



THE NORFOLK BEE

Norfolk County, Massachusetts • www.norfolkbees.org

Volume 8, Issue 5 October/November 2009

Election Broadsheet Edition

FROM THE VICE PRESIDENT

Dear Club Members,

After the election in November of the new officers and board members, they will be having their first board meeting. They will provide a complete update at the December meeting. Everyone's input is welcome. Please contact any of the new board members if you wish to get involved with the club on any level or have any ideas or suggestions that would benefit the club.

Thank you,

Tony Lulek

Vice President/Treasurer

FROM YOUR CORRESPONDING SECRETARY

Greetings!

It's been a pleasure being the Club's Corresponding Secretary for the last two years and I wish our Prospective CS Owen Ackerman much luck in the role.

The purpose of this shortened Newsletter is to provide the most recent meeting minutes and to present the slate of proposed board members. Please attend the November club meeting to cast your vote for the new board.

Thank you all, and see you at the meetings!

Best,

Kate

AMERICAN FOULBROOD - AFB

by Ed Karle

Important: These photos are from one of my hives. I do not yet know the source hive of this infection. Note the sunken and shiny cappings, scale residue in cells, and liquid/ropey remains of the brood. I have to destroy the hive and bees. If you see anything like this in one of your hives let me know as soon as you can. If it is AFB the hive must be sealed to prevent robbing and spread of the disease and then destroyed.



(continued on pg.2)

MINUTES FROM THE OCTOBER 5, 2009 MEETING

Meeting started at: 8:00 PM with 67 members present.

During the meeting we discussed:

1. **Door Prizes:** \$25 gift certificates for Reseska Apiaries and Brushy Mountain Bee Farm were won by Kathy Gasbarro, Richard Kramer and Jen LeBonte.

2. **2010 Dues:** Membership dues remain \$15 for 2010.

3. **Bee School:** About 15 people have signed up for the 2010 Bee School, twice as many as at this point last year.

4. **NCBA Officer Nominations:** The nominating committee (Peter Tullock, Owen Ackerman and Fran Key) proposed the following slate of officers for 2010-2011:

President:	Tony Lulek
Vice President:	Peter Tullock
Corresponding Secretary:	Owen Ackerman
Recording Secretary:	Paul LaShoto
Treasurer:	Fran Key

Officer elections will take place at the November meeting.

5. **Board Members:** Heather Labenski, Phil Barber, Avery Osgood and Kathy Gasbarro volunteered to fill the four non-officer NCBA Board positions for 2010-2011.

6. **Committees:** Committee positions will be filled after the November officer elections. Openings include Librarian, Bee School Committee and Education Affairs Committee.

7. **Regional Meetings:** The Massachusetts Beekeepers Association will meet October 17. The Southern New England Beekeepers Assembly is coming up. See individual organization websites for details.

8. **Communication:** Members not receiving club emails should be sure to join the Google group established for NCBA. Step-by-step instructions were given in the most recent newsletter. Anyone needing help should contact Tony Lulek.

9. **Soap Making Classes:** Soap making classes cost \$45, are limited to 8 to 10 people, and take place in Medway. All materials are provided. Sign-up sheets were available.

10. **Library:** Sue Osgood, Club Librarian, reviewed the book check out process and asked members to return any long-borrowed books. Check with Sue to see if you have any books still charged out.

11. **Presentation:** Ed Karle presented photos of problems discovered in recent hive inspections. Beekeepers need to be aware of potential problems with Varroa mites, pollen bound frames, laying workers, robbing and collapsing hives. Hives need to be strong going into winter.

The meeting paused for refreshments and the table raffle.

12. **Q&A:** There was an open Q&A session including a review of preparing hives for winter.

The meeting ended at 9:30pm.

(Note: following the meeting Sharla Halparin volunteered to serve as librarian.)

AMERICAN FOULBROOD (CON'T.)



AMERICAN FOULBROOD (CON'T.)

From *Wikipedia*:

American Foul Brood (AFB), caused by the spore-forming *Paenibacillus larvae* ssp. *larvae* (formerly classified as *Bacillus larvae*), is the most widespread and destructive of the bee brood diseases. *Paenibacillus larvae* are a rod-shaped bacterium, which is visible only under a high power microscope. Larvae up to 3 days old become infected by ingesting spores that are present in their food. Young larvae less than 24 hours old are most susceptible to infection. Spores germinate in the gut of the larva and the vegetative form of the bacteria begins to grow, taking its nourishment from the larva. Spores will not germinate in larvae over 3 days old.

Infected larvae normally die after their cell is sealed. The vegetative form of the bacterium will die but not before it produces many millions of spores. Each dead larva may contain as many as 100 million spores. This disease only affects the bee larvae but is highly infectious and deadly to bee brood. Infected larvae darken and die.

Diagnosis

Lab testing is necessary for definitive diagnosis, but a good field test is to touch a dead larva with a toothpick or twig. It will be sticky and "ropey" (drawn out). Foulbrood also has a characteristic odor, and experienced beekeepers with a good sense of smell can often detect the disease upon opening a hive. In the photo at right, some larvae are healthy while others are diseased. Capped cells with decomposing larvae are sunken, as can be seen at lower right. Some caps may be torn, as well. Compare with healthy brood. The most reliable disease diagnosis is done by sending in some possibly affected brood comb to a laboratory specialized in identifying honey bee diseases.

Disease Spread

When cleaning infected cells, bees distribute spores throughout the entire colony. Disease spreads rapidly throughout the hive as the bees, attempting to remove the spore-laden dead larvae, contaminate brood food. Nectar stored in contaminated cells will contain spores and soon the brood chamber becomes filled with contaminated honey. As this honey is moved up into the supers, the entire hive becomes contaminated with spores. When the colony becomes weak from AFB in-

fection, robber bees may enter and take contaminated honey back to their hives thereby spreading the disease to other colonies and apiaries. Beekeepers also may spread disease by moving equipment (frames or supers) from contaminated hives to healthy ones.

American Foul Brood spores are extremely resistant to desiccation and can remain viable for more than 40 years in honey and beekeeping equipment. Therefore honey from an unknown source should never be used as bee feed, and used beekeeping equipment should be assumed contaminated unless known to be otherwise.

Treatment

AFB spores are present in virtually every hive. Some brood in weakened colonies can become diseased. If the diseased larva dies within the hive, millions of spores are released. Antibiotics, in non-resistant strains of the pathogen, can prevent the vegetative state of the bacterium forming. Drug treatment to prevent the American foulbrood spores from successfully germinating and proliferating is possible using oxytetracycline hydrochloride (Terramycin).[12] Another drug treatment is tylosin tartrate that was US Food and Drug Administration (FDA) approved in 2005[13].

Chemical treatment is sometimes used prophylactically, but this is a source of considerable controversy because certain strains of the bacterium seem to be rapidly developing resistance. [14] In addition, hives that are contaminated with millions of American foulbrood spores have to be prophylactically treated indefinitely. Once the treatment is suspended the American foulbrood spores germinate successfully again leading to a disease outbreak.

Because of the persistence of the spores (which can survive up to 40 years), many State Apiary Inspectors require an AFB diseased hive to be burned completely. A less radical method of containing the spread of disease is burning the frames and comb and thoroughly flame scorching the interior of the hive body, bottom board and covers.