Dear Beekeepers!

Thank you for being so patient with your officers of the MSBA. As you know you have missed a couple of newsletters. We unfortunately had a resignation mid-term of our editor Bill Randall, and didn't find a replacement for him until October, when our new elections took place. In the mean time, I took on the responsibility of getting out the fall newsletter. With my schedule the way it has been, it seems that fall has quickly turned into winter. Much has happened in the last 6 months, and probably the best news came this week when Joe Francka, (our state entomologist), called and said that EPA had finally approved Minicur for general use registration. This is great news for all of us who have experienced colony losses from both tracheal mites and varroa mites. Now we can use one treatment and kill both mites. This is certainly a saving of time, money and bees. It is still very important to check to see whether or not your bees are infected with mites before you treat. Joe said that it would be about a month before the newly labeled product will be available.

Thanks to all of the officers and board members whose terms ended this year. We actually didn't have too many changes of names, but just moved them around a bit. Thanks to Charles Wills for all the years he spent on the board. Joe Yungworth moved from board position to Queen Committee Chairperson, and Jim Thaxter moved from Secretary to Editor of this newsletter. We will have some new faces this year and eagerly welcome and thank them for volunteering to help. As Secretary, Pamela Wright from West Plains was elected to serve, and as new board members we welcome Dan Adams from Springfield, and Bill Kohn from Sullivan.

Thanks again for your patience------Sharon Gibbons
WHO'S WHO IN MISSOURI BEEKEEPING

1993 MSBA OFFICERS
President: Glenn Davis, 1305 S E.AA Hwy., Blue Springs, MO. 64015, (816)229-2972
Vice-Pres.: Sharon Gibbons, 314 Quinmnoor Dr., Ballwin, Mo. 63011, (314)394-5395
Program Chairman: Larry Hensley, 13520 Old Jamestown Rd., Florissant, MO. 63033, (314)355-6935
Secretary: Pamela Wright, Rt. 1, Box 777, West Plains, Mo. 65775, (417)257-1770
Treasurer: Ron Vivian, P.O. Box 448, Oak Grove, MO. 64075, (816)625-7516
Editor: Jim Thaxter, Rt. 4, Box 60E., Moberly, MO. 65270, (816)263-2694

BOARD MEMBERS:
Roger Nichols, 8754 E. 63rd., Raytown, Mo. 64138, (816)353-1963
Neal Bergman, P.O. Box 591, Kennett, Mo. 63855, (314)888-2465
Bill Kohn, Rt. 2, Box 43, Sullivan, Mo. 63080, (314)927-5560
Dan Adams, Rt. 10, Box 1157, Springfield, Mo. 65803, (417)833-4125

HONEY QUEEN COMMITTEE:
Joe Yungworth, 8909 N. Boatman Hill Rd., Columbia, Mo. 65201, (314) 474-6030
Francis Scheidegger
Charles Schwartz

NEWSLETTER COMMITTEE:
Advertising: open
Collating and mailing: Ruth and Ervall Hoover

STATE APIARY INSPECTOR
Joe Francka, Box 630, Dept. of Agriculture, Jefferson City, Mo. 65101, (314)751-2462

EXTENSION ENTOMOLOGIST:
Dr. "Gene" Munson 1-87 Agriculture Bldg. Univ. of Mo., School of Agriculture, Columbia, Mo., 65211
(314)882-3748

MISSOURI LOCAL BEEKEEPING ASSOCIATIONS

MIDWESTERN BEEKEEPERS ASSN. (Kansas City area) President, Ron Vivian, Rt. 1, Bx. 35A, Bates City, Mo. 64011. Secretary, Carol Kjelshus, 7121 Park, Kansas City, Mo., 64129. Treasurer: Earle Stanford, 2510 S. Madison, Raymore, MO 64083. Meets on the 3rd Sunday of each month at the Eastwood Hills Community Center at 7400 Ozark Rd. at 2:30 p.m.
BOONE REGIONAL BEEKEEPERS ASSN. (Columbia area). President, Joe Yungwirth, 8909 N. Boatman Hill Rd, Columbia, MO., 65202; Secretary, Helen Vroman, RR1, Box 15B, Armstrong, MO., 65230; Treasurer: Doris Lyons, 8209 Dusty Rhodes Ln., Columbia, MO. 65202. Meets Sundays each quarter at the Boone Co. Extension office.

TWO RIVERS BEEKEEPERS ASSN. (St. Charles area). President, Micky Lee, 9637 Ridge Ave, Overland, MO. 63114; Sec./Treas.: Gerry Lee, 9637 Ridge Ave, Overland, MO., 63114. Meetings: First Tues. of the month at the O'Fallon Depot.

EASTERN MISSOURI BEEKEEPERS ASSN. (St. Louis area). President, Bob Finck, 8867 Hemmingway, St. Louis, Mo. 63126; Secretary, Ken Corbin, 1776 Golden Lake Ct., Chesterfield, Mo. 63017; Treasurer: Larry Hensley, 13520 Old Jamestown Rd. Florissant, MO. 63033. Meetings are the first Thursday of every month at the Kirkwood Community Center.

JEFFERSON COUNTY BEEKEEPERS ASSN. (Hillsboro area), Secretary, Marko Biscan, 7255 Hwy. 30, Cedar Hill, Mo. 63016

MID-MISSOURI BEEKEEPERS ASSN. (Rolla area) President: Luther Blair, Rt.5, Box 154, Salem, MO. 65560, (314)729-3165; Secretary, Susan Givens, 107 West Dent Ave., Salem, MO. 65560, (314) 729-6711.

DALLAS COUNTY BEEKEEPERS ASSN. (Buffalo area) Secretary, Inge Foster, Rt.1, Box 105, Urbana, Mo. 65767

OZARK BEEKEEPERS ASSN. (Springfield area) President: Charles Wills, 630 S. Newton, Springfield, MO. 65806, (417)666-6002; Secretary, Mary Jane Kelly, Rt. 6, Box 601-I, Springfield, MO. 65803

OZARK MOUNTAIN BEEKEEPERS ASSN. (Branson area) President, Byron David, Rt.2 Box 23, Kissee Mills, Mo. 65680, Secretary, Eddie Rosencrans, Rt. 2, Box 118, Reeds Spring, Mo. 65737

MISSOURI VALLEY BEEKEEPERS ASSN. (Washington area) President: Bill Kohne, Rt. 2, Box 43, Sullivan, MO. 63080; Secretary: Gorden Davis, 2151 Golfview, Wentzville, MO. 63385

SEMO HONEY PRODUCERS ASSN. (Poplar Bluff area) Secretary, Bob Carter Jr. 407 LeSeur, Portageville, Mo. 63973

BUSHWACKER BEEKEEPERS ASSN. (Nevada area) Treasurer, H. George Reeves, Rt.4 Box 226A, El Dorado Springs, Mo. 64744

SOUTH CENTRAL MISSOURI BEEKEEPERS ASSN. (West Plains area) President, Pammela Wright, Rt1, Box 777, West Plains, MO., 65775,(417)257-1770; Sec.: Marge Kilton, Rt.2, Box 2746, Alton, MO. 65606. Meetings: The first Thursday of February, April, June, August, October, December, at the Howell-Oregon Electric Co-op.

SOUTHWEST MISSOURI BEEKEEPERS ASSN.: Secretary: Marilyn Spencer, Rt. 1, Box 254A, Rocky Comfort, Mo. 64861
PRESIDENT’S MESSAGE -- FALL/WINTER 1992

WOW! WHAT A HONEY FLOW. MY BEES DID GREAT THIS YEAR. THIS IS THE MOST HONEY THEY HAVE EVER PRODUCED. I HOPE YOUR BEES ARE DOING THE SAME. BY THE TIME YOU READ THIS I SHOULD HAVE ALL MY HONEY IN THE BARRELS. I DIDN’T THINK I WOULD EVER GET DONE. ALL OF THE HONEY THAT MY BEES PRODUCED THIS YEAR SHOULD REALLY HELP THE BOTTOM LINE.

THE STATE FAIR WAS A GREAT SUCCESS. WE SOLD LOTS OF HONEY AND ALL OF THE HONEY ICE CREAM. OUR NEW 1992-93 HONEY QUEEN, JULIE BATTON, DID A GREAT JOB AT THE FAIR. SHE PUT IN LOTS OF MILES, HOURS, DID SOME INTERVIEWS ON THE RADIO, AND DID A LOT OF ONE-ON-ONE PROMOTION OF MISSOURI HONEY. WE SHOULD ALL BE VERY PROUD OF HER AND THE JOB SHE IS DOING FOR US. SHE WAS A GREAT CHOICE FOR MISSOURI HONEY QUEEN. ANYONE IN THE STATE WHO WANTS HER TO MAKE AN APPEARANCE PLEASE FEEL FREE TO CONTACT JOE YUNGWIRTH (314-474-6030).


JULIE IS NOW LOOKING FORWARD TO ATTENDING THE AMERICAN BEEKEEPING FEDERATION CONVENTION IN KANSAS CITY ON JANUARY 20TH THROUGH THE 23RD. IT ISN’T VERY OFTEN THAT WE GET TO HAVE THE NATIONAL CONVENTION IN OUR STATE. THERE WILL BE BEEKEEPERS FROM ALL OVER OUR COUNTRY HERE IN KANSAS CITY IN JANUARY, SO WE SURE HOPE THAT YOU WILL TAKE THIS OPPORTUNITY TO ATTEND. COME AND BE COUNTED AS MISSOURI BEEKEEPERS AND BE SURE TO LOOK JULIE UP WHILE YOU ARE THERE. THE INFORMATION ON THE CONVENTION SHOULD BE FOUND ELSEWHERE IN THIS NEWSLETTER.

IN NOVEMBER MITICUR WAS CLEARED BY THE EPA FOR GENERAL USE TO CONTROL BOTH VARROA AND TRACHEAL MITES IN OUR BEES. BE SURE TO FOLLOW THE LABEL INSTRUCTIONS VERY CAREFULLY.

HERE’S HOPING YOU ALL HAVE A HAPPY HOLIDAY AND A HONEY OF A NEW YEAR. I WOULD LIKE TO SEE YOU ALL AT THE CONVENTION ON JANUARY 20TH.

GLENN
STATE FAIR REPORT: by Sharon Gibbons

Attendance at Missouri State Fair broke all records again, but because of the cool weather, sales in soft drinks, ice cream and beer were way down. We are happy to say that we sold out of Honey Ice Cream, due to some very clever marketing tactics thought up by Glenn Davis.

Thanks to all who came to help out at the fair. It is our main money raising activity, and even if we didn’t make money, the honey promotion has a benefit that increases all of our sales. Every year I seem to forget the name of someone who volunteered their time, so if you worked at the fair, and I missed putting your name in print, please let me know.

Any of you who came to the fair noticed the change in the display area. We were very pleased with the positive comments we received, and next year we hope to perfect it. We had to work with a lot of unknowns, and at some future meeting, we will put up a display of pictures of the construction of the booth. We made a giant bee skep the size of a 6 foot hexagon camping tent. The inside was a series of yellow, beige, and white hexagons quilted together to the shape of the tent. My sister-in-law, Julia Revane from Milwaukee, Wi, quilted all the pieces together for me. What a way to spend a vacation! Back in Missouri, I had help from Liz Birchen, (wife of a beekeeper), who owns an upholstery business. She constructed a burlap outer shell for the tent from material donated by Glenn and myself. Finally the tent looked like a skep, just in time for Glenn to climb to the rafters of the inside of the Agricultural building on the fair grounds, so that he could install a pulley to hoist the skep into the air above our display. Thanks to Karen Mann, Karen’s daughter, Joann and Glenn Davis, and Bob McCarty for coming on a Saturday prior to the fair opening, to help get the display together.

We also added an educational area, which included pictures of Missouri beekeepers at work, an observation hive, a bee tree, etc. Mann Lake Supply donated enough catalogs for us to cut out the large colored bee from their cover to pin onto the hexagons of the inside of the skep. A lot of work, but satisfaction gained from all the positive comments we got from visitors to the building.

The skep was rented by the Kansas Honey Producers to be used in the American Royal Parade in November. I’ve already thinking about how to better the display next year, and I am accepting any comments or volunteers to start working on it. Now here is a list of all the volunteers for the 1992 fair. Without adequate information through the newsletter, I’m so proud of all of you who came forward to help at the last minute.

Bob McCarty
Mike Allen
Bailey Brown
Jim Thaxter
Sharon Gibbons
Walter Biegelow
Larry Woods
Ryan Cooper

Dan Adams & family
Mickey & Gerry Lee
Marie & Don Hendrickson
Charles Schwartz
Helen & Wilbur O’Neill
John Hartmann
Ed & Jeanne Fisher

Larry & Sandy Hensley
John & Liz Birchen
Steve Moeller
Ruth & Ervell Hoover
Bill Kohnle
Gordon Davis family
David & Toni Anway

Glenn & Joann Davis
Julie, Shirley & Ray Batton
Karen, Diane, & Rod Mann
Brenda Anderson, Ks. Honey Queen
Ted, Marlene, & Greg Jansen
Ian Brown & wife
Melissa Ostermeyer

List of winners of the apiary exhibits was sent to all of you last September with the State Meeting information. The judge commented that it was some of the finest honey he has ever judged. We should all be proud of the exceptional display of honey and wax we had this year. Even the Fair Director, Roger Alewel, commented on the fine display.

On six days of the fair we presented cooking classes in the home ec. building. Thanks to Marlene Jansen, Ruth Hoover, Helen O’Neill for helping me on Monday through Thursday, and JoAnn Davis, and Julie Batton for doing the weekend demos. We used honey ice cream and recipes out of our cookbook which increased sales of those items.
Summary of Missouri State Fair Booth Activity

Income:
- Gross Receipts 5,758.16
- Cookbooks Sold 496.00
- Sublease State Fair Room 70.00

6,324.16

Expenses:
- Beeswax & Canvas Bags Sold 75.50
- Booth Rent 400.00
- Cold Storage Rent 30.00
- Cookbooks Sold 162.44
- Demonstrations, Promotions & Supplies 114.87
- Gate Passes - Workers 44.00
- Honey Candy 104.13
- Honey Jar Labels 104.45
- Honey Sold 1,705.24
- Honey Stix 586.19
- Ice Cream & Freezer 1,036.00
- Insurance 80.00
- Room Rent - Full Time Workers 523.74
- Telephone Calls 103.99

5,070.55

Net Profit 1,253.61

Summary of Missouri State Honey Queen Fund

Receipts Collected
- Funds Raised for Queen Program at Fall Joint Meeting 626.75
- Donation to Queen Program 50.00

676.75

Expenses Paid
- Honey Queen Sach & Crown 59.25
- Misc. Queen Program Expenses 46.95

106.20

Fund Balance in Checking Account 570.55

Net Proceeds received from Mo - Ks Joint Fall Meeting 289.56
SLIDE AND TAPE LIBRARY

SPECIAL NOTES ABOUT USING OUR LIBRARY:
1. Order from: John J. Hartman
   Rt. S, Box 714
   3353 Frog Hollow Road
   Jefferson City, Mo. 65109
   (314) 636-6753—Please do not call after 10 P.M.

2. Use the order number included in the description of the tape.

3. Order at least one week in advance (allow more time, if possible.)

4. You must be a member of the Missouri State Beekeepers Assn. to use the library.

5. Please try to use UPS to return the material, if possible. If you must use the postal system, be sure to insure slide sets for a minimum of $1.00 per slide and video cassettes for a minimum of $75.00.

6. PULL OUT THIS SECTION FROM THE NEWSLETTER TO KEEP FOR FUTURE REFERENCE.

SLIDES BY THE A. L. ROOT COMPANY

Set 1 - HONEYBEES - (67 slides). An introduction to the honeybee; showing the development and describing the behavior and activities which is basic to the understanding of this amazing animal. For beginning beekeepers or anyone interested in learning more about the honeybee.

Set 2 - BEGINNING BEEKEEPING - (75 slides). This set of slides illustrates and describes the various steps necessary in beginning beekeeping. Every other phase of beekeeping during the season is explained that will interest both beekeeper and non-beekeeper alike.

Set 3 - THE HONEY HARVEST - (73 slides). Covers fully the various steps of honey removal, extraction, and processing. Shows you the basic steps that can make the honey harvest easier by illustration and description.

Set 4 - NECTAR AND POLLEN PLANTS - (80 slides). A set of unique slides with a written script and a tape recording describing the honey plants commonly found east of the Mississippi River. Your sources of pollen and nectar become less of a mystery with this slide set. Excellent for instruction and enjoyment at meetings and in the classroom.

Set 5 - BEE MANAGEMENT - (71 slides) - A thorough coverage of bee management from spring management through the honey flow to fall and winter management. An excellent instruction set for bee classes and use at bee meetings.

1/2" VHS Video Tapes

Queen Rearing - by Dr. James E. Tew
An Introduction to Beekeeping - Ed Weisz
Africanized Bees
Varroa Jacobsen - A new parasite in the Bee Population
Varroa Jacobsen - Biology, Research, Control
The Monk and the Honey Bee - Story of Brother Adam
National Honey Board - "A Golden Opportunity"
A Year with the Bees
Varroa Mite Detection - Dr. Tom Sanford and USDA
What's Buzzin' - National Honey Board - School children ages 6 to 16 - delightful!
The Mysterious Bee - Discovery Channel, donated by Herb and Marilyn Spencer
Swarm Boxers - A Revolutionary Management Tool, donated by Herb and Marilyn Spencer

Bee Management in two reels:
Large Reel: Fall and Winter
  Late Winter
Small Reel: Honey Handling

75 min.
58 min.
15 min.
46 min.
32 min.
90 min.
12 min.
2 hrs.
16 min.
10.5 min.
45 min.
Slide Sets

BEEKEEPING ACTIVITIES

The Last Apple: Beekeeping in the 1980's
Dr. Larry Connor, 1985
Emphasizes the problem of under-pollination due to a lack of pollinators (bees). 60 slides/script/cassette tape. No. 1.

Introductory Beekeeping
Dr. Larry Connor, 1982
The basics. Use for beekeeping and non-beekeeping audiences, classrooms. 20 slides/notes. No. 2.

The Honey Bee and Pollination
Charles Divelbiss, 1974
Shows basic beekeeping activities—honey and pollen production, swarming. Excellent close-up photos. 81 slides/script/cassette tape. No. 6.

Extracting Honey
Ray Williamson, 1977
Extracting honey for the hobbyist. Problems with crystallization and how to make crystallized honey. 35 slides/notes. No. 13.

Swarm!
Ray Williamson, 1986
A review of the activities used in hiving a swarm. Good for beginner courses & in the classroom for all ages. 28 slides/notes. No. 11.

Queen Production, Rearing and Management
Dr. Larry Connor, 1982
A comprehensive program showing several methods of grafting, cell starting, cell finishing, queen holding, and mating. 80 slides/script/cassette tape. No. 19.

Increasing Colony Numbers
Dr. Larry Connor, 1983

Feeding Honey Bee Colonies
Drs. Clarence Collison & Larry Connor, 1983
How to feed liquid & dry sugars using a variety of feeders. 42 slides/script. No. 22.

Hive Types and Other Equipment
Dr. John Free and I.H. Williams 1977
Shows popular beekeeping equipment from around the world. 18 slides/notes. No. 28.

Bees and Science

The Bee Tree:
The Natural Home of the Honey Bee
Dr. Thomas Seeley, 1984
Looks at how bees use different types of comb, differences in size, propolis, other fascinating facts. Helpful in understanding the biology of bees. 20 slides/notes. No. 101.

The Africanized Bee Situation in the Americas
Dr. Dewey Caron, 1984
Reviews the introduction, spread, and changes to beekeeping in areas of Central America as the Africanized bee moved into them. There are many questions and few answers. 30 slides/notes. No. 102.

BEE PROBLEMS

Honey Bee Diseases and Pests
Dr. Larry Connor, 1982
Shows the classic diseases: American foulbrood, European foulbrood, chalk brood, sacbrood, nosema, wax moths, and more. Stresses Varroa jacobsoni and Acarapis woodi. Information every beekeeper should know. 60 slides/script/cassette tape. No. 7.

Honey Bees and Pesticides
Dr. Carl Johanson, 1978
The Federal Environmental Protection Agency funded the development of this comprehensive slide set to educate growers, pesticide applicators, beekeepers, and the general public. 80 slides/notes. No. 18.
BEE BIOLOGY AND BEHAVIOR

Life History and Activities of the Honey Bee
Ray Williamson, 1978
Good set for schools, nature centers or at local bee clubs. Shows queens, queen cells, workers, worker development, drones, drone cells, queen activities, drone development, worker duties (honey, pollen, and propolis handling, etc.). 42 slides/notes. No. 15.

The Amazing World of the Honey Bee
Ray Williamson, 1984
Shows the most intimate aspects of bee behavior: wax secretion, comb building, honey processing, pollen packing, propolis handling, queen and worker development, etc. 46 slides/notes. No. 17.

Video Tapes

Colony Division and Requeening Made Easy
1991, 50 min.
Illustrates division of colony, uniting queen-right colony with a queenless colony. Five commercial beekeepers show you how they requeen and give you their special tricks and tips for finding queens.

Keeping Bees and Producing Honey: An Introduction
1991, 130 min.
Covers equipment assembly, bee biology, installing a package, examining a hive for disease, feeding colonies; lighting a smoker, producing cut comb and extracting honey, removing honey, canning honey, getting ready for winter and much more.

The Honey Harvest
47 minutes
Explore the organization and social order of honey bees. Watch as bees collect pollen and nectar from flowers and establish a new hive and the technology man uses to harvest the fruits of the hive. Suitable for older children and adults.

Tracheal Mite: Detection, Prevention, Cure
1991, 50 minutes
Biology session with Dr. John Ambrose. Shows the dissection and viewing of the mite. Interviews with Dr. H. Shimanuki, Nor-Am Chemical Co., and the Weavers in Texas, Buckfast breeders.

Beekeeping Education Service video tapes

Early Spring Management
1985, 57 min.
A look at overwintered colonies; and colonies with problems (foulbrood, etc.)

Spring Management I
1985, 57 minutes
Making increase colonies in an outyard; and queen management (location, introduction, banking)

Spring Management II
1985, 57 minutes
Use a double screen to make increase; and swarm management.

Honey Management
1985, 57 minutes
Shook-swarm comb honey production with Dr. Richard Taylor; and the honey house, an interview and tour with master beekeeper Jerry Ely.

QUEENS - PACKAGES

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Kansas City Convention Preview

Convention Program Highlights
1993 American Beekeeping Federation
Kansas City, Missouri

Tuesday - January 19, 1993
The ABF Executive Committee meets in the afternoon. In the evening, meetings will be held by the Honey Queen Committee, the Planning Committee, the Research Committee, and the Resolutions Committee.

Wednesday - January 20, 1993
The ABF Board of Directors will meet at 8 a.m., adjourning in time for the Presidential Inauguration at 11 a.m. Central Standard Time. To allow the convention-goers to view the festivities in Washington while they eat lunch, an optional buffet luncheon will be served in the meeting room and large televisions will be set up.

The 50th Anniversary Convention will be called to order by ABF President Don Schmidt at 1 p.m. The visiting beekeepers will be welcomed by Beverly Gibbs Breckonridge, who was the 1968 American Honey Queen.

The Keynote Address will be presented by Dean Klickner, president of the American Farm Bureau Federation.

On the afternoon’s program, two panels will be featured. In the first, members of the “younger generation” of Federation members will address the convention theme, “A New Beginning,” as it applies to their own vocation as beekeepers, researchers, honey packers, and suppliers. In the second panel, honey producers and packers will look toward building better packer-producer relationships.

On Wednesday evening, make yourself welcome at the Welcome Reception as you renew old friendships and form new ones. The popular Honey Queen Quiz Bowl will follow the reception.

Thursday - January 21, 1993
The morning program will feature several presentations on Africanized honey bees — the Texas situation, the status of the National Certification Program, APHIS’ plans, and new research developments. Other areas of beekeeping research will be addressed as well. And a panel will look at “Keeping Our Product Pure” — the danger of spoiling the image that honey has in the consumer’s mind.

Thursday afternoon will see a repeat of the Special Interest Sections which proved so popular in San Diego. Separate programs are being arranged for Commercial Beekeepers; Hobbyist Beekeepers; Honey Packers and Dealers; Bee Supply Manufacturers and Dealers; Package Bee and Queen Breeders; and Researchers, Inspectors, and Extension Workers. Then, the General Session will resume with a panel discussion on the progress toward chemical solutions to the mite problems.

On Thursday evening, three optional activities are being arranged: a Pub Crawl tour of Kansas City jazz nightclubs with barbecue dinner; a trip to the Woodlands Racetrack to see the dogs run while you dine in the clubhouse; and a visit to the Heartland II Theater in the Westin Hotel to help solve the current mystery in “Sheer Madness.” Or you may enjoy the evening on your own.

Friday - January 22, 1993
The morning program will include reports on the Honey Loan Price Support Program, the Canadian beekeeping industry, apiany inspection programs, and other segments of the industry. Then, the National Honey Board will have the floor to bring us up to date on its activities.

Friday afternoon will feature the educational workshops which have become a Federation custom. Workshop topics include, the Business of Beekeeping, Mite Detection, Beeswax Ornaments and Candles, Using Computers, Requeening Techniques, Designing Better Honey Labels; Getting Started as a Producer-Packer. Then, the General Session will resume with a panel discussion on “Providing Pollination Responsibly.” In the evening, an optional activity will take the beekeepers to the suburban Benjamin Ranch for a Barn Party with traditional Kansas City chow and entertainment.

Saturday - January 23, 1993
The final general session will see presentations on bee sting allergies, the economics of U.S. beekeeping, industry, and parasitic mite research. The final presentation of the 50th Anniversary Convention will be a panel of ABF past presidents who will reflect on the activities of their terms of office.

On Saturday afternoon, the ABF will turn to business affairs as the annual business meeting will hear committee reports, adopt resolutions for 1993, and select officers for the new year.

The convention will culminate on Saturday evening with the 50th Anniversary Banquet and coronation of the 1993 American Honey Queen and Princess.

Sunday - January 24, 1993
Following an Interdenominational Worship Service and the meeting of the ABF Directors, the convention will adjourn to George Vanarsdall’s Osage Honey Farm about an hour away in Sibley, Mo. There, the convention-goers will have an opportunity to view an efficient producer-packer operation and view historical exhibits.

The Mo-Kan Host Committee for the Kansas City Convention have had shirts made bearing the Anniversary Logo. Displaying a sample t-shirt are Missouri Honey Queen Julie Balton and Kansas Honey Queen Brenda Anderson. Shirts and caps with the logo will be on sale at the convention.
Varroa: Detection
by John Gates
Apiculture specialist

Last month I began a three part series of articles on the parasitic mite Varroa jacobsoni by describing its origins and biology. This article will outline detection techniques. The next issue will deal with control options.

This summer Varroa was discovered in a swarm in the Fraser Valley near the US border. More infestations will be discovered in the near future either in the delimiting survey around the initial find or during surveys in the border areas. Varroa is now for real, not simply something coming. Soon we will all be checking our bees for this parasite.

When and How

When and how you look for Varroa varies with the time of the year and the biology of both the honeybee and the mite. Bee and mite populations are both lowest in the spring, increase during the summer and peak in late summer or early fall. Most mites will be found in the brood cells when there is brood and of course on the bees when there is no brood in the colony. Over the winter months old mites die and drop off the bees to the bottom board of the hive. You could expect to find a lot of old dead mites on bottom boards, late in winter, before brood rearing begins. Also, once brood rearing begins you should expect a very high percentage of the mites to quickly move to the brood cells to reproduce before dying. Only mated females survive the winter.

Techniques involving the examination of live adult bees and hive debris will yield better results when no brood is present in the colony.

Examining Brood

Drone brood is particularly attractive to Varroa mites. Examine a minimum of 100 drone pupae per colony. Uncap the cells and remove the pupae by inserting a cappings scratcher through the cappings and pry ing upwards. Cappings can also be sliced off with a knife and the frame sharply rapped on a hard surface to dislodge the brood. In both cases the brood should be examined on a white surface, against which the mature female mites can be easily observed.

Detection can be made easier by placing a "good drone comb" in the centre of the brood nest and marking the top bar (thumbtack) for quick identification. Limiting drone comb in the hive to the "detection frame" may concentrate the mites and increase the chances of detection. Good drone comb will have a large patch of drone cells in the upper centre of the frame. These combs can be made by cutting holes in frames of drawn comb and having them redrawn in the brood chamber of a large colony. Place these combs in the centre of the top brood chamber for winter. Check them when the colony begins drone rearing in the spring and periodically throughout the brood rearing season. Worker brood can be examined when no drone brood is present.

Examining Adult Bees

When a colony is heavily infested with mites and the mites are scurrying about on the bees, adult female mites can be detected on live bees fairly easily. Light infestations will not be easily detected, however. Female mites are difficult to see when burrowed under the abdominal plates of the bees or between the body segments where they attach themselves to feed. More reliable methods involve removing the mites from the bees.

"Shaking method"

Use a solution of soapy water (1 tsp/qt) or 70% alcohol (ethyl or isopropyl). Collect about 500 bees from the brood nest by scraping them from a comb or shaking the bees through a funnel into a jar of the solution.

If you use alcohol the bees will store longer and can be used later for tracheal mite detection. Shaking the jar for one minute should dislodge about 90% of the mites. Mechanical shaking for 30 minutes will remove 100% of the mites. Strain the contents of the jar through a wire screen (8-12 mesh) and then a white cloth. Examine the cloth for mites. When collecting the bees in the field remember to mark the hive number on the samples.

"Ether method"

The advantages of this method are that it is rapid, can be performed in the field and avoids a lot of handling and shipping. Its disadvantage is that it is not as sensitive a technique as some others. This can be overcome somewhat by examining more samples, which is easily done because the technique is quick to perform.

Collect 500-1000 bees in a one or two litre jar and anaesthetize them with a 1-2 second burst of ether from an aerosol can (automotive starter fluid). Shake the jar for about ten seconds and then gently roll it longitudinally for several revolutions. The sides of the jar should be covered with the ether and honey disgorged by the bees. Most of the mites should fall from the bees, stick to the sides of the jar and be seen against the glass when the jar is rotated. The bees will stay in the bottom of the jar. Examine the sample immediately for the mites will stick to the bees if left for any length of time. If the walls of the jar are not sticky you may have to add a small amount of water or smoke the hive a few minutes before sampling to cause the bees to fill their honey stomachs to be disgorged during the treatment.
Varroa: Detection

(cont'd from previous page)

You can increase the sensitivity of the treatment by spreading the bees thinly on a white surface to knock off more mites and to create more contrast for identification.

After the other treatment the bees can be saved in alcohol for washing in the lab. Again, remember to record the hive number.

Examining Hive Debris

Throughout the year debris from the colony falls to the hive bottom board and is removed by housecleaning bees. If protected from bees this debris can be collected and examined for dead mites.

*Collection boards

Sturdy reusable collection boards can be made from white plastic tenplast board, similar in appearance to corrugated cardboard and available at local building supply outlets. Cut the board into 12x19 rectangles that will cover the hive bottom when inserted through the entrance. Seal the board edges with duct tape so that the debris does not lodge in the open corrugations where it will be transferred from hive to hive when the boards are moved. Staple a 1/4 inch deep wooden rim on top of the board at the edges and staple a piece of 8-12 mesh screen over the rim. Any large debris falling from the hive above will remain on top of the screen while small material will sift through the screen and be saved in the tray for examination. If the rims on your bottom boards are 3/4 inch or more deep, the bees should be able to come and go through the hive entrance unimpeded; otherwise you may have to add a rim to your bottom boards to increase their depth. This could be done to just a few "monitor colonies" if you don't want to modify all of your bottoms. Check the debris with a magnifying glass or better still a magnifying light, available from most lighting supply firms.

Too much debris accumulates and often becomes, mouldy over the winter to make it practical to leave the boards on all winter long. Clean the hive bottoms in late winter before there is much brood rearing and insert the boards to catch old mites dying at that time. Collection boards can be left on all summer long and checked at weekly intervals. If accumulated winter debris is soaked in water, any dead mites will float to the surface.

Acaricides can be used to kill or immobilize mites and increase the effectiveness of these boards.

*Tobacco smoke

Three grams of high nicotine tobacco smoked into a colony for about twenty seconds will knock mites from the bees. Avoid oversmoking the colony or many bees will also be knocked to the bottom. About 20 good puffs is sufficient. Close the colony entrances for 1/2 hour then remove the boards and read them immediately. Do not use this technique when daytime temperatures are below 10 °C or any stunned bees may not be able to crawl back to the cluster.

To prevent stunned mites from crawling back out of the boards, coat the template with a thick mixture of 50% vaseline and 50% cooking oil. Use a sponge to apply the mixture and a squeeze bottle to remove any debris and the mixture prior to recoating the boards for reuse.

High nicotine tobacco is available from H.Hiemstra, Aylmer, Ontario (519) 773-5503. Commercial sticky boards are available from Phero Tech Inc., Vancouver 255-7831.

*Fluvalinate

Apistan (TM) strips (10% fluvalinate active ingredient; Zocon corp.) in combination with sticky boards are used in the US for varroa monitoring and control and have been used under a special permit by provincial and federal inspectors in Canada. At present this product is not legal for general use in Canada but is undergoing the registration process and may be available to beekeepers in the near future.

*Formic Acid

Formic acid has been used experimentally in BC for Tracheal Mite control and is used in Europe for Varroa control. Because of submissions from the provinces, the Canadian Honey Council and the Canadian Association of Professional Apiculturists, Agriculture Canada is considering the product for scheduling. Formic Acid may be useful for varroa monitoring in combination with sticky boards.

Effectiveness

Tests comparing the effectiveness of the various chemical detection techniques indicate that the Apistan strips are the most sensitive followed by tobacco smoke and then other. I haven't seen any comparisons involving formic acid or drone brood examination.

If you have any doubt about your diagnosis contact your local apiculture inspector or the Cloverdale, Vernon or Dawson Creek apiculture offices. You can preserve Varroa specimens in alcohol if the specimens are on sticky boards. Cover the sticky surface with saran wrap and place them in a deep freeze for further examination.

References

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