Bees on their Knees?

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The National Bee Unit (NBU) is part of the DEFRA-funded Central Science Laboratories. The proposal in the Haskins report is to make a 20% reduction (£250,000) and such a cut will have major repercussions on the viability of beekeeping in England.

The numbers of honeybees have reduced dramatically in the countryside, mostly from the advent in 1992 of a parasitic mite, known as varroa. Colonies were decimated and as a result, many beekeepers gave up in the early to mid 1990s. Feral colonies were also destroyed so that pollination by honey bees now relies almost exclusively on colonies of bees managed by beekeepers. The parasite has to be kept at low levels by careful manipulation and chemical treatment, all monitored by the Bee Disease Officers (part of the National Bee Unit). It has been estimated by ADAS (2001) that the contribution of pollination by honey bees to the agricultural economy was as much as £120 million, while the experts at Rothamstead suggest that the figure is nearer to £150 million.

ADAS also stated in (2001) in their report *"An Economic Evaluation of DEFRA's Bee Health Programme"* that the bee health service (the National Bee Unit - NBU) had a benefit-to-cost ratio of 33. In spite of this DEFRA has not issued a consultation document on these proposals; this is in contravention of the Cabinet Office Code of Practice.

One of the major roles of the NBU is the testing for and monitoring of various bee diseases, in particular American Foul Brood and European Foul Brood. These are both notifiable diseases and have increased in frequency since the advent of varroa. The Bee Diseases Inspectors have a statutory right to inspect any bee hives or apiary premises.

Varroa is to be deregulated in 2005 on the grounds that it is now endemic and beekeepers know how to handle it. Although that may sound a reasonable proposal, unfortunately the varroa mite has recently become resistant to the only two chemicals available in the UK for treating the parasite. This will make dealing with varroa very difficult and the beekeeping community thus relies very heavily on the advice from and inspections by the Bee Disease Inspectors. As the resistant mites spread, their help will be essential if we are to manage our colonies effectively.

It has also been announced that European Foul Brood will be deregulated in 2007/8. The rationale for this is that there are now good ways of controlling this disease without recourse to the destruction or treatment with antibiotics that has been used up until now. Again, this has not been thought through since these alternative methods have not been validated, especially for use in heavy infections. There is historical evidence from before this disease was notifiable that these methods, although useful, were not adequate.

In addition, this disease is not easy for the non-expert to recognise in the early stages. ADAS calculated that the control of European Foul Brood had a benefit-to-cost ratio as high as 70.

It seems probable that the required cost savings will be made by cutting the numbers of Bee Disease Inspectors. It is a bad time to be making such cuts as there are yet more unpleasant and potentially devastating problems waiting in the wings. One, the small hive beetle, has recently been found in the USA and in Australia. Illegal imports to the EU of bees containing this beetle have been discovered very recently and although these were detected and appropriate measures taken, it is impossible to tell if all beetles and larvae have been destroyed. This pest may already be just across the channel.

It is clear from the situation with human diseases that in the modern world of rapid travel across continents, importation of exotic foods and of course illegal activities, containing the spread of pests and diseases is extremely difficult. We have to assume therefore that these other pests and diseases will find their way here just as varroa did.

Varroa has become more of a problem because of resistant mites since the ADAS reported in 2001. The incidence of foulbroods has remained static and the likelihood of additional pests and diseases has increased. Thus we have a greater need for research and support if the bees and the agricultural economy that relies on them are not to suffer.