Stone Brood

Cause
Stone brood is caused by the fungi *Aspergillus flavus and Aspergillus fumigatus*

The Disease
Spores of the fungus are present in the soil and are common on mouldy hay.
It is unlikely that they will germinate on the bee or its environment and is rare.
After germination the vegetative growths (hyphae) of the fungus invade the larval tissues and kill them after they have been capped.
The fungus then produces fruiting bodies containing many spores to spread the infection.
The disease is rare in the UK

Signs in the colony
Adult bees will tear down the cappings of the dead larvae to reveal yellow/green (*A flavus*) or grey/green (*A fumigatus*) mummies. These lie along the length of the cell and often take on the hexagonal pattern.
The bees remove the mummies from the hive and they can be seen on the hive floor or outside the hive.
The mummies are usually found scattered throughout the brood nest but are unlikely to reach high numbers.
The disease is likely to occur in the late spring/early summer as the colony expands and the brood outnumber the bees.
Care needs to be taken to differentiate chalk brood from mouldy pollen. The latter is usually concentrated around the periphery of the brood nest but tends to be a similar colour.

Diagnosis
This is done by the typical appearance of the larvae but can be confirmed microbiologically in the laboratory.

Spread
This is a widespread organism in the soil and on various feedstuffs. Care should be taken to remove mouldy hay and feed away from the colony and keep the surroundings clean.

Control
There are no fungicides available for the larvae and spores on the bees and combs are unreachable.
Both these fungi can affect man (Farmers lung) and animals and infected comb should be destroyed.
Do not be tempted to sniff or smell the comb.