

# ORANGE CO

*Beekeepers*



## August Meeting

Our August Meeting featured long term beekeeper, Jack Tapp.

Jack Tapp has been at the center of beekeeping in Orange County. He has coached many a new beekeeper and provided resources and opportunities to learn about honey bees. He shared with us his knowledge as a professional beekeeper about the year of the beekeeper. Jack answered many questions and spoke specifically about the state of bees right now. With our intense heat and periods of drought, we are suffering some dearth of nectar and hives should be assessed for honey stores. He also discussed checking mite levels and using alternative methods to drop mite levels since most mite treatments need cooler temperatures. Hopefully we will have a field day soon to practice different methods for assessing mites.

Jack also spoke about overwintering bees including using hive reducers to prevent mice depredation, and feeding in the fall and sometimes in the winter. He stressed the importance of knowing if your hives are strong enough to overwinter.

Then in the late winter, it is important to give your bees room to grow so that they will be ready for our our late March and then April honey flow.



## Highlights

### September Meeting

Our next meeting is on Sept 9. Our meeting time from now on will be 7 instead of 7:30. We will continue meeting in the Food Lab at Ag Extension in Hillsborough.

### State Fair Planning

Please come to our wax workshop on Sat. Sept 11th from 10-12 at the Bee Works shop on 86 N. for the our state Fair exhibit.

### State Fair

Now is the time to start thinking about entries for the state fair. We also would love help and donations/loans for our booth. Check out the [State Fair site](#). Entry deadline is September 24th at 5 pm!

### Nominations

We are looking toward our officers for next year. We will need a new president, a new vice-president and three new directors to assist the vice-president with programming. If you are interested in taking on a greater roll at OCBA, please let us know.

# Eastern Apicultural Society Meeting

## Deborah Delany

We are very lucky in NC to not only have a great beekeeper's association but also to have the research department at NC State. Between Dr. Tarpy's work in researching honey bee genetics and queen breeding, Juliana Rangel's work with hive dynamics, especially involving swarming behavior, and Deborah Delaney's work with genetics and feral populations, we are in the midst of some of the most interesting work on honey bees in the nation.

Delaney's work has been twofold. One part has been to create with local beekeeper, Ronnie Bouchon, a website: [savethebees.com](http://savethebees.com), where citizen scientists can log the coordinates of feral hives. Deborah then can map them and take samples to determine their genetic heritage. Interestingly enough she has found some feral colonies made up of German Black Bees, a type of bee not currently being raised that was the first bee introduced to the states in the 1600's.

In a second part of this work, Delaney has placed swarm traps at

multiple locations in Duke Forest. These traps need to be checked, cleaned and baited once in the spring and checked for swarms and then sampled in the fall. Since Delaney's move to Delaware, it has been more difficult to check and bait her swarm traps. Jennifer Keller, the technician at State, has been doing this leg work but has unfortunately injured her leg.

OCBA now has a great opportunity to participate in this work! We can help Deborah's research by working in teams to check her swarm traps. Lewis and I can help teams learn the locations and methodology of the traps. Additionally, Deborah has said that we can use the mapping on her website to find and locate the managed hives in Orange County. Having a data base of managed hives will help us locate Drone Congregation Areas, monitor disease infestation, and recognize if unmanaged colonies are swarms from managed hives or actual feral bees. With very little work, we can help with important research and learn more about our bees in our own county.

# Editorial by geneva green

## Conventional verses Alternative Approaches to Beekeeping

It would be impossible or at least extremely lengthy to summarize the information shared at the 2010 Eastern Apicultural Society's weeklong meeting. So instead of attempting this, I want to share some of my reflections.

My starting point was a "debate" that happened late in the event about the viability of "organic" honey. It was obvious almost immediately that both of the speakers were in agreement that "organic" honey as defined by the Canadian regulations and the yet to be approved US recommendations is an impossibility. The lack of forage area that does not contain chemically treated plants or GMO's, around 5 square miles, alone eliminates it from the realm of possibility. The inconsistent worldwide monitoring of honey production and the possibility for corruption in the system means that there is no verifiable "organic" honey anywhere.

This talk was flavored by the frustration that inspectors feel towards anyone who brings up the issue. They are certain that if you are talking of organics or sustainability that you are obviously mush headed, full of flights of fancy and willing in your ignorance to kill you bees through your unwillingness to properly treat them. I can understand this sentiment. Many new beekeepers come to this work with a vague idea about saving the planet and little understanding of the biology of the honey bee or the nature of the pests and diseases affecting it.

But I would say that many who come looking for alternatives to our current plan of treating prophylactically on a set schedule, are looking to understand the bees and their problems in a deeper, more complex way. They desire to tailor their IPM (integrative pest management) to something that minimizes the use of chemicals, reducing resistance, creating healthier bees, and creating less destructive pests.

So instead of their question, I think we should consider a different set of questions. Let's explore not the viability of "organic" honey, but all of our options in caring for our bees and the reasons and outcomes behind them.

What is organic?

The term organic comes from a wide range of work including Rudolf Steiner's work on Biodynamics, a method of farming that emphasized the inter-relationships between plants, animals and soils in creating a self sustaining ecosystem. Later in the 1960's, many people including Rodale began investigating a return to earlier farming practices and finding new practices that do not rely on heavy chemical pesticides to treat diseases or synthetic fertilizers to feed plants. Now the term "organic" refers to sets of practices defined and regulated by the USDA.

With awareness and concerns over pesticides like DDT, as presented in Rachel Carson's Silent Spring, consumers began to look for organic produce and for more healthy food. Now with more concerns about limiting shipping of food, "local" is a term that has increasing weight with consumers. As concerns with the practicality of some designated

"organic" practices and some issues with the implementation of the restrictions, many small farmers are moving to Certified Naturally Grown (CNG) [www.naturallygrown.org](http://www.naturallygrown.org). Recently NC and VA have been working towards a CNG program for beekeepers, offering both the opportunity for beekeepers to explore alternative practices for beekeeping and some labeling incentive to allow consumers to choose honey and other hive products that are created without miticides and antibiotics.

Some issues to consider when thinking about Organic verses Conventional Agriculture are chemical pesticides, synthetic fertilizers, and monoculture. Chemical pesticides took on a bigger role in American Agriculture after WWII when many companies needed to shift over from production of chemical weapons to post war products. Much of the research from this time produced new synthetic fertilizers and new chemical treatments for pests. As small family farms began to be bought up by larger corporations, rotating a wide variety of crops was replaced by planting large areas with a single crop. A single crop creates a dearth in forage for a large variety of insects and a concentration in pests and diseases affecting that solitary crop. Since many plants are heavy feeders in one area there is often a shortage of one mineral or another. Fertilizers become more and more necessary. It is not sustainable over time.

Why is the general idea of "organic", "sustainable" or "permaculture" in agriculture important to the future of Beekeeping?

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Honey bees are not native to North America and have been in cultivation for thousands of years. They are living in artificial conditions in higher density and under greater stresses than any wild bee. On top of that they are continuously being assailed by a stream of news pests and diseases, many of which are imported from other parts of the world. With growing acreage in cultivation and bee population decline, our bees will continue to be under greater and greater stress. Our job as beekeepers is to find the best long term ways to raise our bees. Treatments against pests and diseases are good short term fixes, but with ever-growing resistance to antibiotics and miticides, we need to find better ways to support our honey bee population.

In our current agricultural system with large monoculture crops, the attack against native pollinators and honey bees is twofold. One is a lack of forage, except during bloom time, and even then an incomplete diet from one nectar source. Two is that monocultural crops are more likely to need a heavier use of pesticides, since their proximity allows for a profusion of their own pests and diseases. A volunteer nonprofit called Partners for Sustainable Pollination (PFSP) is working toward labeling farmer's produce that is raised with bee friendly practices. To learn more about this work, please visit their website at <http://www.pfsb.org> .

As beekeepers, what are our goals/ desires for our honey bees?

This is easy: many healthy bees. We want the bees in our hives to be healthy to produce honey for us, to create more bees and queens, and to pollinate our plants. This is not as easy as it has been in the past. In my grandfather's time you did not need to order bees; you simply needed to beeline to locate a bee tree and then bring home and hive those bees. To quote Keith Delaplane, "The global stock of domesticated honey bees is growing slower than agricultural demand for pollination." Most of this decline in managed bees is taking place in the United States and the USSR. While the number of managed bee hives is on the rise worldwide, it cannot keep up with increasing demands for pollination. Delaplane has headed up a research project titled "Managed Pollinator Coordinated Agriculture Project" whose professed goal is "to restore large and diverse population of managed bee pollinators across the United States to sustain natural and agricultural plant communities." They have an excellent web site to help improve overall health of honey bees: [http://www.extension.org/pages/Bee\\_Health\\_Community\\_Page](http://www.extension.org/pages/Bee_Health_Community_Page)

As beekeepers, we have the opportunity to work towards a solution by learning as much as possible, to raise our bees to the best of our ability, and to support the research surrounding honey bees. This means using the best methods possible, including conventional methods, but also exploring all avenues, to improve the survivability of the bees.

What do our consumers want from our honey?

There are many different consumers of honey, but if you are a small honey producer, then marketing toward those who are concerned with healthy, local, and chemical free products will give you a unique advantage. There has been a history of concern by consumers about the purity of honey. At one point honey in the comb was popular because they believed that this was proof that it was unadulterated.

Currently there are no regulations in the United States at large controlling the content of honey or its place of origin. However, the NCSBA is working on some new NC Honey Regulations following on the heels of new regulations in Florida. They will require that labels of all of the true ingredients in the honey and that the address of where the honey is made is shown. With this development, North Carolina will be able to assure their consumers of the purity of their honey. This is also an opportunity to educate our consumers about the wonderful flavors of varietal honeys and the health benefits of local honey.

In recent testing of honey for pesticides at the USDA, honey came back very clean. It does not tend to absorb anything, including most pesticides. Unlike honey, products of the hive such as pollen, beeswax, and propolis are non-hygroscopic; they do absorb the lipophilic chemicals from the area around them. Beeswax has come back in tests containing many pesticides and remnants of miticides and antibiotics used in the hive. While



honey does not seem to absorb these things, it is important to consider that what you put into your hives and what is used on forage around your hives could easily end up in many byproducts of the hive as well as having long term effects on the bees living in the hive.

What is Certified Naturally Grown (CNG) ?

To move towards sustainable practices does not mean a hands off approach to beekeeping. It implies and necessitates a deeper understanding on the part of the beekeeper as to the relationships between bee and predator and/or diseases, and greater levels of work and manipulation encourage healthy bees. It requires a reasonable amount of loss to weed out weak bees, and possibly larger spacing and better forage.

We must begin to consider how our crops are grown in relation to pollinators in general. We need to fully understand the life cycles of pests and diseases that affect honey bees. We need a holistic approach to our care for pollinators. This is not soft or fuzzy thinking; this is a desire to understand honey bees as they exist in a greater ecosystem and to manage them for long term growth to the best of our abilities



EAS honey exchange.



Smoker lighting contest.

Extraction workshop at Brushy Mountain.