Contingency planning at the NBU: part 1

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The National Bee Unit (NBU) has contingency plans for the beekeeping industry in case exotic pests arrive

During the course of the year, the National Bee Unit (NBU) organises a large number of events for beekeepers aimed to increase their awareness of varroa management, bee disease and good husbandry. We also look at exotic threats to the bee population, and the effects these would have on beekeeping and beekeepers.

This appears to be an area which many beekeepers do not consider – and the question is regularly asked, 'What is the NBU doing about these potential threats and are bee inspectors trained for this type of contingency?' Perhaps the question should be 'What are we all doing as beekeepers?' but that is another area completely. This article will hopefully serve to illustrate to beekeepers what is happening both in the apiary and behind the scenes at the NBU.

In 2003, the Central Science Laboratory's NBU began the process of looking at contingency planning for the beekeeping industry in England and Wales. To start with, what exactly is contingency planning? There are many interpretations of what it is but, put in simple terms, it is the identification of risks which cause disruption to operations and services, and management and control of the risks (outbreak of disease, etc).

The plan summarises the organisational roles, responsibilities, legal framework, control policies, structures and systems that would need to be brought into place should an outbreak occur. The measures are based on current knowledge, expert advice and established bee pest and disease control procedures and are designed to minimise the impact on the beekeeping sector and related businesses without compromising statutory responsibilities and effective pest and disease control.

Photos supplied by Andy Wattam

Local inspector Keith Morgan (right) gives an outline of the area to colleagues (l to r) Peter Heath, Mike Willis and Lindsay Sampford

With regard to the specific potential threats, we are focusing primarily on the small hive beetle (*Aethina tumida*) (see photo page 29) and the tropilaelaps mite (*Tropilaelaps* spp), which is similar to the varroa mite.

All beekeepers should be in possession of the National Bee Unit's information leaflets, which are freely available. They can be obtained directly from your regional bee inspector, the National Bee Unit (01904 462510) or can be downloaded as pdf documents from the NBU Website at http://beebase.csl.gov.uk (follow the link to advisory leaflets).

The task which was started by the NBU in 2003 and is ongoing, is fourfold:

- the identification of 'Risk Premises' in each of the NBU's eight regions and the compilation of a risks register for the United Kingdom (UK) Bee Industry
- the commencement of a continued more regular 'targeted' inspection programme for apiaries in the immediate vicinities of those at-risk premises
- the provision of advice and training for beekeepers to recognise exotic pests
- a rolling programme of research for effective control and detection methods, and development of pest management plans
- the development of and approval for the England and Wales Contingency Plan for exotic pests and diseases of honey bees.

Inspectors examine sticky floor inserts for tropilaelaps mites The inserts have been in the hives for 24 hours with pyrethroid varroa strips also in place

What and where are the risk pathways which potential exotic threats could use to gain access to England and Wales? The risk premises are those where there is potential for an exotic pest to the bee industry to enter into the country or be carried in with or on freight. It is likely that you will be aware of some, if not all of these types of premises within your own local area. The register of risk premises constantly changes with the ever-changing face of industry in the UK, but focuses on the following:

- international airports
- freight ports and docks
- fruit import warehouses and distribution centres
- chandlers and other users of imported raw beeswax
- honey packers
- military bases
- exotic plant importers.

The apiaries which are known and plotted on the NBU mapping system can then be overlaid onto the areas around these risk premises, from which the targeted inspection programme is formulated.

Beekeepers with apiaries in areas around risk premises should be aware of this already, having been told by their appointed bee inspector. In the future the continued work on BeeBase online will also allow us to incorporate the national register of at-risk premises for exotic pest surveillance so that you will be able to check your own situation.

THE NATIONAL REGISTER

The National Register is currently being formulated as information is received, and at present stands at just under one hundred risk pathway areas in England and Wales. It is constantly being reviewed as new information about premises is received. To give an idea of the sorts of risks found within a region: in the six East Anglian counties we have seven warehouses for imported fruit distribution, two packers of imported honey, one user of imported beeswax, eight international ports or docks, five military airbases, three international airports and one importer of exotic plants. Most of the regions within England and Wales have a similar mix and spread of risk sites.

The potential thus exists for major pest or diseases of the European honey bee to reach Europe and the UK.

TARGETED INSPECTIONS

All inspections carried out by the bee health inspectorate contain elements of risk assessment as we are working towards compliance with the requirements of the Regulators Compliance Code. Inspections are weighted according to risk and as you would expect, the inspections of bee colonies within a 5 km radius of known risk pathways is close to the top of the priority list, preceded only by dealing with Statutory Disease work (American Foul Brood and European Food Brood).

This means that if you have an apiary or apiaries within the proximity of one of these risk premises then the likelihood is that you will be contacted by your bee inspector to arrange an inspection with greater regularity then if your apiary inspection was being done as part of the random 10 km square inspection programme where the overall risk is smaller and inspections less frequent. It is worth pointing out that disease is also found during these inspections on some occasions.

This year in England and Wales, 481 apiaries have been visited and over 2300 bee colonies examined for potential exotic threats and this will continue next year. No exotic pests have yet been found. In addition to this where beekeepers have found 'suspicious' beetles within their own colonies, voluntary samples have also been sent to the NBU on 14 occasions and, again, none has proven to be an exotic pest. The NBU is thankful for the submission of these voluntary samples and for beekeepers' vigilance.

In February 2006, the England and Wales Contingency Plan for exotic pests and diseases of honey bees was completed and sent out for consultation

to all interested parties. Some comments and suggestions were received and areas of the plan have been revisited and changes considered.

The overall purpose of the contingency plan is to protect the English and Welsh honey bee population, an important pollination resource for cultivated crops and wild plants, from the risks arising from the discovery of serious exotic organisms. Included is eradication of any outbreak of the small hive beetle, tropilaelaps mites or other exotic pests or diseases, if considered practicable, and maintenance of the pest- or disease-free status of England and Wales.

The devolved administrations in Scotland and Northern Ireland will implement similar contingency measures. This will only be feasible if the outbreak is detected very early after incursion and before the pest or disease becomes permanently established and widespread. Containment and control of an outbreak, if field evidence suggests that it is well established in a defined but limited geographical area, are also part of the plan.

RESPONSE FRAMEWORK

The essential thing is that this plan provides a framework upon which the NBU can base its response to the discovery of an exotic threat. It focuses upon six key actions, which are designed to protect the bee industry in England and Wales in the event of this type of incursion:

- co-ordinate the emergency response both at a strategic and tactical level
- arrange for delimiting surveys to be undertaken to assess the extent of the outbreak
- procure and deploy the necessary resources for this to take place
- liaise with the beekeeping associations and other interested parties both locally and nationally
- assess the wider impact, for example colony losses on pollination services provided for agriculture, horticulture and the environment
- provide up-to-date information to stakeholders and the media.

Seasonal bee inspector Peter Heath views the 'West Beetle Trap' Used and retailed in the USA it is filled with vegetable oil and placed on the hive floor. Hive beetles and larvae are caught in the trough beneath the plastic venting while bees pass over the top unhindered

TRAINING OF BEE INSPECTORS

Bee inspectors are trained to examine colonies of bees and to detect both brood diseases and exotic threats, although the colony examinations for each are carried out in slightly different ways. For example, in the case of exotic threats like small hive beetle, attention is placed on as little vibration to the hive as possible and examination of dark corners under boxes and on floors which would not take place during general brood inspections. The close examination of brood which is 'forked out' to look for the tropilaelaps mite is similar to that used for varroa monitoring. In all of this the beekeeper is encouraged to be present to learn the necessary monitoring skills.

The ongoing training of bee inspectors in examination and monitoring techniques takes place both during field-based training sessions which are held regionally, and also at the annual bee inspectors training conference which is held over two or three days at Central Science Laboratory, Sand Hutton at the start of the beekeeping inspection season each year. ❐

[To be continued.]