



SO*BA Bee Buzz

June 2014

Southern Oregon Beekeepers Association

Next Meeting: Monday July 7 at 7:30 PM (demonstration hive inspection at 6:30) at Southern Oregon Research and Extension Center, 569 Hanley Rd., Central Point. OR ([map](#))

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Basics of Pollination

by Dewey M. Caron

The middle week of June is set aside for special recognition of pollinators. Governor Kitzhaber has proclaimed the middle week of June 16th to 21st as Oregon Pollinator Week. Several events are planned to recognize honey bees including a queen rearing course in Canby I am offering. Check out www.Pollinator.org for other events during pollinator week.

Beekeepers know honey bees as our greatest insect ally. Most of us keep bees for honey and hive products such as beeswax, propolis and pollen, all distinctive and unique. Probably the most critical biological role of honey bees however is their pollination of plants. Planned pollination, usually with honey bee colonies, and natural pollination, from honey bees and native pollinators, has an estimated contribution of \$20 to over \$40 billion annually to US Agriculture.

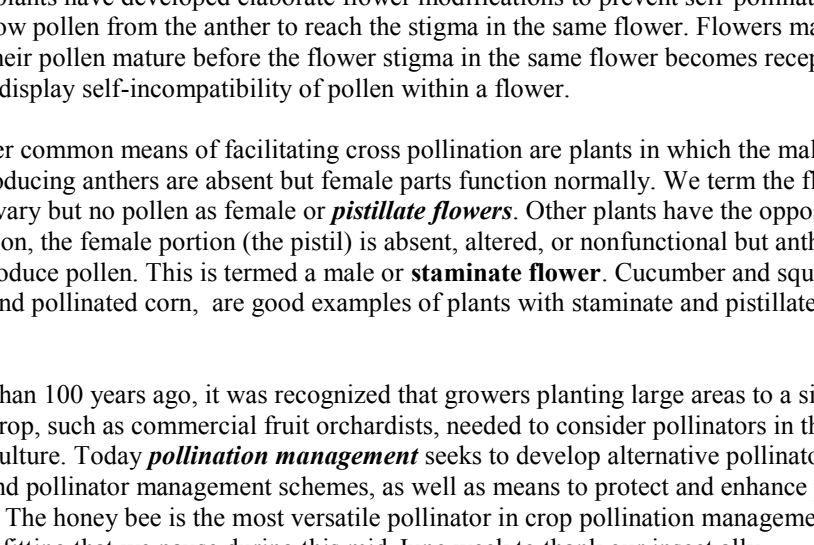
There are about 250,000 species of flowering plants on earth. For each, sexual reproduction requires that compatible pollen from the flower anther to a receptive stigma. This process is **pollination**, a keystone biological process. Pollination is the necessary first step in the process of **plant reproduction**.

When compatible pollen adheres to a receptive stigma in the same plant species, it may germinate and produce a pollen tube that grows through the centrally located style to the ovary of the flower. Each pollen grain is a male plant, with one-half the genes, a haploid gametophyte (reproductive plant). If conditions are optimal, the nucleus of the pollen grain when it reaches the ovule (plant egg), unites with the ovule, the female gametophyte, thus achieving **fertilization**.

Some flowers can be **self-pollinated**. This occurs when the pollen grain of the flower pollinates the same flower or other flowers of the same individual, i.e. plants of essentially identical genetic material.

Cross-pollinated flowers (out-crossing), occurs when pollen is transferred from one flower to another. Cross-pollination is associated with plant vigor and survival of the species as it results in a potentially greater mixing of genetic material. Diversity in genetic material enables plants (and bees too) to survive changing environmental conditions, such as we are experiencing now with climate change

Many flowering plants have evolved various means to promote cross-pollination – this is where our bees come in. The figure illustrates self-pollination (left flower) and cross-pollination, with a bee moving the pollen grain from one flower where it can be accidentally deposited on the flower stigma of a compatible flower as she forages for floral resources.



Cross-pollinated plants rely on an animal pollinator, i.e. biotic pollination, or on physical forces, such as wind or water (i.e. abiotic pollination), to move the pollen from one flower to another. The terms "pollinator" and "pollinizer" are often confused: a **pollinator** (or pollen vector) is the organism that moves the pollen, whether it be bees, flies, bats, moths, or birds; most pollinators (although not all) are animals that can fly. A **pollinizer** on the other hand is the plant that serves as the pollen source for other plants.

Some plants have developed elaborate flower modifications to prevent self-pollination i.e. not allow pollen from the anther to reach the stigma in the same flower. Flowers may have their pollen mature before the flower stigma in the same flower becomes receptive; others display self-incompatibility of pollen within a flower.

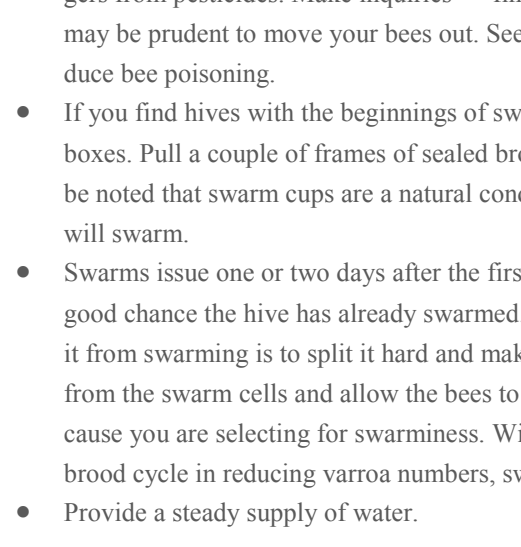
Another common means of facilitating cross pollination are plants in which the male pollen-producing anthers are absent but female parts function normally. We term the flower with ovary but no pollen as female or **pistillate flowers**. Other plants have the opposite condition, the female portion (the pistil) is absent, altered, or nonfunctional but anthers still produce pollen. This is termed a male or **staminate flower**. Cucumber and squash, and wind pollinated corn, are good examples of plants with staminate and pistillate flowers.

More than 100 years ago, it was recognized that growers planting large areas to a single plant crop, such as commercial fruit orchardists, needed to consider pollinators in their plant culture. Today **pollination management** seeks to develop alternative pollinators, crop and pollinator management schemes, as well as means to protect and enhance pollinators. The honey bee is the most versatile pollinator in crop pollination management. It is thus fitting that we pause during this mid-June week to thank our insect ally.

Dr. Caron taught at the University of Delaware for 40+ years with teaching, extension and research with honey bees (and entomology and wildlife conservation) and now holds an Affiliate position (volunteer) with Horticulture Dept (the bee unit specifically) at Oregon State University. He is active in Eastern and Western Apiculture societies and national bee groups. He is the Vice President of the Oregon State Beekeepers' Association and served as President in 2010. He serves on the board of the Western Apiculture Society. He is an honored speaker at SOBA programs whenever he is available.

Dr. Caron's book **HONEYBEE BIOLOGY AND BEEKEEPING** is available on [Amazon](#).

June in the Apiary



Join us July 7 at 6:30 PM (before the next meeting) in the club apiary behind the SOREC meeting hall for a **demonstration hive inspection**. At the June demonstration, John inspected the hives he had built from splits and showed us how to move brood from a crowded hive that was ready to swarm to weaker hives.

(Reprinted from the ORSBA website)

- Blackberries are in full bloom this month; nectar flow will be at its zenith.
- Super ahead of the need for space — it increases honey production and reduces swarming. You may want to walk through your apiary and reshuffle the supers away from hives that are lagging behind and give them to strong hives that are packing the honey in.
- If you have foundation to draw, get it on now. Summer's nectar dearth is around the corner.
- Continue to replace old, poor quality brood frames with foundation. It is recommended to replace brood frames every 5 years.
- Remove and extract supers containing *well ripened honey* — the moisture content should be around 17.8% or less. Honey harvested early in the season (June) has more moisture than late season honey (late July/August). Avoid harvesting frames of uncapped honey early in the season or risk having too much moisture. You can check the ripeness of uncapped honey in a given frame by giving it a hard downward shake. If there is a shower of nectar then clearly it is too wet to extract.
- If you have hives around agriculture crops (e.g., vetch, red clover, Christmas trees, etc.) be cognizant of the dangers from pesticides. Make inquiries — find out what's going to be sprayed, when, and its dangers to your bees. It may be prudent to move your bees out. See OSU Extension Publication 591 for more information on how to reduce bee poisoning.
- If you find hives with the beginnings of swarm tendency, remove the forming queen cells and rotate the brood boxes. Pull a couple of frames of sealed brood and fortify weaker hives. Place foundation in their place. It should be noted that swarm cups are a natural condition in the hive; their presence does not necessarily mean the hive will swarm.
- Swarms issue one or two days after the first queen cells are capped! If you find capped queen cells, then there is a good chance the hive has already swarmed. If you think the hive has not swarmed, then one way to try to prevent it from swarming is to split it hard and make divisions from it. It should be noted that if you plan to make nucs from the swarm cells and allow the bees to raise their own that in some peoples' opinion this is bad practice because you are selecting for swarminess. With the introduction of the varroa mite and the benefit of breaking the brood cycle in reducing varroa numbers, swarming may not be as bad today as in the past.
- Provide a steady supply of water.

Bee Exchange

If you have bee related goods and services that you want to exchange, send your information to sobeekkeepers@gmail.com with "Classified Ad" as the subject.

GRANGE COOP REQUEST:

The Grange Coop would like to know what it should stock for local beekeepers. Currently it emphasizes 8 frame boxes, wooden frames, and basic tools and suits. I suggested that they partner with Shastina Millworks to make equipment more available across the valley. The Grange carries Apivar and ApGuard—I've requested that it also stock small packages of Mite Away Quick Strips for small apiaries. **What would you like to see stocked??**

Email sobeekkeepers@gmail.com with your wishlist!

BEEES FOR SALE:

Andrew Watson, John Jacobs, and Julian Lewis all have nucs and possibly queens for sale. **Dave Holly** has a full hive (up to 10 boxes) for sale. Contact information is here: www.southernoregonbeekeepers.org/classified-ads under **Bees and Queens For Sale**.

BEE EQUIPMENT—Buy Local!

- Check out the Classified Ads on the SOBA website for used equipment.
- Shastina Millwork's in White City has a hobbyists website www.shastinamillwork.com, as well as the main site (www.shastinamillwork.com).
- The Grange Coop sells 8 frame hives and equipment in Ashland, Medford, and Central Point.

SOBA Beekeepers In the News

John Jacobs is seeking topics for our Advanced Bee School in August. If there is something you would like to see covered in that class—email him at oldsolbees@gmail.com.

Do you live in Ashland? Would you be interested in meeting for refreshment and bee conversation? Contact Ellen Wright at ewright42@gmail.com and we'll see if there is enough interest for a get together in July.

Oregon State Fair—Honey and Products of the Hive Show



The 2014 OR State Fair Honey competition is now a separate division. We have been able to get the judging standards and the entry categories modernized. See the Exhibitor handbook for details (www.oregonstatefair.org). The Honey show will have 4 divisions of Beekeeping photographs (3 classes), Beeswax (4 classes), Extracted Honey (3 color classes - 3 pint or pound jars per entry), and Other Honey (5 classes comb/cut-comb/chunk/creamed/extracting frame). There is no entry fee. Ribbons (1st, 2nd & 3rd) for each class. Two entry levels A. Youth (17 and under) and B. Oregon adult beekeeper.

Here are the important 2014 dates for entering your products:

- Entries must be entered ONLINE by August 7
- Honey show entries accepted at remote locations (consult Oregon State Fair website for dates and locations – NOTE If using the remote locations the entries MUST be appropriately packaged for transportation and entries CANNOT BE RETURNED to the remote location) or at the Salem Fairgrounds Saturday August 9 (noon to 8 PM) and Sunday August 10 (noon to 8PM).
- Judging will be Saturday August 16, the weekend before the fair opens.
- State Fair is August 23-September 1 – we will solicit Fair booth volunteers in 3 daily shifts (10-2, 2-6, 6-9). We will have an expanded booth (4 spaces total) with a children's area set up for youth-oriented education. Several groups have volunteered to take a day for our display.

Contact Trevor Riches (email tjriches@gmail.com, Tel. 503 559-0191) for specific questions or Dewey Caron (email dmcaron@udel.edu Tel. 302 353-9914). General questions about Fair/other competitions Tel. 503 881-3594 Jun 1 or email OSF2014@oregon.gov

Sub-Regional Bee Club News

Illinois Valley Bee Club

When: Third Thursday of each month at 7:00 PM

Where: Kerby Belt Building, Kerby

Contact: Ron Padgett - padgett25@frontiernet.net

Douglas County Bees—First Meeting

When: First Wednesday of each month at 7:00 to 8:30

Where: Douglas County Courthouse Room 311

Contact: for any questions phillthebeeguy@gmail.com



Email: sobeekkeepers@gmail.com

Website: southernoregonbeekeepers.org

Phone: (541) 862-1604

Officers:

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| President: | John Jacob | Secretary | Dana Rose |
| Vice President: | Ron Padgett | Treasurer: | Cheryl Housden |
| OSBA Regional Representative: Sarah Red-Laird | | | |
| OSU Liaison: Rick Hilton | | | |