Winter 2005

w.a.s. journal

The Journal of the Western Apicultural Society of North America

WAS website: http://beekeeper.dbs.umt.edu/WAS/

President's Message

Dear WAS members,

Greetings from sunny Pullman, Washington.

First, I want to let you know that the machinery to put on the 2005 conference is up and running and we are going to have a lot of fun in Moscow. However, there is no need to get your passport reinstated because the location is Moscow, Idaho. Moscow is the home of the University of Idaho and is about 8 miles away from Pullman, Washington and Washington State University.

In the next newsletter, I will provide further details of the conference program and available activities. While my sabbatical absence for the past year (Brazil) slowed down the start of conference preparation, I fully expect for us to have a great program and a chance to participate in a useful meeting. The challenges that face western beekeepers continue to grow, including more mite resistance to pesticides, higher winter losses and possible colony shortfalls for pollination. The WAS conference provides the usual opportunity to learn from each other, but also exposes us to beekeeping issues from a broader perspective than a local or state association. Make it a point to try and include this conference in your summer calendar. The dates for the 2005 conference will be July 20-23.

Why Moscow? The conference site is close (walking distance) to a commercial center and just across the road from the University of Idaho. The location of the conference will allow us to take advantage of the WSU research apiaries, a bee building facility in Pullman and our semi-isolated mating yard at Smoot Hill. For those of you who were at the last Moscow WAS conference, you know we are also fairly close to the Snake River (site of a musical WAS barbeque) and the Idaho mountains. We are again planning to use the University Inn Best Western in Moscow for the meeting site and have a conference rate on rooms of around $75 for queen (1-2 per room) and $79 for double (2-4 per room).

More news later on this same channel.

Steve Sheppard

Washington State University

Western Apicultural Society of North America

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.

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Notes & Thoughts from Presentations at the American Honey Producers Meeting in Tucson

By James C Bach, Yakima WA

Chinese Honey Imports

US Customs regulations has a loophole that allows companies in exporting countries to post a bond to insure payment of the duty on products that are considered to be "dumped" on the US market at below production costs. Several new Chinese export companies have posted the bond, imported the honey into the US and then closed their companies so they wouldn't have to pay the duty. The duty is used to support companies in the US that are the victims of "dumping." These Chinese companies now owe Customs $18 million that will never be collected.

The American Honey Producers Association (AHPA) has introduced a bill in the US Congress in 2004 (joined by honey importers and packers and other commodity groups) to require cash payment of the bond. The chairman of the House Ways and Means Committee (from California) wouldn't bring the bill out of committee so it died. He is being "cultivated" (EDUCATED?) by beekeepers and others and the bill will be reintroduced in 2005.

Honey Processing

Lyle Johnston, President of AHPA, states that we need to clean up our honey processing from the apiary to the consumer package. He says that many plants are pretty filthy and he is concerned that USDA will impose cleanliness standards in keeping with international standards. He would rather that the AHPA set their own standards and have beekeepers voluntarily comply with them.

The National Honey Board (NHB) has a committee working on a Honey Quality Assurance Program. The AHPA has a QA Guidelines and Curriculum Committee working on the issue. It is chaired by John Miller.

Honey Bee Research Labs

Dr. Antoinette Betschart, Associate Director of the Agricultural Research Service (ARS) says there are four honey bee laboratories in the US and one wild or native bee lab. Their priorities and budgets are as follows:

Beltsville MD: Bee diseases, including viruses	$2,052,800
Weslaco TX: Integrated pest management, fungicides	$1,877,800
Baton Rouge LA: Breeding and genetics, Africanized Honey Bee (AHB) – improve European queen introduction methods to AHB colonies, prevent AHB take over of EHB colonies	$1,908,500
Tucson AZ: Ensuring healthy bees for pollination, formulation of liquid protein diet for bees – (patent) for superior nutrition, brood production, worker longevity, registration of Tylosin for American Foulbrood and 2-Heptanone for Varroa control	$1,115,300
Logan UT: Wild native bee species	$1,595,600
Gainsville Fl	$207,400
Fargo	$86,800
Total	$ 8,844,200

Almost 30 scientists work in the 4 major labs plus Logan UT.

ARS is working on the registration of Tylosin. EPA has recently made scientific data available to companies desiring to register Tylosin for use in bee hives.

ARS is acquiring a patent of 2-Heptanone for Varroa control

and partnering with other companies to microencapsulate the product for timed release in cornstarch pressed into a strip that the bees chew up. The 2-H is inadvertently spread around the colony by the bees. It is thought that mites will develop a tolerance for 2-H over time.

Note of caution: When Oxalic acid is heated to a vapor and inserted into colonies, it is effective for two weeks but it deposits crystals in the hive that have very sharp edges. ARS is wondering if the sharp crystals affect bees in any way.

California Almond Pollination

Joe Traynor, a bee broker in Bakersfield, CA, stated that there were 100,00 acres of almonds in the state in 1950. Today there are 550,000 acres and he expects 600,000 acres will need pollination in 2010. The crop will use 1,000,000 colonies to pollinate the crop in 2005, but could possibly get by with only 500,000. Twenty percent of the current acreage is non-bearing at this time.

Almonds use one colony per acre in the first four years of bloom and two each year following. Blue orchard bees are used in perhaps two percent of the crop. Almonds produce about five pounds of pollen per acre. Eight frame colonies collect 3 to 4 times the amount of pollen as four frame colonies. A 12 frame colony may have 1145 dead bees after a spray kill while a 7 frame colony will only have 150 dead bees. Obviously, the larger colony does a better job of pollinating almonds.

Notes: It takes 50 lbs of pollen to sustain a colony's needs for a year. In 1950 there were 5,000,000 colonies in the U.S. now there are only 2.3 million.

The California Almond Board is spending $1,000,000 on honey bee research each year.

Current Bee Losses

It has been estimated that 250,000 to 300,000 colonies destined for California almonds died before Christmas. That's nearly one third of the colonies used to pollinate almonds. Current opinion has it that the colonies died because the Varroa mites have become tolerant to the EPA registered miticides CheckMite+ (Coumaphos) and Apistan (Fluvalinate).

Liquid Protein Diet

Gordon Wardell of SAFE Research and Development LLC is working on the formulation of a liquid protein diet for bees. He stated that the literature shows that if bees are fed a protein supplement year round they will produce 38% more honey. Protein diets were fed to bees in the U.S. as early as 1756. The liquid diet being developed mixes easily in syrup, is of a small particle size, retards spoiling and is recommended for use in frame or top feeders. SAFE's research shows that bees live slightly longer on the liquid diet vs. pollen. Protein concentration in the bees' hemolymph was higher with the liquid diet (.88) vs. natural pollen (.43). They may apply for a patent, and licensing between his company and USDA.

The company (Falinia) is also studying the use of essential oils against Oxytetracycline resistant strains of American Foulbrood. They are testing slow release and emulsion formulations, with and without essential oils. They measure the inhibitory effect on AFB in petri dishes containing growth medium. Their results to date show:

	Slow	Emulsion		Slow	Emulsion
Thymol	.02%	.01%	Bay	*	.06
Origanum	.03	.02	Clove	*	?
Cinnamin	.06	.03			

Emulsified oils work better than the slow release formulations. Origanum is the most effective at 0.01%. They will now conduct field tests.

Honey Bee Nutrition

Allen Cohen of Insect Diet and Rearing Institutes, a private company, is cooperating with ARS on a patent for the use of essential oils as miticides. He is studying the accumulation of natural antioxidants and anti-microbials by bees in their normal foraging and storage activities of honey, pollen, propolis and within the bees bodies. Allen says there is a special structure in the bees GI tract called the peritrophic matrix (PM). The PM is a barrier to pathogens, bacteria, oxidizers, toxic chemicals. Also to disease, mites, chalkbrood, environmental pollution, AFB, Nosema, temperature, genetically modified organisms, natural plant components and water.

They have found what are called Tyrosine nodules in the gut of bees that are infested by feeding Varroa mites. They do not understand the syndrome at this time.

They will also study honey bee stress modification by free radical scavenging with the use of anti-microbial agents. They will need to study specific antioxidants and the role of nutrients on the reduction of honey bee stress.

Cyanide Use on Wax Moth, or to Kill Bees

Judith Hooper of Pima Research Company, Tucson AZ, stated that cyanide was pulled from the U.S. market in 1987. It is now only labeled for use in rodent baits -- it has handling issues because it produces hydrogen gas that 40% of people can detect and 60% can't. A lethal concentration that will kill 50% of a population (LC50) immediately is only 270 ppm; 166 ppm will kill in 30 minutes and 100 ppm in one hour. It takes 3,760 ppm of carbon monoxide for one hour to kill and16,600 ppm of ammonia gas for one hour to kill.

Cyanide has been found in honey and bees wax. It is also found in almonds, peach and cherry pits and lima beans. A horse has been known to die from eating cherries off trees. Cyanide reacts with sugars, enzymes, micronutrients and unsaturated organic molecules in pollen.

Persons who distribute cyanide to others are subject to a $6,500 fine, criminal penalties and one year in jail.

Alternative products labeled for wax moth control include: Phostoxin, Paradychlorobenzene (PDB), formic acid, carbon dioxide and sulfur dioxide.

The use of Phostoxin requires that the applicator pass a test and become licensed with State Departments of Agriculture, keep application records and purchase the required testing instrumentation and personal protective equipment including an approved respirator.

PDB has been found in honey and its use is illegal in California and Massachusetts. Formic acid attacks the metal staples, nails and frame wire in the bee hive.

They will be looking at products that are in use in Europe to see if any can be labeled in the U.S.

Use of Nucs in a Bee Operation

George Hansen, OR gave an excellent presentation on his use of nucleus hives to replace poor or lost queens. He maintains

his colony count by the use of nucs that are inserted in queenless colonies to maintain colony strength and production. He requeens all his hives annually but states that from five to 20 percent won't be accepted by the bees.

Nucs are made up by placing a new queen in a cage with young brood in a nuc box containing five frames and a frame feeder over an excluder that is placed over a ten frame brood nest. He places cover boards over the exposed queen excluder. Bees move up through the excluder to the nuc and the new queen. The nuc is then removed to another yard for future use. He makes at least 5 to 10 percent of his colony numbers as nucs.

Varroa resistance of Suppressed Mite Reproduction (SMR) Bee Strains

John Harbo, ARS Tucson Bee Lab, states that natural resistance has not shown up in large amounts in U.S bees. Dr. Ruttner in Uruguay in 1984 showed that some mites don't reproduce. Drs. Harbo and Hoopingarner found that adult bees remove Varroa from capped cells but not from drone brood. They remove reproductive mites but not non-reproductives. In the average U.S. colony about 20% of the mites don't reproduce.

When they studied SMR colonies vs. controls they found:

SMR	2% infested with mites	20% reproductives
Control	9% infested with mites	71% reproductives

Research on Controlling Bee Diseases and Pests of Honey Bees

Mark Heldlaufer, ARS, Beltsville MD – The lab is studying Tylosin and honey bee viruses. Tylosin (Elanco's Tylan) may be labeled for the control not prevention of AFB in colonies. It will be used at the rate of 200 mg in 20 gr. of confectioners/icing sugar (low starch), three times. The Federal Food and Drug Administration has determined that no food tolerance is necessary.

They are also working to find an antibiotic against Nosema and foulbrood. They will also be looking at EPA's 25b list of minimum risk pesticides to see if any may be useful against Varroa and at EPA's inert ingredient list for potential products.

Judy Chen is working to determine the quantity levels of Deformed Wing Virus (DWV) in bees and Varroa mites. She found that "normal" adult bees also had the virus. DWV was also found in young larvae and eggs. They need to answer the questions whether the queen is passing the virus to the outside or inside of the egg and whether drones are passing virus to the queens during mating. They want to know if a maintenance level of the virus is common to colonies and if mite populations may increase the virus or its virulence.

Non-infected mites became infected in brood cells when exposed to virus positive mites. British Columbia has been reported as having Kashmir Bee Virus (KBV) but correspondence was unable to confirm detail of the find. Beltsville has KBV positive colonies but no colony deaths. Samples sent to the lab must be fresh bees frozen and shipped on dry ice. Mr. Feldlaufer states that "it is very difficult to link viruses with colony deaths."

Honey Bee Breeding, Genetics & Physiology

Tom Rinderer, ARS Baton Rouge LA, states that he will be making the final evaluation of the latest genetic material from Russia. Candidate colonies will not be treated with any miticides. Some Russian queen colonies have lived without treatment for six years. They will study:

- The longevity of Russian colonies without treatment for Varroa
- The effect of dividing colonies on Varroa populations
- Russian Queen management – problems with queen acceptance

Some Russian stock is resistant to Honey Bee Tracheal Mites; some are not. They have found deadly infestations in susceptible colonies in the summer in the south.

Russian queen colonies have higher proportions of phoretic mites (outside of brood cells), higher rates of dead & damaged mites, dead brood removal, live brood removal and hygienic behavior. They have lower rates of Varroa infestation.

Russian Colonies and Honey Bee Tracheal Mites

Resistant bees do well in northern states: of 280 samples tested in January, June and in the fall, none had over 60% HBTM. (Author: I wouldn't say that is "doing well.")
The lab is studying Russian bees as pollinators of low bush blueberries in Maine – they are doing as well as European bees.

Tylosin Studies

Steve Pernal, at the Beaver Lodge, Alberta, Agriculture Canada research station, studied the use of Tylosin on bee colonies and found the following:

- A spring application of 600 mg in May (3 feedings of 200 mg.) resulted in 240 ppb in the brood nest the following spring. 2 years later some Tylosin was still present in brood nest syrup.
- Samples of surplus honey in 2002 found:
  225 ppb on July 11
  60 ppb on July 18
  80 ppb on July 25 and
  120 ppb on Aug. 1st.
- Tylosin is very stable in honey.
- A Tylo-pollen patty was good at reducing residue levels in the brood nest. 3 applications of 200 mg. are most effective in the summer.
- Patties are not as effective as the dust formulation.
- After spring dustings, appreciable levels of Tylosin were found 6 weeks after withdrawal

- Use low starch confectioners sugar(also called icing sugar) for dustings

Steve Pernal also monitored AFB levels by analyzing adult bees and honey samples. He found:

- No relationship between Terramycin resistant AFB in an operation and its previous AFB history
- 50 to 100 spores of AFB per gram of honey indicates potential AFB problem
- Bee samples stored in 70% ethanol and kept for one year had the same spore levels as fresh samples

Other Comments

- John Westra, of Louisiana State University is working on an economic analysis of technologies to control Varroa. He will conduct a survey of the statistical and econometric analysis and draft a report for ARS.
- Food grade mineral oil inserted into hives as a fog for Varroa mite control was found to be ineffective in the six week trial period.
- More research shows that high fructose corn syrup is not good for humans.
- We must change how we process honey. We can't do it as we have done in past generations.
- Small Hive Beetle has now been found in North Dakota and all states located east of a line from north to south along the North Dakota eastern boundary to the Gulf of Mexico.
- Cargill is producing a honey taste-alike product.

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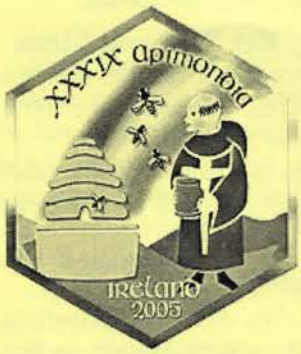
Apimondia 2005 - a Richly Varied Irish Experience

Dublin, Ireland, August 21 - 26, 2005

Whether you are a one-hive hobby beekeeper or a thousands of hives strong commercial one, there is a wealth of experience waiting for you in Dublin, Ireland this summer.

From August 21st to 26th, the XXXIX Apimondia Congress incorporates the business and the pleasure of beekeeping with the business and pleasure of being in Ireland, a country that prides itself on superb hospitality. It has long been said, "There are only two nationalities in the world -- those who are Irish and those who wish they were!" (Pardon someone of the blood sneaking that one in!) The organizers of this Apimondia Congress have gone all out to assure you return home an adherent to that faith.

Among the many choices are the formal presentations encompassing the seven arenas the international federation of beekeeping associations known as Apimondia concerns itself with, to the giant ApiExpo of the latest and greatest innovations in beekeeping, the new events -- International Apimondia Village (non-commercial and traditional beekeeping crafts) and World Honey Show -- ten technical tours and five social tours (geared especially for accompanying persons) through stunning Irish countryside and famous places, six-day pre- and post-conference tours in Ireland and the UK, and even help with genealogical research if your ancestry is Irish, English, Scottish or Welsh.



Irish Congress logo

International Federation logo

The whimsical logo shown on this page is a tip of the hat to five thousand years of beekeeping history in Ireland, much of it in the last millennium carried out in monasteries.

The beautiful website created for the Irish Congress (www.apimondia2005.com)contains an extensive history of beekeeping, as well as detailed information about each of the programs mentioned above, travel and accommodations options and prices, answers about currency, language and other issues.

The many tours are described in detail and ever detail considered to assure comfort and enjoyment.

Three major evening events are part of the agenda. The Opening and Closing Ceremonies are, as always, rich and varied, the latter containing a special invitation from the next Apimondia hosts, Australia. "Irish Night" is going traditional, with the sprightly music and dance of a Gaelic Ceilidh. Not to be missed.

The international beekeeping federation exists to promote scientific, ecological, social and economic apicultural development in all countries and the cooperation of beekeepers' associations, scientific bodies and individuals involved in apiculture worldwide.

It also aims to put into practice every initiative that can contribute to improving apicultural practice and to rendering the obtained products profitable.

A major objective is to facilitate the exchange of information and discussions. This is done by organizing congresses, conferences and seminars where beekeepers, scientists, honey-traders and legislators meet to listen, discuss and learn from one another.

The interests of the organization are divided into seven Standing Commissions: beekeeping economy, bee biology, bee pathology, pollination and bee flora, beekeeping technology and equipment, apitherapy, and beekeeping for rural development, around which the speaker programs at the biennial Apimondia Congresses are formed.

The 1999 Congress was held in Vancouver, Canada, the 2001 Congress in South Africa, then Slovenia in 2003, now Ireland in 2005, and Australia in 2007. As someone who had the great privilege of working with the Canadian organizing committee, this writer cannot sufficiently emphasize the value of such an experience. I encourage you to attend if you possibly can.

Researchers Warn of Consequences if Native Pollinators are Ignored

Farmers will ultimately pay the price if wild bees are no longer around to supplement honeybees.

By Peter Reschke, Ontario Farmer, reprinted in "The Sting", Ontario beekeepers' newsletter

What if someone offered to work for you for nothing? No wages, no benefits, just the privilege of having safe access to your field or orchard and a place nearby to live and raise offspring.

In return, you would be guaranteed that all your plants would bear abundant fruit, year after year.

Sounds like a pretty good deal. So, why are so many North American producers, people with supposedly well-honed skills, turning down the offer?

That's a question that researchers like the University of Guelph's Peter Kevan and Princeton University conservation bi9ologist Claire Kremen are pondering. Both have devoted much of their research to studying the impact of insect pollinators on modern agriculture and the economic consequences of declining pollinator numbers.

Their bottom line -- pollinators are under-appreciated in today's farming enterprises. That's especially true of the native pollinators -- wild bees and wasps that live in the countryside surrounding fields and orchards, then visit crops, often unobserved, to forage among the blossoms.

So, while producers of crops such as cherries, apples, pears and cucumber, invest each year in honeybees for their pollination services, little attention is paid to wild bees that perform much the same task for nothing.

It's an oversight they could well regret. In a 2002 paper, Kremen and her colleagues observe that honeybee colonies are becoming scarcer because of infestations of parasitic mites and the use of pesticides.

Their researchers found that native pollinators can take up much of the slack if there is sufficient natural habitat in close proximity to the farms. For example, they found that organic farms in California, located next to unmanaged pastures or woodlots, had enough natural pollinators to produce crops -- even those with heavy pollination requirements like watermelons -- without the use of honeybees.

But that is the exception. For most other farms in an intensively

managed agricultural landscape, there were no longer enough of these wild pollinators to ensure a good fruit set.

They also found that wild pollinator numbers fluctuated from year to year, making them unreliable from an agricultural perspective. Still, even here they can account for up to a third of the crop pollination, the researchers found.

Kremen and her colleagues argue that farmers are doing themselves a disservice by degrading the natural landscape around their farms because it will cost them much of this free pollination service and make them more dependent on managed honeybee colonies.

The same is likely true in Ontario, Kevan says, but proving it is not so easy. "I can't get anybody in OMAF (the Ontario Ministry of Agriculture and Food) or the grower groups interested in funding this type of research," he adds.

Part of the problem, he says, is that farmers, even those producing crops that are most dependent on proper pollination, don't always recognize the importance of pollinators -- even honeybees -- to their bottom line. Kevan says some producers are still under the impression that the beekeeper reaps most of the economic benefit from pollination contracts.

Not so. Kevan says he has seen a lot of different cost-benefit analysis for placing honeybee hives in fields and the ratios range from 1:4 to 1:200. That means for every dollar a producer spends to put hives in his fields or orchards, he gets back anywhere from $4 to $200 in increased production.

Kevan says that, from his experiences studying pollination in apple orchards, those estimates are not out of line. "I think beekeepers are under-selling themselves," he says. "I tell them 'you're not charging enough.'"

In a co-authored study, Kevan found that there is plenty of evidence to show that agricultural productivity suffers whenever there is a shortage of pollinators. They can have a trickle-down effect on the consumer if the crop problems translate into a scarcer commodity and higher prices.

Around the globe, there are some dramatic examples of what can happen when farmers ignore the needs of pollinators. Kevan says that in some areas of China there are now so few pollinators that farmers are actually hand-pollinating their apples in order to get a crop. Similar situations have been documented in India and Nepal.

While such problems are only appearing sporadically around the world, Kevan says there is a growing awareness of the need for pollinator conservation.

It can be done without having to revert back to pre-industrial farming methods.

Researchers estimate there are about 4,000 different species of wild bees that are native to North America. They don't live in hives like honeybees. Many are solitary and nest in thick grass, soil and wood. On the downside, they don't make excess honey for us to harvest. On the upside, they are unaffected by pests like varroa and tracheal mites.

But, like honeybees, they are very sensitive to chemical use and to disturbances of their natural habitat.

Conservationists say that helping these wild bees is not as complicated as it may seem. Any small woodlot, vegetation along streams, or even a hedgerow or windbreak can provide sufficient habitat. Most are soil nesters, so providing a place to rear young is not a problem.

All they need is a steady food supply and a few scraps of undisturbed land. Is that so much to ask?

A Perspective on Native Pollinators

By James C Bach

In the mid 1990s we held a conference to discuss the extensive losses of honey bees (*Apis mellifera*) due to the general distribution of Honey Bee Tracheal and Varroa mites in bee colonies in Washington State. We invited representatives from beekeeper associations, pollinated crop growers, horticultural associations, Washington State University, environmental groups and several other organizations with interests in pollinating insect species.

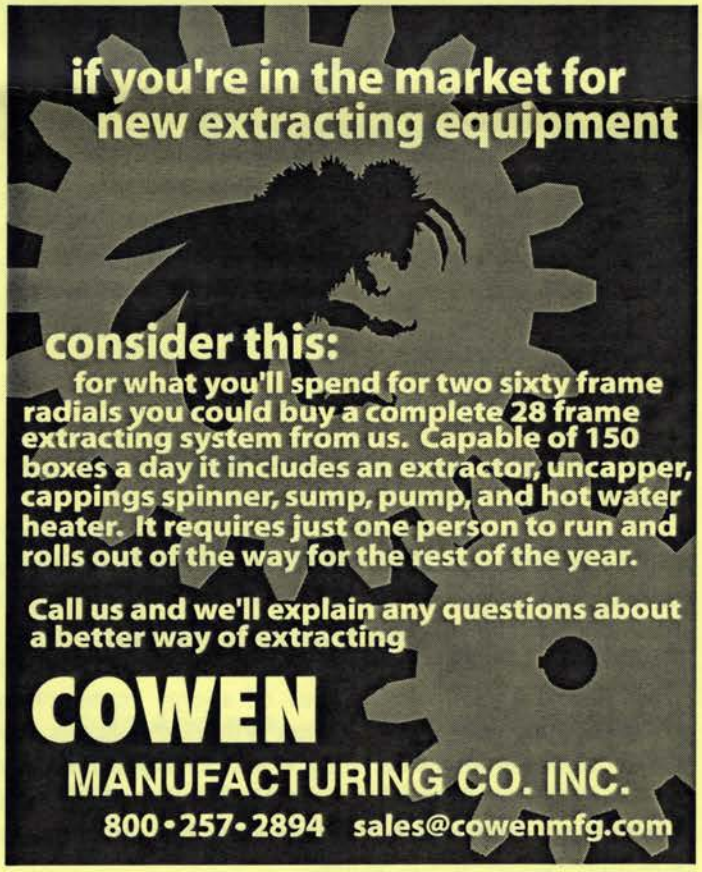
The focus of the conference was to identify what we knew about the use of honey bees as commercial and non-commercial pollinators -- those rented for pollination and those that pollinated the bloom in the vicinity of their permanent apiaries scattered throughout the state. We discussed the role of honey bees in urban and rural areas pollinating backyard gardens, fruit trees and berries. We also included thoughts on the distribution of feral colonies living in old buildings, stumps and trees throughout our forests.

We analyzed what we knew about the distribution and populations of native or wild bees in our environment. Entomologists discussed the research that had been conducted in past years, what it told us, and what we still didn' t know. My recollection of the discussion is that we know very little about the distribution of native pollinators and their population levels in Washington. I recall a conversation with a party who informed me that a researcher from the USDA Wild Bee Laboratory in Logan Utah had conducted a two or three day survey in the greater Seattle area and found over 20 species of bumble bees (*Bombus* species). But he said little was known about the distribution of the species in other parts of Washington.

Many interested and concerned persons, including entomologists, set up and maintain nesting materials for the Orchard Mason Bee (*Osmia lignaria*) in urban and rural areas of western Washington. Due to seasonal inclement weather, it is sometimes difficult to maintain adequate populations to guarantee pollination of tree fruit and blooming native plants. We were told that many other species of native pollinators live in Washington but almost nothing is known about their distribution, propagation success, predators, pests and diseases.

The consensus of the group was that we should pursue activities to determine if funding sources were available to conduct meaningful surveys of native pollinators, their habitat, population numbers and the hazards to them. The group also said that we should determinewhether some of the native species could act as alternative pollinators for non-native food crop species in urban environments if their populations were large enough. And we thought we should continue monitoring the hazards to honey bees in the interest of pollinated agriculture.

Unfortunately, due to the lack of interest and vision on the part of the leadership, not a single effort was made to act on the consensus reached by the participants at the conference. It was disheartening to find so much interest and willingness to participate by a wide range of interest groups abandoned by leaders whose responsibility it is to anticipate the future needs of Washington agriculture, native plants and our environment.



Local Honey, Health and Allergies

By Tom Ogren, Reprinted from Bee Cause

As one who makes his living by writing about allergies and asthma, I am often asked about the potential health benefits of using local honey.

Honey contains bits and pieces of pollen and, as an immune system booster, it is quite powerful. I have often, in talks and articles and in my books, advocated using local honey. Frequently, I'll get emails from readers who want to know exactly what I mean by local honey, and how "local" should it be. This is what I usually advise:

Allergies arise from continuous over-exposure to the same allergens. If, for example, you live in an area where there is a great deal of red clover growing and if, in addition, you often feed red clover hay to your own horses or cattle, then it is likely you are exposed over and over to pollen from this same red clover. Now, red clover pollen is not especially allergenic but still, over time, a serious allergy can easily arise.

Another example: if you lived in a southern area where bottlebrush trees were frequently used in the landscapes or perhaps you had a bottlebrush tree growing in your own yard, your odds of over-exposure to this tree's tiny, triangular, and potently allergenic pollen is greatly enhanced.

In the two examples used above, both species of plants are what we call 'amphipilous', meaning they are pollinated by both insects and wind. Honeybees will collect pollen from each of these species and it will be present in small amounts in honey that was gathered by bees that were working areas where these species are growing. When people living in these same areas eat honey that was produced in that environment, the honey will often act as an immune system booster. The good effects of this local honey are best when the honey is taken a little bit (a couple of teaspoonfuls) a day for several months prior to the pollen season.

When I'm asked how local should the honey be for allergy prevention, I always advise to get honey that wasproduced closest to where you live -- the closer the better, since it will have more of exactly what you need.

It may seem odd that straight exposure to pollen often triggers allergies but that exposure to pollen in the honey usually has the opposite effect. But this is typically what we see. In honey, the allergens are delivered in small, manageable doses and the effect, over time, is very much like that from undergoing a whole series of allergy immunology shots. The major difference though is that the honey is a lot easier to take and it is certainly a lot less expensive. I am always surprised that this powerful health benefit of local honey is not more widely understood, as it is simple, easy, and often surprisingly effective.

Pharmaceutical companies have huge budgets and can fund studies, but with honey, this scientific research doesn't seem to get funded (most likely because honey -- a natural product -- cannot be patented as an allergy treatment*), thus the most evidence we have is what we see, anecdotal evidence. That however, can be, and often is important. Sometimes -- often actually -- such evidence proves very useful.

Let me give you one such anecdotal example of the powers of local honey. I was asked to look over the yard of a family that had just moved to this area (Central coast of California) to see if I could figure out what was triggering the allergies of their five-year-old son. The boy was experiencing classical allergic responses -- runny nose, itchy eyes, persistent cough. This family had only recently moved to California from the Midwest, so a pollen allergy was surprising, as they generally take a number of years of exposure to develop.

The boy had started having these symptoms a few months after moving here. At his house, I didn't find the usual allergy culprits of the landscape -- male cloned trees or shrubs -- but I did note that next to the house was a row of towering blue gum eucalyptus trees. I knew the eucalyptus trees were shedding plenty of pollen, as you could see it on the windows of the cars parked underneath them. I checked some of this pollen with a microscope and it was indeed from these blue gum trees. Eucalyptus pollen is fairly large in size and is triangular in shape, making it easy to ID. I suggested that they could buy some eucalyptus honey at the local farmers' market and recommended that the boy be given several spoonfuls of this every day.

The family did as I advised and the boy ate the strongly flavored eucalyptus honey every day for four months. By the end of the first month, the allergic symptoms were starting to ease up. By the end of the second month, all his symptoms had disappeared. Some ten years then passed, and while in high school, this same boy again started having allergic symptoms. I visited the high school at the request of his folks and found that they had a multitude of huge eucalyptus trees growing there. I again advised the local honey and once again, it seemed to do the trick.

Now, let me be clear here. I am not suggesting that local honey will replace allergists. What I am saying is that, since visits to allergists and immunology shots are expensive, although generally effective, it makes perfect sense to give local honey a try first. Many times, as others and I have seen firsthand, the local honey will take care of the problem, quickly, safely and inexpensively.

* Editor's note

Bee Calendar

FEB. 1 - 2: CANADIAN ASSOCIATION OF PROFESSIONAL APICULTURISTS AGM, Sheraton Hotel, Saskatoon SK

FEB. 2 - 5: CANADIAN HONEY COUNCIL AGM/ SASKATCHEWAN BEEKEEPERS ASSOCIATION AGM, Sheraton Hotel, Saskatoon SK. Info Heather Clay 403-208-7141.

FEB. 17 - 18: BEEKEEPER WORKSHOP ON MITE CONTROL, Day's Inn & Suites West Edmonton, Edmonton AB. 2-day registration by Feb. 11 $140 CAD: at the door $170. Guest speaker Mr. Toni Imdorf, Agriculture Research Centre, Switzerland. Info Gertie Adair 780-489-6949, Gertie.Adair@AlbertaBeekeepers.org.

FEB. 28 - MAR 4: BEE MASTERS SHORT COURSE, Simon Fraser University, Burnaby BC. Lecturers include Keith Delaplane, University of Georgia; Rob Currie, University of Manitoba; Stephen Pernal, Agriculture Canada; Tanya Pankiw, Texas A&M University; Mark Winston, SFU and others. Info www.sfu.ca/beemasters2005.

MAR 5: BC HONEY PRODUCERS' ASSOCIATION SEMI-ANNUAL MEETING, Desert Gardens Centre, Kamloops BC. Info Ian Farber 250-579-8518, Ian Farber@telus.net.

MAR. 12: CLAPSOP COUNTY BEE SCHOOL, 9 - 4, Clapsop Community College, Astoria, OR. Info ccbee@intergate.com

MAR. 14, 21, & 28: WILLAMETTE VALLEY (OR) BEEKEEPERS ANNUAL BEE SCHOOL, 7 p.m., Chemeketa Community college, Building 34, Room "A". Info Harry Vanderpool, shallotman@yahoo.com or 503-399-3675.

MAR. 26: LANE COUNTY BEEKEEPERS ANNUAL BEE SCHOOL, 9 - 5, Irving Grange, Eugene OR. Info lcbaor@pacinfo.com

APR. 1 - 6: APITHERAPY CONGRESS, Holiday Inn, Passau, Germany. Registration details are listed at www.apitherapie.de. More info Dr. Stefan Stangaciu drstangaciu@apitherapy.com or DrStangaciu@apitherapie.de

APR. 9: BEGINNERS' BEE DAY, George Hansen's Foothills Honey, Colton OR, 9 a.m. Info Peter Forrest pdxpete57@msn.com.

JULY 20 - 23: WESTERN APICULTURAL SOCIETY ANNUAL CONFERENCE, Moscow, Idaho. Info Steve Sheppard shepp@wsu.edu.

AUG. 21 - 26: APIMONDIA 2005, RDS International Convention Centre, Dublin, Ireland. Info *www.apimondia2005.com*

NOV. 8-10: CALIFORNIA STATE BEEKEEPERS ASSOCIATION 2005 CONVENTION, Harvey's, South Lake Tahoe, CA. Info 209-667-4590 or 530-633-4789.

Sweeten Honey Sales with Smart Labeling

Giving your honey label appeal can sweeten honey sales. Consumers buy honey for its great taste and down-home qualities. Honey labels, therefore, should convey a pure, natural and wholesome image. Smart labeling is a way to enhance product information and increase consumer appeal, in addition to increasing sales.

Other labeling hints:

• Today's shoppers want to know how to store and use honey, including how to substitute it for sugar. It's good marketing to include simple tips on containers or accompanying brochures.

• Bees and bears are favorite graphic images for honey labels. But not just any bee or bear will do. They must be cute, happy and friendly.

• Shape labels similar to the container and leave room to view the honey.

• Include your address. Local honey is considered more favorably.

Winter

The hum was a whisper
the snowflakes tickled down my neck and
reminded me of their tiny legs
exploring my skin
searching me

The cold bit at my fingertips
on the steel of my hive tool
it felt good in my hand again

The snow reminded me that the bees might need food
I mixed sugar and water
and went for a walk
like a thousand times before
to fulfill my end of the trust

Slowly
taking care not to wake a tired friend
I pried off the lids to pour the sticky fluid around them
a hint of summer scent welcomed me
The hum was a whisper inside
a reminder, a promise,
not the buzz of spring and summer
heard from fifty feet away
but a gentle hint of sound
like the murmur of a slumbering child.

Classifieds .....

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