PACIFIC NORTHWEST HONEY BEE POLLINATION ECONOMICS SURVEY 2009

Michael Burgett

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 most useful to individual beekeepers who generate income from pollination rental, which is the primary source of income for the majority of commercial beekeepers in the Pacific Northwest.

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 region relies on a healthy and strong beekeeping industry to maintain optimum production. An enhanced knowledge of pollination economics is crucial to every beekeeper who enters the world of commercial crop pollination.

The USDA National Agricultural Statistics Service estimates that there are 92,000 production honey bee colonies in the Pacific Northwest (Oregon and Washington). With these numbers, there are some interesting hypothetical calculations that can be made. For instance, if all growers of crops that require or benefit from managed honey bee pollination in the Pacific Northwest were to rent two colonies for each acre of crop that relies on and/or benefits from bee pollination (ca. 350,000 acres), the resulting pollination requirement would utilize 700,000 colony rentals. If we multiply the hypothetical rentals by the 2009 average colony rental fee ($89.90), it results in a potential pollination rental income of nearly 63 million dollars for PNW beekeepers. If we add to this the estimated 2009 California almond pollination income available to PNW commercial beekeepers ($27 million), we end up with a potential gross pollination rental income of nearly 90 million dollars. Another way to look at this is by asking the question, “How much pollination income, under optimized conditions, should have been produced from one commercial PNW honey bee colony in the year 2009?” For 2009, that figure is approximately $978 per colony—which is obviously unattainable, if for no other reason than the impossibility of one colony being sequentially utilized in all of the necessary cropping systems required to produce such a hypothetical per colony income.

Comparing the hypothetical PNW rental income ($63 million) to the
MESSAGE FROM THE PRESIDENT

Summer is finally here, and it is exciting to see the hives growing to their potential. We always feel like we are a season behind in beekeeping. We do our early pollinations and then try to jump into requeening as soon as we can because we know that early requeening really helps with our honey crop. In Hermiston, we need all the help we can get with our honey crop!

As soon as we complete our requeening and supering, we start getting the bees ready for fall. It seems like the major factors that help with overwintering bees are education, timing with treatments, nutrition, and some luck.

Another factor that helps us with overwintering is new knowledge that comes in from other sources—be it another beekeeper that you trust, an organization that you belong to, or researchers who are coming up with new ideas for our future beekeeping.

I was asked by a friend this week about where donations might go in the “beekeeping” world that would be most useful. This led me to think that we have not talked enough about what to do with money that you would like to donate to our industry. Here are a few places that I know the money would be well used and really appreciated:

Agricultural Research Foundation for Ramesh Sagili’s Bee Research
100 Strand Agricultural Hall, Corvallis OR 97331

or

Oregon State Beekeepers Association Research Fund
c/o Herb Brasington 1881 NE Ashberry Drive, Hillsboro OR 97124

or

Northwest Apiculture Fund for Honey Bee Research, Extension, and Education

Note: Make check payable to OSU Foundation and write Northwest Apiculture Fund for Honey Bee Research, Extension, and Education on the memo line.

OSU Foundation, 850 SW 35th Street, Corvallis OR 97333

Please consider supporting these funds so that we can better understand the problems coming our way now and in the future. Thank you for your consideration.

I saw this quote by H.G. Wells and really appreciate it in beekeeping:

Adapt or perish, now as ever is nature’s inexorable imperative.

Thanks for reading,

Jan
Pollination Survey—Continued from page 1

The farm-gate value of the crops pollinated in the Pacific Northwest ($2.73 billion) shows that the money spent by growers to ensure adequate pollination is about 2.3 percent of the total crop value. This is an impressive illustration of what a remarkable bargain pollination rental is to the commercial agricultural industry of the Pacific Northwest.

The 2009 pollination survey continues to illustrate the critical reliance of PNW beekeepers on income generated from colony rentals. For 2009, the average commercial beekeeper reported receiving 71 percent of their annual gross from pollination rental, which is a slight increase from 2008. This percentage shows the dominance of pollination rental income to a PNW beekeeper’s “financial health.”

Recent increases in the average pollination rental fee have been strongly influenced by the dramatic rise in the pollination rental fees paid by California almond growers. In 2005, almond growers responded to a perceived shortage of colonies by dramatically increasing the price they were willing to pay for pollination; this has continued for the 2009 pollination season. The average almond pollination fee for 2009 was $15,025. This is an 89 percent increase from the 2005 average ($7,940), but only a 1.5 percent increase from the average almond pollination fee paid in 2008 ($14,815). Almond pollination is a target crop for nearly all commercial beekeepers in the Pacific Northwest and represents the beginning of the annual pollination season.

For 2009, the average pollination rental fee, computed from commercial colony rentals on all crops reported (including almonds), was $89.90. This is a 10.8 percent increase from the average pollination fee paid in 2008 ($81.15) (see Table 1).

Table 2 provides the average rental fees by crop and a comparison to the average fee received in 2008. For Table 2, only crops where at least three commercial beekeepers reported rentals are listed.

During the past ten years the average pollination rental fee has increased from $32.85 (2000) to $89.90 (2009), an increase of 174 percent. While dramatic gains in pollination fees have occurred, it needs to be stressed that honey bee colony rental was for many decades an underpaid service to the agricultural industry at large. It is really only within the past decade that rental fees have begun to more accurately reflect the enormous value-added service of managed pollination. Figure 1 depicts the average pollination fee paid since the beginning of the PNW pollination survey in 1986.

Within the Pacific Northwest, tree fruits (apples, pears, and sweet cherries) have been and remain the dominant crop types for pollination income. In 2009, the combination of apples, pears, and sweet cherries accounted for 37.1 percent of all reported rentals and 20.8 percent 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 40.3 percent of all rentals and 67.4 percent of all rental income in the 2009 survey (see Table 3). Almonds have consistently produced a high average pollination fee and for the past four years have displayed remarkable fee increases compared to the 2005 average fee of $7,940: for 2006, $12,920; for 2007, $13,735; for 2008, $14,815; and for 2009, $15,030.

In 2009, the combination of California almonds and PNW tree fruit accounted for 77.4 percent of all

### Table 1. Average pollination fee, 2000–2009.

<table>
<thead>
<tr>
<th>Year</th>
<th>Average Fee for Pollination</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>$32.85</td>
</tr>
<tr>
<td>2001</td>
<td>$33.65</td>
</tr>
<tr>
<td>2002</td>
<td>$36.40</td>
</tr>
<tr>
<td>2003</td>
<td>$36.45</td>
</tr>
<tr>
<td>2004</td>
<td>$38.65</td>
</tr>
<tr>
<td>2005</td>
<td>$51.30</td>
</tr>
<tr>
<td>2006</td>
<td>$73.85</td>
</tr>
<tr>
<td>2007</td>
<td>$70.65</td>
</tr>
<tr>
<td>2008</td>
<td>$81.15</td>
</tr>
<tr>
<td>2009</td>
<td>$89.90</td>
</tr>
</tbody>
</table>

### Table 2. Average pollination fees as reported by thirteen commercial beekeeping operations for 2009.

<table>
<thead>
<tr>
<th>Crop</th>
<th>Number of Rentals</th>
<th>Average Fee</th>
<th>Fee +/-</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pears</td>
<td>5,862</td>
<td>$51&lt;sup&gt;50&lt;/sup&gt;</td>
<td>+21.4%</td>
</tr>
<tr>
<td>Cherries</td>
<td>15,605</td>
<td>$51&lt;sup&gt;50&lt;/sup&gt;</td>
<td>+21.6%</td>
</tr>
<tr>
<td>Apples</td>
<td>23,858</td>
<td>$49&lt;sup&gt;70&lt;/sup&gt;</td>
<td>+9.5%</td>
</tr>
<tr>
<td>Berries&lt;sup&gt;1&lt;/sup&gt;</td>
<td>2,844</td>
<td>$38&lt;sup&gt;40&lt;/sup&gt;</td>
<td>+26.9%</td>
</tr>
<tr>
<td>Blueberries</td>
<td>7,100</td>
<td>$42&lt;sup&gt;50&lt;/sup&gt;</td>
<td>+15.2%</td>
</tr>
<tr>
<td>Vegetable seed</td>
<td>6,652</td>
<td>$53&lt;sup&gt;76&lt;/sup&gt;</td>
<td>+13.6%</td>
</tr>
<tr>
<td>Clover seed&lt;sup&gt;2&lt;/sup&gt;</td>
<td>3,435</td>
<td>$46&lt;sup&gt;20&lt;/sup&gt;</td>
<td>+48.3%</td>
</tr>
<tr>
<td>Squash and pumpkin</td>
<td>2,636</td>
<td>$47&lt;sup&gt;30&lt;/sup&gt;</td>
<td>+2.3%</td>
</tr>
<tr>
<td>Meadowfoam</td>
<td>1,336</td>
<td>$47&lt;sup&gt;30&lt;/sup&gt;</td>
<td>+4.3%</td>
</tr>
<tr>
<td>Almonds</td>
<td>49,318</td>
<td>$150&lt;sup&gt;90&lt;/sup&gt;</td>
<td>+1.5%</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td></td>
<td><strong>$89&lt;sup&gt;90&lt;/sup&gt;</strong></td>
<td></td>
</tr>
</tbody>
</table>

<sup>1</sup>Percentage change from 2008.
<sup>2</sup>Includes blackberries, raspberries, Marionberries, and loganberries.
<sup>3</sup>Includes red and white clover as grown for seed.
rentals and 88.2 percent of all pollination income, which illustrates the dominance and importance of these crops for a commercial PNW beekeeper (see Table 3). All other PNW cropping systems that utilize honey bee pollination contributed 11.8 percent to the beekeeper’s gross pollination income in 2009.

In terms of acreage, apples are the largest crop grown in the Pacific Northwest (almost 200,000 acres), which is reflected by the large number of reported rentals (19.5% of all rentals and 10% of total rental income).

The average PNW commercial honey bee colony was rented 1.83 times in 2009, and this includes California almonds. This is a slight decrease from 2008 (1.9 sets). This statistic has trended downwards since 1999 when the average number of rentals per colony was 2.8. Does this actually reflect the real-world situation? Are PNW commercial beekeepers concentrating on almonds and tree fruit (which historically provide the major sources of pollination income) and reducing the number of colonies involved in minor crop pollination? Following almond pollination, are colonies being shifted away from pollination to concentrate on honey production? At this time, our data are not able to provide reasonable answers to these questions.

For the 2009 pollination season, an average rental fee of $89.90 combined with an average of 1.83 pollination rentals per colony results in an annual per colony pollination income of $16,450. Table 4 displays the data concerning the trends of ever-larger individual operations and the increasing per colony income derived from pollination. With the “average” commercial operation running 5,140 colonies, a hypothetical 2009 gross pollination income for the “average” commercial beekeeping operation in the Pacific Northwest was $845,530.

The combined colony numbers from those commercial beekeepers who responded to the 2009 survey, 66,827 colonies, represent about 73 percent of the USDA’s estimate of commercial colony numbers in Oregon and Washington. Therefore, if we multiply the total reported pollination income of the survey respondents ($10,998,747) by a factor of 1.37, we have a ballpark estimate of the pollination income generated by commercial beekeeping in the Pacific Northwest in 2009, i.e., a regional pollination income of approximately 15 million dollars. This is far more than the “estimates” assigned to the bee industry by agricultural economists, who, for reasons unexplained, usually do not even include pollination rental income in their evaluation of beekeeping economics. Pollination income in the Pacific Northwest far exceeds the value of honey and wax sales for our regional beekeeping industry. Pollination rental income is frequently from four to five times greater than honey and wax sales in any given year. This disparity between pollination income and combined honey/wax sales has increased dramatically, especially in the past few years, concurrent with the impressive rise in pollination rental fees.

Figure 1. Average pollination fee for all crops, including almonds, in the Pacific Northwest, 1986–2009.
The 2009 survey once again asked commercial beekeepers to report the total number of full-time or full-time equivalent employees working for their operations. An interesting way to look at this question concerning the average number of full-time employees is to ask, “What is the colony equivalent? How many colonies are necessary in order to hire one full-time employee?” That figure was very close to 1,500 colonies per employee in 2004 and 2005. In 2007, the “colony equivalent” was 1,125 colonies per full-time employee, and for 2008, 870 colonies. The reported “colony equivalent” for 2009 is 996 colonies. Lower colony equivalent numbers suggest that hives are receiving more-intensive management, which ultimately means healthier colonies.

While income from pollination rental is a critical statistic, so therefore is the annual cost to maintain a healthy colony of honey bees. Numerous commercial beekeepers, who have over the years maintained accurate cost-accounting records, have reported colony maintenance costs that are very reasonable relative to today’s economy. The average annual colony maintenance cost was $173 per colony for the year 2009. The range in individual responses was from a high of $300/colony to a low of $75/colony. This wide range suggests that beekeepers should try to be more precise in calculating operational costs.

For 2009, the average colony maintenance cost is once again higher than the average per colony pollination income. From the 2009 survey data, pollination income was $16,450 per colony and the colony maintenance cost was $173—a difference of $850 per colony. This illustrates that the net operational profit needs to be generated by sources of income outside of pollination rental—most frequently, honey production.

In interpreting the average pollination fee for an individual crop, it is important to recognize that the reliability of the “average” is strongly influenced by the number of reported rentals. The “average” for almonds should be considered very realistic because of the large number of beekeepers and rentals reported for this crop, and such is also the case for tree fruit in the Pacific Northwest. For this year’s survey report, pollination rental averages for crops with fewer than three beekeepers reporting, have been excluded from Table 2, but these low-reported crops have been included for computing the average pollination fee for all reported rentals.

It is important to 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. Let it be stressed 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 24 years has generated the most-accurate assessment of commercial pollination known in the US.

### Table 3. Pollination rentals and income by crop type as reported by thirteen Pacific Northwest commercial beekeepers in 2009.

<table>
<thead>
<tr>
<th>Crop</th>
<th>Number of Rentals</th>
<th>Percentage of Total Rentals</th>
<th>Rental Income</th>
<th>Percentage of Total Rental Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tree Fruit</td>
<td>45,325</td>
<td>37.1</td>
<td>$2,290,447</td>
<td>20.8</td>
</tr>
<tr>
<td>Almonds</td>
<td>49,318</td>
<td>40.3</td>
<td>$7,410,980</td>
<td>67.4</td>
</tr>
<tr>
<td>All other crops</td>
<td>27,677</td>
<td>22.6</td>
<td>$1,297,320</td>
<td>11.8</td>
</tr>
<tr>
<td>Total</td>
<td>122,310</td>
<td></td>
<td>$10,998,747</td>
<td></td>
</tr>
</tbody>
</table>

### Table 4. Average colony numbers, average rental fee per colony, and average annual rental income per colony for a hypothetical commercial beekeeping operation in the Pacific Northwest, 1992–2009.

<table>
<thead>
<tr>
<th>Year</th>
<th>Average Number of Colonies</th>
<th>Average Rental Fee per Colony</th>
<th>Average Rental Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>765</td>
<td>$19&lt;sup&gt;26&lt;/sup&gt;</td>
<td>$49&lt;sup&gt;70&lt;/sup&gt;</td>
</tr>
<tr>
<td>1993</td>
<td>990</td>
<td>$22&lt;sup&gt;50&lt;/sup&gt;</td>
<td>$62&lt;sup&gt;25&lt;/sup&gt;</td>
</tr>
<tr>
<td>1994</td>
<td>1,225</td>
<td>$26&lt;sup&gt;10&lt;/sup&gt;</td>
<td>$78&lt;sup&gt;70&lt;/sup&gt;</td>
</tr>
<tr>
<td>1995</td>
<td>1,348</td>
<td>$29&lt;sup&gt;60&lt;/sup&gt;</td>
<td>$78&lt;sup&gt;15&lt;/sup&gt;</td>
</tr>
<tr>
<td>1996</td>
<td>1,350</td>
<td>$31&lt;sup&gt;55&lt;/sup&gt;</td>
<td>$79&lt;sup&gt;50&lt;/sup&gt;</td>
</tr>
<tr>
<td>1997</td>
<td>1,504</td>
<td>$31&lt;sup&gt;05&lt;/sup&gt;</td>
<td>$92&lt;sup&gt;20&lt;/sup&gt;</td>
</tr>
<tr>
<td>1998</td>
<td>1,153</td>
<td>$29&lt;sup&gt;65&lt;/sup&gt;</td>
<td>$83&lt;sup&gt;30&lt;/sup&gt;</td>
</tr>
<tr>
<td>1999</td>
<td>2,058</td>
<td>$32&lt;sup&gt;25&lt;/sup&gt;</td>
<td>$89&lt;sup&gt;30&lt;/sup&gt;</td>
</tr>
<tr>
<td>2000</td>
<td>2,055</td>
<td>$32&lt;sup&gt;65&lt;/sup&gt;</td>
<td>$77&lt;sup&gt;40&lt;/sup&gt;</td>
</tr>
<tr>
<td>2001</td>
<td>3,168</td>
<td>$33&lt;sup&gt;65&lt;/sup&gt;</td>
<td>$64&lt;sup&gt;60&lt;/sup&gt;</td>
</tr>
<tr>
<td>2002</td>
<td>4,255</td>
<td>$36&lt;sup&gt;40&lt;/sup&gt;</td>
<td>$63&lt;sup&gt;75&lt;/sup&gt;</td>
</tr>
<tr>
<td>2003</td>
<td>2,612</td>
<td>$36&lt;sup&gt;45&lt;/sup&gt;</td>
<td>$86&lt;sup&gt;40&lt;/sup&gt;</td>
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<tr>
<td>2004</td>
<td>3,555</td>
<td>$38&lt;sup&gt;65&lt;/sup&gt;</td>
<td>$74&lt;sup&gt;60&lt;/sup&gt;</td>
</tr>
<tr>
<td>2005</td>
<td>2,055</td>
<td>$39&lt;sup&gt;55&lt;/sup&gt;</td>
<td>$112&lt;sup&gt;85&lt;/sup&gt;</td>
</tr>
<tr>
<td>2006</td>
<td>3,855</td>
<td>$73&lt;sup&gt;85&lt;/sup&gt;</td>
<td>$151&lt;sup&gt;10&lt;/sup&gt;</td>
</tr>
<tr>
<td>2007</td>
<td>3,091</td>
<td>$70&lt;sup&gt;65&lt;/sup&gt;</td>
<td>$176&lt;sup&gt;60&lt;/sup&gt;</td>
</tr>
<tr>
<td>2008</td>
<td>4,800</td>
<td>$81&lt;sup&gt;15&lt;/sup&gt;</td>
<td>$154&lt;sup&gt;20&lt;/sup&gt;</td>
</tr>
<tr>
<td>2009</td>
<td>5,140</td>
<td>$89&lt;sup&gt;90&lt;/sup&gt;</td>
<td>$164&lt;sup&gt;50&lt;/sup&gt;</td>
</tr>
</tbody>
</table>
OSBA REGIONAL REPRESENTATIVES

Columbia Basin: Bill Edwards; 5040 Lost Lake Rd
Hood River 97031; 541.354.2223

Eastern Oregon: Jordan Dimock
2635 Mitchell Butte Rd, Nyssa 97913; 541.372.2726

Portland-Metro Area: Bev Koch
20495 S Geiger Rd, Oregon City 97045
503.655.7447; johnbev@aracnet.com

North Coast: Terry Fullan
39450 North Fork Rd, Nehalem 97131
503.368.7160; tfullan@nehalemtel.net

South Coast: Open

Southern Oregon: Floyd Pawlowski
415 Pompadour Dr, Ashland; 541.482.4797
fmpawlowski@ashlandwireless.net

North Willamette Valley: Harry Vanderpool
7128 Skyline Rd S, Salem; 503.399.3675
shallotman@yahoo.com

South Willamette Valley: Jason Rowan
80881 Turkey Run Rd, Creswell 97426
541.942.6479; beetanical@q.com

OSBA REGIONAL ASSOCIATIONS

Central Oregon Beekeepers
Meets 6:30 PM, third Tuesday, Bend
63211 Service Rd, Suite 130
President: Dennis Gallagher; 541.389.4776
For information, please contact: John Connelly
johnconnelly@gmail.com

Coos County Beekeepers
Meets 6:30 PM, third Saturday (except December)
Ohsen Baxter Bldg, 631 Alder St, Myrtle Point
President: Shigeo Oku; 541.396.4016
Vice President: John Gardner; 541.572.3847
Secretary: Bobbi Gardner; 541.572.3847
Treasurer: Jane Oku; 541.396.4016
jane_oku@hotmail.com

Lane County Beekeepers
Meets 7:30 PM, third Tuesday, Eugene
Trinity United Methodist Church, 440 Maxwell Rd
Lane County (continued)
President: Judy Scher; 541.344.2114
judy_scher@catdreams.com
Vice President: Barbara Bajec; 541.767.9086
Secretary: Lane Hillendahl; 541.942.6838
Treasurer: Nancy Ogrian; 541.935.7065
woodrt@pacininfo.com
Web site: www.lcbaor.org

Portland-Metro Beekeepers
Meets 7 PM, second Thursday, Oregon City
Clackamas Comm College, Clairmont Hall, Room 118
President: Nancy McFarlane; 503.260.3930
nancymariemcfarlane@yahoo.com
Vice President: Paul Hardzinski; 503.631.3927
breadstick@ccwebster.net
Secretary: Alvalea Fong; 503.742.0910
mamagoose@mac.com
Treasurer: Barbara Derkacht; 503.631.3063
bderkacht@yahoo.com

Southern Oregon Beekeepers
Meets 7:30 PM, first Monday, Central Pt
So Or Res & Ext Ctr, 569 Hanley Rd
President: John Jacob; 541.582.BEES
john@oldsolenterprises.com
Vice President: Floyd Pawlowski
415 Pompadour Dr, Ashland; 541.482.4797
Secretary/Treasurer: Jonathon Boulton
jonnyboulton@hotmail.com
Web site: www.southernoregonbeekeepers.org

Tillamook County Beekeepers
For meeting and other information, please contact:
President: Bob Allen; 503.322.3819

Tualatin Valley Beekeepers
Meets 7:30 PM, last Friday, Beaverton
OSU Ext, #1400, 18640 SW Walker Rd
President: Herb Brasington; 503.701.4180
herb@hwbsystems.com
Vice President: Kevin Beckman; 503.539.5996
kevin_beckman2@msn.com
Secretary: Jerry Maasdam; 503.648.7906
jmaasdam@mac.com
Co-Treasurers: Brigette and Michael Hendrickson
503.625.3828; mdhendri@gmail.com

Willamette Valley Beekeepers
Meets 7 PM, fourth Monday, Salem
Chemeketa Comm College, Bldg 34, Rm A
President: Richard Farrier; 541.327.2673
Vice President: Harry Vanderpool; 541.399.3675
shallotman@yahoo.com
Secretary: Mike Rodia; 503.364.3275
drodia@yahoo.com
Treasurer: Patricia Swenson
REGIONAL ASSOCIATIONS

Coos County Beekeepers
Coos County Beekeepers Association conducted our annual all-day Honey Bee Education Class on March 27, 2010. Dr. Dewey Caron and the newly appointed Oregon State University bee researcher Dr. Ramesh Sagili were our honored speakers. We had an excellent learning experience with the most-current information on our coastal climate and general beekeeping trends. Among the class attendants was Dr. Allen Solomon, a Nobel Prize contributor to Global Climate Change, who offered high appraisal for this class, both on its presentation and its informational value for beekeepers. We received many praise reviews from attending beekeepers and those newly interested in beekeeping. Our group sees a real need for this type of resource with up-to-date information as part of our continuing education. Dr. Sagili had told us that his position is on an annual contract. We request, through our perceived need, that Dr. Sagili be kept in the position of state bee researcher on a more-permanent basis as a researcher and beekeeper—especially through this transitional time of changing climate and environment. Our association would like to thank both Dr. Sagili and Dr. Caron for their generous and informative participation.

—Shigeo Oku

Lane County Beekeepers
Last month Jonathan Loftin presented an excellent talk on spring management. April’s meeting will be given by Morris Ostrofsky on making nucs. Congratulations to Morris for completing his journeyman’s certification from the Washington State Master Beekeepers Certification Program. Oregon is actively working on setting up a master beekeeping program, but in the interim Washington is very supportive of anyone wanting to be certified with them. It is a challenging, but fascinating experience. Having just completed the apprenticeship level, I’ve started the journeyman phase and there is quite a lot to learn!

—Judy Scher

Portland-Metro Beekeepers
With about 40 people present, President Nancy McFarlane opened the meeting and reminded everyone that the Ruhl Memorial Bee Day is coming up April 24th. Paul Hardzinski led our roundtable discussion on five-year-old hive frames. Ruhl Bee Supply has an organic product for Nosema control called Nozevit. (No research yet on its efficacy?) Use two parts sugar with one part vegetable shortening as a patty to help control tracheal mites. Dewey Caron gave a presentation on “Installing Nucs/Packages and Re-Queening.” He has been helping out at Ruhl’s to give those who were picking up a package advice and a handout. He prefers the “shake the bees out of the package” method. He polled hive losses from our group in 2009 and noted figures showing up to 40 percent losses for backyard beekeepers from other recent polls. He alerted us of a TIME Magazine article (April 2010) showing the perils of plastics with implications for plastic frames. Next week’s guest speaker will be Glen Andresen on “catching swarms” and “flowers that bees love.”

—Paul Jarrett

Tualatin Valley Beekeepers
The meeting in March was well attended with about 38 members attending. We discussed changing our meeting night to Wednesdays. Our presentation covered swarming, why bees swarm, prevention of swarming, and swarm collection. We had a successful beekeeping school with 33 attendees, 30 of whom are new to the club.

—Paul Andersen

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KEEPING BEES IN MAY

Todd Balsiger

Similar to last month, our objectives are for all colonies to be queenright, healthy, and well fed so they can build up to maximum populations in time for the major nectar flow. Consider the following:

- Light hives can still starve if the weather turns bad. After the maples and fruit trees bloom, there is actually a decrease in available nectar until the summer nectar flow begins in earnest. Although very infrequent, in past years it has been necessary to feed well into summer to prevent starvation. Stop stimulative feeding prior to supering!

- Swarming is at its zenith, so continue swarm-control practices. I share a variant of a beekeepers’ proverb, mid 17th century: A swarm in May is worth a load of hay; a swarm in June is worth a silver spoon; and a swarm in July is not worth a fly.

- Nuc boxes containing one frame that has had brood (a dark frame), one frame with honey and pollen, and the balance foundation are ideal for catching swarms. Swarms quickly convert foundation into beautiful drawn comb, so you may want to capitalize on this behavior. Remember, frames need to be tight together when drawing foundation—too much space and the likely result will be burr or misshapen comb. You can feed sugar water to accelerate and sustain growth, just like for divisions.

- Consider setting up decoy hives (like the nuc box) to catch swarms at your apiary. Make sure the mice can’t get in!

- More on swarms… Decreasing queen pheromone production and its distribution within the hive triggers the swarm impulse. The two best ways to reduce swarming are to regularly requeen (young queens produce more pheromones) and to reduce congestion (reversing, equalizing, making divisions).

- Visually look at colonies for health and investigate why any are not keeping up with their peers. Does it have an underperforming queen? Has it become queenless and developed laying workers? Does it have a disease? Has it swarmed (don’t destroy the swarm cells!)? Are the bees raising a supercedure queen? Take appropriate action (which may be nothing). If you don’t know what to do, go to your next beekeepers’ association meeting and ask.

- Look for signs that it is time to super. For example, the bees lose interest in syrup, the bees have zero robbing tendencies, or you see a new film of white...
wax—especially on the top bars.

- Provide abundant room for storing honey early in the season. I consider two supers as abundant. If paradichlorobenzene crystals are used for wax moth control, then air out the supers on a warm day to vaporize the residues before use.

- Bees generally work from the center up, so foundation centered in the hive will be drawn the fastest. I recommend ten frames when drawing foundation to prevent burr and misshapen comb. After the frames are drawn, at least for supers, I recommend nine frames to make uncapping easier.

- Research indicates no difference in top-supering versus bottom-supering. Do what is easier for you. Just like whether to run nine or ten frames per brood box, top-supering versus bottom-supering is one of those highly debatable issues among beekeepers.

- I recommend queen excluders (there are exceptions). I consider brood in supers as a big problem and hassle. Frames that have had brood are dramatically more vulnerable to wax moth damage and will require extra protection.

- Bees collect water in the summer as avidly as nectar and pollen. If appropriate water resources are absent, provide water early and let the bees train themselves to use it. This is especially important for urban settings, where your bees may end up in your neighbor’s swimming pool or pet bowl instead.

- Varroa mites: You may want to sample to estimate your Varroa mite load, and treat if it is high. This may be your last opportunity to treat with controls that have short withdrawal times before supering but require higher daily high temperatures for use.

MEMBERSHIP IN THE AMERICAN BEEKEEPING FEDERATION REWARDS

The American Beekeeping Federation is working harder than ever to make sure that anyone associated with the beekeeping industry will benefit from participation as members [see also page 10]. The leadership of ABF is dedicated to building a strong framework for success for those choosing to take part and grow in their beekeeping experience.

The next North American Beekeeping Conference will be held January 4–8, 2011, in Galveston TX and will bring together members of our beekeeping community in North America with involvement of major industry groups: the American Honey Producers, the American Association of Professional Apiculturists, the Apiary Inspectors of America, and the 1000-plus members of the ABF. The opportunity for personal enrichment and education will be unparalleled in our history. This will be an event that all serious beekeepers should plan to attend. It’s very possible that this conference will bring together more beekeepers than any other single beekeeping event in North America.

As part of our “Membership Pays” promotion, new members receive a packet that includes special discount coupons from our vendor members including: Mann Lake, Brushy Mountain, Dadant & Sons, Walter T. Kelley, GloryBee Foods, Deb’s Bee Supply, Ellingson’s Bee Pro, and Bee-Z-Smokers.

With the use of these valuable discount coupons, it is possible to earn dividends from membership that are worth more than the price to join.

In addition, the packet includes a new-member CD with over 12 hours of recording from the January 2010 convention in Orlando. There’s also several articles from Larry Connor on queen rearing, newsletters from the ABF and state associations, booklets on bee culture, and honey recipes from the American Honey Institute. Also included are pdf files of beekeeping brochures from the University of Tennessee by John Skinner and MAAREC publications on bee biology, Africanized honey bees, bee diseases and pests, and much, much more.

During 2010, ABF will be developing a Master Beekeeping Program that will go beyond the educational experience of present programs, thus extending the educational opportunities we provide today. It is the purpose of our members to be the mentor to the industry and the place to go for information resources.

Our website is at: abfnet.org, a great place to start your search for all your needs as a beekeeper today. So, join in and claim your rewards. It only takes a few minutes at the site to secure a bright future for yourself in this wonderful and rewarding industry.

Tim Tucker
Membership Committee
The American Beekeeping Federation
The American Beekeeping Federation (ABF) has teamed up with some of industry’s best suppliers to offer our **new ABF members** savings on first-time orders. There are seven (7) discount coupons available, which will be distributed in your new-member packet once your membership application is received and processed. These outstanding offers include:

- **$15 Off Your First Bee-Z-Smoker**  
  Visit [www.beezsmoker.com](http://www.beezsmoker.com) to learn more.

- **$25 Off First Order Over $250 with Ellingson’s Feed Bee**  
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- **15% Off First Order with GloryBee**  
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Take advantage of these great savings by becoming a member of the ABF today! Along with these new-member discounts, as an ABF member you have exclusive access to the latest industry information, as well as outstanding educational and networking opportunities that will ensure your continued success in the business of beekeeping.

If you have any questions or concerns about these savings, please contact Kari Freeland, ABF membership coordinator, at 404.760.2875 or via e-mail at info@abfnet.org.

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**CLASSIFIED AD**

**Bee Truck for Sale:** 1980 Ford ¾-ton 4x4 flatbed with electric swing boom loader. $1,500 or offer. Contact Oliver Petty at 541.928.7924 or Walt Petty at 541.342.3537.

**Reminder:** For updates on the Managed Pollinator Coordinated Agricultural Project and bee health, visit [www.extension.org](http://www.extension.org).
OH CHRISTMAS TREE

Lynn Royce

It is hot out, a late-summer morning and I am checking honey bee colonies in anticipation of harvesting honey. It is early, but the bees are already flying. I need to get done before the temperature hits 90 degrees.

The Willamette Valley offers some of the most wonderful honey that I have ever tasted. Himalayan blackberry bloom is our mainstay. However, a mix of bloom from forest trees and shrubs can deliver a rich dark honey hard to beat.

After the middle of July when blackberry bloom ends, there are few flowers of any kind left. The bees travel far now in search of nectar and pollen. They will take from sources that we may not think are normal: crushed corn dust or rust spores may be perceived as pollen and aphid honey dew as nectar.

I am checking colonies now to see which ones can give me honey without impacting their supply needed for winter. Our weather this past season has alternated between hot and moderately cold. This has not been conducive for the bees to produce any surplus honey. As I open colonies one at a time and look in their food-storage boxes, some still delight me with beautiful combs of honey. I won’t have a big harvest this year, but some thick, golden liquid will delight my customers.

Suddenly, I stop. As I look at the next colony, there—at the entrance and on the ground in front—are dead and dying bees. The ones not yet dead are trying to get back inside. Most of these bees have their tongues extended, a symptom of pesticide poisoning! My heart sinks. A large loss of bees now means the colony will have a difficult time preparing for winter. They need workers to take care of the queen and bring in pollen. The queens may also be damaged and not be able to produce new bees that can survive until spring. And developing brood exposed to pesticides does not develop properly. Affected colonies may die during the next six or seven months.

I hear the Thud, Thud, Thud of an approaching helicopter. Soon it passes overhead and disappears behind some large Douglas-firs. It is getting too hot to work, and I do a quick check to see how many colonies have dead bees at the entrance. I find only a few more, but I expect this is only the beginning of a larger event.

Finished with my work and discouraged, I start home. I cross the small bridge over Beaver Creek, which runs along Decker Road and across this farm. Beaver Creek runs into Muddy Creek and eventually into the Mary’s River. About a half mile from the bee yard, I look south along Beaver Creek Road and see the dark body of the helicopter. Spray booms are now extended. It hangs just above the trees as the booms begin to emit an expanding fog above the land. To me, it is like an evil symbol of death, its fog spreading towards the creek and rising invisibly in the warm thermals of this summer day.

EPA “NOT SO QUICK!” WITH QUICK STRIP

Harry Vanderpool

NOD Apiary Products, producer of the popular Mite Away II formic acid pad, has developed the Mite Away Quick Strip (MAQS), a proprietary formic acid treatment that is said to be a buffered, regulated, formic flash treatment that not only kills Varroa mites in the phoretic stage but also those within the capped brood cells. This is a new and promising strategy for Varroa control—to produce sterile mites. This is achieved by killing the male mite, the first offspring of the mature female mite. The male is then followed by female mites that must mate with him, their brother (aren’t mites disgusting?!), or they will leave the cell unable to ever reproduce.

Other benefits of MAQS include the ability to treat during a honey flow and never return to remove the material, as the bees take care of that chore. Unfortunately, states cannot and will not approve Section 18 registration for products that have the same active ingredient as another product that targets the same pest. Additionally, with all the available registered and Section 18 products that target mites, the EPA has responded negatively, saying, “There has to be a lack of viable alternatives.” NOD Apiary Products is currently pursuing Section 3, full registration and hopes to have MAQS available in fall 2010.

The OSBA and Oregon Department of Agriculture, Pesticides Division, are in constant contact to support fast tracking of this very promising product. For more information, go to: www.miteaway.com.
Pricing good through July 31st, 2010.
Pricing does not include shipping.

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MEMBERSHIP FORM

Membership in the Oregon State Beekeepers Association is open to anyone with an interest in bees and beekeeping. You do not need to own bees or reside in Oregon to join. Membership includes the ongoing work of the organization on behalf of the honey bee and beekeeping, a vote in OSBA elections, discounts on publications (page 13), and ten issues of The Bee Line. For new memberships and renewals, send check made payable to OSBA with this completed form to:

Herb Brasington, OSBA Co-Secretary/Treasurer, 1881 NE Ashberry Dr, Hillsboro OR 97124

Name: ____________________________________________
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Telephone number: __________________ e-mail address: __________________

The OSBA respects the privacy of members and will not sell any information provided. May we include your name and address in a membership list that will be given to OSBA members only? YES/NO (Please circle one and, if YES, indicate what information is OK to print—for example, name only, name and phone number, all information provided.)

Membership: $20 per person ($29 per person outside the US) $_________
Voluntary contribution: Research Fund $_________
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Amount enclosed: $_________
Please check your mailing label. If the date on the label is near May 2010, your membership is due to end soon. See Membership Form (page 15) to renew.

The Oregon State Beekeepers Association is a nonprofit organization representing and supporting all who have an interest in honey bees and beekeeping.

**President:** Jan Lohman  
77225 Colonel Jordan Rd  
Hermiston OR 97838  
541.567.3209; 541.980.0304 (cell)  
vazzafarms@yahoo.com

**Vice President:** Paul Andersen  
19255 SW Prospect St  
Aloha OR 97007  
503.649.5089; 503.332.5410 (cell)  
vpresident@orsba.org

**Co-Secretary/Treasurer:** Marjorie Ehry  
19500 N Hwy 99W  
Dundee OR 97115  
503.864.2138; 503.434.1894 (cell)  
marjehry@hotmail.com

**Co-Secretary/Treasurer:** Herb Brasington  
1881 NE Ashberry Dr  
Hillsboro OR 97124  
503.648.9118  
treasurer@orsba.org

**Webkeeper:** Herb Brasington  
1881 NE Ashberry Dr  
Hillsboro OR 97124  
503.648.9118  
webmaster@orsba.org

**Editor, The Bee Line:** Rosanna Mattingly  
4207 SE Woodstock Blvd Ste 517  
Portland OR 97206  
503.772.3486  
osba.newsletter@gmail.com

**Website:** www.orsba.org

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