LOCAL NEWS

South Carolina Beekeepers to Meet at Clemson University - The summer meeting of the South Carolina Beekeepers will be held at Clemson University, Clemson, SC on 19-21 July 2012. Beekeepers are urged to pre-register for this meeting using the form included in this newsletter. Onsite registration will begin on Thursday, 19 July at 12:00 on the second level of the Hendrix Student Center. Yes, that is correct, we will be meeting in a new building this year on campus simply because we outgrew the Poole Agricultural Center Auditorium. The Hendrix Student Center is the building where the food court, ice cream/famous Clemson Blue Cheese shop are located on the first floor.

We will begin the meeting at 1:00 on Thursday, July 19, with session #1 of a 1-day beginner level beekeeping short course. The course is designed for individuals with no beekeeping experience, but everyone is welcome. The short course will break for dinner at 5:00 and session #2 will begin at 6:30 at the Cherry Farm Honey House and Apiaries. The short course will end at 8:30 PM.

A “Small Scale Queen Rearing Work Shop” will also be offered on Thursday from 1:30-4:30 at the Clemson University Cherry Farm Honey House and Apiaries. The workshop will be repeated on Friday afternoon, same time and place. Each workshop will be limited to 20 beekeepers and pre-paid registration is required. See separate workshop pre-registration form included in this newsletter. Wyatt Mangum will be the instructor for both workshops. If you would like to learn how to raise 15-20 queens, this workshop is for you. Registration is limited to 40 beekeepers, so do not delay in getting pre-registered.

On Friday morning, we will begin with a general session at 8:00 and workshops will be held in the afternoon. We have several out-of-state speakers on the program including Wyatt Mangum, University of Mary Washington - Virginia, Steve Sheppard - University of Washington State, Pullman, Washington, Jeff Harris - Mississippi State University, Starkville, Mississippi, Reg Wilbanks – Wilbanks Apiaries, Claxton, Georgia, Virginia Webb, Clarkeville, Georgia, and Robert Brewer, Hiawassee, Georgia. In addition, we have several speakers from South Carolina who will speak at the meeting. For more details, you will find a meeting program later in this newsletter.

A barbecue pork/baked chicken dinner is planned for Friday evening at Jimmy Howard’s home in Pendleton. Scheduled activities are the annual horseshoe pitching tourney and a smoker lighting contest. Edd Buchanan from Black Mountain, North Carolina will be leading and judging the smoker lighting contest, so make sure that you bring your smoker and favorite smoker fuel for this contest. Dinner will be served for $7.00/plate. On Saturday morning, we will have another general session beginning at 8:00 that will include many interesting topics and the meeting will end at noon.

We will have a honey show and competition at our summer meeting this year. Bring along a container of your best honey. Please do not place a label on your honey containers. Honey classes will be pint and quart extracted. There will be light and dark classes, so do not be concerned if your honey is dark. A “black jar class” will be included again this year. This class will be judged on taste only. Small black jars will be provided at the show, so bring a sample of your best tasting honey and take this ribbon home. We are also adding an additional class in the competition, 1 lb. block of beeswax. Honey and beeswax entries should be turned in for the competition from 7:30 – 9:30 on Friday morning. Entries will not be accepted past 9:30. Ribbons will be awarded for each category and a “best of show ribbon” will be included. We will owe a big THANKS to Steve Genta and Robert Brewer for judging the contest entries.

As an added note, Wyatt Mangum plans to have his newly published book on “top bar hives” at this meeting. There has been a lot of interest in top bar hives recently, so I am sure many of you will want to purchase Wyatt’s new book and maybe get a signed copy at the meeting.

On-campus housing will be available in the Lightsey Bridge II student apartments for a cost of $19/individual/night. You are encouraged to cover this cost on your pre-registration form provided at the end of this newsletter. Come by our meeting registration desk to pick up your key. The dorm will be an apartment arrangement with four beekeepers sharing an apartment. Each beekeeper will have a separate bedroom with one twin bed and all will share a bathroom. Bring your own bed linens, towels and pillow or you may pay $15 for a linen packet fee. Bed pillows are not provided so don’t forget to bring a pillow. Meals (breakfast 7:00-9:30 / $6, lunch 11:00-1:30 / $7.50, dinner 4:30-7:00 / $8.00) are available on campus at the Holcombe Dining Hall (15 minutes walk from the dorm or...
Annual value of bee pollination of home garden vegetables and fruits produced in the state is estimated at $20,000,000.

2. Value of wildlife food plants that are dependent on bees for pollination is difficult to estimate, but likely is very significant.

3. The annual honey crop that is produced by South Carolina beekeepers is estimated to be 1,050,000 lbs with a value of $1,984,000 based upon a price of $1.89/lb. (2)

4. Annual value of honey bee colony rentals (4,000 colonies at $55/colony) for pollination services by South Carolina beekeepers is an estimated $220,000.

5. Levin (1983) estimates that honey bee “pollinating activities” are worth 143 times more than the value of honey and beeswax they produce which would make this an estimate of $283,712,000 in South Carolina. (3)

6. There are an estimated 30,000 managed honey bee colonies in the state with an approximate value of $4,500,000 (30,000 x $150/colony = $4,500,000).  

**Some Facts on the Honey Bee Industry in South Carolina**

1. There are an estimated 3,000+ South Carolina beekeepers who manage about 30,000 colonies.

2. There are 8-10 commercial South Carolina beekeepers who derive their income from their beekeeping activities of honey production and pollinating rental services.

3. Over 1,400 beekeepers in the state have attained the minimum level “certified beekeeper” in the South Carolina Master Beekeeper Program which is hosted jointly by Clemson University Cooperative Extension Program and the South Carolina Beekeepers Association.

4. There is one state beekeepers association (South Carolina Beekeepers Association), <scstatebeekeepers.org>.

5. There are 20 local beekeepers associations located throughout the state.

6. There is one fulltime state apiculturist position located in the College of Agriculture, Forestry and Life Sciences at Clemson University, <www.clemson.edu/extension/beekeepers/>.

7. There is one (10% time) state apiarist (Regulatory) position located in Department of Plant Industry, Clemson University.

Reported by Wm. Michael Hood, PhD, School of Agricultural, Forest, and Environmental Sciences, Clemson University.
In honeybee societies, scouts are the bold pioneers. "Most foragers wait to be told what to do, but not scouts," says Gene Robinson, an entomologist and geneticist at the University of Illinois, Urbana-Champaign. "Scouts go out and search for food on their own." When a scout, which is always female in bees, finds food, she flies back to the colony, reports to her compatriots with the famous waggle dance, then flies off again, ignoring her new discovery to look somewhere else. Robinson and graduate student Zhengzheng Liang suspected that it might be possible to make comparisons between this behavior and novelty-seeking in humans and other vertebrates, which has been well studied.

The researchers came up with a new way to identify scouts within a colony. Liang, who did the field and lab work for the study with the help of undergraduates, put a hive in an outdoor enclosure with mesh walls. The bees in the hive were given a few days to get used to eating from a jar of sugar water with a yellow flower pattern and a faint scent. Then on three consecutive days, Liang put out one alternative food source: a jar with a different color and scent, somewhere else in the enclosure. Scouts were defined as bees that visited at least two new jars, and when they did, the students placed a dab of paint on each bee's thorax indicating which jar it had visited. "When they are being fed, it's like little cats are drinking milk," Liang says. "They don't mind you putting the dot on them." When those bees were later captured, Liang used a microscope to remove the scouts' rice-grain-sized brains. Then she measured the pattern of gene activity in the brains of scouts and non-scouting bees. About 16% of the honeybee's 7500 genes showed a significant difference in activity between the two groups of bees. That included several genes linked to novelty-seeking in vertebrates, such as receptors for the neurotransmitters dopamine and glutamate.

Finally, Liang and her colleagues gave non-scouting bees sugar water laced with neurochemicals that activate some of those receptors. Bees that ate glutamate were more likely to fly out in search of food when a hive was moved to a new location. Adding a glutamate inhibitor at the same time prevented that effect. Bees that were fed chemicals that block dopamine receptors were also more likely to scout, the team reports this week in Science.

That means that some of the same genes are involved in novelty-seeking in people and bees. Humans and honeybees aren't close relatives; their common ancestor was probably some kind of marine flatworm, Robinson says. There's basically zero chance that this common ancestor had scouts. "Our results raise the interesting possibility that there's a genetic toolkit for this kind of behavior," he says—a set of genes that have been used at several points in evolution to come up with similar behaviors.

"What this paper is showing very nicely is that you've got clearly a group of bees here who are interested in novelty in some form," says Jeremy Niven, a neuroscientist at the University of Sussex in the United

**UNITED STATES HONEY PRODUCTION DOWN 16 PERCENT**

Honey production in 2011 from producers with five or more colonies totaled 148 million pounds, down 16 percent from 2010. There were 2.49 million colonies producing honey in 2011, down 7 percent from 2010. Yield per colony averaged 59.6 pounds, down 9 percent from the 65.6 pounds in 2010. Colonies which produced honey in more than one State were counted in each State where the honey was produced. Therefore, at the United States level yield per colony may be understated, but total production would not be impacted. Colonies were not included if honey was not harvested. Producer honey stocks were 36.8 million pounds on December 15, 2011, down 18 percent from a year earlier. Stocks held by producers exclude those held under the commodity loan program.

**RECORD HIGH HONEY PRICES**

Honey prices increased to a record high during 2011 to 172.9 cents per pound, up 7 percent from 161.9 cents per pound in 2010. United States and State level prices reflect the portions of honey sold through cooperatives, private, and retail channels. Prices for each color class are derived by weighting the quantities sold for each marketing channel. Prices for the 2010 crop reflect honey sold in 2010 and 2011. Some 2010 crop honey was sold in 2011, which caused some revisions to the 2010 crop prices.


**TO BOLDLY GO WHERE NO BEE HAS GONE**

*by Helen Fields*

Just like humans have astronauts and mountain climbers, honeybee societies have their own brave explorers: scouts, the bees that venture out to find new food sources. A new study examines scouts' brains and finds that novelty-seeking in humans and bees seem to be based on some of the same genes.

**References**


Kingdom who studies insects. Niven particularly admires the researchers’ method for finding scouts, because it makes no assumptions about what scouts might behave like, but only finds animals that go to new places. He is more cautious about the conclusions on how chemicals influence the bees’ behavior, however. For example, feeding a bee glutamate could be having effects on muscles all over its body, not just in the brain. “In the context of other things they’ve done it’s very strong evidence, but it’s not definitive by itself.”

Correction, 23 March: The original version of this story said bees that were fed chemicals that activate dopamine receptors were more likely to scout. The opposite is true: Bees that were fed chemicals that block dopamine receptors were more likely to scout.

SOURCE:  http://news.sciencemag.org/scienconew/  2012/03/to-boldly-go-where-no-bee-has-one.html?ref=hp

EARLY BLOOMERS

By Richard B. Primack, Abraham J. Miller-RUSHING and Becca Stadtlander

The naturalist and philosopher Henry David Thoreau coined a wonderful word for an imagined instrument in his 1854 book, “Walden”: the “realometer.” Thoreau’s realometer would allow an inquiring person to measure the reality of his perceptions, to push past the “mud and slush of opinion, and prejudice, and tradition, and delusion, and appearance ... to a hard bottom.”

Thoreau has provided us with this very tool in his extensive journals. Starting in 1851, he began recording the progress of the seasons in Concord, Mass., by noting the first flowers, leaves and migratory birds of spring. All told, he kept records for more than 300 species.

On May 11, 1853, Thoreau recorded the first open flower of the highbush blueberry. Its distinctive white tubular flowers are easy to observe. In subsequent years he recorded the first blueberry flowers in Concord between May 14 and 19.

If Thoreau went looking for the first blueberry flowers of Concord in mid-May today, he would be too late — some bushes would be covered with flowers, while others would have only a few stragglers left hanging among the young green fruits. Since the 1850s, the first blueberry flowering has shifted three weeks earlier — the blossoms now generally open during the last two weeks of April. But this year, after a record warm winter, blueberry bushes began to flower on April 1, six weeks earlier than in Thoreau’s time.

The flowering times of other species, like the shadbush and marsh marigold, shifted a similarly extreme amount. More species, like birdfoot violet, rhodora and flowering dogwood, changed by only one or two weeks. Some changed even less or not at all. But the shift toward earlier spring flowering is a widespread pattern.

Warming weather in Concord is most likely the cause. Over the last 160 years, April temperatures at the nearby Blue Hill Meteorological Observatory have warmed by around five degrees, because of a combination of global warming and warming associated with the expansion of paved surfaces and buildings in metropolitan Boston. Plants on average flower two days earlier for each degree increase in Concord — thus, the town’s plants are generally flowering about 10 days earlier than when Thoreau made his observations. With temperatures predicted to rise by four to eight additional degrees this century, plants could flower 8 to 16 days earlier than they do now.

Of course, it’s not just Concord. Records from every continent and the oceans in between show changes in the timing of plant and animal behaviors, including flowering, mating, migrating and emerging from hibernation. Some species are changing faster, some slower, but the changes matter. Pollinators may arrive too early for their favorite flowers. Predators may arrive too late for their preferred prey. Species will have to adjust or perish. No doubt, there will be — and already are — winners and losers in this great shake-up.

In Concord, we were unable to find many of the wildflowers that Thoreau and later botanists recorded. Of the species that Thoreau noted in the mid-19th century, a quarter seems to be missing. A further third are now rare, with only a few plants remaining in the area. Some of the most charismatic wildflowers, like many species of orchids and lilies, have disappeared from the area entirely.

Many factors — increased development, pollution, roads and larger populations of deer — have affected the abundance and distribution of plants in Concord. But climate change has clearly influenced which plants can be found there today. Interestingly, while collaborating with colleagues from Harvard, we discovered that the plants whose flowering times were most responsive to temperature — the ones more likely to bloom early in warm weather — were the very ones most likely to survive the changes in climate. They maintained healthy population sizes or even increased in abundance. In contrast, plant species that were unable to “track” changes in temperature in this way tended to decline or disappear, and have been replaced by non-native invasive species like purple loosestrife and garlic mustard, as well as native species from more southerly climes, like sweet peppercush and silky dogwood, which are better at adapting to warmer temperatures.

This points to something else Thoreau’s realometer guards against. Walking through the woods of Concord, it’s easy to notice and be alarmed by the more extreme changes in flowering times of species like the highbush blueberry. But the species we should really be concerned about, like columbine, Canada lily, wild cranberry and the small purple fringed orchid — those with less changeable flowering times — are the ones we’re more likely to miss. For those species, we won’t find surprising changes in the dates of their first blooms.
But eventually, in many places, we might not find them blooming at all.

Despite their dramatic cumulative effects over the last 160 years, these changes would be largely imperceptible without the biological yardstick Thoreau’s records provide. Many others throughout the history of this country have kept diligent records — their own realometers — of flowering, bird migrations, butterfly emergence, fish runs and the like. More should be closely examined to lend insight into how changes in climate are affecting the world around us.

As Thoreau wrote, “The question is not what you look at, but what you see.”

Richard B. Primack is a professor of biology at Boston University. Abraham J. Miller-Rushing is science coordinator at the Schoodic Education and Research Center and Acadia National Park. Becca Stadtlander is an illustrator in Covington, Ky.

http://www.nytimes.com/2012/04/19/opinion/early-bloomers.html?_r=1

NEW ANTI-VARROA PROSPECTS

A completely new approach to control the varroa mite, the parasitic scourge of the western honeybee, is being part-funded by Vita (Europe) Ltd. Researchers at the University of Aberdeen and the National Bee Unit are looking at ways to “knock-down” genes in varroa to make it more susceptible to treatments or even to kill it outright.

Led by Dr Alan Bowman, the research team has already tested the technique successfully in the laboratory. Now the challenge is to find the most relevant and susceptible genes to be targeted and in the longer term to develop a suitable affordable treatment for use by beekeepers.

The first stage of the work is to use “Next Generation Sequencing” to identify and describe all the genes of Varroa destructor. From hundreds of millions of pieces of gene sequencing information, the team will search for the Achilles’ heel of the varroa mite, but ensuring that targeting it will not affect the bees or indeed any other animal species.

Once vulnerable genes of the varroa mite have been identified, the search will then focus on producing a treatment to target that gene. Laboratory and field trials will then thoroughly test the efficacy and safety of potential treatments.

To help accomplish the work, Dr Bowman needs varroa mites — lots of them from across the UK. He is setting up a database of beekeepers who are willing to participate in the research by sending brood frames from varroa-infested colonies. See panel (below left) for details.

Dr Max Watkins, Technical Director of Vita (Europe) Ltd, said: “This research has enormous potential for tackling the varroa mite, which is almost certainly at the core of the current threat to honeybee colonies across the globe. We are very excited by the prospects and look forward to helping develop a product that will increase our armoury in fighting the varroa mite.

“It will of course take time to produce a treatment that is simple to use and is proven to be safe and effective, but the prospects look good. Vita’s aim in part-funding the research is to produce a simple, safe treatment that is affordable for beekeepers across the globe.”

The new research, which begins in April 2012, is funded jointly by Vita (Europe) Ltd and the Biotechnological and Biological Research Council. It will be undertaken by the Institute of Biological and Environmental Sciences at the University of Aberdeen and the National Bee Unit of the UK Government’s Food and Environment Research Agency.


HELPING BEES, BEYOND BEEKEEPING

By Camilla Bee, Editor

If you’re reading this, chances are you’re interested in bees, or at least interested in food, as bees are essential for much of what we eat.

You probably want to help bees. While beekeeping is a great way to support them, it isn’t practical or possible for everyone. Here are some other tips we’ve collected on how to help our winged friends. We encourage you to share them with others so we can all best support this vital insect.

Plant! Even if you don’t have a green thumb or garden space, a few native flowers on the porch step or in a window box increase the diet diversity available to bees. Like us, they need to feed on a variety of substances.

Garden with bees in mind: Check with your local garden center (or the internet) for bee-friendly plants that will flourish in your area.

Try to plant large swaths of the same variety. This helps counteract the negative effects air pollution and landscape fragmentation have had on the floral scent trails that bees use to find food.

Heirloom varieties often have more pollen and nectar than newer, hybrid varieties.

If space allows, try to have something always coming into bloom to keep honeybees making a helpful-to-you beeline to your garden.

Plant native plants—those are the ones to which your area honeybees have, through the years, become adapted to feeding on.

Don’t use chemicals: Scientists are still working to understand the links between pesticides, herbicides, and the massive health issues affecting bees. While not...
clearly defined, in most cases there’s definitely a link. This year, why not try going natural?

If you feel you must use a pesticide, select a product rated Category 3 by the EPA, and apply it at a time when bees aren’t out foraging.

Support your local beekeepers: Purchase honey from known sources at farmers’ markets and local stores. It’s likely much purer—and tastier—than anything available commercially.

Let the lawn “bee”: What we see as unsightly weeds—plants like dandelions and clover—bees see as a wonderful source of nutrition. Consider raising the mower blades so these plants can flourish, and consider letting areas of your lawn go wild so bees can enjoy native plants.

Learn about bees: Hornets, yellow jackets, and wasps give the non-aggressive honeybee a bad name. Learn how to tell the difference so you can deal with infestations (and fears) appropriately. Teach kids the difference so they can happily coexist with honeybees. Your local bee club likely has speakers who would love to talk about these fascinating insects at schools, garden clubs or other events. And of course, keep reading this newsletter!

Watch for swarms: Honeybees are usually quite docile during this natural event. If you see a cluster of bees, don’t kill it. Check the internet to find a local beekeeper to safely remove it. Many bee clubs maintain a list of folks who would like additional bees and take this “problem” off your hands, er—tree or fence post.


PARTIALLY AFRICANIZED BEES FOUND IN EAST TENNESSEE

(COURTESY TN.GOV NEWSROOM)

VONORE, TN – Tennessee’s first case of partially Africanized bees was confirmed through genetic testing last week in a colony belonging to a beekeeper in Monroe County. The colony has been depopulated and the Tennessee Department of Agriculture is working with beekeepers in the area to determine if other bees could have been affected.

State Apiarist, Mike Studer, says it is no surprise that partially Africanized bees have made their way to Tennessee considering they have already been found in other states such as Texas, Georgia, Mississippi and Florida. “I’m actually surprised it’s just now happening. We have been expecting this for some time,” Studer said. “Citizens need to be vigilant, but there’s no need to overreact. This is a situation that can be effectively managed through good beekeeping practices.

“We will be working with beekeepers to monitor their hives and to look for any signs of other aggressive bees in the area.”

Test results show that genetically, the bees were less than 17 percent Africanized, far less than the 50 percent considered by USDA to be truly Africanized. The bee colony was purchased by the beekeeper last year from an out-of-state dealer.

The most important difference between an Africanized honey bee and our domestic European honeybee is their behavior. Africanized bees are much more aggressive, defend their nests more fiercely and in greater numbers and are more likely to defend the nest when threatened by predators or adverse environmental conditions. But, the sting from a single Africanized bee is no more venomous than a European honey bee.

Africanized bees tend to colonize in smaller spaces than the docile European honeybee. Therefore, if you see honeybees in the ground, or in small openings such as flower pots or bluebird houses leave them alone and call the state apiarist immediately to assess the situation. Bees do not try to hurt people, they simply defend their territory.

If you do disturb an Africanized honeybee colony, follow these steps to protect yourself:

1. Run.

2. Cover your head with your shirt or jacket while running because Africanized bees tend to sting the face and head.

3. Never stand still or get boxed into a place outdoors where you cannot escape the attack.

4. Seek immediate shelter in an enclosed building or vehicle. Isolate yourself from the bees.

5. Do not attempt to rescue a victim without the proper protective gear and training. Doing so could make you the second victim.


NATIONAL HONEY BOARD: HONEY IS MADE FROM NECTAR, NOT POLLEN

by Bruce Boynton

In the last several months various stories have resulted in misunderstanding and confusion about honey and honey filtration, leading some readers to believe that any honey without pollen is not real honey.

This is not true. Honey without pollen is still honey nutritionally and in flavor, and that is why the U.S.
Department of Agriculture identifies it as such. This misunderstanding has also led to several class action lawsuits regarding purchases of honey without pollen.

The truth is that honey is made by honey bees from nectar of flowers and plants, not pollen. Pollen grains may end up in the exposed honey in the hive through any number of incidental or accidental ways, but it is not used by honey bees to make honey.

Consumers have varying opinions about their choice of honey type, flavor and origin. There are many different kinds of honey available in the U.S. market, such as honey in the comb, liquid honey that is considered "raw", creamed honey, as well as organic honey. The majority of honey sold at retail in the U.S. every year, and preferred by most consumers, is the clear, golden liquid honey that has been strained or filtered to remove undesirable particles that make honey cloudy. All honey crystallizes eventually; suspended particles (including pollen) and fine air bubbles in honey contribute to faster crystallization. Filtering pollen and other particles out helps delay crystallization, allowing the honey to remain liquid for a much longer period than honey that has not been filtered.

According to the United States Standards, honey can be filtered to remove fine particles, pollen grains, air bubbles and other materials found suspended in the honey¹. In fact, the U.S. Department of Agriculture (USDA) gives higher grades for honey that has good clarity. Importantly, honey that has been filtered to meet USDA's grading standards may not have pollen, but it is still honey.

News stories have reported on illegal activities such as circumvention of tariffs on imported honey, and there are claims that some dishonest foreign suppliers may be "ultrafiltering" their honey to clean it up or remove the small amounts of pollen grains, often used as a marker to identify the country of origin. Ultrafiltering is not the same as filtering honey. Somewhere during the telling and retelling of these news stories, the term "ultrafiltered" became misused and confused with more traditional filtration methods used in the U.S. honey industry to produce clear, golden honey.

Ultrafiltration, a totally different process, is a specific filtration method used in the food industry for pretreatment and purification. It can filter particles smaller than 1/10 of a micron (a spider web is about 2 microns in diameter). Pollen grains vary in size from about 5 to 200 microns, large enough to be filtered with more common filtration methods.

In contrast to the filtration methods used by many U.S. honey packers to meet USDA grading standards, ultrafiltration is a more complex process that results in a sweetener product. The FDA has said this product should not be labeled as honey, and the National Honey Board supports this position. Some have confused filtration and ultrafiltration, incorrectly applying FDA’s position on ultrafiltered honey to any honey without pollen.

The fact is, honey that has been filtered may not have pollen, but it is still honey by national standards and is preferred by many consumers.

For more information on honey, I invite readers to visit the National Honey Board's website at www.honey.com.

¹ For decades, many U.S. honey packers have been filtering raw honey prior to bottling in accordance with USDA's United States Standards for Grades of Extracted Honey (May 23, 1985). According to section 52-1393 of the Standards, Filtered honey is honey of any type defined in these standards that has been filtered to the extent that all or most of the fine particles, pollen grains, air bubbles, or other materials normally found in suspension, have been removed. Section 52.1394 of the Standards also says that pollen grains in suspension contribute to the lack of clarity in filtered style.

Bruce Boynton is CEO of the National Honey Board, a federal research and promotion board under USDA oversight that conducts research, marketing and promotion programs to help maintain and expand markets for honey and honey products. The National Honey Board is not a regulatory agency nor does it have powers of enforcement. The 10-member board, appointed by the U.S. Secretary of Agriculture, represents producers (beekeepers), packers, importers and a marketing cooperative.

Source: Food Safety News on behalf of the National Honey Board on April 23, 2012.
2012 SCBA SUMMER MEETING SCHEDULE
HENDRIX STUDENT CENTER
(TENTATIVE PROGRAM)

Thursday, July 19, 2012

12:00 N  Meeting Registration – Hendrix Student Center 2nd Floor / Exhibitor Setup
1:00 PM  Beginner Level Beekeeping Short Course - Session I - Hendrix Student Center – 2nd Floor Ballroom

Queen Rearing Short Course #1 for the Small Scale Beekeeper (1:30-4:30 only), Cherry Farm Honey House and Apiaries (Limited and Prepaid Enrollment). Instructor: Wyatt Mangum, University of Mary Washington, Virginia

5:00  Dinner on your own
(SCBA Executive Committee will meet in the Ballroom at 5:00.)

6:30  Beginner Level Beekeeping Short Course - Session II - Cherry Farm Honey House and Apiary

8:30  Adjourn for Evening

Friday, July 20, 2012

8:00 AM  "Invocation" – Henry Chassereau, Edisto Beekeeper, Ehrhardt
"Welcome to Clemson University" – Patricia Layton, Director, School of Agricultural, Forest, and Environmental Sciences, College of Agriculture, Forestry, and Life Sciences, Clemson Univ.

8:10  "Announcements and Introductions" - Mike Hood, Extension Apiculturist, School of Agricultural, Forest, and Environmental Sciences, Clemson University, SCBA Executive Secretary

8:20  "President’s Address and Business Meeting" – Eck Miller, President – SCBA, York County Beekeeper

8:45  "Legislative Update" – State Senator Danny Verdin, District 9 (Greenville and Laurens Counties), Chairman, Senate Agriculture and Natural Resources Committee

9:05  "Eastern Apicultural Society 2012 Meeting Announcement" – Steve Genta, Member EAS Board of Directors

9:10  "American Beekeeping Federation News" – Reg Wilbanks, Owner: Wilbanks Apiaries, Claxton, Georgia

9:15  "Varroa Sensitive Hygienic (VSH) Breeding Program" – Jeff Harris, Extension/Research Apiculturist, Mississippi State University, Starkville, Mississippi

9:45  Break - Visit Exhibitors

10:10  Door Prizes

10:15  "TBA" Steve Sheppard, Research Apiculturist, Washington State University, Pullman, Washington

10:45  "Top Bar Hives" Wyatt Mangum, Professor & Honey Bee Scientist, University of Mary Washington, Virginia

11:15  "TBA", Reg Wilbanks, Wilbanks Apiaries, Claxton, GA

11:45  Lunch on your own

1:10 PM  Door Prizes, Announcements, State Fair Report (Frank Blanchard, Chapin, Midlands Beekeeper), Introduction to Workshops

1:30  Concurrent 45 Minute Workshops (Sessions begin on the half hour)

1.  "TBA" – Steve Sheppard (room #)
3.  "Beekeeping Equipment for the Beginner" – Shane Gebauer, Brushy Mountain Bee Farm (room #)
4.  "How to Prepare Your Honey Show Entries" – Virginia Webb, Clarkesville, Georgia (room #)
5.  "Making Meade" – Robert Brewer, Hiawassee, Georgia (room #)
6.  “Queen Rearing Short Course #2 for the Small Scale Beekeeper” – Wyatt Mangum (Cherry Farm Honey House and Apiaries, Prepaid Enrollment Required)
7. “SC Master Beekeeper Program, Certified, Journeyman, and Master Level Written Tests” – David MacFawn (offered first hour only), (Newman Hall Auditorium)
8. “Local Associations Administrators Meeting” – Eck Miller (room #) (first hour only, 1:30)
9. “Small Hive Beetle Management” – Mike Hood (room #), (second hour only, 2:30)

4:30 Depart for Evening Activities at Jimmy Howard’s Home (Wild Hog Rd, Hwy 187, Pendleton, See Map onRegistration Table for Directions)
Horseshoe Pitching Tourney
Barbecue Pork/Baked Chicken Supper ($7.00/Plate – Prepaid Recommended) Frank & Carol Blanchard Smoker Lighting Contest, Edd Buchanan, Black Mountain, NC

Saturday, July 16, 2011

8:00 AM Announcements & Door Prizes
8:15 Results of the Honey Show - Steve Genta, Honey Competition Judge
8:30 “Small Hive Beetle Research” – Shannon Peterson, Clemson University Graduate Student, School ofAgricultural, Forest, and Environmental Sciences
9:00 “Split Hives versus Commercial Packages” – Rhonda Durham & Frank Cantrell, Pickens County Beekeepers
9:30 Break - Visit Exhibitors
9:55 Door Prizes
10:00 “TBA” – Steve Sheppard
10:30 “Colony Usurpation in European Honey Bees” – Wyatt Mangum
11:00 “Russian Bees in the US” – Jeff Harris
11:30 “Final Door Prizes, Announcements and Closing Comments” – Eck Miller, President, SCBA
12:00 End - Have a Safe Trip Home!

(SCBA Executive Committee Meeting at 12:15)
ADVANCED REGISTRATION FORM FOR SCBA 2012 SUMMER MEETING, HENDRIX STUDENT CENTER, CLEMSON UNIVERSITY CLEMSON, SOUTH CAROLINA, JULY 19-21, 2012

NAME(S) _______________________________ (CHILDREN) ____________________

ADDRESS: ______________________________ CITY: _________________________

STATE: _____________________ ZIP CODE: ______________

PHONE: ( ) _____________EMAIL: (required if you wish to receive receipt)

REGISTRATION FEE*:

<table>
<thead>
<tr>
<th>Registration Type</th>
<th>Amount</th>
<th>Paid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual Registration (SCBA Member)</td>
<td>$15.00</td>
<td>_____</td>
</tr>
<tr>
<td>Family (Immediate) Registration (SCBA Member)</td>
<td>$20.00</td>
<td></td>
</tr>
<tr>
<td>Individual Registration (Non-Member SCBA)</td>
<td>$25.00</td>
<td></td>
</tr>
<tr>
<td>Family (Immediate) Registration (Non-Member (SCBA)</td>
<td>$30.00</td>
<td></td>
</tr>
<tr>
<td>(*Onsite registration will be an additional $5)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Friday Dinner Menu: Barbecue Pork/Baked Chicken, Green Beans, Rice/Hash, Cole-Slaw, Bread, and Tea

DINNER TICKETS: $7 ADULTS / $4 CHILDREN (6 yrs or younger)

<table>
<thead>
<tr>
<th>Dinner Tickets (how many adults):</th>
<th>@ $7</th>
<th>______</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dinner Tickets (how many children)</td>
<td>@ $4</td>
<td></td>
</tr>
</tbody>
</table>

HOUSING - ON CAMPUS DORMS: $19/individual/day

<table>
<thead>
<tr>
<th>Circle the nights you will stay: Thursday Friday</th>
<th>@ $19</th>
<th>_____</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linen packet: $15 (or provide your own &amp; bring pillow)</td>
<td>@ $15</td>
<td>_____</td>
</tr>
</tbody>
</table>

ANNUAL SCBA DUES (Year 2012)

| $10.00 |      |

DONATION TO THE PAUL BROWN “SAVE OUR BEES RESEARCH FUND” (TAX DEDUCTIBLE)

TOTAL CHECK AMOUNT= ____________

PLEASE COMPLETE FORM AND MAIL WITH CHECK NO LATER THAN 29 JUNE 2012. MAKE CHECK PAYABLE TO SCBA & MAIL TO:

Don Van Borsch, SCBA Sec/Treas
407 Old Plantation Drive
West Columbia, SC 29172

OFF-CAMPUS HOTEL RESERVATIONS: Reservations are your responsibility. Please see Meeting Announcement in June Newsletter for details.

FOR OFFICE USE ONLY:

Amount Paid: _________ Check No: _________ Date: ____________
ADVANCED REGISTRATION FORM FOR SCBA 2012 SUMMER MEETING QUEEN REARING WORKSHOP FOR THE SMALL-SCALE BEEKEEPER
CHERRY FARM HONEY HOUSE AND APIARY
CLEMSON UNIVERSITY, CLEMSON, SC, JULY 19 & 20, 2012

NAME: ____________________________________________

ADDRESS: ______________________________________ CITY: ________________________________

STATE: ___________________ ZIP CODE: _____________

PHONE: ( ) ___________ EMAIL: ______________________ (Required if you want a receipt prior to the meeting)

SHORT COURSE DESCRIPTION: Two workshops will be offered with limited enrollment (20) in each course. The first short course will be offered on Thursday, 19 July from 1:30-4:30 and the second short course will be offered at the same time on Friday, 20 July. Bring along a bee veil as a minimum. Course instructor will be Wyatt Mangum, University of Mary Washington, Virginia.

REGISTRATION FEE:

<table>
<thead>
<tr>
<th>Registration Type</th>
<th>Amount Paid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual Registration (SCBA Member) (nonrefundable)</td>
<td>$25.00</td>
</tr>
<tr>
<td>Individual Registration (Non-Member SCBA) (nonrefundable)</td>
<td>$35.00</td>
</tr>
</tbody>
</table>

TOTAL CHECK AMOUNT MADE OUT TO THE SCBA: _______________________

PLEASE EMAIL STACI SILER stacisiler@bellsouth.net TO HAVE YOUR NAME ADDED TO THE SHORT COURSE ROLL (LIMITED ENROLLMENT, FIRST COME, FIRST SERVE). AFTER YOUR NAME IS CONFIRMED TO BE ON ONE OF THE CLASS ROLLS, YOU WILL NEED TO MAIL STACI A CHECK IN ADVANCE (NO LATER THAN 25 JUNE 2012) OF THE SCBA MEETING TO GUARANTEE YOUR ENROLLMENT. (Do not mail check till you are enrolled.)

COMPLETE FORM AND MAIL WITH CHECK AFTER YOU RECEIVE CONFIRMATION FROM STACI THAT YOU ARE ENROLLED. MAIL CHECK TO:

SCBA
P. O. Box 7103
Aiken, SC 29804
Email: stacisiler@bellsouth.net

FOR OFFICE USE ONLY:

Amount Paid: _______ Check No: _______ Date: ____________
SESSION I – (Hendrix Student Center – 2nd Floor Ballroom)

1:00 PM  INTRODUCTION, BEEKEEPING LITERATURE, SUPPLIES, BEEKEEPING ASSOCIATIONS, AND THE S.C. MASTER BEEKEEPER PROGRAM – Steve Genta - Simpsonville

1:20  STARTING RIGHT – Steve Genta

1:40  HONEY BEE BIOLOGY – David MacFawn, Lexington

2:10  DISEASES & PESTS – Mell Wallace, Laurens

2:50  BREAK

3:15  Seasonal Management - The Beekeepers Calendar – David MacFawn, Lexington

4:00  Honey Bee Plants – Steve Genta

4:30  Handling and Packaging Honey – Steve Genta

5:00  Dinner on Your Own

SESSION II – (CHERRY FARM, Natural Resources Drive)

6:30  Parts of a Beehive & Other Beekeeping Equipment – David MacFawn
   
   Visit an Apiary – Mell Wallace
   
   Honey Bee Colony Demonstration – Mell Wallace

7:45  Honey Harvest and Extraction – Barbara Tate, Greenville

8:15  Question and Answer Session

8:30  END OF SHORT COURSE
HONEY PUNCH
Ingredients
- 1 cup honey
- ½ cup hot water
- ½ cup lemon juice
- 1 ½ cups orange juice
- 1 ½ cups cold water
- 1 can unsweetened pineapple juice
- 1 to 2 liters ginger ale

Directions
Add honey to hot water; add fruit juices and water. Chill. Just before serving add ginger ale. Garnish with lemon or orange slices and maraschino cherries.

SOURCE: http://www.abfnet.org/

NO PEEK STEW
Ingredients
- 2 lbs. cubed beef
- 4 to 5 cubed raw potatoes
- 6 sliced raw carrots
- 2 stalks sliced or diced celery
- 1 onion, chopped
- 3 tsp. minute tapioca
- 1 ½ tsp. honey
- 1 tsp. salt
- ¼ tsp. black pepper
- ¼ tsp. garlic salt (optional)
- 1 ½ cups tomato juice

Directions
Put meat in a 9 x 13 inch baking pan. On top of the meat, place potatoes, carrots, celery and onion. Mix remainder of ingredients and pour over all. Seal with foil and bake 5 hours at 250°F. DO NOT PEEK!

SOURCE: http://www.abfnet.org/

HONEY COMBO STICKIES
Ingredients
- 1 – 4” X 4” Comb Honey
- 1 cup chopped almonds
- 2 cups chocolate for dipping

Directions
Take a 4” x 4” cut of comb honey and cut into ½” to 1” squares. Place on waxed paper. Use a sharp knife, dipping in very hot water for each cut to make cuts easier. Place honey in freezer for about one hour. Melt chocolate. Roll each piece of honeycomb in chopped almonds and dip into melted chocolate. Keep chilled and wrap individually in waxed paper.

SOURCE: http://www.abfnet.org/

HONEY COLE SLAW
Ingredients
- ½ cup mayonnaise
- 2 Tbsp. honey
- ¼ tsp. onion powder
- 4 cups grated cabbage or pkg. of already prepared slaw
- 2 Tbsp. vinegar
- ½ tsp. salt
- ¼ tsp. celery seed

Directions
Combine all ingredients except cabbage. Pour over shredded cabbage and mix well.

SOURCE: http://www.abfnet.org/

CREAM CHEESE SPREAD
Ingredients
- 8 ounces softened cream cheese
- ¼ cup orange marmalade
- 2 Tbsp. honey

Directions
In a small bowl, beat cream cheese until light and fluffy. Add marmalade and honey and beat until blended.

SOURCE: http://www.abfnet.org/

Respectfully submitted,

William Michael Hood,
Extension Apiculturist
ADDRESS SERVICE REQUESTED

Please mail any questions you may have to: News for SC Beekeepers, Tammy P. Morton, 230 Parkway Drive, 114 Long Hall, Clemson University, Clemson, SC 29634-0310 or call the number listed above.