MARYLAND STATE BEEKEEPER'S ASSOCIATION

THE BEELINE

Founded 1908

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President's Message

by David G. Smith

A Challenge for you: If you watched the NBC Evening News on Wednesday, April 27, 2005, you will remember the feature item discussing the country's loss of 50% of its honey bees. This is consistent with the information from Jerry Fischer, our State Inspector, as well as the reports from Delaware, New Jersey, Pennsylvania and West Virginia. Equally disturbing is the fact that we have experienced such losses for the past several years. During the 2004-05 winter, Maryland beekeepers lost over 5,000 colonies. Assuming a conservative price of $50 per colony, that amounts to over $250,000. As a response to the current situation, I would like to challenge the membership with a goal for this coming winter of 2005-2006 - **Manage your colonies to reduce your winter losses to 25% or less.**

The newscast identified the cause of the loss as Varroa. However, is Varroa really the cause, or merely a symptom? Is the cause of our loss mites, or is it management? According to the State Inspector, there is at least one significant difference between those who lose a large percentage of their colonies and those who lose few - those experiencing many losses do not attend our educational meetings, and those who attend lose few colonies. Some of our Maryland beekeepers did not experience any losses during the past winter. Many others had minimal losses – 25% or less. It would be appreciated if those of you who fall in the category of minimal loss and would like to share your beekeeping skills would contact me as soon as possible. At our Fall meeting in October, it would be good if we had a panel discussion on the subject of **"Colony Management for Successful Winter Survival."** The panel members could then share their management techniques with the attendees. As a minimum, the discussion will probably include the subjects of feeding, minimum stores, mites, virus, ventilation and apiary location.

As noted in this issue, the Master Beekeepers are developing a course aimed at presenting educational information for the advanced beekeeper. A pilot for this course will be presented at the Beltsville Lab on June 10. The results of this pilot, will be presented at the meeting of Master Beekeepers at the EAS annual meeting in August. If successful and adopted, it is intended that a course on advanced beekeeping might be presented by a number of states during 2006. Certainly it is intended that Maryland conduct such a course next year. Anyone involved in a serious study program, with plans for eventually taking the examination for Master Beekeeper, should seriously consider attending this course. Others, who may not aspire to become a Master Beekeeper, but whose experience is beyond the beginner/intermediate level should contact me at your earliest convenience. Attendance will be limited because of space constraints.

beekeeper@closecall.com

MSBA Summer Meeting
June 25, 2005

Howard County Fairgrounds
Friendship, MD

Program information
Inside

MARYLAND STATE BEEKEEPERS' ASSOCIATION
SUMMER MEETING
JUNE 25, 2005
HOWARD COUNTY FAIRGROUNDS

9:30 Introduction, - Carol Johnson, VP MSBA

10:00 Tricks of the trade - producing honey in the comb - Bill Troup

10:45 Break

11:00 Judging honey - liquid & in the comb - Dewey Caron & Ann Harman

11:30 Key to success - marketing honey products Ann Harman

12:15 Lunch

1:30 Marketing panel - roadside & elsewhere - Bill Troup, Dewey Caron &Ann Harman

2:00 How they handle honey elsewhere - Mike Embrey

2:45 –Break

3:00 Vignettes on marketing from elsewhere - Mike Embrey, Dewey Caron & Ann Harman

3:30 Adjournment

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Notice:

MSBA will not offer food service for the summer meeting.

Rising meal costs and Contractor-set minimum meal numbers makes it no longer viable to provide this service at this location.

MSBA will continue to provide refreshments for the breaks.

Because of the location Members are encouraged to "brown-bag". Nearby deli and fast food establishments are also available but may have difficulty handling a crowd.

Extractor for Sale:

MAXANT 6 FRAME–

GOOD CONDITION

$150.

Contact:
George Farrell
301- 464-5535

Advanced Beekeeping Course (Pilot)

Maryland and Virginia Master Beekeepers

Friday, June 10, 2005; Beltsville Lab

8:30 – 9:30 Exploring The Basic Relationships Between Queen Development, Biology, Behavior And Colony Productivity - Clarence H. Collison, Entomologist, MI State Univ.

The discussion of this topic will aid the beekeeper in better understanding numerous factors that ultimately may impact the productivity of honey bee queens and provide ways in which the beekeeper can do a better job of evaluating queens. Hopefully we will also identify some of the possible factors that have been contributing to the queen problems that many have experienced in recent years.

The following are some of the topics to be considered: Queen Characteristics/Genetics; Production of Queen Cells; Larval Age; Larval Nourishment; Queen Cell Size; Handling Of Queen Cells; Mating Conditions; The Queen's Ovaries And Spermatheca; Shipping Conditions During Confinement In Mailing Cages; Queen Oviposition; Impact of Nosema On The Queen; Impact of Parasitic Mites On The Queen; Queen Exposure To Miticides And Drugs.

9:45 – 10:30 Inspection techniques. This seminar will cover apiary location and arrangement; hive identification; "What to look for on the outside of the hive;" colony evaluation (from the outside); super management and ventilation. **Speakers: David Smith & Steve McDaniel**

10:45 – 11:30 Bee biology - This seminar will cover key aspects of bee biology that are important to successful beekeeping. **Speakers: Barry Thompson with support from Beltsville staff.**

11:30 – 12:15 Colony management - This presentation will include the following subjects: Managing through the seasons; Size, health, foraging, swarming and splits; Odors of the colony and what they mean; Is your colony really queenless?; Feeding and Robbing; Rules of Thumb and Why.

Speakers:- Dean Burroughs, Pat Haskell & Bob Crouse

12:30 - 1:30 Lunch

1:30 – 3:00 Back To The Basics In Honey Bee Brood Diseases - Clarence H. Collison

In recent years beekeepers have been so involved with the control of parasitic mites that brood diseases have become a secondary concern. The situation has been further compounded with the loss of several state inspection services and the development of resistance to Terramycin . This hands-on session will be involved in learning the basic techniques of distinguishing between the various brood diseases. Specific symptoms that allow one to distinguish between the diseases and biology of the pathogens, basic disease cycles, and colony impact and control strategies will be reviewed. Depending on availability, combs containing American foulbrood, European foulbrood, Sacbrood, Chalkbrood and Parasitic Mite Syndrome will be examined.

Weather permitting, the class will be taken to the field to inspect colonies to evaluate the condition of each. Time permitting the class will perform "a split" to set up a "Nuc" and install the queen (Nancy Troup).

Facilitator:- Clarence Collison assisted by Master Beekeepers Nancy Troup; Brenda Kiessling; Billy Davis

3:30 – 4:30 Combating Mites and Viruses - The discussion of this topic will aid the beekeeper in understanding current approaches to combating Varroa and Trachael mites. In addition, the presentation will review the nature of mite-related viruses and the management techniques required by the beekeeper in minimizing the affect on the colony.

Speakers: Barry Thompson & Beltsville Staff.

4:30 – 5:00 Equipment and Products - This session will be a "show and tell" discussion using a display of various beekeeping equipment and colony products. Individuals from the class will be asked to examine an item and explain to the class their evaluation of the item. The following are examples of the items that may be available: double screen, fermented honey, extraction frame, frame with pollen, inner covers, various qualities of comb honey and various feeders and pollen traps. **Facilitators: Master Beekeepers**

Administrative: Attendance fee: $35 (lunch included) All attendees should bring whatever "bee clothing" they require for the field work.

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EAS 2005, Kent State University, Ohio

August 1-5

Plans are coming together for the EAS 2005 Conference at Kent State University, Ohio for August 1 - 5, 2005. Here are highlights of what the Ohio delegation has been working on.

Honey Show *and* Honey Exchange: By popular demand, the Honey Show is back for 2005. We have reviewed the Honey Show Rules and the 2005 Rules have a few minor changes, including the addition of a category for Honey Beer. In addition, we will have our third Honey Exchange. Bring up to three 1-lb. jars of your honey, and exchange them for an equal number of jars brought by others. You will drop off your jars at Registration, everyone's honey will be on display all week, and you can pick up jars to take home on Friday.

Conference Workshops: The workshop schedule will provide a plethora of opportunities. We plan to offer so many great workshops that you will wish you could clone yourself to attend them all. Ohio beekeepers and veteran beekeepers from other states will be running many of the workshops. Some of our workshops are continuing from one session to another without interrupting the flow of things. We're doing this because some topics and demonstrations just need more time than 45 minutes. These will be flexible - you can come for one session and leave, or stay the whole time or come in the middle. Brian Neuman, one of our Ohio people will be going for two sessions. As will Michael Young and his Encaustic Painting. Michael was a hit with this topic in Maine and we're just going to put him in a room and let him go for two hours. Tony Jadczak and John Grafton, our Ohio inspector will be doing a whole afternoon on diseases. They will be inside for three sessions and outside at the end of the day. There will be so many good speakers and excellent things to see that you will be sorry you can't see them all.

Interested? Come join us in Ohio as we continue the tradition of great EAS Conferences.

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Mark your calendars:

COMING EVENTS

The following events were announced at the MSBA Board meeting. Locations and details to be announced. Please note that the dates may be tentative and subject to confirmation of location approvals:

Advanced Beekeeping Course (Pilot)
June 10, 2005 - Beltsville Bee Lab

MSBA Summer Meeting
June 25, 2005 - Howard County Fairgrounds

MSBA Fall Meeting & Honey Show
October 15,2005 - Maryland Dept. of Agriculture

Upcoming
Local / National / International Meetings:

EAS 2005
Aug 1-5, 2005 Kent State University, Ohio

Apimondia 2005 Conference
Aug 21 - 26, 2005 Dublin Ireland

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How can we reach you?? …

MSBA Records

Please send address /email /phone # changes to:

Christine Goldsmith,
Treasurer MSBA
1766 Bloom Road
Winfield, MD 21157

News from the Apiary Inspection Office

By Jerry Fischer, Maryland Bee Inspector, Maryland Department of Agriculture

APIARY INSPECTION: As of this date, 918 beekeepers have re-registered with the Maryland Department of Agriculture, Apiary Section. Registering 8,183 colonies in 1,265 apiaries. Still remaining are approx. 290 beekeepers not re-registered for the year 2005. 95% of the inspections this spring has been for the purpose of OUT of STATE bee movement, for pollination services in Virginia, West Virginia, Penn. and (California).

State Inspector, William Troup III coordinated the move of approx. 800 colonies of bees to the West Coast (California) for Almond Pollination Services. This move involved bees from three of our larger beekeepers, out of many apiaries and counties. As Bill may tell you, it was unusual to inspect colonies, (January in those weather conditions); complete paper work and see two semi-tractor trailers leave Maryland for the west coast. Apiary Inspection will continue on a random basics, and special request. It is recommended that beekeepers inspect their colonies at least two times a year (spring & fall). For Apiary Inspection request, contact State Apiary Inspection Office. Phone: 410-841-5920

COLONY CONDITIONS: With the inspections performed this early spring and contact with area beekeepers, once again we predicted a high bee loss during this past winter. 50% of the colonies in the state were loss this past winter. This was equally spread between the small and larger beekeepers. Of the 50% loss, 30% of that loss was due to starvation, during the month of February. There have been approx. 800 packages and 275 NUC's purchased to replace the losses. The surviving colonies of last year are reported as doing well. As of this report there have been 5 swarms reported.

VARROA & TRACHEAL MITES: The two parasitic mites, remain a major concern for the beekeeper. Our job to maintain healthy bees is to keep the infestation below the threshold level. Survey to determine if treatment is necessary (don't just treat). If treatment is necessary, treat with an approved control, administered as per label and alternate controls to eliminate resistance. The MDA has again received approval for two control substances, under SPECIAL EXEMPTION (Section 18) for your use. These are CheckMite +(Coumaphos) and APILIFE VAR.

SMALL HIVE BEETLE: The small hive beetle had been detected in several counties as of last year. The Counties that reported beetles have not shown a high infestation that has not been controlled. Colonies reported with HIVE BEETLES, with a follow up inspection has not found and beetle larvae. We expect small hive beetles to arrive in purchased packages. Please be very vigilant during your inspection and report any find so that it may be recorded. Once again this pest has not been a problem in our area, but the most devastation to you may be with larvae in the honey supers, where they will render honey not consumable for human consumption.

MD. ASSOCIATION SHORT COURSES: There were nine (9) short courses this spring provided by local associations. This is a great service to the new beekeeper, with up to date instructions and a known local assoc. to participate and even receive a mentor. Thanks go out to all persons that coordinated, instructed or helped in and way. In the nine short courses, there were 239 Students total and 180 which are new to beekeeping

ETO - FUMIGATION: The Maryland Department of Agriculture, once again provided services of the ETO Fumigation Chamber for the control of contaminated AFB and suspect equip. Twenty one (21) complete loads were run this past winter. This equipment was worth a value of $17,924.23 if the beekeepers had to replace with new equip.

INSPECTION ENHANCEMENT FUND: 96 individuals or Associations had contributed $3,670.00 to the Inspectors Enhancement Fund. These contributions are greatly appreciated, for 100% goes towards contractual salaries. There were three new inspectors added this past fiscal year, of which two positions are additional staff to the program. ONLY because of this contribution can we continue the inspection program that we have provided in the past.

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Recommendations for Successful Queen Introduction

By Marla Spivak

This information sheet is designed to be a tool to help you successfully introduce queen bees into your colonies. We offer general guidelines, not hard and fast rules. There are many methods and types of cages for introducing queens, and the ones that work best for you will depend on trial and error and how convenient they are for your beekeeping operations. The cost of the queen is generally much less than the cost of colony failure or lack of honey production due to losing the queen during the introduction process. The most reliable method of introducing queens is also the most labor intensive. If you have purchased queens of particular lines, or with particular genetic traits that you consider valuable, you might consider using the most reliable introduction method.

MOST RELIABLE

Prepare a small colony by making a divide (a split or nuc) containing 2-5 frames of brood and bees. Feed the small colony sugar syrup, and let it sit queenless for 24 hours. After 24 hours, introduce the new queen in a cage. If the cage contains candy, keep the cork in the candy end. DO NOT allow the bees to release the queen by eating through the candy, as usually she will be released too soon. After three days, open the colony and observe the bees on the cage. If they are feeding the queen, and are NOT biting the screen on the cage (no evidence of "balling"), open the cork or opening in the cage and allow the queen to walk out within the colony. It is best to remove a frame and release her in the middle of an adjacent frame, still within the box, to prevent her from accidentally flying away.

OPTION: if you cannot return to release the queen after three days, remove the cork over the candy end of the cage and replace the cork with freezer tape (only freezer tape, please). The bees will eat through the tape, delaying the release of the queen. It is important to check for eggs within 1-2 weeks. Continue feeding the colony syrup. After 1-2- weeks, check for eggs. If there are eggs, your queen has been introduced successfully. If there are no eggs, destroy any queen cells, replace the frames and bees in a larger colony, and try again. You may let this colony expand into a full-size colony, or use it to re-queen a full-size colony (see below).

LEAST RELIABLE

De-queen a strong colony. Let it sit queenless for 6-24 hours. Introduce a new queen in a cage and allow the bees to release the queen by eating through the candy in the cage.

Why is this method the least reliable? Strong colonies do not readily accept new queens, particularly if they are of a different stock or race. The bees may release the queen within 24 hours through the candy plug, which does not give the queen and colony sufficient time to acquire each other's pheromones.

RE-QUEENING LARGE COLONIES

We recommend introducing a new queen into a small colony, and then letting the colony expand into a full-size colony, as discussed above under Most Reliable. However, a large colony can be re-queened successfully by introducing a small colony with the laying, new queen into the larger colony. We understand this process is time-consuming, but if you value the queen, the reliability of this method is worth the effort.

Method 1 - New queen is in 5-frame nuc.

Once the new queen is laying well within a small colony (has eggs, larvae and sealed brood, and you like her brood pattern), you may introduce her into a large colony. De-queen the old queen from the large colony. Let it stand queenless for 24 hours. Remove 2-5 frames from the large colony (this is a good time to cull frames with old comb), leaving the open space in the center of the brood nest in one box. Remove all or some of the brood frames, including the bees, from the nuc, and place them in the large colony. (If you want to reuse the nuc, do not add all the bees and brood from the nuc). Cage the new queen and place her between frames of her own brood. Release her yourself (or using freezer-tape) after three days. For greater reliability, destroy any queen cells within the large colony at this time. After 7-10 days, check for eggs and the new queen.

Method 2 - New queen in 10-frame box.

You may add the entire box of brood with the new queen to the colony as follows: you may need to remove a box from the old colony (again this is a good time to cull and/or refurbish frames and comb). De-queen the large colony and let it sit queenless for 24 hours. Place a sheet of newspaper (making a small hole or slit in the paper) above the

brood chamber, and place the new colony on top of the newspaper. It is not necessary to cage the new queen. After 4-7 days (not sooner) check for eggs and/or queen cells.

The key to success with both of these methods is introducing the new queen along with all or part of her brood from the small colony.

If you are having problems introducing queens successfully, we highly recommend you try introducing a new queen along with a frame or two of her own brood into the new colony.

Marla Spivak
University of Minnesota, Department of Entomology

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AMERICAN LINDEN TREE

…..(My Favorite Honey Plant)

Dean Burroughs, Master Beekeeper, Salisbury, MD

I like the American Linden, or basswood, as many call it, for many reasons, but mostly because it provides excellent forage for bees. Ordinarily, the linden grows to a height of 100' to 130' with trunk three or four feet thick. Today, though much reduced within its natural range, this tree is still common in bordering city streets and gracing spacious lawns from South Canada to Texas, East. Most basswoods found in the city are little-leafed basswoods from nurseries. Assisted by its vast size and great heart-shaped leaves the American linden provides wonderful shade and beauty to the landscape.

Basswood trees abound in the Mid-Atlantic States. In Maryland, basswoods can be found throughout the state, but most prominently growing in the Appalachian area flowing towards the Atlantic Ocean and throughout the Eastern Shore. City streets in Baltimore are abundantly lined with basswoods. Additionally, beekeepers attending past EAS conferences on the campus of Salisbury University have had the pleasure of admiring the many stately basswood trees growing in front of Holloway Hall administrative office building.

Generally, the linden tree grows noticeably in the state of Delaware, although not appreciably throughout the entire state. Basswoods do frequent New Castle County and while less common in numbers the trees are sometimes observed in Kent County. Some basswoods are also sighted sparingly in Sussex County.

In midsummer lindens bear tiny, extremely fragrant flowers. Bees are very fond of the blossoms and basswood honey is water-white, carries a strong personal flavor and is regarded as high quality table honey, especially when blended with clovers. The blooming period is rather short, about three weeks, and abundant honey flows are realized approximately two or three years out of every five. The wood of this tree is a favorite from which wooden comb honey sections are made.

In addition to its value to bees, the linden wood is used for crates and boxes and veneer with fine cabinet woods. Also, toys, window sashes, picture frames and musical instruments have been fashioned from this wood.

Well, you can certainly sense my admiration of the lovely American linden tree. What is your favorite bee tree or plant? I'm looking forward to spring and the bursting buds and later, the heart-shaped leaves and protruding flowers. I'll eagerly observe the beautiful white blooms and assimilate the sweet aromatic smell that permeates the air. By day, the bees will ever so intently collect the plentiful nectar. After sundown on a warm summer night, when the bees are hived, there's even more satisfaction captured by walking about the trees and experiencing the wonderful aroma.

If you have never had the opportunity to delight in the sight or smell of the basswood you're missing a wonderful experience. Perhaps there are no basswoods in you area. Then, you're welcome to join me in observing the beauty of the trees, or better yet, plant a few for you and your bees to enjoy!

References:

Morse, Roger A., Ed. The ABC & XYZ of Bee Culture. 40 th. Ed. 1990.

Page, Jack. Planet Earth Forest. Time-Life Books. 1983.

Taber, William S. Delaware Trees. 3rd. Ed. Delaware Department of Agriculture. 1995.

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It's all the Buzz!

Hollywood Buzz
This summer, DreamWorks will start work on *Bee Movie*, an animated feature written by Jerry Seinfeld about the inner working of a hive ("the world's most harmoniously run organization," according to Seinfeld). The flick will star the comedian "as the lead male honey-maker." Um. Jerry needs to do a bit more research; doesn't he know the drones don't make honey? Renee Zellweger will be the voice of a florist. Look for *Bee Movie* sometime in 2007.

Four new books are in bookstores that deal with the history of bees and honey:

Letters from the Hive by Stephen Buchmann with Banning Repplier (Bantam, $24)
Bees in America by Tammy Horn (University of Kentucky, $27.50)
Sweetness & Light by Hattie Ellis (Harmony, $23)
Robbing the Bees by Holley Bishop (Free Press, $24)

Also, a collection of science essays by Jay Ingram called The Velocity of Honey (Thunder's Mouth, $25)

National Honey Board Research:

The National Honey Board recently awarded a grant to Dr. Ian Paul of Pennsylvania State University to study The Effect of Honey compared to over-the-counter Cough Suppressants on Nocturnal Cough and Sleep Quality for Coughing Children and their Parents. Subject recruitment is scheduled to begin in late September of 2005. The initial results of the study should be available in the spring of 2006.

Beekeepers Needed

Looking for beekeepers in Delaware, New Jersey, Maryland, Pennsylvania and West Virginia who would like to test the varroa threshold.

Dewey Caron (U. Delaware), Mike Embrey (U. Maryland), Dennis van Englesdorp (PA Dept. of Ag.) and Nancy Ostiguy (Penn State) are looking for beekeepers who would be willing to monitor varroa levels in honey bee colonies. We need to test the mite threshold level in a large number of colonies to determine if the threshold value works.

What do you need to do?

Be willing to monitor for varroa at least every 3 weeks throughout the summer/fall

Be willing to consider not treating colonies that are below the threshold

Report on winter survivorship

Contact Nancy Ostiguy at Penn State: Department of Entomology, 501 ASI, University Park, PA 16803; nxo3@psu.edu; or 814-863-2872.

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A Report on "Living with Varroa"

By Allen Hayes

The Pennsylvania State Beekeepers Association along with the Lehigh Valley Beekeepers Association presented a class titled "Living with Varroa" in Schnecksville, PA on March 12, 2005. About 40 beekeepers attended the one-day class where the sole topic was varroa mites. The most up-to-date information about varroa was discussed. Maryann Frazier of Penn State University and Mike Stanghellini from Rutgers University were the two featured speakers. The following is a report on the material presented.

Background

Apis Cerana, an Asian species of honey bee, was the original host of varroa mites. Varroa does little or no damage to them. Through migratory beekeeping, a time came when the two species were brought close enough together that the pest jumped to our species of bee, Apis Mellifera. The result of this close encounter has been devastating. Varroa mites feed on hemolympth, the bee's blood, and hit with a one-two punch in that they not only attack adult bees but also brood. Because of the widespread devastation brought on by this parasite it was renamed varroa destructor. These mites vector bee viruses. In fact colony death may actually be due to the increased presence of bee viruses rather than by varroa destructor directly. There are 18 honeybee viruses and they shorten the lives of bees. One such virus, Deformed Wing Virus, is now known to be a disease. It was thought that a mite feeding on the developing bees wing stump caused the deformed wings. Hemocytes are blood cells that fight virus, which are adversely affected by mites. Viruses are difficult to detect and no treatments are known. On average it takes four years for varroa to build up enough in a colony for it to reach a deadly level, but the varroa population in a colony can explode in as little as one month. A long period of broodlessness helps by slowing down the mite reproduction. The mites can't reproduce because there is no bee larva present. Beekeepers can cause this break by caging the queen and leaving her inside the colony for two weeks. Making nucs also helps reduce varroa population.

Mite management

Beekeepers should practice integrated pest management (IPM). This employs screened bottom boards, hygienic queens and drone brood removal. Using IPM, one monitors mite levels with techniques like the sugar roll or sticky board test. For an accurate sugar roll test shake several hundred bees into a box then scoop up ½ cup of bees. You will have about 300 bees. Place them in a jar with a screened lid. Place 1 to 2 tablespoons of powered sugar through the screen and roll the jar around several times coating all of the bees with sugar. Then shake the jar screen end down over a white surface. The mites will drop off and be easy to count. If this test produces 15 or more mites, then you need to treat the colony. The sugar-coated bees can be returned to the colony and are not harmed. In the past this test was done by filling a jar up to a marked line about 1 inch from the bottom. This is now known to be inaccurate. Using this method, the quantity can vary by 100 bees! That could affect your mite count by 33%. Russian queens are one type that are advertised to be hygienic. A problem with Russian bees is that they over winter with a very small cluster. It takes them a long time to build up on an early honey flow. Russians make a lot of queen cells but it is just their habit and they often tear them down again. Suppression of Mite Reproduction (also know as SMR) queens are not as good as was once thought. Their much-celebrated ability to control varroa hasn't worked in practice. If you find damaged fallen mites on the mite board, it is proof that your bees have grooming behavior.

Chemical treatments

Apistan was widely used because it was necessary to keep bees alive. Now some mites are resistant to Fluvalinate, the active ingredient in Apistan, in most of the country. Apistan can still control the mites in some areas. Another treatment that we have is called Check Mite Plus. The active ingredient is cumophos and it is an organo phosphate and can be used in states that have a section 18 exemption from the EPA. This is a very dangerous material for beekeepers to deal with. But by following label instructions and with proper handling including wearing nitrile gloves, cumophos can be used in a safe manner. The residue from cumophos stays in wax for a long time. Varroa mites displayed resistance to it only three years after it became available. Do the Pettis test to see if your bees are resistant to either Apistan or Check Mite Plus.

Essential oils

Api-Life VAR is another treatment for varroa that has a section 18 exemption. It is a Thymol based miteicide. It is 65% to 99% effective against varroa mites but is temperature dependent requiring 58°-68°F to be effective. Two or three applications may be necessary. It causes the bees to clean the mites off, but it can stay in wax and affect the taste of honey. Apiguard is a new product that is not yet available in the US; it too is Thymol based. There is a problem with using any product containing Thymol however; it can cause the queen to stop laying. Sucrocide is the brand name of Sucrose Octanoate, which is best when used late in the season because it injures eggs and larva in a way that causes the bees to remove them. Sucrocide is cheap but laborious to apply. Each frame containing adult bees must be sprayed with this compound diluted with water. Using it can cause the Queen to drop off the frame. This must only be used on warm days because you are wetting down all of the bees. Using it disrupts the colony for a full day.

Acids

Formic acid is another dangerous substance that can fight varroa; it has the smell of a crushed ant. It was first legally available in a product called Apicure. Apicure had 30 grams of formic acid suspended in a gelatin that was packaged in a plastic bag. The acid ate through the bags and leaked out making this product impossible to ship and unsafe for people to handle. Formic acid can penetrate cappings and kill the mites on brood. This material is temperature dependent and can kill queens. Mite Away II, a product that uses formic acid, is currently available in Canada and soon may be available here. The ambient temperature must be between 50° to 70°F and not above 80°F. There needs to be a 1 ½" high spacer placed above the packet. No other size works correctly! You can't use a shallow super for effective results; it is too big. Formic acid does burn brood. When using Mite Away II you must close the screened bottom board to minimize ventilation.

Some people are using Oxalic acid to control varroa as it occurs naturally in some plants. They have found that is works best to use it in late fall and winter, but it too is dangerous. In vapor form it is very toxic to humans. This material would be cheap to use if it becomes legal. It is effective against varroa but is currently illegal to use in honeybee colonies.

Other random things under review

The fungus metarhizium anisopliae was recently publicized to kill varroa and not harm bees. It has not proven to be as effective a control as once hoped. Even the researchers that did the original study have not been able to repeat their initial results. If found to work it could be applied as a dust or as fungus coated strips.

Cinnamon oil, which comes from tree bark, is in food now and may combat varroa.

Food Grade Mineral Oil (FGMO) is being used in foggers or soaked in a length of cord.

It was once thought that using smaller cells in which to raise bees would be an effective control. This idea hasn't panned out either.

You can burn dried sumac seedpods or tobacco in your smoker. The smoke causes mites to drop off adult bees but too much tobacco smoke can kill bees.

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MSBA's Queen Auction

By Gordon D. Benson, Wit's End Apiary,Church Hill, MD

At the February meeting the auction of a Russian breeder queen stimulated my interest and I was able to make the winning bid. This was a repeat of the auction at the November meeting during which I made an unsuccessful bid. However, it did prompt me to learn more about queens.

I found that there are actually four kinds of queens that are offered for sale to beekeepers:

- **Untested queens** -are those that are sold soon after they begin to lay eggs. These sell for about $10-15 each.
- **Tested queens** - are those that are held in their nuclei until their bees emerge, so that the producer can determine their purity of mating.
- **Select-tested queens** – those held in producing colonies until the producer can judge them not only for purity of mating, but also for disease resistance, productivity, gentleness and other characteristics.

- **Breeder queens** - are those queens that are held until it is determined that their daughter queens are capable of producing colonies with most of the characteristics desired by the buyer. "This requires keeping the prospective breeder queens and several of their daughters at the head of producing colonies for one or two seasons, with records of honey production, industry, gentleness, wintering qualities, swarming propensities, resistance or susceptibility to various brood and adult diseases, as well as other qualities." Charlie Harper, who spoke at our November 2004 meeting, sells these Russian queens for $300.00.

Having learned all this about queens, I was quite impressed about the characteristics of the "breeder" queen and was again interested in participating in the bidding at the February meeting. I was pleased to have the winning bid of $120, the amount being donated to the Maryland Apiary Inspection Fund.

Charlie Harper sent the breeder queen the morning of April 20th by UPS 2-day air. She traveled via Fort Worth, TX, Lexington, KY, and Baltimore, MD, to Easton, MD, before finally arriving at my residence late in the day Friday, April 22, 2005.

Prior to the arrival of this well-traveled queen, due to the cold (high-50's) weather, I had gone into two of my four colonies of Russian bees in mid-afternoon, and removed two frames of capped-brood and nurse bees from one colony, and a single frame of brood and bees from another (the two strongest of the four). These three frames, plus a feeder board with 1:1 syrup, were placed in a nuc box.

Upon arrival, the breeder queen was removed from the battery box, placed in a wire cage and installed in the nuc.

On Sunday, April 24, I checked the nuc and found things to be quite calm. I probably could have released the queen then, as there was no evidence of "balling"; however I decided to wait an additional day. During the mid-afternoon on April 25th, the nuc was checked again and the queen was released from the wire cage. She walked slowly onto a top bar, with the workers giving way as she proceeded across the bar and down the frame to the comb area.

Now we go into the queen-rearing phase. Look for additional information in the next newsletter concerning this vagabond queen.

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Bees in the `Hood:

Provide Water Source for Your Bees

"Honey bees need water to cool the hive and to dilute honey for feeding their young. Bees generally collect water from the nearest source, although they prefer standing water that is warm, has some organic material and is located in very shallow pools. Some beekeepers keep a faucet running, leaving a steady trickle to flow over some boards. This assures a continuing supply of fresh water.

A backyarder's bees could easily collect water from other sources, but this may present a problem. Bees collecting water at swimming pools, bird baths, and wading ponds quickly could become a nuisance. Neighbors could get stung or they might avoid using an area where the bees are because they are afraid of them. The aesthetics of having a number of dead bees floating around in the water leaves something to be desired. Once bees start using a particular water source, it is very difficult to keep them from returning to it.

The solution lies in providing a constant supply of water close to the hives as soon as the bees start flying in the spring."

Reprinted in part from MAAREC pub 2.7, Keeping Bees in Populated Areas – Tips for Suburban Beekeepers

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THE BEELINE

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