

European Foulbrood

Discovered in Europe but is now found worldwide.

It is prevalent in early spring.

It is a bacterial infection which affects the larvae.

The bacterium is *Melissococcus Plutonius*

It infects the gut of developing larvae, competing with the larva for food, thereby starving the larva to death – usually just prior to pupation (or the cell being sealed over).

Twisted larvae can be seen with creamy-white guts visible through the body wall. The gut has a creamy white colour caused by the mass of bacteria living within it.

It causes the larvae to be positioned in awkward ways within the cell and infected larvae give the appearance of melting and they turn a brownish yellow colour. They do not produce a ropery substance as is the case with AFB.

When a larva dies it lies in an unnatural attitude – twisted spirally around the walls, across the mouth of the cell or stretched out lengthways from the mouth to the base.

Infected larvae which survive long enough to get capped have sunken and often perforated caps.

Severe infections lead to patchy brood patterns.

Some larvae do survive infection.

Spread:

- Rectal evacuation of the larva prior to pupation – infects bee milk which is then fed to larvae.
- Robbing
- Swarming
- The Beekeeper
- Use of old comb

Secondary infections frequently occur and they can have a very unpleasant sour odour.

Dead larvae eventually dry up to form a loosely attached brown scale.

EFB can be confirmed in the apiary using a lateral flow device?

EFB can remain infectious in honey for more than a year.

Three Methods of Control (supported by BBKA):

1. Shook swarm techniques used in conjunction with destruction of the comb by burning. (Three times more efficacious than OTC.)
2. Application of antibiotics – Oxytetracycline (OTC) proprietary name Terramycin
3. Destruction of the colony (Burning of the hive.) Preferred solution if the colony is too small for treatment.