#### FEBRUARY 2018

## **Joco Beekeepers**

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

#### Officers

President Barney Biles Vice President Al Hildreth Secretary Adam Pendergrass Treasurer May Markoff Program Director Thomas Anderson

## Meeting Information & Agenda

- The February meeting will be "How to Get Your Bees: Packages, Nucs, Splits & Swarms & Starting a new hive and jump starting an overwintered hive" we will talk about the various ways to acquire a colony of bees. For overwintered colonies, how to jump start them so they collect maximum yield of honey.
- ✓ We have a full class of students for the bee school. The first meeting, we covered the history of beekeeping and how man depends on bees for cultural and economic survival.
- Come and view beekeeping equipment that JCBA will be silent auctioning in March
- Be sure and check out the recent updates to the JCBA website, like the new Beekeeping Glossary
- Sign up for the Swarm List
- ✓ Free door prizes
- Reminder that memberships for 2018 are due (link)
- Reminder to renew your NCSBA membership for 2018 (link)

#### **BEE Basics are here!**

#### Starting in January:

We will be beginning "BEE Basics" it's a general talk held before each meeting. At 6:30 - 6:55. The purpose is to gain basic info for NEW Beekeepers & Reminders for experienced Beekeepers.

### Bee School 2018

We are excited to announce - We have a full class of students for the bee school. The first class of the 8week course, we covered the history of beekeeping and how man depends on bees for cultural and economic survival.



#### Directors

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

Please submit your request to Newsletter@jocobee.org

#### Businesses and Services

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

## Native Plants for Bees!

Link for native plants good for bees (click here)

Like us on social media **F**Page 1





## This Month's Bee Tips!

From: Nancy Ruppert, Apiary Inspector, NCDA & CS CALENDAR FOR BEEKEEPING IN CENTRAL NORTH CAROLINA

#### <u>January</u>

- Noticeable pollen flow under way, especially red maple brood build up intensifying.
- Minimal if any nectar available most hives need feeding (1:1 syrup in most cases, unless honey stores very low [i.e., <1/2 super left]).</li>
- $\blacksquare$  Combine hives if needed
- Repair/replace equipment if needed; move hives if needed; keep learning.
- During last half of February, consider adding super/hive body of wax foundation to allow bees to draw out more comb for spring. (Feeding or nectar is required for this.)
- Replace a few (<4) frames where comb is old or has excessive drone cells.
- Some hives may need treatment for Nosema disease, especially if too cold for cleansing flights.
- Call your local cooperative extension office if you want your name on a "swarm-catcher" list.
- Make plans to attend the annual NCSBA Spring Meeting in March.

### 2018 NCSBA Association Spring

#### Meeting

- Advance Registration Closes Monday, February 19th at 11:59 PM!
- Will be held in New Bern, NC March 1st 3<sup>rd</sup> learn more at <u>https://www.ncbeekeepers.org/education/statewide-</u> conferences/2018-ncsba-spring-conference
- They will also be offering testing opportunities for the master beekeeping certification program at the meeting.
- If you go don't forget to participate in their black jar honey contest!

## Second-Year Beekeeper Equipment Needs

Dadant has a good article on what a second-year beekeeper needs! We all know what 1<sup>st</sup> year beekeeper needs but what else do you need for your growing apiary and your upcoming goals as a second-year beekeeper? Feeding, honey extraction, queen excluders, pest management etc. <u>Read full</u> <u>article here</u>.

# Bee research may redefine understanding of intelligence

The brain of a honeybee is tiny — the size of a pin head and contains less than a million neurons, compared to the 85 billion in our own brains. Yet with that sliver of brain, bees can do some extraordinary things. They can count and interpret abstract patterns. Most famously, bees have the ability to communicate the location of flowers to other bees in the hive.

When a foraging bee has found a source of nectar and pollen, it can let others in the hive know by performing a peculiar figure-of-eight dance called the waggle dance. The information contained in the waggle dance was first decoded by Austrian biologist Karl von Frisch, who picked up a Nobel Prize for his discovery in 1973. The dance in itself is not as complex as true language, but it's remarkable in that it's a symbolic form of communication.

Recently, Hiroyuki Ai at Fukuoka University has made another breakthrough in our understanding of this extraordinary behavior, by investigating the neurons that allow bees to process the dance information. Bees get information from hearing the dance, as well as seeing it. During the dance, bees vibrate their abdomens as they run in a figure-of-eight pattern. These vibrations send out pulses that are picked up by an organ on the antennae called Johnston's organ. Johnston's organs are equivalent to our ears.

Ai maintains hives of honeybees on the campus of Fukuoka University. (Incidentally, he says they have monthly meetings to discuss their research with students, after which they have tea parties and eat the honey produced by their bees.) Until recently, there has been very little understanding of how the bee brain deciphers the information encoded in the waggle dance. The reason, he says, is that bees only perform the dance in the hive, and it's difficult to get them to do it in the laboratory. <u>Read full article here.</u>

## 6 THINGS YOU DIDN'T KNOW ABOUT QUEEN BEES

As the sole bee in her caste, the queen bee is an illustrious member of the beehive. She is not only unique among her colony's population, she is vital to maintaining that population. A queen can lay up to 1,500 eggs a day! Although egg laying is her main gig, the queen has many other qualities that may surprise you. Read on to find out more about this all-important bee Queen Bees Are Not Rulers

It is often assumed that the queen bee manages the hive like a monarch would, ordering worker bees about. While she does have some influence over the behaviors of the worker bees, the beehive is actually closer to a democratic system. Much of the hive's daily tasks and functions are controlled by pheromones and other chemical signals that appear to happen instinctively. When a conscious decision is made, like a swarm's choice of nesting site, the worker bees decide by voting!

#### Queens Only Have Sex Once in their Life

Most insects live short lives, but you may be surprised to know that a queen bee can live two to seven years! Her lifespan typically depends on how many males she mates with. A queen mates only once in her life and stores the sperm she collects in a special organ which she draws from to lay eggs for the rest of her life. Queens mate in the air with as many drones as possible. So, technically she does have sex multiple times over the course of a day or two, but she only mates for this one period in her life. A colony with a well mated queen will thrive, but over the years this queen may begin to run out of genetic material. Once she runs out, she cannot mate again. She is simply replaced by either the beekeeper or the bees themselves. Most queens lay well for about 3 years.

#### All Fertilized Eggs Are Created Equal

Worker bees replace old or dysfunctional queens by making a new queen from their old queen's egg. When a queen lays an egg she can lay either an unfertilized or a fertilized egg. Unfertilized eggs are destined to become drones (male bees), but a fertilized egg has the potential to become either a worker bee or a queen bee. The egg's fate is decided by it's diet. Both worker bee larvae and queen bee larvae are fed royal jelly for the first few days. On day 4, worker larvae is switched to a diet of honey and pollen while the queen bee larvae continues to be fed royal jelly throughout her development.

#### A Royal Deathmatch

When workers make a new queen, they often make more than one. This gives them the best chance at raising a strong, viable queen. However, there can (typically) only be one queen bee in a hive, so when the new queens hatch they must kill their competitors. A newly hatched queen will sting her unhatched rivals, killing them while they are still in their cells. If two queens hatch at once, they must fight to the death. <u>Read full article here.</u>

#### From the Bee Yard!

If you have pictures you would like to have in the newsletter send them to <u>newsletter@jocobee.org</u>

