

Signs of American foul brood

- AFB affects only sealed brood. When infected larvae die within the sealed cell, the appearance of the cell cappings changes.
- Cappings become sunken and perforated when adult bees nibble holes in them. These perforations tend to be jagged and irregular in shape.
- Some cappings may become moist or greasy looking and slightly darker in colour than other cells.

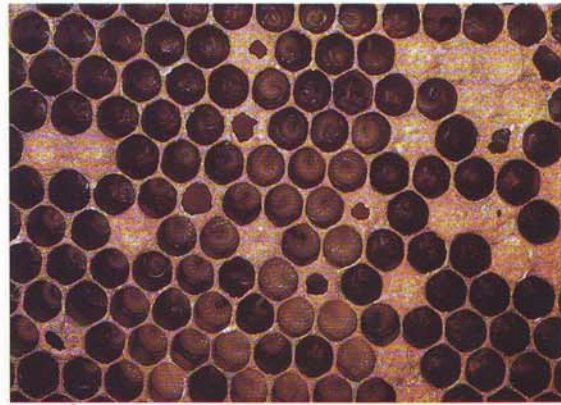


Fig 12 AFB - perforated cappings

- At first only very few cells may show signs of disease, and the colony will appear normal in other respects.
- Eventually much of the sealed brood will become affected by the disease, causing a patchy or 'pepper pot' brood pattern. There may then be an unpleasant smell.
- At the sunken capping stage the dead larval remains are light to dark brown in colour, and have a slimy consistency.

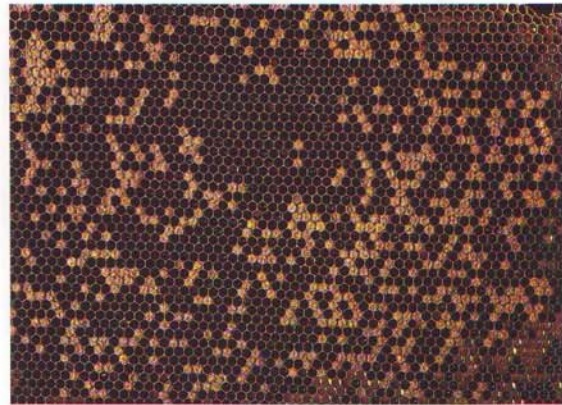


Fig 13 AFB - 'pepper pot' brood

- If a matchstick is inserted and slowly withdrawn, the remains can be drawn out in a brown, mucus-like thread or 'rope' 10-30mm long. This is called the 'ropiness' test and is a reliable test for AFB.
- The ropy condition is followed by a tacky stage as the larval remains in the cell gradually dry up and the colour changes to dark brown.
- The proboscis of dead pupae may sometimes remain intact, protruding upwards from the bottom edge of the cell.

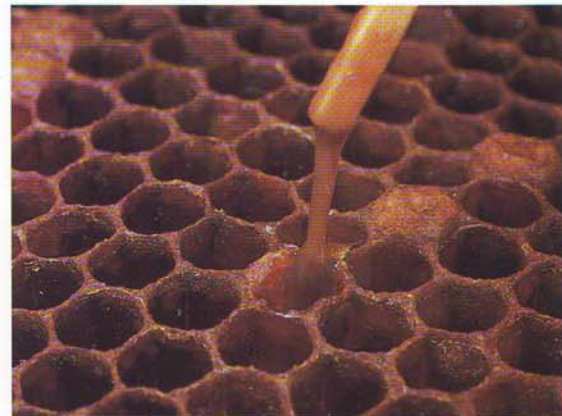


Fig 14 AFB ropiness test

- Further drying leads to the final stage, which is a very dark brown, rather rough scale lying on the lower side of the cell and extending from just behind the mouth of the cell right back to the base.
- The scales can be detected if the comb is held facing the light: they reflect the light from their rough surfaces and can easily be seen, even when their colour is almost the same as the comb itself.

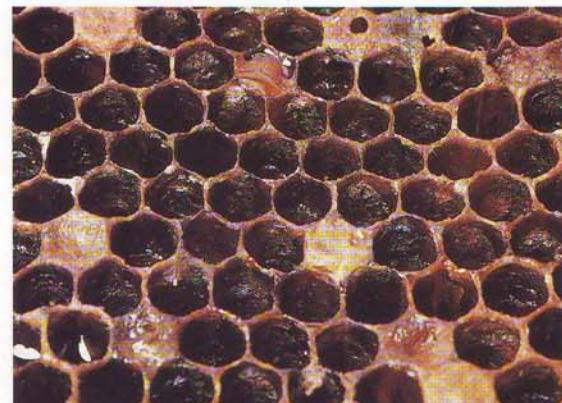


Fig 15 AFB scales in comb

