

FINGAL NORTH DUBLIN BEEKEEPERS' ASSOCIATION

To: All Members

CIRCULAR - AMERICAN FOUL BROOD (AFB)

See also the 'F.I.B.K.A. Guidelines on Foul Brood' at www.irishbeekeeping.ie

: CAUSE

American Foul Brood (AFB) is caused by the spore forming bacterium, *Paenibacillus larvae*. When larvae are given food containing AFB spores the larvae die from septicaemia after the cell is sealed. The whole larval form melts down into a thick and sticky mass.

: SIGNS / DIAGNOSIS

- Open brood has no signs
- The signs on sealed brood include
 - cappings moist and greasy
 - sunken cappings
 - perforated cappings (**See Figure 1 overleaf**)
 - pepperpot appearance in comb
 - content finally dries to a black scale in the cell
- If a matchstick is pushed through a sunken capping and twisted the contents will rope up to 2 centimetre (an inch) when the match stick is slowly withdrawn (**See Figure 2 overleaf**)
- While the field test for AFB is the 'matchstick' test above, confirmation can only be made by microscopic examination of the comb

: SPREAD

The beekeeper has a major influence in the spreading of the bacteria / spores due to:

- Infested hive tools / clothing / other equipment
- Bees having access to infected honey, combs etc / feeding infested honey
- Robbing / drifting
- Bees obtained from dubious source
- Use of second-hand infected equipment
- Exchange of combs between colonies

Vigilance is required by members at all times. Infestation is spread through contact with infested colonies and as an added precaution **all members are urged to ensure that no bees are imported into our area and to restrict movement of bees within our area.**

: NOTIFICATION / TREATMENT

AFB is a highly contagious disease and is a **notifiable** disease under the law.

- If AFB is suspected, a sample of the affected brood containing the symptoms (4"x4") **must** be sent to: Bee Diagnostic Service, Plant Health Laboratory, Backweston, Celbridge, Co. Kildare W23 X3PH, Attention Dr. Mary Coffey (address updated 08/2020). The sample should be wrapped in a newspaper (loosely, not squashed) and accompanied by a €5 fee per sample. The hive should be sealed up to deter robbing.

N.B. If the field diagnosis is convincing, you should discuss with Teagasc the destroying of the affected colonies pending official confirmation.

- You will be advised if AFB is confirmed and they will notify the Department of Agriculture.
- There is no treatment for AFB. All confirmed colonies must be destroyed by pouring a half litre of petrol into the feed hole in the crown board. The hive and bees should be destroyed by burning.
- Early detection and swift action is necessary. To control and eliminate AFB in a high-density urban location it is important that a collective responsibility be adopted. **The Secretary should be kept informed at all stages and should be contacted if any assistance or advice is required.**

P.T.O.

John McMullan
Hon. Secretary

17th May 2008

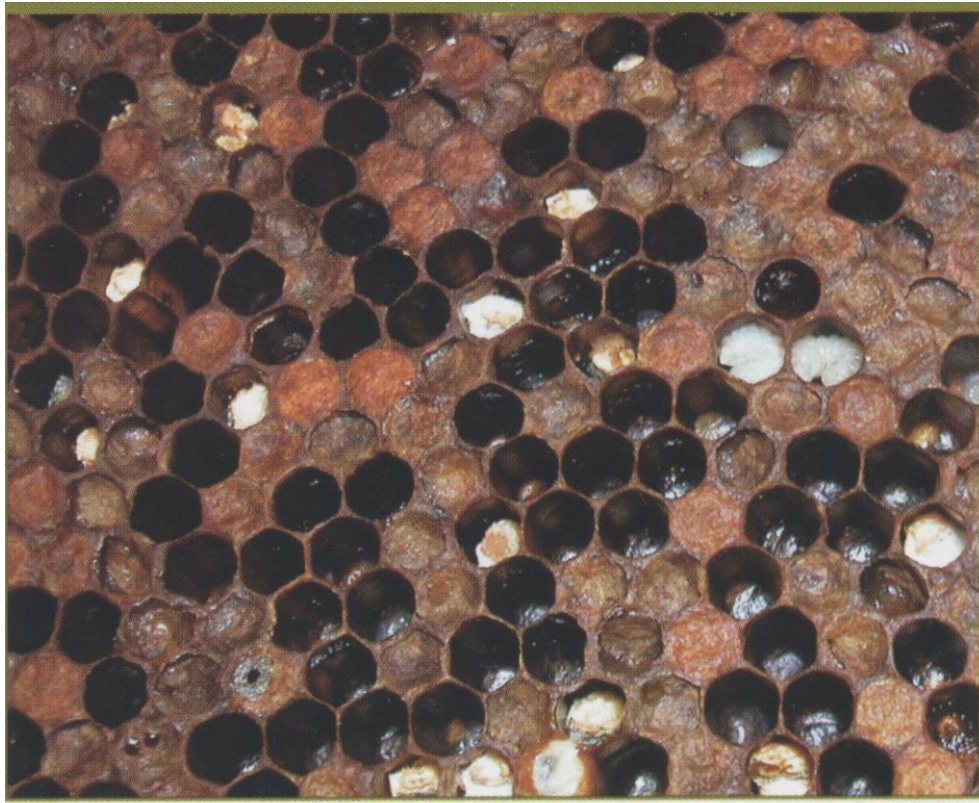


Fig. 1. Highly infested brood cells with perforated and sunken cappings



Fig 2. Match stick test for “ropiness”