### 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 n/a

#### 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

**Attention!** The December 12<sup>th</sup> meeting will be a dinner/social gathering! A pot-luck dinner with the club bringing fried chicken and tea. We are asking the member to bring side dishes like vegetables, breads, desserts.

It will be held December 12<sup>th</sup> @ 7pm at the Johnston County Livestock Arena 520 County Home Rd, Smithfield, NC 27577

## Club is taking 2017 membership renewals

At the December 12<sup>th</sup> pot-luck we are going to be ready to take your 2017 membership renewals.

- Individual membership is **\$10** per year.
- Family membership is \$15 per year.

You can print out the membership PDF form (attached to this newsletter) and bring it with you to save time. (link to the PDF)

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

Please submit your request to <a href="Newsletter@jocobee.org">Newsletter@jocobee.org</a>

#### Directors

ast Director Ronnie Fish
and 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)

Like us on social media



#### This Month's Bee Tips!

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.

From: Nancy Ruppert, Apiary Inspector, NCDA & CS

- **☑** Feed all hives.
- Feed thick syrup if needed (i.e., if not more than one super of honey stored up).
- Last chance to combine hives that are weak/have failing queens.
- Consider insulating smaller hives (those with or fewer frames of bees).
- ☑ Sell honey to Christmas gift shoppers.
- Year-end review/assessment of apiary success/challenges.
- Leave bees alone, if possible. (Take a break---you probably need it by now!)

#### 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.

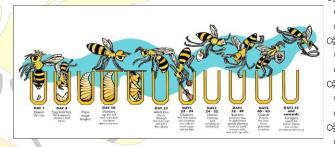
The survival of bees during the winter is a story of proactive preparation and a huge collaborative effort within the hive, from late fall to the first signs of winter. In this article we will look at the plans bees make to survive but the impact on worker bees is almost the inverse of many animals.

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)

## Bees of the sea: Tiny crustaceans pollinate underwater plants

Did you hear about this!? Seagrass pollen swirls around on currents and tides, but it turns out that the grains can also hitch a ride on tiny marine creatures. Underwater invertebrates can ferry pollen between flowers, in the same way that bees and other animals pollinate plants on land.

Seagrasses provide food and a habitat for everything from microscopic crustaceans to manatees, and stabilise coasts by anchoring sediment with their roots. They can propagate by cloning, or by sexual reproduction through the transfer of pollen from male to female flowers.

Until recently, scientists thought that their pollen was conveyed from bloom to bloom by water alone, without the help of pollinators, says Brigitta van Tussenbroek at the National Autonomous University of Mexico's marine science institute in Puerto Morelos. So van Tussenbroek and her colleagues were surprised when underwater video footage of a turtle-grass bed revealed hundreds of invertebrates, mostly small crustaceans, visiting flowers.

"We saw all of these animals coming in, and then we saw some of them carrying pollen," says van Tussenbroek (see video below).

To see if the creatures could act as pollinators, the team added crustacean-containing seawater to laboratory aquariums containing male and female turtle-grass flowers, some of which already sported pollen grains.

Within 15 minutes, several extra grains appeared on the female blooms, whereas flowers in control tanks without invertebrates did not gain any pollen. In the absence of water movement, grain germination that would indicate successful pollination was frequent when marine invertebrates were present, but rare or non-existent without them. (see article)

#### Bacterial Imbalances Can Mean Bad News for Honey Bees

A team of U.S. Department of Agriculture (USDA) scientists and their collaborators have established a strong link between honey bee health and the effects of diet on bacteria that live in the guts of these important insect pollinators.

In a study published in the November issue of Molecular Ecology, the team fed caged honey bees one of four diets: fresh pollen, aged pollen, fresh supplements, and aged supplements. After seven days, the team euthanized and dissected the bees and used next-generation sequencing methods to identify the bacteria communities that had colonized the bees' digestive tract.

The team also compared the thorax (flight muscle) weight and size of each group's hypopharyngeal glands as measures of the diets' effects on bee growth and development. The glands enable nurse bees to produce "royal jelly," a substance that's fed to developing larvae, ensuring the hive's continued survival. The flight muscle weight represents the potential for work after the nurse bee transitions into the role of forager. (read article)

# JOHNSTON COUNTY BEEKEEPERS ASSOCIATION

#### Johnston County Beekeeper's Association Membership Form



Name:		141		
Address:				
Phone: _()	N	C		
Email:			@	
Membership terms are membership:	January 1 throug	h Decem	per 31 Annually	Please check desired
				Amount
Individual Membershi	o to JCBA		COU	\$10.00
Family Membership to	<b>JCBA</b>			_ \$15.00
(Please list other famil	y member's nam	es to be i	icluded)	
Do you want to be listed	l on our website?	(Circle appl	icable listings)	
Swarms / honey sales / n	nentoring / pollinat	tion / educ	ation / novelties	s/
Please make checks pa	yable to <u>JCBA</u>			
Check #	Amount \$		Cash amount	\$
Date: /	/			