



All-Party Parliamentary Group on Science and Technology in Agriculture

‘Bee Health and Pesticides’

Monday 4 April 2011, 4.30-6.00pm,
Boothroyd Room, Portcullis House, Westminster

Chair: George Freeman MP

Keynote Speaker:

Dr Jeff Pettis, Research Leader, USDA Bee Research Laboratory

Guest panel:

Dominic Dyer, Crop Protection Association

Dr Chris Hartfield, NFU

Tim Lovett, British Bee Keepers Association

1. George Freeman MP – Opening Remarks

As Chair of the All Party Parliamentary Group, Mr George Freeman MP welcomed the speakers, Lord Haskins, and the large number of non-Parliamentarians in the audience to this session of the group, pointing out that where complex issues such as those surrounding bee health and agriculture were being legislated for it was very important that Parliamentarians were able to hear scientific analysis. He pointed out that he was passionate about science and the need to promote science in Parliament.

2. Dr Jeff Pettis, Research Leader, USDA Bee Research Laboratory

An entomologist by training, he has been working with bees for a number of years. His review of *laboratory* studies led him to believe there might be an interaction of systemic insecticides and bee diseases such as Nosema. His studies did suggest that exposure of bees to insecticides through an artificial protein fed to them might increase their susceptibility to Nosema. However, when he tried to repeat this in the field, no such interaction was observed.

Dr Pettis is also very interested in understanding the impact of food source diversity on bee health and is working with scientists in North Dakota comparing bee health in areas of rich plant diversity and those areas where species diversity is low.

3. Panel Member Presentations

Dominic Dyer, Chief Executive for the Crop Protection Association has been talking to bee-keeping groups around the UK and discussing the need for farmers to have access to crop protection products to improve food security. He pointed out that there are a number of stresses for bee health and was disappointed that pesticides are so demonized, including by some journalists who appear to be following the NGO line rather doing their

own research. The industry was demonstrating its commitment to the stewarding of its products and the *Bee Safe, Bee Careful* leaflet for farmers and the garden leaflet jointly promoted with the RSPB are evidence for that.

Dr Chris Hartfield, Entomologist and Horticulture specialist for the National Farmers Union (NFU) pointed out that the NFU represent over 55,000 farmers in England and Wales, but also represent the Bee Farmers Association (the professional bee-keepers). The NFU took its advice based on sound science and the consensus on bee health was that there was not a single cause of poor bee health, although Varroa continued to be the common problem. He felt it was right that systemic insecticides were carefully studied, but felt that this should not distract/divert attention from the real problems of bee health.

Tim Lovett, from the British Beekeepers Association (BBKA) recognised that pesticides were an emotive subject for its 20,000+ members. The BBKA is split into 64 area associations with 220 local divisions and is a registered charity. He listed the six issues recognised within the BBKA for bee health:

1. Pests and diseases – always the biggest issue;
2. The weather;
3. Habitat – getting enough food throughout the active season;
4. Bad bee-keeping – something the BBKA is trying to address;
5. Regulatory control of treatments for Varroa, etc. because bees are ‘food-producing animals’ under EU law, any treatments are governed by the veterinary medicine regulations; and
6. Pesticides.

Mr Lovett said that the BBKA took a pragmatic approach to the latter, recognising that insecticides have to be used, but that the stewardship of their use was of critical importance. In principle, systemic insecticides such as the neonicotinoids should be a step-forward in reducing bee exposure, since they are not sprayed but applied to the seed. However, there was some lab evidence of a potential issue and that need to be investigated. He did not see a need to ban the products in the meantime, but did want a review.

4. Question & Answer Session

With a plethora of talent on the panel, there was then a lively discussion with the audience that included the following questions (and answers):

- *Neonicotinoid and other systemic insecticides vs older chemistry*

There were a number of questions in this area. Dr Pettis’ view was that these products represented a newer class of insecticide which could be described as replacements for previous ‘dirtier’ chemistry. Mr Lovett said that there were concerns about more subtle effects of this chemistry, but ‘heaven forbid’ if farmers had to go back to extensive spraying to control the insects that they needed to control. Dr Harfield suggested that in the absence of neonicotinoids, it would be difficult to control pests in some crops such as sugarbeet and such crops might become unviable as a result.

- *Viability of Beekeeping in the UK – were hive losses too great?*

Mr Lovett said that the numbers of bee-keepers were increasing rapidly and that sometimes it was difficult to find enough bee colonies ‘to go round’. Nevertheless, the demand for honey greatly exceeded the UK’s ability to supply. That said, the popularity of the subject meant that the awareness of the problems had increased which was a good thing. Dr Pettis added that there were not enough hives available for ‘pollination services’ in the US – orchard growers pay for such services in the US – and the price had doubled in the last five years.



- *Impact of GM on bee health*

Dr Pettis concluded that not only was there little evidence for any direct effects of the introduction of GM crops on bee health, the reduction of insecticides used on insect-tolerant crops, especially GM cotton, had undoubtedly had a positive impact on bee health.

- *Could we be sure that neonicotinoids were safe to bees?*

Dr Little (Bayer CropScience) from the floor pointed out that when applied directly to bees, some of these products were toxic to bees; however, the use of seed treatments containing these compounds were safe when used as per the label. Dr Hartfield pointed out that the use of such products were at very low doses and without them, farmers would have to significantly increase the number of spray applications of insecticides to some crops. There were some comments on whether there was enough *independent* evidence. Mr Dyer pointed out that there was a very robust regulatory system to deal with these issues. He concluded that the regulators were continually updating their information and that was right and proper.

- *Invoking the precautionary principle – if there was a chance that these products had an effect on bees, should they be withdrawn?*

Avaaz recently compiled a petition to ban these products but Dr Pettis pointed out that if you just did laboratory studies, you might conclude that these products were a problem. However the hive is very complex and since his results could not be replicated in the field, why would the precautionary principle be applied?

- *Other bee health issues*

Mr Lovett believed that new products to control the Varroa parasite were critically needed, as well as the promotion of more diverse habitats for bees and other pollinators to forage on. He said that the £10 million granted by Government in these areas, but agreed with Dr Hartfield that it was not enough and did not focus enough on *bee* health, since £10 million provided funding for just nine different projects.

5. George Freeman – Conclusion

The Chair of the All Party Group thanked the panel members for their willingness to respond to the many questions from the audience, and in particular the guest speaker, Dr Pettis, for taking the time and trouble to speak to the Group. Mr Freeman concluded by highlighting the opportunity and challenge for the UK to draw on its heritage of excellence in agricultural and food research to help pioneer the next generation of sustainable crop protection practises and products which would be required for the ‘sustainable intensification’ called for in the recent Foresight Report. The question of bee health was symptomatic of that challenge and opportunity - requiring the different parties with an interest in the importance of a healthy bee population (whether farmers, crop protection developers or bee keepers) to work together.

The meeting was then closed.

