

Washington State Beekeepers Association



Keep the "Bee" in Business

Publication of Washington State Beekeepers Association

www.wasba.org

June 2005

President's Message

The summer seems to be super busy for everyone. I was hoping for it to be a little slower but it is not going to happen. We just finished up the field day at WSU and the crew there did a great job. We were on the go from start to finish and I think everyone had a great time. The rain held off until the very end and we were able to escape without getting wet. We're getting ready for the Puyallup field day now and it will be a little tougher without the WSU crowd. These field days are for you. Looking forward to seeing lots of new beekeepers. **I want to give a special thanks to Lisa for handling all the registrations and the food for the field days. What a great job she does. Plus she's got to keep the president on the straight and narrow.**

I know there has been some concern about the small hive beetle. We really don't need another pest to cause us to lose our bees. The conclusion at the board meeting was that there isn't much we can do once they hit California because the small hive beetle then spreads to everyone. We saw the same situation with the Tracheal mite and Varroa. We worked real hard at controlling the Tracheal mite but they just couldn't be stopped. There is no money to work on this issue at the state level; we just don't have the resources to stop the beetle. We need to take precautions and try to avoid getting too close to commercial operations. If you buy packages or queens from the southeastern U.S. you are exposing yourself to the small hive beetle as they are already there. I still think the best chance we have is to develop queen rearing here in the state and produce our own queens and packages.

Information is starting to come out about the State convention at Newport Oregon. The agenda and registration form are in this newsletter. Prepare to attend and have a good time!

WSU is looking for several more beekeepers that want to care for one of the queen lines at WSU. I believe we have 5 lines covered. You need to be willing to requeen with 25 of the WSU queens, care for them the winter and then we will look them over and WSU will want 2 of the best queens back to further the process. If you are interested contact Steve Sheppard or myself. Could work out great for us. I will say this; they are nice looking queens and are very gentle. We will test them the rest of the summer on the honey flow and see how they build up and perform.

Hope to see many new faces at Puyallup.

Jerry Tate

Washington State Updates

2005 Program Calendar for the Association.

JULY 8 & 9 2005: WSBA July Field day West Puyallup, WSU extension station
JULY 9, 2005 Executive Board Meeting

OCTOBER 2005: WSBA & OSBA joint meeting Oct. 27, 28 & 29th in Oregon
Executive Board Meeting TBA

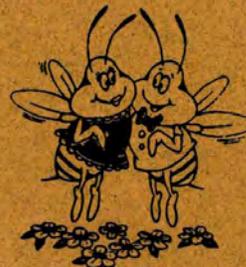
JANUARY 2006: WSBA Executive Board Meeting
LOCATION TBA



Field day with the folks at WSU - Smoot Hill Preserve in Pullman, WA.



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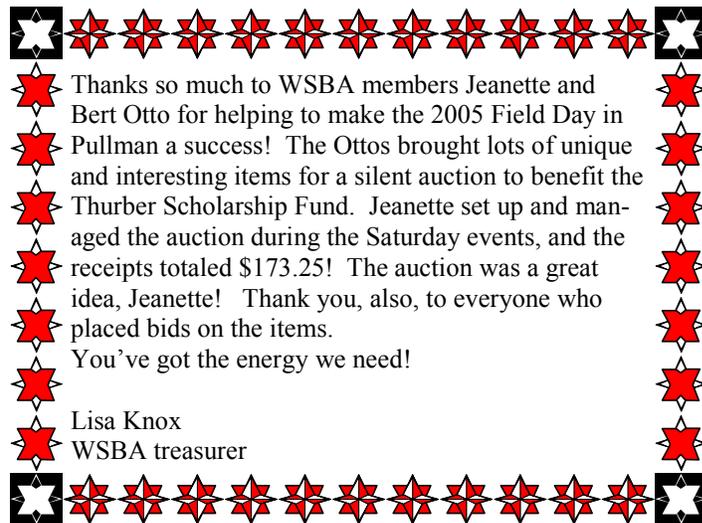
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Thanks so much to WSBA members Jeanette and Bert Otto for helping to make the 2005 Field Day in Pullman a success! The Ottos brought lots of unique and interesting items for a silent auction to benefit the Thurber Scholarship Fund. Jeanette set up and managed the auction during the Saturday events, and the receipts totaled \$173.25! The auction was a great idea, Jeanette! Thank you, also, to everyone who placed bids on the items.

You've got the energy we need!

Lisa Knox
WSBA treasurer

Executive Board Meeting Minutes

June 18, 2005

President Tate called the meeting to order in Pullman Washington.

Robert Smith presented the **Master Beekeepers and Certification Committee Fund Report**. The account balances total \$2,280.51 thru May 31, 2005.

The **Minutes** of the last meeting were accepted as written by Lisa Knox and printed in the newsletter.

The Treasurer, Lisa Knox, gave the **Treasurer's Report** and it was accepted as presented. She gave a verbal presentation of her report and had a copy available as well.

A breakdown of the accounts

WSBA checking and savings	\$ 6,101.25
PR Fund savings	1,805.44
Carl Van Wechel Research Fund	218.31
Alvina Timmons Scholarship Fund	21,751.22
Roy Thurber Scholarship Fund	<u>29,666.03</u>
Total	\$59,542.25
WSBA Savings CD	\$7,093.63
Van Wechel Research Fund CD	\$5,201.78

We have 107 Memberships and as of June 15th we have 162 Associate Memberships. We have 10 new members this year but 24 members have not renewed this year. A motion was made and passed to accept the **Membership Report**.

Paul Lundy will have the **Newsletter** out by the end of June.

President Tate informed us that our **website** has not been kept up to date because of a "lost hard drive". Frank Seiler has rebuilt it and it is back up for operation. Frank is devel-

oping sections for the web site. The plan is to have various people responsible for sections of the web site. This is still in the development stage but it looks very promising.

There was a good response for the **Pullman Field Day**. We had 59 people in attendance and all seemed to have had a good time and learned a lot. Lisa stated we had 53 of the people sign up for the BBQ lunch. We had \$964.34 in expenses and \$1,090.00 in revenue. There was a profit of \$125.66. Not only did we not loose money this time but we can use some of the items at the Puyallup Field Day. "Last year we lost \$800," President Tate said. "And we were loos-ing it on food. Lisa did a great job. And special thanks to the Ladies and Van; they went shopping for all the food." All of those present agreed that the food at the BBQ was really good and a huge success.

When asked about the attendance thus far for the **Puyallup Field Day**, Lisa Knox responded that some people did not understand the registrations forms. Her guess is that we probably have around 30-35 people thus far. As a reminder to everyone, the Puyallup Field Day will be July 8 and 9. Registrations will be taken until the first of July. John Timmons has reserved the hall and there will be plenty of free parking available. Robert Smith assured us it would be easy to get to the location.

President Tate is very excited about the program. There will be about 20 colonies for our use in Puyallup

Old Business

Steve Shepard is sending out e-mails soliciting beekeepers for 25 colonies of the University's queen line. There are 8 queen lines. The Pierce County group had taken on two lines and IEBA has taken on 3 lines. There are 3 lines left to find beekeepers that will manage them. The process will be for the beekeeper to make up nucs and bring them to Pullman where they will be put in the mating yard. Shepard's team will then put a queen cell in it and mate the queen. Then once the queen has mated the beekeeper will take the nucs back to their own bee yard. President Tate realizes that it is easier for those beekeepers in this area to do this because of the location. However, having the bees in a variety of locations has many advantages. If you know of a beekeeper that is interested please have them contact Marina or Steve at (509) 335-5180.

Two commercial beekeepers have multiple lines also. Eric

(Continued on page 4)



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Research from Oregon

Pacific Northwest Honey Bee Pollination Survey – 2004

by
Michael Burgett
Professor Emeritus
Department of Horticulture
Oregon State University
Corvallis, OR 97331

Since 1986 the Honey Bee Laboratory at Oregon State University has conducted an annual survey of pollination economics in the Pacific Northwest (PNW). The information from each year of the survey has been made available both regionally and nationally. The information has proved to be valuable to individual beekeepers who generate income from pollination rental.

The use of managed honey bee colonies for commercial crop pollination remains the most important function of the PNW beekeeping industry. The vast and diverse agriculture of the PNW relies on a healthy and strong beekeeping industry to maintain optimum production. An enhanced knowledge of pollination economics is critical to every beekeeper that enters into the world of commercial crop pollination. It is also important for those growers who contract honey bee colonies for managed pollination to understand current economic conditions of the beekeeping industry.

The pollination requirement for commercial agriculture in the PNW is enormous. Between Washington, Oregon and Idaho there are 355,000 acres of crops grown that require or benefit from managed honey bee pollination. The “farm-gate” value of those combined crops for the production year 2003 was \$1,683,600,000! Nearly half of those acres and 60% of the dollar value is in one crop – apples.

The USDA National Agriculture Statistical Service estimates that there are 200,000 production honey bee colonies in the PNW. And with these numbers there are some interesting hypothetical calculations that can be made. If each grower was to

(Continued on page 7)

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Executive Board Meeting Minutes

Olsen is one of them and he is getting 50-100 queens. He will probably not get his until the fall when he returns to the area.

The topic then went to hive losses. One of the members said he knew 17 commercial guys in the Western States had lost an average of 70% of their hive. Compared to previous years of 35-50%. President Tate told us that an area he goes to in Montana has half the number of bees in the yards that in the past years. In holding yards that he used to see 40 colonies he now sees 10. "Usually this time of year the bloom is starting and I would be seeing doubles and supers," He continued, "Now they are just putting a second box on and many were still just singles".

Jim Bach had heard of WA state pollination shortages but he is not familiar with any figures. No one was sure of the prices received for pollination.

According to President Tate Western Bee said the price of wax is going up. Pierco is trying to get wax. "If you are sitting on a lot of wax you may be able to sell it. Right now it is well over \$2 a pound and the prices keep going up. Also, do not expect a price relief on wood ware from the dealers. The prices remain high unless you are getting it overseas somewhere. Argentina is also becoming a supplier and competitor."

The small hive beetle was a topic of great concern for everyone. Rumors have been flying about this pest and no one knows for sure how widespread the problem is in WA. Many stories were shared about experiences of beekeepers in CA regarding bees bringing the small hive beetle from Florida.

One such story was about a semi truck from Florida and some of the bees had made their way to an Organic beekeeper in OR. What he is going to do about the small hive beetle? He cannot treat because he is organic and now he has small hive beetles. Some of those bees were allegedly sold into Clark County. There are 26 States in the South and East coast have the small hive beetle. People thought they could quarantine and put it off for a while but with the moving of bees that we do the guess is that half of the commercial guys in North Dakota will bring it back with them. Beekeepers in states infested with the small hive beetle are planning on going to CA for pollination next year. Jim Bach says he is unsure of what we are going to do.

Jim was asked if he could get a sample of the small hive beetle preserved in a jar so they could be shown to beekeepers at Puyallup. The sample of the Varroa that Jamie Strange handed out today was very helpful and gave beekeepers a good grasp of what they looked like. Could he get enough samples to send to each association?

(Continued on page 10)



Dr. Marina Meixner using liquid nitrogen to demonstrate the hygienic test.



 Thank you to the people who created a learning atmosphere for us beekeepers at the Pullman Field Day: Dr. Marina Meixner, soon to be post-doc Jamie Strange, grad student Debbie Delaney, beekeeper Sally Hasher, and Dr. W. Steve Sheppard, Thurber Chair, and student helpers Jesse Taylor and Jeong-Joon Ahn. We at WSBA appreciate your research and efforts that benefit our beekeeping operations, as well as the research that benefits the long term needs of beekeeping.

 Thank you from all of WSBA!



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Northwest Corner Beekeepers Fall Conference 2005

Thursday, October 27

7:00 pm Kick-off Wine and Cheese Social
Best Western Conference Center

Friday, October 28

7:30 am Registration
8:00 am Silent Auction Begins
8:15 am Welcome & Announcements
Kenny Williams, OSBA President
Jerry Tate, WSBA President

8:30 am Small Hive Beetles
Dr. Mike Hood
Clemson University S.C.

9:15 am Dr. Marla Spivak
University Of Minnesota

10:00 Break

10:15 am Dr Eric Mussen
U.C. Davis

11:00 am Dr. Steve Sheppard
Washington State University

Noon: Washington Research Luncheon

1:15 pm Dr. Diana Sammataro
Carl Hayden Honey Bee
Research Lab

2:00 pm Ms. Debby Delaney
Washington State University

2:45 pm Break

3:00 pm Australian Bees
Mr. George Hansen

3:45 pm Dr. Lynn Royce
Oregon State University

4:00 pm Silent Auction Ends

4:30-5:45 pm State Business Meetings

6:00 pm Social Hour
7:00 pm Banquet
Keynote Speaker: Mr. Clint Walker

Benefit Auction

Saturday, October 29

7:30 am Registration

8:15 am Welcome & Announcements
Kenny Williams O.S.B.A. President
Jerry Tate, WSBA President

8:30 am Fungal Varroa Strategies
Dr. Lambert Kanga
Florida A&M University

9:15 am Dr. Marla Spivak
University Of Minnesota

10:00 Break

10:15 am Dr. Steve Sheppard
Washington State University

11:00 am Dr. Mike Hood
Clemson University S.C.

Noon: Oregon Research Luncheon

1:15 pm Mr. Clint Walker
Walker Honey Company

2:00 pm National Honey Board
Mr. George Hansen

2:45 pm Break

3:00 pm Oxolic Acid
Dr. Diana Sammataro
Carl Hayden Honey Bee
Research Lab

3:45 pm Pest & Disease Panel
Discussion
Questions & Answers

4:30 pm Adjourn



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October 27, 28, 29

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Company Name (if applicable) _____

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Mailing or Street Address _____ Cell Phone _____

_____ e-mail _____

City _____ State/Province _____ Zip Code _____

Event	Pre-Registration for Individual Days	Full Conference Pre-Registration
Thursday Night hospitality room	complimentary	complimentary
Friday Conference Only @ \$40 (see item 1) Family registration fee @ \$55	\$	XXXXXXXXXXXXXXXXXX
Sat. Conference Only @ \$40 (see item 1) Family registration fee @ \$55	\$	XXXXXXXXXXXXXXXXXX
Full Conference @ \$75 (see item 1) Family registration fee @ 100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	\$
Friday Noon Lunch @ \$15	\$	\$
Friday Evening Banquet @ \$25	\$	\$
Saturday Noon Lunch @ \$15	\$	\$
OSBA Membership (includes Bee Line) \$20	\$	\$
Total	\$	\$

If exhibiting, num. of tables @\$25 _____
 Total plus exhibitor's table fee
 \$ _____

1. Attendees qualify for pre-registration rate if application form (with registration fee) is postmarked on or before October 1, 2005. Late or on site registration rates are: One day \$45, full conference \$85.
2. Make checks payable to OSBA.
3. Mail completed registration form and payment to: Phyllis Shoemake 1702 Toucan. St NW Salem, OR 97304-2027
4. Hotel reservations are not included in these rates. Make your reservations at the Agate Beach Inn, (800) 547-3310 and ask for the Beekeepers Fall Conference special room rate. You must make sure that they know you are attending the Northwest Corner Beekeepers Fall Conference when you make reservations to get the bargain rate.

Research from Oregon, continued

(Continued from page 3)

rent 2 colonies for each acre of blooming crop (355,000 acres) that would produce a rental requirement of 710,000 colonies. If we multiple this by the 2003 average colony rental fee (\$36) it results in a potential pollination rental income for beekeepers of more than 25 million dollars. If we add to that the combined hypothetical almond pollination income (ten million dollars) we end up with a gross pollination income of 35 million dollars for PNW commercial pollinators. Another way to look at this is how much pollination income should be produced from one commercial colony in one year? That figure is \$175. Comparing the hypothetical PNW rental income (25 million \$) to the farm-gate value of the crops pollinated in the PNW (1.7 billion \$) shows that the money spent by growers to insure adequate pollination is 1.5% of the value of total crop production. This is another rather dramatic illustration of what a good value colony pollination rental is to PNW commercial agriculture. This year's survey provides data that continue to show a number of trends, one of which is the dependence of PNW commercial beekeepers on the income generated from colony rentals. For 2004 the average commercial beekeeper reported receiving 55% of his or her annual operating gross from pollination rentals, which is similar to the figure reported for 2003, and is down slightly from previous survey results. This reduction in the dependence on pollination rental income has likely been influenced by the dramatic increase in the wholesale price of honey seen in 2002 and 2003. While the wholesale price of honey was down in 2004 compared to the previous two years, it is still higher than what was paid prior to the Chinese fiasco of honey tainted with antibiotic residues.

One concern for the segment of agricultural industry that requires managed pollination, is that the recent phenomenon of increased honey prices will reduce the number of colonies available for pollination rental. That this has happened, has yet to be shown, but for 2003 and 2004 it is obvious that the income percentage from honey sales has increased and correspondingly, the percent of income from pollination rental has decreased, a result primarily from increased honey prices, not a decrease in the level of pollination colony rental activity. However that might be changing. Very dramatic increases for almond pollination rental fees are being reported for the 2005 pollinating season. Almond growers are responding to a potential shortage of colonies available in 2005. Many commercial beekeepers in the PNW and elsewhere, are observing serious autumn and early winter colony losses. While the exact nature of these losses are unknown at this time, it is suspected that widespread failure of EPA registered miticides is responsible.

For 2004 the average pollination rental fee, computed from commercial beekeeper rentals on all crops reported, was \$38⁶⁵. This is an increase of \$2²⁰ (6%) from the average pollination fee charged in 2003 (\$36⁴⁵) (see Table 1 and Figure 1). In past years commercial beekeepers have been responsible for 99% of all reported pollination rentals and a corresponding 99% of all pollination income. The data from semi-commercial beekeepers for 2004 were so insignificant that it would be improper to estimate their role in overall pollination rentals. Assuming no dramatic change in the population of semi-commercial beekeepers, they still are minor players in the overall pollination situation for commercial agriculture throughout the PNW.

For a commercial beekeeper the gross amount of income generated from pollination rental leveled off in 1997 and 1998, but increased in 1999 (\$183,780). For 2004 this figure was calculated to be \$265,185. The increase results largely from the increasing size of the average commercial operation.

During the past ten years the average rental fee has increased from \$29⁶⁰ (1995) to \$38⁶⁵ (2004). It needs to be stressed that honey bee colony rental has for many decades been an underpaid service to the agricultural industry. It is really only within the past ten years that rental fees have begun to more accurately reflect the enormous value-added service of managed pollination. This is shown by the 110% increase in the average pollination fee during the last fifteen years; 1990 = \$18⁴⁰ to 2004 = \$38⁶⁵.

Within the PNW, tree fruits are the dominant crops for pollination income (see Table 2). In 2004 the combination of pears, sweet cherries and apples accounted for 40% of all reported rentals and 32% of all reported pollination income. Paradoxically, the single most important crop for PNW beekeepers is grown in California, *i.e.*, almonds. Almonds were responsible for 43% of all rentals and 54% of all rental income in the 2004 survey. Almonds consistently have produced a high average pollination fee; for 2004 the average was \$48⁷⁰. As mentioned earlier, this average fee is expected to make a dramatic increase in the 2005 pollination season. More than 95% of all commercial colonies in Oregon and Washington are taken to California for almond pollination. In 2004 the combination of almonds and tree fruit accounted for 87% of all rentals and 86% of pollination income, which illustrates the dominance and importance of these crops for a commercial PNW beekeeper.

In 2004, for crops pollinated in the PNW, cucumber pollination once again provided the highest average fee at \$46⁷⁰ per colony rental. The cucumber "average" is calculated from the five corresponding beekeepers reporting cucumber pollination. In terms of acreage, apples are the largest crop grown in the region and this is reflected by the large number of reported rentals (13% of all rentals and 9% of the total reported rental income.) For 2004 more commercial beekeepers reported pollinating sweet cherries than in previous surveys. Sweet cherries accounted for almost 20% of the total rentals and 17% of pollination income.

Berry crops (blackberries, raspberries and blueberries), which as late spring to early summer bloomers and copious nectar producers (blackberries and raspberries), often produce honey crops as well as pollination fees. The 2004 average pollination fee for all combined berry crops was \$27³⁰.

The average PNW commercial honey bee colony was rented 1.93 times in 2004 and this includes California almonds.

(Continued on page 9)

Join us in Oregon at the Joint Oregon/Washington meeting.

Oct 27, 28 and 29 2005

Local News

June Field Day in Pullman

by Paul Lundy

I had a wonderful time at the June Field Day with all the folks at WSU and WSBA. The wine & cheese social was noisy, packed, and full of enthusiasm.

Saturday morning, Jamie took us to the teaching apiary and showed us Varroa detection and control techniques. He had hives set up with Apilife –Var, formic acid and showed us Apistan and Checkmite applications. We went over ether rolls then Jamie finally got stung during his demonstration of the sugar shake! Jamie also gave demonstrations on the use of drone brood and Sucroicide for a more natural approach to mite control.

Marina engaged us in lively conversations on controls of AFB. She presented two very thorough posters showing detection, treatment and prevention. Marina also gave a demonstration on hygienic behavior and answered many questions from us beekeepers.

Debbie and Sally demonstrated several queen introduction techniques; I had no idea there were so many gadgets to cage the queen! Debbie also went over basic beekeeping techniques for the hobbyists. It was nice, as I always enjoy seeing how people with real experience manipulate colonies and reinforces what to look for as you inspect your own hives. After that, we had a really nice BBQ lunch, served up by members of WSBA. There is nothing like hot dogs, burgers and ice cream for dessert!

After lunch, we all got in WSU vans to the Smoot Hill Reserve, located north of Pullman. The reserve is maintained by the Department of Botany, Washington State University, as a remnant of natural Palouse vegetation. At the Smoot Hill apiary we split into three groups and experienced the WSU queen breeding program first hand. We covered grafting, nuc preparation, queen cell introduction, builder colonies and a lot more. A thunder shower and hail concluded our visit to Smoot Hill!

See you in Puyallup.



WSBA Officers & Exec. Committee

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Research from Oregon, continued

(Continued from page 7)

This is a slight decrease from the past several years. This statistic had been dropping since 1999 when the average number of rentals per colony was 2.77. Does this actually reflect the real world situation? Are commercial beekeepers concentrating on almonds and PNW tree fruit (which historically provide the major sources of pollination income) and reducing the number of colonies involved in minor crop pollination? At this time our data are not able to provide a reasonable answer to this question.

For the 2004 pollination season an average rental fee of \$38⁶⁵, combined with an average of 1.93 pollination sets per colony, results in an annual per colony pollination income of \$74⁶⁰, which is down from the 2003 colony income statistic of \$86⁴⁰. And with the “average” commercial operation running 3,555 colonies, a hypothetical gross pollination income for the “average” commercial beekeeper was \$265,200 in 2004.

The combined colony numbers from those commercial beekeepers who responded to the 2004 survey, (53,345 hives), represent about one-half of the USDA’s estimate of colony numbers in Oregon and Washington. Therefore, if we multiply the reported pollination income (\$3,979,300) by a factor of 2, we have a ball park estimate of the pollination income generated by commercial beekeeping in the PNW, *i.e.*, a regional pollination income of approximately \$8,000,000. This is far more than the normal “estimates” assigned to the bee industry by agricultural economists, who, for reasons unexplained, usually do not include pollination rental income in their estimates of the beekeeping industry economic status. Pollination income in the PNW far exceeds the value of honey and wax sales for our regional beekeeping industry. Pollination rental income is frequently four to five times greater than honey and wax sales in any given year.

A new question in the 2004 survey asked commercial beekeepers to report the total number of full-time or full-time equivalent employees working for their operations. That figure for the “average” commercial beekeeping operation is 2.9 full-time employees. Another interesting way to look at this is would be to ask the question “what is the ‘colony equivalent’”, meaning what is the average number of colonies necessary to hire one full-time employee. That figure is very close to 1,500 colonies/employee.

While colony income from pollination rental is a critical statistic, so therefore is the annual cost to maintain a healthy hive of honey bees. Responses to this question on the survey have varied widely, often from a misunderstanding of what was being asked. However, numerous commercial beekeepers, who have over the years maintained good cost accounting records, have responded with numbers that are very reasonable relative to today’s economy. The average annual hive maintenance cost was \$99 per colony for the year 2004 (highest reported per colony maintenance cost = \$150; lowest = \$60). This is down from recent years (\$112 for 2003). It is very doubtful that maintenance costs are going down at a time of increasing operating costs, so this “average” cost per colony should not be taken as a statistically rock solid figure. It also suggests that beekeepers should try to be more precise in calculating their operational costs.

It is very important to recognize that the average colony maintenance cost is higher than the average per colony pollination income. From the 2004 survey pollination income was \$74⁶⁰/colony and the colony maintenance cost was \$99; a difference of \$24⁴⁰ per colony. This illustrates that operation profits are generated by sources of income outside of pollination rental, most importantly, honey production. Depending on when you sold or contracted your honey in 2004, the wholesale price was from a low of \$0⁸⁵ to as much as \$1³⁵ per pound. Basing wholesale honey prices at a conservative \$1¹⁰ per pound, the

(Continued on page 12)





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WSBA Beekeeper Classified Ads

Classified ads are \$5 per insertion, for a maximum of 30 words. (**FREE for WSBA Members**).

To place an ad, please mail your ad, with payment, made out to:

Washington State Beekeepers Association
c/o Newsletter Editor
P.O. Box 1331
Kingston, WA 98346-9301
Fax: (425) 527-4251

Please **CLEARLY PRINT** your ad. Don't forget to include your contact information (phone, fax, e-mail).

Your ad will run in the next printing of the Newsletter when received by the 15th of the month prior to publication. **The ad will run for two (2) newsletters.** (You may email your submission to editor@wasba.org and mail your payment to the P.O. Box.)

406-883-2918
 1-800-548-8440
 FAX 406-883-4336
 www.westernbee.com



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Executive Board Meeting Minutes

(Continued from page 4)

Coumaphos and Guard Star are the only treatments so far for control of the small hive beetle. FL is leading the whole charge and it is through other organizations not beekeeping. Different departments of agriculture are involved because the beetle has been found in cantaloupe and melons, so it is across other areas. The state of Florida has been funding most of the research. In our case one of the problems is that the beetle mimics the bee begging behaviors and the honeybees will actually feed the beetle.

Eric Olsen is selling Mann Lake's high fructose corn syrup. All you need do is call him and he will fill tanks for you. The price is per gallon. We now have a reliable source of syrup in our area.

Special recognition was given to Jeanette Atto who set up a silent auction and it generated \$173.25!

New Business

Paul Lundy proposed making copies of Marina's two posters regarding American Foul Brood to be used as a resource for each of the local associations. He had no idea at this point of the cost but would like to look into it if it is okay with Marina. A motion was passed for him to look into the matter and have posters printed if the cost was about \$600; if he needs more he will come back later and ask for more. Because there were handouts made, Miriam Bishop suggested that they be published in the newsletter.

The Master Beekeepers Committee has given out 54 certificates to the IEBA and about 4 or 5 to Pierce County recently.

As a repeat, the program agenda is set for Puyallup and President Tate will get with John Timmons to go over details.

A motion was made and seconded to adjourn the meeting.

Submitted by Linda Carney, Secretary.

Classified Ads

WSBA "Proudly Produced in Washington" gold labels for sale. Rolls of 500 are \$ 7⁰⁰ each. To order, Call 360-297-6743 or email treasurer@wasba.org .



For Sale: 3 extractors, old Lifetime reversing 8-frame, galvanized. 2 are for parts. \$150 takes all 3! Stainless, 3 chamber clarifier, good condition, \$235, obo. 360-733-7764. If no answer, please leave message w/ phone number. (2/05)

Tate's Honey Farm

E. 8900 Maringo Drive
 Spokane, WA 99212

Wes Tate Rita Tate Jerry Tate

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 Package Bees, Queens Candle Making
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taccon105@icehouse.net

www.tateshoneyfarm.com

Research from Oregon, continued

(Continued from page 9)

average commercial hive had to produce about 22 pounds of honey per colony in order to break even.

Remember that the data presented here represent the pollination rental situation of a hypothetical "average" commercial beekeeper in the Pacific Northwest. For individual beekeepers the survey results are most useful as benchmarks against which they should compare their individual operations. Please let me stress again that all of these "projections" are only as accurate as the data provided by responding beekeepers. The projections also assume that the participating beekeepers collectively represent the mainstream of commercial beekeeping in the Pacific Northwest.

I wish to again thank all those beekeepers in Oregon and Washington who took the time to participate in the survey, which over the past nineteen years, has generated the most accurate assessment of commercial pollination known in the U.S.

Summary Information - 2004

Total number of participating commercial beekeepers = 15

Total number of colonies in the survey = 53,345

Total colony rentals = 102,943

The average per colony pollination rental fee (for all beekeepers, for all crops including California almonds) was: \$38⁶⁵

The average commercial colony was placed in 1.93 pollination sets in 2004, for an average per hive rental income of \$74⁶⁰

The average commercial bee operation maintained 3,555 colonies and grossed \$265,200 in pollination rental income for 2004.

Table 1. Average Pollination Fee 1993-2004

<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>
22.50	28.10	29.60	31.55	31.05	29.65	32.25	32.85	33.65	36.40	36.45	38.65

Table 2. 2004 Average Commercial Pollination Fees by Crop (responding commercial beekeepers)

<u>Crop</u>	<u>No. Rentals</u>	<u>Avg. Fee</u>	<u>Income(\$)</u>
Pears	7,394	\$31 ³⁰	231,525
Cherries	20,305	\$33 ⁶⁵	683,560
Apples	13,019	\$28 ²⁵	367,800
Berries ¹	2,753	\$22 ⁹⁰	63,030
Blueberries	2,632	\$31 ⁸⁵	83,823
Cranberries	32	\$24 ⁰⁰	768
Vegetable seed	5,768	\$37 ⁹⁵	218,772
Clover seed ²	897	\$32 ⁶⁰	29,220
Crimson clover seed	2,120	\$0 ⁸⁵	1,800
Radish seed	414	\$24 ¹⁰	9,980
Cucumbers	1,491	\$46 ⁷⁰	69,615
Sq. & Pump. seed	539	\$31 ⁸⁰	17,127
Watermelon	1,216	\$34 ⁵⁵	42,020
Misc. ³	24	\$32 ⁰⁰	768
<u>Almonds</u>	<u>44,339</u>	<u>\$48⁷⁰</u>	<u>2,159,012</u>
SUM = 102,943 rentals generating \$3,979,3000			
Average Pollination Fee = \$38⁶⁵			

¹Includes blackberries, raspberries, Marion berries, & Logan berries.

²Includes red & white clover as grown for seed.

³Plums.

Table 3. Average colony numbers, average rental fee per hive, and average annual rental income per hive for a commercial beekeeping operation in the Pacific Northwest 1992-2004.

<u>Year</u>	<u>Average No. Colonies</u>	<u>Average Rental Fee</u>	<u>Average Annual Rental Income per Colony</u>
1992	765	\$19 ²⁵	\$49 ⁷⁰
1993	990	\$22 ⁵⁰	\$62 ²⁵
1994	1,225	\$28 ¹⁰	\$78 ⁷⁰
1995	1,348	\$29 ⁶⁰	\$78 ¹⁵
1996	1,350	\$31 ⁵⁵	\$97 ⁵⁰
1997	1,504	\$31 ⁰⁵	\$92 ²⁰
1998	1,153	\$29 ⁶⁵	\$83 ⁰⁰
1999	2,058	\$32 ²⁵	\$89 ³⁰
2000	2,055	\$32 ⁸⁵	\$77 ⁴⁰
2001	3,168	\$33 ⁶⁵	\$64 ⁶⁰
2002	4,255	\$36 ⁴⁰	\$63 ⁷⁵
2003	2,612	\$36 ⁴⁵	\$86 ⁴⁰
2004	3,555	\$38⁶⁵	\$74⁶⁰

Calling All Beekeepers!

The Washington State Beekeepers Association Invites You to Attend Our 1st Annual Field Day
in Puyallup, WA

Friday and Saturday, July 8-9 at WSU Extension D. F. Allmendinger Center
located at 7612 Pioneer Way East in Puyallup, Washington

First, please join us Friday evening at 7 p.m. for a complimentary wine and cheese social!

The Saturday programs consist of a classroom format beginning at 8:30 a.m., followed by a picnic lunch, then field work with the bees all afternoon. The cost for an individual is \$10, or you & your family for \$20! Lunch is \$10 per person.

We will focus on hive inspection procedures, including:

- Brood inspection: what to look for
- Varroa mite inspection & treatment: ether roll, sticky board, sugar dusting, strip check
- Treatment options: drone comb trap, medications, screened bottom board
- Queen introduction techniques: finding the queen, hive preparation for mailer cage introduction, nuc introduction
- Use of screen board for splitting and queen/queen cell introduction

→In **Puyallup**, we will have a special focus on AFB inspection with ultra-violet light, plus treatment options, tracheal mite inspection and treatment options, and honey removal techniques and the many aspects of fall management in western Washington.

Please join us for lunch on Saturday! We will be serving grilled hamburgers with all the trimmings, three salad side dishes, soft drink of your choice, and hand-dipped ice cream sundaes for dessert. Price of each meal is \$10.00.

PRE-REGISTRATION IS REQUIRED!

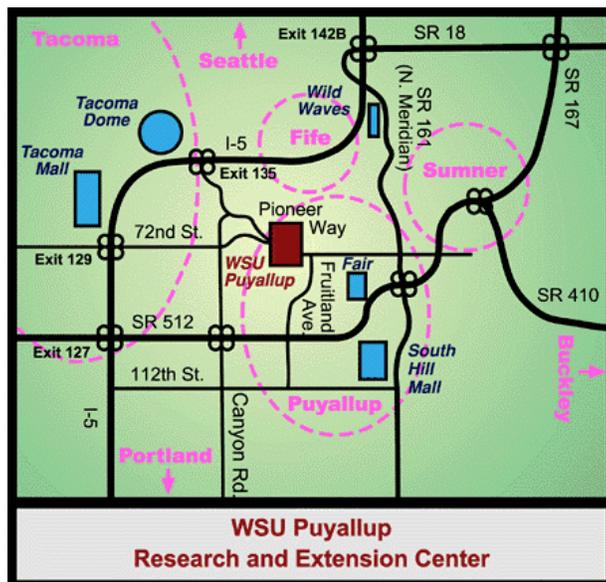
Register for the Puyallup Field Day by **July 1, 2005**.

As you can see, we have a full day's activities planned for these events, and we don't want to waste time standing in line on Saturday to register! Fill out the form below and include your check made out to WSBA, send to: WSBA, P.O. Box 1331, Kingston, WA 98346-1331. We will send you a full schedule of events for the weekend along with maps.

Name: _____ Registration Fee: \$ _____
(One person \$10, family \$20)
Address: _____ Lunch: \$10 X _____ = \$ _____
(number of meals)
City: _____ State _____ Zip _____ Total included \$ _____

Will you be attending the Friday Wine & Cheese Social? (circle one) Yes No

Directions from Seattle and North



- Drive South on I-5 to Exit 135 in Tacoma.
- Take Exit 135 (SR-167 North/Portland Ave/Puyallup).
- Turn left onto E. Bay Street (E. R St.).
- Continue south on E 28th St.
- Continue East on SR-167 (E 28th St).
- Turn onto Pioneer Way W. at light.
- Follow Pioneer Way E. (about 4 miles) to the light at the intersection of Pioneer Way E., 72nd Ave. South, and Woodland Avenue.
- Turn left to continue onto Pioneer Way E.
- Drive about 1/2 of a mile and turn right into the WSU Puyallup Research & Extension Center, just past the sign.

****Alternate route from I-405***

- From I-405 south, take the Auburn/Kent exit (Hwy 167).
- Follow Hwy 167 past Kent and Auburn to Puyallup.
- Take the Puyallup exit to Hwy 512.
- Take the Pioneer Way exit from Hwy 512 (1st Puyallup exit).
- Turn left on Pioneer Way.
- Go through Puyallup about 2 miles until you see the WSU Puyallup Research & Extension Center sign at the entrance on the left (just past Fruitland Avenue) and turn left into the center.

American Foulbrood – Detection, Management, and Prevention Techniques (1)

AFB – the disease

- AFB is a bacterial disease of the brood, caused by *Paenibacillus larvae*
- The outbreak of symptoms is correlated to the abundance of bacterial spores in honey and on comb
- Larvae acquire spores from nurse bees by way of contaminated food
- Spores germinate in the gut and bacteria multiply
- Infected larva always die (often when cell is already capped), bacteria in dying and dead larvae make new spores (billions!)
- Disease is transmitted and spread by distribution of spores by bees and beekeepers
- AFB is VERY contagious and easily transmitted between colonies



AFB detection – what symptoms to look for

- capped cells that did not hatch
- caps often appear sunken in or have holes
- brood nest appears patchy or irregular
- dead larvae in cells liquefy and have “ropy consistence”
- black scales in cells that appear “cemented in”
- characteristic putrid smell

AFB management

Antibiotics – always such a good idea?

- the most common treatment in the U.S. is Terramycin
- registration is anticipated for Lincomycin and Tylosin
- mixed with powdered sugar and fed to bees, Terramycin will prevent the outbreak of disease symptoms
- larvae appear healthy, even when exposed to spore containing environment
- therefore, a prophylactic treatment is often recommended



However – antibiotic caveats

- AFB is *extremely* contagious and spread by spores (through contaminated comb, honey, and equipment)
- Terramycin does prevent bee larvae from showing the symptoms, *but does not kill the spores or reduce the spore load in the colony*
- When treating regularly, you can spread the disease without knowing that your bees actually have it
- Colonies receiving prophylactic treatment will oftentimes readily “acquire” AFB when the treatment is stopped
- Cases of resistance of the foulbrood bacteria against TM have been reported in all states of the U.S.
- Danger of antibiotic residues in honey
- It is possible to manage the disease and reduce its occurrence using non-medication techniques

American Foulbrood – Detection, Management, and Prevention Techniques (2)

AFB – management without antibiotics

There is only one way to “treat” AFB – reduce the spore load in your beekeeping operation!

- Burn (or otherwise eliminate) colonies with bad infections (including comb!) to get rid of spores
- Clean all equipment that might have become contaminated with spores (bee boxes, hive tools, bee brushes, feeders, gloves). Use flame or lye or bleach. Make yourself knowledgeable about these methods before you use them! Obey safety precautions!
- Throw away equipment that can't be cleaned (must be inaccessible to bees)
- Honey from AFB colonies is o.k. for human consumption, but must be kept out of reach of bees

Salvage bees, if possible

- Strong colonies with beginning infections (not too many cells affected) can sometimes be salvaged
- Shake bees (care for queen!) into clean new box
- Best to close flight entrance (provide sufficient ventilation! - cool place or indoors!) and not to feed for two days
- If needed, spray some water (feed thin sugar syrup only as emergency remedy)
- After two days, shake bees into another new box with foundation
- Start feeding sugar syrup continuously after two days
- Burn all comb (brood and honey) from original hive, clean and disinfect supers, bottom and lid
- Burn all debris from bottom of first box
- This treatment eliminates the main sources of spores (brood and honey)
- The adult bees are not affected by the bacteria. Not feeding them for two days eliminates all remaining spores in their gut. By the time the first new larvae need to be cared for, no further contagion is possible.
- This treatment is only recommended for strong colonies early enough in the season

Are hygienic bees the solution to the AFB problem?

Hygienic bees very quickly clean out sections of comb where the brood has been killed with liquid nitrogen. This behavior is related to disease and parasite resistance.



Selection for honeybee hygienic behavior is an important measure in reducing the susceptibility of bees to AFB also

hygienic beekeeping practices are also very effective as a measure of AFB prevention:

- Be aware of the extreme contagiousness of AFB
- NEVER exchange brood, comb or honey from diseased or “suspicious” colonies
- Discontinue use of your hive tool after working a diseased or suspicious colony
- Disinfect equipment from diseased colonies with appropriate methods
- High turnover of comb - frequent exchange of old comb
- Routinely eliminate old and dark comb from your beekeeping operation
- NO feeding of honey from unknown sources
- Prevent robbing
- Use care when buying or exchanging colonies or equipment
- Monitor spore concentration in brood nest area (routinely done now in European countries)

July 9, 2005

**The next WSBA Executive Board Meeting will
be held at:**

WSBA July Field Day in Puyallup, WA

**Starts after beekeeping events are finished
for the day**

Everyone is welcome.

Location will be announced at Field Day.

P. Lundy
Washington State Beekeepers Association
Newsletter Editor
P.O. Box 1331
Kingston, WA 98346-1331