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 20-22 July 2006. Registration will begin on Thursday, 20 July at 12:00 noon in the Poole Agricultural Center Lobby. (See program for registration details.) The meeting will begin at 1:00 in the Poole Agricultural Center Auditorium 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 of the short course will begin at 7:00 and end at 9:00 PM.

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 Paul Jackson from Texas A&M University, Amanda Ellis from the University of Georgia, Jamie Ellis from the University of Florida, Robin Mountain from Kentucky, Fred Rossman from Moultrie, Georgia, Reg Wilbanks from Claxton, Georgia, Ann Harmon from Flint Hill, Virginia and Bob Cole from Todd, North Carolina. We have several other speakers from South Carolina who will speak at the meeting. For more details, you will find a meeting program in this newsletter. A spouse’s program is scheduled on Friday morning. They will visit the nearby SC State Botanical Gardens, historic John C. Calhoun Mansion and Hanover House.

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 tall tales contest. Dinner will be served for $6.00/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 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. Honey entries should be turned in for the competition from 7:30 - 10:30 on Friday morning. June Ponder from the Oconee Beekeepers will oversee this event. Ribbons will be awarded for each category.

On-campus housing will not be available during the meeting due to dorm renovations this summer. Meals are available on campus at the Harcombe Food Court for Thursday lunch & dinner, Friday breakfast & lunch, and Saturday breakfast. There is also a food court in the new Hendrix Student Center which is about a 5 minute walk from our meeting site. And yes, this is the same place where you can buy the delicious ice cream and blue cheese.

Accommodations are available off campus in the Clemson area as follows: Clemson Sleep Inn, $57, (864) 653-6000, includes continental breakfast; Clemson Days Inn, $57, (864) 653-4411, includes continental breakfast. Mention that you are attending the South Carolina Beekeepers Convention to get the University rate. You will need to make your reservation 14 days prior to our meeting to get this rate (by 6 July).

Our designated parking lot for this meeting is the large commuter parking lot (orange marked parking spaces) behind the Poole Agricultural Center. Please do not park in the employee parking spaces marked green or you will get a parking ticket. You will need to pick up a hang tag for your vehicle at our registration desk immediately upon your arrival on campus and place it on your vehicle.

Let’s continue to make the South Carolina Beekeepers summer meeting a great success; invite some beekeeping friends to come along for an educational vacation. If you have questions about the meeting, please contact Mike Hood, ph. (864) 656-0346, email <mhood@clemson.edu>.

SOUTH CAROLINA STATE FAIR 2006

The 2006 South Carolina State Fair is scheduled to be held October 11-22 in Columbia. Our beekeeping booth at the fair provides us with a great opportunity to promote our products and beekeeping in general in a
Almost every future use of honey and beeswax occurred in ancient Egypt.

B.C., also appeared in Spain. However, the first clear evidence of beekeeping occurred in ancient Egypt.

The 4-H Beekeeping Essay Contest. She continued: "As early as 6000 B.C., a rock painting in Spain portrayed two figures collecting wild honey. Another more elaborate honey-hunting scene, painted around 4000 B.C., also appeared in Spain. However, the first clear evidence of beekeeping occurred in ancient Egypt. Almost every future use of honey bees, honey, and beeswax occurred in ancient Egypt."

Hayley Schoeppler, as she began her first place essay in the 4-H Beekeeping Essay Contest. She continued: "As early as 6000 B.C., a rock painting in Spain portrayed two figures collecting wild honey. Another more elaborate honey-hunting scene, painted around 4000 B.C., also appeared in Spain. However, the first clear evidence of beekeeping occurred in ancient Egypt. Almost every future use of honey bees, honey, and beeswax occurred in ancient Egypt."

Hayley is a 14-year-old from Merrill, Wisconsin. As first place winner, she received a $250.00 cash award. She had 38 footnotes referenced in her essay, plus five additional references. The judges said her work had college freshman quality.

The second place essay came from Grace Layton, 17, of Starkville. "The honey bee is an insect that has stamped itself into the lives of men," she wrote. Concluding her essay, she said, "(Honey bees) are small and engrossed in themselves, yet by just being bees, they have touched so many parts of creation." Her second place prize is $100.00.

The third place essay was written by Rocko Worth, 16, of Bend, Oregon. He gets a cash award of $50.00. "Honey bees have been used as symbols in countless cultures, almost all of them good," he wrote. "They seem to be regarded as an inherently positive, but dangerous species. They are worthy of our respect and have had the favor of the powerful for century upon century."

In addition to the three national prizes, the judges singled out Todd Elliott, 14, of Union Mills, NC, for honorable mention. He will receive a suitable gift compliments of the National Honey Board.

Each state winner, including the national winners, will receive a copy of a book about beekeeping and a tote bag from the ABF.

The essay topic for 2007 is "Pollinator Conservation." Insects pollinate more than 95 crops grown in the U.S. These crops are worth more than $19 billion, and they could not be grown without their insect pollinators. Insects also pollinate many plants that add beauty and color to our world, including many of the flowers we use to celebrate happy occasions and to comfort one another in times of grief. Measures to protect and conserve pollinating insects are needed to reduce the negative impact of urban expansion, bringing more land under cultivation, and other factors that negatively affect pollinating insects.

Students interested in writing should contact their local 4-H offices for contest details. The state selection must be done through the 4-H system.


A SPECIAL LINE OF BEES USES THE POWER OF HYGIENE TO FEND OFF ITS WORST FOE

Among the small, hexagonal pockets of honeycomb that provide shelter to a bustling bee society, there’s often another caste of tiny critters thriving just beneath the
Mites in the Making

It’s easy to dislike Varroa. Like most parasites, they’re nimble, adaptive, and astonishingly resourceful. For example, when it comes time to raise their own offspring, the mites will raid honey bees’ individual nurseries, or brood cells.

“When she’s about to reproduce, a mother mite, known as a foundress,” says Harbo, “will invade a brood cell containing a developing bee larva. To gain access to the cell, she’ll ride the belly side of a nurse bee, which is onsite to tend to the bee larva. Then she’ll crawl down to the bottom of the cell and immerse herself in food that was deposited for the immature bee.”

While tucked safely inside the confines of the brood cell, the mother mite may produce as many as five daughters and one son, says Harbo. When they’re old enough, they’ll attach to the developing bee and feed on its blood. This may cause the immature bee, which is still vulnerable and soft, to develop malformations such as misshapen wings and legs.

When young bees reach the adult stage and are ready to exit the protective walls of the brood cells, they inadvertently release the mother mite and her now-mature daughters. The mites then seek out other adult bees to cling to and parasitize until they’re ready to reproduce.

While it’s tedious work, Harbo and Harris have closely studied Varroa mites’ reproductive cycle and activities. Harris has even gone so far as to glue flecks of craft glitter onto female mites to visually track their movements and fate within a bee colony.

So the two were thrilled 9 years ago when they thought they’d discovered a trait in bees that could keep individual mites from reproducing.

They called this trait “SMR” for its apparent ability to suppress mite reproduction. (See “SMR—This Honey of a Trait Protects Bees From Deadly Mites,” Agricultural Research, May 2004.) When SMR bees were introduced into a colony, Harbo and Harris would watch numbers of mite offspring plummet.

The exact mechanism behind this intriguing trait remained unclear, but the researchers figured that a young SMR bee whose brood cell was infested with a female mite was somehow interrupting her attempts to reproduce—possibly through chemical cues.

Then a new explanation was offered by fellow bee researchers Marla Spivak and Abdullah Ibrahim at the University of Minnesota. Harbo and Harris tested their theory, and it turned out they were right. The SMR bees aren’t altering the mites’ reproductive habits or capabilities in any way. Instead, they’re acting on hygienic impulses, selectively sniffing out and discarding brood cells infested by mites with offspring.

When Harbo and Harris couldn’t find mite offspring in SMR colonies, they figured it had something to do with faulty mite reproduction—but it was, in fact, the SMR bees’ keen ability to zero in on and remove young mites that was making all the difference.

Amazing Housekeepers, Yet Mysterious

“What normally happens when a bee detects infested brood,” says Harris, “is that it will pierce the waxy cap topping the cell, chew away at it, and then eat the parasitized bee.”

This can have a range of consequences, none of which bode well for the mite. The mites’ life cycle can be interrupted, the immature mites may die of starvation, or they may be eaten along with the mite-infested bee larva.

Often, two or more bees take part in this hygiene-related activity. “One bee will usually act as a detector, zeroing in on the sick, infested bee,” Harris says. “Then a remover bee comes along to consume the contents of the cell, ridding the colony of potential contamination.”

While the mite offspring are usually uprooted and destroyed in this process, the mother mites often survive. But through repeated interruptions to female mites’ attempts to raise offspring, the fastidious, Varroa-sensitive bees are having a sure and steady impact. The bees keep new mites from being produced, and over time this constant interference whittles down the overall mite population.
But there's still some mystery surrounding Harbo and Harris’ Varroa-specific bees. How are the bees able to home in on mites with families? What chemical cues are they using?

“We think that they can smell the mite’s offspring,” says Harris. But there are other possibilities. “Varroa mites carry viruses and diseases,” he says, “so bees infested by them could have a sickly smell.”

Harbo and Harris hope to better explain the bees' impressive hygiene abilities down the road, but in the meantime they’re upbeat about the insects' potential. It’s likely that their bees are sensitive not only to the presence of Varroa, but also to other diseases or pests, leaving them even better positioned to defend embattled hives.—By Erin K. Peabody, Agricultural Research Service Information Staff.

This research is part of Plant, Microbial, and Insect Genetic Resources, Genomics, and Genetic Improvement, an ARS National Program (#301) described on the World Wide Web at www.nps.ars.usda.gov.

John R. Harbo and Jeffrey W. Harris are in the USDA-ARS Honey Bee Breeding, Genetics, and Physiology Research Unit, 1157 Ben Hur Rd., Baton Rouge, LA 70820; phone (225) 767-9288 [Harbo], fax (225) 766-9212.


SEPARATING THE GOOD INFORMATION FROM THE 'HOOEY' TAKES TIME

by Tim Tucker, Master Beekeeper

I have been involved with beekeeping for over a dozen years now. Very early, it became apparent to me that this fine art of caring for these wondrous creatures is an "it all depends" type of situation. It all depends on the race of bee, the specific locale and your seasonal variations, and what type of equipment you are using (singles, story and a half, or doubles), and the end purpose that you intend to manage your bees for. Some times it almost seems overwhelming, and without a doubt, mildly confusing for the beginner or those who are under-experienced.

I found Malcolm Sanford's column in the January 2006 Bee Culture quite amusing. He quoted a couple of persons regarding how much of what is written is without merit. Whether it is 50% or 95% is not important, but what needs to be focused on is that much of what's been written and published is merely an opinion and not borne out by scientific evaluation and the real facts. So, what is a beginner or a person with a dozen years experience in this business supposed to do to ensure that we not waste our time in our attempts to educate ourselves and improve our chances for succeeding in this business?

I believe that one of the most important aspects of survival in today's extremely competitive world is the ability to network with other persons in our industry who are swimming against the current and managing to move ahead. WE all talk about how important mentoring is for the beginner in the first year or two to get started in keeping bees, but if you are going to advance through the ranks of beginner, hobbyist, and sideliner to full time beekeeping, you need instruction and advice all through the process.

Someone in your area who has made a living keeping bees during this last decade of difficulty would be a great person to team up with to follow, watch, and observe. You might even volunteer your time for help with aspects of their business that you would like to get a better understanding of, whether it's managing honey flows, making increase, extracting, or treating for pests and disease. And sometimes it's just nice to have someone to call to ask a question or two. It's the smart ones who learn from their mistakes but it's the truly brilliant people who learn from watching others make mistakes and avoid them altogether. It's a lot more enjoyable as well, and I think it definitely saves time and a lot of frustration.

I have had the good fortune to be involved very actively in my state association and have met several friends that I do not hesitate to call if I have a question or two – and it is always good to just talk of the bees. Often times my wife will be pointing to the clock and whispering, "It's been over an hour." Or, "You're worse than a couple of old ladies chatting away the evening." But it is usually a great deal of fun, sharing experiences with those you have much in common with. Attending the national convention for the last five years, I have met many experienced beekeepers that, I trust, would be more than happy to share whatever knowledge they possess with anyone having questions in an effort to be of help. I have only met a few beekeepers that I am sure would be unwilling to help others, and that is their misfortune indeed. Most of us know how important it is to be of assistance to newbees in an effort to perpetuate our profession. Hey, who are we going to sell all of this stuff to when we start slowing down, if everybody is gone?

Probably the next most important thing after finding someone to emulate and glean knowledge from is to read. Read everything you can get your hands on with a full appreciation for the fact that at least 50% of it is a bunch of "hooey." But that means that much is not "hooey," and if you are able to glean the kernels of grain from the chaff, dirt, and debris, then you may on occasion find food for thought – or at least a snack.

During the recent ABF convention in Louisville there were collections of several past years’ of American Bee Journal at the silent auction. These past editions are repositories of most of the new thoughts for the times and years they cover. I have been fortunate to collect many of the American Bee Journal and Gleanings in Bee Culture for most of the past 40 years and continually refer to these issues as a source for articles and presentations. It is amazing how many great scientific people and beekeepers have contributed over the years. Anyone who does not have a collection of these past
periodicals is shortchanged in their educational experience. And they went very cheaply at the silent auction.

Another invaluable resource tool today is the Internet. The information available is as vast as one's imagination and willingness to pursue it. It is getting to the point where there is no longer enough time to explore all of the links that refer to beekeeping. Some use "surfing" as a descriptive for maneuvering the web, but I think "monkeying around" more accurately describes the swinging from link to link, checking for any tidbits that might pop up. Of course those who spend the time doing such are being called "Web Monkeys." There are some wonderful and incredibly informative places to start. In the coming issues of this Newsletter I will attempt to introduce you to some of the better ones, if you allow me. Perhaps we'll find a banana or two.

(Tim Tucker is a member of the ABF Board of Directors, representing the Hobbyist-Sideliner Special Interest Group. He lives in Niotaze, Kansas.)


**HONEY VINAIGRETTE**

1/3 cup Red Wine Vinegar  
¼ cup honey  
¼ cup olive oil  
2 tablespoons lemon juice  
1 ½ teaspoons dry mustard  
salt and pepper to taste.

Combine all ingredients; mix thoroughly. Makes 1 ¼ cups.


Respectfully submitted,

William Michael Hood  
Extension Apiculturist

**FROM YOUR FORMER EDITOR**

I have greatly enjoyed being your editor of this newsletter for the past few years. While I will no longer be your editor, this is not a final goodbye. I am still with the department and hope to have continued contact with those of you that I have met at various meetings of the association or over the phone. I'll still keep looking for (and of course trying!) recipes that contain honey to pass along to your new editor, Rachel Rowe.

Yours truly,

Tammy P. Morton

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**RECIPES**

**Lemon Honey Chicken and Stuffing**

Prep Time: 10 minutes  
Bake Time: 1 hour  
Serves: 6—Perfect for any family gathering, this oven-easy supper features lemony glazed chicken filled with a savory stuffing.

**Ingredients:**

- 1 3/4 cups Swanson® Chicken Broth  
- 2 medium carrots, shredded  
- 4 cups Pepperidge Farm® Pepperidge Farm® Herb Seasoned Stuffing  
- 6 bone-in chicken breast halves, skin removed  
- 2 tbsp. honey  
- 2 tbsp. lemon juice  
- 1 tbsp. chopped fresh parsley OR 1 tsp. dried parsley flakes  
- 3 lemon slices, each cut in half

**DIRECTIONS:**

MIX broth and carrots in saucepan. Heat to a boil. Remove from heat. Add stuffing and mix lightly. PLACE in greased 3-qt. shallow baking dish. Top with chicken. Bake at 375°F. for 50 min. MIX honey, lemon juice and parsley. Spoon over chicken. Place lemon slices on chicken. Bake 10 min. or until chicken is done.

TIP: Swanson Kitchen Tip: This recipe is also great using Swanson® Natural Goodness™ or Certified Organic Chicken Broth in place of the regular chicken broth.


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**2006 Calendar**

**July 13-15, 2006**

NC State Beekeepers Annual Summer Meeting  
High Point, NC

**July 20-22, 2006**

SC Beekeepers Annual Summer Meeting  
Clemson University, Clemson, SC

**July 31-August 4, 2006**

Eastern Apicultural Society Annual Short Course & Conference  
Young Harris College, Hiawassee, GA

**Sept. 29-30, 2006**

Georgia Beekeepers Association Fall Meeting  
Newnan, GA
2006 SCBA SUMMER MEETING SCHEDULE

Thursday, July 20, 2006

12:00 N........ Meeting Registration - Poole Agricultural Center Lobby - $3 Members, $5 Family, $8 Nonmembers
   Exhibitor Setup - Poole Agricultural Center Lobby
1:00 ............. Beginner Level Beekeeping Short Course - Session I
   Poole Agric. Center Auditorium
5:00 ............. Dinner on your own

SCBA Executive Committee Meeting

7:00 ............. Beginner Level Beekeeping Short Course - Session II
9:00 ............. Adjourn for Evening

Friday, July 21, 2006

8:00 AM ........ "Invocation" - Jack Corbett, Midstate Beekeeper, Camden
   "Welcome to Clemson University" – Fran Wolak, CU Cooperative Extension Chief Operating Officer – Field
   Operations
8:10 ............. “Announcements and Introductions” - Mike Hood, Extension Apiculturist, CU, Executive Secretary, SCBA
8:20 ............. “President’s Address and Business Meeting” - Henry Chassereau, President - SCBA
8:40 ............. “Legislative Update” - TBA
9:00 ............. “Eastern Apicultural Society 2006 Meeting Announcement” - Bob Cole, Todd, North Carolina
9:05 ............. “American Beekeeping Federation News” - Reg Wilbanks, Claxton, Georgia
9:15 ............. “Movement of Africanized Honey Bees in Texas” - Paul Jackson, Texas State Apiarist, Texas A& M
   University, College Station, Texas
9:45 ............. Break - Visit Exhibitors
10:10 .......... Door Prizes
10:15 ............ “Africanized Honey Bees in the Southeast” - Jamie Ellis, University of Florida, Gainesville
10:45 ............ “Mite Control for Healthy Bee Colonies” - Robin Mountain, Dadant Branch Manager, Kentucky
11:15 ............ TBA, Fred Rossman, Rossman Apiaries, Moultrie, GA
11:45 ............ Lunch on your own
1:10 ............. Door Prizes, Announcements, Larry Wessinger - “State Fair Report”
1:20 ............. Workshop Introduction

1:30 ............. Concurrent 45 Minute Workshops (Sessions begin on the half hour)
   1. “History and Demonstration of US Beekeeping Smokers” - Paul Jackson
   2. “Maintaining Healthy Queens” - Robin Mountain
   3. “Africanized Honey Bee Discussion” - Jamie Ellis
   4. “How to Address the Media” - Anne Harmon
   5. “How to Recruit New Beekeepers” - Hartmut Jung, Aiken County Beekeeper
   6. South Carolina Master Beekeeper Program, Written and Practical Tests (offered first hour only)
4:30 .............. Depart for Evening Activities at Jimmy Howard’s Home
    Horseshoe Pitching Tourney
    Barbecue Pork/Baked Chicken Supper ($6.00/Plate) Frank & Carol Blanchard
    Tall Tales Contest

**Saturday, July 22, 2006**

8:00 .............. Announcements & Door Prizes
8:15 .............. Results of the Honey Show - Clyde McCall, Gene Rogers, and Steve Genta -- Honey Competion Judges
8:30 .............. “The Effects of Parasites on Honey Bee Pollination Ecology” - Amanda Ellis, University of Georgia, Athens
9:00 .............. “More on Africanized Honey Bees in Texas” - Paul Jackson
9:45 .............. Break - Visit Exhibitors
10:10 ............ Door Prizes
10:15 ............ “Queen Rearing” - Robin Mountain
10:45 ............ “Keeping Honey Bees in Haiti” - Ann Harmon, Flint Hill, Virginia
11:15 ............ “Latest Advances on Controlling Small Hive Beetles” - Jamie Ellis
11:45 ............ Closing Comments, Henry Chassereau, President, SCBA
12:00 ............ End - Have a Safe Trip Home!

**SCBA Executive Committee Meeting**

**SPOUSE’S PROGRAM**

**Friday, July 21, 2006**

8:30 AM ....... Meet at the Poole Agricultural Center Lobby

8:40 ............. Depart

    Tour Stop: SC State Botanical Gardens, John C. Calhoun Mansion, and Hanover House, Lunch in Pendleton (Tentative)

1:10 PM ........ Return to the Poole Agricultural Center
ADDRESS SERVICE REQUESTED

Please mail your change of address to: News for SC Beekeepers, Rachel Rowe, 116 Long Hall, Clemson University, Clemson, SC 29634-0315.

Name: _____________________________________________________________________________________________________

Address: ___________________________________________________________________________________________________

City: ____________________________________   State:  ________   Zip Code: ______________________

County: _________________________ Phone number: (         )____________________________________

E-mail address: __________________________________________________________________________