

THE BUZZ!

January 2005

An electronic newsletter from the Kentucky Department of Agriculture's State Apiarist's Office

Spring is near!

Are you thinking: "Is he nuts....spring is near?...It's January, the local weatherman is calling for a chance of snow and temperatures in the 30s?" Well, I'm not going to address the question of my mental stability, but as for the time of year, and the current weather? Remember, I'm an optimist, plus I go by history, and the fact is that maples and some other early flowering plants and trees start to produce pollen and some nectar in February. So I have come to look upon mid-February as springtime in Kentucky for beekeepers. Several years ago we held joint Kentucky-Indiana beekeeping association meetings in the Louisville-southern Indiana area in February. For at least two straight years, this meeting took place on a Saturday right around Valentine's Day. On these Saturdays we had beautiful weather in the 50s or 60s, and everyone talked about how the bees were bringing in pollen. So again, take an optimistic point of view, and look for bees flying and bringing in pollen in the next two or three weeks. In fact, I had a call from a beekeeping friend early this month who reported that his bees were bringing in pollen in early January. But, this is not the norm; I think in this case some plants were tricked by a brief period of warm, sunny weather.

Speaking of the weather, I saw some serious winter weather earlier this month, and am soon to see some more. I recently attended the annual meeting of the Apiary Inspectors of America (AIA). AIA is a national organization of state apiarists and apiary officials of which I am a member and of which I served as president in 2004. AIA members get together once a year, typically meeting with one of the national beekeeping organizations, as we did this year with the American Beekeeping Federation (ABF). Also joining us were the American Association of Professional Apiculturists (AAPA). This group is made up of beekeeping researchers from our universities, such as Dr. Tom Webster at Kentucky State, as well as researchers from the U.S. Department of Agriculture bee research labs. So at this year's joint AIA-ABF-AAPA meetings in Reno, Nevada, around 4½ feet of snow fell just prior to my arrival, and the airport there was closed the day I flew out of Blue Grass Airport in Lexington headed to Nevada. Fortunately, the airport runways were quickly cleared of snow, and my travel was not interrupted. These annual meetings are normally the only work-related distant travel that I do each year, and I always pick up valuable knowledge that I bring back to pass along to Kentucky beekeepers – information such as pending approval of and use of a formic acid product and another thymol product, both varroa mite control agents. We also had much discussion on the pending importation of queens and package bees into the United States from Australia and New Zealand. I'll be passing some of this information on to you in this and future newsletters and during talks to beekeepers in 2005. This year, I am making a second trip (this is to explain the serious winter weather yet to come), but this trip is at the expense of the Apiary Inspectors of America, not the taxpayers of Kentucky. Next week I'll be heading to Saskatoon, Canada, to represent the AIA at the national meeting of the Canadian Association of Professional Apiculturalists. When I called the hotel in Saskatoon to make my room reservation, I was told that it was 35 below zero in Saskatoon. So I saw the snow in Reno, and now I'll get the cold in Saskatoon. But I promise, as I did in Nevada, to bring back only beekeeping information and not the winter weather.

Kentucky Beekeeping school to be held Feb. 26 in Versailles

The 2005 Kentucky Beekeeping School will be held on Saturday, Feb. 26, at Woodford County High School in Versailles, just west of Lexington. The site is a good one with lots of classrooms for the educational sessions, a cafeteria in which to eat lunch (provided) and that will serve as the classroom for the expected large turnout for the beginning beekeeping sessions.

The format of the school will be similar to last year's, but with one slight change. We'll open the school at 9 a.m. (registration, coffee and donuts will begin at 8:30 a.m.), then we'll have a brief welcome and introduction period. Two morning classroom sessions will follow, then lunch, then

two afternoon classroom sessions. At the conclusion of the classroom sessions we'll all meet together again for a Question & Answer moderated by Dr. Tom Webster. This is the change: We'd like to receive written questions prior to the Q&A period, so be prepared to put your question(s) down on paper. The asker of the best question (as judged by our team of experts) will receive a special prize. The school will then conclude with the awarding of door prizes.

Classroom session topics

At this time the final classroom session schedule is not yet finalized – but we're close. The following are the classes that we plan to offer (subject to change): Beginning Beekeeping classes (one each session for a total of four beginning beekeeping classes), Removing Swarms from Buildings and Trees*, Pollen Trapping*, Producing Chunk and Comb Honey*, Varroa Control*, Honey House Planning & Construction*, Pollination with Bees (moving, contracts, etc.), Honey Marketing For the Small and Intermediate Size Beekeeper Operation**, Conducting School Presentations**, Business Aspects of a Growing Beekeeping Operation (taxes, record keeping)**, Candle Making and Beeswax Products**, Other Value Added Products From the Hive**, Intermediate Hive Management** (covering topics such as evaluating queens and re-queening, maximizing honey production, making nucs, dealing with aggressive bees, catching swarms, etc. – will offer more than one session with different topics in different sessions), Certification to Produce Organic Honey**, Web Site Design for Beekeeping Groups and Marketing**, and Funding Opportunities for Kentucky Beekeepers**. Note: * means class offered in 2004 school, ** means new class in 2005. As you can see, we're offering many more classes this year.

Please pre-register

We are asking that everyone pre-register if possible. The registration fee is \$10 for those who pre-register, \$15 at the door. This helps us schedule the food for lunch and will save you money. There will also be a \$5 discount for all participants high school age and younger. Registration forms, directions to Woodford County High School, class schedule, and other information are available at the Kentucky State Apiarist's Web site: http://www.kyagr.com/cons_ps/bees/index.htm. You can also call Phil Craft at (502) 564-3956, and I'll mail you this information if you do not have Web access.

Kentucky State Beekeepers Association (KSBA) Spring Meeting

On March 19, just a few weeks after the Kentucky Beekeeping School, there will be another opportunity to learn about beekeeping by attending the KSBA Spring Conference. This event will be held at the Kentucky State University Agricultural Station just south of Frankfort (off US 127). Speakers will include: Dr. Tom Webster and Robin Mountain from Kentucky State University; Phil Craft, the Kentucky Department of Agriculture's State Apiarist; and special guest speaker Maryann Frazier from Pennsylvania State University.

Maryann Frazier has worked as an apiary inspector in Maryland and as a beekeeping specialist in Africa and Central America. She holds a Master of Agriculture degree in entomology, specializing in apiculture. She is now a Senior Extension Specialist at Penn State and is well-known for her presentations on bee diseases and hive management. Maryann spent 2003 in England; this experience will be the subject of a talk that she will share with us entitled: "A Year in England with the Queen and Her Subjects." So come and learn about British bees and beekeepers, their floral sources and honey crops. She'll also share with us how British beekeepers are dealing with diseases and mites. Take this opportunity to ask questions and talk with Mary Ann Frazier and your regular cast of Kentucky beekeeping experts.

For directions and map to the KSU agriculture station contact Phil Craft or go to: http://www.kysu.edu/land_grant/coop_extension_program/agriculture_natural_resources/beemap1.pdf

Formic acid formulation registration likely soon!

For many years Kentucky beekeepers have heard about the use of formic acid in Europe and Canada for the control of varroa and tracheal mites, and have asked if the use of formic acid would ever become legal in the United States. In fact, for a brief period of time several years ago,

Better Bee (New York beekeeping supply company) had an approved registration (approval for use of any pesticide product is referred to as a registration, and is issued by the U.S. Environmental Protection Agency) for a formic acid product called Apicure® in a gel pack to be used in bee hives. However, Better Bee experienced manufacturing problems with this product (the gel packs leaked) and sold Apicure® for only a short period of time. Since then, no formic acid product could be used legally in bee hives in the U.S.

However, this is likely to soon change soon. A Canadian Company, NOD Apiary Products, is very likely to receive an EPA registration for Mite-AwayII®, a pre-packaged, ready-to-use formic acid formulation, in the near future. (What is near? Sometime this spring?) I first became aware of this product last fall when New York received an emergency registration for a very limited use of Mite-AwayII® due to resistance of varroa there to CheckMite+® and Apistan®. At this time, NOD was already pursuing a registration for their product with EPA. The fact that EPA was willing to grant even a limited registration for this product gave me hope that a permanent registration might in fact be granted.

Go to NOD's Web site: <http://www.miteaway.com/>

Formic acid is used in Canada and Europe in liquid form. Using liquid formic acid is much more dangerous to beekeepers, as compared to a pre-packaged formulation. Formic acid in any form can burn the skin, eyes, and respiratory tract. At the meetings in Nevada I heard war stories of beekeepers who had suffered third-degree burns on their hands and even lung damage from using liquid formic acid.

The Mite-AwayII® product is a pad containing 250 ml of 65 percent food grade formic acid soaked into a fiber board pad inside a perforated plastic pouch. The beekeeper opens the plastic pouch and places it on the top bars of the hive. Since this does not require the handling of the acid in a liquid form, the danger from the acid is much reduced, though not eliminated.

While I hope to see the approval of this product, neither formic acid nor any other single product is a magic bullet for varroa control. Formic acid is used as a fumigant, meaning it is introduced into a hive as a liquid (a liquid on a pad in this product) and then dissipates in the hive as a gas. With all fumigants (including thymol products), effectiveness in killing mites will vary. The effectiveness is largely dependent upon the rate at which the liquid evaporates into a gas, hence affecting how much gas is in the hive at any one time. The rate at which the liquid formic acid (or thymol) evaporates into a gas depends, in turn, on air temperature, and this evaporation rate will differ due to the hive's location and the time of year. For instance, if the same amount of formic acid is used, it would give different results if used in Kentucky as compared to South Carolina because of the difference in outside temperatures. The size of the colony – the number of hive bodies and the number of bees in the hive – will also make a difference in the evaporation rate because of the bees' ability to regulate the temperature and air flow in the hive. Thus, due to all of the variables in the use of formic acid, there is a wide range in its effectiveness in killing mites.

I learned when I was in Canada two years ago that, while Canadian beekeepers like formic acid, they don't consider it an end to the varroa problem. But it is another tool that beekeepers can use. It is now felt that the solution to the varroa problem will be from a number of approaches, including non-chemical (screen boards, varroa resistant bees) and several control products used alternately. The approval of Mite-AwayII® will give Kentucky beekeepers four proven control agents to rotate in a varroa control program: Apistan®, CheckMite+®, Api Life VAR® and Mite-AwayII®. There is also a fifth product, Sucrocide®, which is also effective but is more labor intensive.

Another Thymol Product on the Way?

Last year when I wrote and spoke around Kentucky about Api Life VAR®, the new thymol varroa product now sold by Brushy Mountain Bee Supply Company (to learn more about Api Life VAR go to <http://www.chemicalslaif.it/inglese/apicoltura.htm>) I mentioned another thymol product used in Europe called ApiGuard®. This product is not yet registered, or available, for use by

American beekeepers. But that may change later this year. The manufacturer of ApiGuard®, Vita (Europe) Limited, is confident that it will receive approval for the use of its product in the U.S. sometime this year. You can go to Vita's Web site to learn more about this product: <http://www.beekeeping.com/vita/products/apiguard.htm>. I'll keep you informed on the progress of the registration for ApiGuard® in future issues of THE BUZZ!

If you want more information on varroa and its control, contact me.

New Honeybee Pheromone Announced

This is an interesting piece pulled from Dr. Malcolm T. Sanford's APHIS newsletter.

Dr. Zachary Wang at Michigan State University has announced the discovery of a new bee pheromone <<http://special.newsroom.msu.edu/bees/index.html>>. After 12 years, Dr. Wang and associates have discovered that ethyl oleate is a "primer" pheromone, in the same league with queen substance and others that regulate honey bee behavior:

"Forager bees load up on ethyl oleate when they're buzzing about gathering food but don't digest it. The forager bees feed the chemical to the worker bees, and the ethyl oleate keeps them in a teenage state, sort of like being grounded to watch the younger siblings.

"As the old bees die off, the chemical no longer is fed to nurse bees. Eliminate ethyl oleate and the bees mature into foragers."

"This provides clear insight into how a bee colony works," said Gene Robinson, G. William Arends professor of integrative biology and director of the neuroscience program at the University of Illinois at Champaign-Urbana. "What's most impressive about a honey bee colony is it is able to respond to changing conditions and alter its division of labor. When you think of that type of flexibility and adaptability, you immediately think, 'Who's in charge?' People from many scientific and engineering endeavors are fascinated by localized decentralized decision making."

See more at <<http://www.newswise.com/articles/view/508523/>>.

Kentucky 2005 Upcoming Beekeeping Events – mark your calendars!

- January 29, 2005 (Saturday), the Allen County Beekeepers Association will hold a beekeeping school at the Warren County Extension Office Classroom Facility, 3132 Nashville Road, Bowling Green, Kentucky. For more information go to the Allen County Beekeepers Association Web site: <http://www.allenkybees.com/announcements.html>
- February 26, 2005 (Saturday), the second annual Kentucky Beekeeping School will be held at Woodford County High School in Versailles, KY. For more information go to the KDA State Apiarist's Web site at: http://www.kyagr.com/cons_ps/bees/index.htm. Also see article elsewhere in this issue of THE BUZZ!
- March 19, 2005 (Saturday), Kentucky State Beekeepers Association Spring Conference at the KSU Farm, Mills Lane, Frankfort. Guest speaker Maryann Frazier, Senior Extension Associate, Department of Entomology, Penn State University.

2005 Beekeeping events in the region

- February 26, 2005 (Saturday), Indiana Bee School III will be held by the Indiana Beekeepers Association in Indianapolis. For more information go to: <http://www.goshen.edu/bio/Bee/Newsletter.html>
- March 12, 2005 (Saturday), Southwest Ohio Beekeeping School will be held in Loveland, Ohio (Northern Cincinnati suburb). For more information go to: <http://warren.osu.edu/ag/bschool.htm>

To have THE BUZZ! sent directly to you!

If someone has forwarded you this issue of THE BUZZ! and you would like to have THE BUZZ! sent directly to you via e-mail, send me an e-mail at phil.craft@ky.gov and ask to be added to my list. I organize my e-mail list by name, so make sure you sign your e-mail with first and last name. Also, if you are a Kentucky beekeeper, I'd appreciate knowing a little about you and your beekeeping activities – address, how many hives, years of beekeeping experience, and if you belong to a local beekeeping group or to the Kentucky State Beekeeping Association. I would also like your mailing address. This information helps me better serve the beekeepers of Kentucky by knowing where beekeepers are located and allows me to let you in on regional beekeeping activities, or to drop you a note if I discover your e-mail address stops working. This e-mail newsletter is not restricted to Kentucky residents. Many subscribers are from our surrounding states, especially Tennessee and Indiana. If you're from out of state, I need only your full name and home state; any other information is optional.

Keep those smokers lit and your bee veils on!

**Phil Craft, State Apiarist
Kentucky Department of Agriculture**

E-mail Phil.Craft@ky.gov

100 Fair Oaks, Suite 252

Frankfort, KY 40601

Phone: (502) 564-3956

Cell: (502) 330-0797

FAX: (502) 564-7852

Web page: http://www.kyagr.com/cons_ps/bees/index.htm