
THE BEE LINE

The Newsletter of the Oregon State Beekeepers Association

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Teaching Children About Honeybees is Fun & Rewarding

By Mary Moss

There is a lot to know about beekeeping. After a few years, most of us feel that we've learned something and are getting comfortable working with the little rascals. That means it's time you start sharing your special knowledge with the community!

Most elementary school classes have a science study unit about honeybees. This usually happens in second or third grade, when youngsters are very curious and open to new experiences. Teachers prefer to reinforce the lessons by having a beekeeper make a presentation to the class. Several newer beekeepers I've talked to say they've either wanted to or been approached about doing this but have no idea how to go about it. So, I'm offering a little help, based on my experiences in the classroom.

The teacher may arrange to combine two or three classes to attend one joint presentation. Other times, you might present to individual classes. The time allotted for your presentation could run anywhere from 20 minutes to one hour. Plan to scale your talk accordingly (more about that later).

Getting Started. If at all possible, buy or borrow a set of bee study prints. Check with your

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OSBA Wins Grant

By Ray Varner

As you may remember from last month's newsletter, the OSBA submitted three grant proposals to the ODA. We were successful in winning one of them: "Increasing Honeybee Pest Awareness and Effective Controls, and Developing a Beekeeper Database." Our grant was fully funded. Harry Vanderpool (Willamette Valley) and Chuck Hunt (Lane County) also won approval on grants for mite research and Russian queen research (congratulations!).

The committee will be on a timeline as outlined in the proposal to implement the grant. We should receive the funds by about April 1.

The grant will fund a series of regional seminars for beekeepers on pest and disease control and prevention. Funds will be used to create a beekeeper's database, promote the seminars, purchase materials for participants, reimburse specialist presenters, and provide the news and media with a synopsis of the seminars along with contact information. The committee will be providing more details via *The BeeLine* and the website as they are worked out, and will provide the same access to Harry and Chuck as well. Exciting!

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Oregon State Beekeepers Association

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President's Message

By Ray Varner

Our son Ric is awaiting a bone marrow transplant. Doctors have indicated that time is of the essence. Everyone is doing all they can but so far no donor match has been found. Please continue to keep us in your thoughts.

There are a number of committees working on projects right now: for the Fall Conference, the ODA Grant, and lobbying to keep the OSU Bee Lab funded. I am seeing a new level of participation and enthusiasm, and I thank each one of you for your time and energies.

The BeeLine is looking different these days. Mary Moss has provided two outstanding articles,

one for March and another in this issue. Mary is a gifted and generous writer and I hope you get to see more of her work. George Hansen provided two articles in this issue alone. His unique brand of humor and insight make for some fine reading.

In spite of personal issues, life goes on and the business of the Oregon State Beekeeper's Association is getting done. But it doesn't get done alone, and for all your help and good wishes, I thank you.

Portland/OSBA Field Day

By Joe Stephens

Field Day 2002, sponsored by the OSBA and put on by the Portland Beekeepers Association, is coming up on **Saturday, April 20th** at Foothills Honey in Colton. Registration is from 8:45-9:15 am, and stations start at 9:30 am. This course is designed to help both those who have bees (and want to learn more) and those who have never kept bees (and want to learn how). Seasoned beekeepers will give hands-on demonstrations and answer questions.

Cost is \$5. There will be bagels, pastries, coffee and pop on hand for those who missed breakfast. There will also be a hive raffle (gift certificate).

Some of the grant committee (myself, Ray Varner, George Hansen and others) will be present and open to your input on implementing the grant.

Directions: I-5 north to Hwy. 213, south to Molalla. Go left on Hwy. 211 towards Colton/Estacada. ½ to one mile before Colton turn right on Oswalt Rd., proceed ½ mile to Foothills Honey on left. We will have signs off 211 and Oswalt for Field Day.

(cont. from page 1)

local beekeeping supply house about availability. There are 12 big color prints in the set I use, and they are incredibly useful!

Next, make a list of all the items you'll need for your presentation. Children learn well from visual and tactile experiences. Try to take all or most of these items for them to see and touch:

- One deep super with an assortment of frames, some with drawn comb, others undrawn.
- One honey super with several frames, as above. Try to include one frame of capped honey.
- One queen excluder.
- One queen cage.
- One each bottom board, inner cover and lid.
- A smoker, with the fuel you use. Do NOT ignite it inside the school, though!
- Your beesuit or "outfit," including hat, veil and gloves.
- Hive tool and bee brush.
- Entrance reducer.
- Frame grip (used for removing heavy frames.)
- Doolittle feeder, Boardman feeder or whatever style feeders you use.

Once you've gotten organized, do a "dry run" to see how long your presentation takes, and adjust things accordingly.

Do not ever take live bees into a school, unless you have a well-secured observation hive! I've found that a small jar containing several dead bees is nearly as enthralling to the youngsters as live bees. If you include a dead bumblebee and other varieties, all the better. Usually, exclamations such as, "Eeeww, gross!," "Wow, cool," and "Poor bees" will be heard as the children circulate this container.

Get there early. School staff are usually very helpful. Arrange in advance to have an A-V cart available upon your arrival; be sure to follow check-in procedures at the school office. The cart is very useful to load up and transport all your paraphernalia back and forth from vehicle to classroom.

Don't be afraid to ask for tables on which to spread your wares, and a large bulletin board or wall space for hanging the study prints. (Bring Scotch tape and pushpins, just in case.) Get "suited up" in private before starting your presentation.

Keeping Their Attention. If you speak easily in front of groups, you can probably wing this without notes. But it never hurts to have some organized text available so important points aren't missed. Jot down a logical outline with a few reminders and keep it handy.

After introducing yourself, say that you "may ask them a couple of questions as you talk, so pay attention!" Add that, afterwards, they will be able to question YOU. I try to allow at least 10 minutes for questions at the end of my talk. However, if you only have 20 minutes total, skip the Q/A and just stick to a show-and-tell presentation.

Special Idea: I've found that distributing individual slips of paper or index cards each bearing a brief phrase about bee "duties" engages the children's interest and reinforces what they're learning. (If you have a computer and printer, this is easy to do. Just set the line spacing so as to leave room for cutting the slips between lines of text. Or, you can print the phrases by hand). I print enough so each child has a slip; the teacher will give you the total class numbers beforehand. (Even if you don't use this idea, the list of phrases provides good prompts for your talk.) I tell the kids to be ready to read aloud their phrase *later* (important word!) when I give the signal.

Here are the phrases:

- Worker bees clean the hive. * Worker bees feed the queen. * Worker bees clean the drones.*
- Worker bees take care of baby bees. * Worker bees clean the queen.*
- Worker bees feed the drones. * Worker bees build wax cells.*
- Worker bees protect the hive. * Worker bees collect pollen. * Worker bees collect nectar.*
- Worker bees pollinate plants for farmers. * Worker bees keep the hive warm or cool.*
- Worker bees dance to show where good flowers grow.*
- Worker bees give messages to other bees. * Worker bees make royal jelly for the queen.*
- Worker bees find new places for the colony to live.*
- Worker bees die if they sting another creature. * Worker bees look for water.*
- Worker bees bring water to the hive. * Drone bees mate with the queen.*

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*Queen bees lay eggs in the hive. * Beekeepers take care of beehives.*

*Beekeepers catch swarms of bees. * Beekeepers harvest honey.*

Beekeepers feed hungry bees.

Show and Tell Time. If you have the study prints, be sure they are mounted on the walls or blackboards behind you for easy reference. Briefly explain what each one depicts, saying that you'll be talking about all of those things now.

On the table, you should have already assembled the hive as it would appear in the apiary. Begin talking about the pieces as you take the hive apart slowly, saying the name of each item as you hold it up. They will be awestruck if you pass out some of the frames for them to touch while you talk (except for the one of capped honey!). Make sure they see that capped honey frame up close, though; it usually astounds them.

While items are circulating, explain how the bees navigate and organize themselves in the hive—entrances, brood in the bottom box, food on top, etc. Show them how the smoker is used to confuse the bees, and why a good beekeeper is careful when opening the hive for inspection, putting in medications, and so on.

The amount of time you're given will determine the content of your presentation. If time allows, you can go into detail about the queen, how honey is collected and harvested, feeding the bees during the winter if needed, and why medications are necessary for the bees. You can talk about swarms, using the study prints for visual help. Remember that they have been studying about all of this stuff; you're there to reinforce the lesson and let them see beekeeping equipment "in person."

Don't forget to mention how it takes one bee its whole life to make 1/12 of a teaspoon of honey. That gives them an idea of the amount of work it takes and how they should appreciate the results! Also, be sure to speak briefly about Africanized bees, because kids worry about "killer bees." It's well worth taking the time to correct the common misinformation and unrealistic fears out there.

After you have given your talk, tell the class that you are ready for their questions. You'll have to emphasize the word "questions"—otherwise (and

even in spite of this!) you'll be subjected to whiny little voices telling you all about the time their Aunt's sister Zelda's dog was stung by a bee at a family picnic . . . To these, kindly but firmly respond, "I'm answering questions now, not hearing stories" and take the next raised hand.

When the Q/A time is up, ask for silence. If using the phrase idea, ask the children if they're ready to read those phrases on the papers/cards, and tell them, "On the count of three, I want everyone to shout out your phrase, nice and loud." They'll oblige you . . .

Then put out the question, "Who does all the work in the hive?" "The Worker Bees!" naturally should dominate the response.

Thank the children for paying attention and asking such good questions. Remind them to tell others not to be afraid of honeybees and to remember how hard those bees work to make that sweet honey.

That's it, you're done. Within a few weeks, you'll probably find a fat manila envelope in the mail, stuffed with cute notes from the kids. They'll tell you what they enjoyed learning, and you can learn from that about what impressed them during your talk.

Now, get out there and spread the word. Who knows, you just might inspire some future beekeepers!

Mary Moss is a beekeeper and freelance writer who lives in Forest Grove. She is a past officer with TVBA and a member of the OSBA.

OSBA Summer Picnic Reminder

Just a reminder that the OSBA will not be hosting its own picnic this summer. Each club has their own picnic and welcomes visitors. If you time it right, you could make a lot of picnics this summer, enjoy a lot of really good food and make new friends (and visit old ones)! See page 10 of *The BeeLine* for contact information for each club. Happy picnicing!

Northwest Beekeeping

By Harry Vanderpool, WVBA

April: Fruit tree bloom is ranging behind about two weeks due to cold weather.

- Check colony stores regularly, particularly after extended warm weather. Add feed to light colonies to maintain 10 to 20 lbs until the nectar flow in your area and elevation.
- Equalize brood and feed between healthy colonies whenever possible.
- Add second brood box to singles. Checkerboard frames of feed upstairs.
- Reversing brood boxes is an extremely important procedure. The decision to reverse must be based on hive conditions. Generally speaking, at this point in the year, reverse when the it will result in the brood nest moving down, and available comb space with an adequate amount of feed moving to the upper brood box.
- During inspections, watch for signs of scale in empty combs or spotty brood that is partially uncapped that would indicate American foulbrood. Ask a senior beekeeper to help you in disease identification if you are unsure.
- Dust the top bars with 3 tablespoons or more of Terramycin and powdered sugar mix often enough to keep a steady supply lasting at least 21 days.
- Quarantine colonies showing signs of Nosema disease if possible. Scrape the top bars of all frames in the hive to remove the debris. Scrape the bottom board also. Make a note to feed Fumidil-B in the fall.
- Queens are available now. Feed your "Beekeeper's Disease" and make as many splits as possible. This will give you a good excuse to buy more equipment next winter!
- It is generally accepted that yearly requeening of colonies is beneficial in many ways. Definitely consider requeening colonies with undesirable traits, poor laying patterns, or if the queen is of an unknown age.
- Clean bottom boards and remove entrance reducers.
- If you are starting package bees on foundation, feed light syrup continuously until the nectar flow increases in your area. Giving them a couple frames of drawn foundation if possible will give them a major boost.

- Check your calendar to remind yourself of the exact day that mite strips are to be removed from your hives. Read the product label and follow the recommended length of time for application.
- Attend your regional Beekeepers Association meeting. We all have something to learn, and a whole lot we can teach.

Bees, Bears and Barcodes

By George Hansen

My experience as a beekeeper in Oregon has been a history of changes. Initially I thought a commercial beekeeper was a honey producer, and the Foothills Honey Company was begun with the thought of producing specialty honey. Adrenaline and adventure drove our bee management. I lost a lot of sleep chasing around putting bees in every imaginable location, and as a side, developing a hobby trying to outsmart bears.

Pollination service has always been a part of my beekeeping activities, but it took years for it to become the main focus of my business. Over the decades, growers have become more aware of their need for bees. Beekeepers have become acutely aware that honey production alone will not support a bee operation in Oregon. The unique climate of the West has drawn a lot of seed, fruit and vegetable production here.

As it turns out, managing bees for pollination is significantly different than for maximum honey production. Instead of working within the natural cycle of colony population growth, almond and tree fruit pollination demand colony count and population that meet the spring bloom. Beekeepers have had to develop expensive and complicated management to deal with stress, disease and counter cyclical stimulation. We are far from finished with those adjustments to our activities.

In addition to the industry wide challenges we all face, each individual beekeeper has health, financial and personal tragedy to deal with. We weave beekeeping into our lives as life goes on. In my case, when our bees collapsed unexpectedly in the spring of 1997, it brought on both a physical and a psychological crisis that spilled over into my whole life. As a part of rebuilding the business, I was forced to rethink even the most basic assumptions in

my management. I reluctantly realized I knew almost nothing about the real condition of my colonies at any one time, and was clueless about the efficacy of our treatments. I could not quantify the long term benefit or harm done from moving bees to this or that crop or location. Records from one year to another were lost, or not retrievable for comparison, and queen success was a gut feeling, since all the hundreds and thousands of hives couldn't be compared simultaneously. I asked a lot of beekeepers about their record keeping, and saw that very few had a system that gave them the information which might have helped me to counter or even to foresee what had happened in my outfit. I have met only a handful of beekeepers who keep consistent records that are retrievable for comparison for a variety of variables.

In response to our calamity, I developed a plan to avoid another train wreck. Firstly, we started taking samples to measure tracheal and varroa mite levels and nosema spore counts before and after every treatment. The results are kept in a computer database to measure efficacy of material and timing. Next, each colony was assigned a unique ID represented by a barcode on the hive front. Queen lots were given a unique ID on a barcode tag also placed on the hive front. Using a scanner to gather the data, a database for each hive has been developed having every location, crop, queen, and other major manipulation by date. Each fall and spring, every colony is graded by colony size, and that grade is attached to the colony ID. The data is downloaded onto a computer, where a database program is used to sort and filter the information.

A spreadsheet program allows computations to be made using the hive colony grades as a measure of success. With five years of data on thousands of colonies, I try to find clues about successful and unsuccessful practices, and to predict outcomes when history tries to repeat itself. Eventually, I hope to be able to place a value on each activity, so that the long term costs can be calculated for management decisions. Certainly, every pollination has a list of hidden costs: travel distance for delivery and maintenance, risk of spray or other delayed damage, quality of nectar and pollen, fit with other pollinations before and after, timeliness of payment, etc. Ultimately, the success or failure of a business will hinge on dealing with these variables.

My approach to record keeping has not been without challenge. Technology is not everybody's cup of tea, and the expense is significant. Disciplined collection of timely data is absolutely essential or the whole effort is a waste. All in all, I strongly believe that any record keeping system that involves large of entries belongs on a computer in order to manipulate the information. The scanners are a quick way to enter data into a computer, without time consuming manual entry.

Beekeeping is an activity as old as recoded history. In many ways, we beekeepers do the same things using the same tools as our predecessors 150 years ago. And yet we all have changed due to personal challenge, and as agriculture in the United States is distressed, beekeepers will adjust to find ways to fit. To what extent electronic technology will be a part of the future for us remains to be seen.

ABF Annual Convention Report

By George Hansen

This year the Federation's Convention was held in Savannah, Georgia. Oliver Petty and I represented the Oregon State Beekeeper's Association during the Delegate's meetings as the bee industry enters into a time of economic turbulence and hardship. Even as the antidumping suit against Argentina, which many of us have supported, is winding down to a positive outcome for the American Honey Producers, imports from other countries are increasing rapidly. Beyond that, the recent news that the European Union has halted all food shipments, including honey, from China because of contaminants (streptomycin) begs a number of questions. What will happen to that honey (and food) if Europe won't take it? Will the US take this food, or will there be a witch hunt looking for whatever in all our food? Within 24 hours of the announcement of contamination, the National Honey Board had released a statement about honey quality control and standards in the US. One hopes the good name of honey in our customer's minds will not be tainted by bad publicity about honey. With the future of the Honey Board in question, I am worried about our future. Some of us take completely for granted the really important work of the Honey Board staff in promoting honey and increasing demand. If we allow the media to have a field day with trace

contaminants in honey, how much of our honey will we be selling next year? The apple industry has never really rebounded completely from the Alar scare. Antidumping suits have their place, but they don't promote a gram of consumption, and they don't tell the consumer what is so special about the honey we want them to buy.

Savannah is a very interesting city. It is half the size of Portland, but about 200 years older. The historical district was literally just out the door of the hotel, and Savannah has done a great deal to rebuild and enjoy its heritage. Having watched "Midnight in the Garden of Good and Evil" just before we left, Susan and I were eager to roam the tree-lined neighborhoods, with wrought iron everywhere and Spanish moss hanging from every twig. Literally every house, statue, pub and cemetery has a long and intriguing story of ghosts, premature burial, grave desecration or moral depravity to go with it, and the guides, taxi drivers, waitresses and hotel clerks were more than willing to fill us in on the details. Here is one quick example, the veracity of which is beyond question: During a yellow fever outbreak that was decimating the population of the city, the quick disposals of bodies resulted in many premature burials of the sick that had fallen into a coma and were assumed to be dead. Upon discovering this gruesome mistake, it became the custom to tie a string to the finger of the corpse, and attach the string to a bell. Supposedly, if the buried revived from a coma, they would move and those above ground would hear the bell ring and know the dig the body back up. Thus the origin of the term "dead ringer."

As with every ABF Convention, there were hours of presentations on the latest work in pest and disease control (Tylosen is very effective against ABF and will be approved soon to treat diseased colonies, but not as a general preventative treatment), and breeding (Russian queens show some promise, but hybrid Russian queens are very unpredictable) (Harbo's Suppressed Mite Reproduction queens continue to have very positive results even as they are released into general breeding programs. They are worth looking for).

Hopefully the Postal Service's desire to get out of the live animal (queen bee) shipping business has been thwarted. And with any luck, through the

hard work of the Federation and its lobbyist, beekeepers will be in the next Farm Bill, and honey producers will be able to put their crop on loan with the Department of Agriculture.

Dr. Ellis' presentation on non-chemical control of varroa should be repeated for us in the Northwest, as I perceive there is a great deal of interest in his work.

As is often the case, the real value of these meetings is in the contact and discussion outside these presentations, and in the friends one makes from all over the country. The expedition to Claxton, Georgia to visit the Wilbanks' Apiaries was a highlight of the whole week. We toured the immaculate facilities, and heard how they produce and ship tens of thousands of packages and queens in a seven-week production period. I am still in disbelief that they have 6,000 hives, every one sitting singly on a brick stand, not one of the hives is every moved. Claxton could easily be the package bee capital of Georgia, but instead it is the "Fruitcake Capital of the World." The bus was so full, Sue and I missed the tour. Drat!!! But I did hear afterward that there are two styles of Georgia fruitcakes: dark and light. The lighter cakes are made from a secret recipe using only the best secret ingredients. The dark ones cost more and the richer flavor is achieved by grinding up all the unsold cakes from the previous year and mixing them into fresh batter and baking them again.

Anyway, after the tour we all went to a good ol' boys hunting lodge for a low country boil. Whole shrimp and local spicy sausages are boiled together with corn on the cob and small whole potatoes. Oliver made a pig of himself, but there really is no polite way to shell and eat boiled shrimp. We ate and ate and had shrimp juice dripping down our elbows. About the time everybody was about the expire, the shout went up that the oysters were ready! Twenty bushels of steamed oysters later we waddled back to the busses, and slept contentedly all the way back to Savannah.

Bee Happy

Sent by Joann Olstrom, Coos County
(reprint of letter to ABF)

“I was browsing through a May 1996 issue of *American Bee Journal* given to me by a beekeepers. In the magazine was a letter of concern about a recipe labeled “vegetarian” since the recipe contained honey, an animal product. Since *vegans* do not consume animal products of any kind, the person who wrote the letter felt the recipe should not have been labeled vegetarian. I too am a vegetarian, though not a vegan and a hobby beekeeper. But there are some additional factors that need to be considered before you make the choice not to use honey.

Ten years ago when I made my first attempts as a beekeeper, the process was easy. Aside from the occasional bacterial infections that affect bee colonies, which are easily treated with antibiotics, or the occasional skunk that made a meal of the bees, there was not a lot of difficulty in maintaining a strong and healthy hive. Today beekeepers worldwide are plagued with two mites, a body mite and a honey bee tracheal mite, both which have virtually disseminated the wild bee population. This loss of wild bees has increased the dependence upon commercial beekeepers to provide bees to crops needing pollination.

So, when a vegan says he or she will not eat honey since it is an animal product, consider this, when eating most fruit you are consuming a product that has had a blossom visited and pollinated by a bee. That, indirectly, makes what you are eating an animal produced product, just as the honey is. Without bees, the quality and quantity of the fruits and vegetables we currently take for granted would be severely affected. Remember that the next time you turn away from a jar of honey because it is an animal product.

Hobbyists alone cannot provide sufficient resources to support commercial fruit and vegetable growers. The commercial beekeeper is an essential part of our agricultural community. We must support them to support our chosen lifestyle.

If you are concerned about their practices, buy from someone you know. Most orchards have their own bees or hives placed there by local beekeepers. Ask what their practices are. Support

those who produce honey as the hobbyist does, with care and ethics that meet your lifestyle. Better yet, become a hobby beekeeper and support your lifestyle decision at the most basic level.” *Colleene Davidson*

Did You Know?????

A little of this, a little of that...

It was the accepted practice in Babylon 4,000 years ago that for a month after the wedding the bride’s father would supply his son-in-law with all the mead he could drink. Mead is a honey beer and because their calendar was lunar based this period was called the honey month. We know it today as the honeymoon. *Thanks, Fred VanNatta*

A swarm of bees in May, Is worth a load of hay
A swarm of bees in June, Is worth a silver spoon
A swarm of bees in July, Is not worth a fly.
Old English proverb