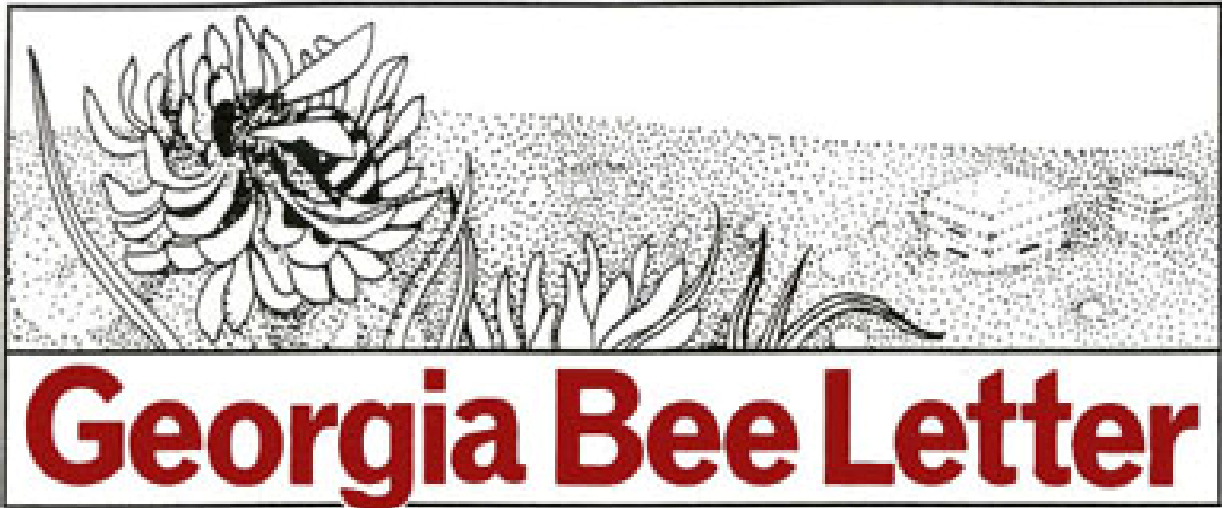




The University of Georgia

College of Agricultural and Environmental Sciences
Department of Entomology



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Editor: Jennifer Berry, Research Professional III

19th Annual Young Harris College Beekeeping Institute Draws Capacity Enrollment

By Charlie Gwyn

In May, 150 beekeepers from across the nation made the journey to Young Harris, Georgia for the nineteenth annual Young Harris Beekeeping Institute. A joint venture between the University of Georgia and Young Harris College, this prestigious event invariably boasts some of the most accomplished and knowledgeable speakers in the beekeeping community.

This year's rendition was no different, hosting experts with varying backgrounds and areas of expertise lecturing on topics ranging from basic beekeeping skills to advanced theory and techniques. Dr. Keith Delaplane, a noted scholar and researcher at the University of Georgia and Jennifer Berry, lab manager and research coordinator for the UGA Honey Bee Lab, led intermediate and advanced beekeepers through a core curriculum of honey bee morphology, life history, disorders, toxicology, breeding, genetics, pollination, diseases, and conservation. Dr. Paul Arnold, a professor of Biology and Dean of the Division of Mathematics and Science at Young Harris College, taught classes on pollen analysis of honey as well as plant biology. Also in attendance was Northern Ireland's own Michael Young, MBE, a distinguished culinary arts professor at Belfast Metropolitan College as well as a widely acclaimed leader in the beekeeping community. Mr. Young offered lectures on cooking with honey, products of the hive, and encaustic painting, an artistic painting technique involving hot wax mixed with various pigments.

Dr. Steve Sheppard, Professor of Entomology at Washington State University lectured on the importance of genetic diversity in beekeeping and practical applications for genetic theory. Dr. Sheppard also introduced new tools to be utilized for assessing and improving honey bee health. Jim Bobb, Chairman of the Eastern Apicultural Society, and previous President of the Pennsylvania Beekeepers Association, presented information on non-infectious honey bee disorders and honey plants, and led an outdoor workshop on optimizing honey production. Keith Fielder, Extension Coordinator for Putnam County, provided classes dealing with the production of creamed honey, non-chemical beekeeping, and the maintenance of nucs for all seasons. Cindy Bee, a Georgia Master Beekeeper, led workshops in the bee yard on getting started with beekeeping and wax rendering. Wil Montgomery, a Georgia Master Beekeeper, taught classes on the cell punch queen rearing method, while Bill Owens, Georgia's only Master Craftsman, led classes on honey processing and dealing with problem bees. Ohad Afik, UGA's postdoctorate candidate from Israel, led classes on honey bee viruses. Robert Brewer, Towns County Extension Coordinator, showed participants the techniques for mead making and Welsh honey judging, techniques he learned and perfected during his time in the United Kingdom. Lonnie Funderburg, a Master Beekeeper and President of the Alabama Beekeepers Association, led classes on frame construction, while Jimmy Carmack, a Georgia Master Beekeeper, led classes on the utilization of plastic frames. And bringing it in the home stretch, Charlie Gwyn, a master's student at UGA, taught classes on honey bee anatomy.



YOUNG HARRIS COLLEGE
UNIVERSITY OF GEORGIA



Beekeeping Institute

While the Institute offers an extensive schedule of courses, it also serves as a forum and gathering spot for beekeepers. Between classes, the Institute took on the buzz of an active hive as attendees gathered to share wisdom and an amusing anecdote or two. The Institute also offered time for attendees to offer up questions to the experts about their more difficult beekeeping issues. As a new addition to the Institute this year, more hands-on opportunities were offered as instructors were available to train new and intermediate beekeepers in hive working and diagnostic techniques. Additionally, a new installation featured honey bee dissections to allow participants to see first-hand the inner workings of the honey bee from the various biological systems to the significant morphological distinctions.

The honey show provided an opportunity for beekeepers to showcase their wares and the fruits of their and their bees' labors. Entries ranged from all classes of honey to various forms of hive products and art. This year's Best in Show award was a special one, as a new award was created to honor Michael Young, who has long been an exceptional supporter and contributor to the program: The Michael William Young, MBE Award for outstanding honey show entrée. This inaugural year it was awarded to Kristina Norton. Her name along with the names of subsequent winners will be engraved on the cup, a time honored tradition at the National Honey Show held each year in London. Michael Young MBE, Kristina Norton & Keith Delaplane are pictured in the photo below.



Three new Welsh Honey Judges were inducted as well after meeting all requirements. The Welsh Bee Keepers Association has partnered with the YHC/UGA Beekeeping Institute to offer training and certification for honey show judges. This is the only partnership of its kind between the USA and United Kingdom. Pictured below: E.N. Miller, Robert Brewer, Mitty Williamson and Tom Handford.



Another objective of the institute is not only to instruct all levels of beekeepers, but to provide certification as an indication of credibility and standing to beekeepers through the Master Beekeeper Program. The institute offers several tiers of certification based on individual expertise. Starting at the basic Certified level, the program advances next through the Journeyman stage, Master stage, and finally Master Craftsman. The upper levels of certification are extremely rigorous, requiring highly advanced honey bee knowledge and individual research. This year, several candidates successfully completed the certified level of the program and are now able to advance toward the journeyman track if they so desire. Three participants passed the Master level this year: Cindy Hodges, Linda Tillman and Jay Parsons. Congratulations!

The Institute was a great success as many new beekeepers were introduced to crucial beekeeping skills and knowledge, while advanced beekeepers perfected their craft. Next year the Institute will celebrate its 20th year. It promises to be a spectacular event that will more than likely sell out early. Registration information for the institute will be posted on our website www.ent.uga.edu/bees in spring 2011. For more photos of this year's Young Harris Bee Institute please go to www.ent.uga.edu/bees/young-harris/2010photos.html. (Photos courtesy of Cindy Hodges.)

The Heat is On

By Carly Poter, AccuWeather.com Writer



State College, Pa. -- 23 June 2010 -- AccuWeather.com reports summer has officially begun and AccuWeather.com Chief Long-Range Meteorologist, Joe Bastardi, is calling for more scorching temperatures to occur over much of the nation through August. Average summer temperatures will rival some of the hottest summers ever recorded across the eastern half of the nation. It's possible for record-breaking warmth in the first half of July for much of the nation, said Bastardi.

Despite the overall trend for warmth this summer, regions of the western portion of the United States will stay cool. "Temperatures near or below normal will be confined to the West Coast, Pacific Northwest and perhaps as far east as the western Dakotas," said Bastardi. August will feature similar temperatures as July, and September will begin the cooling into autumn. "August

will be similar to July, so much so, I have identical temperatures," said Bastardi. With vacation season ramping up and heat in the forecast for much of the nation's summer, the demand on energy will also be in full force. As the heat will be cranking over much of the nation, the 2010 hurricane season will also be more active. Bastardi predicts 18-21 storms, with at least eight impacts and six hurricanes, and two or three of those hurricanes having major landfalls.

Take extra precautions when out in the beeyard, especially in the summer. Drink plenty of water, wear light colored clothing, take plenty of breaks, and know the symptoms of heat exhaustion. Symptoms include, headache, dizziness, and extreme tiredness. You may also stop sweating, feel clammy or sick to your stomach. But symptoms unfortunately can vary from person to person. A good piece of advice, if working alone, always carry your cell phone in your pocket in case you need assistance (other than lifting that heavy super back onto the colony).

Shipping Container and Bee Pests: It's Only a Matter of Time!

Editorial Notes from The Australasian Beekeeper, April, 2010 edition and Kim Flottum, Bee Culture Magazine



The trucking magazine "Big Rigs" issue of January 2010 contained two reports from truckers who, on going to the wharf (it is not clear what wharf, but one in Australia somewhere), containers being collected were NOT being inspected if collected between 10 PM and 6 AM. One truck driver, leaving the wharf at 5:30 AM was waved through, because the quarantine office was not open until 6 AM. The second driver interviewed pointed out to

the quarantine staff the hypocrisy of only being inspected after 6 AM, and was told to take it up with the Federal Government.

To this the Editor of The Australian Beekeeper added: "All very well, but what happens when a swarm of *Apis mellifera* carrying *Varroa destructor* happens to be on a container leaving the quarantine area at 5:30 AM? Australia does not have, and does not want *Varroa destructor* on its soil."

And to this the editor of Bee Culture magazine added: "All very well, but what happens when a swarm of *Apis cerana* happens to be on a container leaving the quarantine area at 5:30 AM heading for the U.S. soil?"



Two years after the first find of *A. cerana* in Australia, authorities still are finding swarms from the initial incursion, yet incidents such as recorded above continue. The issue here isn't only whether there are mites or other problems associated with these bees, but that they can't even find all the bees, and quarantine situations are apparently not considered a serious security issue.

U.S. beekeepers do not want *A. cerana* in the U.S., nor do they want the pests associated with *cerana* (or for that matter, the Australian bees currently being imported into this country). Still, Australian authorities continue to say this cannot occur because *A. cerana* is located sufficiently far away from regions where *A. mellifera* is exported. Unless they get on a truck!

There is currently an ongoing comment period to APHIS on the safety of importing Australian honey bees into the U.S. Find out how to make a comment on how safe you feel about these bees. Got to www.BeeCulture.com, click the BUZZ archives link and then the original story with the link to the APHIS page.

Canada Bans Honey Bee Queens from Hawaii

By Emily Mathieu, Business Reporter for The Toronto Star

The Hawaiian queens are one to two months old when they are sent away from the balmy country of their birth, traveling with a cluster of worker bees to tend to their every whim. "She comes in a little matchbox-sized cage and the five attendants with her feed her. There is a little candy plug at the end of it with sugar to give them a little nutrition when they are in transit," said Heather Clay, chief executive officer with the Canadian Honey Council, describing one way that queen bees are shipped from Hawaii to Canada every year.

The queens are a vital component to the health and production of crops that Canada estimates are worth more than \$2 billion to the country's economy each year. With Canada facing what Clay described as "devastating" rates of honey bee mortality, imported queens are key to replenishing stock.

Every year Canada brings in about 150,000 queens, most from Hawaii. This year that vital process has been derailed. A virulent parasitic mite called *Varroa destructor* – partly responsible for high honey bee mortality across North America – has been found on Hawaii's main island and shipments of bees to Canada have been halted indefinitely. "It could make things very difficult," said Clay. "We get more than 100,000 queens from Hawaii, and we only import during a very narrow window of time, from late February to May."



A spokesperson for the U.S. Department of Agriculture said, “Hawaii discovered varroa mites in their honey bee population and, as a result, the Canadian Food Inspection Agency stopped all honey bee imports from Hawaii.” U.S and Canadian officials are working on a solution to allow Hawaiian bees to be shipped to Canada.

Canadian queens are not available until June, so beekeepers wanting an early start replenishing their colonies order from other countries. Canada

also imports bees from Australia, Chile, New Zealand and California. If the Hawaiian queens are kept out of Canada, those countries will likely ramp up production, said Clay.

Derrick Johnston, bee supply manager for the Alberta Honey Producers Cooperative, said bees are shipped from west to east as weather improves. Alberta typically gets its queens in late March or early April, said Johnston. He said it is impossible to calculate losses if the queens were delayed through spring. “I think initially it would be catastrophic. We rely heavily on those Hawaiian queens,” said Johnston.

The \$2 billion value is based on commercial crops reliant on pollination, the creation of hybrid canola seed and the increase in yield or quality in other crops, including apples. It does not account for the value of honey bees to plants in gardens and national parks. “If you go into a grocery store and you see a lopsided apple that is a clear example of inadequate pollination,” said Stephen Pernal, a research scientist with Agriculture and Agri-Food Canada working at Beaverlodge Research Farm in Lacombe, Alberta.

Canada has been experiencing high rates of mortality among honeybees for several years. The Canadian Association of Professional Apiculturists reported that last year, for the third year in a row, national mortality rates over winter and spring hovered near 30%, with 204,417 out of 603,824 commercial colonies lost. Ontario reported a loss of 24,800 out of 80,000, or 31%. “If keeping bees alive is going to be that difficult I don't see beekeepers being able to do that in the long term,” said Pernal.

Most commercial bee farmers in Canada deal in honey, but the number relying on pollination is rising, said Pernal. One pollination-dependent area of agriculture is the creation of hybrid canola seed, which has exploded during the last decade. Of the 240,000 colonies in Alberta, about 60,000 are contracted out for hybrid canola seed production, he said. Renting a colony costs between \$120 to \$150 for a summer. Once the seed is planted the wind takes care of pollination. No honey bees mean returning to a variety of non-hybrid seed, resulting in crops with lower disease resistance, less yield and less profit. Pollination can be done by other insects, wind or birds, but honey bees are the most easily managed for commercial agriculture, said Pernal. A sharp decline would not result in a severe food shortage. Staple crops like wheat, corn and rice are pollinated by wind. Blueberries, apples, raspberries and to a lesser degree cucumbers and

pumpkins are dependent on bees for pollination. Pernal describes it as a system reaching a breaking point in North America and Europe.

Very Different Microbes Acting In Concert May Be The Answer To CCD

From the 110th General Meeting of the American Society for Microbiology,
San Diego, CA, May 25, 2010

New research from the United States Department of Agriculture (USDA) identifies a new potential cause for “Colony Collapse Disorder” in honeybees. A group of pathogens including a fungus and family of viruses may be working together to cause the decline. Scientists report their results today at the in San Diego.

“There might be a synergism between two very different pathogens,” says Jay Evans of the USDA Agricultural Research Service, a researcher on the study. “When they show up together there is a significant correlation with colony decline. Domesticated honey bees face numerous pests and pathogens, tempting hypotheses that colony collapses arise from exposure to new or resurgent pathogens,” says Evans.

To better understand the cause of these collapses, in early 2007 Evans and his colleagues collected bees from both healthy and declining colonies across the country but primarily from California and Florida where most of the commercial pollination activity takes place. They have screened these samples and similar samples from each year since then for both known and novel pathogens. They found a slightly higher incidence of a fungal pathogen known as *Nosema ceranae* in sick colonies, but it was not statistically significant until they began pairing it with other pathogens. “Levels of the fungus were slightly higher in sick colonies, but the presence of that fungus and 2 or 3 RNA viruses from the family Dicistroviridae is a pretty strong predictor of collapse,” says Evans.

Nosema are transferred between bees via the fecal-oral route. When a bee initially ingests the microbes and they get to the mid-gut, they harpoon themselves into the gut wall and live inside the epithelial cells there. Evans believes that the slightly higher numbers of the fungus somehow compromise the gut wall and allow the viruses to overwhelm the bees. In colonies with higher Nosema numbers they found virus levels to be 2-3 times greater than healthy colonies. While this is a working theory and they are still in the discovery phase looking for new pathogens, Evans and his colleagues are also actively looking for a way to boost bee defenses against Nosema. “A way to protect against Nosema might be the key for now,” says Evans.

More Issues With Chinese Honey

By Alexa Olesen, Associated Press

In a previous issue we explored one avenue of the Chinese honey-laundering business. To summarize, cut-rate honey was shipped to the Philippines, relabeled and sent to the U.S. to avoid high U.S. levies on imports. But honey-laundering is just one of many unsavory practices that have besmirched China's vast honey industry and raised complaints from competing American beekeepers. China produces more honey than anywhere else in the world, about 300,000 metric tons (660 million pounds) a year or about 25 percent of the global total. But stocks are tainted with a potentially dangerous antibiotic and cheaper honeys are increasingly getting passed off as more expensive varieties.

Earlier this month, the U.S. Food and Drug Administration seized 64 drums of Chinese honey tainted with chloramphenicol, an antibiotic, at a warehouse in Philadelphia. Last year, the agency said two Chinese honey shipments were found to contain the drug, which is approved for medical use but banned in food products because in rare cases it can cause aplastic anemia, a potentially fatal illness.



Experts say quality problems are hard to avoid in a business dominated by small manufacturers, many of whom are poor and uneducated. Chinese honey collectors like Min Junguo, 47, spend every spring and summer chasing the flowers, lugging their bees from the chasteberry trees of south China to the yellow acacia blossoms around Beijing. While on the road, Min lives with his wife in a collapsible woodframe hut with a tarp draped over it and sleeps on a board propped up on boxes. He has a fifth-grade education and makes about \$4,500 in a good year, though much of that gets spent on sugar to feed his bees in the winter and transportation fees. Compared to the average rural income, which was just 5,153 yuan (about \$760), in 2009, he is doing pretty well. "I am not getting rich doing this, but it buys my freedom so I can be my own boss," said Min, as he stood in a shady patch of trees and flowers near the Great Wall, surrounded by more than 100 of his bee boxes.

Min denies using antibiotics. But China's supply chain for honey is long and little policed, so that it's hard to tell what corners are cut where. Min sells 5 tons of honey a year to roving middlemen, who batch it with other honey and resell it to factories and exporters. One of Min's buyers, Wei Nianhai, said Chinese authorities have cracked down on illegal antibiotics like chloramphenicol in recent years, but it's still a hard habit to break for many bee keepers. "If their bees got sick, the first thing in their mind is saving their bees instead of caring about the quality of honey," said Wei, a honey dealer from Chengde in central China's Henan province. "They can't afford the loss of bees." He also admitted that he doesn't test the honey he buys for the antibiotic because he doesn't have the time or the equipment — an indication of the lax enforcement behind China's food safety regulations.

Peter Leedham, managing director of the Suzhou office of the food testing company Eurofins Technology Service, says many Chinese bee keepers are untrained and unknowingly give their

bees the medicine." A lot of the honey farmers or honey collectors here are small businesses or even families and they do it basically to supplement income," he said. "They often will be told to add this wonderful mixture to whatever they are doing because it will help improve their yields. And they are not told what's in it by the sellers or what it does.

Leedham said his clients, who rely on Eurofins to test samples of Chinese honey to ensure it meets export standards, are increasingly concerned about authenticity or cheaper Chinese honey being passed off as more expensive varieties. U.S. Sen. Charles Schumer of New York has called for a federal standard for pure honey similar to guidelines already established for olive oil to help combat fakes or blends. He has also lobbied for tougher measures against customs cheats and says that between \$100-200 million in duties are being lost because of Chinese honey being laundered through India, Malaysia, Taiwan, Indonesia and other countries.

Honey fraud and honey-laundering are part of a controversial debate over whether or not the U.S. needs heavy subsidies to protect its homegrown honey industry. Eric Mussen, an apiculturist at the University of California, Davis, said it costs U.S. beekeepers about \$1.40 to make a pound of honey, including colony maintenance, transportation to honey production areas, harvesting and packing. Before tariffs, he said, Chinese honey was coming into the U.S. at about 35 cents per pound. "Obviously, this is not a 'level playing field,'" Mussen wrote in an e-mail response to questions. Mussen said if the antidumping tariffs were lifted, sales of U.S. honey "would probably drop way off, but not necessarily to zero. Many U.S. beekeepers would go out of business."

Fewer bees also could affect crops like California almonds, which rely on commercial crop pollination services that are carried out by bees, he said. But Chinese honey makers and the Chinese government say the U.S. duties, which can be nearly double the sale value of the honey, are unfair and discriminatory. China argues that because the U.S. subsidizes honey farmers, it doesn't need to protect them so vigorously from import competition. Chinese beekeepers this year welcomed a new measure that waived their highway toll fees, and they sometimes get local government support, but are not covered by a federal subsidy program.

Asked by a reporter to comment on honey laundering at a press briefing this month, Chinese Commerce Ministry spokesman Yao Jian sidestepped the question and expounded on China's frustration with U.S. import duties instead. "Currently, the U.S. levies \$2.63 in antidumping duties for every kilogram of Chinese honey," Yao said. "We hope to resolve this issue as soon as possible, and do away with this discriminatory measure. However, so far the U.S. side has not been very energetic in this regard."

Management Calendar: July to September in Georgia



UGA graduate student Charlie Gwyn

Even though the cool air of the indoors may be more desirable than the oppressive heat and high humidity outside, it is still important to check on your colonies during the summer months. Numerous issues may be compounding in your colonies right now as we languish in the comforts of our home. Here are some items you may want to check on since winter is just around the corner.

Summer to fall is still a great time to re-queen a colony so check the brood frames where the queen has been laying. If the pattern is spotty, you may want to look for other problems first such as disease or mite infestation before automatically assuming it's queen issues. However, the queen could be old, poorly mated, or not properly reared. If you determine that the queen is past her prime, late summer to fall is a great time to re-queen. If, by chance, you can't acquire another queen and the colony is weak, your best bet is to combine that colony with a strong one or one needing a boost. Weak colonies rarely survive the winter, so there's no sense in allowing the colony to limp along when you could have spared the bees and equipment from eventual disaster.

The next task is to assess the amount of honey stores in the hive. Depending on numerous factors (rainfall, temperature, etc.), nectar flows can be superb one year and horrible the next. If flows were below par or too much honey was taken for human consumption, feeding must become a priority today. Once the temperatures drop the bees won't be able to break cluster in order to collect the food. All the syrup in the world will be useless if the bees can't get to it. And think in terms of gallons when feeding. It has been my experience that 5 gallons of a 2:1 sugar solution (2 parts sugar to 1 part water) will yield one full medium super (roughly 40 pounds of honey). Depending on your neck of the woods, this may not be enough. If you are unsure how much honey is required to get a colony through winter in your region, consult an experienced beekeeper in your area.

A word of caution: feeding this time of year can be tricky, so be careful not to trigger robbing. A single drop of sugar syrup clinging to the side of a colony will attract attention, especially when nothing else is available. Once bees start robbing it becomes a feeding frenzy, with even strong colonies succumbing to the onslaught.

Next, examine the brood area for disease. You want to see healthy, white larva in the cells (as pictured to the right). Also look for depressed cappings or ones with holes. Open these and inspect the pupae. Anything slightly off colored may be a sign of trouble (unless the pupa is in its later stage of development). Again, if you are unsure about what may be ailing your colony, consult a professional for diagnosis and treatment options.



Another late summer chore is to inspect your equipment. Move frames with old comb to the outer edge so they can be removed in the spring and replaced with new foundation. Replace old, decrepit hive bodies, supers, lids, inner covers and bottom boards with newer equipment. Bee hives don't have to be pristine little palaces; however, they do need to protect the bees from the upcoming, frigid winter weather. Gaping holes and cracks allow access for critters to come and go. Mice especially love to make their winter homes in a bee hive. A continual food supply plus a warm cozy environment make it a suitable dwelling. Structurally tight equipment along with mouse guards works well to discourage these unwanted guests.



Queen issues, food supplies, disease, and bad equipment are all things that need to be addressed before the arctic air descends upon us. Yet there is still one more thing we must not overlook: varroa mites. Yes, the dreaded *Varroa destructor*. By the end of summer, mite populations are skyrocketing. Please don't wait until your colonies are crashing. Once the downward spiral begins it is almost impossible for them to recover. Check those mite populations today! Not only is it important to get their numbers under control for the existing bees, but also for the future bees that will bring the colony into the New Year. I'll get back to the importance of reducing mite populations, but first let's talk about these future bees.

The average lifespan of honey bees varies considerably based on the season when they emerge. These variations have been divided into two groups of bees dubbed summer bees and winter bees. Summer bees live approximately one month, while winter bees can live anywhere from six to eight months. Winter bees emerge during August or September, depending upon location, and differ from summer bees by several physiological characteristics. Scientists have determined that the lifespan of honey bees can largely be predicted by the amount of protein stored in the fat body, hemolymph, and hypopharyngeal glands. The most notable type of protein is the high-density glycolipoprotein vitellogenin. It is loosely described as a female-specific, hemolymph storage protein, or more specifically, an egg yolk protein precursor. However, since worker bees rarely lay eggs, this protein is stored in fat bodies for future use. This specific protein's relevance is largely based on its abundance in honey bee hemolymph as well as its high zinc concentration, which regulates many functions within the honey bee. Vitellogenin is also thought to be a powerful anti-oxidant, which significantly slows the effects of aging.

Now getting back to the importance of reducing mite populations. Higher mite populations at the end of summer or early fall coincide with the production of these winter bees. Results from research have shown that mite infestation during the pupal stage has a negative impact on bees because they're not able to accumulate the necessary hemolymph proteins, including vitellogenin, to the same extent as in non-infested bees hence reducing their ability to overwinter. In order for the colony to have a chance of overwintering successfully, it is imperative to reduce mite levels before the production of these winter bees. And let's step back even further; the bees rearing the winter bees need the proper nutrition and development as well. They must be healthy enough to rear the winter bees, and the bees rearing those bees need to be healthy and so on.

And one last thing, since adequate amounts of pollen must be available in order to produce winter bees, check the pollen supplies. If pollen stores are lacking, pollen patties are a must in summer to enhance the production of these winter bees, nurse bees, mother bees, etc.



Re-queening, appraising honey and pollen stores, checking for mites and disease, inspecting equipment while keeping robbing at bay will only help the colonies do what they do best. By storing honey for energy and pollen for protein, European bees have evolved to survive long winters. But unfortunately, with introduced exotic parasites, diseases, viruses and a whole host of other non-indigenous species, we have thrown this whole process out of kilter. Now we must be better stewards of our bees or face the consequences of finding an empty hive devoid of life.

How to Get Georgia Bee Letter

GBL can be received electronically by emailing your request to Jennifer Berry at jbee@uga.edu

Regular Meetings

Bartow Beekeepers Association www.bartowbeekeepers.com	7:00 pm, second Tuesday	Agriculture Services Building, Cartersville
Chattahoochee Valley Beekeepers Association www.chattahoocheebeekeepers.com	7:00 pm bimonthly, second Monday	Oxbow Meadows Nature Center, Columbus
Cherokee Beekeepers Club www.cherokeebeeclub.com	7:00 pm third Thursday	Lincolnton Club House, Lincolnton
Coastal Empire Beekeepers Association	6:30 pm second Monday	Southbridge Tennis Complex, Savannah
Coweta Beekeepers Association www.cowetabeekeepers.org	7:00 pm second Monday	Asa Powell Sr. Expo Center, Newnan, Georgia
East Central Georgia Bee Club	7:00 pm fourth Monday, (bi-monthly)	Burke Co. Office Park Complex
Eastern Piedmont Beekeepers Association www.easternpiedmontbeekeepers.org	7:30 pm first Monday	UGA Bee Lab, 1221 Hog Mtn Rd, Watkinsville
Forsyth Beekeepers Club	6:30 pm fourth Thursday	Forsyth County Main Library, Cumming
Henry County Beekeepers www.henrycountybeekeepers.org	7:00 pm second Tuesday	Public Safety Bldg., Route 155, McDonough
Heart of Georgia Beekeepers Association	7:00 pm third Tuesday	Houston Co. Gov't Building, Perry
Metro Atlanta Beekeepers Association www.metroatlantabeekeepers.org	7:00 pm second Wednesday	Atlanta Botanical Garden, Atlanta
Mountain Beekeepers Association	7:00 pm first Tuesday	Mountain Regional Library, Young Harris
Northeast Mountain Beekeepers Association	7:00 pm second Thursday	Northeast Georgia Regional Library, Clarksville
Northwest Georgia Beekeepers Association www.northwestgeorgiabeekeepers.com	7:00 pm second Monday, Jan - June & Sept	Walker County Agric. Center, Rock Spring
Oglethorpe County Bee Club www.ocbeeclub.org700	7:00 pm, third Monday	Oglethorpe Farm Bureau Building
Southeast Georgia Beekeepers Association	7:00 pm fourth Tuesday, Aug-March	Contact Ben Bruce 912-487-2001
Southwest Georgia Beekeepers Association	7:30 pm last Tuesday, even months	Swords Apiaries, Moultrie
Tara Beekeepers Assn (Clayton Co. area) www.tarabeekeeping.org	7:30 pm third Monday	Kiwanis Room, Georgia Power Bldg, Forest Park
Troup County Association of Beekeepers	7:00 pm, third Monday	4-H Ag. Bldg. on Hwy 27 at Vulcan Rd.

Beekeeping Subscriptions

<i>American Bee Journal</i> , Hamilton, Illinois, 62341	217-847-3324
<i>Bee Culture</i> , 623 W. Liberty Street, Medina Ohio, 44256	330-725-6677
<i>The Speedy Bee</i> , P.O. Box 998 Jesup, Georgia 31598-0998	912-427-4018

Resource People for Georgia Beekeeping

For a complete listing of resource people and associations please go to
<http://www.ent.uga.edu/bees/associations.html>