

The Honey Bee Health Strategy 2022 - 2032

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Working in partnership to achieve a healthy and sustainable population of honey bees in Scotland

Honey Bee Health Strategy – 2022-32:

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Ministerial Foreword

Cabinet Secretary for Rural Affairs and Islands

I am delighted to announce the launch and publication of Scotland's second 10-year Honey Bee Health Strategy.

Honey bees and beekeeping activities in Scotland are important not only because of their role on pollination of crops and wild plants, but also because they are important drivers for the Scottish economy. Beekeeping continues to grow in popularity and we continue to see an increase in the number of beekeepers in Scotland, both hobbyist and commercial businesses.



Honey bees, like other pollinators in the world, are under pressure from a wide variety of threats, including pests and diseases. This new strategy aims to address the challenges facing honey bees and beekeepers and is aimed at achieving a sustainable, environmentally balanced and healthy population of honey bees in Scotland, for pollination and honey production.

This strategy follows in the steps of the first Strategy, published in 2010. The outcomes from that, as detailed in the recently published review, have proved to be a huge success and provide a stable foundation on which to continue and build on to ensure that honey bee health continues to be a priority.

There have been significant improvements made to all four outcomes of the original plan, however it is imperative that training and education of beekeepers continues to be at the forefront of what we do as well as ensuring that established effective working relationships continue to thrive. Continued strong partnership working with interested parties is essential if current and evolving threats to bee health are to be successfully identified and addressed.

There are however still many diverse challenges ahead of us and utilising the wealth of experience and expertise that we already have available will prove invaluable in taking forward further surveillance, diagnostic and Research and Development work. In addition, we have added a further issue covering biodiversity and look forward to working more closely with colleagues in NatureScot to take that work forward.

I would like to thank our stakeholders on the Bee Health Improvement Partnership (BHIP) for their support over the last 12 years and for their continued commitment to protecting and improving the health of honey bees in Scotland. This new Strategy and Implementation Plan will build on what has worked well, recognise where more effort is required and will take forward new actions. My colleagues and I look forward to working with all those who have an interest in honey bee health and other pollinators to achieve this.

A handwritten signature in black ink, appearing to read 'Mairi Gougeon'. The signature is fluid and cursive, with a large initial 'M' and 'G'.

Mairi Gougeon, Cabinet Secretary for Rural Affairs and Islands

Bee Health Improvement Partnership (BHIP) Member Statements

Scottish Beekeepers Association (SBA):

As a non-commercial organisation, the Scottish Beekeepers' Association has as its ethos a number of features which the Honey Bee Health Strategy is extremely supportive of. Encouraging and supporting beekeepers to promote and attain higher standards of beekeeping skills, education, good beekeeping husbandry and practice, together with ensuring awareness of bee disease issues and legal obligations and requirements, has ensured that the bee population and beekeepers we have at present are as good if not better than they have been in the past.

Since its inception in 2010, the Honey Bee Health Strategy has sought to promote all these aspects but possibly its greatest achievement has been the uniting in a unique way of the various organisations involved in the beekeeping sector in Scotland. The Bee Health Improvement Partnership has been a success story and allows individual groups to discuss various aspects of bee culture and issues in a very friendly and supportive manner and determine, where possible, a unified approach to problem solving.

As this plan is a living document with the opportunity to change, various facets of bee health, strategy and implementation can be addressed in a fluid manner. Climate change, Importation, Conservation and potential introduction of bee pathogens are all aspects which have been and will continue to be considered.

The Scottish Beekeepers' Association are very supportive of this new Honey Bee Health Strategy and look forward to ensuring its success through implementation of the various suggestions put forward.

Bee Farmers Association (BFA):

Bee health and vigour underpins the success of bee farming businesses, and the beekeeping and honey production industry as a whole. At a time when changes in the relationship between the UK and Europe have created many new challenges and opportunities for the sector, the Bee Farmers' Association (BFA) welcomes the timeliness of publication of this new strategy and continued partnership working with other stakeholders to achieve a healthy and sustainable population of honey bees in Scotland.

The association is pleased to see research, knowledge transfer, and strategies for prevention and control all playing their part in dealing with existing and potential future pest and disease threats.

Since publication of the previous strategy in 2010, interactions between honey bees, other pollinators and the environment have emerged as topics of interest. Research in Scotland's specific context is required to ensure policy decisions are properly informed; this is reflected in the strategy and the associated implementation plan.

With accelerated changes to our climate, achieving a sustainable honey bee population in future will mean more than simply a conservationist approach. Over the life of the plan, progressive strategies will be required to manage risks to our bees and ensure future availability of healthy, vigorous, resilient and productive livestock.

The BFA and its Scottish members will inform and support the strategy implementation plan over its lifetime through an outward looking approach, seeking out successful practices from around the globe to benefit the sector here in Scotland.

National Diploma in Beekeeping (NDB):

Holders of the NDB (National Diploma in Beekeeping) will continue to provide education in all matters of beekeeping husbandry whenever the opportunity arises. The aim is to raise the standard of beekeeping instruction throughout Scotland.

NatureScot:

Pollinators are an integral part of our biodiversity. If we lose the pollination services provided by insects such as bees and flies, we risk damaging not only plants and animals but agricultural yields, our economy and our wellbeing. However, many of our pollinators are under threat. Current pressures include land-use changes, land management, pesticides, pollution, invasive non-native species, diseases and climate change.

The Pollinator Strategy for Scotland 2017–2027 sets out Scotland’s response to these threats. Identifying the issues, it sets out what needs to be done and, through the Implementation Plan, a phased plan to deliver a healthy future for our pollinators.

The consultation process leading up to the launch of the Pollinator Strategy for Scotland underlined the need for partnership across sectors to deliver action at a scale - and across activities - that would benefit our pollinators. A group led by Scottish Natural Heritage (as NatureScot was then known), in collaboration with Scottish Government, developed the principles and actions further as the basis of this Strategy. This group included the Bee Farmers Association, Buglife, Bumblebee Conservation Trust, Centre for Ecology & Hydrology, Scottish Environment LINK, National Farmers Union Scotland and Scottish Lands & Estates.

The resulting Pollinator Strategy includes action for everyone, from Government and its agencies to conservation groups, farmers, landowners, managers, gardeners, agricultural business, commercial business and members of the public. NatureScot recognises that honey bees and other pollinators have an extremely close relationship. It therefore is delighted to have been involved in the complementary and revised publication of Scotland’s Honey Bee Health Strategy and looks forward to working with a range of partners in helping to deliver this key work.

Scotland's Rural College (SRUC):

Beekeeping continues to grow in Scotland, both at hobby and commercial level. We see a wide variety of new business models emerging (teaching, selling bees, providing experiences).

The role of Scotland's Rural College (SRUC) will be to provide that expertise and technical advice to all beekeepers. With funding from the Scottish Government a Bee Advisor has been appointed and will contribute to Honey Bee Health plans. We are working with the Bee Health Improvement Partnership to improve beekeeping education. It will help beekeepers across Scotland to be able to contribute to and be aware of how to take care of bees, to know how to identify pests and diseases and how to deal with these issues in an informed way.

The SRUC recognises the importance of education in helping all beekeepers to learn more and improve the health of their bees. As highlighted in the Honey Bee Health Strategy Survey, education is a high priority. Improving the knowledge transfer of and between hobbyists, bee farmers, bee inspectors and others is essential to improve honey bee health.

SRUC looks forward to working in partnership with all members of the Bee Health Improvement Partnership to provide guidance and direction on the new Honey Bee Health Strategy and its implementation. We welcome the review & publication of the education and communication programmes. It will encourage good management practices, biosecurity and disease control practices. We plan to contribute to developing a training package on Varroa and delivering presentations on notifiable diseases, pests, and other relevant Bee Health Issues. We value the continued partnerships, working with other all stakeholders to achieve shared goals.

Introduction

Honey bees contribute directly to local food production and make an important contribution, through pollination, to crops and the wider environment. The economic benefit of pollination to crop production in the UK is approximately £600m each year, based on yield.

As a result of pests and diseases there are few remaining wild colonies of honey bees in the UK. It is now widely accepted that the survival of honey bees relies heavily on beekeeping activities as part of which pests and diseases are managed appropriately.

Scientific analysis and review of insect numbers around the world suggested that 40% of species are undergoing "dramatic rates of decline", with bees, ants and beetles disappearing eight times faster than mammals, birds or reptiles.

Honey bees face similar pressures to other insects around the world. Changes in land management practices, loss of habitat, plant diversity and climate change all impact honey bees in the UK.

However, in Scotland and the UK, honey bees are not in decline, quite the opposite. Beekeeping has become increasingly popular since the creation of the first honey bee health strategy. The number of registered beekeepers and hives continues to increase year on year. Registration of beekeepers in Scotland is not compulsory, however, as of June 2022 there are over 3,000 beekeepers registered on BeeBase looking after just over 40,000 colonies in 4400 apiaries. (BeeBase is the voluntary database run by the National Bee Unit (NBU) and used for registration of beekeepers in Scotland, England and Wales).

The potential for a further increase in the number of beekeepers and rise in the density of beehives brings a number of new issues for honey bee health. These changes require a review of our education and communication programmes to ensure good management, biosecurity and disease control practices are in place. For example, the demand for honey bees has led to an increase in the market for the importation of honey bee colonies, packages and queens into Scotland. Our education and communication programmes are vital to promote awareness of good practices and potential issues such as increasing density of beehives in certain areas leading to higher competition for scarce food sources and more opportunities for disease spread.

Over recent years there has been a growth in beekeeping businesses which focus on selling bees, providing beekeeping experiences to the public or provide "greening" opportunities to a wide variety of clients by installing honey bee hives. Each of these models bring new challenges to bee health in terms of movement of bees, education of beekeepers and different levels of management and responsible practices observed.

A further consequence of the number of beekeepers and density of honey bees in certain areas is a growing concern that managed pollinators may have a detrimental effect on wild native pollinators and fragile ecosystems. There is now emerging

evidence that, in certain circumstances, even in areas where honey bees are native (as is the case in Scotland), there is potential for cross-transmission of pests/diseases and competition for food resources with wild pollinators. Understanding the risks posed by competition, changes in plant communities and disease overspill, and mitigating against this by maintaining sustainable levels of healthy bees are an important aspect of responsible beekeeping which this new honey bee health strategy will promote.

Honey bees continue to face challenges in terms of new pests and diseases. The two most concerning pests are Small Hive Beetle (*Aethina tumida*), now present in Italy, and Asian Hornet (*Vespa velutina*) which is now well established in France, Spain, Italy, Portugal and the Channel Islands. Great Britain now receives regular incursions of this pest, however, thanks to the excellent work of the National Bee Unit, this invasive pest has so far been controlled, avoiding catastrophic consequences for our honey bees and wild pollinators in the UK.

In terms of notifiable diseases, European Foulbrood (EFB, caused by *Melissococcus plutonius*) continues to regularly affect the health of our honey bees in Scotland. In certain areas commercial beekeeping operations are seriously impaired due to difficulties with control and eradication of this damaging disease of the brood of honey bees.

Varroa mites (*Varroa destructor*), although now mostly considered endemic across the UK, continues to be one of the main causes of colony loss for beekeepers, through both the direct damage caused by the mites and the transmission of pathogens. In addition, the very common use of Varroacides presents a risk for food safety and creation of resistant strains if beekeepers use non authorised products or do not follow the rules on use of Veterinary Medicines.

There have been developments within government which affect bee health policy. The UK left the EU on 31 January 2020 and, following the transition period, the rules governing the new relationship between the EU and UK took effect on 1 January 2021. Amendments have been made to our domestic legislation to enable trade with the EU to continue and to comply with our new status, Varroa was made reportable through The Bee Diseases and Pests Control (Scotland) Amendment Order 2021. However, imports of packages and colonies of honey bees from third countries are not allowed in our domestic legislation, therefore the change of relationship with Europe has meant that the importation of honey bees, on which some of our beekeepers had become reliant, is no longer possible.

With this background and set of challenges, some of which may alter over time, we enter into a new strategy. The following sections and the implementation plan, which will be a living document owned jointly by all stakeholders, operational partners with an interest in honey bees and Scottish Government, will describe the approach and direction of travel for bee health in Scotland over the next 10 years.

A Strategic Approach to Implementation

Scottish Government has worked with [the Bee Health Improvement Partnership \(BHIP\)](#)¹ on the development of the new 2022-2032 Honey Bee Health Strategy to address issues as they are identified and continue to protect and improve the health of honey bees in Scotland.

The main aim of the new strategy will be: **"Working in partnership to achieve a healthy and sustainable population of honey bees in Scotland"**

This new strategy will follow on from the excellent work carried out by the BHIP during the implementation of Scotland's first 10-year Honey Bee Health Strategy. The original Strategy, introduced in June 2010, had the primary aim "to achieve a sustainable and healthy population of honey bees for pollination and honey production in Scotland through strengthened partnership working between stakeholders with interests in honey bees".

As part of the first strategy we saw the creation of the BHIP which is formed by representatives from:

- The Scottish Beekeepers Association (SBA)
- The Bee Farmers Association (BFA)
- National Diploma in Beekeeping (NDB)
- Scotland's Rural College (SRUC)
- NatureScot
- SASA - Scottish Government
- Scottish Government's Animal Health and Welfare Division's Bee Health Team (which chairs the group)

The BHIP is a forum to allow Scottish Government Officials and stakeholders to discuss, consult and interact on challenges, policies and strategies affecting honey bees and the Scottish beekeeping sector, both from a hobby and commercial perspective. Their main role is to implement and monitor progress on the actions of the honey bee health strategy. The group meet on a quarterly basis and any Scottish beekeepers can raise issues via their preferred organisations for discussion at these meetings.

The initial Strategy, in conjunction with [the review \(published October 2021\)](#)² has provided an extremely strong foundation on which to build upon over the next 10 years. The Review detailed the progress made and identified a number of areas which could be further developed. Those suggestions, along with responses to a [Scottish Government led survey](#)³ which gathered views from those with an interest in honey bees (published 30 March 2022) have been key to identifying the areas of focus to best continue supporting Scotland's honey bees in future years.

Whilst many of the issues identified in the 2010 strategy continue to pose a challenge, new challenges and threats have emerged. Adapting the key pillars of the

¹ [Bee Health Improvement Partnership \(BHIP\) - gov.scot \(www.gov.scot\)](#)

² [Honey bee health strategy: review - gov.scot \(www.gov.scot\)](#)

³ [Honey bee health strategy survey 2022: analysis - gov.scot \(www.gov.scot\)](#)

original framework, the partnership aims to progress to meet old and new challenges alike, which are further developed within this new Strategy.

The BHIP acknowledges that challenges to honey bee health are rapidly evolving. It is for this reason that it has been agreed that our strategy will simply outline the pillars and ways of working on which we will base our actions over the next 10 years.

To allow the required flexibility and adaptability to new challenges, the work will once again be taken forward by the BHIP through the **“Honey Bee Health Strategy 2022-32: Implementation Plan”**. This Plan will be a living document which details specific actions to be delivered in order to achieve the desired outcomes for Honey Bee Health in Scotland.

The implementation plan will:

- Focus on the main aim of the Strategy: **“Working in partnership to achieve a healthy and sustainable population of honey bees in Scotland”**.
- Identify key challenges, objectives and actions required to enable continued improvements to honey bee health in Scotland.
- Assign ownership and regularly reflect the prioritisation of identified actions.

The BHIP will:

- Monitor, review and report the progress of key objectives at quarterly meetings. The Implementation Plan will be updated and published on the Scottish Government website following each meeting.
- Ensure that governance and accountability is maintained by continuing to report annually to the Honey Bee Health Strategy Steering Group on the progress of the specific aims of the Honey Bee Health Strategy.
- Recognise that priorities and plans can quickly change and will be committed to ensuring that the actions of the Implementation Plan are regularly reviewed to ensure that expectations are effectively managed.

Actions identified in the Implementation Plan will be based on the following 5 pillars:

- **Pillar 1: Education, Training and Knowledge Transfer.** The BHIP will work on improving the level of education and knowledge of the Scottish Beekeeping community on all issues relating to honey bees.
- **Pillar 2: Communication and partnership working across government, operational partners, stakeholders and all of those with an interest in honey bees in Scotland.** The BHIP will ensure regular and effective communication between all parties through the quarterly meetings of the BHIP. Key issues will be identified, communicated to the beekeeping community as and when required using the most efficient communication strategies.
- **Pillar 3: Pest and Disease surveillance, prevention, diagnosis, and control.** The BHIP will work in partnership on the development and implementation of effective strategies for surveillance, prevention, diagnosis

and control of honey bee pests and diseases. The BHIP will continue to promote effective biosecurity and good standards of husbandry.

- **Pillar 4: Research and Development:** The BHIP will ensure that decisions, bee health policy, disease prevention and control strategies are underpinned by sound science and evidence. The BHIP will seek to identify areas requiring further research and development, working in partnership with the scientific and beekeeping communities and commission/recommend research which could make a positive impact on bee health in Scotland.
- **Pillar 5: On-going review of the regulatory framework:** The BHIP will work in partnership with the Scottish Government to ensure that the legislative framework and enforcement powers are adequate for the achievement of the objectives of the honey bee health strategy.

The BHIP shall ensure that views of those with an interest in the health of Scotland's honey bees are taken into account when developing future work, for example in relation to pollination, biodiversity, interaction of honey bees with other pollinators, contingency planning for the possible arrival of non-native species, food safety controls, veterinary medicine controls and pesticide use. Whilst some of these areas are outwith the scope of the SG honey bee health policy team, SG representatives of the BHIP will liaise with relevant lead departments to ensure a co-ordinated approach to cross-cutting policies where possible.

The Scottish Government will also maintain effective communication and co-operation with the other UK administrations and APHA's National Bee Unit (NBU). This will be crucial to ensure good biosecurity across the whole of the UK.

**Bee Health Improvement Partnership
June 2022**

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