



Department  
for Environment  
Food & Rural Affairs



Llywodraeth Cymru  
Welsh Government

# Healthy Bees Plan 2030

Working together to improve honey bee health and husbandry in England & Wales

November 2020



*Cover photo: Honey bees arriving back at their hive carrying pollen.  
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### **England**

Animal and Plant Health and Welfare  
Defra  
Room 11G35, York Biotech Campus, Sand Hutton  
York  
YO41 1LZ

Tel: 020 80261586

Email: [BeeHealth.Info@defra.gov.uk](mailto:BeeHealth.Info@defra.gov.uk)

### **Wales**

Land, Nature and Forestry  
Welsh Government  
Rhodfa Padarn, Llanbadarn Fawr, Aberystwyth  
Ceredigion  
SY23 3UR

Tel: 0300 062 2290

Email: [HoneyBeeHealth@gov.wales](mailto:HoneyBeeHealth@gov.wales) or [GwenynMellach@llyw.cymru](mailto:GwenynMellach@llyw.cymru)

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## Foreword

On behalf of Defra and the Welsh Government, we are pleased to introduce the Healthy Bees Plan 2030.

Honey bee health is of crucial importance for the role honey bees play in pollination, the maintenance of a thriving commercial beekeeping sector, and because many people enjoy beekeeping as a hobby as well as a way of connecting to the natural world.

The Healthy Bees Plan, published in 2009, aimed 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. Under the plan effective working relationships have been developed, education and training provision for beekeepers and bee farmers has increased substantially, challenges including those from new exotic pests have been addressed and many thousands more beekeepers have chosen to register on the National Bee Unit's (NBU) BeeBase website.

Following the publication this year of our review of the original plan, we are now launching the Healthy Bees Plan 2030 to address the continued challenges to honey bee health. With thanks to our stakeholders on the Bee Health Advisory Forum, we have developed this plan to provide a framework of our aims for the next 10 years. We are building on what worked well previously, recognising where more effort is required as well as taking forward new actions.

We remain committed to protecting and improving the health of honey bees in England and Wales and look forward to continuing to work with all those who have an interest in bee health to achieve this.



*Prof. Nicola Spence, Deputy Director  
Plant and Bee Health, Defra*



*Ceri Witchard, Deputy Director  
Land, Nature and Forestry, Welsh Government*

# **Bee Health Advisory Forum statements**

## **British Beekeepers' Association**

The British Beekeepers' Association (BBKA) is the largest beekeeping organisation in the UK with 26,335 registered members. We strive to educate our members in promoting the welfare of bees and raising standards within beekeeping husbandry, the principles for which are encompassed within this plan. Therefore, the BBKA is pleased to support and continue to work collaboratively towards the implementation of the HBP 2030 Plan.

## **Bee Farmers' Association**

Honey bees and bee farmers are essential workers in the UK food chain and Bee Farmers' Association (BFA), as the trade organization for them, look forward to working with Defra and the Welsh Government through the Bee Health Advisory Forum on this next ten-year Healthy Bees Plan. Such a plan is crucial for bee health - with the DASH scheme - and the training of new entrants into the industry as well as the continuous professional development of existing farmers.

## **National Diploma in Beekeeping**

The National Diploma in Beekeeping (NDB) welcomes the continued government support for improving beekeeper knowledge & education as part of the Healthy Bees Plan 2030. The NDB sees the plan as an opportunity for further improvements in beekeepers' husbandry and ability to recognise and intervene in disease and pest control.

With the majority of colonies in the UK managed by amateur beekeepers, the need to encourage and equip beekeepers with the knowledge to undertake effective bio-security, to obtain queens and bees through low risk sources and to develop excellent handling and management skills is fundamental to protecting the wider pollination benefit these beekeepers provide.

The NDB are reassured to see that the threats to UK apiculture from Asian hornet and Small hive beetle, along with the continuing losses from Varroa, are recognised through the provision of the new plan.

## **National Farmers' Union**

The National Farmers' Union (NFU) has been involved with the Healthy Bees Plan since it started in 2009. Farmers and growers recognise the significant contribution honey bees make to pollination, and the importance of healthy bees for crop and honey production. We're involved in research to better understand the challenges bees face; and in promoting care when using pesticides, and the better provision of forage and apiary sites. The Healthy Bees Plan is central to the continued improvement of bee health in the UK and we look forward to being part of this for the next 10 years.

## **Veterinary Medicines Directorate**

The Veterinary Medicines Directorate will continue to provide support and collaborate with other government agencies and stakeholders to improve bee health. Our common goal is to share knowledge and information with beekeepers and to work together so we can respond to any risks to bee health and assure the continued safety, quality and efficacy of bee medicines.

## **Welsh Beekeepers' Association**

To deal with the challenges we face, it will require all stakeholders to work together and from the beekeeping perspective, the Healthy Bees Plan 2030 can form the basis for such cooperation. It covers the broad objectives identified following the report on the previous ten-year plan but in such a way that means of implementation can be adaptable to changes in circumstances. The Welsh Beekeepers' Association (WBKA) looks forward to working with, and encouraging its member associations to work with, the Welsh Government and other stakeholders and the Bee Health Advisory Forum to develop the methods of implementation for the benefit of bees and beekeeping.

## Executive summary

Honey bees contribute directly to local food production and make an important contribution, through pollination, to crop production and the wider environment. In the UK the estimated value of insect pollination to crops due to increases in yield and quality of seeds and fruit is £400m - £700m. In addition, honey is a valued food commodity, although at present less than 20% of the total sold in the UK is produced domestically.

Honey bees are susceptible to a variety of threats, including pests and diseases, the likelihood and consequences of which have increased significantly in recent years. This plan aims to address the challenges facing beekeepers and bee farmers and is aimed at sustaining the health of honey bees and beekeeping in England and Wales over the next decade. It builds on the previous Healthy Bees Plan which allowed government, beekeepers and bee farmers to develop ways of working together, helped improve the NBU's knowledge of beekeepers and built on existing education and training programmes carried out by associations. The plan describes the four main outcomes we want to achieve, working with individual beekeepers and bee farmers, their associations and other stakeholders.

These are:

- 1) Effective biosecurity and good standards of husbandry, to minimise pest and disease risks and so improve the sustainability of honey bee populations;
- 2) Enhanced skills and production capability/capacity of beekeepers and bee farmers;
- 3) Sound science and evidence underpinning the actions taken to support bee health; and
- 4) Increased opportunities for knowledge exchange and partnership working on honey bee health and wider pollinator needs.

The plan also identifies ways in which government, beekeepers, bee farmers, their associations and other stakeholders will work together to achieve these aims. Continued strong partnership working with interested parties is essential if current and evolving threats to bee health are to be successfully identified and addressed.

Publication of this plan marks the beginning of work on its implementation programme – priority actions and timescales for these activities will be developed over the next six months in consultation with all partners.



## Chapter 1 – Introduction

The first Healthy Bees Plan was published in 2009 following a National Audit Office report on livestock and honey bee health which highlighted the problem of high colony losses caused by Varroa (Figure 1). The report recommended building relationships with stakeholders, developing a more effective register of beekeepers and that the NBU should develop a shared approach to training with beekeepers. The 10-year plan was based on partnership working to improve bee health and included measures to improve beekeeper knowledge and ability to respond to bee health threats through training and education. Defra and the NBU, in conjunction with the Bee Health Advisory Forum, produced a review of the plan in 2020. The main conclusions were that working together had been beneficial to both stakeholders and government. The training and education programme established under the plan had been very successful and well received by beekeepers and bee farmers. The governance of the plan had adapted to changing situations.

Beekeepers are increasingly facing many new risks to their bees. Asian hornet (*Vespa velutina*; Figure 2) arrived in France in 2004 and has since spread throughout France and several neighbouring countries, with established populations now in Italy, Spain and Portugal. There are increasing numbers in Northern France and in the Channel Islands. Whilst we have been successful in eradicating the outbreaks that have occurred in England in the period from 2016 to date, we anticipate further outbreaks in future years. Partnership working has been at the forefront of our approach to tackling Asian hornet and early identification by beekeepers and members of the public has been key to our response.

Another invasive, non-native pest, the Small hive beetle (*Aethina tumida*; Figure 3), has become established in one region of Italy since the first plan was launched. In September 2014 the Italian authorities reported their first case and, despite an extensive eradication campaign, outbreaks have continued to occur. Safeguard measures have been extended until 2021.

Fig.1



Fig.2



Fig.3



Images courtesy of Animal and Plant Health Agency (APHA): Fig.1 is an image of Varroa mites (c.2mm wide) on a honey bee larva. Fig. 2 is an image of an adult Asian hornet (*Vespa velutina*) (c.25mm long). Fig. 3 is an image an adult Small hive beetle (5-7mm long). Figs.1&3 Crown Copyright; Fig.2 ©Jean Haxaire

Imports of bees to the UK from the EU have grown year on year since the original plan was introduced. It is difficult to identify a single factor responsible for this



growth, but it is likely that there is a greater demand for new queens early in the season. Whilst all international movements of bees are required to be accompanied by a health certificate, providing health guarantees, there is inevitably a level of risk associated with moving honey bees from one area to another.

Honey bees face similar pressures to other beneficial insects. Changes in land management practices, urbanisation and climate change all impact honey bees. The 2019 Evidence Statements and Summary of Evidence report published by Defra to inform England's National Pollinator Strategy also identified pests and diseases as a pressure for honey bees and other pollinators, so improving biosecurity in apiaries remains a key element of the new plan.<sup>1</sup> There is also increased interest in potential disease links between managed and wild pollinators. The Healthy Bees Plan 2030 will maintain links with other policy areas that have a broader impact on honey bee health. These include the Action Plan for Pollinators in Wales which aims to provide diverse and connected flower-rich habitats to support pollinators, and the National Pollinator Strategy in England which sets out a 10-year plan to help pollinating insects to survive and thrive.<sup>2</sup> Actions under the National Pollinator Strategy Implementation Plan and the Action Plan for Pollinators in Wales include using the forthcoming Environmental Land Management Schemes (England) and Sustainable Farming Scheme (Wales) to encourage farmers to take measures to support pollinators and raising awareness of pollinator needs within the general public.<sup>3</sup>

Other relevant policy areas include food safety controls (regulations on contaminants in honey), veterinary medicine controls and pesticide use. While these areas are outside the scope of the plan, government officials will continue to liaise with the relevant lead departments and agencies.

One of the key projects under the previous plan was increasing the number of beekeepers registered on BeeBase and improving the quality of information on the database. All the partners in the plan enthusiastically advocated the benefits of being registered on BeeBase and a campaign to encourage unregistered beekeepers to sign up was run. As a result, there has been a dramatic increase in the numbers registered. In 2010 the figure stood at around 16,000 and by September 2020 there were more than 42,000 beekeepers registered in England and Wales. This is a great help for the NBU when planning our response to disease outbreaks. However, it does also mean that there are more beekeepers per inspector, so inspections do need to be prioritised. The increase in registered beekeepers also reflects that beekeeping has become increasingly popular over the course of the plan, leading to a continual influx of new beekeepers. The introduction of the Disease Assurance Scheme for Honeybees (DASH) for bee farmers has been successful for both the farmers and the NBU: it is most beneficial for those farmers with the most colonies.

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1 Management and drivers of change of pollinating insects and pollination services, Evidence statements and Summary of Evidence, 2019 report published by Defra, Defra research project BE0160.

2 [Action Plan for Pollinators in Wales](#), 2013, Welsh Government ref. WG18155, [The National Pollinator Strategy: for bees and other pollinators in England](#), 2014, UK Government publication ref. PB14221.

3 <https://www.gov.uk/government/publications/national-pollinator-strategy-2014-to-2024-implementation-plan>

The way that beekeepers access advice and information is also changing. Increasing use of social media and online forums provides beekeepers and bee farmers with new ways of gathering advice and sharing experience. However, personal relationships and mentoring are still seen as key for retaining the involvement of new keepers. At the start of the plan, the subgroups of the Programme Management Board, the forerunner of the Bee Health Advisory Forum, developed several advisory leaflets which are still available online. Use of portable technology is also increasing which enables beekeepers and inspectors to access information/guidance at the hive side.

There have been developments within government which affect bee health policy. The UK left the EU on 31 January 2020 and our legislation has been updated to ensure that we can continue to protect UK honey bees from the risks of pests and diseases and provide support for our beekeepers. The Government remains committed to devolution and to a collaborative approach on bee health between all four countries.

The publication of the National Pollinator Strategy (which covers England) in 2014, along with the 25-Year Environment Plan in January 2018, which define government ambitions for pollinators and the environment, set the overarching policy expectations for bee health in England.<sup>4</sup> The UK Government is also committed to setting up an Office for Environmental Protection. The Action Plan for Pollinators in Wales was published in 2013. Key legislation in Wales includes the Environment (Wales) Act 2016 and the Wellbeing of Future Generations (Wales) Act.<sup>5</sup> The Action Plan and the Acts set the direction of travel for Welsh policy on pollinators and the environment. Together, these plans and policies lay the foundations for helping England and Wales to achieve their aspiration of having rich, diverse and connected habitats that can support pollinators.

Developments within the EU will still affect the UK during the transitional period, and the legal position in the EU is also changing as the rules relating to animal health and official controls have been updated. The new regulations consolidate existing rules and adopt a more modern and consistent approach.

There have also been changes to the structure of government. At the start of the first Healthy Bees Plan both policy and delivery of the government's bee health work were undertaken by Fera. Bee health policy moved to Defra in December 2012. A few years later the inspectorate moved from Fera to APHA which is an executive agency of Defra and Fera became Fera Science Ltd, a joint venture with Capita. Fera Science Ltd remains the official laboratory for honey bee health for England and Wales.

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<sup>4</sup> [A Green Future: Our 25 Year Plan to Improve the Environment](#), HM Government, 2018.

<sup>5</sup> Information relating to the Environment (Wales) Act 2016 can be found at [gov.wales](http://gov.wales). A Welsh Government Guide to the Act, ref. WG 25447, can be found at [futuregenerations.wales](http://futuregenerations.wales).

As we embark on a new Healthy Bees Plan and look ahead to the next 10 years, honey bees, beekeepers, bee farmers and stakeholders will continue to face many changes and challenges, whether environmental, economic, regulatory or other. Our experiences under the first plan provide us with a valuable basis for action. Continued partnership working as well as maintaining up to date records of all beekeepers and bee farmers on BeeBase are essential elements of the new plan. We expect that these and other measures which will be developed in the course of the plan will contribute to the key aims of maintaining and enhancing biosecurity, supporting beekeepers and bee farmers to be confident in managing their bees, and making best use of sound science to help honey bees, beekeeping and bee farming to thrive.

## **Chapter 2 – Outcomes**

### **1. Effective biosecurity and good standards of husbandry, to minimise pest and disease risks and so improve the sustainability of honey bee populations**

Early detection and reporting of pests and diseases increases the chances of effective control. By registering the number of hives and their locations on BeeBase, beekeepers and bee farmers play a very important part in providing essential information that the NBU can use to prevent and control the spread of pests and diseases as well as aiding risk assessment. BeeBase is also an effective vehicle for communicating current risks, advice on good husbandry, appropriate use of veterinary medicines and information on bee pests and diseases. Monitoring high risk pathways, controlling imports and beekeepers sourcing bees of known provenance are all key for effective biosecurity. Knowing the origin of domestically traded honey bees as well as recording hive movements, the medicines given to bees and other control methods used are also essential for minimising the spread of pests and diseases.

### **2. Enhanced skills and production capability/capacity of beekeepers and bee farmers**

Education and training are fundamental for giving beekeepers and bee farmers the skills to recognise pests and diseases and to ensure good husbandry practices are maintained. Other important skills, such as queen rearing and bee breeding, allow beekeepers and bee farmers to sustainably produce more colonies with the traits they desire. People learn in different ways and therefore access to a range of education materials and methods of learning is required for effective training. Learning materials should also be tailored for people with different levels of experience.

The DASH, developed under the original Healthy Bees Plan, will continue. DASH allows bee farmers who have gained skills in recognising pests and diseases to self-manage statutory notifiable disease without involving the bee inspector, although disease must still be notified to the government.

Education and training will continue to be a key priority for the Healthy Bees Plan 2030 and will be provided in a variety of formats including courses (online and classroom-based learning), hive side training and mentoring. There are clear benefits that come from maintaining good standards of husbandry, when beekeepers have access to practical support and advice from other beekeepers through apiary training sessions and mentoring. Sharing skills and experiences is important for developing capability, so we will aim to provide more opportunities for beekeepers and bee farmers to do this.

For those who earn a living keeping bees, a process of continuous professional development should be established with a view to becoming standard practice. The next generation of beekeepers and bee farmers also need to be encouraged and supported through learning from accessible courses or more formally via apprenticeship schemes.

*Fig.4*



*Fig.5*



*Images courtesy of Animal and Plant Health Agency (APHA), Crown Copyright. Fig.4 is an image of beekeepers attending a training day at an apiary. Fig.5 is an image of a marked honey bee queen.*

### **3. Sound science and evidence underpinning the actions taken to support bee health**

Actions taken to support bee health should be underpinned by sound science and evidence. Scientific research and technological innovation continue to develop rapidly and there are frequent publications on the findings from this work. These developments will be kept under review by the Bee Health Advisory Forum to determine how they can be used to take actions to support bee health. A wide range of areas will be covered including detection methods for pests, diseases and other risks to bee health, control and husbandry techniques as well as approaches for monitoring the health of honey bees in the hive. Horizon scanning will be carried out to identify new and emerging risks including those shared with other pollinators.

Where appropriate, detailed risk assessments will be carried out to consider the likely impact and find possible mitigating actions including contingency plans.

#### **4. Increased opportunities for knowledge exchange and partnership working on bee health and wider pollinator needs**

There is a broad knowledge base and many years of combined experience within the Bee Health Advisory Forum. This can be drawn on to solve issues, adapt to new situations and develop clear joined up messages through well-established methods. Social media is an influential platform and offers a wide range of other communication channels which can be accessed by different members of the forum to deliver agreed messages. Knowledge exchange is also important for connecting practitioners so they can discuss their work, learn from one another and achieve improvements.

There is a wide interest in honey bees and the response to Asian hornet has been supported by citizen science. There will be continued efforts to engage with the general public about bee health and promote wider pollinator needs.

### **Chapter 3 – Ways of working**

The Healthy Bees Plan 2030 is a joint initiative between Defra and Welsh Government, but effective co-operation among all four UK administrations is crucial, not least for the maintenance of good biosecurity across the whole of the UK. It is important to note, therefore, that regular communication with bee health colleagues in Scotland and Northern Ireland will continue throughout the period of the Healthy Bees Plan 2030, for example, through our quarterly Bee Health Advisory Forum meetings.

#### **Biosecurity**

To minimise pest and disease risks, Defra and the Welsh Government will continue to maintain and develop policy on pests and diseases; the NBU will deliver the bee health programme which includes surveillance, disease control and beekeeper training; beekeeping and bee farming stakeholders will support the government in policy making and encourage beekeepers and farmers to use good standards of husbandry through training and mentoring; the Bee Farmers' Association will promote participation in the DASH.

#### **Skills and production**

To ensure enhanced skills and production capability, beekeepers and bee farmers will be encouraged to seek training and share experiences at a local level (mentoring, local groups and associations); bee farmers will maintain a programme of professional development for bee farmers, including supporting aspiring bee farmers with a way into the industry; the NBU will provide training focusing on pest and disease recognition.

## **Science and evidence**

All partners agree to use sound science and evidence to underpin actions taken to support bee health, and all stakeholders will use the Bee Health Advisory Forum to share research priorities and findings.

## **Knowledge exchange**

All partners will exchange knowledge relevant to sustaining bee health including good practice, research findings and beekeeping/bee farming experiences. The British Beekeepers' Association and Welsh Beekeepers' Association will encourage and enable all beekeepers to join local groups and associations and, where possible, to find a mentor.

Partners will also take part in actions on wider pollinator needs as coordinated by the Action Plan for Pollinators Taskforce (Wales) and the Pollinator Advisory Steering Group (England).

Partners will participate in the Bee Health Advisory Forum by suggesting agenda items and attending and contributing to meetings and documents circulated by email.

# **Chapter 4 – Implementation of the plan**

## **How we will implement the Healthy Bees Plan 2030**

Building on what we have learnt from the first Healthy Bees Plan and the ways of partnership working that have developed, the new plan outlines the areas that we will focus on in the next 10 years. The four key outcomes and ways of working have been described earlier in this plan. To deliver these outcomes an implementation plan will be developed with agreed actions. This will also set out when these actions will be taken and how progress will be monitored.

The implementation plan will be developed by the Bee Health Advisory Forum led by the Healthy Bees Plan manager. Some actions have already been identified from the review of the first plan. New areas of work and other actions have been gathered from earlier discussions in the Bee Health Advisory Forum and these will also be fed into the implementation plan. Actions will have a timeline for delivery and owner(s). The new plan will run for 10 years but the implementation plan will be refreshed approximately every 3 years, allowing a light touch review of:

- (i) actions completed at that point;
- (ii) actions still continuing;
- (iii) whether any new actions need to be added.

The implementation plan will also include measures of success which will be identified and used to monitor progress and delivery of the Healthy Bees Plan 2030.