



News For South Carolina Beekeepers

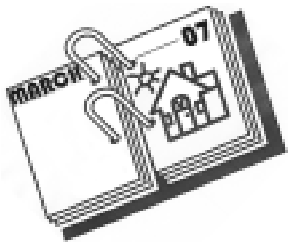
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PRESIDENT'S MESSAGE

As our Spring '98 Beekeeping Conference begins to take shape we have a lot to be thankful for. With the help of the local organizations, there were a large number of beginner beekeeping classes conducted during 1997. Additional classes are being scheduled for 1998. We had our combined North Carolina and South Carolina Spring meeting in Rock Hill. The programs were excellent and we had a good turn out. We also had an excellent turn out at the Summer meeting. As part of the welcoming to the summer meeting, I asked those present who were attending for the first time and a large number stood up. It was great to see these new faces and learn how the organization can support their needs.

Mike Hood, our State Apiculturist, has been able to get some very interesting speakers together for our Spring '98 Meeting in Columbia. We look forward to hearing about beekeeping from Steve Taber who has returned to South Carolina. Put March 7 on your calendar and join us at the S.C. Farm Bureau building in Cayce.



We have a new beekeeping association in South Carolina. Henry Chassereau of Ehrhardt and Gilbert Miller, County Agent, Bamberg has put this group together. They are known as the Edisto Beekeepers. We look forward to having them at our conferences.

As we prepare for the Spring '98 conference, there is still a great need for beekeepers to get together and talk about their beekeeping techniques, both successes and not so successful. One reason why a beekeeper attends our conference is to pick up information from the latest catalogs and literature. I would like to thank the vendors who supply the door prizes and literature at each conference.

Our Master Beekeeper Program is continuing. More associations are having members become certified. David MacFawn conducted the Journeyman Level course in Columbia in January. We are planning another course at the summer meeting if there is interest. Let us know at the Spring Conference and we will put it on the schedule. A big portion of the certification is public service hours. If you have not

done very much beekeeping public relations such as visiting schools, putting on presentations, now is the time to start earning those points.

Speaking of David, he has changed jobs in Columbia. His new work schedule will not permit him to continue as our Secretary-Treasurer. He plans to resign after the Summer meeting, but will continue to coordinate the Master Beekeeping Program. If you would like to be part of the executive committee and take on the job as Secretary-Treasurer, please contact Mike Hood or myself.

David has been working on several other projects for us. One is the changing of the South Carolina Beekeeping Association to a non-profit corporation. This was done to relieve the possible liability of board members. David is also working on getting a blanket insurance policy for the organization so that its members are covered when they attend our conferences. Our constitution needs to be updated due to the change to the non-profit corporation. I will keep you informed of other organizational changes.

Now is the time to start preparing your equipment for spring and get your bees ordered. I see from several bee suppliers that prices continue to rise due to shortages caused by our mites.

If you have suggestions for the SC Beekeepers, please contact me or a board member. We want this organization to respond to your needs as a beekeeper. If you are not a member of a local association, I urge you to take an active part. Thank you for being part of the SC Beekeepers and I look forward to meeting you at our conferences or at local beekeeper meetings.

The Colleton County Beekeepers lost another member. Bob Bryan, our retired Coroner, passed away. If you know other beekeepers who have passed away since our summer meeting, let me know so we can remember them during a moment of silence at the Spring meeting.

As you prepare your spring 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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SC BEEKEEPING UPDATE

The South Carolina Beekeepers will hold our spring meeting Saturday, March 7, 1998 at the SC Farm Bureau Building, 724 Knox Abbott Drive, Cayce, W. Columbia. The meeting site can be reached easily from I-26 by taking the Airport Exit; go north on Hwy 321 toward Columbia which will run into Knox Abbott Drive. The building is on the left approximately 3 miles from I-26.

S.C. Dept of Agriculture Commissioner, D. Leslie Tindal, will be our first speaker. He will be followed by Mike Hood who will give an update on current Varroa Mite control research and treatment recommendations. Larry Williams, certified SC beekeeper, will review the fundamentals & techniques of swarm prevention and control. Paul Brown, "1997 SC Beekeeper of the Year" who has kept bees for over 40 years, will present his year-round management recommendations. Steve Taber and many other interesting speakers will follow for a complete day of informative presentations. See the program schedule which is included in this newsletter.

Beekeepers are urged to attend and actively participate in local, state and regional beekeepers meetings in order to stay abreast of current management recommendations. Our SC Master Beekeeper Program is established and offers 4 achievement levels to beekeepers. If you know of a group of individuals who are interested in becoming beekeepers through this program, please contact one of our officers or directors of the SC Beekeepers.

Formic Acid Gel Could Stop Two Mites With One Treatment

Domestic honey bees can be protected from both tracheal and varroa mites --two major pests of this crucial insect --with an application of formic acid mixed with a food-grade gelling agent. Scientists with USDA's Agricultural Research service say the gel formulation could smooth the path to U.S. registration of formic acid to combat both mites. That's because the gel would reduce a beekeeper's contact with the acid.

The ARS researchers filed a patent on the technology in November, 1997. They say beekeepers could alternate the formic acid gel treatment with the industry's standard varroa mite fighter, fluvalinate. This would help slow the varroa mite's progress toward fluvalinate resistance in this country. U.S. beekeepers get nervous when they read about varroa mites in Italy and France developing resistance to fluvalinate, because it is currently the only U.S. registered pesticide against varroa mites. Menthol is the approved product for treatment of tracheal mites.

Formic acid has proven effective outside the U.S. against

both varroa and tracheal mites. But liquid formic acid evaporates quickly and must be re-applied four to five times per season. The ARS scientists say sealing the formic acid and gel in a plastic bag would give beekeepers a product requiring less handling. The bag could be sliced open inside the hive, allowing the formic acid to evaporate and leave behind only a harmless residue. In field tests, the experimental product killed up to 84 percent of the varroa mites and 100 percent of the tracheal mites, an extra benefit.

Worker bees gather nectar for honey and pollinate plants during the last part of their life cycle. Mites not only kill the bees at this critical time, but also quickly spread throughout other hives. This can have effects beyond destroying a beekeeper's expensive investment. California, for example, uses half a million bee colonies annually to pollinate its almond crop along.

(ARS News Release) - American Bee Journal - Jan. 1998

Smoking Out Bee Mites

Beekeepers have a long-established practice of using smoke to calm their bees before opening the hive. Now U.S. Department of Agriculture scientists have found another potential benefit from smoke: Some plants, when burned, give off natural chemicals that control honey bee mites.

Frank A. Eischen, an entomologist with USDA's Agriculture Research Service in Weslaco, Texas, has found that smoke from certain plants either kills varroa mites or causes them to fall off the bees.

This mite began infesting honey bee colonies in the United States in the 1980s, was discovered in 1987, and has since become the biggest threat to managed honey bees. The mites attach to bees and feed on their blood. If the infestation is severe and left untreated, the mites usually kill the colony.

The standard treatment for the mites is fluvalinate, a synthetic pyrethroid harmless to the bees. Beekeepers put fluvalinate-impregnated strips in their hives to kill mites, but they can use the strips only during times when bees are not making honey. Otherwise, the chemical could contaminate it.

Another problem with fluvalinate is that European researchers have reported that mites are developing resistance to the chemical.

Several years ago, Eischen began looking for alternative controls for mites. So far, he has tested smoke from about 40 plants. The first one he tried was a desert shrub called creosote bush, native to Mexico, Texas, and other areas of the Southwest. A Mexican beekeeper, David Cardoso, had recommended that Eischen test the olive-green plant, known in Mexico as gobernadora.

Eischen set up a standard lab test, placing 300 to 400 mite-infested bees inside a cage and covering the cage with a plastic container. Then he put the plant material inside his smoker, lit it, puffed the smoke into the container, and corked

the plastic container opening to prevent the smoke from escaping.

He kept the smoke inside for 60 seconds, then removed the bees. Next, he placed the bees over a white, sticky card to catch any mites that fell off the bees.



“Lo and behold, the smoke from creosote bush was knocking down mites right, left, and center,” Eischen says. “It gave us the idea to start looking at other plants that, when burned, give off chemicals that removed the mites without harming bees.”

Among the 40 different plants Eischen has tested, the most promising plants are creosote bush and dried grapefruit leaves. Creosote bush smoke achieves a 90 to 100 percent mite knockdown after 1 minute, but Eischen says that excessive exposure can harm the bees. “It’s similar to burning tobacco in that respect,” he says. “It’s hard to find a chemical that remove mites without harming bees.”

Grapefruit leaves fit that description. After 30 seconds, smoke from the grapefruit leaves knocked down 90 to 95 percent of the mites in the cage test. With grapefruit leaves, however, few of the mites are killed. Most simply fall off the bees.

“The smoke chemicals either irritate the mites or confuse them. We aren’t exactly sure,” Eischen says. “But we do know that the grapefruit leaf smoke doesn’t seem to have any bad effects on the bees at all. The bees come through fine.”

Eischen stresses that the findings thus far are preliminary. “These are crude experiments, and we haven’t yet analyzed the active chemicals in the smoke that knock down the mites,” he says.

“We’re not yet telling beekeepers to use these methods for controlling varroa mites,” says Eischen. “We’re using these experiments to try to identify and isolate the chemicals that act as miticides.”

Sean Adams, ARS.

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Long-Term Terramycin® Use: Prescription for Resistance?



A question often asked about long-term use of Terramycin® for American foulbrood control is whether there is risk that the causative organism, *Paenibacillus-larvae*, will become resistant? A

1994 study comparing the susceptibility to oxytetracycline HCL (the active ingredient in Terramycin®) of cultures from old

spores (1924) to current spores showed no difference. (H. Shimanuki and D. Knox, American Bee Journal, Vol. 134, No. 2, pp. 125-126, 1994).

Mr. Kerry Clark, British Columbia’s provincial apiarist, wrote to the Bee-L list in November 1996 that the above result seems better than might have been hoped for. It meant that after 40 years of use, resistant strains of *Paenibacillus larvae* were not surviving in the field. This was in spite of many observations on his part that beekeepers used uneven or haphazard doses and employed one product exclusively.

Unfortunately, Mr. Clark said, there’s been a recent change, making the appearance of resistance more likely: widespread, nearly continuous use of antibiotic extender patties. A reason for this is the adoption by many beekeepers of long-term vegetable oil patties for tracheal mite control.

It seems reasonable that beekeepers would also add Terramycin® for foulbrood control in the same treatment to save labor. Thus, the one ingredient that was missing over the last four decades, continuous antibiotic selection pressure on the causative bacterium, is now present, Mr. Clark said. This use also provides much more opportunity for the antibiotic to wind up in the beekeeper’s honey crop. While vegetable oil patties may be recommended for tracheal mite control, and while the same patty can be used to apply antibiotic, the latter should be used only for short periods, he concluded.

Some of the practices reported by Mr. Clark may also have contributed to resistance development in Argentina.

Now there is speculation that long-term exposure to Terramycin® not be without risk. This use in beekeeping, coupled with others in agricultural systems and human disease control, could mean that apiculturalists themselves are put in jeopardy from resistance bacteria.

Source: APIS, September 1997.

1997 N.C. General Assembly Provides Funding to Aid Beekeeping in North Carolina.

The N.C. General Assembly, at the request of the NCSBA and with strong support from other organizations, passed an appropriations bill this year that provides \$216,000 to the N.C. Department of Agriculture to aid beekeeping in the state. The majority of the funding will be used by the NCDA to increase its bee inspection program.

A portion of the remaining funding (about \$31,000) is earmarked for subcontracting work to study genetic (breeding) work to minimize the impact of mites and related problems in the bee industry. A proposal is currently being developed by the Apiculture Program at NCSU to request the funding for that purpose.

A number of individuals worked with the various members of the N.C. General Assembly to obtain the passage of this legislation and we are very grateful to them for their hard work and this success.

Source: ENN CEE Bee Buzz, Nov. 1997

A Sting To Remember



It could have happened to anyone. Anyone traveling down the road - window down; arm hanging out. And, most importantly, mouth hanging wide open. I'm a beekeeper.

I was in route between my bee locations, checking on my hives. My 5-year-old son was in the pickup with me.

Everything was going fine, no glitches, it was a beautiful day as I drove down the road doing 60. It was one of those days that makes you want to sing. That's why my mouth was open. Out of the corner of my eye I saw the black blur come my way. It went right in my gaping mouth and hit me in the throat. No sooner had it hit than I felt that familiar pain of a bee sting. I instantly convulsed into a coughing fit, hacking and spitting, spitting and hacking. My eyes were watering and I wasn't seeing clearly. I pulled off on the side of the road. Still coughing, and hacking and spitting. My son was looking at me like I'd really gone over the edge this time. As quick as I was able, I spit out the back half of the honey bee, that had fixed it's stinger in the back of my throat. I never did find the front half of the bee, and can only assume that I made a meal of it.



I sat there for a few minutes trying to recuperate. After driving a mile or two down the road I pulled over again. I was salivating so much I thought I'd drown. As I couldn't swallow due to the pain, I had to spit. Usually, after being stung, in a few minutes I forget where I've been hit. Not this time! My throat hurt for 3 days. I thank God that I've received numerous bee stings and don't have the tendency to swell. For indeed, swelling in the throat area could very likely prove to be detrimental to one's health and well being.

So, for those of you reading this account, who may not be accustomed to being stung, don't try this at home. Leave it to the professionals. Swallowing live bees at 60 mph is a difficult task even for a beekeeper. And, if you enjoy driving with the window down, don't sing. If the urge to sing becomes too great to overcome, roll up the window before you hit that first high note.

Dan Tharp, Vista, CA - American Bee Journal, Jan. 1998

Beginning Beekeeping Short Course

A beginning beekeeping short course will be offered by the Mid-State Beekeepers Association for two Saturdays in March, starting March 14 and completing March 28, from 8:30 a.m. to 4:30 p.m. at the Lexington Clemson Extension Office

Auditorium, 219 E. Main Street (US1), Lexington, SC.

The fee for the course will be \$35.00 which will include:

- Beginning beekeeping book- *"How to Keep Bees and Sell Honey"*, by Walter T. Kelley
- Year membership in the Mid-State Beekeepers
- Year membership in the SC Beekeepers
- Optional test to be certified as a SC Certified Beekeeper - SC Master Beekeeper Program
- Miscellaneous Course Material

The beekeeping course will concentrate on how to get started in beekeeping. It will be taught by experienced hobbyist and commercial beekeepers from the Mid-State area. These same experienced beekeepers will be available to assist you in getting started in beekeeping. The course is open to the first 30 applicants. Contact Frank Blanchard (803)345-3463 for further details and to register for the course.

In Memory Of ...

Mr. Samuel "Sam" David Cribb, age 48, of Florence died September 14, 1997. Sam was a member of the S.C. Beekeepers for several years and was very active in the Pee Dee Beekeepers. Sam assisted many new beekeepers in the Pee Dee region and will be remembered for the active role he played in organizing and conducting local meetings.

Calendar of Events

- Feb. 28, 1998 Georgia Beekeepers Spring Meeting - Macon, GA.
- March 6-7, 1998 N.C. State Beekeepers Spring Meeting - Albemarle, N.C.
- March 7, 1998 S.C. Beekeepers Spring Meeting - Columbia, SC.
- July 16-18, 1998 S.C. Beekeepers Summer Meeting - Clemson, SC.
- Aug. 6-8, 1998 N.C. State Beekeepers Summer Meeting - Raleigh, N.C.

Item of Interest

It was the accepted practice in Babylon 4,000 years ago that for a month after the wedding, the bride's father would supply his son-in-law with all the mead he could drink. Mead is a honey beer, and because their calendar was lunar based, this period was called the "honey month" or what we know today as the "honeymoon".

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

QUICK & EASY RECIPES

HONEY LEMON SAUCE

1/2 cup honey
1/4 cup lemon juice
1 or 2 cloves garlic, minced
1 tablespoon chopped fresh parsley or rosemary*
1/2 teaspoon grated lemon peel
Dash cayenne pepper

*1 teaspoon dried parsley or rosemary may be substituted

Combine honey, lemon juice, garlic, parsley, lemon peel and cayenne in a small saucepan; mix well. Heat until mixture begins to simmer; do not boil. Remove from heat. Makes 4 servings.

Serving Tip: Serve over broiled halibut or swordfish steaks.

EASY HONEY DRUMMETTES

3 pounds chicken drummettes
1 cup honey
2 tablespoons curry powder
1 teaspoon ground ginger
1/2 teaspoon cayenne pepper, or to taste

Rinse drummettes and pat dry. Arrange in single layer on a baking sheet. Bake at 400 degrees F 10 minutes. Meanwhile, in a small bowl, combine remaining ingredients until well blended. Spoon half of honey mixture over drummettes; bake 10 minutes. Using tongs, turn drummettes over. Spoon remaining honey mixture over drummettes; bake 10 minutes longer. Let cool slightly before serving. Makes 8 servings.

HONEY LIME DRESSING

1/2 cup honey
1/2 cup lime juice
1 pinch nutmeg, or cinnamon

Tip: For thicker dressing, mix in 1/4 cup dairy sour cream.

In a blender or food processor, combine all ingredients and blend. Makes about 1 cup (8 2-tablespoon servings).

source: National Honey Board

Cooperative extension work in agriculture and home economics state of South Carolina,
Clemson University, the United States Department of Agriculture and South Carolina counties cooperating.

The Clemson University Cooperative Extension Service offers its programs to people of all ages regardless
of race, color, sex, religion, national origin, or disability and is an equal opportunity employer.
