

MAAREC Minutes of the 2007 Fall Meeting

Location: A. H. Smith Jr. Agricultural Research and Extension Center, 595 Laurel Grove Road, Winchester, VA

Meeting Date and Time: November 2, 2007, 9:30 AM – 4:00 PM

Meeting Attendees: Rick Fell (VT), Keith Tignor (VDACS), William J. Troup III (MDA), Jerry E. Fischer (MDA), George Clutter (WVDA), Warren Seaver (DE), David MacFawn (VT), Tim Schuler (NJDA), Joseph Lelinko (NJBA), Alan Fiala (VSBA), Holly Gatton (VT), Michael Andree (PDA), Karen Roccasecca (PDA), Dennis van Engelsdorp (PDA), Jim Haskell (VSBA), Pat Haskell (VSBA), Dane Hannum (VSBA), Mike Embrey (UMD), Maryann Frazier (PSU), Nancy Ostiguy (PSU), Jim Bobb (PSBA), Sharon McDonald (PDA), Wayne Esaias (MSBA), Nancy Adamson (VT), Steve Toth (Southern Region IPM Center), Mike Weaver (VT Pesticide Programs)

The meeting was called to order at 9:30 AM. Rick Fell began by welcoming everyone and asking each of the attendees to introduce themselves. This was followed by an overview of the meeting agenda.

The program was initiated by Dennis van Engelsdorp who presented an update on CCD research and the role of MAAREC. He began with a short review of CCD and a summation of some of the causes of colony losses. He noted that most losses, and especially winter losses, were not CCD but due to other factors such as starvation or varroa. However, CCD has highlighted the fact that bees are not healthy and that losses to CCD have been high. Beekeeper surveys indicate CCD losses of 45% and non CCD losses of 25.4%. Van Engelsdorp presented a history of similar types of colony losses and then discussed some of the impacts of CCD, particularly with regard to increased pollination fees. He then discussed some of the proposed causes of CCD. The top lines of investigation involve pathogens, pesticides and environmental stress. He reviewed on-going work involving the analysis of samples collected in several states from CCD colonies. Initial data do not suggest varroa or *Nosema* are primary factors. Studies involving examinations of the digestive tract of bees (PDA) show differences (i.e. increased melanosis of the sting glands, pyloric scarring) between bees from CCD yards and bees from healthy yards, indicating health problems. He reviewed the association of IAPV with CCD and noted that IAPV had a positive predictive value of 96%. KBV, *Nosema apis* and *N. ceranae* had lower predictive values and lower specificity values than IAPV, however, the predictive value for all 4 agents was 100%. Other ongoing studies are looking at possible factors using molecular techniques. In addition, researchers are analyzing bee bread and beeswax for chemical residues, bees from healthy and CCD colonies for protein content, and potential problems associated with the reuse of combs from CCD colonies. His major summary points reemphasized that bees are not healthy, that most losses are not CCD and that beekeepers need to reduce stress in their operations as much as possible.

Following van Engelsdorp's presentation Maryann Frazier brought up several points concerning problems with pesticides. She noted that not only honey bees were suffering losses but that other pollinators were as well. She stated that it is hard to believe that pesticides are not a piece of the CCD puzzle, especially since residue analysis by a USDA lab has detected 45 different pesticides in pollen (most at the part per billion level). She also noted that coumaphos and fluvalinate have been detected in beeswax. The presence of pesticides has been detected in not just CCD hives, but in all hive samples. No cause and effects have been specifically identified.

R. Fell commented that recent work at Virginia Tech has shown that miticide use in hives can have sublethal effects, specifically with regard to the reproductive physiology of drones and queens. Work at VT has shown reduced sperm production and viability in drones, and reduced viability of sperm stored in the spermathecae of queens.

Africanized Bee Action Plans

Keith Tignor (VDACS) presented information on the Virginia Africanized Bee Plan. He noted that the plan was in place and included surveys for AHB. Points of entry were targeted for ongoing surveys and involved the set up of traps at port facilities and along interstates. The survey also requests that beekeepers report suspected AHB colonies. Initial identification of AHB is based on FABIS.

George Clutter (WVDA) indicated that they look at approximately 500 colonies per year and noted that they had found 5 colonies that failed FABIS. They do not depopulate if they can avoid doing so, preferring to requeen. If they identify AHB colonies, they monitor the area in a 2 mile radius for additional hives.

Jerry Fischer indicated that Maryland utilizes essentially the same approach as Virginia and West Virginia – area monitoring, with an emphasis on ports and harbor areas. Fischer indicated that they use comb size as an identifying characteristic for AHB. There have been no known cases of AHB in MD.

Keith Tignor raised the question as to how effective traps are in port areas, especially in non-natural areas. He has been finding feral colonies in port areas.

Warren Seaver indicated that Delaware has an action plan in place and that they monitor ports and bay areas.

In Pennsylvania they use scales to weigh 40 bees and if the bees are light they go to FABIS. They have a monitoring program and they do "hot" hives. Van Engelsdorp indicated that they expected a molecular test soon from the USDA. He also indicated that a town in the state attempted to ban beekeeping because of AHB fears. Beekeepers must practice best management practices and be certified. He also indicated that the issue of migratory beekeepers needs to be looked at with regard to possible movement of AHB.

Tignor noted that part of the VA action plan was directed at getting beekeepers involved. Effort to get emergency response teams involved had not been successful, primarily because the AHB is not here.

Maryann Frazier pointed out the need for media workshops and public relations as the awareness of AHB increases. She indicated that it is important to develop positive relationships with the press.

Final question – how can we help reduce problems. One suggestion was to develop and use a Certified Queen List (certified queen breeders). Queen certification is no problem if there are no AHB in a state, but it would be a problem in other states. (Note: After the discussion, I was given a written note about how MAAREC might proceed with the development of a Queen Supplier List. However, since there was no indication as to the author I have not included it in the minutes). Another suggestion was the development and use of best management practices. However there was concern over the feasibility of overseeing BMP at a statewide level. It was suggested that if beekeepers do not sign on to a BMP list that it could increase their liability. Pennsylvania has a Beekeeper Compliance Agreement.

Every state should put their AHB plan on the MAAREC website.

MAAREC Website Updates and Changes

Maryann Frazier reviewed the status of the MAAREC website and noted that it will be hosted at Penn State. The URL for the site is MAAREC.CAS.PSU.EDU. Questions or information for the website should be sent to Roxie Smith (RSSII@psu.edu)

A request was made to add a section on solitary bees to the MAAREC website. Meeting participants were favorable to the idea.

Maryann also mentioned that the MOU for MAAREC had been updated and modified to include Virginia. The document needed to be signed and returned. A question was raised about adding state associations and state departments of agriculture to the MOU. Maryann indicated that she would look into the feasibility of doing so.

Update and Final Draft of the Mid-Eastern State Agreement

Jerry Fischer asked if there were any revisions to the article (copies were passed out). Several individuals indicated they would send responses.

Honey Bee Pest Management Strategy Plan

Mike Weaver and Holly Gatton led the session to gather information on honey bee pests for a pest management strategy plan for honey bees in the Mid-Atlantic states. The session was designed to gather input from beekeepers and apicultural specialists on critical pest management needs for honey bees. The information obtained in the meeting will be used for the development of a strategic plan involving research, educational and regulatory priorities.

Nectar Flow Monitoring

The final presentation was given by Wayne Esaias of Maryland. He has initiated a program to monitor nectar flows in different areas of the state as a predictor of climate change. The nectar flows are monitored using scale hive measurements collected by beekeeper volunteers. To date the program has only involved beekeepers in Maryland but he is looking to expand the program into other MAAREC states. Individuals interested in participating in the program can contact Esaias at wesaias@comcast.net.

Submitted by R. Fell