

## Meetings & Programs

- **Tuesday, October 14, 7:00 p.m.** (no meal)

Our speaker tonight is NC State Apiary inspector Will Hicks. Will is no stranger to Guilford County and will provide some insights as to what is going on in the beekeeping community at large. He will also get us up to date on the State Fair which starts October 16, 2008. Beekeepers play a big role in the exhibits at the fair and Will will get us up to speed on how we can participate in the fun!

- **Tuesday, November 11, 6:30 p.m.** (covered dish meal)

NC Master Beekeeper Ellis Hardison will be presenting on beekeeping in Tasmania. Ellis was an attendee of Apimondia 2007 held in Melbourne Australia and had the opportunity to explore and visit with beekeepers from Tasmania. An entertaining and informative talk and slide show will show case his adventures.

- **MONDAY, December 8, 6:30 p.m. usual place**

Covered Dish Dinner (bring your favorite main dish, side or dessert. Drinks, ice, plates, etc. and entertainment provided by GCBA. Appropriate for all ages: All members & family welcome. Evening will be used to socialize and enjoy the festive spirit that the Christmas season provides.

## Articles of Interest



### If Bees are Worth \$215 Billion, Why Can't We Pay to Study Colony Collapse Disorder?

Cost of Research Exceeds -- By Many Millions of Dollars -- Available Funding  
September 16, 2008 at 3:11pm by Kim Flottum

One branch of the USDA has finally let go of some of the \$1.4 million they are supposed to distribute to researchers for the study of Colony Collapse Disorder. They are still sitting on some of it though, I hear, not because they haven't got it but some mid level manager hasn't got around to doing the paper work. It's been more than a month ... fiddling while Rome burns, and bees die.

But this \$1.4 million is still a drop in the bucket for what's needed, and while the industry has been generous in volunteering funds and spending money it was supposed to spend on other things, it's a small industry and the well isn't infinitely deep.

And, it seems, that if the farm bill money is to be released it will only be so if there is pressure from the people who pay the bills ... that would be you, by the



way. Below is only a partial list of what is desperately needed to begin or continue studies from only one of the groups in this arena. Others still need funds too, and they are waiting for the release of these funds, or at least making them available for competitive grants.

## 1. Backlog

There are currently just over 4,000 samples waiting to be analyzed for pathogens and pesticides that have been collected from 8 different studies, surveys and volunteered samples sent in by beekeepers. It'll cost a total of \$250,000 to do this.

## 2. Pesticides

Researchers still need to conduct toxicity tests of individual pesticides to discover their relationship with CCD, if any, and determine the sub-lethal effects of pesticides and selected combinations of pesticides on bees and other pollinators. And an important study is to determine if pesticides, when combined with other problems, like viruses are responsible for, or aid in causing CCD.

### Available funding for this activity

So far donations for these tests has been substantial, totaling just over \$400,000, though a part of this comes from that \$1.4 million grant. Still needed just to conduct these tests is the \$155,000 for additional people to actually do the research.

Another factor is that investigating pesticides requires expensive equipment, highly trained personnel and exacting standards to meet FDA/EPA compliance, and available labs are severely limited. Plus, there's hardly anywhere that can actually teach grad students to do these tests, so that, too has to be set up.

### Funding required

Equip an MS facility with the appropriate hardware, software and toxic substance libraries for reference; salary for a qualified GLP technician for 4 years: \$1,500,000

## 3. Pathogens

Pathogens are clearly part of the problem underlying CCD. Increased pathogen loads are found in colonies undergoing CCD and suffering collapse. And viral diseases are not only are infecting the honey bee but also native pollinators.

New detection methods are also needed that are faster and more sensitive across several magnitudes and that can identify known pathogens and parasites.

Key investigations include finding out how do stresses such as sub-lethal pesticide exposure affect the disease status of a colony? And what is the impact of honey bee viruses and other pathogens on native pollinators?

They also need to know how can testing and sampling capacity be increased to detect bee and pollinator diseases, and what measures can be taken to decrease the overall disease prevalence in a colony and increase colony health and strength?

### Current Funding

Presently, The Pennsylvania Department of Agriculture and others have contributed about \$152,000 toward these projects, but researchers at Penn State conservatively estimate that, for personnel and the necessary surveys that need to be taken an additional \$4,055,000 is needed.

## 4. Genetic Diversity

What is the role of genetic diversity in the overall health of colonies and the honey bee population?



Key investigations in this area include studying mating frequency and disease expression, immune response to mating frequency, measuring the health of production queens, and looking in depth at the feral population of honey bees in the U.S.

Currently, there's about \$486,000 to carry out this work but an additional \$125,000 is needed to hire the people to do the necessary work.

If my math is correct, this one group is asking for about \$5,000,000, spread over several years, to complete their studies. This is in addition to the \$1.4 million already (almost) awarded, and doesn't include the many, many thousands of dollars already contributed by government and industry. And if you want to add a kicker, tell them about the study just released in the Journal of Economics that estimated the economic value of insect pollination (not just bees, but all insects) worldwide at about \$215 Billion annually, for 2005, the latest year data is available.

When measured in how many groceries ... that \$5 million begins to look like a good investment, don't you think?



### ***And now for what I've learned about Fumagilin-B.***

Fumagilin-B is used for treating nosema apis and nosema ceranae. I had purchased a large bottle of it at the Spring Beekeepers conference in Burlington, but the bottle didn't really come with any clear directions. But I was reading the July 2008 Bee Culture magazine and saw an ad for Fumagilin-B, along with a website, [www.medivet.ca](http://www.medivet.ca). So I checked it out. The instructions there are pretty clear.

Half gallon of water  
Rounded teaspoon of Fumagilin-B  
8 pounds of sugar  
Yield about a gallon

I don't do 8 pounds very well, but figured I could just double it and use 15 pounds. I did warm the water up a bit, but it should be boiling before adding the sugar as this is almost a 2:1 mix. So here's what I plan to do next time...

One gallon of water - bring to a boil. Remove from heat.  
Add 10 pounds of sugar and mix  
Add 2 rounded teaspoons of Fumagilin-B & mix  
Add 5 pounds of sugar and mix  
Yield around 2 gallons

The sugar cools the water enough so the Fumagilin-B isn't compromised. I did get the 454 g bottle, so according to the directions, I should be able to make about 100 gallons of sugar syrup. Based on some simple math, that should cost about \$5 per gallon to treat. The Brushy catalog thinks I should get about 120 gallons, so we'll see. Simpler math says I've got 50-60 hives to treat. That part isn't true - only 7 at the moment.

See you around the bee yard,  
Wayne Hansen

Provided by the Mecklenberg County Beekeepers Association

Kurt Bower, *President*  
James Brown, *Vice President*  
Barbara Jarrett, *Secretary*  
Jackie Wiggers, *Treasurer*  
Martha Boren, Dr. Olav Rueppell, Harvey Friddle, *Directors*

### ***This is a summary of the new Greensboro Ordinance as it relates to beekeeping in areas zoned for single family detached dwellings.***

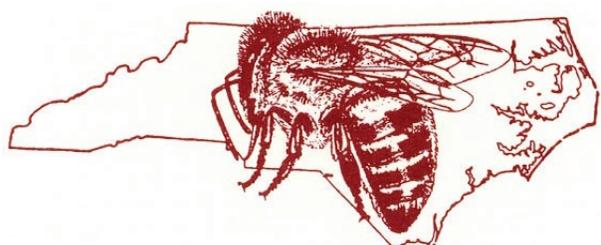
Provided by Rob Jacobs

- Hives/colonies may be placed anywhere on a lot where setback requirements can be met.
- Lot size by square foot measurements determine whether a homeowner may have hives, how many hives may be placed and setback (distance from the property line) requirements
- Lots Under 7000 square feet—no beekeeping permitted
- Lots 7000 to 12000 square feet  
Setback—25 feet or more from property lines, not less than 50 feet from any principal building on an abutting lot.  
Density—1 colony per 2000 square feet with a maximum of 6 colonies
- Lots over 12000 square feet  
Setback—50 feet or more from property lines  
Density—1 colony per 1500 square feet with a maximum of 20 colonies
- Alternate standard for lots over 12000 square feet (by landowner's choice)  
Setback—25 feet or more from property lines, not less than 50 feet from any dwelling unit located on an abutting lot.  
Density—1 colony per 2000 square feet with a maximum of 10 colonies.

If you are planning on placing hives in the city of Greensboro you should check your own deed and any restrictive covenants in your development to see if beekeeping is prohibited. The GIS site below can be used to view your deed. You can use the Guilford County Register of Deeds website and search feature to view any restrictive covenants noted in your deed. Your deed should refer to the book and page number of any restrictive covenants that go with your lot, and you can search by book and page number on the Register of Deeds site under the real estate search feature. [The Ordinance does not override the restrictive covenants.](#)

You can get a general measurement of your lot size and distances by using the Guilford County GIS site ([http://gcgis.co.guilford.nc.us/guilford\\_new/](http://gcgis.co.guilford.nc.us/guilford_new/)). Using the parcel search feature, look up your own name and then use the "zoom to parcel" feature to bring up your own lot. You can then use the measurement tool to outline the lot and it will give you a total square foot measurement. You can also use the measurement tool to give you approximate measurements to your property line and to principal buildings or dwelling units on abutting lots. These measurements will let you know how many colonies you may have on your lot and approximately where the limits are to placing them within your lot.

- Don Hopkins, State Inspector: (336) 376-8250
- Guilford County Beekeepers Association web site [www.guilfordbeekeepers.org](http://www.guilfordbeekeepers.org)
- North Carolina State Beekeepers Association web site [www.ncbeekeepers.org](http://www.ncbeekeepers.org)



### **Guilford County Beekeepers Association**

A LOCAL CHAPTER OF THE NORTH CAROLINA STATE BEEKEEPERS ASSOCIATION

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