



Mid-Atlantic
Apiculture Research
and Extension
Consortium



Delaware, Maryland, New Jersey, Pennsylvania, West Virginia and the USDA cooperating

BEEaware

NOTES & NEWS ON BEES & BEEKEEPING

April 2001

What's Inside:

- Focus on MAAREC
- Intermediate SC
- MAAREC Survey

MAAREC, the Mid-Atlantic Apiculture Research and Extension Consortium, is an official activity of five state beekeeper associations, the state Departments of Agriculture, land grant universities and the U.S. Department of Agriculture. The following are cooperating members: University of Delaware / Newark, DE; University of Maryland / College Park, MD; Rutgers University / New Brunswick, NJ; Penn State University / University Park, PA; West Virginia University / Morgantown, WV; USDA/ARS Bee Research Lab / Beltsville, MD

Requests for information or publications should be sent to: MAAREC, 501 ASI Building, University Park, PA 16802 Phone: (814) 865-1896 Fax: (814) 865-3048 Web site: <http://MAAREC.cas.psu.edu>. This publication is available in alternative media on request. The mention of trade names or commercial products in this publication is for illustrative purposes only and does not constitute endorsement or recommendation by the Mid-Atlantic Apiculture Research and Extension Consortium or their employees. The U.S. Cooperative Extension Service and the U.S. Department of Agriculture provide Equal Opportunities in employment and programs.

**Prepared by
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FOCUS ON:

What is MAAREC?

MAAREC is a regional research/extension program focused on addressing the pest management crisis facing the beekeeping industry in the Mid-Atlantic Region. Extension and Research bee specialists of the land grant universities form one-third of the MAAREC (Mid-Atlantic Apiculture Research and Extension Consortium) Task Force. Additional representation from the state beekeeping associations of each of the five states plus the same five-state Department of Agriculture Apiary inspection personnel and the USDA/ARS (Beltsville Bee Lab) completes the Task Force.

The 16-member MAAREC Task Force meets twice annually to identify research and extension priorities for apiculture in the Mid-Atlantic Region, review research and extension proposals, monitor progress of current research and extension programs, and assist specialists in obtaining funding for the apiculture extension and research effort. A recent MAAREC survey of over 750 beekeepers in the Mid-Atlantic region showed strong support for research on Integrated Pest management (IPM) and/or non-chemical approaches to honey bee mite and disease control. While chemical treatments are seen as a necessary short-term control tactic, beekeepers in the region are becoming increasingly concerned about the rapid development of resistance to these materials, chemical contamination of honey, bees and/or wax, and health risks associated with using these materials.

The regional MAAREC project seeks to identify alternatives to chemical controls and promote less reliance on chemical pesticides for mite control. Included is demonstration research of integrated approaches to reduce mite pressure and development of an economic injury level (threshold) for fall mite control within an IPM framework. Sampling method efficacy for measuring mite numbers in bee colonies is also a high priority. Research objectives take into consideration apiary inspector and beekeeper input through the MAAREC Task Force and the use of tools such as beekeeper surveys to identify the most effective ways to assist beekeepers in understanding and making sound management decisions for mite and disease control.

An integral part of this regional effort is timely delivery of IPM-based management. Providing beekeepers with the knowledge and tools necessary to adopt and successfully implement IPM strategies is necessity toward developing IPM management practices for mite pest control. The extension focus is on improving information transfer through a mix of traditional and innovative methods and a consolidation of apiculture extension in the five Mid-Atlantic states into a region-wide program. New publications and/or decision support tools specific to the adoption and implementation of IPM for honey bee mites and disease are anticipated. New and updated materials generated to support an IPM approach to honey bee parasite and disease management, are made available free of charge to participating MAAREC state beekeeping associations, county cooperative extension offices and apiary inspection services. A new "train-the-trainers" beekeeping training manual provides an

outline resource to assist beekeeping short course instructors/presenters with outlines of information appropriate in honey bee management instruction. All materials are used in IPM training workshops and for in-service training of state apiary inspectors and county extension agents along with beekeepers and growers at Short Courses.

Follow-up survey tools will be developed to assess IPM adoption by beekeepers and the success of educational programs in the MAAREC region. Participating extension personnel, in collaboration with researchers, will report the research and extension (IPM adoption) results of this cooperative project in articles in local, regional and nationally-distributed beekeeping journals and at local, state, regional and national beekeeping/grower meetings.

*Dewey M. CARON, Maryann FRAZIER and Michael EMBREY
Presented at American Bee Research Conference, San Diego, CA Jan 12, 2001*



West Virginia's beekeepers, honey lovers,

gardeners, a few politicians, rural folks and town folks alike, gathered at the city park in Parkersburg, West Virginia last September 9 and 10 for the twentieth annual West Virginia Honey Festival. This event sponsored by West Virginia University Extension Service, West Virginia Department of Agriculture, West Virginia Beekeepers Association and the city of Parkersburg was both to inform festival goers about bees and honey and entertain them as well.



HANDS-ON BEE EXPERIENCE!

INTERMEDIATE

Beekeeping Short Course

June 22 & 23

New Windsor Conference Center

New Windsor, MD

(Carroll Co - Rt. 31 -7 miles SW Westminster - 23 miles NE Frederick, MD)

FRIDAY

IPM - What is it?
What do I need to know?
Diseases
Pests
Bee mites

Conference Fee:

\$35 (Two days)

\$25 (One day)



SATURDAY

Queens & Management
Insuring healthy queens
Dividing basics
Stop swarming now!

Meals: Lunch (included)

Dinner (June 22) \$8.75

Breakfast (June 23) \$5.75

Lodging: (\$43.50 single dorm style or \$51.40 single w/private bath)

(\$33.50/person double dorm style or \$41.50/person double w/private bath)

Co-sponsored by MSBA (MD State Beekeepers Association) and MAAREC (Mid Atlantic Apiculture Research & Extension Consortium)



The festival included excellent displays ranging from observation bee hives, honey extraction demonstrations, honey and honey products, to over 50 arts and crafts vendor's booths. Highlights of the festival included a two hour beekeeping short course and the selection and crowning of the 2000 West Virginia Honey Princess. There were cooking demonstrations by the National Honey Princess. A honey and bees-wax show was held on Saturday with an auction of the winning entries on Sunday afternoon. Also a honey bakery contest was judged and auctioned on Saturday.

Among the vendors were Steve and Ellie Conlon of Thistle Dew Farm, Inc. The Conlons displayed honey and several honey based foods. Steve presented a live hive demonstration and discussed the numbers of bees in a colony, the duties of the

hive members, and the reproduction and swarming activities of the bee colony. With several thousand honey bees in the screened tent, Ellie added an additional few thousand bees for the Live Bee Beard Demonstration. This demonstration, while entertaining, also gives an idea of the social order within the bee colony. (For picture of Steve with bee beard and an article on the Conlons see April 2001 American Bee Journal)

Although the activities of the honey festival are entertaining, the real purpose of the weekend event is to educate the public concerning the vast importance of the honey bee and the many types of honey and bee products available. For information concerning next year's events scheduled September 8th and 9th write: West Virginia Honey Festival, PO Box 2149, Parkersburg, WV 26102 or call (304) 424-1960 (WVU Ext. Service).

INTERMEDIATE BEEKEEPING SHORT COURSE SCHEDULE

Friday, June 22

IPM - What is it and why should I know it?

8:30-10:00 A.M

INTEGRATED PEST MANAGEMENT BASICS

- **IPM basics**
Dennis vanEngelsdorp, Cornell University
- **Thresholds - Why do we need them?**
Dewey M. Caron, University of Delaware

10:30-12:00 noon

DISEASES AND PESTS

- **The hypochondriac - what's a BEE/beekeeper to do?**
H. Shimanuki, USDA-Retired
- **Do bees have too many pests?**
Alexis Park, Univ. of Delaware Graduate student

1:15-3:00 P.M.

MITES, MITES, MITES

- **IPM - A mite primer**
Maryann Frazier, Penn State University
- **Sampling for mites**
Nancy Ostiguy, Penn State University
- **Essential oils and mite control**
James Amrine, West Virginia University



3:30-5:00 P.M.

IN THE APAIRY

- (demos/hands-on in apiary)
- Outside**
- *D. M. Caron / I. Barton Smith (Md. Apiary Inspector)*
Diseased/healthy hives
 - *M. Frazier*
Sampling adults for mites (powdered sugar/ether roll)
 - *J. Amrine*
Administering chemicals
- Inside**
- *N. Ostiguy*
Counting sticky boards
 - *A. Park*
Is that a bee, wasp or fly?
 - *L. Adams (Penn State grad student)*
Osmia bees - the future pollinator?

7:00-9:00 P. M.

WHAT'S THE FUTURE??

- Q & A SESSION**
H. Shimanuki, M. Frazier, D. vanEngelsdorp

Saturday, June 23

Queens & Management

8:30-10:00 A.M.

QUEENS, QUEENS, QUEENS

- **Queen basics**
Dewey M. Caron, University of Delaware
- **What we do & don't know about queens?**
Clarence Collison, Mississippi State University

10:30-12:00 noon

MANAGING FOR SUCCESS !!

- **Queens and swarm management**
Jeff Pettis, USDA Beltsville, MD
- **Queens and dividing colonies**
I. Barton Smith, MD Apiary Inspector

1:15-3:00 P.M.

PUTTING IT INTO PRACTICE

- (demos & hands-on in apiary)
- Outside**
- *J. Pettis*
Looking for queen cups/cells
 - *M. Frazier/L. Adams*
Hygienic behavior
 - *B. Smith*
Nuc management
- Inside**
- *D. M. Caron*
Grafting demo
 - *C. Collison*
Marking queens

3:30-4:30 P.M.

- **Bee botany / management from flower to jar**
C. Collison, Miss. State Univ.



REGISTRATION FORM

Beekeeping Short Course • June 22 & 23, 2001

Conference fee:

- \$35 for 2 days
 \$25 for 1 day (circle one) for
FRIDAY or SATURDAY

Lodging:

- Single: dorm style (\$43.50)
 private bath (\$51.40)
Double: dorm style (\$33.50/person)
 private bath (\$41.50/person)

Staying with _____

- Meals:** Dinner - June 22 (\$8.75)
 Breakfast - June 23 (\$5.75)

Total Enclosed: _____

Name _____

Phone _____

Address _____

REGISTRATION NECESSARY BY MAY 25 - PAY AT SHORT COURSE

Mail to: Beekeeping Short Course, Dept. of Entomology,
250 Townsend Hall, Univ of Delaware, Newark, DE 19717



BEES BY THE SEA

Eastern Apicultural Society Meeting August 6-10, 2001

The 2001 edition of EAS has 54 different speakers and instructors scheduled to share their expertise during the EAS Short Course, Workshops, & Conference. If you are interested in b-r-o-a-d-e-n-i-n-g your beekeeping knowledge and expertise. You-u-u-u Nee-e-e-e-d to Be-e-e There!! There is something for every beekeeper attending the Conference and Workshops. For family coming to play on Cape Cod, EAS has scheduled numerous tours and excursions including a whale watch, sunset cruise, and cranberry bog visit.

Short Course: The EAS 2001 Short Course will have a "Level I" course for novice beekeepers with minimal experience or training in bee management. All aspects of the care and management of honey bees, taught by some of the finest beekeeping instructors and Master Beekeepers has been organized by Dr. Dewey M. Caron of the University of Delaware. Level I classes will be highlighted by sessions on management and bee equipment. Dr. James Tew of Ohio State, Maryann Frazier of Penn State University, Dr. Jeff Pettis of the US Department of Agriculture in Beltsville, MD are featured; State Apiarist Tony Jadczyk of Maine will discuss controlling pests and Al Carl, Massachusetts State Apiary Inspector, will demonstrate how to detect and control pests in the apiary. Master Beekeepers Bob Cole from North Carolina, Ann Harman of Virginia, and Bill Troup of Maryland, as well as Massachusetts' own Vin and Jan Gaglione of Crystal Bee Supply will give their perspectives on how they have become successful

beekeepers and will assist short course participants as they spend at least half a day with the bees and instructors in the EAS 2001 apiary.

The EAS 2001 Short Course will also have sessions for the more experienced beekeeper. The "Level II" Short Course also organized by Dewey, will feature 6 courses to further the education of intermediate to more advanced level beekeepers. Registrants will select one course each day in their area of interest. Each course will be an intensive day of focus on a particular aspect of beekeeping that is designed to help improve the profit line/enjoyment level of beekeepers. Workshops include the bee management details of over-wintering for success, managing colonies for swarm control and how to produce maximum honey surpluses. Other day-long concentrations are on Integrated Pest Management (IPM) for the beekeeper, marketing, raising quality queen stock and how to manage bees for their pollination benefit and other products. The Level II Short Course like Level I, will feature the best beekeepers and instructors of beekeeping along with lots of time in the apiary for hands-on experience.

The Wednesday morning joint session of EAS 2001 Short Course is designed to bring participants up-to-date with happenings in the bee colony. Dr Robert Danka of USDA Baton Rouge Bee Lab will discuss evaluating queens for disease/mite resistance; Tony Jadczyk will cover the current large demand for quality bee colony rentals by the Blueberry growers of the Eastern US; and Jeff

Pettis covers the small hive beetle and what is happening with research to mitigate the negative effects of this recently introduced bee pest. The Wednesday session also features Dr Nicola Bradbear of the International Bee Research Association in England who will help explain how beekeepers in other parts of the world solve their pressing problems. Mike Griggs of Cornell University, next years EAS President-elect, will detail bee botany featuring what bees seek at flowers and how they make choices as to what flowers are visited.



Main Conference:

The theme of the 2001 Conference is "Beekeeping Around The World". The best

and most informed beekeepers and bee research/extension/regulatory officials in the United States, Canada, and Great Britain. will be on hand. There will be concurrent sessions Thursday and Friday morning and a interesting opening session Wednesday afternoon. Thursday and Friday afternoon Workshops include such topics as: Breeding Northern Queens with Mac Hedgpeth & Rollin Hannan, RI & CT Breeders; Creamed Honey Production - small scale with Vin Gaglione; Wintering in the North with Tony Jadczyk, ME State Apiarist; Back to the Classroom - Public Presentations with Ray Lackey, Master Beekeeper; Two-Queen Hive Systems with Bill Denhard, Essex County Beekeeper; Observation Hive Know-How with Dewey Caron, and Wyatt Mangum as well as time with the Master Beekeepers in the apiary on the Mass Maritime AcademyCampus, our EAS homesite this year

Tours & Excursions: EAS will use the Mass Maritime Academy docks for two water-borne excursions. Enjoy a Whale Watch on the Onset Chief II to Stellwagen Banks and watch the "gentle giants of the sea" frolic in the North Atlantic. There will also be a relaxing evening

cruise through the Cape Cod Canal aboard the M/V Viking. This cruise offers a narration of the history and development of this 7-mile long engineering marvel. The return features a blues music group accompanied by the gorgeous Cape Cod sunset. Tickets for tours and cruises may be limited - reserve your spot early.

Commercial Exhibits: The major local and national beekeeping suppliers have been invited to participate in the Vendor exhibit area of the EAS 2001 Conference. Rossman Apiaries and Mann Lake Supply have graciously agreed to be Platinum Sponsors of the Conference again this year. Included among the Gold Sponsors are Dadant, Inc; Brushy Mountain; Gamber Container; Wellemark International; and Better Bee. Silver sponsors of this year's event include Ross Rounds; Walter Kelly Co.; Dominion & Grimm; and Red Maple Farm. And these are just the sponsors! You can expect numerous other exhibitors in the vendor area.

Honey Show: No gathering of beekeepers could be considered complete without a honey show! This is an extensive honey show and it rivals the best honey shows in Massachusetts or any EAS state for quality of entries and judging. Hope you'll find time to prepare for and enter the EAS Honey Show.

Social Events: On Tuesday Evening there will be a social for Short Course participants. Wednesday evening will feature another Social (with live jazz music) followed by a video. Thursday evening's event will begin with a "surf or turf" meal - a choice between a traditional New England Lobster Boil or a thick juicy steak. During the meal (and before the Auction), attendees will be entertained by The Hyannis Sound! - a ten-member, live, a cappella, male vocal group. Following the meal and entertainment, the annual auction to benefit the EAS Foundation for Honey Bee Research will be held. The guest auctioneer, Jim Tew, is no

stranger to those attending past EAS conferences. He was the recipient of the first annual EAS outstanding teaching/extension award and is an engaging speaker sure to add style to the auction itself. We are also planning some live music at our social gatherings for your enjoyment.

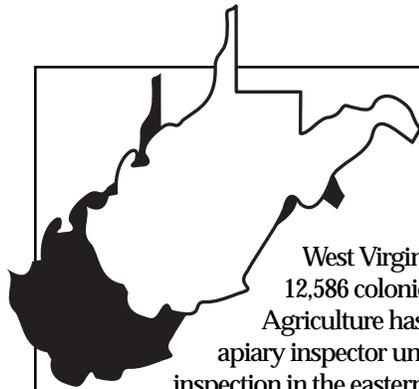
On Friday evening, the week's events conclude with a banquet and awards ceremony. During the meal there will be a keyboardist providing dinner music and after the awards ceremony, attendees will have the pleasure of listening to their last speaker of the week.

If you like saltwater fishing, bring your gear. There's no shortage of excellent places to fish all around the perimeter of the campus. The Mass Maritime Academy campus is on a small peninsula, with salt water on

three sides by the Cape Cod Canal, Buzzards Bay and Buttermilk Bay. Don't forget your bike or walking shoes - you can ride/walk along the Cape Cod Canal or all the way to Provincetown. And, for those who like swimming, we have our very own private Academy Beach for sun and fun. Don't miss this one...
August 06-10.
EAS 2001—Bees By The Sea. Bourne, Massachusetts. See you there!



For more information about the meeting, please contact the EAS Registrar (s) Jan Gaglione, (978) 535-1622 (before 9:00 PM), Jgagli1646@aol.com OR Kathy Hough, (978) 468-6000, beesbest@mediaone.net OR visit the EAS 2001 website: <http://www.capecod.com/bcba/eas2001.html>



West Virginia Beekeeper Assistance Program

West Virginia has 1,070 registered beekeepers who manage 12,586 colonies in 1,379 apiaries. The WV Department of Agriculture has 2 full-time employees (Matt Cochran was chief apiary inspector until he retired March 23; Paul Poling handles the inspection in the eastern part of WV where the majority of the migratory beekeepers operate) and also uses 2 part-time employees for part of the year. The apiary program's primary purpose is "to promote beekeeping as a branch of agriculture throughout West Virginia." The effort includes statewide inspections of apiaries and educational sessions for 19 (up from 10) regional and 2 statewide bee association meetings/year.

A Beekeeper Assistance Program was initiated in 1997 with a special appropriation from the State Legislature. Its goal is "to help registered beekeepers avoid losses of honey bee colonies to parasitic mites or any pest or disease that poses a threat to the industry." Mite treatments are "annually supplied to participating/registered beekeepers at no cost." Mite control assistance has included Apistan strips and menthol. In 2001 the use of Coumaphos (Checkmite+), is anticipated due to varroa resistance to Apistan.

The West Virginia queen project will be initiated in 2001. Paul Poling of West Virginia Honey Company, Hambleton, WV noted resistance for tracheal mites in queen daughters and original stock while investigating Canadian Buckfast queens. This trait is dominant and is carried by descendants of Canadian Buckfast queens that are open-mated. As a consequence of Paul's work, menthol will not be used in the assistance program. Several information sheets are available to help West Virginian beekeepers cope with mites including one on IPM, another on use of screened bottom boards and a third on tracheal mites and the queen program.

results!

2000 MAAREC Beekeeper Survey (Part I)

Better Service to Beekeepers & the Industry

The following survey was designed to help us understand how we could better serve beekeepers and the beekeeping industry. The survey was conducted in the fall of 2000, throughout the MAAREC (Mid-Atlantic Apiculture Research and Extension Consortium) region that includes the states of Delaware, Maryland, New Jersey, Pennsylvania, and West Virginia.

A total of 741 surveys were completed and returned. By far the largest number returned was received from West Virginia (77%). Pennsylvania beekeepers returned 17% of the total or 126 surveys.

1. How long have you been keeping bees?

- 1) less than 1 yr. 2) 1 to 5 yrs. 3) 6 to 10 yrs. 4) more than 10 yrs.
- 7% 33% 12% 48%

2. How many colonies do you maintain?

- 1) 5 2) 6 to 10 3) 11 to 50 4) 51-149 5) more than 149
- 51% 22% 21% 3% 3%

3. In which state(s) do you and your bees reside most of the year?

- 1) DE 2) MD 3) NJ 4) PA 5) WV 6) Other
- .3% 3% 1% 17% 77% .4%

4. Do you consider yourself a migratory (inter-state movement) beekeeper?

- 1) Yes 2) No
- 3% 97%

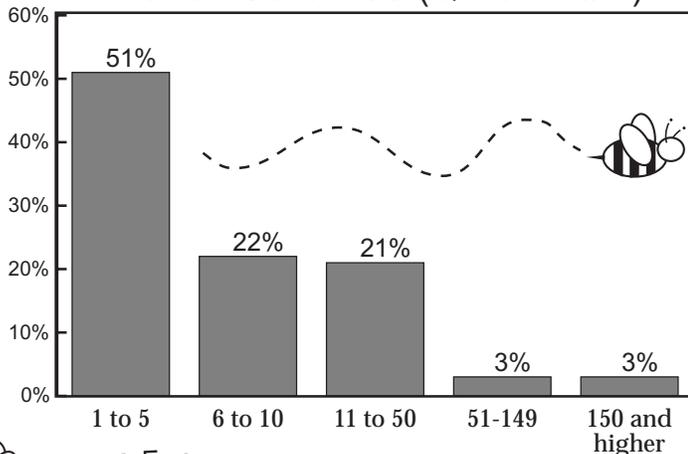
5. Which of the following ways do you use your bees?

- 1) honey production 2) wax production 3) pollination 4) pollen production 5) other _____
- 93% 21% 59% 9%

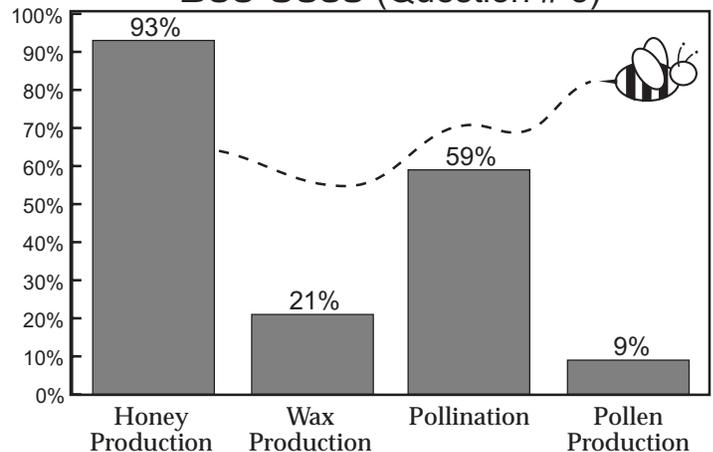
6. Are you familiar with MAAREC; the Mid-Atlantic Apicultural Research and Extension Consortium?

- 1) Yes 2) No
- 24% 76%

No. of Colonies (Question # 2)



Bee Uses (Question # 5)



7. In what ways DO YOU CURRENTLY OBTAIN information on honey bee diseases and bee management?

	Use regularly			Never use		
	1	2	3	4	5	NF
Computer software	1 3%	2 2%	3 4%	4 3%	5 46%	NF 42%
Websites	1 8	2 6	3 9	4 6	5 35	NF 36
*Newsletters	1 51	2 14	3 16	4 6	5 7	NF 7
*Books	1 51	2 15	3 16	4 6	5 5	NF 5
Video	1 14	2 7	3 12	4 12	5 32	NF 22
Short courses	1 17	2 10	3 12	4 8	5 33	NF 21
*Attending meetings	1 42	2 10	3 12	4 7	5 17	NF 11
*Articles in journals: <i>ABJ, Bee Culture</i>	1 49	2 9	3 10	4 6	5 12	NF 13
*Free extension pamphlets	1 43	2 13	3 17	4 8	5 10	NF 9

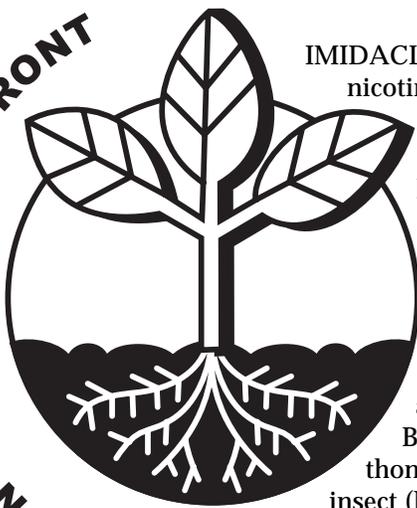
8. In what ways would you PREFER TO OBTAIN information on honey bee diseases and bee management?

	preferred			least preferred		
	1	2	3	4	5	NF
<i>Computer software</i>	1 9%	2 6	3 7	4 6	5 37	NF 35
<i>Web sites</i>	1 18	2 9	3 8	4 4	5 31	NF 30
<i>*Newsletters</i>	1 71	2 13	3 8	4 2	5 3	NF 3
<i>*Books</i>	1 57	2 15	3 14	4 5	5 6	NF 3
<i>Video</i>		1 41	2 12 14	3 7	4 16	5 NF 10
<i>Short courses</i>	1 35	2 16	3 12	4 8	5 19	NF 10
<i>*Attending meetings</i>	1 53	2 13	3 10	4 6	5 11	NF 7
<i>*Articles in journals</i> <i>ABJ, Bee Culture</i>	1 58	2 14	3 9	4 4	5 7	NF 8
<i>*Free extension pamphlets</i>	1 70	2 12	3 8	4 2	5 4	NF 4

To be continued in the next issue of BeeAware.

*Top Selections

NO
ON THE PESTICIDE FRONT



Dewey M. Caron

IMIDACLOPRID is a chloro-nicotinyl insecticide that works by interfering with a unique transmission pathway of stimuli in the insect nervous system that is more common in insects than warm-blooded animals. It is a systemic insecticide that works both as a contact and via ingestion as well. Besides greenhouse (Marathon®) and ornamental pest insect (Merit®) uses, it is effective on turf insects and increasingly being utilized in the ag sector. It also is an excellent flea killer on pets. It has been suggested as very helpful in an IPM approach because of the application as a systemic and its specificity.

There may however be a problem with imidacloprid and beneficial insects like honey bees, apparently resulting from systemic activity of imidacloprid applied as a seed treatment. In France imidacloprid (sold as Gaucho®) use has been implicated as responsible for "mad bee disease." This mysterious malady observed by beekeepers since 1994, is manifested by losses of honey bees near fields of sunflower,

some moved to the fields for pollination purposes. Losses are more pronounced at early bloom. Bayer, the manufacturer does not feel the chemical is responsible and has successfully halted a temporary suspension of use of the compound on sunflowers.

More recently, greenhouse tomato growers have found pollen from early blossoms killing bumble bees being utilized for pollination. The situation follows use of imidacloprid. Now imidacloprid is about to be incorporated into canola and mustard seed treatments in Canada, crops that utilize honey bees for pollination. Because acreage of these crops has been drastically scaled back (consumer reactions related to the GMO issue), beekeepers in part of the Manitoba and Alberta are overly dependent on these crops for nectar sources setting up the possibility of further honey bee losses, this time in North America. As beekeepers struggle to find more IPM friendly pesticides it is ironic that one compound useful in control of other pests might not be as benign on honey bees as originally thought.



• **NEW! - MAAREC Beekeepers Resource Manual - The complete guide for teaching introductory Beekeeping.** Higher quality version is available from the University of Delaware or Penn State in paperbound book form - \$10. Contact Dewey M. Caron, Dept of Entomology, Univ of Delaware, 250 Townsend Bldg, Newark, De 19717 or Maryann Frazier, 501 Ag & Ind Bldg, PSU, Univ Park, PA 16802.

• **NEW! - Integrated Pest Management (IPM) Strategies for Parasitic Bee Mites** (Powerpoint slide set)

• **NEW! - Understanding Honey Bee Biology - The Key to Successful Beekeeping** (Powerpoint slide set)

Visit the MAAREC web site at <http://MAAREC.cas.psu.edu> and check them out!



U P C O M I N G E V E N T S

Maryland MSBA Meetings: Joint with MAAREC Intermediate SC Contact Dean Burroughs 410 546-2910 Adburroughs@ssu.edu or fill out the form in this newsletter and mail to Dr. Caron.

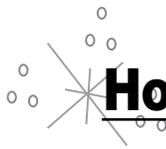
EAS Annual Meeting & Short Course: Aug 6-10, 2001 Cape Cod Mass Contact Jay Bathelmeus Capebees@capecod.net

WV Spring Meeting: May 5 Sutton, WV Contact John Campbell 304 478-3675

NJBA Meeting: Contact Ray Markley 609 261-1638 or PatHender@aol.com

Pennsylvania Newsletter (Co meetings): Contact Yvonne Crimbring, RD 1 Box 315, Canton, PA 17724, 570-673-8201

PA summer picnic: July 14 @ home Renee Blatt, 2001 American Honey Queen, Contact Yvonne Crimbring 570-673-8201



Honey Bee Colony Losses Survey 2000-2001



This survey on winter losses is designed to help us understand more about why we continue to see honey bee colonies die during the winter. We appreciate your participation in past similar surveys and hope you have read the results of these survey which were published in the American Bee Journal and the Bee Aware newsletter. Please answer all of the questions and return the survey to :

Please return to: Bee Survey • Department of Entomology • 501 ASI Building • University Park, PA 16801

Where are your apiaries located (check)? PA ___ MD ___ NJ ___ DE ___ WV ___ other _____
In which county or counties? _____

How many colonies did you have last summer (June or July 2000)? _____

How many died between last summer and this summer? Total dead colonies = _____

Of the colonies that died (listed above):

How many died late last summer or early fall (Aug., Sept., Oct. 2000)? _____

How many died in late last winter or early spring (Feb., Mar., Apr. 2001)? _____

How many died at other times? _____ specify month (s) _____

How many starved (dead clusters with no honey remaining)? _____

How many were killed by bears? _____ specify month (s) _____

How many colonies do you have now (2001)? _____

How many are overwintered colonies that survived the winter of 2000-2001? _____

How many are new (spring 2001) splits from your own bees? _____

How many are new (spring 2001) packages or purchased nucs? _____

How many are new (spring 2001) swarms? _____

Did you apply any medications last year? Please indicate ALL treatments that you applied during 2000. (specify the month that you applied each treatment).

powdered sugar & Terramycin (for foulbrood)? If yes, when? **month(s)** _____

Apistan (for Varroa mite)? If yes, when? **month(s)** _____

Coumaphos (for Varroa mite)? If yes, when? **month(s)** _____

Menthol (for tracheal mite)? If yes, when? **month(s)** _____

plain grease patties (for tracheal mite)? If yes, when? **month(s)** _____

Grease patties with Terramycin? If yes, when? **month(s)** _____

Fumidil-B (for Nosema disease)? If yes, when? **month(s)** _____

other? _____ When? **month(s)** _____

Integrated Pest Management

Did you practice any IPM tactics for mite control during 2000? YES or NO _____

If yes, which of the following methods did you use and when?

screen bottom boards If yes, when? **month(s)** _____

drone brood removal If yes, when? **month(s)** _____

resistant queens Whose queens _____

essential oil feeding Which one _____ and how was the material applied

others _____

Please include any comments here. _____

We designed this survey to be anonymous, but you may include your name and address here if you wish. All of the information that you provide on this form will remain confidential. _____

We appreciate your help! Thanks for taking the time to complete this survey.