

American Foulbrood

American Foulbrood is a nasty bacterial disease that attacks the larvae and pupae. The spores of AFB can remain dormant up to 80 years and then re-infect a colony. This makes it the worst of the bee diseases. AFB is highly contagious, extremely tough, resistant to extremes of heat and cold, and a serious threat to colonies. It is also unaffected by any disinfectants. This makes the disease very virulent. If AFB is in the colony and left unchecked, it can kill an entire colony. AFB is the reason why bee inspection programs were started.

American foulbrood is found in millions of spores in the hive. When the house bees clean the brood cells, they ingest the spores. It is then passed on by nurse bees feeding new larvae with the brood food. AFB develops in the gut of the larvae and kills it AFTER the cell has been capped. Once it has progressed, diseased larvae, partially uncapped by the bees, turn into black, sticky scales, often seen with their pupae tongues stuck out. The major method of spreading AFB is through moving comb, honey, and equipment between colonies. This is why it is always best to buy new equipment when starting a colony of bees. Robbers from infected hives or robbing a diseased hive also spread it.

- Healthy larvae are glistening white; diseased ones turn from light brown to dark brown, larvae die upright, not twisted in cells
- The surface of the capping will be moist or wet rather than dry
- You will notice a “pepper-pot” appearance where numerous cells have been uncapped randomly
- The hive will have a bad smell though not definitive
- Cappings of the dead brood sink inward (becoming concave) and appear perforated with tiny holes. (see picture below)

If you see these signs, thrust a toothpick or matchstick into the dead brood. Mix it around and slowly withdraw the toothpick. Observe the material being drawn out. Brood killed by American Foulbrood will be stringy and will pull out about ¼” and snap back like a rubber band. (see picture to the left)