



# BEEKEEPING NEWS

JANUARY FEBRUARY MARCH 2015

a local chapter of NORTH CAROLINA STATE BEEKEEPERS ASSOCIATION, INC.

## •Meetings & Programs

**January 13 @6:30pm...covered dish meal** (Everyone requested to bring a side or dessert)

**Dr. Eugene Grimley, Professor at Elon College, will speak about flavanoids in honey and why they are important.**

**February 10 @7:00pm...No meal**

**Dr. Olav Ruppell's graduate assistant will provide an up-date all on UNCG's recent bee research.**

**March 10 @6:30pm...covered dish meal** (bring a side or dessert)

**Unconfirmed program at this time**

Abandoned beehives can be breeding grounds for a deadly disease, American Foul Brood, that can spread easily to other hives.— Image Credit

## What's all the buzz about abandoned beehives?

It should be the end of a sweet season for local beekeepers, but instead a disease sweeping the southern tip of Vancouver Island threatens their hives and all the bees in them. Members of the Capital Region Beekeepers Association are guardedly checking their hives for signs of a disease called American Foul Brood, a bacteria that does not affect humans but can cause rapid death and ultimately a collapse of the hive and all its resident bees.

American Foul Brood (AFB) is present throughout North America and parallels its European cousin found, as expected, in Europe. After two hives located in south Oak Bay were tested and confirmed by the Provincial Lab to be infected by AFB, they were sealed and buried under special permit at Hartland landfill.

For beekeepers, there are only two choices when the disease is found at this time of year: burn the hive and all its contents, or seal it in plastic and bury it. The beekeeper then has to start over again with a new hive and bees in spring.

The first sign of the disease was in Oak Bay and within days more hives near Deep Cove in North Saanich were discovered. In both cases, inexperienced beekeepers did not recognize the signs of disease until the hives were dead. It was left to CRBA club members and the Provincial Bee Inspector to confirm the diagnosis: AFB.

What the average person may not know is that honeybees can fly up to five kilometers from the



hive in search of nectar and pollen. If they discover a hive that has collapsed from disease, they will rob the hive of the remaining honey and carry the food and disease back to their own hive.

Said Catherine Culley, CRBA president, “If beekeepers find a dead hive, or indeed have an old dead hive on their property, they need to close it up immediately to keep bees out.”

CRBA members can help with collecting samples of the diseased honey cells and the club has a special permit ensuring Hartland staff buries the infected hive equipment deep underground. Carolyn Hissen has taken on the issue for the club. Her task has been hampered by beekeepers who quietly go about their business unknown to club members or even their immediate neighbours. “What we don’t know is where all the hives are and we don’t have a way of contacting everyone”, said Hissen.

With many unknown apiaries near the sources of disease, tracking and eradicating these outbreaks will take the collective effort of all local beekeepers.

They each need to do a thorough late season check of their hives. If a beekeeper is unsure they can call the CRBA or send an e-mail to the club ([beehealth@capitalregionbeekeepers.ca](mailto:beehealth@capitalregionbeekeepers.ca)) to arrange for assistance.

The CRBA will make sure the brood disease is reported to the Ministry of Agriculture and collected samples may also be sent to the Ministry for testing (BCMA – Apiculture, 1767 Angus Campbell Road, Abbotsford, BC V3G 2M3). At this time there is not a bee inspector designated for the Island, so beekeepers can contact Paul van Westendorp, the provincial apiculturist ([Paul.vanWestendorp@gov.bc.ca](mailto:Paul.vanWestendorp@gov.bc.ca)) and he will arrange any necessary inspections. **IF YOU ARE UNSURE ABOUT YOUR BEES/EQUIPMENT CONTACT ONE OF YOUR CLUB OFFICERS.**

## **SALEM, Ore. (AP) — Alarmed by multiple incidents of bee deaths this summer, the Oregon Agriculture Department has temporarily restricted the use of pesticides containing two active ingredients that are dangerous to bees.**

In a statement Thursday, the department said it’s banning the use of products containing **dinotefuran** and **imidacloprid** on linden and similar trees.

The agency says the rule applies to all users, including professional applicators and homeowners.

After high profile bee deaths last year, the Agriculture Department ordered that pesticide labels be revised for 2014 to note that use of the ingredients was prohibited on trees that bees like. However, the agency says two recent bee death incidents — in Eugene and in **Beaverton** — involved the use of product with an older label, which just noted that the product is highly toxic to bees.

The agency says its temporary rule goes into effect immediately and will be enforced for six months while it completes its bee death investigation.

The Agriculture Department **last week suspended the pesticide license of the tree care service** responsible for spraying an insecticide blamed for killing 1,000 bees at a Eugene apartment complex.

## UNITED KINGDOM- BREAKING DOWN THE BEE DANCE

Worker bees in the United Kingdom have taken a new job—collecting data for researchers at the University of Sussex. Margaret Couvillon and her colleagues have devised an environmental monitoring system that uses foraging honey bees and their “waggle” dances to measure land quality. The technique could help scientists assess the ecological effects of different land use schemes, they say. Margaret Couvillon uses a protractor to measure the angle of a honey bee’s waggle dance, as the insect’s movements play frame by frame on a computer monitor. Image courtesy of Roger Schürch (University of Sussex, United Kingdom).



Since 1994, the European Union has spent more than €41 billion in incentives that

encourage farming techniques designed to protect the environment. However, evaluating the environmental impacts of different land-use strategies under this program has proven difficult. Traditional land surveys, which involve covering large areas on foot and cataloguing plants and animals by hand, can be time-consuming and costly.

Couvillon and a team led by Francis Ratnieks turned to honey bees for help. “We let the bees do the hard work for us,” says Couvillon. “They can really survey huge areas of land and provide biologically relevant information.” The insects are long-distance foragers, sometimes sampling nectar and pollen up to 10 km from their hive. Honey bee preferences for particular spots could point to areas rich in wildflowers and other plants important for insect pollinators, she says.

When foraging bees find rich sources of food, they return to the hive and communicate the bounty’s location by wagging their bodies. The angle of a bee’s head signals the direction of the spot, and the duration of a bee’s dance signals distance from the hive. Since the 1980s, scientists have used the waggle dance to map the distributions of bee foraging sites (1).

In a recent study, Couvillon applied the technique to monitor how different land-use schemes affect honey bee habits (2). The team analyzed 5,484 waggle dances recorded from three hives maintained at the University of Sussex.

Across a foraging range of 94 km<sup>2</sup>, the bees preferred rural locations with the most restrictive standards for land use, including a nature reserve in the area. At the same time, the insects showed a preference against organically managed farmlands surrounding the hive—a possible response to some organic farming techniques that require frequent mowing and that could prevent nectar-rich plants from blooming, says Couvillon.

Honey bee preferences are only one measure of environmental health, but it is one of great relevance for humans, notes Couvillon. “Honeybees contribute enormous amounts to the world economy every year, but their numbers have been in decline in the past 100 years,” she says. “It would be a very bleak diet for humans if we lost the pollinators.” Finding the insect’s preferred foraging areas could help indicate land-use techniques that support the health of honey bees, and potentially other animals, too, suggests Couvillon.

The real food movement isn't going anywhere as 57 percent of people have reported searching for foods made with simple, real ingredients.<sup>1</sup> Honey—a natural sweetener often used for tea, baking and on toast—is pure and simply harvested from honeycombs with no added ingredients or



preservatives. With more than 300 varieties of honey in the United States and a multitude of culinary uses, honey is becoming an even more popular ingredient for those seeking a more natural approach to their foods. However, the story from honey bee to table is sometimes misunderstood so misperceptions on authenticity, sourcing and bottling exist. The National Honey Board (NHB), a federal research and promotion board with the United States Department of Agriculture (USDA) oversight, has compiled [The Sweet Truth Behind Honey](#) educational platform to provide reliable resources and sustain consumer confidence in this versatile everyday pantry staple.

The NHB conducted an Attitude and Usage (A&U) study<sup>2</sup> and learned first-hand that a majority of current users, past purchasers and non-purchasers report it is important for honey to be pure. Honey is just that, made by honey bees from the nectar of flowers and plants, not from [pollen](#). This is just one of several myths that need clarification, according to the NHB.

“Honey is produced by honey bees from the nectar in flowers. Some plants have flowers with nectar, some that just have pollen, and some have both,” says 40-year veteran beekeeper [Gene Brandi](#). “Nectar is a sugar-water solution that is found at the base of nectar-producing flowers. The bees collect the nectar and bring it back to the colony, store it and dehydrate it, and eventually turn it into honey.”

Consumer confusion doesn't stop once honey reaches the honeycomb. The bright color of typical honey in the supermarket is a result of filtering, which improves clarity. Research<sup>3</sup> supports that filtering honey doesn't impact the nutrient content or antioxidant activity. Honey is made by honey bees from nectar of flowers and plants, not pollen. Pollen grains are seen as an accidental guest in honey, brought back as a food source for the baby bees. While filtering honey, the air bubbles, fine particles, other material in suspension and pollen grains are removed. Honey without pollen is still honey, nutritionally and in flavor.

**??Do you think some arrangement like Clemson's below would be helpful for our club??**

## **Register for Clemson's Voluntary Beehive Mapping Program**

Enter the following information to Register for Clemson's Voluntary Beehive Mapping Program. This will enable you to do the following: □- Enter and update the locations (GPS Coordinates) of your bee-yards and hives. □- Receive email notifications when pesticide applicators are about to spray within 3 miles of your bee-yards.

# 7 Ways You Can Help Save Our Dying Bees

Read Our Standard FTC Disclosure Please share!

Rachel Carson issued a dire warning over 50 years ago that if we kept spraying our farms and wildlife with huge amounts of chemical pesticides, we would end up poisoning our planet and living in a world devoid of the joy of birdsong. Soon after, she wrote the book 'Silent Spring,' where she brought the detrimental effects of pesticide on birds and the environment to the public's attention.

But what can we *do* to help save our bees, butterflies and other pollinators from dying and disappearing at such a rapid rate?

Bees are not something far away, where it's difficult to make any real difference without a lot of money. Bees are everywhere, so there's a lot we can do right in our own back yard. We can also make choices as consumers that benefit bees.

Here are a few ideas of what you can do to help stop the bee decline.

- 1). Wherever possible, choose **organic**.
- 2). Plant beneficial plants for bees.

## Borage, Thyme, Oregano, Vegetables

\*NOTE: If you buy seeds, flowers or flowering plants from a garden centre, ensure they are not **contaminated with pesticides** (particularly neonics), which are harmful to pollinators. In a **report released by Friends of the Earth US and Pesticide Research Institute**, it was found that 54% of common garden plants purchased at top retailers contained neurotoxic pesticides. It's best to grow from **organic, heirloom seed** that is not coated with any pesticide so you are not unwittingly doing more harm than good.

Planting herbs and other plants that also have culinary and medicinal uses is a great way to buy one get one free (so to speak!). Here is a small selection of plants that both you (and pollinators) will love:

- 3). Provide a habitat for bees
- 4). Provide hydration for your pollinators
- 5). Avoid chemical pesticides, herbicides and fungicides
- 6). **Sign petitions** and email to **encourage the powers** that be to show support for those taking steps to save bees.
- 7). Support local and organic honey producers.



# Updates: news releases and updates

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## EPA announces plans to restrict bee-killing pesticides

Posted Dec. 9, 2014 / Posted by: EA Dyson WASHINGTON, D.C. — During the December 8 meeting of state pesticide regulators in Arlington, VA, Marietta Echeverria, branch chief with the U.S. Environmental Protection Agency's Office of Pesticide Programs, announced the agency's plan to restrict neonicotinoid pesticides — a leading driver in pollinator declines — in an effort to protect pollinators. This follows the June 2014 presidential memorandum charging the EPA with assessing the effects of pesticides, including neonicotinoids, on bees and other pollinators within 180 days.

In her remarks to meeting attendees, Marietta Echeverria **indicated the restrictions** (courtesy of Bloomberg BNA) will be mandatory and would prohibit the application of neonicotinoids during certain times of day or year, and will apply only to states that have not adopted an EPA-approved pollinator protection plan.

Friends of the Earth Food and Technology Director Lisa Archer issued the following statement in response to the announcement:

Beekeepers, farmers and our food supply have been waiting far too long for the EPA to listen to the growing body of science linking neonicotinoids pesticides to pollinator declines. It is encouraging that EPA is starting to follow the lead of Ontario and the European Union by restricting neonicotinoid pesticides.

However, as currently laid out, EPA's restrictions do not go far enough. The weight of the science tells us that we must suspend systemic bee-killing pesticides on cosmetic and agricultural uses — including seed treatments — year round and nationwide to protect bees, our environment and our food supply.

- See more at: <http://www.foe.org/news/archives/2014-12-epa-announces-plans-to-restrict-bee-killing-pesticide#sthash.CKnoPvdj.dpuf>





*Did you know...  
Organic farms are home  
to around 30% more  
wildlife species than  
conventional farms and  
around 50% more  
pollinators?*



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**Our web site, [www.guilfordbeekeepers.org](http://www.guilfordbeekeepers.org) is your source for local beekeeping information, questions, and answers. Sign up for our forum board and join the conversation!**

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- Don Hopkins, State Inspector: (336) 376-8250
- Guilford County Beekeepers Association web site [www.guilfordbeekeepers.org](http://www.guilfordbeekeepers.org)
- North Carolina State Beekeepers Association [www.ncbeekeepers.org](http://www.ncbeekeepers.org)



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A LOCAL CHAPTER OF THE NORTH CAROLINA STATE BEEKEEPERS  
Norman Faircloth, editor ([nfaircloth@northstate.net](mailto:nfaircloth@northstate.net))

