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Honey bees in the UK

The value of UK honey bees

- While honey bees contribute directly to food production in the UK, largely at a local level, they make a much more important contribution, through pollination, to crop production. Defra figures put a conservative estimate of £165m (in 2006) on the annual value of UK agricultural pollination provided by honey bees. By contrast, the annual value of honey production in the UK fluctuates between £10-£30m.
- In addition, it is believed honey bees provide more than 50% of the pollination of wild plants on which the majority of other wildlife ultimately depends.
- Another much quoted statistic is that 'a third of all we eat is dependant on pollination by honey bees'.

The UK bee keeping 'industry'

- There are approximately 44,000 beekeepers managing around 274,000 hives. These hives produce about 6000 tonnes of honey per year, which is about 20% of the honey we consume in the UK.
- The number of bee hives has declined from 400,000 in the 1950s.
- The key honey bee industry organizations are
 - British Beekeepers Association (BBKA, <http://www.britishbee.org.uk/>) - 12,500 members who are mainly amateurs
 - Bee Farmers' Association (BFA, <http://www.beefarmers.co.uk/>) - 300 commercial producers with 50,000 hives. The BFA is a member of the NFU
 - Rowse Honey Ltd – main UK packer
 - National Farmers' Union (NFU) – we have an interest in the £165m+ worth of UK agricultural pollination, as well as in representing the interests of bee farmers and keepers
 - Defra and the National Bee Unit (NBU, <http://www.csl.gov.uk/aboutCsl/scienceGroupsAndTeams/phg/nbu.cfm>)

Honey bee pest and diseases

- Unusually high levels of colony loss are affecting the Western honey bee *Apis mellifera* across the globe. The term Colony Collapse Disorder (CCD) has been used to describe a specific colony loss phenomenon in the USA. The cause of CCD is as yet unknown.
- According to Defra and experts in the National Bee Unit there is no evidence we are suffering from CCD in the UK yet. However, UK bee farmers and keepers are facing a growing range of

devastating bee health problems resulting in significant colony losses and reduced honey production.

- Historically, UK bee keepers would expect winter losses of about 4%, maybe as much as 10% in a bad year. Losses in winter 07/08 were 15-30%, i.e. more than 3 times the level expected normally. Subsequently, the 2008 UK honey harvest is more than 50% down on normal levels (6000-7000 tonnes).
- All the key honey bee industry organizations are agreed that pests and disease, particularly the parasitic blood-sucking mite *Varroa*, are the principal threat facing UK honey bees.
- According to Defra, the *Varroa* mite is probably present in all UK bee colonies and is the number one management problem for beekeepers causing direct or indirect damage to colonies. *Varroa* is often cited as a key factor causing significant colony losses. This because in addition to the direct damage it causes, it also vectors secondary pathogens such as viruses and has other detrimental effects on the health of the bees.
- It is generally accepted that wild honey bee populations in the UK have been wiped out by pests and disease. So all the honey bee pollination activity is undertaken by managed bees.

R&D and other actions to improve bee health

- The NFU and the other key industry organizations believe the current level of Government funding in the area of bee health research is inadequate. The bulk of the current £1.8m funding (£750K of which comes from the EU) pays for statutory activities in the form of the NBU Bee Health Inspectorate. Approximately £200K is available for R&D, but this focuses on statutory obligations and not the immediate and significant problems faced by bee farmers and keepers, such as *Varroa*.
- The NFU and the other key industry organizations jointly support the British Beekeepers' Association (BBKA) campaign calling for increased Defra funding of £8m over 5 years (this equates to less than 1% of the £825m value of UK agricultural pollination provided over the same period).
- The NFU and the other key industry organizations want to encourage the development and adoption of best practice, in terms of honey bee pest and disease management, by all bee farmers and keepers. The success of this will be dependant on the ability to communicate with all beekeepers. It is therefore essential that all beekeepers register with the NBU's live online database 'BeeBase' at <https://secure.csl.gov.uk/beebase/>. Registering with BeeBase is free and gives beekeepers access to other free services, such as a home visit by a fully qualified Bee-inspector, the latest pest and disease information, advisory leaflets, and online apiary and diagnostic histories for your own apiary.
- Control of honey bee pest and diseases is difficult and costly, and complicated by issues such as the emergence of resistant strains. UK beekeepers have limited access to veterinary treatments [Honey bees are in effect regarded as livestock, so pest treatments have to be prescribed by a vet], and are unable to use some treatments permitted elsewhere in the EU. The NFU is calling on the UK government to take action to ensure UK bee farmers and beekeepers have the same ready access to treatments for bees as their EU counterparts.

Other hazards facing honey bees

- A number of other perceived hazards are often highlighted when discussing bee health problems, including pesticide poisoning, stresses due to transportation of colonies, loss of habitat, climate change, and GM crops. While these hazards may warrant investigation, there is no conclusive evidence that any of them are a factor in colony losses, and so they should not be allowed to divert attention from the urgent action required against the pests and diseases known to cause colony losses.
- Insecticides are designed to kill insects, so it is no surprise that they pose a risk to bees. However, strict regulations governing the development and use of all pesticides are in place to minimise the risk. Indeed, in the UK, the number of pesticide poisoning incidents is at the lowest it's been since records began in 1981. There has been no confirmed incident of honey bee poisoning as a result of the approved use of a pesticide in the UK since 2003. This would suggest that, with respect to pesticides and honey bees, the agricultural landscape in the UK is the safest it has been for more than 25 years. However, there is no room for complacency and the NFU is keen to work with the other honey bee organizations to review and improve, as necessary, the current arrangements and practices used to minimize the risks posed to honey bees by pesticides.

What is the NFU doing?

- We are supporting the BBKA campaign for increased Government funding.
- We have committed an NFU adviser (Chris Hartfield) to work bee health issues.
- We are developing our working relationships with all the main UK stakeholders, and participating in industry meetings to help forward the needs of bee farmers and keepers.
- We have and will continue to highlight the bee health issue in the media, including in NFU publications.
- We will work to try and improve access to veterinary treatments for bee pests and disease. In particular, to ensure UK bee farmers and beekeepers have the same ready access to veterinary treatments for honeybees as their EU counterparts. [Currently only 1 treatment for *Varroa* – Apistan – is cleared for use in the UK. This is causing significant resistance management problems].
- The NFU would want to encourage the adoption of best practice, in terms of honeybee pest and disease management, by all bee farmers and keepers. As it does in respect of the management of animal and plant pests and diseases throughout the wider agricultural industry. The ability to communicate with all beekeepers is a vital part of this process, so it is essential for all beekeepers to register with the NBU's free online database 'BeeBase' at <https://secure.csl.gov.uk/beebase/>.
- The NFU wants to encourage a closer working relationship between farmers and growers and bee farmers and keepers, which works towards halting the decline in the number of UK hives.