



INLAND BEEEMAIL

Monthly newsletter of the Inland Empire Beekeepers Association

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Presidents Corner:

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Inland Empire Beekeeper
Association Members:

Come one, come all to the IEBA Christmas Potluck and gift exchange. The feast begins at 6:30 PM, 8 December 2006 at the extension office. Bring a salad, side dish or dessert, and a good appetite. IEBA volunteers will provide ham, turkey, drinks, rolls, and more. Anyone wishing to participate in the gift exchange should bring a wrapped gift with a value between \$10.00 –\$15.00. If you are a queen bee, bring a gift for a queen bee, drones for drones. I understand this was not discussed at the last meeting but hope most of you remember previous years and are ready.

December is also the month that new association officers are elected. Roger Carney is our 'Nominating Officer' once again. Please come and participate.

This is our last meeting of the year and in the spirit of the Christmas season lets try to have a short, positive, meeting. I will once again be in California with my bees. You all will need to elect a new president as I stated last December. I miss too many meetings while doing the pollination thing and believe we need new blood with lots of energy. I will be happy to assist with the budget process if you all and the new president so desire.

If you cannot attend then let me take this opportunity to wish you a Merry Christmas and a Honey of a New Year.

December 1, 2006 EBA Apiary Status

A small group (6 or 7) of us met on November 18 to put the final touches on the apiary for the winter. We have a total of 21 colonies that are suitable for wintering. Perhaps 3 of the colonies have small clusters with the rest having very nice looking large clusters. One of the colonies was placed above a double screen board and is being wintered in a single deep. This colony has a very nice cluster of bees and should winter well Most of the colonies had plenty of honey with a few needing additional honey. Two colonies were somewhat light on winter stores. We removed one of the deeps on each of the colonies and added a western that was full of honey on top. These colonies should have plenty of stores for winter.

We started the apiary in April with 24 packages and have 21 good colonies for wintering. All of the queens were replaced in July with WSU queens. I expect that next spring we will have most of these colonies survive the winter and be bursting with bees by mid May. We will have to make splits before or we will have a swarming problem. This will be a new challenge for the IEBA. It should be interesting!

Please come early for our
Christmas Turkey, Ham and Potluck Dinner
to be held at 6:30 pm Friday December 8th.

Please bring your choice of accompanying side dishes and deserts The association will provide Drinks, Condiments, Turkey, Ham and More

The Life-Giving Secret of Bees

Honeybees produce a substance that kills HIV. But what's killing the honeybees?

by Jeannine Ouellette, - September 2005

The long, pointed whisker stands out sharply from the undulating mass of curious bees beneath the Plexiglas. Next emerges a lonely ear. And finally the whole, unmistakable outline of the tiny skull: a common field mouse. It is completely lacquered in something dark, sticky, and resinous. Just three days earlier, this little skull—not much bigger than a quarter—rested in the rather undignified open-air coffin of a petri dish atop the desk of Marla Spivak, a University of Minnesota entomologist and a national leader in honeybee research.

Spivak—trim, suntanned, short-haired, and outdoorsy in a way more revealing of her work in the hives than in the hallowed halls—discovered the mummified skull in one of her bee colonies on the St. Paul campus about a year ago. She fished it out for a closer look.

An experienced beekeeper would recognize right away what had happened: A mouse had gotten into the hive, and it was killed. But rather than letting the intruder fester and breed bacteria and potential disease, the bees covered the corpse with something called propolis.



Propolis, or bee glue, is resin that bees collect from the leaf buds and bark of some trees. Though relatively unfamiliar in the United States in all but a handful of co-op grocery stores, apothecaries, and health-food shops, it has been

used in folk medicine since antiquity. Propolis has long been credited with healing powers by people throughout Eastern Europe and parts of South America, where it is widely used for a host of minor health and skin ailments. In those areas, propolis products are as commonly available as are echinacea and chamomile in the United States.

But the mouse mummy captured Spivak's imagination. "It was just so weird, I couldn't stand to get rid of it," she told me. So this bizarrely hygienic partial cadaver remained, perfectly preserved, through five seasons in Spivak's Hodson Hall office. There, it bore distant and unlikely witness to the thrilling frenzy that ensued when, over the course of last year, an interdisciplinary team of university researchers, working with Dr. Phil Peterson of the medical school, synthesized and wrote up their remarkably promising findings from dozens of lab trials testing propolis against HIV. "Actually, it all started about five years ago," said Spivak, "when Dr. Genya Gekker, who was working with Phil Peterson on lab trials with various substances against HIV, came down with a cold."

Gekker, originally from Lvov in the Ukraine, grew up using propolis to fend off life's bothersome viral miseries. And she might have picked up a propolis-based remedy from the Wedge, or from Present Moment Books and Herbs in South Minneapolis. But instead, she went to the Minneapolis farmers' market looking for raw propolis. There, she visited Bob Dressen, owner of Cannon Bee Honey and Supply, who was selling his wares, including propolis.

"For several years we would have requests for propolis from Russian immigrants," Dressen told me. "Finally, I brought some to the market packed in two-ounce plastic bags and I thought, Now I'm ready for them." Dressen says he doesn't normally have raw propolis on the display table. "We do have capsules displayed and ready for sale, but the raw propolis isn't that appealing. We do sell it when it is asked for. The raw propolis I sell comes off of the hives"

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2006/2007 Program



DECEMBER

Potluck dinner
Election of officers

**Inland Empire
JANUARY**

**Beekeepers Association
Annual Class on Beekeeping
Every Friday Evening January 5th to
April 13th, at the WSU/Spokane County
Extension Office
222 N Havana
6:00 to 7:30 pm**

Instructor/Coordinator -Jim Miller
The class registration fee is \$30 for an individual or \$40 per family whose members all live at the same address.

For more information, go to inlandbeemail.com, or contact ToniFitzgerald at (509) 477-2164, tjfitz@wsu.edu or Jim Miller (509) 838-6347

ALSO, PLEASE NOTE WE WOULD LIKE HAVE MENTORS AGAIN THIS YEAR AND WE ARE ALSO LOOKING FOR PEOPLE TO HELP WITH THE TEACHING. IF YOUR ARE INTERESTED PLEASE PICK A WEEK YOU WOULD LIKE TO ASSIST WITH THE PRESENTATION AND CONTACT JIM MILLER 509-299-9085

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bottom boards, which I clean in the spring. Other propolis I gather is from the scrapings of hive bodies, and this is sent to processors to be made into other propolis products like chewing gum and toothpaste.”

With a little alcohol, Gekker extracted a tincture from Dressen’s raw propolis, and began treating her cold. And that’s when the unbidden thought struck: We’ve never tried propolis on HIV. Gekker set up the trial, and it worked. Propolis killed HIV.

“The testing went on for about three years. It was difficult work,” said Phil Peterson, who heads the university’s Division of Infections Diseases and International Medicine, and co-directs the Center for Infectious Diseases and Microbiology Translational Research. As a clinical investigator, Peterson has been

especially interested in infections of the brain.

“And HIV attacks the microglia of the brain—that’s where the virus grows when it gets in the brain cells. Its other main targets are T-lymphocytes, specialized white blood cells that effect immunity. And we found, lo and behold, that when you put this propolis in a cell culture system, it has potent activity against the virus in both microglia and T-lymphocyte cell cultures.”



Spivak supplied the propolis samples for the many lab trials that followed Gekker’s first serendipitous test. Every propolis sample the team tried (sourced from three sites in Minnesota, three in Brazil, and one in China) killed HIV in lab cultures. Even better, the propolis also appeared to at least partially inhibit HIV’s ability to enter cells—an elusive and sought after property in potential HIV treatments.

Perhaps best of all, propolis is a cheap, natural substance. “We know that of the forty million or so people affected by this virus, ninety percent of them are living in the developing world, where they can’t afford retroviral drugs at ten thousand dollars a year,” said Peterson. “Propolis, by comparison, is available for pennies. And it’s been used with relative safety for medicinal purposes for five thousand years, since Biblical times at least, all over the earth. We know it has activity against many bacteria, fungi, viruses—it’s a warehouse of antimicrobial activity. Because of propolis, a beehive is one of the most sterile places on earth. I have much greater respect for bees than I ever did,” he said. “They’re very clever beasts.”

Gekker and Peterson, with some input from Spivak, wrote up the results of the HIV-propolis study last year, and it will be pub-

lished this fall in the Journal of Ethnopharmacology. But a propolis-based HIV therapy is a long way down a steep and twisting road. Cheap and natural propolis from the co-op cooler is more like a prototype, or a proof of concept. Science needs more detailed evidence.

“There are major obstacles,” said Peterson. “Propolis is very potent in regard to its anti-HIV activity, but would I recommend that people take it for HIV? No. Because you have to see that it works in humans. You have to see whether, when taken orally, it’s absorbed and works against the virus in a live person. And in order to do that, you have to address safety, and this batch-to-batch issue. With the FDA, batch variability is not going to be tolerated. Think of the challenge with propolis, when the bees collect it from all these different trees. There are at least three hundred compounds in propolis, and maybe as many as a thousand. So we haven’t really pursued it, because we’re not set up to identify the needle in the haystack.”

Peterson was referring to the arduous process of identifying and isolating the active HIV-inhibiting component or components in propolis. “Right now, we don’t have the right people to pursue it. I’m not a separation chemist or a medicinal chemist. Over in the school of agriculture they have a lot of terrific scientists, but no one with the particular skills we need for this task. You could say the project is on hold. We’re in a position right now where we’re trying to figure out the best strategy to take.”

With any luck, the journal article will spur some fresh excitement. “My hunch is that other people are going to take an interest. Certainly there’s been work with propolis itself, looking at the various aspects of it, especially in the field of ethnopharmacology. But I’m sitting here in the Center for Infectious Diseases and Microbiology Translational Research, and, as the name implies, our goal is to translate this stuff into the humans who suffer these diseases. Our mandate is to pursue answers to the questions.”

At the current pace, it will be years before someone who is HIV-positive might walk into the pharmacy and fill a prescription for a new drug based on this team’s pioneering propolis research—if it gets that far at all.

Meanwhile, as the gears of medical research grind laboriously onward, Spivak is turning her attention back to the source—the bees. She’s focusing on the function of propolis in the colony. What exactly is this mysterious substance, anyway? How does a bee locate a source of propolis? How does that bee recruit other bees in the colony to collect more of it? If it can kill HIV in human cells, what good might it do for the bees themselves? Such questions take on considerable weight in light of the well-publicized scourges that have afflicted U.S. honeybees for the last several decades. Few people realize that our honeybee population has dropped by half since 1950. Lately, it’s the Varroa mite—a vicious beast about the size of a grain of sand—that’s been wreaking havoc on commercial beekeepers’ stock. In the past few years, these mites have gained resistance to the only two effective conventional chemical treatments. Spivak estimated that losses in the winter and spring of 2005 slashed the number of

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honeybees in Minnesota by up to a third.

The national picture is similarly dismal, and “dismal” is not too strong a word considering that honeybees are responsible for the pollination of about one-third of all U.S. food crops. The main thrust of Spivak’s work is to preserve the honeybee population by breeding honeybees that can fend for themselves. “I think it’s sad that these bees have become so utterly dependent on humans to administer various forms of chemical management,” she said. “They’ve lost the skills they need to fight for their own survival.” Since 1993, Spivak and her assistant, Gary Reuter, have been painstakingly breeding queen bees to propagate a new strain of bees with the genetic instincts to protect themselves. They carefully select and breed queens who demonstrate the “hygienic” genetic traits that will promote survival. It’s simpler than it sounds. Basically, a bee with the right hygienic tendencies will literally sniff out and eradicate (by eating or hauling out of the hive) diseased and mite-infested brood in larval cells before the colony suffers major damage. Spivak’s program is no quick fix—but over time, her specially bred bees have been proving their merit in a variety of working apiaries.

Now Spivak wonders if or how propolis might be used to further her honeybee cause. Could manipulating propolis somehow help fight deadly bee infections and parasites? Spivak finds early signs encouraging, especially when checking into variations in propolis from other hives. For instance, she found that one tropical propolis sample was as effective as a conventional antibiotic in lab trials against American foulbrood (the most dreaded bee disease of all, until *Varroa* mites were inadvertently introduced into the U.S. in 1987). “Our local propolis didn’t work,” Spivak said, booting up the computer in her cool, cinder-block Hodson Hall office. “But this tropical stuff did. Here, this is the tropical sample next to the antibiotic.” On the monitor are images of two petri dishes, each with an essentially clear circle surrounded by dots of defeated bacteria; the tropical propolis attacked the bacteria as aggressively as the chemical pharmaceutical.

Would propolis exist if not for bees? Scientists aren’t sure. That’s because it’s not clear whether propolis is unadulterated resin simply collected and stored by bees, or whether the bees somehow transform it—perhaps via glandular secretions—during or after the gathering process. “We have so many questions,” said Spivak. “We know the bees use propolis to seal cracks in the hives, and for other purposes—like embalming invaders—but there’s a lot we don’t understand. And it’s challenging, because propolis is not like nectar or pollen, which the bees are collecting all the time. Propolis is different. They don’t collect very much of it, and not all of them are that interested in it.” She sighed.

“This is behavioral research. If you want to observe bee behavior with propolis, then you have to induce them to collect it repeatedly and reliably to get sufficient data, right? And how do you do that?” Spivak explained that the matter of

observing propolis collection for behavioral research is entirely different from collecting propolis for human health studies. To collect clean, pure propolis for human use, commercial plastic traps are used in full-size colonies. But these traps simply don’t work well in small observation hives. “That’s the question I was wrestling with when a visiting beekeeper from Mexico said, ‘Put a cadaver in the hive. The bees will embalm it in propolis.’ Of course! I thought immediately of my mouse skull, which was already embalmed, but I thought, ‘Why not? Maybe they’ll keep working on it.’” Spivak asked a graduate student to return the mouse skull to an observation hive on a scorching Thursday morning in late July, just as she finalized her presentations and loaded her car for the drive to the summer meeting of the Minnesota Honey Producers Association in Fergus Falls.

Three days later, on a sweltering Sunday morning, Spivak was back at the bee lab, checking to see how the bees were reacting to Thursday’s uninvited guest. Specifically, she wanted to see if they were adding more propolis. This colony lives in a hive inside an observation shed near the bee lab on the U of M’s St. Paul campus. Spivak and I crowded together into the shed—about the size of an outhouse but blessedly air-conditioned—looking for the skull. A few bees zigzagged around us. “Don’t worry about them,” she said, pressing in to get a closer look inside the colony. Suddenly she pointed. “There it is. That’s the whisker, right up there.” Her finger rested on the upper left corner of the Plexiglas plate. “Hey, look, they’re really interested in this guy,” she said. The bees appeared to be concerned about the mummified mouse head—which was at first hard to see amid the bees, but which became obvious once Spivak identified the resin-coated whisker. Several worker bees crawl over and around the skull again and again. “I don’t think they like it,” said Spivak. “Hey, wow, look at that!” She pointed again. “They’ve added more propolis to the ear. And look here: The whole bottom part is attached now to the frame. It’s stuck down with propolis.

“Well, that’s cool,” she said, laughing. “That’s very cool.”

Chances are, if you see a honeybee in your garden today, it’s because some beekeeper within a mile of your home is keeping that bee alive with chemicals. The once-thriving feral bee population in the United States was composed entirely of descendants of the first honeybees—the ones that went native after escaping from hives hauled over by colonists in the 1600s. But feral bees were pretty much wiped out in the 1990s by *Varroa* mites. “There essentially are no feral honeybees left in the United States,” said Spivak. “There’s some talk of a comeback, but it’s hard to know where that will go.”

When it first arrived, the docile European honeybee, *Apis mellifera*, adapted well and thrived in North America. Escaped swarms took off as far as the Great Plains, often outpacing colonists on the trek westward. Feral honeybees couldn’t cross the Rockies, but by the 1850s they were

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shipped into California. So ubiquitous was the honeybee that the Native Americans called it “the white man’s fly.” Many of the farm crops that now depend on honeybees for pollination have also been imported since colonial times. Today, pollinating insects are responsible for every third bite of the food we commonly eat—including apples, blueberries, broccoli, cauliflower, cherries, cucumbers, melons, pears, pumpkins, soybeans, squash, and cranberries. Indirectly, pollinators affect the dairy industry, too, since alfalfa and clover—both insect-pollinated—are important components of dairy cattle feed.

Insect pollination begins, as does most of life, with hunger. As the bees forage among flowers, gathering food in the form of nectar and pollen, they spread the pollen (which, like propolis, they carry on their back legs) from one flower to another, thus promoting cross-pollination and increasing production of fruit and seed.

Maybe early colonial beekeepers recognized and appreciated the good luck of this inadvertent pollination all along, or maybe they didn’t, but at some point, people caught on and started placing beehives purposefully in fruit orchards and gardens. From there, the management of honeybees slowly evolved to what it is today: a specialized commercial activity that still produces most of its revenue through honey sales—worth an estimated 250 million dollars annually—but deriving an increasing proportion of income from contracted pollination services. As the general bee population declines, pollination services may face even greater demands, especially in California, where hundreds of thousands of acres of almond trees greatly depend on honeybees for pollination.

All this pollination means a lot of bee migration, which is actually nothing new. The earliest beekeepers in ancient Egypt followed the blooming flowers by floating their clay-covered wicker hives down the Nile on reed boats. (They also used propolis to embalm the bodies of the pharaohs, a trick they presumably learned from the bees.) In the U.S., many beekeepers migrate their bees—and frequently their families—thousands of miles across several large-scale migration routes in pursuit of both nectar and pollination work.

The coordination of beekeepers, farmers, and consumers through pollination, crop management, and honey sales is no less strange and complex than the bee dance itself, and it offers a fascinating glimpse into the delicate partnership between biological science and market process.

To a common city slicker, Sundberg Apiaries looks just like any other farm. There’s a house, some fields and outbuildings, a swampy undeveloped area, and a large pole shed with a few semitrailers parked beside it. There is also a patch of lawn with an impressive collection of antique cars. You wouldn’t guess it was a bee farm by driving by, unless you slowed down to read the faded blue metal sign hanging from a slender post on the roadside.

Situated in Fergus Falls, three hours northwest of the Twin Cities on Interstate 94, Sundberg is a large commercial beekeeping business, managing seven thousand hives. The main honey house is across the road from an expansive cornfield. In the third week of July, these wind-pollinated cornstalks stand high and shimmer in the heat, providing a picturesque backdrop for the bumper-to-bumper cars and pickups flanking Sundberg’s long dirt driveway.

Tonight is the barbecue social for the hundred or so members of the Minnesota Honey Producers Association who are gathered in Fergus Falls for their three-day summer convention. Twice each year, this group comes together so members can connect with others involved in this unusual work. Formal presentations are held in town at the Best Western, where throughout the convention Spivak has been networking with the beekeepers who’ll attend her slide-show presentation tomorrow morning. The association donates ten to twelve thousand dollars annually to Spivak’s research program. Spivak, in turn, donates twenty inseminated “Minnesota hygienic” queens from her breeding program to the association. Spivak’s queens, with their desirable genetic traits, have the influence to change behavior in the hive. On the open market, they’d sell for two hundred and fifty dollars apiece. Here at the convention, they are auctioned off for cash, which is funneled straight back into association’s general funds. Eventually, it funnels out again in the form of the association’s annual grant toward Spivak’s research. In essence, Spivak’s queens are given freely to the beekeepers in return for the financial support the university has received from the Minnesota Honey Producers for decades. “I started donating the queens in 1997,” Spivak said, “when the beekeepers asked what they were getting for their research dollars. Somehow, I knew the right answer wasn’t ‘research.’ ”

But donating the queens also furthers Spivak’s work, since it enables her to propagate and monitor her selectively bred bees in working apiaries. Generally, that has gone well. Dave Ellingson and Darrel Rufer are two outspoken beekeepers who’ve been working with Spivak’s bees for years. Neither Ellingson nor Rufer suffered large-scale losses during this last devastating spring season. “It’s been mostly good,” said Spivak about her queens in the commercial apiaries, “though not always. There have been some disasters.” That kind of straight talk has, after twelve years, earned Spivak the beekeepers’ respect. “It’s taken time,” she admitted. “They weren’t sure at first that I could do this.”

Spivak says the afternoon’s roundtable discussion on pollination at the Best Western was especially good. But after this year’s tough hits, there’s a certain din of commiseration in the buffet line as the beekeepers inch up to the Elmer’s Texas Bar-B-Q and au gratin potatoes. Spivak lets the rush die down while she guides me through the Sundberg honey house for an abbreviated tutorial on the extraction process.

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November

Julie Watts for Linda Carney, Secretary
Friday November 25

Our Inland Empire Thanksgiving guest was Paul Hosticka. The presentation he shared with us was "Small Scale Queen Rearing". This educational information was extremely beneficial for individuals wanting to produce quality queens for themselves. He concluded in raising your own Queens you reduce stress.

Some points of interest noted:

* Bees of superior genetic Stock * receive good care as larva & pupa * must successfully mate w/ multiple drones of good stock * disease & stress free * must be successfully introduced

* Select or purchase Queens of quality * maintain her in a small colony * use clean wax comb * protect the colony from swarming

- ◆ day 1 egg laid
- ◆ day 3 larva hatches
- ◆ day 4 graft larva into queen cell
- ◆ day 8 queen cell capped
- ◆ day 14 install cell in mating nuc
- ◆ day 16 virgin queen emerges
- ◆ day 20-25 virgin queen mates
- ◆ day 25-35 begins to lay
- ◆ day 40+ should have queen ready for transfer/transport. He noted "generally queens should be kept 40+ days in the mating nuc, as the longer they are kept the better they will be".

◆
If anybody is interested in obtaining a copy of this information he suggested that you mail him a blank CD and self addressed stamped envelope to : Paul Hosticka 517 S Touchet Rd Dayton WA 99328. Please indicate you are interested in the "Small Scale Queen Rearing information". He also wanted everybody to know that he would be more than happy to reply to email questions, his email address is pshosticka@bmi.net.

Web Site of the Month

Each month IEBA members share the latest in favorite web sites on Beekeeping. Take some time to check this month's selections

<http://en.wikipedia.org/wiki/Beekeeping>

<http://www.abfnet.org/>

<http://ohioline.osu.edu/hyg-fact/2000/2170.html>

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Everything here is a little sticky. Evenly spaced along the inner wall of the large room are vintage posters splattered with countless years' worth of all things bee. Faint line drawings of various beekeeping tasks are explained in brief captions such as "Weighing packaged bees for shipping and shaking swarm into hive."

"Wow," said one beekeeper passing through Sundberg's extraction room with a cold beer. "This equipment is getting ancient." What would a more modern system look like? "Basically the same, just newer," said Spivak. Both the process and the equipment used for honey extraction are remarkably simple, and largely unchanged since the first wave of mechanization. In simple terms, the frames of honeycomb are freed of their wax seals, then loaded into a cylindrical chamber and spun at high speeds until the honey is extracted by centrifugal force. The honeycomb remains intact for reuse in the hives, and the extracted honey is sold to commercial food producers across the country for use in cereals, baked goods, barbecue sauces, and, of course, jarred honey. At one time, all honey was packed by the same beekeepers who produced it. But in the years since World War II, specialization has set in, and most bee farms no longer package their own honey. Darrel Rufer's bee business experimented with packaging in the eighties, and, as he put it, "That just wasn't my deal."

"Darrel is a character," Spivak confided. "He's colorful and outspoken. That's why I like to have him using the hygienic bees in his apiaries. If he thinks it's working, he's going to spread the word and he's going to be heard."

Broad and darkly tanned with gray hair and a mustache, Rufer was dressed in a leather vest thickly decorated with Victory Bikes insignias. His father kept bees not far from Fergus Falls, in Tintah, Minnesota. "The best bee country in the world used to be right here, in the Red River Valley," he told me. Once carpeted with clover and alfalfa, Rufer's childhood stomping grounds are now heavily planted with other crops—corn, soybeans, barley, and

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**ANNUAL BEEKEEPING CLASS SCHEDULE
JANUARY 2007
TIME: 6:00 PM TO 7:30 PM**

JANUARY

5 – THE HONEY BEE – JIM MILLER & FRANK MERICKEL

12– THE HIVE AND ITS COMPONENTS – JIM MILLER
& MONTHLY MEETING OF INLAND
EMPIRE BEEKEEPER ASSOC.19 – THE FLOWER, POLLEN & NECTAR – JIM MILLER &
JACK KNOX

26 – THE DISEASES OF BEES – JIM MILLER

FEBRUARY

2 – SPRING START UP – JIM MILLER

9 – NECTAR FLOW AND SUMMERTIME BEEKEEPING –
JIM MILLER & MONTHLY MEETING OF INLAND EMPIRE
BEEKEEPER ASSOC.

16 – PULLING THE HONEY SUPERS – JIM MILLER

23 – EXTRACTION OF HONEY – JIM MILLER

MARCH2 – PUTTING THE BEES TO BED FOR THE WINTER – JIM
MILLER9 – MARKETING OF HONEY AND GRADUATION – JIM
MILLER & PRESIDENT OF INLAND EMPIRE BEEKEEPING
ASSOC. & MONTHLY MEETING OF INLAND EMPIRE BEE-
KEEPER ASSOC.16 – ADVANCED CLASS – HONEY BEE – FRANK MER-
ICKEL17 – BEE YARD WITH BOB ARNOLD AT INLAND EM-
PIRE BEE YARD

23 – ADVANCED CLASS – FLOWER – JACK KNOX

24 – EQUIPMENT ASSEMBLY AT Millers Homestead

30 – ADVANCED CLASS – LEGAL ASPECT OF BEEKEEP-
ING – JOHN PIERCE**APRIL**6 – ADVANCED CLASS – WEED AND PEST CONTROL
VERSUS BEEKEEPING – SPEAKER TO BE DETERMINED13 – ADVANCED CLASS – WHAT HAPPENS INSIDE THE
HIVE – JIM MILLER & MONTHLY MEETING OF INLAND
EMPIRE BEEKEEPER ASSOC.*(Continued from page 6)*

potatoes—meaning less clover and less bee pasture. These days, his main focus is not honey or pollination, but selling bees to other apiaries. “We sell queens all over the country,” he said. “They’re daughters of Dr. Spivak’s artificially inseminated queens, and they have the traits we’re looking for. Dr. Spivak and I have been testing her stock in my apiaries for three years now. The goal is to use less chemicals, softer chemicals.” He stopped short and looked toward the horizon. “Beekeeping,” he concluded, “was a lot easier in the past.”

So it was. And as a result, beekeeping as a way of life has dropped off substantially since the 1950s. At first, the shift was fueled by the transition to an industrial economy and the loss of land to subdivisions and highways. But in recent years, price competition from imports teamed up with the spread of disease and parasites in a double whammy that’s driving a lot of U.S. beekeepers out of business. Between 1976 and 1990, the estimated number of commercial beekeepers in the U.S. dropped by almost half, from 212,000 to 125,000. And things have only gone downhill from there.

Bonnie Woodworth, a petite blond woman with a perfect manicure, presides over the North Dakota Beekeeper Association. Bonnie married into beekeeping in 1972, and since then she’s seen all manner of unbelievable change in the bee business. “It used to be so easy,” she said. “You had feed, labor, and trucking. Now we spend more on medication than on feed. Just keeping your bees alive is an insurmountable task. If you let your guard down for one minute, something will take you out.” Bonnie has watched the number of new beekeepers entering the field dwindle and disappear. “It’s too hard a life, it’s back-breaking work, and then there’s the moving back and forth . . . as far as the money, well, there is none. It’s just not there.”

Woodworth said the bee business she owns with her husband practically went broke last year due to Varroa. “We lost more than half our bees and had a bad honey crop,” she said. “It was disastrous, just disastrous.” Furthermore, Bonnie is truly saddened by the onslaught of imports and imitations sidling up next to the real honey on grocery shelves. “It’s threatening the whole industry,” she said, handing me an article on the imitations. “It’s so fraudulent. Everyone loves using the name ‘honey,’ but the actual ingredient is corn syrup instead. Do Honey Nut Cheerios have any honey in them? Very little.”

With her very next breath, Bonnie renewed her pluck as if, by sheer force of will, she might reinvigorate an entire dying way of life. “Beekeepers are tough,” she said. “Life hasn’t been easy, but it was never boring. It takes a lot to get a beekeeper to quit.”

That’s true. Beekeepers, not surprisingly, tend to maintain a certain “getting stung’s just part of the job” mentality. But is there an eventual breaking point? What would happen to the honey market, to the pollination of crops, to the propolis research—what would happen to it all if the last of the beekeepers quit tomorrow, and the colonies all flew free?

(Continued on page 8)

Classified Ads

Tate's Honey Farm has all of your extracting and packaging needs as well as spring packages and queens. Woodenware for all your winter projects and spring needs. Shop hours are 8:30—2:00 every Saturday at E. 8900 Maringo, Millwood. Contact us at 509-924-6669 or online at www.tateshoneyfarm.com

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(Continued from page 7)

"About eighty percent of the current bee population would die off fairly quickly," said Spivak, "if beekeepers stopped chemical treatments cold turkey. But the survivors—those ten or twenty percent left behind—would propagate a whole new, tougher breed of bees with the traits they need to take care of themselves."

Essentially, that's what happened in Brazil and most of South America when Varroa struck, primarily because the beekeepers there couldn't afford chemical interventions. "Now their bees are resistant," said Spivak as she rummaged through the bee suits, searching for one my size. She handed me a wide-brimmed, veiled hat. "Let's adjust that," she said. "I think it's a bit loose." She snugs it in a notch and we're set to visit the hives. "You won't be able to write with the gloves," she warned. "But you need to take them anyway, because it's really important that you're comfortable. Just don't put them on unless you need to."

The sun was white hot in a clear sky as we entered the apiary through the chain-link gates that enclose it. A few paces away was the university's soccer practice field, which explained the number of cars parked along the apiary fence. "They have no idea what's sitting right here," said Spivak. "Few people do. But we like it that way."

Spivak has a smoker (it looks like the Tin Man's oil can) to calm the bees before she opens up hives—which are actually wooden boxes painted in pastel pink, blue, green, yellow, and white to help the color-driven bees find their way back home. "We probably wouldn't really need the smoke," Spivak said, and I wonder aloud whether this is because the bees are in a good mood today. "These bees are always in a good mood," she said. This morning she was checking in on some artificially inseminated queens she recently introduced to her colonies, and some from stock sent by a friend in Vermont. "He doesn't use any chemicals, not to be organic per se, but for his own reasons. He's sort of an oddity." She fished around on the frame with her bare hands, oblivious to the bees crawling between her fingers. "There she is—see, she's marked. Blue 51," Spivak said, releasing the inseminated queen with the blue numbered tag on her back from her containment cell. "Come on, sweetie," she cooed. "She looks great. I can tell the bees like her. She's looking for something to eat right away, so she's fine."

In one colony after the next, Spivak checked on the queens. "Blue 52 is doing well," she said. In fact, all but one of the queens had been accepted by the workers. "Uh oh," she said, sifting through another colony. "That's a shame. I don't see any eggs. I don't think she's here. We'll have to go to the queen bank and make a withdrawal." All around us, bees were flying and buzzing. One landed on the veil right in front of my eye, and stayed there for a good while. When Spivak shook the frames, there was an angry roar to which she was seemingly oblivious. Getting stung,

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IEBA Contacts

President

Ted Swenson
 (509) 238-6489
 tedandbarb@icehouse.net

Vice President

Frank Seiler
 509-991-3019
 seilerbees@msn.com

Treasurer

Colette Lehinger
 509-924-1001
 blehinger@aol.com

Secretary

Linda Carney
 509-448-0417
 tlclimo@yahoo.com

Newsletter Editor

Dave Bearden
 509-226-5231
 nmsuaggie@icehouse.net

Associate Editor

Frank Seiler
 509-991-3019
 seilerbees@msn.com

Spokane County Fair Chairman

Linda and Rodger Carney
 509-448-0417
 tlclimo@yahoo.com

WSU County Extension Liaison

Jerry Miller
 509-838-6347

North Idaho State Fair Chairman

Kelly McSheehy
 (208) 687-6016
 McSheehy@aol.com

Web Master

John Pierce
 509-242-2035
 admin@bee-mail.org

WSBA at Large Delegate, Technical Advisory Program, & IEBA Bee Class Instructor

Jim Miller
 509-299-9085
 jandj@cet.com

IEBA Program Chair & WSBA Area 6 Delegate

Bob Arnold
 509-276-2399
 sar3140@aol.com

Joy in Beekeeping

Laura Shulenburg (Chair)
 Al Dwinell
 Joe Jovanovich

IEBA Historian

Jon Burcham
 509-928-4829

IEBA Website

www.inlandbeemail.com

WSBA Website

www.wasba.org

DECEMBER

TED SWENSON

Agenda

12/08/06

Welcome!

Reports:

The Secretary's Report - Linda
 The Treasurer's Report - Ky
 Joy in Beekeeping Report - N/A
 Fair Reports N/A
 Inland Beemail Report –
 WSBA Report –
 Four Corner Bee Reports N/A

Old Business:

New Business:

Election of Association Officers

Hive Care :

December

The Bees.

Snow is on the ground, and the bees have settled into their winter cluster. Until next month, there will likely be no brood present.

The Beekeeper.

The beeyard needs not much attention except for three critical areas:

(1) be sure to keep entrances clear of snow to allow bees to make cleansing flights on warm days.

(2) many beekeepers also use an upper entrance allowing for flight, but more importantly ventilation. Condensation building up and then dripping on the cluster is deadly.

(3) Check the weight of hives by tipping up a corner. If hives are light, you can still help them out with 2:1 sugar syrup. On a warm day, add an empty super and place a couple of inverted jars of syrup right on the top bars. Work quickly so that heat loss is minimal.

Now is also the time to sit back, read a good bee book, make some candles or equipment, and plan out your upcoming beekeeping year.



Next Meeting:
Friday December 8th
6:30 pm

Christmas Turkey & Ham Dinner

The Inland Empire Beekeepers Association (IEBA) meets the 2nd Friday of every month at the Spokane County Ag Extension office by the County Fairgrounds, at 222 N. Havana. The association is affiliated with the Washington State Beekeepers Association (WSBA). IEBA membership dues are \$5.00 for an individual or \$10.00 for the entire family. This includes your receiving the *Inland Beemail*, which is published by the association every month.

INLAND BEEMAIL

Dave Bearden, Editor
5319 N Simpson Rd
Otis Orchards
WA 99027

Phone: (509) 226-5231
email: nmsuaggie@icehouse.net

Send To:



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she said, is a given. But it's not as bad when you're used to it, because you know exactly how much it's going to hurt, and for how long.

This must be true, or people wouldn't keep bees. There are many reasons beekeeping is in decline, but stings are not one of them. "Oh, I

know they say beekeeping is a dying art," said Spivak, "and times are tough. But I'll tell you what I think. Beekeeping will never disappear, for one simple reason: Some people are drawn to bees. There's this peculiar relationship that exists between bees and certain individuals. It's primal and ancient. There are rock paintings of the interaction between humans and bees in Europe, Africa, and Asia from 8000 to 2000 B.C. That's how far back this goes. What's the likelihood that's going to change—now or ever?"

Spivak has seen all she needs to out here; the heat is too thick for dawdling. But she'll be back soon. She is, after all, pulled by the bees, with whom she undoubtedly shares the enigmatic bond she so passionately describes.

Go to
www.nhb.org
for more information

