



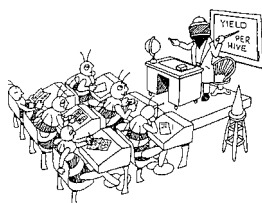
News For South Carolina Beekeepers

October, 1997

Vol. 8, No. 3

PRESIDENT'S MESSAGE

From what I have heard this has been a fairly good year for South Carolina Beekeeping. The early Spring honey flow caught many of us off guard. Many beekeepers had to hurry to put their hives in place to start collecting nectar. We still have problems with our mites. We have to inspect and treat in the Fall and Spring.



We had a good turn out for our Summer meeting at Clemson. Mike Hood and the State Beekeepers did an excellent job in putting together an informative three days. We had many beekeepers attend this conference for the first time. This is a credit to the support of the local associations. Mike Hood and David MacFawn put together another short course for beginners which had very good attendance. I heard everyone enjoyed the field day to the Cherry Farm honey house. We had an excellent Bar-B-Que social. Jimmy Howard was the big winner in horseshoes and the Tall Tales Contest. The Lowcountry Beekeepers squeaked in as the group with the largest number of members in attendance. We are going to change our procedure for recognizing members of local associations present. When you check in you will identify your local association and the number present at the check in desk. The reason for the change is that many beekeepers attend only one day and do not get counted on Saturday.

Overall this has been a good year for both the State Beekeepers and local associations conducting beginning beekeeping courses. We have trained over 100 new beekeepers statewide. Our Master Beekeeping program is in full swing. Sixty-five beekeepers have passed the Certified Exam and have been designated "Certified Beekeepers". David MacFawn is working on the next level program. It may be offered as a workshop at the '98 Summer meeting in Clemson. The local associations need to continue with the beginning beekeeping courses



and offer the "Certified Beekeeper Exam" for certification.

This past week I visited our booth at the state fair. Jack Morris was able to get us a larger space with more room to exhibit our products. Jack has done an excellent job for us these last

two years. He is looking for someone to take over the exhibit next year. If you have an interest in helping us please let me know. There were many new exhibitors this year. There is one thing we have to remember about the State Fair Booth. The primary reason for the booth is to educate and promote South Carolina beekeeping. The selling of honey products is secondary.

This past year we have lost many SC beekeepers who were our mentors and supporters. The Lowcountry and Colleton Beekeepers lost W.R. Youmans of Walterboro, Bob Neely of Goose Creek and William Roberts of Yemassee. If you know of a beekeeper who passed away, please let me know so that we can recognize them with a "moment of silence" at our conferences, meetings and in our newsletter.

As you complete your Fall beekeeping tasks, I wish you success in your beekeeping program and look forward to seeing you at our Spring '98 meeting.

Ron Taylor

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803-835-2482

SC BEEKEEPING UPDATE

--- The South Carolina Beekeepers have scheduled their annual spring and summer meetings for March 7, and July 16-18, 1998, respectively. The spring meeting will be held at the Farm Bureau Building on Knox Abbott Drive in Columbia; the summer meeting will be held at Clemson University. You will receive another newsletter that gives further details of these meetings. Place these important dates on your calendar.

---- Apistan® continues to be the only registered product in the US for Varroa Mite control. Beekeepers are urged to use this product according to its labeled directions. In most areas of SC, two annual treatments (February and August) with Apistan® are necessary to maintain low level varroa. The product should be removed from the hive and disposed of properly following the suggested treatment time. Beekeepers should check varroa levels shortly after treatment to verify good control by conducting an ether roll check. Normally, no mites are found in an ether roll sample immediately following an effective treatment.

---Recent reports indicate that there are certain localities in the US where Apistan® has reduced effectiveness in controlling varroa. A meeting was held on October 6, 1997 in Beltsville, MD to discuss this situation. USDA ARS scientists along with representatives of major beekeeping organizations were present at this meeting. Preliminary tests by ARS indicate that this reduced effectiveness could be due to one or more factors including (1) decreased response by varroa to fluvalinate, (2) strip formulation, (3) misuse of fluvalinate, or (4) a combination of these factors. More detailed testing is underway to determine the scope of the problem, and work continues aggressively to provide the beekeeping industry with alternative treatments. To our knowledge, reduced effectiveness of fluvalinate has not occurred in South Carolina.

----SC beekeepers are reminded that Tracheal Mites can threaten their colonies also, and are urged to treat for them unless surveys indicate low level mites. Mite-A-Thol® (menthol) and grease patties are recommended for tracheal mite control.

PAUL BROWN NAMED SC BEEKEEPER OF THE YEAR

Paul Brown was selected as the “1997 Beekeeper of the Year” by the South Carolina Beekeepers at our summer meeting. Paul is one of the founding members of the York County Beekeepers and was instrumental in the recent reorganization of the YCBA. One of Paul’s major contributions has been to organize and teach a beginning beekeepers course for many years in York county. His courses are quite popular and have attracted students from surrounding counties of Lancaster, Chester and Cherokee. Paul volunteers many hours of his time unselfishly to help others become better beekeepers, whether it concerns disease control, starting a



new hive, harvesting a honey crop, or just common sense bee management. He is recognized as a very knowledgeable, dedicated and unselfish advisor by the beekeepers in the northeastern portion of South Carolina. Paul was nominated for this award by the York County Beekeepers. Keep up the good work Paul Brown.

Danny Howard and Henry Nunnery were selected to receive the “1997 Extension Agent of the Year” award. Both these gentleman have done a great job of promoting beekeeping in our state by being actively supportive of beekeepers and their respective local organizations. Danny and Henry have worked diligently through the years to sponsor beekeeper meetings, short courses and training sessions. Our hats are off to Danny and Henry for their support.

SOMETHING IS A BUZZ AT CLEMSON UNIVERSITY

by: Cynthia Kopkowski

For a select group of inmates in South Carolina state prisons, work detail no longer means pounding out license plates or picking up trash. Under a pilot program with Clemson University, these inmates are developing and maintaining honey bee colonies that will help agriculture across the state.

Clemson entomologist Mike Hood and several undergraduate students are joining in a collaborative effort with the South Carolina Department of Corrections to run “Project Bee 2000,” a three-year program to train inmates in the art of beekeeping. Inmates from the Wateree River Correctional Institution near Camden, and Goodman and Walden Correctional Institutions in Columbia are participating in the program.

Hood praised the contributions of Clemson horticultural student Nathan Bradford and mechanical engineering student Brian Witbeck. “They gave hands-on instruction, assisted in placement of the bees in hives and inspected colonies,” he said. “They were invaluable to the success of this project.”

Inmates participating in Project Bee 2000 will receive certified level instruction in the South Carolina Master Beekeepers Program. Besides alleviating the tedium of day-to-day prison life, there are advantages for the inmates long after they leave prison.

“Beekeeping is a form of rehabilitation that can become a skill for life and maybe even a means of

earning a living,” said Hood. The first-year goal of the program is for the inmates to pass tests qualifying them as hobbyist beekeepers.

Immediate benefits from this project should be noticed by farmers and recreational gardeners as harvest improve because of increased honey bee pollination around the project locations. In recent years, the capability for natural pollination has diminished because a mite infestation drastically reduced the honey bee population.

In the future, the South Carolina beekeeping industry may be strengthened as Project Bee 2000 participants are released from prison and bring their knowledge into the field. Finally, the project will share the sweet taste of success with all inmates at the participating locations as healthier, all-natural honey replaces some of the granulated sugar used by the Department of Corrections for food preparation.

FOLLOWING UP VARROA TREATMENTS

by: Tom Sanford-University of Florida

My recent journey to Europe suggests that beekeepers must not become complacent concerning Varroa treatment. Unfortunately, the effectiveness of the current material Apistan® is so foolproof that U.S. beekeepers tend not to follow up with inspections to determine a subsequent infestation level. As a result of the same situation, many in Italy and France were taken by surprise when their standard procedures began to falter as mites became resistant. There are many possible reasons treatments could fail. These include improper application, emergence of resistance and product formulation failure.

In Florida there have been several revealing incidents. Recent bee kills blamed on pesticides, tracheal mites, viruses and diseases, when investigated closely, appeared to be caused by large undetected infestations of Varroa. The beekeeper apparently had treated the colonies, but did not determine how effective it was. These occurrences, common sense and evidence found elsewhere suggest that failing to follow up Varroa treatment by confirming the size of the resultant mite level is a prescription for disaster.

One of the problems with inspections has been that treatment thresholds for Varroa mites have not been strictly defined (see April 1992 APIS). Thus, it is difficult to determine what the effectiveness of a treatment should be. Dr. Keith Delaplane at the University of Georgia recently published some information on treatment levels based on a 300-bee “ether roll test.” He and Dr. Mike

Hood in South Carolina found that Varroa-infested colonies installed as packages in April had highest colony survival, highest colony populations and no secondary brood disease symptoms by December when treated with Apistan® in August (American Bee Journal, Vol 137, pp. 571-573, August 1997). August treatment was called for based on about 15 mites in an ether roll or a natural drop (not using pesticides) of about 117 mites on a sticky board overnight (about 19 hours). The authors also state that these thresholds are different in other parts of the country, citing California (August: 1-2 mites in an ether roll; 20-200 on a miticide-assisted sticky board), Michigan (summer: more than ten mites on a non-miticide assisted sticky board for 24 hours), and Nebraska (August: more than six mites in an ether roll). In Florida an official treatment level has yet to be defined, but Mr. Laurence Cutts, Chief apiarist recommends treatment if more than 20 mites are found in an ether roll.

The ether roll detection technique is universally used in Florida by commercial beekeepers. Although only a crude test and quite variable, it is simple, one-step and produces immediate results. For information on Varroa detection using this technique, a video I produced continues to be available. It is VT 249, “Detecting Varroa Mites,” available by sending me a blank VHS video tape.

Source: Beta issue of August 1997 APIS.

LEGISLATION TO EXPAND NHB STILL ON TRACK

The legislative proposal to expand the activities of the National Honey Board into beekeeping research and honey quality assurance moved another step closer to introduction in Congress with a meeting in Washington on July 18. Attending the meeting were industry representatives, Congressional staff, and officials of the USDA’s Agricultural Marketing Service.

The meeting was called to discuss the objectives of the proposed amendments to the Honey Research, Promotion, and Consumer Information Act, the statute under which the National Honey Board is organized and functions. The USDA-AMS officials raised some questions about the legislation and made some suggestions on how the industry could achieve its goals. The hope is to have the final version of the bill ready to introduce when Congress reconvenes after its Labor Day recess.

The Washington meeting and earlier similar

meetings have sought to find the best approach to achieve the legislative goals, which were developed in an industry summit meeting in Reno in February 1996. The core goals developed in Reno remain unchanged. These are:

(1) To clearly define the Honey Board's authority and mandate to include beekeeping research. The proposal requires the Honey Board to set aside at least 8% of its revenues for beekeeping research.

(2) To expand the Honey Board program to include the fight against honey adulteration. The fight to maintain the integrity of honey in the marketplace requires new tools and new direction.

(3) To fund these expansions by assessing honey packers. Packers will pay a one-cent assessment to match the domestic producer assessment; imported honey will be assessed an additional cent at the border.

(4) To bolster honey packer representation on the Board in recognition of their new role in the funding. The packers will have 4 seats on the Board (up from the current two). The public member seat will be dropped; giving the new Board a total of 14 seats. The two importer seats will be restricted to persons whose major honey activity is in importing.

Following the Washington meeting, the leaders of the industry groups present gave their assessments of the status of the legislation--

"USDA was not negative toward our efforts," said Buddy Ashurst of El Centro, California, president of the National Honey Packers and Dealers Association. "We think we are on track. A majority of our NHPDA members, both packers and importers, strongly support the proposed legislation." Former NHPDA president Dwight Stoller of Latty, Ohio, was also present at the meeting.

Gary Evans, president of Sioux Honey Association in Sioux City, Iowa, said, "I felt the meeting was necessary to get USDA input and guidance, which we feel will help accelerate passage of the amendments and achievement of a working program."

The ABF was represented by President Bill Merritt of Sopchoppy, Fla., and Executive Director Troy Fore of Jesup, Ga. "I was pleased at the unity of the industry expressed in the meeting," Mr. Merritt said. "We expect to have a bill in final form soon. All the groups working on this intend for these changes in the Honey Board program to be a giant step forward for the industry."

Source: American Beekeeping Federation News Release 7/21/97.

POLLEN FLOW: AS IMPORTANT AS NECTAR FLOW



All beekeepers know about nectar flows; they look forward to them with eager anticipation. Most nectar-producing plants have been cataloged and written about extensively. There is however, another side to the nutritional coin in beekeeping. There will be no honey if protein is not available to developing bees. Thus, flow of pollen is just as important, if not more so, than that from nectar. R. Nabors recently published an analysis of pollen flows in Portageville at the University of Missouri Delta Center Experiment Station (*American Bee Journal*, Vol. 137, pp. 215-216, March, 1997).

His analysis from three colonies showed a pollen flow in April (maple and dandelion), July (various agricultural crops) and September (goldenrod and ragweed). Although the dates correlated with the traditional plants present at the time, the study did not give information about specific plants and how much they might have contributed to the protein supply.

Given this set of data, the author suggests that the time pollen supplement/substitute would most benefit a colony would be early March, mid-May and August in the region. The time to trap pollen corresponds to April through early May and September. It pays to know these flows, which can vary greatly depending on region, the author concludes, to determine when supplemental feeding might be needed.

Besides timing and quantity, the quality of the pollen flow these days needs much more examination. It appears to be the most vulnerable part of the flower to environmental contamination and serves as a magnet for things like heavy metals, as shown by Dr. Jerry Bromenshenk at the University of Montana. Adverse conditions can also quickly erode its viability; studies in preservation of collected pollen provide abundant evidence of its ephemeral nutritional value. Pollen is plant sperm. Recent investigation on non-viability of sperm in animals from alligators to humans, thought to be the consequences of chemical contamination in both air and water, may also apply to that of plants. Though not as vulnerable as other kinds of sperm, being housed in a tough outer shell, pollen is nevertheless still a far more fragile commodity than honey.

Lack of pollen and consequent inadequate nutrition has been implicated in many conditions that have defied description. Although not proven to everyone's satisfaction, "disappearing disease", "autumn collapse", "May disease" and others may be directly related to protein and thus, pollen deficiency. Some pollen is even toxic to colonies. A feeding study done in the Florida's Panhandle was inconclusive concerning whether or not pollen deficiency had some impact on bee colony loss originally attributed to tracheal mites, but the symptoms were certainly similar to those conditions mentioned above. (M. Sanford and W. Johnson, *Bee Science*, Vol. 1, pp. 72-77, January 1991).

Perhaps the most innovative use of pollen and protein monitoring occurs in Australia. There gross nitrogen is measured to determine whether bee colonies should be moved into and out of eucalyptus groves, notorious for poor pollen flows (G. Kleinschmidt and A. Kondos, *Australasian Beekeeper*, Vol. 81, pp. 5-6, 1979).

Source: Beta issue of August 1997 APIS.



THE BURDEN OF BEE-ING AN UNDERTAKER

It's a dirty job, but some bee's got to do it.

Entomologist Gene E. Robinson and his colleagues at the University of Illinois at Urbana-Champaign say that bees which serve as undertakers--removing dead bees from the hive--appear to be a distinct cadre of developmentally advanced, midcareer workers. Undertaker bees, which make up only 1 percent of the population at any time, perform their thankless function for only a day or so, then move on to foraging before their peers do, the researchers report in the September *Behavioral Ecology and Sociobiology*.

The study provides the first close look at the undertaker bee's lot in life. The scientists identified the undertakers, marked them with colored, numbered plastic tags, and monitored their development.

Like most advanced social insects, bees display temporal polyethism, a tendency to perform different sets of tasks at different ages. In general, young bees work near the center of the hive. Middle-aged bees, those 14 to 24 days past the pupa stage, keep busy near the hive's periphery, building honey-comb, storing food, and, for

some, dragging out bodies. Older bees work outside the hive, mainly as foragers. Former undertakers begin foraging 2 to 3 days ahead of other bees.

Robinson's earlier work showed that some bees are genetically inclined to serve as undertakers. He also found that some undertakers are less efficient than others and their performance doesn't seem to get better with experience.

Source: *Science News*, Vol. 152, 9/27/97.

MSAA FUNDS \$250,000 BEE VENOM THERAPY STUDY

Through a \$250,000 research grant, the Multiple Sclerosis Association of America is the first MS organization in the country to release funds for human scientific study under FDA guidelines of honey bee *Apis mellifera* venom therapy as a treatment for multiple sclerosis. The Phase 1 study, being conducted at Georgetown University Medical Center in Washington, DC, will examine the safety of honey bee venom extracts as a possible treatment for patients with chronic progressive MS.

Under the direction of Dr. Joseph A. Bellanti, principal investigator and Director of Georgetown Medical Center's Immunology Department, eight individuals with chronic progressive MS will receive two injections per week of honey bee venom extract for one year. Each study participant will undergo monthly evaluations primarily for safety and tolerance of the treatment, and secondarily to monitor the efficacy of the procedure.

Chronic progressive multiple sclerosis is a devastating form of the disease for which there are few treatment choices--some of which are experimental and pose serious health risk. In recent years, thousands of MS patients reported significant symptom relief through the alternative practice of bee venom therapy (BVT). Widely practiced in many eastern countries for centuries, BVT involves repeated stings from honey bees to various parts of the body. Although MS patients engaged in BVT receive 25 to 30 honey bee stings per session and average more than 3,000 yearly stings, there is no way to accurately gauge how much extract is delivered. The study will determine dose-response relationships by administration of known quantities of honey bee venom in calculated increasing doses.

Multiple sclerosis is a crippling disease of the central nervous system (CNS), affecting younger adults mostly between the ages of 20 to 40. During an MS attack, the immune system malfunctions and damages or destroys the protective layer of insulation (myelin) surrounding the nerves. The resulting damage causes nerve impulses to "short circuit" and messages between the brain cease to be transmitted via the nerves to muscles throughout the body. This results in symptoms of MS which can range from visual problems to paralysis.

According to Dr. Bellanti, certain anti-inflammatory and immune system response properties contained in honey bee venom may serve to restore to normal the immune system malfunction and reverse the destructive demyelination process. "There have been widespread anecdotal reports suggesting honey bee venom may be an effective treatment for multiple sclerosis and certain forms of arthritis," said Dr. Bellanti. "However, it is imperative that honey bee venom therapy be evaluated in a scientific manner before legitimate and standardized therapeutic claims can be observed. We are extremely grateful to the MS association for their funding support and applaud their active stance in seeking answers to this alternative therapy."

Although practiced by arthritis sufferers for the past 60 years, BVT has recently gained popularity among the MS patient community. According to MSAA President John Hodson, Sr., the Association felt the need to respond to this growing trend which has the potential to be very dangerous. "BVT entails a real risk of dangerous allergic reaction as well as an emotional and monetary cost in chasing false hopes. MSAA does not recommend or endorse the use of honey bee venom for the treatment of MS or other disorders. We are funding this study to determine if this approach has any neurological benefit. If the result prove positive, then additional clinical studies and possible treatment practices of MS can begin. If the result prove negative, then MSAA has helped to eliminate false hope. Anyone interested in BVT should consult their physician.

For more information, call MSAA at 1-800-LEARN MS (1-800-532-7667), or write to Multiple Sclerosis Association of America, 706 Haddonfield Road, Cherry Hill, NJ 08002.

Source: American Beekeeping Federation Newsletter, May/June 1997.

OTHER NEWS

New Local Organization Established. Beekeepers from Bamberg, Barnwell, and Orangeburg Counties met August 19, 1997 and established the "Edisto Beekeepers." They invite beekeepers or others interested in becoming a beekeeper to join them at their next meeting scheduled for November 18, 1997. For more information, call Gilbert Miller (Ph. 245-2661) who is the Bamberg County Agricultural Extension Agent. Officers of the Edisto Beekeeper are:

President: Henry Chassereau, Rt. 1, Box 172A,
Ehrhardt, SC 29081

Vice President: Dave Clayton, Rt. 2, Box 78,
Bamberg, SC 29003

Secretary: Loranine Chassereau / Gilbert Miller
Treasurer: Donald Stevens, Rt. 2, Box 107-A,
Branchville, SC 29432

The Colleton & Lowcountry Beekeepers will host a beginning beekeeper shortcourse on Saturday, November 15, 1997 from 9AM-5:00PM at "BEECITY" which is located on Highway 61, South of Givens State Park, Cottageville. This is a one day course which will include an introduction to beekeeping equipment, hive treatments, and honey processing. In addition, there will be a one day field demonstration in the spring of 1998 (date to be announced). Bring a bag lunch; drinks will be provided. Cost for the course is \$25 per person or \$30 per family. Experienced beekeepers may take the entry level examination of the South Carolina Master Beekeeper Program in order to become a "Certified Beekeeper" following this shortcourse. Call 803-835-5912 or 835-2482 or Email: lcblocklowcountry@juno.com for reservations.

IN MEMORY OF...

Mr. John Russell, Greenville County Extension Ag Science Assistant, passed away August 24, 1997. In 1996 John received the "South Carolina Cooperative Extension Agent of the Year" award presented by the South Carolina Beekeepers. John will be missed by upstate beekeepers, especially in the Greenville area where he did a great job in support of the Piedmont Beekeepers. He published a monthly newsletter that kept his beekeepers informed of upcoming meetings and other beekeeping activities. He

served on the program committee of the local beekeepers and arranged to schedule informative meeting programs several months in advance. John was a true friend and supporter of South Carolina beekeepers and we will certainly miss his “smile on his face... and smile in his voice.”

Mr. W.R. Youmans came to Walterboro after he retired as a construction electrician working in projects in the southeast. He was a beekeeper and saw the need for beekeepers to get together. With the help of the Clemson Extension Office in Walterboro he started the Colleton Beekeepers. He remained active as a beekeeper until several years ago. The organization serves the needs of beekeepers in Colleton, Beaufort, Jasper, Hampton and upper Dorchester counties. He was a member of the SC Beekeepers and attended conferences. He will always be remembered as the one person who started the local Colleton Beekeepers and kept it going.

BEE FACTS - Did you Know?

❖Until the 1870's queen bees were called kings. People could not accept that anything so well organized could run by females.

❖The devoted workers can labor themselves to death.

SOUTH CAROLINA BEEKEEPERS
OFFICERS AND BOARD OF DIRECTORS

President: Ron Taylor
Vice President: Bill Childers
Secretary/Treasurer: David MacFawn
Executive Secretary: Mike Hood
Past President: Frank Blanchard
Directors: Clyde McCall, Ron Moore,
Steve Genta, Tommy Grant

Respectfully submitted,

William Michael Hood
Extension Apiculturist

RECIPES

County Line's Tangy Honey-Lemon Barbecue Sauce

¾ cup	Honey
2 cups	Kraft Hickory Smoke Barbeque Sauce
¾ cup	Water
½ cup	Frozen Orange Juice concentrate
½ cup	Finely chopped onion
½ tsp.	Fresh squeezed lemon juice
2 tsp.	Finely chopped fresh clove of garlic
4 tsp.	Lemon Pepper Seasoning

Mix well. Yields 5½ cups.

The Best-Ever Rich and Chewy Honey Peanut Butter Cookies

1 cup	Honey
1 cup	Creamy or chunky peanut butter
½ cup	Shortening
2	Eggs
3 cups	All-purpose flour
1 cup	Granulated sugar
1½ tsp.	Baking soda
1 tsp.	Baking powder
½ tsp.	Salt

In mixing bowl, beat together honey, peanut butter and shortening. Add eggs; beat until light and fluffy. Combine flour, sugar, baking soda, baking powder and salt; add to peanut butter mixture and mix well. Chill dough for at least one hour. Place 1½-inch balls on a cookie sheet. Flatten with a fork or decorative cookie press dipped in sugar. Bake in a 350°F. oven for 8 to 10 minutes. Makes about 5 dozen cookies.

Honey Mustard Dressing

1 cup	Conola or Vegetable oil
2 tbsp.	White Wine Vinegar
½ cup	Honey
1 tsp.	Grated onion or juice
2 tbsp.	Dijon Mustard

Whisk ingredients together until smooth and creamy. Store in refrigerator. Yields 2 cups.

Source: <http://burlesons-honey.com>