# Joco Beekeepers

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



#### Officers

President Al Hildreth
Vice President Barney Biles
Secretary Thomas Anderson
Treasurer Lisa Velasquez
Program Director Thunder Hawk

### Meeting information

Third Monday each month 7:00 pm.
Johnston County Agricultural Center 2736 NC 210 Hwy
Smithfield, NC US 27577
(map it)

## Message from the President

All Members, First, Happy New Year 2017!

Just a friendly reminder that January 2017 meeting will be held the 4th Monday instead of 3rd Monday.

NO meeting on January 16, 2017.

January 23, 2017 is our January meeting. Show up early (6:30 pm) to have social time. Bring questions to ask others and come prepared to offer suggestions to answer questions other may have. If you cannot make it early, the meeting will come to order at 7:00 pm.

If you haven't already paid your membership dues and filled out a form, please go to the website and follow the directions to bring dues and a filled out form.

Website address for membership: jocobee.org/membership
I look forward to seeing you at the Johnston County
Agricultural Center on January 23, 2017!

Thanks, Al Hildreth JCBA President

#### **Directors**

2nd Director May Markoff 3rd Director Ken Gossett Extension Agent Brandon Parker Media Relations 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 Newsletter@jocobee.org

Like us on social media

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#### This Month's Bee Tips!

Installing an entrance reducer can help by giving the quard bees more control over the entrance, keep mice out and attempt to reduce cold windy drafts.

From: Nancy Ruppert, Apiary Inspector, NCDA & CS

- ✓ January Add pollen supplements, if needed; check amount and location of honey stores, and feed (2:1 syrup or fondant) if <3/4 super of stored honey left.
- ☑ Check/repair/replace stored equipment; order wax/woodenware.
- ✓ Order nucs/packages.
- ☑ Keep learning---bee school, read books/journals, etc.
- ☑ Combine or insulate smaller (less than 4 frames of bees) hives.
- ☑ Combine hives where queen has failed, if they're still alive and haven't absconded.
- ✓ Move hives if they'll need to be relocated this
- ☑ Bees may need help removing dead bodies from entrance area.

Funny pages/Did you see this?



### NC and SC Beekeepers!

The NC State Beekeepers Association will meet jointly with South Carolina for the Spring meeting time to plan now: (more information)

## 4-H Youth Beekeeping Essay Contest (link to contest)

Honey bees are hardworking, tirelessly gathering nectar and pollen to share with their hive. They provide a vital ecological service by pollinating agricultural, garden and native plants. Explore more about these fascinating insects by participating in the North Carolina 4-H Beekeeping Essay contest. The essay provides a platform for youth to creatively express their working knowledge and research of the craft of beekeeping. (link to contest)

#### Fat Bees and the Winter Cluster

What creature has a life span that is very short in the warm months and several times longer in the challenging cold of winter? That is precisely the existence of the worker bee.

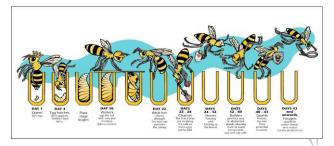
The survival of bees during the winter is a story of proactive preparation and a huge collaborative effort within the hive, from late fall to the first signs of winter. In this article we will look at the plans bees make to survive but the impact on worker bees is almost the inverse of many animals.

Worker bees that life in the warmer months have a hard and disciplined life ahead of them. From the moment they extract themselves from the cell to the last flap of their wings, they are aptly named workaholics. Their industry puts great stress on their tiny bodies and they use a huge amount energy in working to diligently. The end result is a lifespan that is around 6 week or so.

Beehives in winter by comparison, the worker bee that lives in the hive through the winter months has a much more focused, singular role as we will see below. Their sole objective is to keep the queen through to the spring, at which time she can start laying eggs. The winter worker bee is a bridge from one generation of the queen's offspring to another. And her reward for seeing the queen through this challenging period is the potential to live from early winter to spring. Months, not weeks.... (read the article)

### Honey Bees – Life Cycle (Video)

Just because its winter continue to hone your craft! Here is a article with a video I came across on:



Honey bee life cycle has four main distinct stages or phases, egg, larva, pupa and finally an adult.

Honey bee colonies are generally perennial with the exceptions of bumble bee and paper wasp colonies.

The colonies of bees consist of three castes, Queen Bee, worker bee and drones (males). (see article & video)

### The Mystery of Blue Honey

Some North Carolina beekeepers have strong opinions on what makes nature's nectar turn such a startling shade.

Honeybees do not have mouths strong enough to break the skin of berries or grapes, Ambrose says.

They're left to forage after larger insects have already done the damage. Moreover, most berries produce white or pink juice, not blue, Ambrose says.

The real proof, Ambrose says, is in the bee itself.

A quick biology lesson: Honeybees have a sack in their bellies called a honey stomach, meant for carrying nectar back to the hive. Back at the hive, a younger bee, called the house bee, puts the nectar into the honeycomb cells and turns it into honey.

While the honeybee flies and forages, it is fueled by the nectar in its honey stomach. When Ambrose field-stripped bees in his study, the bees arriving at the blue honey hives never had blue in their stomachs, but the bees leaving the hive did.

"That tells you something is happening to the nectar after it reaches the hive to change the color," Ambrose says.

The scientists then collected as many blue flowers and plants as possible and soaked them overnight in the juices of the bees' digestive tracts. By morning, the goo surrounding one specific flower, the sourwood, was tinged blue.

#### Act of faith

Ambrose did more tests. He found higher aluminum content in some of the blue flowers. Specifically, flowers on the Coastal Plain were slurping more aluminum out of the soil than in other places around the state. In the hive, that aluminum content reacts with the acidity being added by the house bees as they turn the nectar into honey. The amount of acidity, Ambrose believes, plays a role in creating blue honey.

Ambrose concluded that some of that aluminum ended up in the flowers' nectar, was transferred to the hive, then added to the bees' acidic digestive fluid to make blue honey.

Still, Ambrose says this theory means accepting what you can't see to be true.

"You have to take it as an act of faith that what I told you is happening, actually is," he says. "I've got some pictures. I've got slides. But if you are out there watching the bees and you see the berries, it's easier to say it came from the berry."

#### A fading phenomenon

That's why theories are everywhere outside Ambrose's office. Some beekeepers, like Sheppard, swear the berries are to blame for the odd blue honey, which appears intermittently at most, and only in limited hives near the state's Coastal Plain. Also, the blue turns to brown over time, and several keepers say the sweet taste also fades.

Other keepers suspect it might be nectar from the kudzu that grows rampant over nearby fields and forests. Near Dunn, keepers with traces of blue in their hives point to the grapes the bees frequent. And in the eastern part of the state, beekeepers are watchful of the plant Summer Titi, or southern leatherwood.

Whichever theory a beekeeper chooses, chances are, by the time you've paid for your jar of blue honey at that roadside stand, he'll have you believing, too. "They're pretty adamant," says Don Hopkins, state apiarist. "Beekeepers are ornery." (read full article in ourstate magazine)

# Texas pesticide deaths: Chemical may have sickened, but cleanup was fatal

Recently in the news there is a sad example of deaths via pesticides. keep this in mind when in storage and in treating your hives, don't get complacent because a pesticide has the buzz word 'organic' in the ingredients. it is still a pesticide.

READ THE LABEL! READ THE LABEL! READ THE LABEL!

The act of watering the ground after applying pesticide may seem innocuous, but it was enough to kill four children in Texas.

One was a high school senior on the brink of graduation. The other three were her little brothers; the youngest was 7 years old.

On Tuesday, Amarillo police explained what went wrong: Some of the family members started feeling sick Monday after the pesticide was applied under their mobile home. So one of the residents tried to dilute it with water. It was fatal mistake. (read full article on CNN)

## Honey Bees vs. Orchard Mason Bees

Many beekeepers know the benefit their girls play in pollinating their gardens, but your foraging bees are not the only bees that are there to collect pollen. There are a range of native, solitary bees that are just as important as honey bees when it comes to pollination, plus, they require less maintenance and are not as aggressive. So, if you want to invest solely into pollinating your gardens, is it better to keep honey bees or should you rely on the native bee for pollination? Each has their own benefits.

The solitary bees, such as the Mason, are more efficient pollinators than the honey bee if you are comparing bee to bee. Honey bees are attracted to nectar producing flowers and as they travel from flower to flower they indirectly help in pollination. Their main interest is harvesting the sweet nectar these flowers produce. Mason bees on the other hand are pollen collectors. They will gather pollen to take back to their nests. Once the female Mason bee is released she will begin building her nest and collecting pollen to lay with each egg for the duration of her four to six week life span.

Mason bees are solitary and do not require any management until the eggs are harvested, whereas, Honey bee hives require close inspection and monitoring. Mason bees are less aggressive and the startup cost is very minimal. They live independently and are less susceptible to diseases and pests.

The benefit of honey bees are their numbers. Honey bee colonies will consist of tens of thousands of bees and in turn they have a larger field force to help with pollination, making them better pollinators overall. As soon as they are finished with one crop, they can be transported to the next, impacting a larger demographic of pollinating plants. Mason bees will transition to where pollen exists if their current location lacks what is needed, whereas, honey bee's foraging range is larger so they can bring in the resources the colony needs. There is no guarantee the Mason Bee will return to the nesting site to lay for the following year.

Honey bees will forage for nectar and pollen after breaking cluster in spring and will continue until temperatures return to the 50s in the fall. Mason bees have a 4-6 week window for pollinating, after which, the female will seal in the cocoons to develop over winter.

While honey bees continue to play a major role in commercial pollination, both honey bees and mason bees are perfect for backyard gardeners. The importance of bees goes beyond our own farms and gardens. Their reach helps maintain a diversity of ecosystems with many wild plants relying on their pollination to produce seeds, fruits or nuts. These plants form the foundation of the food chain for many birds and other wildlife. Bees are a necessity that we cannot live without.

If you are after pollination in your garden, the answer is to utilize both Mason and Honey Bees. (read full article from brushy mountain).

# Johnston County Beekeeper's Association Membership Form



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Individual Mer	nbership to JCBA		\$10.00
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