# THE BEE LINE

The Newsletter of the Oregon State Beekeepers Association

#### Volume 27, Number 4

## **Is Outfitting a Honey House on Your "Honey, Do" List?** By Mary Moss

Has your apiary grown and your honey production increased to the point where you're ready to sell honey commercially? If so, then you're probably looking at the prospect of putting together a honey house. Some beekeepers may just want a small "honey room;" others may go all out and construct an entire building divided up for the various stages of processing honey and honeybee byproducts.

Why go to all of that trouble, you ask? Why not just set aside a corner of the garage and have at it? The answer is: anytime you engage in the process of handling and processing an edible item for human consumption and sell it to other people, certain sanitary regulations must be met. Your honey house will have to pass inspection by the Food Safety Division of the Oregon Department of Agriculture in order to be certified. If you aren't certified, you shouldn't be selling honey commercially. There are many real and potential consequences awaiting those who ignore this policy.

If you have just a few hives and process honey solely for yourself and friends, that's a different matter. But, if you're going to extract, bottle and process your honey for commercial sale, be sure you know what's required before you start that honey house project. In preparing this article, I nosed around the honey houses of several Oregon beekeepers and asked them what was most important to them. Did they have any "I wish I had's"? We can always learn from other people's mistakes. Bear in mind that some of their honey rooms were built prior to current regulations and common practices, so what is standard practice now may not have been so 20 years ago. In those cases, the exception of certain current requirements may be "grandfathered" into the certification process for a particular honey house.

Here's what some veteran honey producers had to say (and they all requested, anonymity, which I will honor here):

"If I had it to do over again, I would definitely construct a separate warming room."

"I would have put in a floor drain."

"Keeping family pets completely out of the area at all times is essential! Don't let 'em anywhere near the place, not even in the next room."

"Make sure all wood surfaces are painted with a good, oil-based washable paint." (cont. on page 3)

#### WHAT'S INSIDE:

- Swarms and Swarm Calls
- Hive Registration Form
- Blueberry Pollination Needs

#### May 2002

# <u>The Bee Line</u>

## Oregon State Beekeepers Association

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## **President's Message** By Ray Varner

As I write this our son Ric is desperately ill; he is in the hospital and his only chance now is a bone marrow donor, which we don't seem to be able to find. Diane and I are being tested, and other friends and family members have offered as well. We were able to locate Ric's half-sister following a newspaper story. She was very willing to be tested but unfortunately was not a match. At least they are now in touch and that gives Ric some comfort. This is a terrible illness as I am sure many of you know already.

This issue of the newsletter may be a little late in getting out as we have been spending many days (and nights) at the hospital. The staff has been wonderful but many hands are needed and some comfort can only come from Mom and Dad. This is a busy time of year for beekeepers and we are trying our best to keep our commitment to our readers. Thanks to Mary Moss for bringing such wonderful stories to light!

Please continue to hold our family in your prayers and thoughts.

#### (cont. from page 1)

"Don't remove (from hives) more honey supers than you can process in a day, especially if you don't have a warming room. Otherwise, you've got to use some moderate heat-generating mechanism to keep the honey from cooling down and becoming hard to extract. After frames sit overnight in a cool room, they are more difficult to deal with."

"I would have followed beekeeping catalogue honey house design suggestions for efficiency."

This last comment makes a good point. Take a look at some of your catalogues for examples of honey rooms. Bear in mind that you have several tasks (and options) to consider in processing and bottling honey, as well as dealing with the leftover wax, including warming frames, uncapping, extracting, filtering, bottling, labeling, wax melting and salvage.

What do the experts say? Well, the Oregon Department of Agriculture has a <u>lot</u> of information. We'll squeeze as much of it in here as we can; however, space constraints make it impossible to include everything. Text in *italics* is official information lifted from State regulations. Nonitalicized material is advisory or repeats common information available elsewhere.

## Sanitary Guidelines in Honey Houses

## Equipment Design/Material

--Equipment material shall be a hard surface non-lead type of finish that will not permit reaction of the acid in honey. Exposed galvanized, aluminum, or iron allows honey to readily pick up lead, zinc or steel ions.

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--Steel or galvanized equipment may be protected with tinning or baked-on lacquer.

--All storage tanks and extractors shall be equipped with suitable covers and kept closed when possible.

#### **Operations**

--Use only approved chemicals for bee removal from supers, being extremely careful that chemical does not contact honey. Adequate ventilation of frames is required prior to uncapping.

--Use only food grade grease on extracting and processing equipment.

--Strain honey through screen or baffling prior to pumping.

--Avoid contamination of honey during uncapping operation with paint chips from supers, foreign material, brood or larvae, and insects or mice.

An entire section of the guidelines is devoted to specifications regarding containers, as well as labeling requirements.

Those who are in the process of planning or constructing a honey house or room need to file a copy of the plans with the State of Oregon. Here is some of the verbiage related to that:

#### **Plan Review Requirement**

OAR-603-25-030 requires that a copy of construction plans and specifications be submitted prior to undertaking construction of a new retail food establishment, and as a condition of obtaining a license to operate; and prior to remodeling an existing establishment to expand or add food processing or food service facilities. This requirement is in addition to the local building and plumbing permits.

The plans, along with a statement of an expected completion date, shall be submitted to the department for review and comment as to sanitation and food maintenance.

In addition a pre-operational inspection is required to determine compliance with the reviewed plans, specifications and rule requirements. Please contact your area Food Safety Specialist at least five business days before you are ready for this inspection.

The Oregon Administrative Rules cite various restrictions and musts that need to be in compliance when constructing a honey room. They include these excerpts:

--Floors in a food establishment shall be easily cleanable, smooth, and of tight construction. All floors shall be of non-absorbent materials. When subject to flood-type cleaning, floors shall be sloped to drain with drains in compliance with the Oregon Plumbing Code. (This is a particularly crucial point; be sure you understand exactly what is required.) Joints at the wall-floor junctions shall be coved and tight.

--The surface of walls and ceilings in all display, storage and processing/preparation rooms in a food establishment shall be in good repair, of a light color, smooth and easily cleanable.

--Opening to the outside shall be effectively protected against the entry of rodents. Outside openings shall be protected against the entry of insects by tight-fitting, self-closing doors; closed windows, screening; controlled air currents; or other means. Screen doors shall be self-closing, and screens for windows and other openings to the outside shall be tight-fitting and free of breaks. Screening material shall not be less than 16 mesh to the inch.

--Permanently fixed artificial light sources shall be installed to provide at least 20-foot candles (215 lux) of light on all food preparation surfaces and at ware-washing work levels.

--Light bulbs, fixtures, skylights or other glass fixtures suspended over exposed foods, and those over equipment cleaning or storage facilities, shall be shielded, coated or otherwise shatter resistant.

--All equipment must be installed as to be moveable or designed to be cleaned in place (CIP). Storage shelves must also be smooth, impervious, easily cleanable, and six inches off the floor. Unfinished wood is not acceptable. --Dishwashing facilities must be comprised of a commercial dishwasher or a 3-compartment sink large enough to totally immerse most equipment and utensils. A 2-compartment sink may be substituted in other than food service areas if an approved combination detergent/sanitizer is used.

Adequate drainboards, racks or utensil tables shall be provided for storage and handling of soiled utensils prior to cleaning and for cleaned utensils following sanitizing. This includes adequate racks or tables for air drying of sanitized utensils and equipment.

--A separate storage area is required for mops, brooms and cleaning supply storage. Installation of a mop sink or utility sink is required.

--Handwashing facilities provided with properly plumbed hot and cold running water, soap, and single-service towel dispensers are required in each separate food preparation and packaging area and in restrooms.

Finally, in preparing for outfitting your honey house/room, you'll need to consider such variables as manual or automatic uncapping equipment, hand-operated or machine-driven extraction, holding tanks for various honey varieties if you harvest more than one flavor of honey, fancy jars or simple ones, automated bottling versus oneat-a-time hand bottling, etc. Other considerations come into play if you produce honeycomb for sale. The sky's the limit; it all depends on how much time and money you want to expend. Just remember that whatever you do, no matter how fancy it is, you might not pass inspection if you don't follow the official rules and guidelines.

So, don't go through all that effort for nothing! Obtain a copy of all of the pertinent information you'll need. The telephone number of the Oregon Department of Agriculture/Food Safety Division is (503) 986-4720. Call them if you have questions, need a copy of the information, and/or when you need to send in your honey room plans. They will direct you appropriately.

Good luck with your honey house!

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.

## Did You Know?????

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

In Scotland a new game was invented. It was entitled Gentlemen Only Ladies Forbidden...and thus the word GOLF entered the English language. *Thanks to Fred VanNatta* 

# **Northwest Beekeeping**

By Harry Vanderpool, WVBA

- Don't let colony stores get below two or three full frames of honey. Depending on your location, elevation, and the weather, you can still have periods of dearth.
- Supply water in apiaries and out yards. Small wading pools for toddlers made out of hard plastic make a cheap water supply. Dump a bucket of water in and toss some rocks or boards for the bees to land on.
- Inspect colonies at least every other week. Replace as many crummy frames as you can muster up replacements for. Toss them in the burn barrel and light a match before you change your mind. Don't be cheap!
- Keep an eye out for American foulbrood. If you do not know what foulbrood looks like, your favorite bee-supply has a book available with excellent pictures for about 5 bucks. (Honey Bee Diseases & Pests, C.A.P.A)
- Check your calendar and get your varroa mite strips out in accordance with the manufactures instructions.
- Place honey supers on your hives only after the varroa strips are out, and after the prescribed rest period if you use coumophos. Read the label.
- Stay a step ahead of the swarming tendency with thoughtful timing of your annual requeening program and making your splits and nucs. Supering ahead for honey, and increasing ventilation through the hive seems to help also.
- Set out some extra hives with empty frames for swarm-decoys. Do this in order to catch swarms

from those *other* beekeepers that have swarms issue from time to time.

- Make this year a year to remember. This is the time of the year to try all of those cool procedures that you always have wanted to attempt. Whether it's raising queens, Demereeing a colony, starting a 2-queen colony or whatever; roll up your sleeves and get started.
- Don't miss your regional beekeepers association meeting. You are truly missed when you do not attend.

# **Recognizing Blueberry Pollination Needs**

(reprinted from December 2001 Fruit Grower)

At least 80% of flowers must set fruit to achieve a commercial crop of highbush blueberries. Insects, especially bees, are required for pollen transfer. To ensure pollination, growers commonly rent pollinators in the form of colonies of honeybees during bloom. The pollination requirements of highbush blueberries are quite variable. Large, early-maturing fruit have been associated with crosspollination in several studies; however, good production can result from self-pollination. Even though it is not a recommended practice, many commercial plantings consist of solid blocks of single varieties. This practice will probably continue unless cross-pollination can be shown to be of significant economic advantage to commercial growers.

Poor production is often attributed to poor pollination in blueberries. If poor pollination results from inadequate pollinator abundance, little pollen is transferred and few seeds are produced. Pollen quantity and quality and seed formation vary among varieties, and poor pollen germination and seed development due to incompatability problems occur. High seed number has been correlated with larger fruit size in highbush blueberry.

In one study in New York the effects of pollination treatments on fruit set and berry characteristics were examined on three highbush blueberry varieties. For all three varieties studied, berries were generally smallest, latest maturing and had the fewest seeds when pollination was prevented and were largest with the most seeds are earliest maturing with open visitation. For berry characteristics such as increased size and seed number, cross-pollination was of benefit for Patriot and possibly Northland, but not Bluecrop. Northland berries almost always had seeds, while Patriot showed high levels and Bluecrop showed low levels of parthenocarpy.

Honeybees prefer certain varieties over others due to differences in blossom shape and nectar production. In the above study fewer bees were seen foraging on Patriot than on Northland or Bluecrop. Breeders should possibly consider pollinator preference as one aspect of highbush blueberry variety evaluation.

Differences between varieties in their pollination requirements are well known and can reflect their parentage. For example, of two southern highbush varieties studies, only Sharpblue benefited from cross-pollination. Gulfcoast, which did equally well with either self- or crosspollination, has a higher proportion of selfcompatible highbush blueberry germplasm than Sharpblue. Northland was developed through interspecific hybridization of lowbush and highbush blueberries. Lowbush blueberries are generally selfincompatible, as are rabbiteye blueberries. Therefore, cross-pollination may be beneficial in this variety and other with lowbush or rabbiteye in their background. To achieve maximum production, highbush blueberry growers should plant at least two varieties in their fields unless there is evidence that shows cross-pollination to be of no advantage.

Pollinator movement and behavior greatly affects pollen transfer. Planting designs and variety characteristics as they relate to pollinators need to be assessed properly to determine if cross-pollination will be achieved in the field. Current recommendations, which maximize the ease of management, are to plant two or more varieties having similar bloom periods in alternating pairs of rows. This may not be the best scheme for maximizing cross-pollination because bees tend to move down rows rather than across lanes. Designs which combine two or more varieties in a single row are more likely to result in cross-pollination and should be explored where practical.

## **Honeybee Swarms**

By Joann Olstrom

(written as a public service announcement for a local radio station)

Swarming is the bee's natural method of propagating. The old queen and maybe one-half the hive's population leave in April, May or June and hang in a bush or even on a fireplug. Scout bees look for a new home in a hive a hollow tree. A new queen bee hatches from a special cell in the old hive. Call your local beekeeper if you see a swarm. Most beekeepers love to catch swarms of honey bees.

Editor's note: This would also be useful as an informational note in a local newspaper, given to the local Master Gardener's OSU Extension Service for use when clients call in about swarms, or any other public contact when you want a brief explanation. The Swarm Call form on page 8 can be copied and given to Master Gardeners, Police and Fire Departments, schools, etc.