes in honey bees and how they contribute to honey bee health.

Almond Pollination at Paramount Farming

By Dr.Gordon Wardell

It's no secret that Almond pollination is driving the commercial bee industry in the United States. With nearly 740,000 acres of almonds currently in production in California and a recommended 2 colonies per acre, that comes out to an estimated 1.48 million colonies of honey bees needed to pollinate a crop valued at nearly 2.4 billion dollars. Without strong honey bee colonies, almonds and other valuable crops around the country would not be produced.

At Paramount Farming, we ask our beekeepers to provide colonies with an average of eight frames of bees and brood. To encourage beekeepers to bring the strongest colonies possible, we pay an incentive for colonies stronger than the average eight frames. The irony is that adequate pollination can be achieved with less than two eight frame colonies per acre but for the years when the weather does not cooperate the additional bees are insurance to setting a good crop. Take 2010 as an example. It was a cool wet bloom period in most of the San Joaquin Valley. Some weeks during bloom saw less than 4 hours of reasonable flight time in the whole week. When temperatures are cool, small colonies cannot send out as many field foragers as stronger colonies can; in those weaker colonies, workers needed to stay with the brood nest to help maintain cluster temperature. Strong colonies can put a greater percentage of their population into the field for foraging duty and are therefore a good insurance policy against poor weather.

Over the past few years Paramount has developed three teams of graders who inspect 15% of the colonies dropped in the almond orchards. Their task is to estimate the number of frames of bees in each of the randomly selected colonies. While this may sound like an easy thing to do, changing environmental conditions cause colony cluster to expand and contract as daily temperatures rise and fall. A colony inspected in the morning at 45 degrees will appear decidedly larger later in the afternoon when temperatures reach 65 degrees. Therefore adjustments have to be made to the frame count based on the then-ambient temperature at the time of the inspection.

While grading nearly 12,000 colonies is still back breaking work we have introduced technology last year that helps speed up the process. A hand held data recording device about the size of a Blackberry phone is now being used by our grading teams to help randomly select the colonies to be inspected, record the grade information, and download the information to the company's computers. For consistency in the orchard we ask our beekeepers to place their colonies in drops of 24. The recording device selects three random numbers between 1 and 24. The inspectors assign numbers to the colonies, always starting at the same corner of the drop, they identify the colonies chosen by the random number generator and begin opening the colonies. Only the identified colonies are graded on each pallet. As the data is put into the handheld device, the GPS location of the colony is automatically assigned to each entry. For the beekeeper's information, the grade of each colony is written on the hive top with a grease pencil. Moving on to the next drop, this time the random number generator will select four colonies this time. Sampling three colonies at one drop and four at the next will assure that 15% of the colonies are evaluated. At the end of the day the data is downloaded from the recording device into the company's data base. The beekeeper receives a summary for his records as well.

Average colony strength in Paramount orchards last year was 9.5 frames of bees and brood with over two thirds of the colonies having greater than the eight frame average. The table below shows the depth of information able to be generated through this data collection method. Colony strength by individual beekeeper and by orchard can be tracked. Each dot on the graph represents a beekeeper in a specific orchard. The hope is that this level of technology will help us better manage pollination at the orchard level. For the beekeepers, speeding up the grading process assures the beekeeper that he won't be held up at the end of bloom waiting to be graded.

Obituaries

Bert Otto

Died Oct 5, 2010

Bert Otto of Yakima, Washington passed away at his home October 5th of heart failure, at the age of 88 years.

Bert was born in Danvers, Illinois and caught his first swarm of bees at age sixteen. So began a lifelong interest in bees and beekeeping.

He served in the US Air Force through World War II (in Australia and the Philipines) and in the Korean War.

In later years, he and his wife Jeanette, whom he married in 1982, traveled extensively to beekeeping conferences, local, national, and even international ones in Switzerland, Belgium, Ireland and Canada. They also traveled extensively for pleasure and their home was filled with bee memorabilia, letters and photos from their many friends all over the world.

Bert and Jeanette have been staunch members of their local and state beekeeping organizations, and of WAS. They were both disappointed to miss the Salem conference thispast fall but Bert's health had declined too much to make the trip.

Our sympathy goes out to Jeanette, with our thanks for the many years of support she and Bert afforded our organization and our industry.

Sara Willis

Died Nov 6, 2010

Sara Willis, the Alameda, CA Bee Club Treasurer and a long time member of WAS, lost her battle with colon cancer on Saturday, November 6th. She was in ICU in the morning and slipped out of consciousness. Her family and some club members were with her.

At the Nov. 9th club meeting, members held a memorial event in her honor.

The sympathy of WAS members is extended to both these dedicated beekeepers. They will be sorely missed.

Longevity: The Umbrella Trait

How to track and utilize it to fortify your stock

Melanie Kirby,
Zia Queenbees, Truchas NM

It is not farfetched to put yourself in control of your stock. While you may neither have the eyes nor the patience and comprehension to graft 3 day old larvae for rearing daughter queens from your prize hives, you can still assist in the process by sharing your quality stock and by keeping records in multiple categories. It all comes down to marking. Mark your queens and keep track! Keep track of what? This article will hopefully share some methods that are still proving solid for today's courageous beekeeper - small and large - who is willing to take a pro-active stance in stock management. This is also a call for those interested in being a part of the solution for finding, preserving and propagating healthy bees. Let us work together to develop more sustainable methods and resources for quality queenbee stock. The power is in your record keeping!

In our small operation, we were routinely making our workload heavier and repeating steps that could be avoided if we had only kept track. Keeping track of performance- and overall performance is essential. Looking for signs of pest and disease resistance, gentleness and pollen and nectar collection is also of interest. Bottom line is the need for healthy and productive bees. By observing a hive, over time and over multiple seasons, one can actually rely on Mother Nature to do the testing. Her transition from season to season and how the bees handle the transitions, are true tests of endurance and resilience. This endurance gives a keeper the opportunity to determine his hive's "overall lifetime merit". This term has been borrowed from the cattle industry, but is very much similar and complementary to honeybee breeding.

When we first started rearing queens for ourselves, we based our protocol on a high quality timeline - selecting from our oldest and longest-lived queens whose hive performances were stellar (meaning gentle, pest/disease resistant and productive). We developed a very simple method for tracking queens. First, we take small pieces of scrap wood (in our case, left over pieces of masonite) and we paint them the color of the queen (as dictated by the year she was reared and the international color coding system). This is now a colored "plaque" that we screw into the front of each hive. In each apiary, we are able to pull up in our truck and we don't even have to get out to see who is in the yard- as we can tell by their plaque what age they are. We write their name (yes, we name our breeders because we have too many other numbers in our heads to keep track of like graft dates, emergence dates, ship dates, etc). Apart from the name, we write her lineage -- as in who she came from-- either from our own bees or bought from elsewhere.

We record her generation, her color/appearance and overall how her demeanor is. If a hive gets more than three frowns (as opposed to smiley-faces), then the queen -- regardless of age, gets axed and the colony is requeened. We then change the plaque and make sure to keep it updated. Of course, we don't inspect for queens each and every time we revise a colony, but we do match the plaque to the colored queen several times a season to ensure that it is still the same one. I do not really like to use the breeding numbers that can be glued to queen's thoraxes because I am uncomfortable putting it on them. We use "Painters" as made by Elmer's which comes out of Canada. The label reads: non-toxic and no odor. It stays on well year after year.

We also allow virgins more time in their mating nucs (21-28 days post emergence) to ensure their successful mating (we can verify capped worker brood by then). Tarpy and Grozinger have published research regarding enhanced hive health. High promiscuity and fecundity in queens results in queens with genetically diverse progeny. These diverse genetics will naturally

provide an overlapping network of health. The bees sense this, know this and are more responsive to it. They prefer queens with diverse genes. The other main concept to record, as one can, is the immunocompetence of their bees. This immunocompetence, or ability to fight an antigen, is readily affected by environment. This would include, natural forage and supplemental feeding = nutrition (Vg expression), climate and weather and the existence of variables. These allowances will ultimately dictate the hereditary genes your queens pass onto their progeny and also how well daughter queens will be accepted. Keeping track of the seasonal manifestation in regards to weather and climate are important reflections of the performance or lack thereof.

If we look at the national production of queens, we know that many of the larger producers are in California. Their environment is being effected by numerous uncontrollables- pesticides, fungicides and monoculture agriculture. Bees in these high exposure areas are thwarted with a variety of negatives; and not with the producers' accord. Thusly, the queens and bees reared in these high exposure areas will be most susceptible and devastated as their immunocompetence has been compromised. Compromised immunocompetence will not lend itself beneficially to passing on hereditary genes. It can actually alter and disintegrate the quality genes that should be expressed and passed on.

Of course the best bees are your own bees -- who knows better what they may have to contend with in your own neck of the woods? And so it is really up to you as honeybee stewards to learn to be pro-active in your stock management. The concepts are basic and even more important when we look to establish and select a gene pool with a "survivor stock" foundation. Either the bees make it or don't, and the ones that do are the ones worthy of propagation -- and they should be shared if they can be reared respectfully.

Selection depends on performance. I trust what I can see. I select my own breeders from diverse stock that I have either out-crossed myself or have bought from other producers. By putting every queen through the same test -- the two-year 'survive and thrive' regimen, we are able to gauge over time and multiple seasons just how enchanted these empresses are. We are a slightly migratory operation so our bees are subjected to similar conditions to those that some larger operations impose on their bees. Our migrations are for providing diverse flora for our bees to forage on while also supplying pollination services to the various communities we migrate through as we follow the Rio Grande north from southern NM to northern NM and also in the upper peninsula of Michigan.

We are blessed in New Mexico to have valleys that are surrounded by desert leading up to mountains -- providing diverse plant species in each zone. This leads to selection based on performance, which is dependent on nutrition and environmental factors; many of which we cannot control but that ultimately dictate the bees' immunocompetence and its heritability. Quality queens and hives are those which have access to diverse pollens and nectars along with clean water and appropriate shelter

(let us not forget suitable seasonal management). Establishing any gene pool and production system should ensure that there is quality forage available for the field bees -- who in turn feed the hive, i.e. the nurse bees, the developing larvae and the queens and drones.

Importation of bees from out of the area, varied agricultural practices, the manifestation of pest and pathogen issues, along with pesticide and GMO concerns, mean our bees have to be adaptive. We have always looked for bees that work well where we are and for what we are doing. Our location is a land of extremes -- the 'land of diversity and adversity'. The longer I keep bees throughout the state, the more I am astounded at the variety of colony development and production. It is a hit and miss area -- without moisture, our nectar flows are nonexistent and bees can have a very hard time finding forage without flying long distances. IF we get rain at the right time, nectar flows can be astounding. We hope that our selection and rearing process allows others to achieve the same regionally-fortified survivor genetic pool upon which to build their apiaries.

We are excited to find that while our survivor queens work very well for us -- both in New Mexico and Michigan -- we are hearing about and witnessing them working for others. A pertinent case study (still in review) can be seen in the Central Valley of California. Back in 2005, we received a summer call from John and Melissa Davis in Porterville, California. They run over 600 hives and were looking for some quality stock. They found us and we have been sending them hundreds of both our VSH Italian X and NWC X marked survivor queens every year since. Our small operation can only accommodate so many orders, and since landscape and climate prevent us from rearing early season queens, in 2010 we offered to go to them in the spring and assist them with developing and implementing their own early season survivor queen rearing program.

We reviewed many of their hives and found numerous marked queens they received from us that were two, three and even four years old! The Davis hives are located near the southern end of the central valley near almonds, oranges, olives and other fruit orchards. They move their bees four times a year for various pollination contracts (almonds, kiwi, cherries, oranges) and have not used miticides since introducing our bees into their stock lines. They shared with us that while the transition to survivor stock is a little rocky, they are pleased with the results and plan to continue with survivor stock in their operation. They also hope to offer some of their out-crossed survivors to area California beekeepers. This is exciting as we now have breeder companions to keep track and share back those queen lines that prove hardy, gentle and productive for their needs.

LONGEVITY is THE UMBRELLA TRAIT necessary for sustainable selection of naturally hardy and regionally functional bees. Long-lived queens have established their overall lifetime merit and serve as carriers of positive genetic traits (those which have imparted long life, i.e.pest/pathogen resistance, hygiene, gentleness and productivity -- season to season). Longevity through diverse and adverse conditions produces a myriad of positive survivor traits that truly determine overall health and performance from season to season. The term "survivor" may, to some, connotate "site-specific" beekeeping. However, in our experience with our bees in both New Mexico and Michigan AND with the many other reports, including this Central Valley, California case study, Survivor Queen production and dissemination shows promise and hope for trans-regional survivor stock and their benefit to area beekeepers and bees.

For more info email: ziaqueenbees@hotmail.com.

Regional Happenings

Alaska

Dr. Joe Carson

Alaskans are always concerned about the availability of package bees each spring. We rarely overwinter as the bees require 60 to 80 lbs of stores just to have a chance of survival through our extremely long and cold winters.

We must arrange for packages to be flown up to Alaska in good shape, in a timely manner. So many package suppliers ship almond pollination leftovers that seem to be worn out and we are never sure of the chemical load they carry on their trip up to "The Great Land". Another concern is the quality of queens supplied in the packages.

Obviously weather is another concern for Alaskans; we have had snow in July.

We are in need of timely information on the latest in nutrition, pathogens, habitat, forage improvements and requirements, queens, and pesticides. Alaskans seem to be considerably behind in receiving information on Bees and Bee Research.

Recently, I had a visit with the Mexican group that visited the American Beekeepers Federation conference in Galveston. There might be some interest in joining WAS as an information gathering partnership. The ABF is working to build a better relationship with them as our industry will certainly be impacted more by them in the future. I think it might be a good idea to at least start a dialog to see if the interest is real and if WAS is interested in having them come on board as members.

British Columbia

Ian Farber

Many of our current issues and concerns about our bees can be traced back to Varroa destructor and its possible synergetic interactions with miteacides, pesticides, bacteria, viruses and more recently, Apis ceranae. The situation regarding Varroa is always changing and BC beekeepers must be vigilant and not complacent when dealing with Varroa. There are indications from some parts of the province that this fall's formic treatment may not have been effective this year and this may adversely affect winter survival rates.

The situation regarding importation of Hawaiian queens to BC changes with new pest discoveries in Hawaii. Many beekeepers rely on Hawaiian queens each spring for splits and nucs and to lose this source of queens will be a concern to many. We may not have a definitive answer on Hawaii queen importation until the last moment in March.

California

Archie Mitchell

Commercial beekeepers are moving their hives to pollinate the almonds, starting in January and through the middle of March. We are all preparing for the extremely busy months of April, May and June when there will be hives to split, queens to raise, honey to produce and swarms to catch.

All beekeepers will benefit from the abundant rainfall, which has left most of the state's reservoirs either near, or exceeding capacity. The hills, valleys and canyons are teeming with a multitude of nectar sources.

Timing is perfect for commercial and small-scale beekeepers to take advantage of several classes offered at the Harry Laidlaw Honey Bee Research Facility at the University of

California – Davis. Sue Cobey will offer a queen rearing workshop for the small-scale beekeeper on March 23rd and the same workshop will be offered for the sideliner and commercial beekeeper on March 30th.

The day after each workshop, optional queen tours will be offered to see northern California queen producers during their busy spring season and observe a diversity of techniques and systems involved in queen production. Registration is $125 and the optional tour $50.

Sue will also teach an artificial insemination bee breeding workshop April 13 – 15. These classes are designed for commercial beekeepers involved in a breeding program and for laboratory personnel requiring this skill for research purposes. Contact Sue at swcobey@ucdavis.edu for more information. Many bee experts believe that locally adapted survivor queens are the future of beekeeping.

Colorado

Beth Conrey

The Colorado State Beekeepers Association annual winter meeting was held on Saturday, December 11th. Dr. Mike Hood from Clemson University in South Carolina was the keynote speaker. Small hive beetle has recently been found in Colorado and Dr. Hood gave several lectures on small hive beetle management as well as Beekeeping IPM.

Election of Officers was also conducted. Beth Conrey is the new President. Paul Limbach and John Hartley will continue in their present positions as Vice-President and Secretary/Treasurer. Priorities for the upcoming year include the procurement of 501 (c) tax exempt status, revising the dues structure to encourage membership and meeting participation, and updating the website.

One of our members, Tom Theobald, owner of Niwot Honey Farm, was the recipient of the leaked EPA memo on clothianidin. Clothianidin was granted a conditional registration by the EPA in 2003 and is a seed coating applied to numerous agricultural crops. The National Honey Bee Advisory Board (NHBAB), the Pesticide Action Network (PANNA) and Beyond Pesticides joined forces and sent a letter to EPA's Director Lisa Jackson asking for clothianidin to be removed from the market. This story is currently developing and you should keep an eye on it. Please Google 'clothianidin' and inform yourself on the situation.

New Mexico

Melanie Kirby

New Mexico beekeepers (http://www.nmbeekeepers.org) held their annual meeting January 14-15th, 2011, in Albuquerque. Current report lists 90 members. Efforts are being made to revamp the association to better support area clubs, meet the needs of all the new "recreational" beekeepers, and to obtain quality information for all level beekeepers.

New Mexico State Department of Agriculture provides one state bee inspector- Greg Watson, in Las Cruces, NM on the New Mexico State University campus.

There are two area clubs, one located in Santa Fe (north central region) and the other in Albuquerque (central region). Two more clubs are in the works: Las Cruces for southern NM beekeepers and Taos for the northernmost beekeepers. Santa Fe's Sangre de Cristo Bee Enthusiasts Club is the Top Bar beekeeping hub of the state although the club has both top bar and Langstroth beekeeping members. The Albuquerque Bee Club has a membership close to 200.

Despite a delayed and chilly spring, New Mexico beekeepers had a relatively good 2010 season. Winter hive loss was higher than normal for both recreational and commercial beekeepers. Although area beekeepers suspect presence of viral issues in some locations (and associated with package importation), NM has no confirmed cases of CCD.

A very mild 2010 fall put many beekeepers on edge. So far, there have been a few good snowstorms at higher elevations which leaves a most necessary and hopeful snowpack for spring bloom. Lower elevations remain mostly dry.

Migratory beekeepers are hoping for substantial spring moisture in the south. Desert wildflower bloom can commence in April with mesquite flow not far behind starting in early May. Northern beekeepers may have starvation issues with warmer winter temperatures and a dry spring.

Oregon

Harry Vanderpool

Oregon beekeepers are reporting that they are pleased overall with the condition of their bees as they make preparations for almond pollination.

After one of the wettest springs in memory, conditions turned favorable for honeybees beginning with the main blackberry flow in June. The nectar flow continued seemingly for ever on the west side, sending heavy hives into fall and very large hive populations late. Beekeepers on the east side also had excellent weather extending into fall that required more feeding than is usual. Throughout the fall and winter, there have been flight days here and there for the bees to take their cleansing flights.

Along with all of the good conditions, many beekeepers reported unusually low varroa mite counts this year. Throughout spring and early summer, mite counts were at, or below the level of detection. Many 72 hour natural drop tests revealed anywhere from 0 to 8 mites total. With much discussion about this anomaly, no explanation resulted. But no complaining resulted either.

In summery, a protracted honey flow, excellent weather, and an unusual, near absence of parasites have beekeepers confident in their bees condition as they restart operations for 2011.

Saskatchewan

Alvey Halbgewachs

The year 2010 was an improvement over the previous year. While many bee keepers had an above average crop, others were below average with an overall up slightly provincial average. Due to too much moisture in some areas of the Province canola did not seem to produce nectar resulting in lower honey crops. Mite control is the leading concern in Saskatchewan with Apivar being introduced along with the other treatments. Beekeepers reported that Apivar provided very good mite control in most to all of their colonies. In some cases noted higher-than-anticipated mite levels after

treatment. It is suspected that two strips of Apivar were not sufficient in those cases. Beekeepers are encouraged to test for mites, treat for mites and test again to be certain the treatment is working.

SASKATRAZ: The Saskatchewan Research Project (with help from Ontario & Manitoba beekeeper associations and Saskatchewan's Agriculture Development Fund)– is working to produce a bee that is gentle, productive and resistant to mites and brood diseases as well as being adapted to the Saskatchewan environment. Since 2006, Saskatraz has released 4,220 queen cells and 67 breeder queens for multiplication. These families have improved honey production, good resistance to tracheal mites and chalkbrood and some tolerance to varroa mites. In 2010, to continue this work the Saskatchewan Ministry of Agriculture provided $5.7 million for 44 ADF research projects.

CANADIAN WESTERN AGRIBITION: The Regina and District Bee Club completed another successful year with the Education Booth for young children to learn about bees, and the Trade Show Booth to sell products of the hive. Pierre the Bear was in attendance to promote the industry.

SASKATCHEWAN BEEKEEPERS ASSOCIATION (SBA) CONVENTION, Dec. 2010: The convention covered subjects such as Fumagillan, Varroa mite, Small Hive Beetle, Hawaiian Queen rearing and Saskatraz. .

In addition, the SBA put together a team to try and improve beekeeping in Saskatchewan - reduce mortality and improve the use of soft chemicals (organic chemicals)

Alvey Halbgewachs received the "Award of Merit" from the Saskatchewan Beekeepers Association for his many years of work in promoting the beekeeping industry. Alvey is the 8th recipient to receive this prestigious award in the 88 years of the Association.

Utah

Anne Stoddard

Nothing going on in Utah at present. Everyone's bees are in California and beekeepers on the road.

Washington

Jim Bach, Yakima

The WA State Beekeepers Association held its annual conference in conjunction with Oregon at Hood River, Oregon in October 2010. As a result we have a new President, Paul Lundy the former Newsletter Editor, a new Secretary, James Bach, and Jerry Tate past President has volunteered to become the Newsletter Editor. For contact information for the officers and regional representatives see the WSBA web site at: www.wasba.org/.

Australian package honey bees: US beekeepers have apparently convinced the USDA to ban the importation of Australian honey bees. When this author asks the question why do beekeepers want the packages banned he is told that the main problem is that beekeepers who purchased them in the last few years have lost most and some lost all of the colonies. When asked why this is the case I was told the bees are Aussie late fall and winter bees brought into this country for spring almond pollination and to rebuild colony numbers and they are expected to act like spring bees. The consensus appears to be that the Aussie colonies need their winter diapauses. I'm told the colonies don't build up in the US spring and gradually fail and die. Some beekeepers are reported to have purchased several hundred packages that all subsequently died. At $135 for a four pound package FOB California that is quite an investment if you need to buy several hundred as replacement colonies.

USDA has taken action to prohibit the Aussie bee imports based on historic disease records but they have not yet published their final action in the Federal Register. They found four organisms and one virus with low potential impact but four viruses that could have high potential impact on colonies because of the national movement of bee colonies in the US.

Beekeepers' Calendar

Mar 4 - 6: 4TH ANNUAL ORGANIC, CHEMICAL-FREE BEEKEEPERS MEETING, YMCA Triangle Y Ranch Camp, Oracle, Arizona. Info Keith Malone (Alaska) 907-688-0588 or Ramona/Dean 978-407-3934; Info and registration Dee Lusby 520-398-2474 (evenings).

Mar 5 - 6: BRITISH COLUMBIA HONEY PRODUCERS ASSOCIATION SEMI-ANNUAL MEETING & EDUCATIONAL WORKSHOP WEEKEND, Kamloops. Details Ian Farber 250-579-8518 or ian_farber@telus.net.

Mar 23: QUEEN REARING WORKSHOP FOR SMALL-SCALE BEEKEEPERS, Sue Sobey at UC-Davis. Info swcobey@ucdavis.edu or entomology.ucdavis.edu/ courses. beeclasses.

Mar 30: QUEEN REARING WORKSHOP FOR SIDELINER & COMMERCIAL BEEKEEPERS, Sue Cobey at UC-Davis. Info swcobey@ucdavis.edu or entomology.ucdavis.edu/ courses.beeclasses..

Apr 20 - 21: ADVANCED WORKSHOP IN INSTRUMENTAL INSEMINATION OF QUEENS, Sue Sobey at UC-Davis. Info swcobey@ucdavis.edu or entomology.ucdavis.edu/ courses.beeclasses.

May 29: 2ND ANNUAL DAY OF THE HONEY BEE (Canada), Allen Garr, BC Coordinator 604-736-4184.

June 20 - 26: 5TH ANNUAL NATIONAL (US) POLLINATOR WEEK. Info www.pollinator.org/pollinator_week_2-11 or info@pollinator.org.

June 26 - 30: NATIONAL BEEKEEPERS ASSOCIATION CONFERENCE, Waipuna Hotel, & Conference Centre, Mt. Wellington, New Zealand. Info www.nba.org.nz/node/805 or Bob Russell 011-64-9-294-8656, bob.russell@paradise.net.nz.

July 25 - 29: EASTERN APICULTURAL SOCIETY CONFERENCE 2011, Crowne Plaza Hotel, Warwick, Rhode Island. Info easternapiculture.org/conferences.

July 7 - 9: HEARTLAND APICULTURE SOCIETY CONFERENCE 2011, Vincennes University Campus, Vincennes Indiana. Info www.heartlandbees.com.

Sept 12 - 15: WESTERN APICULTURAL SOCIETY ANNUAL CONFERENCE, Hapuna Beach Prince Hotel , Hilo, Hawaii. See page 3 of this Journal for information to date. Forms and programs will be posted on the website 'groups.ucanr.org/WAS/Conferences' as they become available.

Sept 21 - 25 (PLEASE NOTE CORRECTED DATE): APIMONDIA INTERNATIONAL CONGRESS, Buenos Aires, Argentina. Info www.apimondia2011.com.

For more Beekeepers' Calendar of Events items, visit the Global Beekeeping Calendar, courtesy of the Florida Beekeepers Association & Malcolm Sanford at http://floridabeekeepers.org

MEMBERSHIP RENEWAL DUES PAYMENT FORM

Name _____
First Last

Address _____
Street

_____
City Prov/State Zip Code

Phone _____ **Email** _____

Enclosed is a check in the amount of $_____ in payment of dues for the year(s) _____

Type of membership _____ **New** _____ **Renewal** _____

See page 2 for membership information. Make check payable to Western Apicultural Society and mail to:

Western Apicultural Society
PO Box 397
Selah WA 98942 USA

Western Apicultural Society of North America
W.A.S.

Return non-deliverable copies to

Western Apicultural Society Journal
PO Box 397
Selah WA 98942-0397