

'Celle' Rotation

A System for Varroa Control

The 'Celle' Rotation is a method of varroa control developed in Germany that incorporates a complete change of brood comb. The system was developed to use organic acids but could be adapted for any appropriate and approved varroacide veterinary medicine. It is claimed to be effective provided that local background varroa levels in neighbouring apiaries are low.

The main benefits, apart from control of varroa, are the exchange of all old brood combs for new therefore reducing the overall pathogen load in the colony, swarm control and maintaining or increasing the honey yield. It is suitable for use with small brood boxes rather than large.

Stage 1 - Early Spring

At the start of the season place a queen excluder over the brood box and put an empty brood box containing frames of worker foundation over the queen excluder, ie use a brood box as a super.

Stage 2 - Late Spring

When the brood box is full of sealed honey, or at the end of the spring flow, carefully extract the new combs.

Use the new extracted combs to generate an artificial swarm. In Germany after the spring nectar flow is finished, the parent colony is treated using formic acid* or 'Perizin*', an organo-phosphate varroacide, used in solution.

In the UK an approved varroacide could be used but it would be better to use a management system. If no sealed brood is transferred from the parent colony to the artificial swarm then mite levels should be minimal so control or treatment may not be necessary. See BBKA News 147 June 2004.

When this procedure is carried out whilst there is no honey flow, ie during the June gap, the artificial swarm may need feeding.

The parent and swarm colonies are run as separate colonies, requiring queen excluder and supers as needed.

Stage 3 - Late Summer

At the end of the nectar flow in August remove and extract the honey crop.

Shake all the bees in the parent colony into an empty brood box. This would probably be best used in conjunction with an open mesh floor and a couple of dummy frames or boards for the bees to cling to. In Germany they spray the bees using a solution of oxalic acid*, 35grams of oxalic acid dihydrate* to 1 litre of 1:1 sugar syrup, 50 mls. being used for a large colony, 30 mls. for a small one. German beekeepers are currently assessing the efficacy of lactic acid for this task. Other varroacides or dusts may be suitable but the efficacy is unknown. Manufacturers instructions should be complied with.

Destroy all the brood combs from the parent colony. The majority of mites infesting the parent colony will be in the sealed brood.

Unite the bees that have been sprayed or treated with the artificial swarm.

Uniting bees at this time carries greater risk, as there may be little or no nectar flow. As it is probable that the new queen in the parent colony will be selected to replace the old queen in the artificial swarm, the following procedure may reduce the risk.

Two days before treating the bees remove the old queen and put her in a nucleus as a reserve. On the following day find the new queen, place her in an introduction cage and install it into the artificial swarm. After the bees have been 'treated', in

