

Meck Bees

Mecklenburg Beekeepers Association

Meets the 3rd Thursday of each month at 7 pm at

3100 Selwyn Avenue

(corner of Selwyn and Woodlawn)

Mailing address: 121 Hermitage Rd Charlotte NC 28207

704-358-8075



October 2011

President -George McAllister

Vice President -Richard Flanagan

Treasurer -Libby Mack

Chaplain -Jimmy Odom

This Month's Meeting/Program

Our own George McAllister will present a unique program on the Useful Beekeeping Websites. With the vast amount of information on beekeeping out there on the web this will be a great chance to learn what is accessible to us. Come and join in as George shares his knowledge of places on the world wide web to benefit beekeepers.

**This months refreshments are
provided by
Carl Albrecht**

Lynden Man Causes Explosion After Igniting Gasoline-soaked Beehive

LYNDEN - A Lynden man dumped gasoline on a beehive that was in a tree and then ignited it Sunday night, Aug. 28, causing an explosion in the suburban neighborhood that could be seen from a few hundred feet away.

The man lit the hive on fire about 8:30 p.m. in retaliation for a bee sting one of his friends got earlier that day at the house on Twin Sister Loop, said Lynden Fire Chief Gary Baar.

The fire caused a large "whoosh" and singed the tree pretty badly, Baar said, but nobody was hurt. There were no flames when firefighters arrived about 10 minutes later

"No damage, except for a bunch of dead bees," Baar said. "The correct way to do that is to call a bee-keeper."

Firefighters explained that to the homeowner, but it doesn't appear he'll be cited.

A waitress at the nearby Homestead Golf & Country Club called the fire department soon after the explosion to report it, Baar said.



CENTER

Asheville, NC, USA

<http://www.centerforhoneybeeresearch.org/Home.aspx>

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Asheville, NC 28806

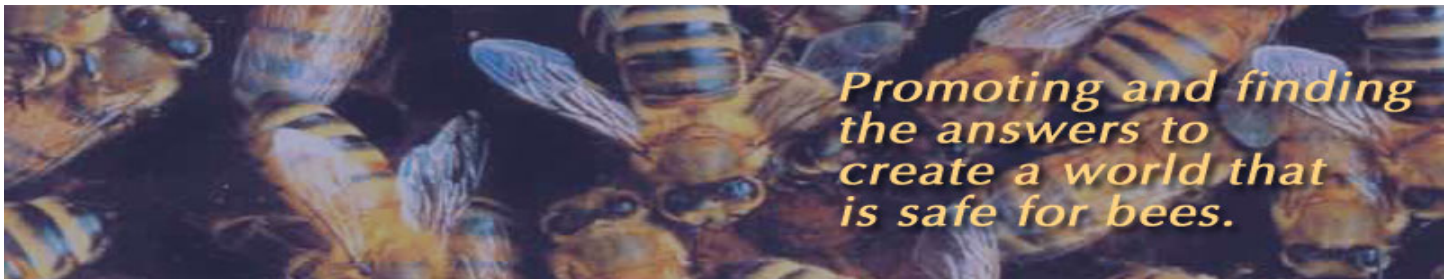
828.779.7047

The Center will sponsor its second annual fundraising Event, "What Turns Bees On?" on Sunday October 16, 2011 at the Folk Art Center on the Blue Ridge Parkway.

Tom Seeley, author of "Honeybee Democracy" and perhaps the leading honeybee behavioralist in the world, will explain the complex intelligence displayed by the colony as a super-organism and discuss the role super-motivated scout bees play in the decision making of the group. Dr. Seeley teaches at Cornell University and is also author of the definitive "Wisdom of the Hive."

Dr. David Tarpy teaches at NC State University in Raleigh and oversees the apiary extension services for the state of NC. He is well known for his studies on queen mating and helped complete the genetic work on the Honeybee Genome.

Gro Amdam is perhaps Norway's most brilliant scientist. She maintains labs in both Norway and at Arizona State University near Phoenix. Dr. Amdam has contributed a great deal of information on honeybee nutrition, particularly her work on the fat protein Vitellogenin and its effect on diurnal, or long-lived bees. Her work in epigenetics begins to explain how stresses in the bees environment can "turn on" genes which make traits or behavior inheritable in subsequent generations



Honeybee Anti-waggle Song Tells Others to Buzz Off

HONEYBEES use the waggle dance to tell hive-mates about new nest sites - but they fine-tune the process with an anti-waggle song. When searching for another home, swarms set up camp in a tree and form a search committee of up to 500 scouts. The scouts tell others about potential sites by doing a waggle dance. The better the site, the longer each scout dances, and the more bees get recruited to that site. But there's more to their powers of persuasion, says Tom Seeley of Cornell University in Ithaca, New York. By setting up good and bad nest sites, he found that scouts that favoured a particularly good site "beeped" other dancers, butting them and making high-pitched sounds. This made the other scouts dance less, and boosted the popularity of the preferred site, he explained at the summer conference of the Association for the Study of Animal Behaviour in St Andrews, UK, last month. The negative campaigning could help the colony make decisions faster, ensuring it is not homeless and exposed for long, says Lars Chittka of Queen Mary, University of London in the UK.

Beekeepers Yearly Management Calendar for October
Reduce the hive entrance to 3/8 inch to prevent mice from getting in the hives

Speakers for 2011

Oct George McAllister
Useful Beekeeping Websites
Nov Tyler Stout
Studies on Interactions between workers and drones
Dec Potluck Dinner

Jan 2012 ???

Astonishing Bee Facts

- South Dakota, North Dakota, Florida, and California are the biggest honey producers.



Great News !

We are now an authorized dealer of Brushy Mountain Bee Farm

Want to avoid shipping charges? Tired of taking a 3-hour round trip to the mountains to pick up equipment and supplies? Place your orders through us!

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An outbreak of a disease that affects honey bees has been confirmed in Scotland for the first time.

Three samples of bees sent to experts at Science and Advice for Scottish Agriculture (SASA) for analysis have tested positive for *Nosema ceranae*.

It is a microsporidial disease affecting honey bees which may cause a dwindling of the bee colony.

Nosema ceranae is related to the microsporidial disease, *Nosema apis*, which causes dysentery in honey bees and is linked to spring losses in Scottish colonies.

Although *Nosema ceranae* has been linked to colony collapse in Spain and some Mediterranean countries, so far it has not caused as many problems in Northern Europe.

And although it is a serious disease it is not a notifiable disease under the Bee Diseases and Pests Control (Scotland) Order 2007.

The cases identified are from three regions of Scotland, indicating that the disease is not confined to one area.

A total of 57 samples of adult bees were submitted to the SASA laboratory between March 2010 and July 2011, and 14 of these tested positive for *Nosema* and were subject to extra molecular testing. Of these, 10 samples tested positive for *Nosema apis*, three tested positive for *Nosema ceranae* and one sample failed to produce a positive result for either disease.

The disease already appears to be widespread in Europe, with many cases recorded in England, Wales and Northern Ireland, SASA said.

The Agri-Food and Biosciences Institute said there are no risks to public health and no implications for the quality and safety of honey, and beekeepers should replace and sterilise their frames to prevent the build-up of *Nosema* spores within the colony.



A disease which has been linked to dwindling honey bee colonies has been found in Scotland for the first time

Queen Bee Or Worker Bee? That Depends On The Honeybee's Mitochondria



A new study explains the biochemical basis behind the famous caste system that dominates honeybee colonies, with a select few bee larvae destined for royalty, while the rest remain mere workers.

AsianScientist (Sep. 23, 2011) – A new study explains the famous caste system that dominates honeybee (*Apis mellifera*) colonies, with a select few bee larvae destined for royalty, while the rest remain mere workers.

Previous research by Masaki Kamakura, an entomologist at the Biotechnology Research Center in Toyoma, Japan, pinpointed [a 57kDa protein called royalactin](#) as a key factor in differentiation of honeybee larvae into queens. Royalactin was shown to activate the p70 S6 kinase which results in increased body and ovary sizes and reduced development time.

In a recent issue of the ACS journal, *Journal of Proteome Research*, a team of Chinese and Ethiopian scientists led by Dr. Jianke Li explore the innermost biological makings of queen bees and worker bees.

Schoolchildren are taught that the one queen bee in a colony develops from larvae that are almost exclusively fed royal jelly; other larvae – fed royal jelly for just three days and mostly nectar, pollen, and honey thereafter – develop into female workers or male drones.

“The female queen is large and specializes in reproduction whereas workers are small and engage in colony-maintaining activities,” the scientists said. “Their life spans also vary, with the queen living for 1 to 2 years and the workers living only 6 to 7 weeks.”

To understand the biochemical factors at the basis of the fascinating caste system in honeybee colonies, the scientists studied the mitochondria of the honeybees.

The findings of the study reveal major differences, during early stages of life, in the activity of proteins in the mitochondria. The differences include changes in the amounts of protein produced in cells and the activity of those proteins.



It's Harvest Time!

We have the following equipment available for extracting honey:

- **9 Frame Extractor (manual)**
- **Uncapping tank**
- **Bucket with valve**
- **Electric uncapping knife**
- **Capping Scratcher**

The charge is \$5 per day to borrow the extractor with 2 day minimum

You will want to use your own filters and food-grade plastic buckets.

To reserve the equipment:

Go to the club's website www.meckbees.org and under the "Beekeeping Resources" tab select "MCBA Extractor Reservations". If you have any questions contact George McAllister at geomcallister@hotmail.com or call 704-579-1169

When you pick up the equipment, take an envelope and card to mail in your payment.

Return the equipment promptly, clean and dry.

Mail your payment in the envelope provided.

With the growth of the club, there is heavy demand for the extractor in the summer months. When you get the equipment, please return it promptly so the next person on the list can get it. Thanks!

During the last bee club meeting when I asked everyone to comment about what's going on in their bee yard, much of the discussion was around feeding our bees. Most people are not aware that the main cause of colony loss in the winter is starvation, not the cold. However, feeding is only one part of getting your bees ready for the winter. Here are the things you need to consider when getting your bees ready for the winter.

Just because you left a full super of honey on your hive when you extracted earlier this summer doesn't mean it's still there. That is why you want to periodically check your hives to make sure they have a full super once winter sets in. If you need to feed, you want to feed a heavy syrup mixture of sugar and water at a ratio of 2 parts sugar to 1 part water by weight. A gallon of water weighs 8.34 pounds, therefore add 16.68 (doesn't have to be exact, but round down) pounds of sugar for every gallon of water used. It's almost impossible to get the sugar to dissolve completely by stirring. To speed up the process heat the water.

If you buy sugar syrup premixed it is sometimes called 67% brix sugar syrup. Brix is a scientific measurement of concentration. In this case, for every 100 grams of syrup, 67 grams is made up of sugar or a 2:1 sugar to water ratio by weight. This concentration of sugar is the maximum amount of sugar that can be dissolved in water.

There is also a debate on whether to feed your bees sucrose (common table sugar) or HFCS (high fructose corn syrup) which is cheaper. Sucrose is the sugar found in nectar. However the bees change the sucrose in nectar into fructose and glucose in the process of making honey. There is limited research on the subject, but it seems that bees winter better on sucrose.

The main issue with HFCS is the formation of HMF (hydroxymethylfurfural) which occurs when the fructose in solution is exposed to warm temperatures. HMF is deadly to bees but not to humans. If the HFCS solution has a light brown color or tastes bitter it's probably not a good idea to feed it to your bees. As a result most hobby beekeepers use sucrose.

There are several types of feeders to use. I don't have the space in this newsletter to discuss the pros and cons of each type. Preferences also vary among beekeepers. Instead, conduct an internet search on the types of bee feeders to determine which type or types fit your needs.

Regardless of the feeder type, the goal is to get as much sugar syrup as possible into the cells before winter sets in. Bees begin to cluster when the temperature drops between 54 and 57 degrees. When bees are in a tight winter cluster, they will ignore food just inches from the cluster. A cluster will move around the hive to be near food if it's not too cold outside.

Placing an entrance reducer on your hives is useful in minimizing the risks of robbing. As pollen and nectar becomes scarce, bees will rob from each other especially if there is a feeder on the hive. Having a reduced hive entrance gives the guard bees an advantage since they have a smaller opening to defend. I have seen beekeepers reduce their hives entrances to .75 to 2 inches in length. The smaller the opening the better for the guard bees but you want to make sure you are not blocking normal bee traffic. Another advantage of reducing your entrance is to keep out mice. A mouse can cause major damage to a colony of bees.

Ventilation is another key component in winterizing your bees. Bees generate a large amount of water vapor during the winter and that vapor needs a way out of the hive. If you don't provide ventilation at the top of the hive, water vapor will condense on the inner cover and drip down on the bees. Most inner covers have one or more notches on edge for ventilation. Make sure your inner cover is configured so there is a path for the air to escape outside the hive. You will notice your hive top does not fit snugly on top of your hive. Position your hive cover so the gap between the side of your hive cover and the hive body is on the same side as the inner cover ventilation notch.

There is one thing you don't want to do when preparing your bees for winter. In our climate you do not need to cover your screened bottom board or wrap your hive with insulation. Insulation tends to overheat the hive making the bees think it is warmer outside than it really is. The bees will fly outside expecting warmer temperatures and die from the cold.

Now you are ready for the winter.

Have fun with the bees,
-George