Information Sheet - Drone Brood Trapping/Culling

This is an appendix to Information sheet on Integrated Varroa Management.

Drone Brood Trapping

Varroa mites favour drone brood for breeding because drones take 3 days longer to hatch and therefore varroa breeding is more productive. This method of varroa control capitalises on this and can slow the mite population by approximately **50%.** The beekeeper must encourage the bees to produce extra drone brood that can be culled/destroyed. This technique, probably the simplest, must be used with other methods to reduce the mite population to safe levels.

Methods

1. Shallow 'super' frame with drawn comb, used centrally in the brood chamber between two full brood frames, will be added to by the bees below the bottom bars, normally building drone comb, to the depth of the brood frames. When most of the cells are capped it is simple to remove the drone brood with the hive tool or knife. Dispose this within a plastic bag, and re-insert the frame for another cycle.
2. A full comb with drone brood foundation can be used, or a combination frame with half allocated for drone brood can be used, but these are more time consuming. The method above is so much easier.

Timing

Start this early in the season when the colony begins drone rearing in April and continue until July. Drone brood takes about 9 days from egg to cell sealing, therefore remove on alternate inspections during the swarming season. Do not leave for more than 22 days to avoid the brood hatching, which would be counter productive.

If, towards the end of the period, the bees produce worker brood, move the frame to the side of the chamber until hatched, then remove it for the reminder of the season.

Main Features

1. Easy to use
2. No special apparatus required
3. No varroacide used
4. Well tolerated by the colony

Prepared by John Hauxwell (revised July 2010) Reference from the CSL of the National Bee Unit, fact sheet 14 & "Managing Varroa" – FERA 2009