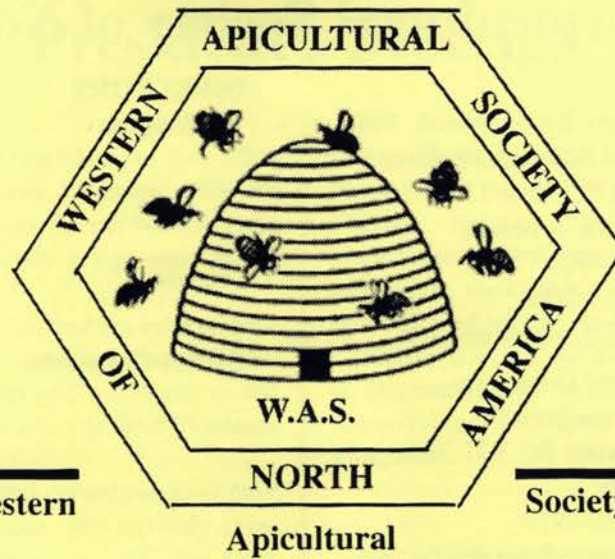


Fall 2003



The Journal of the Western

Society of North America

Apicultural

## *The First Annual WAS Conference Workshop Series*

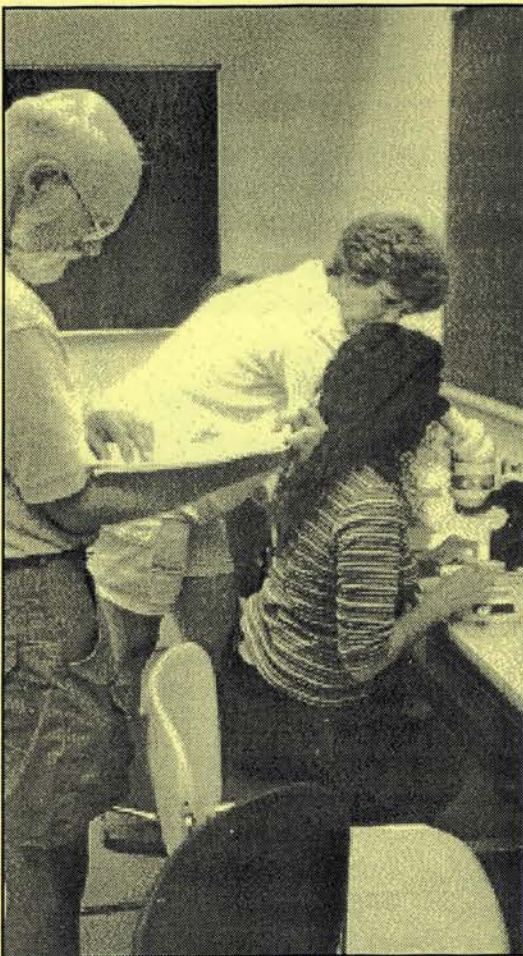
Four rooms were occupied by beekeepers, with their eyes jammed against microscopes, furrowed brows beading with sweat. Fun you say? The beekeepers at the 2003 WAS conference seemed to think so.

I thought it would be fun to organize workshops as part of the WAS 2003 conference since people in general like hands-on experiences. We, the program committee, decided to have a full day of workshops, running several back to back.

Participants had to choose whether to participate in Michael Young's encaustic painting workshop or check out the bee disease lab with Heather Higo and Steve Pernal. You instantly knew the laughter came from Michael Young's room and the quiet concentration from the wild bee identification workshop with Claudia Ratti. Steve Mitchell showed the nitty-gritty of grafting, followed by Ron Lin who showed participants how to harvest royal jelly and propolis. Steve Pernal showed us how to test honey bees for *Varroa* resistance, while Roger Clapham made up the first batch of WAS hand lotion. The potions and lotions among Clapham's Products were available at the commercial booths. Jim Bach demonstrated how to evaluate good queens and good colonies - valuable information that allows a beekeeper to select for good stock right in the home apiary. I ran a workshop on the successful techniques of keeping mason bees (*Osmia lignaria*). Participants learned that by opening up mason bee nests, the mason bee cocoons can be cleaned and the bee parasites removed.

The broad subject matter covered by the workshops was enjoyed by all. One participant told me that the hands-on workshops were fun, that she learned a lot - and she hopes that workshops will be organized at every WAS conference in the future.

*Margriet Dogterom, organizer of the First WAS Workshop Series.*



Wild bee identification lab - Claudia Ratti leading attendants through the keying process.

# Western Apicultural Society of North America

## EXECUTIVE

### President

Dr. Jerry Bromenshenk, PhD.  
Div. of Biological Sciences  
Health Sciences 110  
Missoula, Montana  
59812-4824  
406-243-5648  
[jjbmail@selway.umt.edu](mailto:jjbmail@selway.umt.edu)

### 1st Vice President

Margriet Dogterom  
641 Claremont St.  
Coquitlam BC V3J 3T5  
Canada  
604-936-3919  
[masonbees@beediverse.com](mailto:masonbees@beediverse.com)

### 2nd Vice President

Dr. Steve Sheppard  
WSU Entomology  
Pullman WA 99164-6382  
509-335-5180  
[shepp@wsu.edu](mailto:shepp@wsu.edu)

### Secretary

Nancy Stewart  
2110 X St.  
Sacramento CA 95818  
916-451-2337  
[nstewart@cwnet.com](mailto:nstewart@cwnet.com)

### Treasurer

George Steffensen  
PO Box 956  
Grants Pass OR 97528  
541-474-4305  
[george@internetcds.com](mailto:george@internetcds.com)

## W.A.S. NEWSLETTER ADVERTISING RATES

(Payable in US funds only)

Full page	150
Half page	85
1/4 page	50
Business card	25

Make check payable to Western Apicultural Society  
and mail to Treasurer (address above)

Canadian exchange - OCTOBER 03 - approx. 1.31

Return undeliverable copies to W.A.S. Address on outside back  
(Mailed in Yakima WA)

## DIRECTORS

### Washington

Kari Hallopeter  
PO Box 822  
Redmond WA 98073  
[hallopeter@jps.net](mailto:hallopeter@jps.net)

### Oregon

George Steffensen  
(see Treasurer)

### British Columbia

Ian Farber  
3249 Schubert Rd.  
Kamloops BC V2B 6Y4  
Canada  
250-579-8518  
[ian\\_farber@telus.net](mailto:ian_farber@telus.net)

### Alaska

Fletcher Miller  
6330 E. 9th  
Anchorage AK 99504  
907-338-4694

### Other states/provinces vacant

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.

## MEMBERSHIP RATES (US FUNDS)

Individual	\$ 10.00
Junior	\$ 7.50
Senior	\$ 7.50
Couple	\$ 15.00
Associate	\$ 10.00
Commercial	\$ 50.00
Life	\$ 100.00
Couple Life	\$ 150.00
Benefactor	\$ 500.00
Patron	\$1000.00

## NEWSLETTER

### Editor/Publisher

Fran Bach  
Phone 250-679-5362 Canada  
509-573-4245 USA  
Fax 250-679-5394 Canada  
509-573-3319 USA  
[meaghen@charter.net](mailto:meaghen@charter.net)

# President's Message

**W**.A.S. members, mark your calendars for July 2004 in the Garden City, Missoula, Montana. We are aiming for July 11-14th. Its a great time to visit Montana and talk about bees. Our daily maximum temperature is 83 degrees.

With a population of about 82,000, a good bus system, bike paths, and more bicycles than almost any other community in the U.S., Missoula is easy to get around in. Home to the University of Montana, at the confluence of five mountain valleys, Missoula is the place to be.

We've got one of the first fully hand-carved carousel built in America since the Great Depression. We are only three hours from Glacier Park and about one-half day from Yellowstone Park.

We're planning a tour day that will go to the National Bison Range, then to Western Bee's equipment fabrication plant in Polson, and will end with a barbecue on Flathead Lake, the largest inland lake west of the Mississippi.

We're working on a great program, and will be coordinating workshops and conferences with other groups, such as the

Native Plants Society, and one or more of the Pollinator conservation groups. Of course, we have to bring in the bear experts, since the U.S. Fish and Wildlife bear recovery program is located here. We might even get a visit from Monte, the back-flipping, motorcycle-riding Grizzly, who's out to defend his title as the Nation's No. 1 mascot.

Please join us at the University of Montana for a program of fascinating and varied speakers, panels, workshops, and fun activities. Its a great place to combine a conference and a vacation.

*Jerry Bromenshenk*

P.S. Check out <http://www.montana.com/missoula/>





**B. Weaver**  
Apiaries

Call today to get on our mailing list for the Spring 2004 catalog!

16481 CR 319 - Navasota, TX 77868  
Phone: 936-825-7312 Fax: 936-825-7351 Email: sales@beeweaver.com

Sample of designs to choose from:



#001



#002



#005



#003



#001



#004



#006



#008



#007

**Bee goods**  
16481 CR 319 • Navasota, TX 77868  
www.beegoods.com 936-825-7312

NEW! and now taking orders for T-shirts-\$15.00(white)or \$17.00(color),  
Tote Bags- \$17.00 (regular) or \$27.00 (grocery), Mouse Pads- \$6.00,  
Can Coolers-\$4.00, Pillow Covers- \$12.00, Aprons- \$17.00, Shorts -\$17.00 and much more.  
Available in many sizes and colors. Call us to place your order or get a copy of our brochure today.



## WESTERN APICULTURE SOCIETY MINUTES - AUGUST 15, 2003 Annual Business Meeting

The President, Jaquie Bunse called the meeting to order at 12:15 p.m. The minutes of the last Annual Business Meeting were approved on a motion by B. Stump, I. Farber seconded.

The Secretary's report was made and accepted on a motion by J. Duffy, seconded by L. Basaraba. The Treasurer's report was given and accepted on a motion by E. Mussen, seconded by J. Duffy. The report was filed for audit. Audit Committee chair, I. Farber, read the auditor's report. The report recommended the following:

1. That profit/loss statements continue to be produced for each conference in as much detail as possible to accurately reflect which conference events are responsible for a profit or loss.

2. That all income records be kept as detailed as possible to give more information than what has currently been shown as money transfers from one account to another. Income should be detailed as to source (eg. member's name and income breakdown for dues, conference, meals, etc.).

3. That a list of generalized income and expenses be kept on one statement. A separate statement of conference incomes/expenses should be kept. As much as possible, these statements should be kept separate.

The report was accepted on a motion by I. Farber, seconded by E. Mussen. The Treasurer was asked to have a list of conference attendees to hand out at the banquet.

J. Bunse gave the Journal Editor's report since Fran Bach was not present. The Editor has been selling advertising resulting in a large saving in Journal costs. She thanked Fran.

Sites for future conferences are 2004 (Jerry Bromenshenk) in Missoula, Montana; 2005 (Steve Sheppard) in Pullman, Washington; 2006 yet to be decided. The organization would like suggestions please.

Nominations were presented by Keri Hallopeter as follows: President, Jerry Bromenshenk; Second Vice President, Steve Sheppard; Secretary, Nancy Stewart; Treasurer, George Steffensen. The following nominations were made for Directors: Ian Farber, British Columbia, and Dick Allen, Alaska, to complete two-year terms. There were no nominations for Colorado, Montana, Nevada or Wyoming. E. Mussen moved the nominated officers be elected. B. Stump seconded and the motion was carried.

Awards Committee reported that Don Dixon is receiving the Outstanding Service to Beekeeping Award this year, to be presented at the banquet. E. Mussen, By-laws Chair, presented proposed changes to the by-laws. He said the Society could use these changes until they are formally approved in 2004, after they are printed in the Journal.

Unfinished business: Nancy Stewart reported that an updating of the Society's publicity brochure is in process. Wayne Pitts has offered to work on a new website for WAS, since the current one will soon expire.

Details of next year's conference will be published in the Journal.

The meeting was adjourned at 12:45 p.m.

*Respectfully submitted by Nancy Stewart, Secretary*

### Bee Culture

THE MAGAZINE OF AMERICAN BEEKEEPING  
Don't Miss Even One Exciting Issue of Bee Culture Magazine,  
filled with everything you want to know about.

- Bees • Beekeeping • Beekeepers • How-To's •
  - Honey Report • Profiles • Recipes • Funny Stories • Foreign Postage
  - Research • Something For Everybody •
- Included

Send check to: Bee Culture Magazine  
623 Liberty, Medina OH 44256 or call 800-289-7668,  
Ext. 3220 with credit card

### C F KOEHNEN & SONS, INC

Quality & Service Since 1907  
**QUEENS & PACKAGES**

**Italians & Carniolans**

3131 Hwy 45 • Glenn, CA 95943

530.891.5216 • 530.934.5216

FAX 530.934.2613 • Office Hours 8 - 5

*Queen Rearing At Its Best*



## WESTERN APICULTURE SOCIETY MINUTES - AUGUST 16, 2003 Post-Conference Directors and Delegates Meeting

**P**ast President, Jaquie Bunse, called the meeting to order at 4:05 p.m. Attending were: I. Farber, K. Hallopeter, G. Steffensen, N. Stewart, E. Mussen, G. Jones, R. Parsons, and J. Bunse.

Fran Bach will be asked to continue as Journal Editor. Eric Mussen will help the future Historian by talking to UCD about archives and he will make an effort to get all historical materials together in one place. It was agreed that next year's President will appoint an Auditing Committee at the first Directors and Delegates meeting (as has been done for several years). Eric Mussen will serve as Bylaws Chair and Sites Chair and Nancy Stewart as Resolutions Chair. President Jerry Bromenshenk will be asked to approve these appointments and to appoint a Nominations Committee, Parliamentarian, Historian and any other positions he desires.

Old business: it was agreed that the new brochure would be printed from computer or e-mailed as needed, rather than printed up professionally. This can be altered if need for a printed version arises.


New business:

1. Wayne Pitts will be working on a WAS website.
2. Liability Insurance needs should be included in the notes for future conferences.
3. George Steffensen suggested getting a WAS Visa card in a limited amount, to be used by conference organizers each year for smaller purchases that are hard to pay individually by check. N. Stewart moved George be empowered to do that. J. Bunse seconded. Motion carried.

4. Ron Parsons suggested that there be a space on the early conference registration form for ordering a T-shirt. T-shirts could then be pre-ordered with only a few extras, so we avoid leftover shirts that have sometimes been a problem in the past. The group agreed.

The meeting was adjourned at 4:45 p.m.

*Respectfully submitted by Nancy Stewart, Secretary*



*Your Leading Supplier of*

- Natural Menthol Crystal
- Bee Feed Pollen
- Fresh, Frozen Royal Jelly

Call for Competitive Pricing and for a Free Copy of our Full Color 2003 Mail Order Catalog.

PO Box 2744 - 120 N. Seneca Rd.  
Eugene OR 97402 USA  
Toll Free (800)456-7923 Fax (541)762-7173  
[www.GloryBeeFoods.com](http://www.GloryBeeFoods.com)  
[Sales@GloryBeeFoods.com](mailto:Sales@GloryBeeFoods.com)

### IOTRON TECHNOLOGIES INC.

#### Electron Beam Processing

*The processing technology of the new millennium.*

Iotron Technologies Inc. provides a cost effective disinfection method to control and eliminate chalk-brood and other destructive diseases. The highly advanced technology of ELECTRON BEAM PROCESSING can be used to treat BEE POLLEN or COMB to eliminate fungal contaminations well as unwanted larva. When you think destruction by burning is your only solution, our highly advanced processing method offers you an alternative.



- Non-thermal process
- Reliability

A government approved processing method for imported bee products

1425 Kebet Way  
Port Coquitlam BC  
V3C 6L3  
Phone 604-945-8838  
Fax 604-945-8827  
Email: [iotron@iotron.com](mailto:iotron@iotron.com)



**VANCOUVER ISLAND**  
  
**APIARY SUPPLY**

**CALL FOR A QUOTE!**  
 \*BEEKEEPING SUPPLIES  
 \*EQUIPMENT  
 \*MEDICATIONS  
 \*PACKAGING FOR HONEY  
 JAM, AND OTHER NEEDS  
 \*SUPPLIER OF D&G GLASS  
 www.thebeestore.ca  
**BUY ONLINE**

3727 RIVERSIDE ROAD, DUNCAN BC V9L 6M9  
 PHONE 1-250-746-1676 1-877-227-2211  
 FAX 1-250-746-1603  
 email sales@thebeestore.ca

  
**VISA/MASTERCARD**

**Dadant** *Everything for the Beekeeper*

Call our branch offices: Pat in Fresno or John in Chico for fast courteous service. *Free Full Color Catalog*

PO Box 2837  
 2765 South Golden State Blvd.  
 Fresno, CA 93745  
 Phone (559) 495-0230  
 Fax (559) 495-0232  
 Toll Free 1-877-432-3268

15 C Valley Court  
 Chico, CA 95973  
 Phone (530) 893-0921  
 Fax (530) 893-0922  
 Toll Free 1-877-332-3268

Website: [www.dadant.com](http://www.dadant.com)


**FRESH QUEENS AVAILABLE NOW**  
 Italian and Carniolan



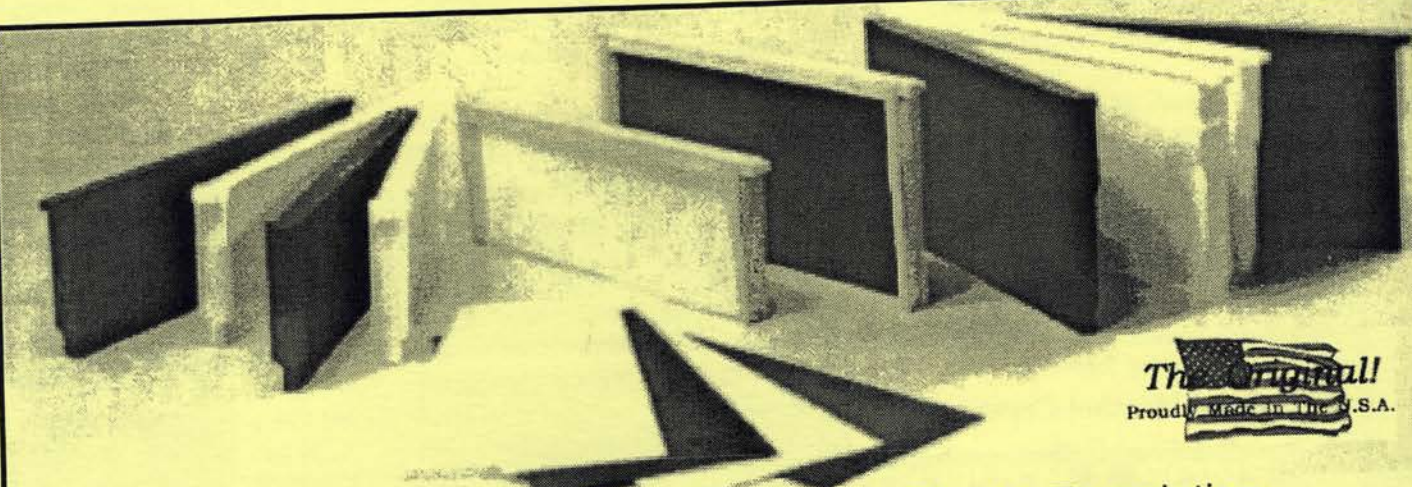
**Kona Queen Hawaii**  
**HAWAII • USA**  
**(808) 328-9016**

**STRACHAN APIARIES INC.**  
 POLLINATION SERVICE BEES AND QUEENS



**DON STRACHAN**  
**VALERI SEVERSON**  
 PH. (530) 674-3881  
 FAX (530) 674-5802

2522 TIERRA BUENA ROAD  
 YUBA CITY, CA 95993  
 E-MAIL: [orders@strachanbees.com](mailto:orders@strachanbees.com)





*The Original!*  
 Proudly Made in the U.S.A.

Excellent Deep & Medium Snap-In Plastic Foundation  
 Please contact us for more information

**In the US**  
 Nick Lissaman  
 1-800-233-2662  
[pierco@calmold.com](mailto:pierco@calmold.com)

**In Canada**  
 Tim Townsend  
 1-780-963-7573  
[ttownsen@telusplanet.net](mailto:ttownsen@telusplanet.net)

  
**Pierco**  
 DIVISION of Cal-Mold Inc.

  
**Pierco**  
 CANADA

Call for the Distributor nearest you.

# Mead, the Honey Wine

By Michael Young, Hillsborough, Northern Ireland



We read thus of a cup of "wine" (mead) being given to the British king Vortigern by the daughter of Hengist, the Saxon: "And after that (King Vortigern) had been entertained at a banquet royal, the damsel stepped forth of her chamber bearing a golden cup filled with wine, and coming next the king, bended her knee and spake, saying: 'Lovered King, wacht heil!' But he, when he beheld the damsel's face, was all amazed at her beauty and his heart was enkindled of delight. Then he asked of his interpreter what it was that the damsel had said, whereupon the interpreter made answer: 'She hath called thee "Lord King" and hath greeted thee by wishing thee health. But the answer that thou shouldst make unto her is "Drinc heil."' Whereupon Vortigern made answer: 'Drinc heil!' and bade the damsel drink. Then he took the cup from her hand and kissed her, and drank, and from that day unto this hath the custom held in Britain that he who drinketh at a feast sayeth unto another, 'Wacht heil!' and he that receiveth the drink after him maketh answer, 'Drinc heil!'"

The term honeymoon is traditionally explained as an allusion to the feelings of married couples to one another during

Mead Type	Initial Specific Gravity	Expected Final Specific Gravity	Alcohol Content
Dry	1.100	0.999	9-12%
Medium	1.118	1.010	12-15%
Sweet	1.127	1.025	12-15%

the first moon cycle of their partnership - i.e. sweet. This is understandably so, but one may also consider that our Saxon ancestors would drink mead at wedding festivals which, it is

rumoured, lasted a whole month. The bride and groom would be given a bottle of honey wine (mead) and told to drink under the full moon, giving rise to the term honeymoon, hoping to increase her fertility and his virility.

## Mead Making

The method of mead making could be described as very simple, with the emphasis being placed upon:

- Equipment and products being completely clean and sterilized at all times.
- First quality products always being used.
- That the starting specific gravity is achieved.
- That you revisit the brew and keep an eye on its progress.
- That the process is not forced - good mead takes time.

Below is a chart which will enable a good finished mead of different levels:

**\*\*\* Help the initial process by preparing a feeder/starter which is prepared 24 hours before starting to make mead.**

Use a sterilized bottle. Mix 1 tsp. of sugar to 1 tsp of yeast and place in a pint milk bottle half full of water. Leave in a warm area until fermented. This is known as a feeder/starter and should be added to the mead mix.

## Basic Mixture of Ingredients for all types of mead (about 1 gallon.)

Brother Adam always suggested using 4 to 6 lbs of honey. Below 4 lbs. the mead will not be of any quality. This is mixed with up to five pints of near-boiling water. Bring the mixture to a boil, stirring all the time to avoid burning. Although heating does kill off some very important oils, it also kills the wild yeasts in the honey which, if allowed to self-ferment, could produce bad flavors.

Allow the mixture to cool, but during the cooling process, keep it covered up. Cling film is a good option. When the mixture has cooled, put it in a wide, open-necked, pre-sterilized container such as a brewing bucket. I find it is useful to have a container with the liquid amounts written on the side.

The solution produced in the initial mixture needs to be diluted to the required initial specific gravity (see chart above)). To achieve the taste you require, adjust the mixture to the correct specific gravity.

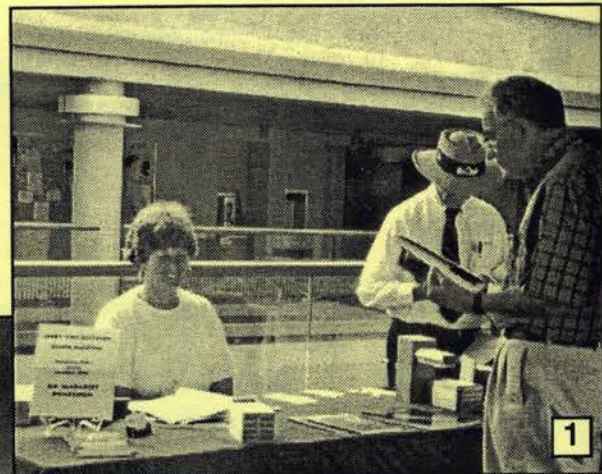
## To achieve the required (desired type) initial specific gravity (ISG) as per the chart:

The mixture should be well mixed using a sterilized spoon.

Take a pint sample from the mixture. Put a measure of the mixture in the hydrometer tube (leave plenty of room so it floats and does not make the liquid overflow). Make a note of

*(continued on page 10)*

# Images of WAS 2003



1. Margriet Dogterom manning the registration table. Dr. John Boone in foreground.



2

2. Michael Young teaching encaustic painting method



4

3. Merlin Kirk exhibiting his bee equipment  
4. Jaquie Bunse, WAS President, awarding the Outstanding Service to Beekeeping Award to Don Dixon



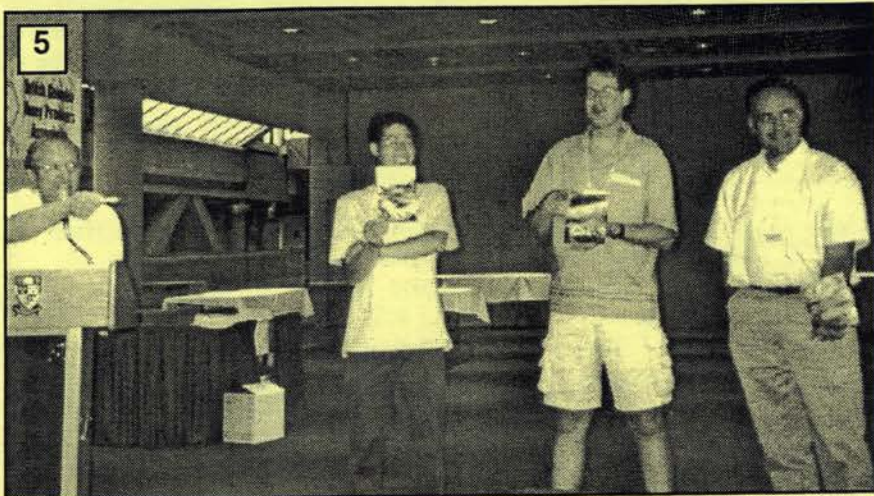
3

5. Ian Faber, auctioning off Michael Young's encaustic paintings



6

6. Bee disease lab - Steve Pernal, explaining fine points of American Foulbrood



5





7. Michael Young, introducing the banquet guests to the fine art of mead judging (assisted by SFU's Bee Lab students Ann Birmingham, Shelley Hoover, Nicole Gervan and Claudia Ratti)



8

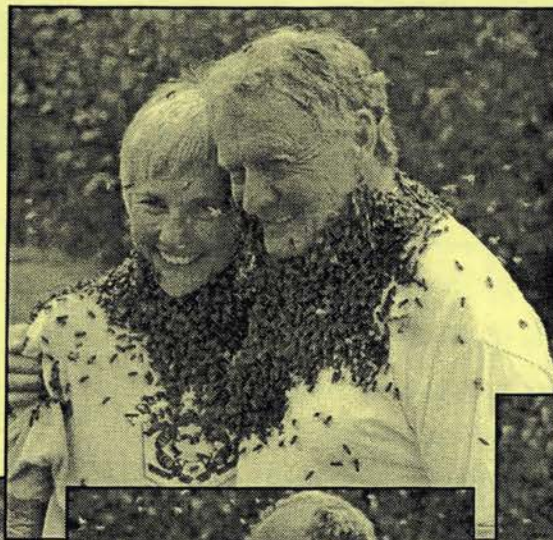
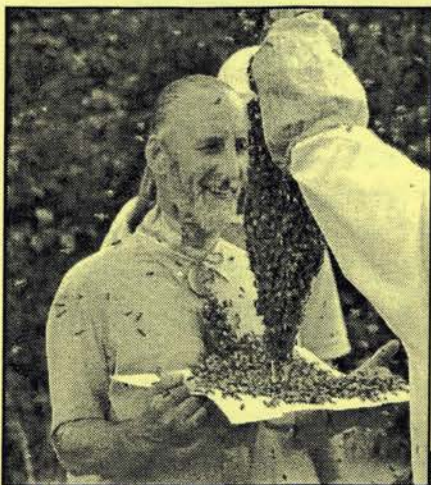
8. Bee disease lab - Heather Higo, demonstrating tracheal mite identification

9. Roger Clapham, exhibiting his beeswax products



9

# and the Bee Beards .....



(continued from page 7)

the hydrometer reading and measure the level of the mixture in the hydrometer tube.

Add water gradually to the tube until the required ISG is achieved.

Measure, and note the new height in the hydrometer tube. The difference between the two heights will provide the ratio for the amount of water which needs to be added to the main volume to bring it to the correct SG. Adjust the mixture with water as per the ratio. Add an amount of citric, malic or tartaric acid powder and wine tannin powder as per the instructions, and ensure the mixture is completely mixed.

Taste the mixture to make sure it meets with your approval and only add a small amount at a time. Mix in the feeder/starter, which should now be working vigorously. Cover the vessel with a loose lid and leave in a warm place (65 - 70F or 16 - 20C). This should enable the initial fermentation to start. The initial fermentation will be very vigorous: this is the reason for using a wide open container and a loose cover. Do not overfill the container.

The first stage of the fermentation should take a week or more. During this period, stir the mixture vigorously each morning and night so as to introduce air. It will produce froth, but will stop the build-up of gas on the bottom of the container.

When the initial aggressive fermentation has slowed down, there is no need to stir any more. Transfer the mixture into a demi-john and put on an air lock.

**TIP** - Rather than using water in the air lock, use a mixture of half water and half liquid glycerin or pectin as that will prevent the air lock from drying up and help to prevent moulds growing.

Leave the demi-john to work (ferment) at its own pace. The factors that will control the rate of fermentation are variable but the temperature of the environment is a major factor in the process. Try to maintain about 60F (16C) and don't go above 70F (20C) or the yeast may be killed.

Just leave the mixture to ferment and monitor the process -- time is the great brewer. When the process has slowed down dramatically, take an SG reading, have a taste to check and then siphon or decant the mixture less the "sludge" at the bottom of the demi-john into a sterilized and clean demi-john, then replace the stopper and air lock, leaving the process to continue.

When all signs of fermentation have ceased, siphon or decant the product into a clean demi-john. It should be palatable to drink at this stage. Brother Adam does maintain that the mead will improve over time, i.e. the longer it is left, the better it will be. He argues that a good mead takes seven years. I must agree with him on this. However, that does not say that young mead is not delicious, as I have found also. It is quite possible to stop the process with Camden tablets, however, I have preferred to let the mead run its course. I find it exciting to see the mead releasing one bubble a day.

[myoungjudge@hotmail.com](mailto:myoungjudge@hotmail.com)

*All queens are Instrumentally Inseminated*



**BREEDER QUEENS**  
Pure SMR - SMR Hybrids  
Russian - Carniolan  
Minnesota Hygienic Italian  
Cordova Italian

*Selected for mite resistance, hygienic behavior,  
gentleness, and honey production*

Breeder queens - best of the best....\$250

Select queens - untested breeders.....\$75

Plus \$25 shipping - UPS Overnight

*Send for a brochure or visit our website:*

<http://members.aol.com/queenb95>

**GLENN APIARIES**

P.O. Box 2737

Fallbrook, CA 92088

Ph./Fax (760) 728-3731

e-mail: [queenb95@aol.com](mailto:queenb95@aol.com)



## West Coast Bee Supplies Ltd.

(formerly JJ Bee Supplies)

9351 #6 Road  
Richmond, B.C.

Same super service & even better  
prices for all your beekeeping needs.

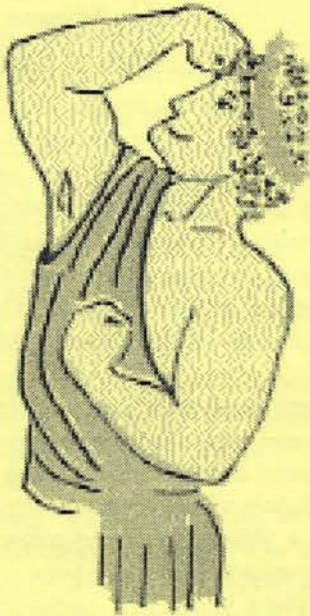
- Apistan Strips
- Fumagilin B
- Menthol Boards
- Hive Boxes
- Formic Acid
- Oxytet 25
- Bee Pro
- CheckMite
- Bee Suits and much more

**Tamara and Bob Fisher**

Phone 604-272-1921 Fax 604-272-1928

Email: [bobyvonne@paralynx.com](mailto:bobyvonne@paralynx.com)

# Fun at WAS - Bee Olympics



Against a breathtaking back drop of mountains and forested slopes, and under sunny skies, beekeepers were hammering together frames and lighting smokers at breathtaking speeds. No, these were not beekeepers gathered together to hive a newly caught swarm. They were the participants of the first WAS Olympics. The WAS Olympic activities were all beekeeper related and some, though seemingly simple at first glance, were more difficult than others.

One such activity was finding a queen in a photograph. The bees were life-sized and the photograph in colour. The queen for some was difficult, if not impossible, to find. One beekeeper found her in less than 5 seconds; others could not find her in 3 minutes - the maximum time allotted for this event.

Kerry Clarke looked after the smoker lighting competition that included lighting a smoker, running to another table to hammer a frame together - quality was important here as well as time - and coming back to puff the smoker. Success in this event was the puff of smoke after making the frame. If produced, the participant received full marks.

Other participants were pondering over the volume of honey in 3 containers. Of course each container was partially filled and this added to the difficulty. One was a 10lb bucket filled three

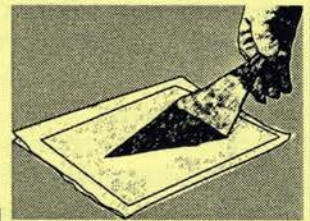
quarters of the way to the top, another was a vase shaped bottle filled to the base of the neck, and a 1lb jar not quite full.

Don Dixon, Kerry Clarke and I had a lot of fun getting it all together, and it looked like the participants had fun too. I look forward to participating in the WAS Olympics at future WAS conferences.

*Margriet Dogterom, Program organizer  
and First Vice President- 2003*

## BEE-PRO® Pollen Substitute Patties

BEE-PRO® Pollen Substitute Patties are a complete feed source offering the proper balance of proteins, amino acids, lipids, carbohydrates and vitamins needed to produce healthy young bees.



BEE-PRO® Pollen Substitute Patties provide the nutrient rich ingredients that will help you maintain young bee populations for the upcoming pollination season.

*Large quantity breaks available,  
call for pricing.*

**BEE-PRO® Patties  
can help gauge  
queen viability!**

- PRE-FORMED PATTIES READY TO FEED
- STIMULATES BROOD PRODUCTION
- JUST SLIT PAPER AND PLACE ON HIVE
- BALANCED NUTRITION
- NOT WEATHER DEPENDENT
- HEALTHIER BEES
- EARLY BROOD PRODUCTION
- INCREASED BEE POPULATION

**BEE-PRO® Patties are  
available for pickup in  
California; please call for  
location and pricing!**

FD-320 BEE-PRO® Patties 10 pack.....	\$19.95 per pack
FD-300 BEE-PRO® Patties 40 pack 1-10 cases.....	\$46.14 per case
BEE-PRO® Patties 40 pack 11-19 cases.....	\$43.82 per case
BEE-PRO® Patties 40 pack 20-29 cases.....	\$41.63 per case
BEE-PRO® Patties 40 pack 30-39 cases.....	\$39.55 per case
BEE-PRO® Patties 40 pack 40+ cases.....	\$37.57 per case

## High Fructose Corn Syrup

**Available for delivery in the US and Canada!**

Type 55 and Type 42 in full or half loads delivered nationwide.

Convenient pickup locations are also available.

Call us for the most-competitive price guaranteed!

*Call about  
Pro-Sweet 50!  
Available in CA.*



**Mann Lake Ltd.**  
501 S 1st St.  
Hackensack, MN 56452-2001  
Fax: 218-675-6156

**1-800-880-7694**  
beekeeper@mannlakeltd.com  
www.mannlakeltd.com

# Small Hive Beetle - *Aethina Tumida* Murray

By Eric Mussen, UC Davis, CA

The small hive beetle (about 1/4 inch long) occurs naturally in sub-Saharan Africa. It belongs to the Family Nitidulidae, commonly known as "sap beetles." In this case, the beetle prefers beehives over rotting fruits and vegetables, or sores on wounded plants, as its place to live and reproduce. However, the beetle has been shown to be capable of reproducing on cantaloupe, grapefruit, avocados and apples.

While not to much of a problem for beekeepers in Africa, the beetle has caused extensive damage to honey bee colonies in southeastern US. The beetle appears to have been noticed in South Carolina in 1996, Georgia in 1997, but not identified as a beehive pest until it caused destruction in Florida in 1998.

Adult beetles seem to be capable of flying up to five miles. They enter beehives and lay their eggs in crevices, cavities or under the cappings. The larvae hatch and feed on similar organic substances in the hive as do wax moths -- bottom board debris, pollen, honey and brood. If the beetle numbers in the surrounding area become large, the number of larvae can be staggering. Eventually, they tunnel into the brood and through the honey. They do not leave a web trail behind, like wax moths, but they do inoculate the honey with organisms that cause the honey to bubble and stink. At that point in time, the colony often absconds. The larvae continue to chew up the combs and turn the honey into frothy goop. When fully

fed, the larvae leave the hive and pupate in the ground around the hive. Upon emerging, the beetles mate and fly back into hives to keep the process going. This scenario also occurs in barrels of left-over wax, cappings, burr comb, etc. in warehouses. In Africa, there can be five reproductive cycles a year.

The beetles have been spread around the eastern US on truckloads of bees, in queen shipments that include loose masses of attendants, and in packages. They don't seem to stay confined with individually caged queens and a few attendant bees.

Control of small hive beetle is multi-faceted. 1. Try to keep colonies strong and resistant to infection. 2. Extract honey from combs quickly: don't let it sit for long in the warehouse. 3. Don't store barrels of burr comb, cappings, broken comb etc. in the open. 4. Plan NOT to feed pollen substitute, pollen supplement, or grease patties to the bees -- they are excellent beetle feed. 5. Place corrugated cardboard or plastic, with CheckMite+® strips stapled beneath, on bottom boards of hives where beetles have been seen. Drench the ground around those hives with Gardstar® (permethrin.) 6. Try to keep the environment less hospitable to the beetles -- all stages are killed by freezing temperatures, and eggs won't hatch or larvae survive at relative humidities below 50%. However, adult beetles survive Midwest and Northeast winters in wintering honey bee clusters. 7. Goopy combs can be power rinsed with water, with or without bleach or detergent, and returned for use in the hives.

Experimentation is still on-going with other approaches, but the beetles can be trapped in cider vinegar in the hives. Also, directing bee traffic through a 3/4 inch PVC pipe reduces the infestation rate by 50%, but it overheats the hive in warm weather.

[ecmussen@ucdavis.edu](mailto:ecmussen@ucdavis.edu)

**WORLD'S LARGEST  
CANDLE MAKING  
SUPPLY COMPANY**

**Pourette**

NEW  
BEESWAX MOLDS

Sell your beeswax in unique  
hexagon shapes using these molds.

You Can Make Candles For Fun and Profit.  
Send For Catalog .... \$3.00

**Pourette Manufacturing Co.**

P.O. Box 70469  
Seattle WA 98107  
(800) 888-9425



## *Stawn's Honey and Beekeeping Supplies*

Jim & Kristy Anderson  
6255 Old Kamloops Rd.  
Vernon B.C. V1H 1P8

Ph (250)542-9977  
Fax(250)542-9623  
[stawnshoney@shaw.ca](mailto:stawnshoney@shaw.ca)

**We are now stocking medications and supplies  
formerly handled by McCutcheon's**

[www.stawnshoney.com](http://www.stawnshoney.com)

Conference Proceedings .....

# Beekeeping in Ireland and the United Kingdom

With very little large scale agriculture, Ireland is truly a unique place for producing honey with that special quality. This has been in evidence through many beekeepers traveling and competing at the London National Honey Show and collecting many trophies - most of all, the prestigious World Cup, given for the World's Best Honey. Three of these winners have come from my small home village of Hillsborough.

Throughout the ages, England was known as the "Honey Isle". But a town that has been there for thousands of years in County Tipperary, Ireland, one called Clonmel. This is Gaelic for "the Vale of Honey".

It is said that bees arrived in Ireland with the help of a gentle monk called Modomnoc who worked with his beloved bees for S.t David at a monastery in Wales. At a late age, Modomnoc was called to Ireland by the Abbot. His last visit at the Monastery was to say farewell to his faithful bees. As Modomnoc was taken towards the ship on a small rowing boat, the sailors noticed a small cloud coming towards them from the shore and settling above their heads. Modomnoc knew what had happened and requested the rowers to turn back so he could return the bees to their skeps, and they did. The same happened again, but this time Modomnoc and the rowers carried on. The bees stayed with Modomnoc until they arrived in Wexford where the Abbot granted him permission to build a hermitage where the bees could live in peace. From that day on, the bees have swarmed the length and breadth of Ireland.

The first writings on beekeeping in Ireland and the UK came from Bartholomaeus Anglicus who wrote about bees in Saxony in 1250, and then in 1570 Thomas Tusser's five hundred points of good husbandries. This was to pave the way for many by-laws in the future. Charles Butler, a vicar at St. Lawrence Church at Wootton from 1600-1647, became very close to the bee space. In 1609, he wrote a masterful book entitled "The Feminine Monarchie." He also observed the 'King' laying eggs!

Many customs have developed throughout the ages. Tanging of the bees was rife among the cottagers. Whoever brought down a swarm of bees by tanging (banging metal lids together) had the right to keep them. In the book of Ancient Laws, published in Ireland in 1879, there are judgments for owners, swarms and other

*By Michael Young, Hillsborough, Northern Ireland*

guidance for beekeepers rights, one such being about the rule of ownership for a swarm of bees in a tree:

(1) As to KNOWN bees in the trunk (settled in cavity) of the trunk of a noble "nemedh", two thirds of their produce are due to the owner of the tree, and one-third to the owner of the bees, to the end of three years, then the bees are the property of the owner of the tree.

Ireland and the UK are most famous for their Bee Boles. Most famous of them all are the ones at the Lost Gardens of Heligan. A bee tower dating back to 1230 A.D. can be seen in County Louth.

Types of hives in use in Ireland & the UK:

A first glance of John Gedde's Wooden Beehive produced in 1675 would encourage anyone to prepare a hive, with it's intricate chambers that adorned the hive and Gedde's high crafting skills that were plentiful in their day.

It was once said that "there were as many different hives as there were sheep". This called for radical thinking and great debate by the British BKA.

The Land Act of 1891 gave support to cottage crafts in some parts of Ireland, creating a cooperative entitled the Congested Districts Board. It was designed purely to encourage cottagers in all manner of crafts, from weaving to toy making and none more so than beekeeping. A committee for

beekeeping was set up in 1884. A hive was designed by Stephen Walter Abbot, known as the C.D.B. (Congested District Board) and thousands were sold, many to the UK. This hive was excellent for producing section honey and still is the best from its era. In Ireland alone there were 16 different types of hive, the most famous being the C.D.B. hive. In 1903, 1349 hives were sold.

However, a decision by the British beekeepers was to encourage and adopt the National Hive which is the case today.

Many famous Master Beekeepers in Ireland and the UK helped push forward apiculture to its great heights during what was known as the "Golden Age of Beekeeping", from Huish, Butler, and Keys of the UK to Arthur Dobbs on pollination. The Father of Irish Beekeeping was the Rev. J.G. Digges who wrote his first book in 1904, entitled "The Practical Bee Guide". This was a masterpiece in its day. It sold many thousands of copies

*(continued on page 14)*



# BeeMaid

## HONEY

Carrying a full line of  
beekeeping supplies from  
several companies

DADANT & SONS LTD.  
MANN LAKE SUPPLIES

PIERCO CANADA  
MEDIVET

DAKOTA GUNNESS  
WALTER T. KELLY

PERMA-DENT FOUNDATIONS

Whatever your requirements  
we would be glad to help.

Quality products for the  
beekeeping industry, including

**Woodenware**

**Bee Apparel**

**Queen Rearing Supplies**

**Extracting Equipment**

**Honey Containers**

**Beekeeper Tools**

**Medication & Chemicals**

**Foundation**

**Novelties**

**Package Bees & Queens**

**Buyers of old combs,**

**cappings,**

**light and dark beeswax**

**at competitive prices.**

We can arrange your sugar  
requirements - dry or liquid  
sugar in small lots or trailerload  
lots delivered

**Write for your  
FREE PRICE LIST**

70 ALBERTA AVE  
SPRUCE GROVE AB T7X 3B1  
Mailing address: BOX 3909

**780-962-5573**

Fax 780-962-1653

Conference Proceedings.....

## Where do Honey Bees go for their Groceries?

By Steve Mitchell, Bee Haven Farm, Duncan BC

Sources of nectar and pollen vary over short distances (100 km or 60 miles). This is very apparent in BC, where the mountain topography, soils and micro-climates dictate plant distribution and growth. Honey bees exploit a wide array of native plant species (e.g. big leaf maple and salal) and introductions from Europe. Some of the latter include red clover, alsike, and alfalfa, which are important livestock forage crops thriving under managed conditions. Of course, many of the fruit crops (apples, plums, cherries) in home gardens and commercial orchards are also introductions. Others, such as the common dandelion, knapweed and broom are invasive introductions that may displace native plants.

On the east side of Vancouver Island, near sea level, dandelions mark the beginning of the foraging year in late March and fireweed, at higher elevation, brings surplus honey production to a close by mid to late August. Major spring sources, such as Arbutus (native tree) and Himalayan blackberry (introduced) can produce specialty honey crops, an aspect of beekeeping that needs more development. Specialty honey can command a higher price than the main crop which is generally a mixture of salal and fireweed, two common plants on the coast.

Knowing what nectar and pollen sources are within flying distance of your bees throughout the season is an added dimension to the art of beekeeping. Beyond that, many bee plants are related, though perhaps not obviously, and are classified in groupings known as families. Just as honey bees and bumble bees belong to the Apidae, most of the pollen and nectar sources which you know, are members of well defined plant families.

250 746 9916 sgmitch@cow-net.com

(continued from page 13)

throughout the world, and is still referred to today.

Ireland and the UK both seem to have been on the same path in all aspects of apiculture. It is said that during the Isle of Wight Disease in the 1920s, both countries lost 99% of their bees. This is debatable.

During the war years, sugar rations were allowed for feeding the bees and coupons were issued to beekeepers before families with small children. Both countries were affected by American foul brood, European foul brood and Varroa with little time between the maladies reaching epidemic proportions. Just a few years previous, foot and mouth disease in cattle had a drastic effect on many apiaries because beekeepers were not allowed to visit their hives to feed them, with the consequence that most hives starved to death.

The Southern Irish Beekeepers organisations are run by FIBKA (the Federation of Irish Beekeepers Association). The Northern Ireland Beekeepers are run by the Ulster Beekeepers Association. Both sides co-operate well.

The British beekeepers are covered by the British Beekeepers Association. There is an umbrella organisation entitled CONBA (Council of National Beekeeping Association) made up of the Scottish, Welsh, English and Northern Ireland Beekeepers. This organisation does not have any say in the running of any other organisation but will communicate ideas and regulations from the EU.

Reference: Bee-Keeping in Ireland, A History by James K. Watson Glendale, Dublin

myoungjudge@hotmail.com

## Charles R. Duncan 11/8/26 - 7/11/03

The 2003 WAS Conference at Burnaby was a bit different from most, lacking Charter WAS member Charlie Duncan. Charlie was an avid supporter of honey bees and beekeeping and he will be missed in the many organizations in which he was a member.

Charlie was born in Athen, Ohio, on November 8, 1926, a city boy much happier in the country. He walked to school, roamed the forests, and was happiest sleeping out in the woods in his sleeping bag. He graduated high school at 17 and served in the Navy from 1944 to 1946 (WW II). Charlie then graduated from Ohio State University and the Milwaukee School of Engineering as an aerospace engineer.

While in Milwaukee, Charlie met his future wife, Phyllis. When Phyllis obtained employment in Washington, DC in 1951, Charlie followed and found employment on guided missiles with Army Ordinance in the Pentagon. Then, in 1962, Charlie and Phyllis moved to California so that Charlie could work at McDonald-Douglas.

Charlie first became involved with honey bees in 1968. Bees had filled a swimming pool storage shed at his condominium. After reading a couple of pages of a bee book and with no previous beekeeping experience, but armed with a garage-sale veil, black baseball cap, black leather jacket, welder's gloves, and a watering can with burning paper in it, Charlie went in to remove the bees. They had a number of six foot combs in the shed and defended them vigorously. Charlie was stung more than 300 times and chased into a distant workshop, where he collapse. Of course, this first introduction simply fascinated Charlie and he became a true lover of honey bees from that moment on. Shortly thereafter, he built an observation hive, set it up in his condominium, filled it with bees, and left for a few days. Upon his return the bees still were in the condo, but outside the hive!

He then worked (1975-79) at the LA Honey Company, becoming

thoroughly acquainted with the commercial beekeeping industry of southern California and helping Dick Ruby do "bee extractions" from buildings. He developed a set of "rules" for finding the combs in a building, took slides and gave presentations on the famous Topanga Canyon Bee House, that had 58 active colonies in it at the same time. Charlie was a member of the Los Angeles County Beekeepers (president), California State Beekeepers' (lifetime honorary member), the Western Apicultural Society (president), and the only non-commercial beekeeper to serve on the California Apiary Board.

Returning to government service in 1982, Charlie monitored contracts with British builders of aircraft and missile components for the Navy. His business card that read, "Beekeeping Service to the Queen", referring to a honey bee colony, really impressed the "Brits" before he had it modified to prevent confusion. While in Great Britain, Charlie joined the British Entomological Society so that he could use the library at Imperial College to study bees. He decided to terminate his pursuit of becoming a British Master Beekeeper when a three hour written examination (one of many) was "lost in the mail."

Retired in name only in 1990, Charlie and Phyllis purchased, upgraded, and sold properties in southern California and England. In England, Charlie took microscopy courses with Brother Adam and visited frequently with Dr. Eva Crane (and obtained replica bee house folklore fronts from Yugoslavia for her). He also was personal friends with Dr. Walter C. Rothenbuhler, Charles Mraz, and Bill Maxant, as well as most U.S researchers and extension specialists.

Charlie's greatest devotion was to his wife, Phyllis, daughter Suzie, and especially to granddaughter Carly whom he had been visiting in Wisconsin just hours before he passed away at home on July 11, 2003, at the age of 76.



### *A reliable partner*

Beekeepers have had to broaden their management skills even farther with increasing challenges by diseases and pests.

We can help by supplying you with the information you need to make informed decisions about disease prevention and the role of pharmaceuticals in your management practices.

**MEDIVET PHARMACEUTICALS**  
Phone 403 - 652 - 4441 • Fax 403 - 652 - 3692  
medivet@telusplanet.net  
www.medivet.ca



Supplies of  
Fumagilin B  
Formic Acid  
Bee Repel  
Oxytet 25 Soluble  
Apistan  
Foulbrood Mix

# MEMBERSHIP RENEWAL FORM DUES PAYMENT FORM



PLEASE PRINT

Name \_\_\_\_\_  
First Last

Address \_\_\_\_\_  
Street City State/Prov Zip

Enclosed is a check in the amount of \$\_\_\_\_\_ in payment of dues for years \_\_\_\_\_.

See page 2 for membership information and make check payable to

**Western Apicultural Society  
WAS Treasurer  
PO Box 956  
Grants Pass OR 97528**



**Western Apicultural Society  
PO Box 956  
Grants Pass OR 97528  
[www.bcbeekeepers.com/was](http://www.bcbeekeepers.com/was)**

label