

www.facebook.com/WesternApiculturalSociety
<http://westernapiculturalsociety.org>

May 2016



W.A.S.

Journal

Journal of the Western Apicultural Society of North America



Sunrise over Waimanalo, Hawaii

THE REVOLUTION BOX

Everything
Except
Bees

SHASTINA MILLWORK

SUPERIOR
DURABILITY

- * Ask about our unique **GUARANTEE**
- * Ponderosa Pine Products (kiln dried)



- * **Any Size**
- * **Any Quantity**

Now
Making
Frames

- * **Manufacturer direct**
- * **Nationwide shipping**
- * **Assembly, paint,
branding optional**

877-789-7526 Toll Free
www.shastinamillwork.com



PRO-SWEET

LIQUID FEED
THE PERFECT BLEND FOR YOUR BEES

Pro-Sweet not only stimulates your bees but also helps them put on weight. Plus, it won't crystallize or ferment like sugar water. The perfect blend.



NATURAL POLLEN'S ONLY EQUAL

Ultra Bee has been developed over the years to be the best pollen substitute on the market. Recent studies have shown we've reached an incredible milestone - matching natural pollen's results in the field. But don't worry, we won't stop improving Ultra Bee. Get your bees the nutrients they need, when they need it.



MANN LAKE
WE KNOW BEES

www.mannlakeltd.com | 800-880-7694

Western Apicultural Society of North America

2016 EXECUTIVE & BOARD OF DIRECTORS

President	Ethel M. Villalobos 3050 Maile Way, 310 Gilmore Hall Honolulu HI 96822 808-721-9070 emv@hawaii.edu	Arizona	Zack Funke 9 E. Redondo Dr, Tempe AZ 85282 480-399-1169 zackfunke@gmail.com
Past President	Beth Conrey 1617 White Water Ct. Berthoud CO 80513 970-213-3099 coconrey4@msn.com	California	Archie Mitchell 1520 N B Court, Lompoc CA 93436 805-291-3279 archieald_178@hotmail.com
1st Vice President	Lauren M. Rusert Apiary Associate, HI Dept of Ag/UH Pacific Co-operative Studies Unit 16 E Lanikaula St, Hilo HI 96720 808-352-3010 laurenrusert@gmail.com	Colorado	Miles McGaughey (See At-large Executive Member)
2nd Vice President	Elina L. Niño Assistant Extension Entomologist University of California, Davis Dept. of Entomology & Nematology One Shields Ave, Davis CA 95618 530-500-APIS (500-2747) elnino@ucdavis.edu	Hawaii	Peggy Beckett PO Box 6117, Hilo HI 96720 808-965-0000 peggy@thebeecompany.buzz
Secretary	Cyndi Smith 19909 122nd St. E Bonney Lake WA 98391 253-891-0726/253-222-4906 onthegocgs@comcast.net	Idaho	Steve Sweet 1720 Canova Dr, Boise ID 83706 208-850-3452 boisebeeman@gmail.com
Treasurer	Sherry Olsen-Frank PO Box 5274 Twin Falls ID 83303-5274 208-735-5353 magicvalleybees@gmail.com	Montana	Jerry Bromenshenk 200 Rimrock Way Missoula MT 59803 406-544-9007 beeresearch@aol.com
At-large Exec. Member	Miles McGaughey 936 Alta, Longmont CO 80501 720-771-4304 mmcgaughey1@live.com	Nevada	Debbie Gilmore 4 Cottonwood Lane Yerington, NV 89447 775-220-5567 dgilmore88@yahoo.com
DIRECTORS		New Mexico	Jessie Brown 101 Forrester Ave NW Albuquerque, NM 87102 505 710-3277 brownsdowntownbees@hotmail.com
Alberta	Bob Keenan 11 Sunset Park Cochrane AB T4C 0N4 Canada 403-981-1657 keenanr@shaw.ca	Oregon	Sarah Red-Laird PO Box 3257, Ashland OR 97520 541-708-1127 Sarah@beegirl.org
British Columbia	Ian Farber 3249 Schubert Rd, Kamloops BC V2B 6Y4 Canada 250-579-8518 ian_farber@telus.net	Utah	Albert Chubak 5033 South Commerce Drive Murray, UT 84107 801-654-9700 albert@ecobeebox.com
Saskatchewan	Doreen Bradshaw 2812 Fleury St. Regina SK S4N 2M4 Canada 306-761-0995 dbradshaw@myaccess.ca	Washington	James K. Smith 19909 122nd St. Bonney Lake WA 98391 253-222-4824 jksmithpe@comcast.net
Alaska	Dr. Joe Carson 7362 W. Parks Hwy #305 Wasilla AK 99623 907-727-8200 dr.joecarson@gmail.com	Wyoming	Catherine Wissner 620 County Road 146 Carpenter WY 82054 307-649-2430 cwissner@uwyo.edu
		Journal Editor/Historian:	Fran Bach PO Box 397, Selah WA 98942 509-573-4245 febach3@gmail.com

PRESIDENT'S MESSAGE ...

Aloha Kakou! Hello to everyone!

We are enjoying sun, occasional light rains, and many rainbows here in Hawaii as we prepare to host the 2016 WAS conference.

The theme of this year's conference New Insights into Old Questions focuses on looking, with a fresh pair of eyes, at the health problems that affect honey bees and the pollinator community as a whole. We plan to have 4 main topic sessions including: Bee Health, Honeybee Queen Health, Hawaiian Bees, and an Education – Outreach Workshops Day: Bees and Us.

Hawaii has many unique characteristics that allow researchers to examine the impact that introduced pests, diseases, and agricultural practices may have on the pollinator community as a whole. Honey bees are the only commercial pollinator available to local farmers, and the health of this species has been seriously affected by the introduction of the varroa mite on two of the islands, Oahu, where the conference will be held, and the Big Island of Hawaii. Three main islands remain varroa free: Maui, Kauai, and Molokai. We will rely on world-class speakers, and a gorgeous geographic location, to take a fresh look at what we know, and what we are doing to promote bee health and pollinator conservation.

The speakers include national, and international contributors working on honey bees, native Hawaiian bees, solitary bees, and tropical stingless bees. This diversity of species is meant to give us a worldly perspective about the current threats to bee health, and hopefully help us find common ground towards our efforts to conserve these important pollinators.

We have already scheduled some of our speakers including Dr. Stephen Martin from the University of Salford (UK). Dr. Martin has over 20 years of experience working with honey bees and Varroa mite in a diversity of environments including Mexico, UK, Brazil, and Hawaii. Dr. Martin has over 130 publications and is considered a leader in bee parasites and pathogens. Ms. Laura Brettell, also from the UK, will contribute to the conference with her research on viruses in the pollinator community in Europe and in Hawaii. Dr. Elina Lastro Niño, a scientist with years of experience in research, extension, and outreach projects, will update us about her work with honeybee queens at UC Davis. Many of you will remember Elina from her interesting and lively talk in CO, and we look forward to her participation again this year. We will also hear from members of the Hawaii State Apiary Program about their important work with Varroa Sensitive Hygiene queens produced here in Hawaii. Members of the UH Honey bee Project will share with you their most current work on viruses, bee diet, and small hive beetle population dynamics. Danielle Downey, the Director of Operations for Project Apis m., will be updating us on the conservation efforts of this important organization. Danielle can provide great perspective as she has worked with bees for over 20 years both in the mainland US and in Hawaii. Researchers from Costa Rica, Uruguay, and Argentina will also be participating with talks and displays about their local bee species and hive products. Local beekeepers and queen breeders, many of which have been in the business for decades will share their experiences with us at the meeting. We will also hear from farmers that grow tropical fruits and nuts such as lychee, rambutan, and macadamia, all of which need bees for pollination.



AMERICAN BEE JOURNAL

www.americanbeejournal.com
Return to: American Bee Journal
51 S. 2nd St., Hamilton, IL 62341



or Call 1-888-922-1293

Association Member Subscription

(Rates listed below are 25% below regular rates.)

U.S.

- 1 Yr. \$21.00
- 2 Yr. \$39.75
- 3 Yr. \$56.25

New

Renewal

Prices good through
Dec. 31, 2016

*The Beekeeper's
Companion Since 1861*

*Don't let your beekeeping
fall behind the times!*

Published Monthly

Free sample copy upon request

Subscriber's Name _____
Address _____
Address _____
City, State, Zip _____
Phone _____
Email _____

WAS Presidents to date

- 1978 Norman Gary (California)
- 1979 Lucien Alexander (Oregon)
- 1980 Randy Barker (Br. 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 (Br. Columbia)
- 1994 James Bach (Washington)
- 1995 Eric Mussen (California)
- 1996 Russell Messing (Hawaii)
- 1997 Eric Erickson (Arizona)
- 1998 Steve Sheppard (Idaho)
- 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 Jenny Bach (Hawaii)
- 2012 James K. Smith (Washington)
- 2013 Melanie Kirby (New Mexico)
- 2014 Jerry Bromenshenk (Montana)
- 2015 Beth Conrey (Colorado)
- 2016 Ethel Villalobos (Hawaii)

Conference plans also include Bee & Sightseeing tours that will offer a chance to learn first hand about agriculture and beekeeping on the islands, while enjoying spectacular scenery and, of course, a dip in the ocean! One tour will visit the Urban Garden Center in Pearl City where participants will get a chance to see some of our bees and many tropical fruit trees and ornamental plants that are used to teach backyard growers in Hawaii. The group will get a chance to taste tropical fruits and vegetables currently in season and then continue on, past the middle of the island, to where Dole pineapples are planted, past picturesque Haleiwa town towards world famous Waimea Beach Park.

The other tour will include a visit to the UH Honeybee apiary in Waimanalo, and a visit to Sherwood Beach Park, and scenic drive to the Byodo Temple, an active Buddhist temple and very popular visitor site. Both of these tours will return to the hotel around 3-4 pm, just in time to refresh yourself and be ready to join us at the private Luau that will take place at Sea Life Park.

The tours will be offered on Saturday Oct 15. On that same day, participants interested in education and extension may choose to join the Bees and Gardens workshop to be offered at the hotel, aimed at persons interested in education (formal and informal) and will include discussions and activities about how to best introduce pollinators to different audiences. The workshop will be a hands-on experience where teachers, master gardeners, beekeepers, and interested public, can learn about the resources and activities that are available to them and design an activity that suits their outreach or education needs. More soon.

WAS 2016 will be held at the Ala Moana Hotel on Waikiki Beach, Honolulu October 13 - 15. Room rates are \$159 (+ tax) per night in the Kona Tower; \$179 (+ tax) per night in the Waikiki Tower (single/double). Room cut-off date is September 12th, 2016. Reservations can be made online at https://resweb.passkey.com/Resweb.do?mode=welcome_ei_new&eventID=15299495 or call the following numbers and reference the Western Apicultural Society group: (800) 367-6025 (U.S. & Canada), (800) 446-8990 (Neighbor Islands), or direct (808) 955-4811 Group Reservations.

2016 tee-shirts - I know you are probably expecting more flowers and pastel colors but the Hawaiians and Polynesian people used to make designs in what they called Tapa cloth. The predominant colors were browns and black and they were very geometric. This design is inspired by a museum piece that was modified to include a bee theme. Minor tweaks may still be made. See the registration form for how to order.

WAS President, Dr. Ethel Villalobos



FRONT

W.A.S.: HI-2016
T-SHIRT DESIGN VLI



BACK



(Clockwise from top left) Pali Mountains (Jon Wright photo); Bees in Hawaii; Tiki Bar and one of the Luau sites at Sea Life Park (Ethel Villalobos photos)



Report from Honey Bee Health Coalition

Dewey M. Caron

The Honey Bee Health Coalition, founded in late 2013, is a diverse assembly of beekeepers (includes both EAS and WAS), commodity and specialty crop producers, agro-business, supply chain companies, NGOs, Universities and agencies that seek to promote a vision of **HEALTHY BEES, HEALTHY PEOPLE AND HEALTHY PLANET**. The Coalition's mission is to collaboratively implement solutions that will help to achieve healthy populations of native and managed pollinators in the context of productive agricultural systems and thriving ecosystems.

The Coalition is working to improve honey bee health across four priority (working group) areas:

Hive management: Putting the best available tools, techniques and technologies in the hands of beekeepers so they can better manage their hives.

Forage and Nutrition: ensuring honey bees in production agriculture have access to a varied and nutritious diet

Crop pest management: Controlling crop pests using BMPs while safeguarding pollinator health

Outreach and Education: Raising awareness and working together to improve honey bee health.

Some 50 coalition and invited guests assembled at the United Soybean Board Conference center in St Louis mid-May to review progress of the 4 working groups and develop strategies for moving forward. Since many members are leading other initiatives of groups as diverse as NAPPC, Monarch project, Pollinator Stewardship Council, Project APis M, Canadian Honey Bee Health roundtable among others, it was also an opportunity to continue to cross-pollinate and coordinate efforts with these additional groups/individuals also dedicated to bettering bee health.

As WAS representative, I have been working with the Hive Management Task Force group and we have three large initiatives. We developed the Honeybee Health Coalition Tools for Varroa Management available as a free download at www.honeybeehealthcoalition.org/varroa. At our recent working conference we strategized how to better make this information more widely available and how we might evaluate its adoption and use. It is already in the third edition as new research and additional tools, plus improvements in technique, represent continually changes in varroa management.

We have a Grant from the National Honey Board to develop a video series showing how to properly use varroa tools based on the Tools document. Both sampling and control techniques/chemicals using IPM techniques emphasizing integration of multiple approaches to keeping bees healthy are to be covered. We are also providing resources to USDA Beltsville and CAPA Alberta for base level efficacy testing of new novel chemicals for varroa control and are seeking to expand the BIP program of tech teams in the field to work on real time disease monitoring and control assessment.

A new HBHC projected initiative being developed is a Bee Health Integrated Demonstration Project. The project goal is to demonstrate improved honey bee health by use of a portfolio of tools together in the same agricultural landscape to address multiple factors known to negatively impact bee health. Specifically, the project will address inadequate forage and nutrition, hive pests and disease, adverse bee and crop protection product impacts and the means to improve farmer/beekeeper cooperation and communication. Recognizing bee health is not single-factor driven; this multi-integrated project, with real-world demonstration, seeks to demonstrate how to achieve integration of critical factors toward improvement of bee health.

The Coalition has also developed some other useful information on honey bee health you might wish to download/consult/share with others. The HBHC has a quarterly newsletter you should subscribe to - see www.honeybeehealthcoalition.org/news/. There is an interesting video of UT beekeeper Randy Verhoek exchanging jobs to 'walk in the shoes' of a farmer and crop advisor www.honeybeehealthcoalition.org/the-bee-understanding-project/ and a very useful pesticide incident reporting guide www.honeybeehealthcoalition.org/quick-guide/

There is information on bee forage, BMPs and a report of the HBHC co-sponsored MP3 (managed pollination protection plan) workshop held in March in Washington, DC. Each of the individual states is developing or have developed a comprehensive plan to address the issue of pollinator safety with use of pesticides. Do you know where your state is relative to this plan? This report will help identify progress.

The HBHC is seeking to make a difference and has some very significant collaborative efforts underway that seek to engage public/private cooperation toward improving honey bee health. WAS is represented 'at the table' working on your behalf.



**HONEY BEE
HEALTH
COALITION**

WESTERN APICULTURAL SOCIETY OF NORTH AMERICA
ANNUAL CONFERENCE
Ala Moana Hotel, Honolulu, Hawaii
October 13 – 15, 2016
REGISTRATION FORM

Name(s) _____
As desired on name tag(s)

Mailing Address _____
Street/Box Number

City, State/Province _____ Zip/Postal Code _____

Phone _____ Email _____

CONFERENCE RATES	Cost per person	No. of persons	Total
Full Conference Package			
<i>(Sessions, Wednesday Bee Buzz Social, Thurs continental breakfast & lunch, coffee breaks)</i>			
Pre-registration (by Sept. 1st)	\$195	x _____	= \$ _____
Delayed registration (after Sept. 1st)	\$220	x _____	= \$ _____
WAS Member Discount (SUBTRACT!)	\$ -20	x _____	= \$ - _____
One day registration (<i>check which</i>)	\$100	x _____	= \$ _____
Thurs ___ Fri ___ Sat ___			

OPTIONAL EVENTS

Awards Banquet (Friday)	\$65	x _____	= \$ _____
Tours (Saturday) (<i>check one</i>) - <i>incl bus, lunch</i>	\$50	x _____	= \$ _____
___ Urban Garden Center, Pearl City/Dole pineapple plantations/Haleiwa/Waimea Beach Park			
___ U of Hawaii Honey Bee Apiary in Waimanalo/Sherwood Beach Park/Byodo Temple			
Luau (Saturday evening, <i>incl park fee, bus, dinner</i>)	\$80	x _____	= \$ _____
Tee-Shirts (see example)	\$18	x _____	= \$ _____
Size Small ___ / Medium ___ / Large ___ / X Large ___ / XX Large ___			
<i>(A few extra will be at the conference but when those run out and reorders are necessary, or if you are NOT attending, postage will be additional.)</i>			

WAS ANNUAL DUES (US funds) - not required for attendance at conference	\$ _____
Individual \$20	Junior (age under 21) \$15
Couple \$30	Senior (65 or over) \$15
Individual 10 Year \$200	Senior Couple (one member at least 65) \$20
Couple 10 year \$300	Association/Club \$20
Commercial \$100	Benefactor \$500
Patron \$1000	
PLEASE ATTACH MEMBERSHIP FORM ON PAGE 34	

TOTAL PAYMENT \$ _____

Early registration forms and payments must be postmarked no later than September 1, 2016. Payments in U.S. funds only. Check or money order made out to Western Apicultural Society.
MAIL TO: WAS Treasurer, Sherry Olsen-Frank, PO Box 5274, Twin Falls ID 83303-5274
Full refund if cancellations received by Sept. 12. No refunds after that date or for no-shows.

CONFERENCE 2015

Pheasants Forever/Quail Forever

Jerry Miller, Farm Bill Wildlife Biologist

Pheasants Forever/Quail Forever (PF/QF) is a nonprofit national conservation organization with over 140,000 members represented by 700 chapters in 40 states. Pheasants Forever is dedicated to the conservation of pheasants, quail and other wildlife through habitat improvements, public awareness, education and land management policies and programs. Over 90% of the funds raised by local chapters goes toward fulfilling Pheasants Forever's mission.

PF/QF believes in forming partnerships to address conservation and habitat issues and has signed MOUs with federal and state agencies and other NGOs to work together to conserve and develop wildlife habitat. It employs over 100 Farm Bill wildlife biologists to work with landowners to use programs available through agencies and NGOs.

Pollinator habitat makes excellent nesting and brood rearing habitat for pheasants. The flowering plants attract abundant insects that are essential for pheasant chicks in the first 6 weeks of their lives.

Other species that benefit from pollinator habitat are mule deer, antelope, turkeys and numerous species of song birds. These flowering forbs provide brood rearing, foraging and loafing areas.

Pollinator habitat can be established along field borders, between tree rows, in blocks in CRP fields and in other odd shaped areas that are not usually farmed, resulting in an interspersed across the landscape. The habitats do not have to be large acreages to provide the valuable benefits. Pollinator habitat should be placed in areas that can be protected from pesticide spraying.

It's important to create diverse mixes of 9 species or more (desired) that have varied colors and flowering periods so there are flowers present throughout the growing season. Landowners should check with several seed dealers when ordering seed. Seed should be separated by size so the proper seeding rates can be achieved using specialized seed drills. Some hardy species used in eastern Colorado are blanket flower, upright cone flower, Lewis flax, alfalfa, purple prairie clover,

Rocky Mountain Bee Plant, yellow sweet clover, common milkweed, annual sunflower and Maximilian sunflowers.

Pheasants Forever's Farm Bill biologists work out of USDA offices and promote Natural Resources Conservation Service programs, Farm Service Agency programs and Colorado Parks and Wildlife programs. These conservation programs often provide payment rates to establish the specified wildlife-friendly seed mixes and in some cases provide annual payments for the acres established.

Here are photos of insects that I commonly see using the pollinator plots on Conservation Reserve Program CP42 Pollinator Habitat plantings. *More information can be obtained by visiting your local USDA Service Center, Parks and Wildlife Office or by contacting Jerry Miller at jmiller@pheasantsforever.org.*






Foundations

Professional beekeepers value strength and reliability. Their plastic frames and foundations of choice are Genuine Pierco products. They know that Pierco stands for American quality.



Drone Frames

- 
- IPM method for Varroa mite control
 - Perfect for queen breeding

Visit us at:

www.Pierco.com



Frames

- Increased honey production
- We use FDA food grade plastic resin
- High grade beeswax coating

Did you wait too long to order your frames and foundations? Is everyone out of stock now? Not Pierco, we strive to serve you best by always having stock on hand. Give us a call and see what we can do for you today.



Ready2Go™ Pack

The perfect gift
for the hobbyist
in your life!

Call us!

(800) 233-2662 | 680 Main St. | Riverside | CA | 92501



Pierco[®]



Honey – Revolutionary Medicine for Mind and Body – Separating Fact from Fiction

Ron Fessenden, MD, MPH

Honey is known from tradition and folklore to have many healthful benefits. Contemporary research has contributed validation to many of these benefits. Yet medical practice and the health profession in general do not recognize or utilize honey for its therapeutic benefits. There are several reasons for this:

- Honey is a medicine without profit (Joe Traynor, *Honey – the Gourmet Medicine*, Kovak Books, 2002)
- Honey is a non-standard product (with over 300 varieties in the U.S. and Canada)
- Honey research is mostly limited to small observational studies lacking the rigorous protocols demanded in most scientific studies
- Honey may be considered alternative medicine in naturopathic circles, and
- The inclusion of honey in clinical practice takes time.

There are three very specific areas in which honey consumption should be considered therapeutic. These are:

1. Honey regulates (controls) blood sugar and insulin levels by two mechanisms. First, the sugars in honey (both fructose and glucose) are converted to and stored as glycogen in the liver thus lowering blood sugar levels. Second, honey contains amino acids needed for the liver to make a protein that regulates insulin release from the pancreas (HIS), thus regulating the blood sugar levels. (Processed honey from which all pollen has been removed does not contain these amino acids.) These findings are reinforced by numerous observational research studies.
2. Honey helps to initiate sleep and promotes recovery sleep throughout the night. Honey stored as glycogen in the liver provides fuel for the brain throughout the night, which improves sleep quality and duration, reduces the risk for all the metabolic conditions associated with sleep deprivation (sleep shorter than 6 hours) or interrupted sleep, and increases REM (Rapid Eye Movement or dream) sleep. This benefit of honey is the least researched of the three major benefits of honey.
3. Honey enhances basic immune system functions and provides other direct and indirect health benefits including reduced allergy symptoms, enhanced ability to fight diseases including cancer (stimulates the production of antibodies, lymphocytes, monocytes and other natural cancer killer cells, inhibits the production of cortisol, reactivates the mitochondria, and inhibits the mutagenic ability of several types of cancer cells), and provides powerful cardiovascular benefits including lowering cholesterol and triglyceride levels and increasing HDL (good) cholesterol, lowering prostaglandins which cause inflammatory damage to blood vessels, reduces risks for all of the age- and diabetes-related chronic inflammatory conditions, and reduces adrenalin and cortisol levels that affect cardiac performance. These findings are supported by several research studies.



The mechanisms of action by which honey accomplishes this come primarily from its ability to reduce or eliminate metabolic or adrenal driven stress and its role in providing a timely and necessary source of fuel for the brain. Honey is the gold standard food for producing and storing glycogen in the liver - a tablespoon of honey stores more glycogen than 6 tablespoons of peanut butter, 4 oz of fish, beef or pork, or 4 cups of carrots.

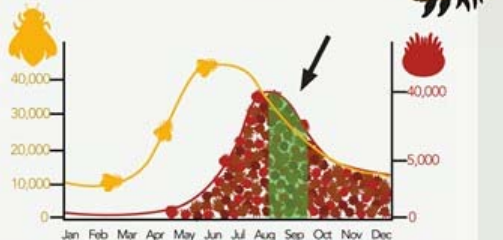
The regular consumption of 3 to 5 tablespoons per day of natural unfiltered honey does all of this and more without side effects, risks or negative health consequences, a statement that no other medicine can make. The monthly cost of consuming this much honey would be about \$20 a person, and if adopted by only 1% of the population, would result in a reduction in the prevalence of the diseases related to the metabolic syndrome mentioned above at an estimated savings of \$10 billion/year in the U.S.

MITE AWAY QUICK STRIPS

PREPARE YOUR BEES FOR WINTER

IN LATE SUMMER OR EARLY AUTUMN, TREAT WITH MAQS AS YOU'RE TAKING OFF THE LAST HONEY SUPERS OF THE SUMMER.

MITE LEVELS IN A HIVE OVER THE BEEKEEPING SEASON



BEST PRACTICES

- WATCH TEMPERATURES GOING INTO TREATMENT
- CHECK FOR MITE BOMBS
- KEEP VARROA BELOW THRESHOLD LEVELS ALL YEAR LONG

THANKS FOR COMING BACK!

CASH BACK \$\$

GET ON THE HEALTHY BEE PROGRAM! GET 10% BACK ON YOUR 2ND PURCHASE OF NOD PRODUCTS!

DISCLAIMER: Campaign is valid from January 01, 2016 until December 31, 2016. One discount per customer. Must be through a Bee Supply retailer. Date of receipt must be within the 2015-2016 calendar year. Minimum purchase of either (1) 2 Dose Pail or (1) Bee Cozy Winter Wrap or (1) 1L TMT Liquid Formic Acid or (1) Box of 100 Honey Saver Comb Honey Trays per receipt. Maximum purchase of (100) MAQS doses (any pail size) or (50) Bee Cozy Winter Wraps or (208) Lots of TMT Liquid Formic Acid or (1) 500 Box of Honey Saver Comb Honey Trays per receipt. Receipts must be a minimum of 30 days apart. GENERAL TERMS FOR OFFERS AND PROMOTIONS: 1. Discounts are applied on the product price excluding all convenience charges such as any applicable taxes, COD, shipping and handling. 2. NOD Apiary Products USA Inc. and NOD Apiary Products Ltd. reserves the right to change/modify/delete any of the terms and conditions prevailing on the different promotional schemes it introduces in market from time to time. NOD Apiary Products Ltd. at its discretion, can withdraw a particular scheme from the website or market. 3. In case of any query pertaining to a rebate or discount campaign or regarding NOD products please email: info@nodglobal.com or call toll free 1-866-483-2929. 4. While participating in any NOD Apiary Products Ltd. rebate program or campaign you hereby agree to receive direct mail from NOD Apiary Products and its subsidiaries. NOD will not share your information with any third party. 5. The Cash Back rebate of 10% off on two purchases of any NOD product, from any registered Bee Supplier, can be availed only once, for a maximum discount value of \$720.

HEALTHY BEES. HEALTHY PLANET.

To learn more call 866 483 2929 or visit www.NODGLOBAL.com.

Making Effective Wound Dressings with Honey

Dr. Allen Dennison

Dr. Dennison began the talk with a biblical reference from the Old Testament citing the rabbinical stricture against heating honey in "any offering of the Lord made by fire." This suggested that heating honey is a forbidden idea because it would destroy its capacity for self-preservation. We know that protein hormones will be destroyed by heating and therefore some wound healing properties as well. Ancient rabbis were good observers, even if they were not the beneficiaries of modern biochemistry. Heating and diluting honey are, of course, the first steps in the making of fermented honey drinks such as mead. Ancient rabbis, unlike Baptist preachers, would have no objection to cooking honey for this reason.

The purpose of the laboratory was to mix local Colorado honey (donated by WAS president Beth Conrey) with Aquaphor™ 1:1 to make a healing ointment and practice application of the compound on open wounds. I recommend cleaning a contaminated wound once with saline as contained in a 10 cc syringe for flushing PICC lines used for IV home care.

Dr. Dennison spoke about the use of granulated honey for wound care. Patients may dislike the stiffer consistency of this honey and abrasive granules of the sugar crystals. It is up to the practitioner to explain its value. This honey has "osmotic reserve" which may work better than more dilute honeys. As any beekeeper knows, a 20-minute soak in hot tap water will melt the crystals. Mixing with Aquaphor™ keeps it easy to spread on any wound without pain.

What is a "medical honey?" Medihoney™ is the registered trademark of New Zealand manuka honey, processed and irradiated by Derma Sciences Corporation, Toronto, imported from Canada and available from online stores and local surgical stores for \$20-25 for a 1.5 oz. tube. This honey is what is now found on the formulary at Pharmedica and Omnicare which supply most skilled nursing facilities and hospitals with up to date wound care services. The excellent studies done in New Zealand by Dr. Peter Molan in the 1990's allowed Derma Sciences to "make claims" for wound healing which are acceptable to the US FDA. Scottish veterinarians swear by Scottish "heather honey" for wound healing in animals. Anecdotally, Dr. Dennison finds local honey from Rhode Island works fine for superficial wounds in an office setting.

Most honey leaves something to be desired in the clinical setting as far as workability. At room temperature, it is too viscous and shears the wound when spread over an open wound, with pain and bleeding on application. As it arrives at body temperature, it liquefies and dribbles, not providing a good biofilm over the open wound. Dr. Dennison discovered that mixing honey with petroleum jelly provides a consistency reminiscent of cake frosting, which spreads easily and painlessly with a tongue depressor in a nice thick layer and stays put. Aquaphor™, Biersdorf USA, is the proprietary mixture of petroleum jelly and lanolin which is popular in skin and surgical clinics in the US, though not available in Canada and the Caribbean. Its generic name is "Hydrophor" sold by chain drug stores for a lower price. When honey is mixed with Aquaphor™, the lanolin tends to emulsify the honey, decreasing separation, so eliminating the need for stirring. Skin testing in an allergy clinic finds 1% of patients allergic to lanolin. Therefore, patients experiencing itching or redness should remove this honey ointment at once and apply a reformulated version using only petroleum jelly and honey.

Dr. Dennison showed the use of honey ointment in packing boils or abscesses, first and second degree thermal burns, road burn, skin tears, scratches, impetigo, foot blisters and chronic recurrent nose bleeds.

Dr. Dennison's basic technique is to spray a wound with saline under gentle pressure as with a spare 10cc sterile saline syringe used for clearing IV lines. Pat it dry with sterile gauze. Then apply a 1/4 inch layer of honey ointment, covered with non-adherent gauze, covered with Tegaderm™ (or equivalent) plastic adhesive film. This protocol will allow for dressing changes to take place with much reduction in discomfort and expense. Dr. Dennison endorses the high quality one piece bandages made by 3M Company under the brand name Nexcare™. These dressings stick when they need to, remove when they need to come off and often will survive a shower which is a big improvement in the quality of life of a patient with a chronic wound. Dr. Dennison has observed a 30% reduction in time to healing, less pain with fewer dressing changes, reduced need for surgical debridement, plastic surgery and skin grafting. Further, there is a prevention of wound infection, odor, scab and consequent scar formation and improved healed skin appearance.

Dr. Dennison reviewed his clinical experience with successful packing of boils and other deep wounds with honey ointment. Various neck and skin boils can be opened, evacuated and filled with 1/4 inch gauze tape soaked with honey ointment. Repacking and dressing changes can be cut down to every 3-4 days with less pain and expense of VNA or office visits. Oral antibiotic use can be omitted in some cases.

Dr. Dennison added that application of this ointment in the nostrils with a cotton applicator once or twice per day can prevent nosebleeds and nasal infections and "booger formation" which causes the pernicious habit of nose picking.

Dr. Dennison has used subjects in his Boy Scout Troop for experiments on dressing hiking boot blisters with enthusiastic results. He also advocates pre-application of the ointment to the entire foot prior to long hikes to prevent blisters. This is not recommended on overnight hiking in the Rocky Mountains where it will cause you to get chased by bears or worse, awaken like the hapless girlfriend in the movie the "Parent Trap" with a bear licking the soles of her feet.

Diabetic foot ulcers are a giant source of misery and expense. They begin with damage to nerves by diabetes. The nerves which stimulate the sweat and oil glands atrophy and the foot becomes dry and fissured with the stress of weight bearing, worsened by the usual obesity of this population. Infection enters the fissures. So begins the process of infection, ulceration and eventual amputation. American Diabetes Association Guidelines, for this reason, specify the need to apply a lubricant to the feet after every shower or bath. Dr. Dennison has found that a generous application of his honey ointment serves this purpose nicely at a low cost. He delights in requiring his amused medical students at Brown University to "anoint" diabetic patients in the office and then makes sacrilegious jokes about converting patients from "disciple" to "apostle" with the process. He plans to perform randomized trials comparing Aquaphor™ to the honey ointment mixture three times weekly to patients in this population.

Dr. Dennison has found other uses for honey ointment. Fungal skin and vaginal infections respond readily to honey ointment. Such infections include "intertrigo" which is a red itchy fungal infection under large pendulous breasts, particularly in diabetic women. He advocates adding oral prescription medications like fluconazole 200 mg daily for 4-8 days for complete eradication of the organism to prevent recurrence, always likely with any topical treatment alone. He has not done rigorous studies but has treated dozens of such patients with satisfactory results. Vaginal yeast infections, complicated by bacterial involvement, respond nicely in the same way to daily administration and 4-8 days of fluconazole.

Dr. Dennison addressed the US FDA's policy on formulating ointments and balms. Mixed products cannot "make claims" of clinical efficacy in treating disease in advertisement or product labeling without proper scientific studies submitted for review. Promotion of "healthful skin treatment" is acceptable, however. They make no objection to home remedies made for use by the consumer or as a gift—until money changes hands. Dr. Dennison suggests putting together home first aid dressing kits either for gifting or for sale containing 1-2 oz of raw local honey, 1.5 oz tube of Aquaphor™, 5.5 inch bandage scissors, Tegaderm™ adhesive films of various sizes, adhesive tape, roll bandages, 10 cc saline syringes as used for flushes for home IV (PICC) lines, for pressure debridement of dirty hiking wounds, regular 2x2" and 4x4" gauze pads for patting dry wounds and skin for good adhesion of dressings. Clean craft sticks for stirring ointment and application of ointment to wounds. This kit can be packed in a sealable plastic bag with Dr. Dennison's "Tips for healing wounds with honey" (available on his website honeyointment.org) for download and printing. As long as the consumer does the mixing, the FDA will make no objection. This approach is also wise as the safe shelf life of this mixture has not been studied.

At the end of the presentation, 120 participants used 2 oz containers and 1/4 oz containers kindly donated by Brushy Mountain Bee Farm to mix up honey ointment in home and hiking sizes. Dr. Dennison and volunteer nurses helped to dress three wounds with ointment, non-stick gauze covered with tegaderm. He further anointed the feet of a diabetic gentleman participant with a "Charcot Joint" deformity. The deformity is caused by diabetic neuropathic loss of feeling which leads to destruction of normal bone and joint destruction. Ulcers on the bottom of the foot follow quite usually resulting in ascending infection and gangrene and amputation.

Dr. Dennison handed out his wound tip sheet and invited participants to use honey ointment for first aid at home. He asked them to document their successes with smart phone photos (including a ruler for scale) before and after treatment and forward them for inclusion on the website (www.honeyointment.org) to honeyointment@gmail.com. He reminded participants that not all wounds respond to first aid and not to delay getting failing or serious wounds to a hospital for specialty care. He further pointed out that ointment- mixing sessions make a great group activity at a bee club meeting, school or Scout, television or media presentation. When people get involved in mixing up free stuff to take home, the result is invariably a room full of smiles. He commented that participants leave prepared and almost wishing for someone to skin their knee! A questioner asked if mainstream medicine was embracing honey in hospital care. Dr. Dennison stated that hospitals and nursing home formularies now almost all include New Zealand manuka-sourced Medihoney™. The health care industry is just waiting for some locally done studies to begin sourcing honey from their own communities for wound healing.



CONFERENCE 2015

Making Propolis Tincture

Karen Sadenwater

Deciduous trees excrete a waxy resin which coats their newly formed buds in the spring. These tender buds are protected with this resin coating which is anti-bacterial and anti-microbial. The bees collect this substance from the tree buds and use it in their hives. If you are observant, you can see the shiny propolis coming in on the legs of the bees in the spring. Propolis varies greatly in its properties and its color is based on which deciduous trees the bees are collecting it from.

The tree resin is not just collected by the bees and used in the hive in its original form. The bees process the tree resin in their mouths and then, almost magically the tree resin is concentrated into an array of at least 180 different compounds which have been identified so far. For thousands of years humans have been using propolis for a variety of purposes. The ancient Greeks, Romans, and Egyptians were aware of the healing properties of propolis and made extensive use of it as a medicine.

Today, propolis has been praised for its antibacterial, antiseptic, anti-inflammatory, anti fungal, anesthetic, and healing properties. Basically the bees have already "made" the propolis, we simply extract it into alcohol to make it easier to use medicinally.

Now a propolis tincture can be made using grain alcohol. The propolis is soaked in the alcohol for a couple of weeks, until the liquid becomes red and translucent. The wax will have settled to the bottom of the jar. I use a glass turkey baster to suck up the clear propolis tincture to fill tincture bottles. The propolis sludge and wax will be left behind in the jar and can be used as a wood lacquer or preservative.

This article was sent by Corwin Bell and the conference presentation made by Karen Sadenwater. For more information, go to http://www.backyardhive.com/articles_on_beekeeping/propolis_the_defender_of_the_hive/



Saskatraz breeding stock available in 2016.

Queen cells from tested Saskatraz breeders (\$20). Closed population mated breeder queens (\$300), out crossed breeder queens (\$100)
Saskatraz stock carrying VSH trait also available as queen cells, in Saskatraz hybrids and breeder queens in 2016.

Saskatraz Hybrid production queens available April 15th to August 15th (\$30 US). These hybrids will produce pure Canadian Saskatraz drones for stud use. All breeding stock tested and certified. Limited number of nucs available in 2016 with Saskatraz hybrid queens. See www.saskatraz.com for breeding information and updates.

Saskatraz stock bred in Saskatchewan for honey production, wintering ability and resistance to mites and brood diseases.



Email a.j.robertson@sasktel.net or phone (306)-373-9140; cell 306 270 6627 for prices and availability.

THE BEEKEEPING EXPERTS

WOODENWARE • EQUIPMENT
PROTECTIVE CLOTHING
TOOLS • BOOKS

SHOP ONLINE
GLORYBEE.COM

OR CALL OUR SALES DEPARTMENT
(800) 456-7923



THE PREFERRED SUPPLIER OF
BEEKEEPING EQUIPMENT

Clockwise from top left:

1. Newly drawn comb is "virgin" comb and is white until the bees coat it with propolis for additional comb strength and cleanliness.

2. Using the Hive Scraper Tool to scrape propolis from the top bars, collecting it on wax paper.

3. Using the Hive Scraper Tool to scoop up propolis from the bottom and sides of the hive.

4. Propolis formed into a patty for storage



WESTERN BEE SUPPLIES, INC.

#1 - BROOD CHAMBER SPECIAL Includes: 2 Brood Chambers, 20 Frames and Plasticell, Pine Cover, Inner Cover and Bottom Board. All CM Grade. Nails and assembly instructions included.
\$110.00 Assembled (WWHOBBY2A) \$75.00 Unassembled (WWHOBBY2)

#2 - HONEY SUPER SPECIAL Includes: 2 - 6 5/8 Supers, 20 Frames and Plasticell, one Plastic Queen Excluder. All CM Grade. Nails and assembly instructions included.
\$75.00 Assembled (WWHOBBY3A) \$50.00 Unassembled (WWHOBBY3)

#3 - ULTIMATE HOBBY KIT Includes #1 and #2 above with a Wood-Bound Queen Excluder instead of plastic, Hooded Zipper Suit, Lightweight Leather Gloves, Hive Tool, Division Board Feeder, Smoker with shield and fuel, and First Lessons in Beekeeping Book. All CM Grade, nails and assembly instructions included.
\$350.00 Assembled (WWHOBBY4A) \$275.00 Unassembled (WWHOBBY4)

#4 - NEW TRADITIONAL HOBBY KIT - ASSEMBLED ONLY
Includes #1 and #2 above with a Wood-Bound Queen Excluder instead of plastic.
\$190.00 Assembled Only (WWHOBBY5A)

Call Toll-Free 1-800-548-8440

Order Online! www.westernbee.com Call for Freight Discounts!

ALL PRICES F.O.B. POLSON, MONTANA



CONFERENCE 2015

Making Seed Balls/ Seed Bombs

Julie Finley Ridinger

Many people feel a desire to “do something” for the honey bees and all pollinators. Making and throwing seed balls or seed bombs is a way to transform fence lines, roadsides, ditch banks or any suitable land area in to an extended season of diverse and beneficial pollinator habitat.

Seed balls are an ancient method of sowing seed. They are made of a combination of clay, to hold moisture, rich compost to nourish, seed and just enough water to bind the ingredients together, then formed into balls that can be thrown. Sowing seeds in this manner offers the seed protection, stability and generates a much better chance of germination and survival.

Of course there is a certain etiquette involving no invasive species, respecting others' garden area, or disrupting a pristine plant eco system with non-natives.

Making seed balls is a great activity, fun with kids, and make great gifts for those in our lives who want to “do something” for our planet and our pollinators. The act of sowing seeds ties people to a place; we can become invested in the future of our own environment, agents of change for the benefit of all.

Consider throwing seed balls as part of your life, create a new tradition. Sow on a walk after a Thanksgiving feast, a hike on a Spring morning, gifts for every occasion, stocking stuffers, school projects, the options are endless. Our pollinators will be so grateful they may even stay around for your grandkids!

A Simple Recipe: 1 part sifted Compost; 1 part Clay; Good seeds; Water

This recipe can be altered in many ways. Consider adding earthworm castings, compost tea, beneficial mycorrhizae, harvesting and trading your own seeds. Throw and Sow – Enjoy!



Gather and Mix ingredients

Add Water slowly- Mix seeds in

Form in to Balls and Dry

WAS NEWSLETTER ADVERTISING RATES AS OF JANUARY 1 2016

Full page (7.5" x 9.5")	\$200 per issue/\$800 per year
Half page (7.5" x 4.5" or 4.5" x 7.5")	\$125/500
Third page (7.5" x 3")	\$100/400
Quarter page (3.5" x 4.5" or 4.5" x 3.5")	\$75/300
Business card (3.5" x 2" or 2" x 3.5")	\$35/140

Please note the new \$20/ year subscription fee for PRINT copies of the Journal, due at time of new/renewal of membership.

the **Beez Neez** apary supply

Store hours:
Tues-Fri 10am-6pm
Sat 10am-4pm

Beekeeping Supplies
Local Raw Honey & Pollen
Candlemaking Supplies
Mason Bee Supplies, Gifts,
& MORE!

(360) 568-2191
beezneez06@earthlink.net
www.beezneezapary.com
403A Maple Ave. Snohomish, WA



IN YOUR HIVES.
OFF YOUR MIND.

In order to get the longest life out of *Varroa* control products, rotation is essential. Mite resistance can develop in a short period of time and that is why it is key to rotate your control materials with products like Apistan®. Rotating on an annual or semi-annual basis with products that have different modes of action will help manage mite resistance. Start your rotation program with Apistan®.

Always read and follow label directions. Wellmark International, Schaumburg, IL. Apistan and the Apistan logo are registered trademarks of Wellmark International. ©2009 Wellmark International.



CONFERENCE 2015

A Practical Guide to Tasting Honey Wine

by Jester Goldman

When people think about mead or honey wine, they immediately expect a cloyingly sweet beverage with a rough simplicity best suited to the Middle Ages and Renaissance Fairs. In reality, mead is much closer to its cousin, wine made from grapes. Just like wine can be approached based on the types of grapes used, mead can feature varietal honeys or blends. The meadmaker has a similarly rich palette to work with: meads can range from dessert sweetness to quite dry, still to sparkling, light alcohol to moderate strength. But the art can also be much more experimental than mainstream winemaking, incorporating adjunct ingredients like herbs and spices, fruit, or even malted grains.

It can be daunting to a neophyte to figure out how best to appreciate honey wine. The easiest way is through experience, but formalizing that approach helps people get up to speed more quickly. Mead evaluation is really just conscious tasting: by learning to identify technical flaws and the balance of qualities normally found in mead. Food, wine, beer – most people can figure out whether they like a particular thing, but the goal is to understand why we like or dislike a given sample.

Evaluation begins with our senses. We can take in the appearance, the aroma and flavor, and how it feels in our mouth. There are a set of things we can look for, like honey character, sweetness, acidity, tannins, alcohol, fruitiness, and special ingredients like spices, etc. As we assay the mead, we want to take these in and recognize how they balance with one another. For instance, a light acidity can keep a sweet mead from becoming too cloying.

At the same time, we can look for common off-flavors that detract from the experience, like oxidation, sourness, solvent character, phenols, diacetyl, and autolysis. It can take a little practice to recognize these, but common descriptors can make it easier. For example, phenols can taste medicinal, smoky, or spicy, while diacetyl is often perceived as a buttery flavor and a slick mouthfeel.

With that grounding, the rest of the presentation was a practical walk-through, tasting three commercial meads: Traditional Mountain Honey Wine and Black Raspberry Nectar from Redstone Meadery of Boulder, CO and Kim's Clove from Hunter's Moon Meadery of Severence, CO. These three samples offered a glimpse of how much honey wine can vary.



STOCK UP WITH A FULL LINE OF
HIGH QUALITY
BEEKEEPING SUPPLIES



FREE SHIPPING
ON MOST ORDERS \$150 OR MORE*

*Some Restrictions Apply



RUHL BEE SUPPLY

— a Division of —

Brushy Mountain Bee Farm



1-800-BEESWAX | 503-657-5399

www.BrushyMountainBeeFarm.com

ACORN™

BEEKEEPING EQUIPMENT

The
Bee's Choice
for 2016

"THE NEW STANDARD OF EXCELLENCE AND QUALITY"



NO BOWING
OR WARPING

Acorn One Piece Plastic Frames

- Flatter, Stiffer, Sturdier
- Redesigned Mega Strong Ears Last Forever
- 9-1/8" 6-1/4" Sizes



FLATTER
STIFFER
STURDIER

Plastic Snap-in Foundations

- Plastic Snap-in Foundations fit well in 9-1/8" and 6-1/4" Wood Frames
- Optional Breakaway Communication Hole



BRAND NEW!

6-1/4" Drone

Drone Combs

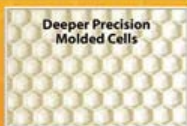
- Integrated Pest Management (IPM)
- Varroa mite control
- Queen Breeding
- 9-1/8" 6-1/4" Sizes

Features

- Well Defined Precision Molded Cell Base
- High Quality Beeswax Used
- Rigorously Field Tested
- Excellent Bee Acceptance
- **Superbly Waxed - Standard, Extra Heavy Available!**



Deeper Precision
Molded Cells



Nick Lissaman
20 years experience

info@acornbee.com
www.acornbee.com
13818 Oaks Ave. Chino, CA 91710

Call Acorn Bee Today!
877-255-6078



Harvest The Best...

with **SUNDANCE™ POLLEN TRAPS** and **COMPLETE ROSS ROUND SUPERS.**



SUNDANCE POLLEN TRAPS

Imagine the cleanest pollen available with no heavy lifting, chalkbrood mummies or risk of foulbrood scales. There is no substitute for the **Sundance Trap** quality and cleanliness. Leading experts from the USDA and universities as well as commercial beekeepers and hobbyists agree that **Sundance Traps** are the best pollen traps available.

COMPLETE ROSS ROUND SUPER

Produce comb honey with no dripping from cut edges and no liquid honey in the consumer package with **Ross Rounds** equipment. Easily shipped or delivered, stocked on shelves, purchased and taken home without danger of leaking. Enjoy providing locally grown, unprocessed, all-natural honey with a complete **Ross Rounds Super**.

For more information visit www.RossRounds.com.

For dealers near you please call 518-573-8246 or email Lloyd@RossRounds.com.

**ROSS
ROUNDS™**



CONFERENCE 2015

The Power of People and Partnerships

Christi Heintz

Project Apis m. (PAM) has been working hard on enhancing the health of honey bees for 10 years. We've got a lot of accomplishments to show for those 10 years and we'll list them below, but we are really excited about what we are doing right now. "PAM was a brilliant idea", says Bonnie Woodworth of the North Dakota Beekeepers Association. PAM's role is, and has always been, to fund bee research. PAM sets strategic research directions, finds sources of funding, works within the scientific community to conduct the work, and manages the studies to completion. Shepherding these research projects along encompasses juggling lots of balls in the air – proposals, budgets, agreements, communicating with stakeholders, reports, and constantly insuring the science conducted matches the practical needs for beekeepers to keep their bees healthy.

Right now, we couldn't be more excited about our present slate of projects. Our number one focus is Varroa control. Come September, 2017, Varroa will have been in the U.S. thirty years. That's too long. PAM does not want Varroa to have a very happy 30-year anniversary party in the U.S. We are going after Varroa in a big way, on several different fronts. Evidence suggests that there are several innovative compounds that warrant attention for Varroa control. We are helping to fund anti-Varroa projects that include natural predators, spider venom, extracts from seed of an Asian flower, oil from an Indian evergreen tree, and better delivery systems for effective volatile organic acids. Further, we will look at chemical triggers associated with hygienic removal of mite-parasitized bee brood and work toward stabilizing the traits in mite-resistant VSH bees to build a sustainable, industry-relevant VSH bee source for the beekeeping industry.

Still in the area of stock improvement, PAM is building the honey bee germplasm repository at Washington State University. We purchased a cryopreservation unit for Dr. Steve Sheppard's lab with a 46,000 semen-straw-capacity. The WSU Lab is diversifying our genetic stock and improving bee health and performance. Also, we purchased the Nexcelom System for Dr. Dave Tarry's lab at NCSU to do high-throughput process of sperm samples, expediting research and providing a service to beekeepers, especially queen producers.

PAM funds BIP Tech Transfer Teams. We have been involved since the start of the BIP Teams in Northern California. We initiated the SE USA/FL/GA Team and the Texas Team, and assisted with the start-up of the PNW Team and the UMD Remote Teams. We believe the beekeeper-BIP partnership improves field testing of bees, the ability to react quickly to changes in bees' health, and provides comprehensive data on bee health to better understand our bees nationwide.

PAM wants to make your life easier. If you are a beekeeper, we want to help keep your bees alive. If you are a bee scientist, we want to provide quick access to funding and a minimum of paperwork, giving them more time on you lab bench. If you rent bees, PAM wants to show you how to make the most of your bee rental investment by keeping bees safe. And if you are a bee? PAM wants to increase your life span and health quality.



Project Apis m.



CONFERENCE 2015 Bee-Healthy Tools

Matt Mulica



Global food production and North American agriculture depend on honey bees. More than 30 organizations and agencies from across food, agriculture, government and conservation have formed the Honey Bee Health Coalition with the goal of reversing recent declines in honey bee health and ensuring the long-term health of honey bees and other pollinators. The Coalition has issued a "Bee Healthy Roadmap" outlining shared priorities for improving honey bee health through collective action that will accomplish more than any one group can achieve on its own.

The role of the coalition is to provide a vehicle for developing these partnerships and using the partner initiatives to coordinate holistic strategies for improving honey bee health.

What's at stake: One-third of global food production and billions of dollars in American and Canadian agriculture relies on pollinators to at least some degree (80% of flowering plants are pollinated by honey bees and other insects).

What needs to be done: In October 2014, HBHC put forward its "Bee Healthy Roadmap", outlining collective, science-based action in four priority areas involving across-the-industry partnerships. Their new "Tools for Varroa Guide" can be found at <http://honeybeehealthcoalition.org/varroa>.

WAS representative to HBHC, Dewey Caron, outlines these goals in his latest report on page 12. There is also much more on the HBHC website at www.honeybeehealthcoalition.org.

Join us as we work to achieve a healthy population of honey bees to support productive agricultural systems and thriving ecosystems.



The Best Selling BEEKEEPING Magazine In AMERICA!

- 12 Big Issues A Year
- The **BEST** Beekeeping Calendar
- The **ONLY** Urban Beekeeping Section
- The **ONLY** Kids & Bees Activity Page
- Information on Gardening and Also Chickens
- Paper & Digital Editions

Keeping Bees
Helping Beekeepers
For Over

141 Years

\$25

Save 40% Off
The Newsstand
Price!

To Order Call TODAY!
800.289.7668
ext. 3220

Beaver  **Plastics**

Langstroth Honeybee Brood Box

- Excellent insulation
- Will not expand or shrink due to moisture
- Light weight
- Discourages mold growth
- Provides years of service with proper care
- Readily accepted by honeybees
- No nails



Contact us today

Toll Free: 1-888-453-5961

Email: growerinfo@beaverplastics.com



bpgrower.com

BEAVER PLASTICS

CONFERENCE 2015 Healthy or Sterile

David Braden

Have you heard of the vanishing bees? You may know that commercial beekeepers are reporting losses of more than 30% of their colonies every year. Implicated in those losses is a class of pesticides known as systemics that show up in both the pollen and nectar of plants that have been treated. These poisons are common in insecticides sold to the public and in the potting soil of the plants that you buy.

Because pollinators are so important to the human food supply this is a great opportunity to examine our use of poisons. The issue goes beyond which pesticides are too harmful and which pesticides are acceptably dangerous. Here is the question: "Do you want a healthy system or a sterile system?"

Healthy Systems vs. Sterile Systems

When we use a poison to eliminate some species from our yard there is a series of consequences. It is not only the collateral damage from the poison – all the bugs that die from direct contact with the poison. It is all the species that rely on the one we poisoned. And all the species that rely on those species. That process leads toward a sterile system, the end result of which is a hospital-like environment. In hospitals, the only things that grow are super bugs that cannot be killed.

The most beautiful places you have ever been are healthy systems. They are healthy because they have a full range of species participating. They are complete food webs that process nutrients through complete growth, decay, and regrowth cycles in quantities that allow participation by many species.

Industrial agriculture argues that it is necessary to grow food in monocultures — large areas of a single crop — if we are going to feed the world. So the argument goes, poisons are necessary to protect the crops when you grow a monoculture. This process and the use of poisons leads to huge acreages of essentially sterile cropland where nothing grows except those species that become resistant to the poisons used.



BEEKEEPER'S BEEHIVE BRANDER KIT

Prevent Theft!



**Mark your boxes
and frames today!**

- Heavy duty
- Light but rugged - easy operation
- 1/2" and 1" characters available
- Designed to produce very deep brands
- Uses Standard 20 lb. propane BBQ tank

**BRAND
NEW
INDUSTRIES INC**

375 Pine Ave. #22
Santa Barbara, CA 93117
(800) 964-8251 BrandNew.net

Quality & Service Since 1907



Queens
Italian & Carniolan

Packages
F.O.B. all sized orders

www.koehnen.com / bee@koehnen.com
3131 Highway 45 Glenn, CA 95943 (530) 891-5216

Tate's Honey Farm

88900 Maringo Drive
Spokane, WA 99212

Honey and Beekeeping Supplies

Package Bees
Candle Making
Queens Bees
Pollination



Honey
Bees Wax
Comb Honey
Equipment

tateshoneyfarm.com
Jerry Tate

taccon105@icehouse.net
509-924-6669 Rita Tate

Yard and Garden Polycultures

We do not need to have this argument in a suburban landscape. Our yards and gardens can be polycultures and we have space for all the predators of all the pests. No one is going to starve if we lose this plant or that to insect damage, and the more we tolerate pest species, the quicker we attract their predators. We can assist nature in becoming healthy by encouraging a full range of species. As the ecosystem in our yards becomes healthy, it will also become correspondingly beautiful.

When we poison the aphids on our roses, we prevent lady beetles from participating in our garden, leading in the direction of a sterile system. When we think of aphids as food for lady beetles our garden starts to regain its health. A healthy system needs all its parts.

This is your habitat. Do you want it to be sterile or healthy? If you want it to be healthy, here is the deal: Someone is going to have to talk to that neighbor down the street who is using these poisons, or hiring people who use these poisons, thinking that they are safe. That neighbor believes that the poison is necessary to protect their investment in their plants and does not realize that they are damaging the health of the habitat. They are not going to listen to me, that radical environmentalist. They are not going to listen to some politician pandering for votes. Most will at least hear out a neighbor.

The conversation does not have to be confrontational. It is essentially the opening paragraph to this blog. Even the most committed user of poisons understands the necessity for pollinators and even if they do not sign on right away, they will be watching as we demonstrate how beautiful a healthy habitat can be. If that conversation does not take place the damage will continue and build on itself leading in the direction of a hospital environment.

This is about changing the standard for landscaping in our habitat. We know it is possible because we know that people prefer beautiful places to hospitals. But someone has to have that conversation.

Bee Safe Neighborhood Program

My organization, Living Systems Institute, and our good friends at Honeybee Keep, are sponsoring the Bee Safe Neighborhood program. LSI will certify your neighborhood as bee safe if you get 75 contiguous homes to sign a pledge not to use systemic poisons. A honey bee will regularly fly two miles to visit a flower. In that area 75 continuous homes is just a patch of healthy habitat.

The 75 homes has to do with the way humans work. There is scientific research that shows that humans are genetically programmed to want to work together for the common good within groups of 150 people or less. 175 contiguous homes is a neighborhood working together to improve its habitat. And that is what the bees need. That is what we all need if we want to live in a healthy habitat. If you are ready to help create a healthy, beautiful habitat, one neighborhood at a time, drop us a line and let us know about your efforts and let us know how we can help.



West Coast Bee Supply Ltd.

All Your Basic Beekeeping Needs:
Medication - Equipment - Suits -
And Much More.

Your Mail Order Specialists

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

Email: bluebob@shaw.ca

9351 #6 Rd., Richmond, B.C. V6W 1E5

WEAVER'S famous QUEENS and Package Bees

- Buckfast
- All-American
- Beekeeping Supplies
- Assembled Beginners' Kits

The R. Weaver Apiaries Inc.

16495 C.R. 319, Navasota, TX 77868

Phone 936-825-2333

Fax 936-825-3642

Email: rweaver@rweaver.com

www.rweaver.com

Making Honey and Medicine a Local Affair



Dr. Don Hyder (San Juan College), Dr. Stephen Rankin and Dr. Joseph Pope (Pinon Family Practice). Article written from the perspective of Don Hyder



I recently had the opportunity to talk with a group of physicians. They were aware that there was an FDA approved clinical trial in Farmington, New Mexico investigating the use of locally produced honey to treat methicillin resistant community acquired *Staphylococcus aureus* infections (caMRSA). MRSA infections are caused by a bacteria that is resistant to a number of antibiotics and if left untreated can result in serious infections that have few alternative remedies. The general comment was that they were skeptical of using honey to treat these infections and had not given much thought about the value of

the clinical trial. However, they were much more receptive in helping with the study after learning of our results. My first thought was, "Why did you not look into this before discounting it?" But then I remembered my first reaction. About 5 years ago, Dr. Joe Pope, Pinon Family Practice, asked if I would be interested in helping with an experiment to evaluate the effectiveness of using honey produced by another doctor, Dr. Stephen Rankin, to treat caMRSA infections. Both are beekeepers and highly respected physicians and were convinced that honey could be used to treat caMRSA infections.

They had initially investigated the effectiveness of the locally produced honey against caMRSA bacteria in the laboratory using a procedure in which the bacteria are grown on a suitable nutrient media that is enclosed in a container, a petri dish. Small filter paper disks are soaked in various chemicals and placed on the media and bacteria. The disks included an antibiotic, Vancomycin, which is known to kill caMRSA, clover honey obtained in a supermarket, wildflower honey obtained in a supermarket, the locally produced honey of interest (Lot 1 and Lot 2) and a honey from New Zealand, manuka honey. These are compared by measuring how closely the bacteria grow toward the disk. This is termed as a zone of inhibition. Manuka honey is known to contain an antibacterial compound, methylglyoxal that has been shown to be effective in treating a number of topical bacterial infections in humans and in animals. Interestingly, the locally produced honey exhibited excellent bactericidal qualities.

I was however skeptical. I am an entomologist and a researcher and have, like many people, been convinced that the only way to treat infections is with manufactured antibiotics. I am also a botanist and microbiologist and no matter how much I doubted if honey can be used to treat infections, I could not help but accept the invitation to become involved. After all, it involved bees. I remember at our first meeting to discuss the proposed project that both doctors expressed that honey can and should be a tool in an antibiotic toolbox and that locally produced honeys across the United States might have similar potential to treat locally acquired infections.

Our study is perhaps unique in another way. It has involved contributions from community donors, collaboration and support from San Juan Regional Hospital, San Juan College Foundation Board, San Juan College Departments of Biology and Medical Laboratory Technology and San Juan College students. Surprisingly, this was a major selling point in obtaining additional grant funding from the National Institutes of Health to investigate the antibiotic components and the floral sources of the honey being used in the clinical study.

The clinical study was approved by the Federal Food and Drug Administration in February, 2014 and was initiated at Pinon Family Practice in Farmington, New Mexico, in April. To be included in the study, patients have to be 16-79 years old, willing to try honey prepared dressings and able to return daily for 7 days. Exclusion from the trial includes the following, age outside the range, an underlying immune disease, location of wound not conducive to honey application, patient is diabetic, pregnant, allergic to bee pollen, honey or sulfa medication, diagnosed with peripheral vascular disease, recurrent use of alcohol or drugs. Patients entering into the study are asked to sign a consent form. After consent is obtained, patients receive incision and drainage of abscess and are treated topically with either the local honey or oral antibiotic (Bactrim). Patients return daily for dressing change, photo of wound, measurement of wound size, culture of wound, and temperature. Quite a commitment. I am always thankful that there are people willing to participate.

Results of the trial to date are promising. The locally produced honey is as effective as the antibiotic Bactrim in healing

the wound. The honey has been well tolerated without side effects and patients have expressed high interest in the study. Reoccurrence of caMRSA in patients is not unusual. This high recurrence rate in patients and families is a significant challenge in any medical treatment. So what is it about the honey that works so well?

Manuka honey, sold in the United States as Medi-Honey, has a proven track record for treatment of bacterial infections, most likely due to an antibacterial compound called methylglyoxal. It is also known that manuka honey is derived from a single floral source, a plant known as the Manuka Bush that grows in New Zealand and Australia. Is it possible that the honey being used in our study has methylglyoxal as well? And if so, what is the floral source?

A study was initiated in the summer of 2015 to identify the antibiotic components in the local honey and determine the floral sources of the nectar used to produce the honey. Floral sources were determined by collecting pollen from plants flowering within the area where the local honey is being produced and documenting pollen characteristics using a microscope. This information was compared to pollen collected by a pollen trap on hives within the study area. Ten species of plants, including a plant named Russian Knapweed and another named Coyote Willow were identified within the study area as potential floral sources. Of these ten, five pollens were positively identified from the pollen trap. Approximately 69% of the pollen from the pollen trap was identified as either Russian Knapweed or Coyote Willow pollen. Other floral sources included Musk Thistle and Tamarisk. These results indicate that the local honey is a mixed floral source honey containing a significant contribution of pollen from both Russian Knapweed and Coyote Willow.

The local honey was analyzed for known antibiotics, specifically methylglyoxal, using chemical identification equipment known as Solid Phase Micro Extraction (SPME) and Gas Chromatography-Mass Spectrometry (GS-MS). This equipment allows a researcher to extract, separate and identify chemical components of a honey sample. Medi-Honey was also analyzed and used for comparison. A floral extract from Russian Knapweed was also prepared and analyzed to determine if this plant was the source for the possible methylglyoxal.

Results found the local honey to be a mixed floral source honey with Russian Knapweed not being a primary source of nectar. Methylglyoxal was identified in the clinical honey as well as the manuka honey. A second compound with known antibacterial and antifungal properties, furfural, was also identified in the local honey but not the manuka honey. Furfural is also found in vanilla. The Russian Knapweed floral extract did not demonstrate any known antibiotic compounds.

I realize that these results are only preliminary but they do serve to demonstrate that honey is a very complicated

Varroa-nator Screen Insert



a new IPM tool for the battle against the Varroa mite.

- Allows for physical separation of fallen mites & bees.
- Placed on traditional bottom board reversed 180 degrees.
- New landing area & front opening for the bees to come & go.

MANUFACTURED BY DIMO'S TOOL & DIE LTD.
12 BANGOR AVE, WINNIPEG, MB
PHONE FOR INFO: (204)-772-6998

nozevit™ Plus



Your partner in helping maintain the
intestinal Well-Being and Integrity of
your honeybee Colonies

Contains:

- All Natural Plant Polyphenols
- Phytonutrients
- 3 Essential Oils
- Complete Amino Acids
- Vitamins and Minerals



**NO GMO
or HFCS!**

AS LITTLE AS **¢27** PER USE.

Simple, Effective and Economical.
Apply early Spring and late Fall
via drench or in feeder. Add to protein patties.



Dadant.com



eKoBeekeeping.com

For more information - (907) 727-8200

product and humans have only begun to rediscover its many uses. It is not surprising however when you consider that bees collect their nectar and pollen from plants and plants are perhaps one of the best pharmaceutical industries on this planet. And they are in our own backyards.

Dr. Rankin and I had the pleasure of presenting this study at the Western Apicultural Society annual meeting in Boulder, Colorado October 3, 2015. I returned from that meeting knowing that I am not alone in believing in the importance of honey to human health and wellbeing. I as well returned with a renewed commitment in continuing my research as well as promoting bees, beekeeping and bee colony health. Just as importantly, I realized that the medical use of honey is gaining recognition among health care providers and researchers.



In lab studies showing antibiotic disks and MRSA growth



Pollen identified from the local honey



Patient treated with local honey, Day 1



Patient treated with local honey Day 7



Russian Knapweed flower



Coyote Willow flower

CONFERENCE 2015

Colorado Queen Honey Bee Testing Project for Increased Sustainability: A 2014-2015 Western SARE Project

Kris Holthaus

The varroa mite (*Varroa destructor*) is the number one threat to honey bees (*Apis mellifera*) globally, and therefore poses a major threat to the 30% of our nation's food supply that depends upon pollination. A major portion of the beekeeper's time is spent in attempting to control this pest, which has become increasingly less efficacious given that the mite has developed high resistance to most treatments on the market. Our project is aimed at reducing or eliminating the dependence on chemical treatment of the varroa mite through selection, testing and improving the ability of Colorado honey bees to resist varroa mite infestations through introduction and genetic selection of resistant queens.

Three Colorado beekeepers tested 108 queen stocks over 2014-2015 to find those queens and breeder stock that would be suitable in establishing a Hardy Colorado Resistant Honey Bee stock. Those test stocks included queens from Strachans, Old Sol Apiaries, Olympic Wilderness Apiaries and Harbo Bee Co. with breeder queen stock.

Kris Holthaus in Ft. Collins, CO was the principle investigator and producer in the project. She has been a beekeeper since 1978 with a special interest in queen rearing and survivor stock. The overwintered test stock in this yard ranged with % of varroa in the brood from 0-5% and hygienic behavior from 17-96%. The highest performing colonies with both resistance and hygienic behavior were used for propagation and virgins were distributed to additional Colorado beekeepers wanting to improve the resistance within their own apiaries.

Dean Chapla, a commercial beekeeper in Longmont, CO also participated as a producer within our project. His overwintered test stock ranged with a % of varroa in the brood from 0-12% and hygienic behavior from 46-71%. He chose to produce virgin stock and queens from his most populous colony.

Janet Fink from Walsenburg, CO was our third producer. Unfortunately the drought in southern CO proved to be the most difficult for her apiary in 2014. Many colonies were light going into winter and small upon spring inspections... Luckily these colonies were able to build up in 2015 and should prove worthwhile for additional testing in 2016. She is also located in prime bear country with the enclosures to protect these colonies.

Additional information with additional testing procedures and results can be found at: coqueenproject.com.





8280 W. Coal Mine Ave
Littleton, Co 80123

303-728-4422

Bakersbeesllc@gmail.com

www.tobeeornottobee.us

Facebook.com/tobeeornottobeekeeper
pingsupplies

HONEY B HEALTHY *"Help Your Hives to Thrive."*
Honey-B-Healthy® Products
Original Honey-B-Healthy® Amino-B Booster®
Vitamin B Healthy™ **NEW! SUPER PLUS**
Energize Your Hives With SUPER PLUS:
MAKES HONEY BEES MORE RECEPTIVE TO HIGHER CONCENTRATIONS OF ESSENTIAL OILS, PROTEINS AND VITAMINS SO THAT BENEFICIAL LEVELS OF THESE FEED ADDITIVES GET TO THE BROOD QUICKER.
HONEY-B-HEALTHY PRODUCTS PROVIDE BEES A DIET RICH IN NATURAL INGREDIENTS THAT HELP RESORE AND MAINTAIN A STRONG IMMUNE SYSTEM WHICH IS VITAL IN TODAY'S STRESSFUL MAN-MADE AND NATURAL ENVIRONMENT. MANY COMMERCIAL BEEKEEPERS ARE ABLE TO MAINTAIN HEALTHY COLONIES YEAR AFTER YEAR USING THESE PRODUCTS.
Made in the USA by a Special Proprietary Process using Certified Ingredients in an FDA-Registered State-of-the-Art Facility.
Beware of Substitutes-Quality Control Makes the Difference!
Call: 866-542-0879 www.honeybhealthy.com

MEDIVET

Your First Choice for Healthy Bees

**A Reliable Partner
For your IPM Strategy**

Our products are available at your favourite Bee Supply Dealer

Medivet Pharmaceuticals Ltd.

#4, 55 -9 Avenue SE

High River, Alberta, T1V 1E6 Canada

Tel. 403 652 4441 / Fax 403 652 3692

Info@medivet.ca / www.medivet.ca

MASTER
BEEKEEPING
CERTIFICATE

Online

UMT.EDU/BEE



DONT BEE BEHIND THIS SEASON



10 Frame Woodenware
#W920C



10 Frame Syrup Feeder
#W621



Swarm Trap
#M522



Canvas Gloves
#M344



1 lb Muth Jar
#B540



4x7 & 4x10 Smoker
#M927/M928



Hive Carrier
#M536



Manufacturer Of Quality
Beekeeping Supplies Since 1976

www.millerbeesupply.com
888-848-5184
info@millerbeesupply.com

496 Yellow Banks Road
North Wilkesboro, NC 28659

CONFERENCE 2015 Turning Beekeeping Needs Into Action

Michele Colopy

Every beekeeper is important; every beekeeper is someone making a difference in beekeeping and in the lives of honey bees. The Pollinator Stewardship Council is comprised of beekeepers working for beekeepers, to address the impact of pesticides upon pollinators. Beekeepers have a need to protect their honey bees from bee toxic pesticides—including herbicides, fungicides, insecticides, adjuvants, surfactants, and the “inert ingredients” in pesticide products.

A need, however, is not a strategy. A need is not an action. The Pollinator Stewardship Council helps translate needs into action, and working with state beekeeping groups, into strategies. We help give voice to beekeepers who have suffered a bee kill due to pesticide exposure. Only when we speak up, and report the losses of our bees will pesticide use change. We connect beekeepers and others through our advocacy software with federal and state legislation, or regulatory actions so beekeepers will be heard.

We collaborate with, and support state and local issues. The key is connecting people. We connect beekeepers to businesses and funders to create collaborative projects. We connect beekeepers and researchers to examine the real-world of our honey bees. Research of honey bees—valid research—is peer reviewed by other scientists. Valid research is research that is replicated, and reviewed by others, and then validated by their research peers.

We believe in beekeepers, in science, and action to meet the needs of our honey bees, not fear. We will not starve if pesticide use is reduced. Crops will not be decimated if a true IPM program is followed, where only one ninth of the crop management involves chemical applications. Fear is not a need, nor is it an action. Productive strategies do not develop out of fear. All of us are here today because our ancestors were able to feed themselves. Your great-great-grandparents fed themselves without synthetic chemical pesticides. According to World Hunger statistics, the world produces enough food to feed everyone.

But a world without bees, bees to pollinate one third of our food, bees to pollinate the wild lands providing food for wild life, that is a world for which we must come together to provide the needed stewardship. We must be united for our honey bees and native pollinators. No matter your beekeeping management style, or your breed of honey bee; we must be united in the belief we have a right to keep managed honey bees; we have a right to keep them healthy with pesticide free forage, plenty of diverse forage, and to protect them from undue pesticide exposure.

We can protect our crops, and protect our bees. We can protect public health from mosquito borne diseases, and protect our bees. We must be the example of action to lead the way in honey bee health. The Pollinator Stewardship Council works to turn the needs of beekeepers into action. We are the only beekeeping nonprofit of beekeepers for beekeepers focused on the impact of pesticides upon pollinators. We are beekeepers! We work for you turning needs into action!



BeeManiacs
7619 W Wooland Rd, Deer Park, WA 99006

FREE shipping
on orders \$50+

Suits **Tools** **Feeders**

Hive Boxes and MORE

info@beemaniacs.com
www.beemaniacs.com

ONLINE STORE
shopbeemaniacs.com

Sacramento BEEKEEPING SUPPLIES

HONEY • POLLEN
ROYAL JELLY
CANDLE & SOAP SUPPLIES

(916) 451-2337
info@sacramentobeekeeping.com

2110 X Street
Sacramento CA 95818
Fax (916) 451-7008

Fred & Nancy Stewart
Donna Stewart
Pamela Hill

With USDA Microloans, Your Farming Idea Is Closer than You Think

Access to reliable credit has been an important issue for farmers and ranchers long before President Woodrow Wilson signed into law the Federal Farm Loan Act back in 1916. Even a century later, one of the biggest challenges to entering agriculture - or even growing an existing farming or ranching operation - still can be the cost of land and equipment.

At the U.S. Department of Agriculture Farm Service Agency (FSA), we believe starting or expanding a farm or ranch should never be out of reach, nor should it require buying thousands of acres of land, borrowing significant sums or committing to unreasonable interest rates. That's why three years ago, FSA created a new microloan program tailored especially to borrowers who have small or medium-sized needs. With its streamlined paperwork, no mandatory minimum amount and up to \$50,000 in borrowing authority, microloans have become one of our most popular programs to date.

These "farm operating microloans" can be used for tools, equipment, livestock, bees, seed, fertilizer, utilities, even marketing, distribution and certification expenditures. But unlike conventional FSA farm operating loans, the microloan offers a simplified application process, and eligibility requirements have been modified to recognize new and smaller operations.

In January, FSA expanded the microloan concept to cover farm ownership expenses, such as land purchases, constructing or upgrading farm structures and even implementing soil and water conservation practices. No appraisals are needed, and eligibility has been expanded to include other important skills like experience with a non-farm business, military leadership or advanced education in an agricultural field.

To learn more about microloans, visit www.fsa.usda.gov/microloans. Find your local office at <http://offices.usda.gov>.

Beekeepers' Calendar

July 14 - 16: Heartland Apicultural Society Annual Meeting, Bowling Green, Kentucky. Info <http://www.heartlandbees.org>.

July 17 - 20: 3rd International Conference on Pollinator Biology, Health and Policy, Penn State Center for Pollinator Research, Penn State Campus, University Park, PA. Info <http://www.cvent.com/events/international-conference-on-pollinator-biology-health-and-policy/event-summary-a63f438020fa4db6a3dd57d5ba0f1acc.aspx>.

July 25 - 9: Eastern Apicultural Society 2016, Richard Stockton University, Galloway NJ. Short Course July 25 - 27; Conference July 27 - 29. Info <http://www.easternapiculture.org>

Oct 13 - 15: Western Apicultural Society 39th Annual Conference, Honolulu, Hawaii. Watch for information as it becomes available in this and later issues of the WAS Journal and on the website westernapiculturalsociety.org.

Nov 15 - 17: California State Beekeepers Association Annual Convention, Kona Kai Resort & Spa, San Diego. Info <http://www.californiastatebeekeepers.com/events.html>.

PACIFIC NORTHWEST BRED FERAL STOCK
OLYMPIC WILDERNESS APIARY



**WILD SURVIVOR BREEDER
QUEENS**

Hardy & Hygienic
Mite & Disease Resistant
Isolated Mating Yards

Breeder Queens Available Summer & Fall

Call to Order:
(360) 928-3125

www.wildernessbees.com

TABER'S on the web ...



**RUSSIAN QUEENS
& PACKAGES**

Phone 707-449-0440

P.O. Box 1672

Vacaville CA 95696

www.honeybeegenetics.com

**STRACHAN
APIARIES INC.**

New World
Carniolan
Bees & Queens



We select for hygienic behavior, honey
production, mite resistance, and gentleness.



2522 Tierra Buena Road (530) 674-3881
Yuba City, CA Fax (530) 674-5802
95993-9654 Orders only (800) 368-3881
www.strachanbees.com orders@strachanbees.com

"Honeybees are the backbone of agriculture"

WESTERN APICULTURAL SOCIETY

MEMBERSHIP FORM



Name _____
First Last

Address _____
Street

City Prov/State Zip Code

Phone _____ Email _____

Tell us about yourself

Full time beekeeper? ____ If not, what other field do you work in? _____

of colonies? _____

How long have you kept bees? _____ years

Age group (circle one) under 25; 25 - 40; 40 - 65; 65 or over

New membership _____ Renewal _____

I prefer ____ print copy or ____ email notification when each issue of the WAS Journal is posted online. FOR PRINT COPIES, ADD \$20/YEAR SUBSCRIPTION FEE

Indicate your membership level below:

- 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

Payment

Dues for the year(s) _____ \$ _____

Subscription fee, if applicable
(\$20/yr print copy of WAS Journal) \$ _____

Make check payable in US funds to
Western Apicultural Society.

Mail to:

Western Apicultural Society
PO Box 397
Selah WA 98942



**MADE IN
AMERICA
BY US.
BUILT
TO LAST
FOR YOU.**



Since 1863 Dadant & Sons has produced quality beekeeping supplies. Manufactured in the U.S. with Western Ponderosa Pine at the Dadant Woodenware Plant, our line of American made hive bodies, supers, and frames are built to a quality matched by none. At Dadant, we believe that "it pays to furnish good goods."



www.dadant.com



May 2016 35

ALOHA!



WAS RETURNS TO
THE ISLANDS
HAWAI' I 2016

October 13 - 15, Ala Moana Hotel, Waikiki Beach, Honolulu