June, 2011
To: Henderson County Beekeepers
From: Marvin A. Owings, Jr., Extension Agent, Agriculture

What: Next meeting
When: Monday, June 20, 2011 from 7 - 9:00 p.m.
Where: Extension Office (Jackson Park)

Dear Beekeeper,

According to Phil Holbert bees are looking good with relatively strong hives along with low Hive Beetle numbers and no major problems with mites. Honey production has been good for most beekeepers. Most honey flow has come from: Tulip-poplar, Blackberry and Locust this Spring.

Presently, Chinese Sumac (aka, Varnish Tree, Tree of Heaven, latin name Ailanthus and locally known as Shoemake) is blooming and we expect a good Sourwood bloom starting sometime next week. Good bloom and nectar flow is dependent on temperatures and adequate rain fall. Some beekeepers have complained about queenless hives. So check to make sure your hive is queen right.

June in Your Beeyard:
♦ Inspect once for congestion, queenright, diseases, mites, and stores.
♦ Process spring honey.
♦ Watch for swarming.
♦ Try to find pollination contracts.

July in Your Beeyard:
♦ Inspect colonies once for congestion, queenright, diseases, mites, and stores.
♦ Put on sourwood supers.
Bee Informed

North Carolina State University will play a central role in a 5-year, $5 million U.S. Department of Agriculture effort to compile a nationwide honey bee database designed to make beekeepers more productive. Dr. David Tarpy, associate professor of entomology and North Carolina Cooperative Extension apiculturist in N.C. State’s College of Agriculture and Life Sciences, will direct the North Carolina part of an effort that has been dubbed the Bee Informed Partnership.

The partnership is an effort “to fill a void at the national level in our ability to collect data and information about the managed honey bee population,” Tarpy said. The nationwide effort, which is being led by Penn State University, will involve entomologists around the country.

Tarpy explained that surprisingly little is known about the nation’s honey bees, which play an indispensable role in pollinating many crops.

“Honey bees tend to fall between the cracks,” Tarpy explained. “If you have a cow, you know it’s there, and it’s going to be there. With honey bees, you have a hive. All of a sudden next week, it can swarm, and then you have two hives, or you have half a hive. Or they (the bees) die out. And they get moved all across the country. It’s much more of a fluid thing.

“That lack of information or the fuzziness of that information has hindered our ability to make strong, concrete recommendations. ‘The Bee Informed Partnership is designed to rectify this situation by creating a database that will contain information about all things related to honey bees. N.C. State’s role in creating the database will be to try to get a handle on important pathogens and parasites that afflict honey bees.

“There’s no systematic mechanism to track patterns of disease and disease outbreaks (in honey bees),” Tarpy said. “That’s what our component is going to do.”

Project field teams will collect honey bees around the country, then ship them to N.C. State, where the bees will be analyzed for the presence of disease or parasites. What is learned about bee health at N.C. State along with a range of other information collected as part of the project will be compiled in a database that will be available to beekeepers and others through a website.

“A very large component of this initiative is to develop an infrastructure to take those data and turn them into useful information, and through a web conduit broadcast that information so that beekeepers can see where disease outbreaks are in real time so that they can make informed decisions (about their bees),” Tarpy said.

Tarpy added that the interactive website that is developed as part of the project should allow beekeepers to enter information about their bees — information, for example, about a parasite that is afflicting their bees — then get back strategies for dealing with that parasite or other problem.

The website will provide beekeepers with the information they need to assess the risks and rewards of using various strategies to deal with a problem.

It is hoped that the project’s educational efforts will introduce beekeepers to best management practices that will reduce national losses in honeybee populations by 50 percent over the next five years.

Project collaborators, in addition to N.C. State and Penn State, are the University of California - California Cooperative Extension, University of Illinois, University of Georgia, University of Tennessee, University of Minnesota, Appalachian State University, Lincoln University, the U.S. Department of Agriculture Agricultural Research Service, U.S. Department of Agriculture Animal and Plant Health Inspection Service and the Florida Department of Agriculture. Written by: Dave Caldwell
Varroa Mites
By David R. Tarpy
Associate Professor and Extension Apiculturist

It has now been over 25 years since the introduction of varroa mites, and we are still faced with the ongoing struggle of keeping our colonies healthy from these parasites. The mounting evidence that the easy-to-use synthetic acaricides, specifically the pyrethroid fluvinate (Apistan®) and the organophosphate coumaphos (CheckMite+®), have some major drawbacks. First, the mites are now showing resistance to these pesticides, so that they are unreliable at best of ineffective at worst. Second, these chemicals are lipophilic, meaning that they get absorbed and remain in the wax comb, which can have negative consequences on our bees. Finally, these two chemicals have been recently shown to synergize their effects, so that in concert they can be more deadly to the bees than when used alone. These and other problems have prompted the development of several alternative means of mite control, including screened bottom boards, mite-tolerant stocks, and thymol-based products such as Apilife VAR® and Apiguard®.

Several years ago, there was an organic acid product called Mite-Away II™, the active ingredient of which was formic acid. Treating a colony with formic acid controls varroa by turning the hive into a “fumigation chamber”, where the formic acid vapors actively kill the mites. It was a ready-to-use product consisting of a fiberboard pad soaked with 250 ml of 65% food-grade formic acid inside a perforated plastic pouch. While formic acid treatment has been shown to be quite effective in the control of varroa mites, the Mite-Away II™ pads have now been removed from the shelves.

In its place, a different product has been recently granted Section 3 registration from the U.S. Environmental Protection Agency for the control of varroa mites in beehives, and thus beekeepers in North Carolina have received regulatory permission to use this new product. Mite-Away Quick Strips™ (MAQS for short) is a formic acid gel strip product that requires only one 7-day application of two strips per treatment placed on the top bars of the hive. This new product has some important pros and cons of which every beekeeper should be aware before using.

**Pros**

1. Can be used during the honey flow. The previous label stipulated that if treatment is conducted before a honey flow, honey cannot be harvested within two weeks after the end of treatment. The current label does not include this restriction, so that the product can be applied while honey supers are on a colony during the honey flow.

2. Claims to kill mites inside the brood cells. MAQS™ are reported to achieve “up to 95% mite kill and penetrates the capping to destroy the male mite and immature female mites as well as the phoretic female mites on the adult bees.” There are no scientific peer-reviewed results on their efficacy, however, so the basis of these numbers are the original EPA registration data.

**Cons**

1. Respirator is required by the label. Care must be taken by the beekeeper while applying formic acid, as it is highly corrosive and poisonous to humans. Importantly, a breathing respirator is required to apply the product. In addition, the label requires coveralls, a long-sleeved shirt, long pants, socks, shoes, protective eyewear or goggles, a veil, and beekeeping or acid-resistant gloves (latex gloves will degrade upon exposure to formic acid and therefore are not adequate). Avoid contact with skin, eyes, and clothing, as formic acid can cause skin burns or even be fatal if inhaled or swallowed.

*continued on page 4*
2. Can easily burn brood. Formic acid vapors have been shown to kill larvae, which can be very disruptive to colony productivity. This is particularly true at temperatures above the label maximum of 93°F. Thus sufficient foresight in weather conditions and time of year is recommended to minimize the negative impact on colony brood rearing.

3. Can overwhelm small units. Small colonies (fewer than 6-10 frames of bees) can be overwhelmed by the fumes and drive the adult population out of the hive.

The current availability of Mite-Away Quick Strips™ pads is somewhat limited, thus there may be some difficulty in locating the product. A list of U.S. suppliers and additional information can be found at http://www.miteaway.com or toll-free at 866-483-2929.

“Recommendations for the use of chemicals are included in this publication as a convenience to the reader. The use of brand names and any mention or listing of commercial products or services in this publication does not imply endorsement by North Carolina State University, North Carolina A&T State University or North Carolina Cooperative Extension nor discrimination against similar products or services not mentioned. Individuals who use chemicals are responsible for ensuring that the intended use complies with current regulations and conforms to the product label. Be sure to obtain current information about usage regulations and examine a current product label before applying any chemical. For assistance, contact an agent of North Carolina Cooperative Extension.”

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Beekeepers are a kind lot and welcome with open arms anyone who likes honey, wants to learn the correct ways of keeping bees, or just wants to help save the bees from all the harmful chemicals and bee pests in the world today. But who wants to attend a meeting where one side is antagonistic to the others?

State and even national bee organizations need to stress the importance that all organizations should strive to be efficiently run and have some type of support system in place to help the local bee clubs. Many folks ask why they should join a state or national organization: “Why spend money on an organization that is just building up their mailing list so they can ask you for more money constantly?” A good club should strive for 100% participation.

If you want to be a beekeeper, you should stop and ask yourself the following questions:
* Am I trying to learn all I can about bees and the proper way to keep them?
* Am I supporting the club leaders and offering my time and talents to make the club better?
* Am I willing to make changes in the way I keep my bees if someone shows me a better way?
* Am I willing to support someone even if I disagree with what they are doing until a better solution comes along?
* Am I willing to step up and do what is best for the club?
* Am I willing to ask questions if I don’t understand what is being said, instead of just complaining about how the “clique” only cares about itself?

We have folks who hate commercial beekeepers. One told me she hates them because they adulterate their honey, use chemicals that are not good for humans to eat, and keep the small beekeepers down so that they can’t make any money. When asked for proof, you get the same answer: “Well, that’s what I heard.” That is a Bee Killer attitude.

Think about what you are saying. Have you ever been a commercial beekeeper with the unbelievable costs and problems that go with it? If you haven’t been there, give it a rest and be thankful for the ones who spend so much time away from family and friends to make sure we have honey in the stores, not to mention all the other products they provide.

What about the commercial beekeepers who won’t help the small beekeeper? I have heard commercial beekeepers complain that “hobbyists” (I hate that word) are ruining beekeeping because they don’t know what they are doing and they are helping to spread bee diseases, etc.

Wait a minute. Did you start with the 1000 hives you have, or did you work your way up by increasing each year? Did an old timer help you learn what you know now, or did someone loan you the money to buy the equipment you have? Did someone help you along? Don’t be a Bee Killer by discouraging the new beekeeper who may replace you some day.

WASHINGTON — Total losses from managed honey bee colonies nationwide were 30 percent from all causes for the 2010/2011 winter, according to the annual survey conducted by the U.S. Department of Agriculture (USDA) and the Apiary Inspectors of America (AIA).

This is roughly similar to total losses reported in similar surveys done in the four previous years: 34 percent for the 2009/2010 winter, 29 percent for 2008/2009; 36 percent for 2007/2008, and 32 percent for 2006/2007.

"The lack of increase in losses is marginally encouraging in the sense that the problem does not appear to be getting worse for honey bees and beekeepers," said Jeff Pettis, an entomologist with USDA's Agricultural Research Service (ARS) who helped conduct the study. "But continued losses of this size put tremendous pressure on the economic sustainability of commercial beekeeping." Pettis is the leader of the Bee Research Laboratory operated in Beltsville, Md., by ARS, the chief scientific research agency of USDA.

The survey, which covered the period from October 2010 to April 2011, was led by Pettis and by AIA past presidents Dennis vanEngelsdorp and Jerry Hayes.

Beekeepers reported that, on average, they felt losses of 13 percent would be economically acceptable. Sixty-one percent of responding beekeepers reported having losses greater than this.

Average colony loss for an individual beekeeper's operation was 38.4 percent. This compares to an average loss of 42.2 percent for individual beekeepers' operations in 2009/2010.

Average loss by operation represents the percentage of loss in each operation added together and divided by the number of beekeeping operations that responded to the survey. This number is affected more by small beekeeping operations, which may only have 10 or fewer colonies, so a loss of just five colonies in a 10-colony operation would represent a 50 percent loss. Total losses were calculated as all colonies reported lost in the survey divided by the total number of bee colonies reported in the survey. This number is affected more by larger operations, which might have 10,000 or more colonies, so a loss of five colonies in a 10,000-colony operation would equal only a 0.05 percent loss.

Among surveyed beekeepers who lost any colonies, 31 percent reported losing at least some of their colonies without finding dead bee bodies—one of the symptoms that defines Colony Collapse Disorder (CCD). As this was an interview-based survey, it was not possible to differentiate between verifiable cases of CCD and colonies lost as the result of other causes that share the "absence of dead bees" as a symptom. The cause of CCD is still unknown.

The beekeepers who reported colony losses with no dead bee bodies present also reported higher average colony losses (61 percent), compared to beekeepers who lost colonies but did not report the absence of dead bees (34 percent in losses).

A total of 5,572 beekeepers, who manage more than 15 percent of the country's estimated 2.68 million colonies, responded to the survey.

A complete analysis of the survey data will be published later this year. The abstract can be found at http://www.extension.org/pages/58013/honey-bee-winter-loss-survey.

More information about CCD can be found at www.ars.usda.gov/ccd. This is one of the news reports that ARS Information distributes to subscribers on weekdays. Other ARS news products are available by e-mail. For details about them or to subscribe, please contact the ARS News Service or visit http://www.ars.usda.gov/is/pr/lists.htm.
Important Dates:

**Henderson County Beekeepers Association** - Regular monthly meetings are now held on the third Monday of each month, at the Henderson County Extension Center, 740 Glover Street (in Jackson Park) from 7 - 9 pm. For more information, please call the extension office at 697-4891.

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Every effort has been made to provide correct, complete and up-to-date pesticide recommendations. Nevertheless, changes in pesticide regulations occur constantly and human errors are possible. These recommendations are not a substitute for pesticide labeling. Please read the label before applying any pesticide.

Persons with disabilities and persons with limited English proficiency may request accommodations to participate in programs mentioned in this newsletter, by contacting Marvin Owings at 828 697-4891 or in person at the County Extension Office at least 4 days prior to the event.

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