# THE BEE LINE

*The Newsletter of the Oregon State Beekeepers Association*

**Volume 27, Number 2** **March 2002**

## Gaston Orchadist Keeps Busy with Bees and Blossoms

By Mary Moss

One February afternoon with sunshine hinting of Spring to come, this beekeeper/writer decided to pay a call on Herman Obrist. Herman's a member of the Tualatin Valley Beekeepers Association, and has a winning combination going for him. He successfully grows fruit crops, sells all the produce, and keeps his own bees for pollinating the trees and plants. He also does a nice business in honey sales.

Originally from Switzerland, Herman moved to the United States in 1952, settling in Canada for some years. Then he moved to Oregon. The farming effort started about 35 years ago, says Herman, when he planted grapes to see how they would do. His 80-acre hilltop property in Gaston has since become home to over ten acres of various fruit trees, cane berries, and some very thick grapevines that produce rich clusters of delicious fruit.

At first, the grapes were just for his family's consumption, Herman says. "But pretty soon, everybody wanted them, and we started to go to the farmer's markets in Beaverton and other places. We'd sell every last one of them. Since then, we've found that those grapes also make wonderful juice. My wife uses a steam juicer to produce it, which works real good."

After his initial success with the grapes, Herman planted several more varieties of them, and also planted a wide range of apple trees. He says those apples, along with the grapes, are big sellers at the market. One of Herman's favorite apples is a Japanese variety, very similar to a Yellow Delicious. He also grows Rome Beauties, Jonagold, Spitzenberg, McIntosh, Granny Smith, and other types. Herman adds, with well-deserved pride, that all of his products sell well, including prunes, cherries, pears, berries and other fruit. A normal season also produces around 500 gallons of apple cider, which Herman also sells. "Yah, and the figs go real good at the market, too, for about $8.00 a pound," says Herman. "And, of course," he reminds me," I sell honey."

Strolling through the fruit orchards, it's easy to see that working on the steep hillsides is not without hazards. Herman points down a slope planted in cherry trees.

"See that lane there? I was driving along in my four-wheel drive truck, between the trees, putting out fertilizer. The ground was wet, and I'd stop and go, stop and go, doing a little bit at a time. Halfways down there, the truck suddenly just kept right on a-goin', and I ended up on top of the blackberries at the bottom of the hill. It was just like being on a sled!" Herman exclaims. "Then I had to get the bulldozer and pull it out. We continue along the hillside to where Herman has planted quite a few cane berries and blackberries. But they're not just common blackberries. "These are Chesters," Herman explains, fingering a thick blackberry vine. "It's a good variety, very nice fruit."

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Oregon State Beekeepers Association

***The Bee Line*** is the official publication of the Oregon State Beekeepers Association and is published ten times a year. Subscriptions are included with OSBA membership.

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## President's Notes

by Ray Varner

The committees have been busy! The Oregon Department of Agriculture grants were submitted on time and now we wait to hear (see article on page 8). Fred VanNatta has been working on lobbying proposals to help retain Dr. Burgett's position at Oregon State University after he retires (see related story on page 6).

The Section 18 approval for coumaphos was received for another year. We also received a reminder from the Department of Agriculture to be careful about using the strips strictly in accordance with directions. Violators have been found in other states and each violation threatens our Section 18 approval. PLEASE be careful!

On a personal level, our son Ric has fallen out of remission and the cancer has spread to his central nervous system. He had surgery to implant a catheter into his skull so the chemo can be injected directly into his brain. The doctors are using different drugs on him now since he isn't responding to the initial drugs. He's now experiencing the nasty side effects you often hear about, as well as some pretty intense pain. There are about two weeks he has no recollection of because he was so heavily sedated. There is no question now that he will need a bone marrow transplant. No donor has currently been found, but they are looking. The transplant will take place at OHSU, so you can bet we were glad to see the nurse's strike settled! It's going to be a rough spring. Thank you again for your continued prayers and support.

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Growing cane berries is a mix of science and art, according to Herman. He describes how he changes the way he supports the marionberry plants.

"I used to put them all up on wires," he says. "Then, instead of doing that, I let them grow for two or three years and then mow them down. Then we'd start all over again with new growth. But next time, I'm going to set out these posts and do it differently again. Either way, I get lots of berries from these plants," says Herman.

All this experience with fruit vines and trees has taught Herman many things. "See these cherry trees? One thing I can tell you; if I had to do it all over again," he admits, "I'd have left more space between the trees. They're planted too close." Herman shakes his head ruefully. "Live and learn. Next month, I'll be 71. There's always more to learn, and another new thing I've been learning about," he says, "is bees."

Keeping his own bees is a relatively recent endeavor. When Herman first set out the orchards, he rented bees from a nearby beekeeper. Then one day, the beekeeper said, "Say, you know, it really doesn't pay for me to come all the way up here with just two or three hives. I don't want to do it anymore, but listen, I'll sell them to you!"

Herman continues, "So, I bought them from him, and that's how I got started in the bee business. I have about ten colonies now. That guy helped me get along with learning the bee stuff and I'm very thankful to him because he lets me use his honey house, see, which is a big help. I got one of those two-frame handcrank extractors, it's a pain in the butt!" He laughs.

Herman continues in his delightful Swiss-German accent. "Anyhow, without that help, I would have been in bad shape; the work went lots faster. I got about 820 lbs. of honey last year from my hives, and so I go sell it at the market."

In an adjacent swath of land, Herman has planted crimson clover that will help feed the bees later in the season. We stroll past it up the steep hillside to do a quick visual inspection of more beehives.

As he pops a few hive lids and looks inside, Herman is glad to see several bees out in flight. "It's about time to start putting the medicine out," he observes, "I've ordered the Terramycin stuff already. And maybe I'll put out some pollen patties. There's a lot of maple growing over the hill there and they get stuff from that pretty early."

Herman explains how capturing several swarms on the property increased his apiary substantially. He also notes that joining the TVBA has helped him in the learning curve that's part of becoming a beekeeper. "I've learned a lot from those folks." Herman grins.

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We step over to some hives. "Yah, these bees made a lot of honey for me last year!" Herman exclaims. "They're good hives. See, these guys are out, too." He points to another hive some distance away in the middle of a field; it's showing activity and looking healthy.

However, another hive is not doing so well. Herman puzzles over the quantity of dead bees inside, but is gratified to see that some are still alive. He decides to come back a bit later do some inspection and cleanup.

The road has taken us up into Herman's timber stands, or rather, what's left of them since much of it has been logged off. We step carefully among tiny, newly-planted fir seedlings that will create a new generation of timber. The view from the top of the Obrist property is stunning, encompassing the Coast Range and other geographical landmarks.

Herman's wife used to work with him on the land. Now, unfortunately, she is an invalid and can only get around on crutches. "Yah, she can't get around much anymore," he says regretfully. Clearly, he misses her companionship as he performs the tasks of orchardist and beekeeper.

However, nothing's going to stop Herman from doing what he does best: taking the fruits of Nature and bringing them to the tables of Oregonians. He seems to have the situation well in hand.

*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.*

# Donald E. Ames 1938-2002

A memorial service was held February 11 for Donald Earl Ames of Elmira, who died Feb. 6 of liver failure. He was 68. Don was born at home, one of twins, on March 3, 1938, in Moorcroft, Wyoming, to William and Hazel Huckins Ames. He had two brothers and nine sisters, and lived on a big ranch.

He married Diane in 1959 and had Patricia, Don Jr. and Teresa. They divorced in 1963 and the following year he moved to Oregon on his way to Alaska. He worked many jobs, each of them short lived. In 1965 his father died and he later lost Teresa.

He answered an ad for a beekeeper. At first it wasn't a pleasant experience, but he set his jaw and was determined to perservere. No small insect was going to beat him. He had been bitten by the beekeeping bug.

He met and married Dee in 1966, and they had Billy and Mick. In 1970 Dee was killed in a car accident. In 1971 he was in a near fatal wreck and lost half of his liver. Four months later he was out of the hospital weighing 134 lbs. After some time he went back to beekeeping. In 1975 he married Florence and got an instant daughter, Sally. They went on to have Laura and Lillian.

In early 1983 Don and Florence purchased the bee business from Herman and Shirley Larsen. Don had worked for them for 17 years. Don worked at palletizing the bees and streamlining the work. The new warehouse went up in 1987.

Don was devastated by the loss of Bill in a boating accident in 1993. In the last two years Don suffered from falls that took their toll. He started water therapy and discovered he loved being in the water.

Don loved his children and their families. He loved the Lord. He loved keeping bees and the challenge of running a business. He had such a full life, and he was blessed with many friends and a large family. He will be missed.

*Material contributed by Ken Ograin of Elmira and Joanne Olstrom on Florence.*

# Northwest Beekeeping

**March**: Fruit tree bloom starts mid-March through April, although this can vary about two weeks.

- Swarming season starts; be observant on each inspection. Queen cell construction on the frame bottom can be seen from congested brood area, hive confinement, low quality stores, predators or queen over a year old. Remove each queen cell found on the bottom of the frames. Queen cells in the brood area (sides of frames) indicate a failing queen. Requeen.
- Dust your colonies three times at seven day intervals with a two tablespoon portion of Terramycin (TM25) mixed with eight parts of powdered sugar. Sprinkle on top of the brood frames, towards the end bars, being sure not to douse the brood.
- Don't let colony stores get below 15 lbs. (3 full frames on honey). Feed light colonies sugar syrup (1 or 1 ½:1 ratio) or diluted (2:1) honey (if no American Foulbrood in honey).
- To equalize stores between the colonies, rob combs of honey from colonies with excessive stores. (Put the empty replacement frames back in the strong colony next to the brood nest, to expand egg laying). When equalizing brood, do not remove over 20% of the sealed brood per colony. Give special attention to the feeding needs of colonies that donated brood and stores.
- A strong colony can also be placed over a weak colony by placing a sheet of newspaper and a double excluder between

them. Use a separate entrance for each hive.
- Unite queenless colonies with those needing bees, unless there are laying workers. If so, smoke well and shake all bees from frames and supers onto the ground 50''away. Leave their hive space empty and most will unite with adjacent colonies.
- Remove mouse guard screens.
- Look for colonies with nosema/dysentery (fecal matter streaked on the hive). Treat with Fumidil B according to label instructions.
- Clean existing bottom boards.
- Place hives on stands about 12-18" above the ground where skunks are a problem.
- Check stored frames for wax moth infestation.

# OSBA Secretary/Treasurer Looking for Trainee

Phyllis Shoemake is looking for a trainee. Phyllis has been the OSBA Secretary/Treasurer for many years now and is looking forward to freeing up some time for travels and adventures. To make the transition easier, she is looking for someone to train so she can pass on her valuable expertise.

Here's a brief description of what Phyllis does, and she makes it look so easy! Don't be scared off – some items only need to be done once a year.

Maintain membership list
Keep BeeLine editor updated on membership
Deposit and account for all income
Prepare annual Financial Summary
Send premium checks and letters to 4-H members who win ribbons at Fairs
Pay periodical subscriptions for members
Handle correspondence
Take Meeting Minutes

Phyllis would be happy to talk to you if you are interested or have questions. Give her a call at 503-364-8401.

# Letter from Dr. Royce

After a frustrating summer and discussion with Dr. Burgett, I write the following letter to the OSBA:

"It is with regret that I write this letter. I have a full-time job in Extension Entomology and while I can do some honeybee related extension this does not include research. I have tried to do research on bees and become frustrated because I do not have the time and resources it takes, thus the results are less than satisfactory. I am happy to help the industry where I can, but it must be scaled down from my past involvement. When Dr. Burgett retires in the next few months, I cannot step in and replace him. The system will not allow that. It would be great to have a replacement for him that I could collaborate with, but that will take a lot of pressure from people in Oregon (you). Both the University and the State are looking at budget deficits and this will make your task more difficult. It saddens me to see this position disappear because it is badly needed. I will keep in touch and try to help where I can."

*Editor's note: There is a committee working on trying to maintain Dr. Burgett's position. If you are interested in helping contact Fred VanNatta at 503-585-8254 or fred@vannattapr.com. This is URGENT and your input is appreciated.*

# OSBA Submits Three Grant Proposals to ODA

By Ray Varner

George Hansen alerted me last Fall about a meeting scheduled in Corvallis about Federal grant funds Oregon had received for funding specialty crop programs in Oregon. The Department of Agriculture was holding the meeting to give interested parties information on how the process of determining "who gets what" was going to work. The groups represented at the meeting ranged from deep-pocket big guys like the Oregon Association of Nurserymen to no-pocket little guys like the Oregon State Beekeepers Association (me).

Oregon received $3.2 million to be made available to specialty crop industries, with emphasis on ***those experiencing economic stress***. ODA's goal was "to fund as many high priority projects as possible with the available funding in a manner that is equitable and meaningful." The grant application was very specific about what could be funded and what could not, was very detailed and more than a little intimidating. The timeline was tight, and of course over the holidays.

I asked for help at the Conference, and a committee formed soon after. We were very fortunate to have members with experience in grant writing. We had numerous meetings, sent faxes and emails and talked by phone about ideas and how to flesh them out. We finally wrote three grant proposals: "Increasing Honeybee Pest Awareness and Effective Controls, and Developing a Beekeeper Database," "Educating for Awareness, Appreciation and Understanding," and "Promoting Honeybees and Their Products and Educating Beekeepers." I understand that some local associations (Willamette Valley and Lane County) also submitted proposals.

We met the deadline of January 31st. The ODA received over 260 applications totaling $31 million (more than ten times the amount of available funds!). Announcement of selected projects will not be made until sometime after March 1st. A summary of all the proposals are on the ODA web site at oda.state.or.us/dbs/crop_grants/hitlist.lasso. Keep your fingers crossed!

# Lane County Announces Annual Bee School

The Lane County Beekeepers will hold their annual Bee School on Saturday, March 23 from 8 am to 5 pm. It will be held at the Irving Grange, 1011 Irvington Drive in Eugene. The class will cost $30 at the door per individual and $40 for a family.

The course will include a complete introduction to beekeeping in Oregon. Segments will include such topics as Biology of the Honeybee, Equipment needed and use, Disease and Medication, Spring and Fall Hive Management of Honeybees, and Harvesting the Products of the Hive. 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. All individuals and families are welcome.

If you preregister you can save $5. For information on the class and registration contact Chuck or Katherine Hunt at 541-607-1016 or email at cwhunt@oregon.uoregon.edu.

# Breeding for Traits and Effects of Natural Mating

By Gary S. Reuter

*(a summary of the presentation made at the Northwest Corner Fall Conference)*

Natural mating has a few points one must keep in mind when discussing the effects of natural mating on a breeding program. First mating takes place in flight and second with multiple drones. The beekeeper has little if any control over this mating. I will discuss the effect this natural mating can have on the performance of the colony and the breeding efforts from this colony.

The queen is diploid which means she has two genes at each loci (location on the chromosome). If these two genes are the same it is said to be homozygous. If they are different it is called heterozygous. A drone is haploid which means it has only one chromosome, thus a single gene at each loci.

To make this talk fit in the alloted time we will discuss only a single trait that is controlled by a single gene. This is probably a fictitious trait sicne most traits we look for are controlled by multiple genes.

Genes can be either dominant or recessive. If the gene is dominant then even if the location is heterozygous the trait will be expressed. For example, if you have a gene for brown eyes and a gene for blue eyes, your eyes will be brown because that is a dominant gene. In order to get blue eyes you must be homozygous for that trait.

Looking at different combinations of mating the following facts were determined. If the trait was dominate, the queen was heterozygote and 10% of the drones carried the trait, then 55% of the daughters would carry and exhibit the trait and only half the drones would carry the trait. If the trait was recessive, the queen was heterozygote and 10% of the drones carried the trait then 55% of the daughters would carry but only 5% would exhibit the trait and only half of the drones would carry the trait. If the trait was recessive, the queen was homozygote and 10% of the drones carried the trait then all of the daughters would carry the trait but only 10% would exhibit the trait and all of the drones would carry the trait.

Let's look at a queen producing scenario where you buy a breeder queen that is homozygous for a trait, raise daughter queens and open mate with a drone pool in which 10% of the drones carry the trait. Will 10% of the colonies exhibit the trait? Only 10% of the daughters will exhibit the trait. Will the colony show the trait i.e. hygienic behavior if only 10% of the workers exhibit the trait? A trait like hygienic behavior may not show on a colony level with only 10% of the workers exhibiting the trait. A trait like defensive behavior may show on a colony level if only 10% of the workers exhibit the trait. All of the drones will carry the trait.

In the second year we will get another breeder queen homozygous for the trait, raise queens and open mate. This year all of our drones should carry the trait since they are sons of the queens from last year. In this case 100% of the colonies will show the trait.

The problem of course is that all of the queens from last year may not be heading the colonies this spring. The colonies may have requeened themselves for all of the reasons you already know. If this happens there is a 90% chance the new queen in heterozygous for the trait and half of her drones are not going to carry the trait. There is also the problem of your queens mating with drones from neighboring colonies that may not carry the trait.

With average luck one may have 50% of the drones carrying the trait the second year, which means that half of the offspring will exhibit the trait. Again all of the drones will carry the trait. This sounds discouraging at first but in reality it is encouraging. In just two years we have 50% of the daughters with the traits and all of the drones.

If you continue the selection pressure each year and requeen the colonies you will make big improvements each year. Note in the third year even if some of the colonies requeen themselves we now have a 50% chance that the new queen will be homozygous for the trait. Therefore, even the colonies requeening

themselves has a lessening negative effect on our breeding efforts.

Even if you are up to 90% of the colonies exhibiting the trait, if you stop the selection pressure you will very quickly lose the trait. Probably in about two generations.

Remember in this example I have simplified this considerably. There are other complications in a full breeding program. Trait may involve multiple loci. Some traits may be linked which means you cannot have one without the other.

Be careful about assay errors. This means be sure that what you are measuring really points to the trait you are looking for. Maybe you have a colony that puts away a lot of surplus honey and you breed from them. After a few generations the honey production drops. Then you find you were breeding for robbing behavior and now there are no colonies left that will go to flowers for nectar.

Currently almost all of the breeding is being done by the queen producers. I propose there should be a honey bee breeder that identifies criteria, selects from colonies for the traits, provides breeder queens and provides drone stock. The queen producer would produce queens, stock mating nucs, provide drone colonies and cage and ship queens. It is time we started taking our stock seriously and some day we can have a Westminster bee hive club.

# Postal Problems Loom; Congressional Contacts Needed

From the American Beekeeping Federation

There was a lot of discussion in Savannah on the problems associated with mailing of queens and package bees. Breeders cannot reliably send queens via airmail due to the Postal Service's change to using FedEx airplanes for airmail and due to the prohibition of parcels weighing more than one pound on commercial passenger planes. Some postal regions are invoking a USPS regulation and refusing to take package bees mailed beyond the 4th postal zone (about 600 miles.

Shippers need to keep in contact with your main post office for latest information. Receivers of queens and packages should stay in contact with shippers to keep up with the changing situation. Everyone concerned should contact their Congressmen immediately. The solution will likely be having sufficient political pressure applied. Following is a form letter. For help in locating contact information, call your library or newspaper. Dial the Congressional switchboard at 202-224-3121 for any Congressman or Senator.

FAX to Congress, State Representatives and Governors:

Dear Honorable _____: I am a beekeeper in (city/county/state). The beekeeping industry may seem obscure but in reality is of great significance to the livelihood of most everyone. My business has (number) beehives that pollinate gardens, seed crops and fruit trees. The pollination service we provide helps increase US crop production by **$15 billion** a year. This represents a significant amount of food for the public. Honey bees also pollinate native plants and are valuable in maintaining animal habitat and avoiding soil erosion.

Each hive has one queen and several thousand worker bees. The queen lives only one or two years, and then a new queen and package of bees are purchased from a queen breeder. This vital replacement is necessary to

keep hives alive and productive. Historically, the US Post Office has provided reliable, efficient and affordable transportation of live queens and package bees. This service by the USPS is vital to our relatively small industry which supports so much of US agriculture.

In July 2001 the USPS began partnership with Federal Express to transport airmail. FedEx does not accept or transport live queen bees, which is causing problems. Only four or five commercial airlines accept or transport live shipments. If a shipment is sent to a destination in which one of these airlines is not available, the shipment is returned. This takes too long and the queen shipments can be damaged or die.

The USPS has been a great service to the beekeeping industry for many years. If it does not provide these services this spring, my business will be crippled, and I will not be able to provide pollination services to farmers in my area.

To me the solution seems obvious: the USPS should require FedEx to accept and transport queen bees and package bees along with all other parcels the USPS considers "mailable."

The beekeeping industry is willing to help FedEx understand our shipping practices, which are proven to be safe to the shipper and healthy for the bees. I ask that you work to have this limitation removed as quickly as possible.

Best regards, (your name) and (your beekeeping group or association membership, if any and your contact information).