**A Rapid Test for Hygienic Behaviour in Honeybees.**

There are several methods for testing hygienic behaviour. They are all based on the removal of sealed brood which has been killed behind the capping. The freeze kill is the most accurate and preferred for scientific work. Liquid Nitrogen can be used to freeze kill the brood in a few minutes. Alternatively, a piece of comb can be cut out of the comb and frozen in a freezer. The pin prick method is less accurate but more convenient. It’s the easiest method to start checking the hygienic behaviour of bees.

Capping’s of newly sealed brood cells are punctured with a fine pin to kill the larva underneath. After 24 hours the number of cells uncapped and cleaned out are counted and recorded. After several replications under different environmental conditions, colonies which have cleaned at least 90% of the cells within 24 hours are considered hygienic. This form of hygienic behaviour has been shown to be a significant factor in resistance to Varroa as well as AFB and especially Chalkbrood



1) Mark a cell directly above three groups of seven newly sealed cells. Use quick drying paint or marker ink. Also mark the top bar.

2) Kill all twenty-one larvae by pricking them with a pin through the capping’s. Use the same hole to prick the larva several times at different angles.

3) Twenty-four hours later count how many cells are completely uncapped and cleaned out. Colonies which have cleaned 19 cells (90%) are considered hygienic.