



Healthy Bees Plan

Issue 7 - April 2011

Quarterly Newsletter for all those interested in honey bee health

Quarterly newsletter on progress with implementing the Healthy Bees Plan (www.defra.gov.uk/foodfarm/growing/bees/news/plan.pdf) which the Food and Environment Research Agency (Fera) is implementing on behalf of Defra and the Welsh Assembly Government (WAG)

This edition of the newsletter is dedicated to a report on progress on the first two years of implementing the Healthy Bees Plan.

HEALTHY BEES PLAN

REPORT ON PROGRESS FROM THE FIRST TWO YEARS OF IMPLEMENTATION – 2009/10 TO 2010/11

Produced by Fera in consultation with the Healthy Bees Project Management Board

Summary

In April 2009, the Food and Environment Research Agency (Fera), on behalf of Defra and the Welsh Assembly Government, started work on implementing the ten year Healthy Bees Plan. Over the last two years, an important success has been the partnership established between government and beekeeping stakeholders to implement the Plan and improve honey bee health.

Other highlights include:

- Improving and raising the profile of the National Bee Unit's BeeBase database as a key resource for beekeepers. As part of this work we are encouraging beekeepers to register so that the National Bee Unit can alert them to disease outbreaks and they can take the necessary action to protect their colonies. Over 22,000 beekeepers are now registered compared with 17,000 in 2008;
- Supporting education and training of beekeepers to improve their husbandry skills, identified by stakeholders as a key priority for implementing the Plan. During Phase 1, Fera contributed £190k (just over 60% of the £310k enhanced education programme) to a joint education initiative with the British Beekeepers' Association and the National Diploma in Beekeeping ;
- The action plan by the Veterinary Medicines Directorate (VMD) to increase the availability of authorised medicines for honey bees and to ensure their correct use. This work is led by the VMD and is closely aligned with Healthy Bees Plan implementation;

- Improving our understanding of health status of honey bees through the (soon-to-be-completed) Random Apiary Survey undertaken by the National Bee Unit.

Overall, there has been good progress in the first two years of implementation, particularly on getting government and stakeholders working together to improve bee health through the Project Management Board and working groups. Further details of implementation can be found by referring to the Healthy Bees pages on BeeBase (www.nationalbeeunit.com). This good progress provides a sound foundation for the next phase of implementation which started in April 2011 where the priorities continue to be education and training, increasing the availability of authorised medicines and their correct use, and raising the profile of BeeBase as a key resource for beekeepers.

Further details

Background

Defra and Welsh Assembly Government (WAG) published the Healthy Bees Plan in March 2009 following stakeholder engagement and public consultation. This is a 10 year plan for Government, beekeepers and other stakeholders to work together to respond effectively to pest and disease threats and to sustain honey bees and beekeeping for today and for the future. Its aim is:

‘To achieve a sustainable and healthy population of honey bees for pollination and honey production in England and Wales via strengthened partnership working between Government and other stakeholders’.

The plan describes the five main things government wants to achieve with individual beekeepers, their associations and other stakeholders:

1. To keep pests, diseases and other hazards to the lowest levels achievable;
2. To promote good standards of husbandry to minimise pest and disease risks and contribute to sustaining honey bee populations – prevention is better than cure;
3. To encourage effective biosecurity to minimise risks from pests, diseases and undesirable species;
4. To ensure that sound science underpins bee health policy and its implementation; and,
5. To get everyone to work together on bee health.

Fera is working closely with stakeholders through a Project Management Board and working groups covering education, communications and science to develop and implement detailed programmes of work in these five areas.

Progress during Phase 1

1) To keep pests, diseases and other hazards to the lowest levels achievable;

- Significantly more visits to high risk (of disease) apiaries through additional inspectors.
- The Veterinary Medicines Directorate (VMD) continued to implement its action plan to increase the availability of authorised medicines for honey bees and also to ensure their correct use, which is paramount for food safety. Residues in honey, due to improper use of medicines, could



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undermine its image as a healthy natural product. Further details are given in the VMD Action Plan - www.vmd.gov.uk/VetSQP/Bee/actionplan.pdf - which is regularly updated. Optimal use of available medicines by beekeepers is also important to sustain their effectiveness in treating pests and diseases.

- Raising the profile of BeeBase as a key resource for beekeepers which resulted in increased (voluntary) registration of beekeepers from 17,000 in 2008 to over 22,000 in April 2011 through an action plan which included;
 - I. A campaign of engaging with beekeeper associations, beekeeping suppliers and other partner organisations by requesting they post a link to BeeBase on their websites and/or helping Fera to distribute leaflets raising awareness on the importance of registration.
 - II. A campaign of engaging with large landowners encouraging them to ensure that any beekeepers on their land were registered on BeeBase.
 - III. Enhanced recruitment of beekeepers through additional bee inspectors in the field.
 - IV. Articles and letters in the beekeeping press.

2) To promote good standards of husbandry to minimise pest and disease risks and contribute to sustaining honey bee populations – prevention is better than cure;

- 4 pilot winter training events were held with the main focus on Varroa management. A total of around 250 people attended and the feedback was very positive. Subsequent feedback obtained at 3 and 7 months after the events indicated that a good proportion of attendees had changed and improved their beekeeping practices as a result of the training event.
- Train the trainer courses (City and Guilds 7303) were funded, to improve the generic training skills of established beekeeper trainers. So far nearly 60 people have been trained.
- Jointly funded by Fera, the British Beekeepers Association (BBKA) and the National Diploma in Beekeeping (NDB). A national initiative to increase the number of good quality beekeeper trainers and to provide them with quality training materials through the BBKA 'Course in a Case'

initiative and the development of NDB topic-based, advanced short courses. Fera contributed £190k (just over 60% of the £310k enhanced education programme).

3) To encourage effective biosecurity to minimise risks from pests, diseases and undesirable species;

- In response to new evidence about possible disease risks (see note posted on BeeBase news pages in June 2010 - [AFB Infection - analysis of spread and possible risk locations](#)), the Honey Association has developed a voluntary code of practice to minimise the risk of exposing honey bees to potential sources of infection at packing plants, particularly bulk stores of imported honey. The code is attached at Annex 1.
- A leaflet has been distributed through the beekeeping press encouraging best practice and record keeping by beekeepers when buying and selling bees. Further work is planned for Phase 2 to work with suppliers on a code of practice for buying and selling bees.

4) To ensure that sound science underpins bee health policy and its implementation; and

- i) The Random Apiary Survey (RAS) was commissioned as part of the implementation work in order to understand the prevalence of pests, diseases and pathogens across England and Wales. The results will feed into a Fera-led review during 2011/12, in consultation with stakeholders to identify the future direction of disease control policy and delivery. The RAS was successfully implemented during 2009-10 and will complete, on schedule, in May 2011.
- SEAG reviewed the risk assessment project to provide input into the Small hive beetle contingency plan which was revised during 2010/11.
 - SEAG carried out an exercise to identify urgent research priorities. For the areas identified, the Group agreed there is currently already a large amount of information available and therefore immediate efforts should focus on synthesis and communication of this information to beekeepers. This exercise will also highlight gaps where there is little information available and further research is needed.

5) To get everyone to work together on bee health

- An enhanced education programme was created in partnership with beekeeping associations to drive up beekeeping standards.
- Bringing stakeholders and government together to improve honey bee health, including the coordination of communications activities. The Project Management Board (PMB) and working groups are made up of Fera staff and numerous stakeholders ensuring a joined up approach to implementing the Plan. The working groups include a Science and Evidence Advisory Group (SEAG), Communications Working Group (CWG) and Husbandry and Education Group (HEG).



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Looking ahead to Phase 2 – from April 2011

The next implementation phase started in April 2011. The Project Management Board is currently finalising priority activities for this phase and is reviewing implementation arrangements. We will provide more details of the Phase 2 workplan in the next Healthy Bees quarterly newsletter in July.

In response to comments from Defra about our plans for Phase 2 and progress to date, they have asked Fera to carry out an independent review towards the end of 2011/12, by the Office of Government Commerce, to seek assurance that Healthy Bees implementation is value for money and able to track progress. Defra has also asked Fera for a more refined assessment of the benefits to be gained by implementing the Plan.

Other News

From recent coverage in the beekeeping press, readers will probably be aware about the potential threat of the Asian Hornet. An information note about this species (produced by Hymettus) is posted on the Asian Hornet pages of BeeBase.

Honey Association code of practice

Honey Association bio-security code of practice: Minimising risk of spreading American Foul Brood

Introduction

American Foul Brood (AFB) is a spore forming bacterium that affects the larval stage of the honeybee. The spores can spread AFB. The spores get into everything that they come into contact with: frames and hives; bees; clothing and equipment; as well as bee products; including honey. AFB is a reportable disease in UK and the control measure is to destroy both the colony and hive by burning.

There is limited scientific information on AFB spread by honey. There are 2 papers (Goodwin, R M; Perry, J H: Ten Houten, A (1994) The effect of drifting honey bees on the spread of American foul brood infections. Journal of Apiculture Research 33(4): 209 – 212; Sturtevant, A P (1932) Relation of commercial honey to the

spread of American foulbrood. Journal of Agricultural Research 45(5): 257-285) that conclude that the lowest concentration of spores that have been fed to colonies and reported to give rise to infection is 50 million spores/litre, fed as 5 million spores in 100ml.

In one study of honey from a range of countries, (Hansen, H (1984) the incidence of the foulbrood bacterium *Bacillus larvae* in honeys retailed in Denmark. Danish Journal of Plant and Soil Sciences 88:329-336) 56% of 131 samples tested positive for *P. larvae*, larvae spores, and 37% had concentrations higher than 170 million spores/litre. This is a snapshot from 25 years ago. However, we can conclude that some of the honey held by honey packers has the potential to spread AFB.

In a recent study (submitted for publication) of AFB outbreaks in UK from 1994 to 2009, FERA has demonstrated a statistically significant link between the location of two large honey packers and persistent clusters of AFB.

Therefore Honey packers must take control measures to minimise this risk.

The members of the Honey Association are committed to taking all practical, effective and proportionate measures to minimise the risk that their operations can cause to their local honeybee population.

Risk Assessment

Honey Association members undertake to carry out a risk assessment of their own operations, and to ensure the appropriate control measures are in place.

Typically there are two risk areas:-

- Receipt and storage of honey.
- Disposal of waste that has been in contact with honey, for example honey drums and waste packaging.

Examples of control measures are shown below.

Control Measures

Honey reception and storage:

- On receipt, all honey drums (or other containers) will be inspected, and if leaking or damaged so as to expose honey, will be sealed with an appropriate lid or film.
- If a honey spill has occurred on a delivery vehicle, we will advise the driver that the spill must be cleaned up, and we will provide assistance to ensure that it is cleaned up appropriately.
- Handling equipment and procedures should be designed to minimise risk of honey spills and leakage.
- Any spills or leaks that do occur will be cleaned immediately.
- Honey storage area will be kept orderly and inspected regularly for any leaks or spills or for any insect activity that indicate access to honey. Any leaks or spills will be resolved as a matter of urgency.



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Waste disposal:

- All streams of waste that have been in contact with honey will be risk assessed, and all practical, effective and proportionate steps will be taken to minimise foraging opportunities for honeybees.
- Control measures that might be used include:
 - Covering waste skips with a close fitting lid or fine netting.
 - Inspecting and approving the downstream handling of waste.
 - Washing waste before it leaves site. It is recognised that this may not be practical (for example, because of effluent considerations), effective (it is hard to wash out squeeze bottles) or proportionate (cost may be prohibitive).

Review:

- Members will review their control measures annually, and will have due regard to any cases of AFB that have occurred in their area.
- Members will invite NBU/FERA (or relevant responsible authority) to visit their sites regularly and will respond to suggestions that they might make.
- Members will liaise with BBKA and local beekeepers associations and will speedily respond to issues or complaints made.

Feedback:

We would welcome your feedback and comments on this newsletter and suggestions for further development and improvement. Please send to www.beehealthinfo@fera.gsi.gov.uk.

It would help if you could use the following title in the subject line of the email **Reader's comments on the quarterly bee health newsletter**

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