OCTOBER 2016, ISSUE 10

Joco Beekeepers

A monthly newsletter brought to you by the Johnston County Beekeepers Association

Officers

President Al Hildreth Secretary Thomas Anderson Treasurer Evie Vose Program Director David Massengill

Meeting information

Third Monday each month 7:00 pm.

Johnston County Agricultural Center 2736 NC 210 Hwy Smithfield, NC US 27577 (map it)

Meeting Agenda

The October 17th meeting will feature 'The Flow Hive' presented by May Markoff.

Nominations for Board Members!

This month, we will be accepting nominations for board members for the 2017 season. We need nominations from the floor for people to fill the positions of the board of directors. All but two board member slots are open for nominations.

Open for Nominations:

President Vice President Treasurer Secretary Director1 Program Director

Positions not up:

Director2: Janice Turrisi (Open at end of 2017) Director3: May Markoff (Open at end of 2018)

CLUB Gear

The next time we will be taking orders at the October 17th meeting just in time for the holidays. Please bring small bills or checks made to JCBA.

Directors

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JOHNSTON COUNT BEEKEEPERS

 1st Director Ronnie Fish

 2nd Director Janice Turrisi

 3rd Director May Markoff

 Webmaster Facebook Newsletter Adam Pendergrass

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Businesses and Services

Businesses and Services offered by JCBA are listed on our website at (click here)

Have a story? Would you like to be featured in the newsletter?

Please submit your request to <u>Newsletter@jocobee.org</u>

Like us on social media

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This Month's Bee Tips!

Asters are in full bloom.



Starting in August continuing into Winter this is prime time for invasive wasps and yellow jackets. Installing an entrance reducer can help by giving the guard bees more control over the entrance.

- Feed all hives.
- ✓ Up through Oct. 15th, you can feed 1:1 sugar syrup. After the 15th, begin feeding 2:1 (2 pounds of sugar to one pint of water.) The thinner syrup stimulates the queen to lay more brood while the thicker syrup will be used as winter stores.
- Check for varroa mites. Treat if needed and ALWAYS follow the label directions!
- Do your bees have at least 45 lbs. of stores for winter? If needed, you may 'steal' honey frames from hives which have an over-abundance of stored honey.
- Towards end of month, prepare for winter. Although we may have many more weeks of warm weather, this year may prove to have cold early.
- REMOVE queen excluder so the queen may stay in the cluster as it moves up to the highest point in the hive.
- Make sure you haven't made the hive completely air tight, as the bees need some ventilation.
- Ensure the brood is in the frames in the lower brood chamber.
- Consider combining weak colonies before the end of October.

Any pulled frames need to be frozen at least 24-48 hours at o F, then properly stored airtight to prevent wax moths. Remember, ounce per ounce, beeswax is more valuable than honey!

We need to feed all the hives. Even the ones you feel are prepared with 45 or more pounds of honey. All colonies can benefit from free food. Some may not take any while there are better nectar sources they can find. While we have warm days, the liquid feed is sufficient. We'll address feeding during cold months later.

Tending Hives in Stormy Weather



Although we are a bit late for Hurricane Matthew, we will surely have more storms over the next few years, so here are some tips from David Tarpy at NCSU about protecting your hives during stormy weather:

• In 50+ mph winds, a brick on top of a hive might not be enough to keep the lid and/or hive together. Consider using a strap or duct tape.

Keep your hives sturdy and on level ground.

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• Stay away from low-lying areas. Flooding can wreak havoc.

• Various local agencies will spray for mosquitoes after a storm leaves standing water. If you want to be notified about spraying, contact NCDA & CS:

http://www.ncagr.gov/plantindustry/plant/apiary/do cuments/2016ApiaryRegistrationForm.pdf Also, you may register with NC DriftWatch: https://nc.driftwatch.org/map

Scientists find that bees on sugar behave optimistically

Emotion was once thought to be the realm of humans alone, but it increasingly appears that feelings are an evolutionary adaptation for all beings. Bees, it seems, have feelings too.

A new study published in Science on Sept. 30 compared the behavior of bees who received unexpected rewards to those who did not, and found the bees that were rewarded became optimistic—and that influenced the insects' handling of new situations. Bees who weren't rewarded appeared to respond less enthusiastically to new challenges.

The findings suggest that insects experience emotion and that their feelings have an adaptive role, functioning in insects, as they do in humans, to inform action. "We can't say they experience life in the same way that we do," Clint J. Perry, cognitive neuroethologist at Queen Mary University and one of the study's co-authors, told Popular Science. "But on a basic level, there's no reason to believe they can't feel something. It does feel like something to be a bee or an ant or what-have-you."

Perry and his colleagues tested bee feels with a series of exams. First, they gave the insects two choices and timed their decision-making process: entrance through a blue door led bees to plain water and entrance through a green door led to a sugary drink. The insects made their choices, either finding water or a sweet nectar. They were all then presented with a new choice: a bluish-green door.

The bees who had first chosen the green door that led them to sweet liquid, it turned out, were more quick to try the newest offering. They went through the mixed-hue door more determinedly than bees who had only found plain water on the first try. The insects who only found plain water before did not appear as intent on completing the next challenge.

The difference, the scientists say, can be attributed to a faster decision-making process informed by the reward. The bees that had been given the nectar weren't just on a sugar rush—rather, they were less hesitant in their judgments based on a kind of optimism stemming from the combination of sugar and their experience. Another way to think about it: Bolstered by the benefit of a good experience, the optimistic bee seemed to face the unknown with greater confidence.

In another test, bees were trained to forage at a feeder that had a 30% sweet solution in it. Then, the bees were again released to forage at the feeder, with some getting a 60% sweet solution and some getting plain water. The bees were then trapped for 10 seconds with a simulated spider made of sponge—meant to strike fear into their bee-hearts that there was a predator on the loose. After being allowed to forage again, the insects who drank the high-sugar-concentrate were quicker to return to foraging post-predator encounter than bees who did not receive the sweet drink, suggesting that the sugary liquid influenced their resilience.

The scientists also figured out the underlying neuroscience behind the behavior: when scientists inhibited dopamine release in the bees' brains, the positive effects of drinking sweet nectar were eliminated. That, the researchers say, is a sign the bees' good feels are enhanced by the sweetness, which may indicate bees evolved to get positive feelings from the sugar they need to survive.(read full article)

Rusty patched bumble bee proposed for U.S. endangered species status



The U.S. Fish and Wildlife Service on Wednesday proposed listing the rusty patched bumble bee, a prized but vanishing pollinator once widely found in the upper Midwest and Northeastern United States, for federal protection as an endangered species.

One of several wild bee species seen declining over the past two decades, the rusty patched bumble bee is the first in the continental United States formally proposed for listing under the U.S. Endangered Species Act.

Named for the conspicuous reddish blotch on its abdomen, the rusty patched bumble bee -- or Bombus affinis, as it is known to scientists -- has plunged in abundance and distribution by more than 90 percent since the late 1990s, according to the Fish and Wildlife Service.

The agency attributes the decline to a number of factors, including disease, pesticides, climate change and habitat loss.

Bumble bees, as distinguished from domesticated honey bees, are essential pollinators of wildflowers and about a third of U.S. crops, from blueberries to tomatoes, said Sarina Jepsen of the Xerces Society for Invertebrate Conservation, which petitioned the government for protection of the insect.

Bumble bees' annual economic value to farms is estimated at \$3.5 billion, according to experts.

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The rusty patched species is one of 47 varieties of native bumble bees in the United States and Canada, more than a quarter of which face a risk of extinction, according to the International Union for the Conservation of Nature.

Population declines among wild bees are much more difficult to document than those in honey bees, which are for the most part managed commercially and whose numbers are carefully tracked by beekeepers, Jespen said.

Jepsen said protections proposed for the rusty patched bumble bee will intensify the debate over the degree to which so-called neonicotinoid pesticides, routinely used in agriculture and applied to plants and trees in gardens and parks, have contributed to the decline of native bees.

"Endangered Species Act safeguards are now the only way the bumble bee would have a fighting chance for survival," she added. (<u>read full article)</u>

New Organic Acid Varroa Mite Medication

At its October meeting, the Committee for Medicinal Products for Veterinary Use (CVMP) of the European Medicines Agency (EMA) recommended the granting of a marketing authorization in the European Union (EU) for VarroMed (oxalic acid dihydrate / formic acid). This antiparasitic medicine treats the Varroa mite infestation in honey-bee colonies, which is considered to be the most significant parasitic health concern affecting honey bees worldwide.

Honey bees are essential for pollination of crops and wild plants in Europe. The European Commission estimates that pollinators, including honey bees, bumble bees and wild bees, contribute at least 22 billion euros each year to European agriculture and pollinate over 80% of crops and wild plants on the continent. (read full article)