

# National Bee Unit

## Western Region Annual Review 2020

### The 2020 Season



I think there are two words which characterise the 2020 season – Covid and Zoom!

What a strange year, with many new words/phrases and some old ones with new significance – key worker, shielding, PPE, daily briefing, social distancing, we all had to get used to these terms. Zoom used to be a 1970's ice lolly! Now it is the way BKAs meet, host speakers and generally keep the bee info flowing!

The NBU 'year', when the Seasonal Bee Inspectors (SBIs) come back from their winter recess, starts in the last week of March – we usually have refresher training meetings, issue of new equipment and have a Start of Season Conference. With the Covid crisis and National Lockdown starting on the 23<sup>rd</sup> March, new plans had to be put in place very quickly. The NBU field teams are already home workers and we mostly work outside, but they have extended families, loved ones, all those connections which Covid makes complicated. While we could see that we could operate – and we were designated as Key Workers - we established that some staff would be shielding, not able to go out and we had to very quickly work out Covid safe procedures for those who could. A huge amount of background work was carried out so we could perform our normal duties, whilst staff and beekeepers remained safe.

Once inspecting got going it was very strange, driving on empty roads, or getting to city beekeepers in half the usual travel time! In Western Region, our team of 6 were all able to work and with well thought out procedures, inspecting went ahead, pretty much as usual. With beekeeper agreement, we worked at the hives alone or keeping 2 metres distance from the beekeeper and not going to any inspections where access was through a residential building to get to the bees.



*Warning triangles were used to keep a Covid-safe distance between Inspector and beekeeper photo Jonathan Axe*

We are very grateful to the beekeepers who we visited for their co-operation. In fact, the large majority of beekeepers seemed very glad to receive a visit, especially during lockdown, as it was someone else to talk to, even if from a distance!

One of the big casualties of the year was our beekeeper education programme – all our Healthy Bee Day Events, Safaris and apiary meetings had to be cancelled, along with our presence at the BBKA Spring Convention.

It has been odd, not meeting our team members face to face as a unit, but we have adapted to phone and video meetings and occasional joint working at large operations where there have been many hives to inspect.

Of course, the bees don't suffer from Covid (they have problems of their own), for them, the season was like that curate's egg, good in parts. Generally speaking, spring was better than usual for the bees, sustained good foraging weather, leading to an excellent spring surplus. Summer was indifferent, not brilliant but OK in most of the areas we cover.

Mostly, the bees fared well, but our inspectors quite often reported seeing the effects of Chronic Bee Paralysis Virus (CBPV) and it was nationally a bad year for European Foul Brood, including in our area. Mostly restricted to 'hot spot' areas – more of that later.



*CBPV was about, with varying regional incidence – main signs - dead bees in and outside the hive.*

*Photos Liz Gardner, left; Colleen Reichling, right*

## **The NBU and the team in Western Region**

Our extensive Region covers from Staffordshire and Shropshire in the North, down through the West Midlands, Warwickshire, Worcestershire, Herefordshire, Gloucestershire and now ending with Avon and some of N Somerset in the South.

The addition of Bristol, Bath and a portion of North Somerset, fortunately came with its own inspector, SBI Megan Seymour. Meg is a well-known and very experienced inspector and she will be known to some in other parts of our Region as she was part of Western Region around 8 years ago. After just one season, it already feels like Meg has been with us forever!

We lost our West Midlands inspector, Noel Parker, to retirement in 2019 and so far, have not been able to replace him (internal reasons). We have, however, managed to take the strain through cover from other inspectors; in particular, Ben Bowen, Colleen Reichling and Gordon Bull, who all now cover a bit more ground.

Covid and staff development has impacted our office support function at York. As people are no longer working from offices, we've had to adopt alternative arrangements for supplying equipment and consumables to our field team. Kate Wilson, who managed our office and had some beekeeper contact has temporarily moved to a new role and Adam Parker, an Inspector on the Wales team is temporarily covering her role.

In November 2020 the Healthy Bees Plan Review and the Healthy Bees Plan 2030 was published, see <http://www.nationalbeeunit.com/public/News/news.cfm#262>. Defra, Welsh Government and the National Bee Unit have worked with stakeholders to produce a review of progress made under the original Healthy Bees Plan, a ten-year blueprint introduced in 2009 to improve honeybee health across England and Wales. The Healthy Bees Plan 2030 is a 'broad principles' document with future strategies to protect and advance the wellbeing of our honeybees. It will be followed by an implementation plan which should cover the detail of what actions will be taken. benefitting from the findings in the review and the work of the original Healthy Bees Plan in the first 10 years.

Regarding contacting our team, from April 1<sup>st</sup> next year, you can use the post code search on the contacts page of BeeBase to check for your local SBI, who can be contacted on the numbers below from the beginning of April until the end of September. During the winter period of October to March please direct all enquiries to me, details below.

<b>Regional Bee Inspector</b>	<b>Area</b>	<b>Contact</b>
Colin Pavey	Located between Ross on Wye and Hereford – covers whole region	07775 119471
<b>Seasonal Bee Inspectors</b>	<b>Broad Area</b>	<b>Contact No.</b>
Benjamin Bowen	North & Central Shropshire, Staffordshire	07557 178512
Colleen Reichling	Warwickshire, East Staffordshire, West Midlands,	07990 138898
Gordon Bull	Worcestershire and Herefordshire west of the Malverns	07867 351626
Elizabeth Gardner	Gloucestershire (exclu. F of Dean)	07867 351610
Jonathan Axe	Herefordshire and Forest of Dean	07867 151641
Megan Seymour	North Somerset and Avon	07775 119475

**During the winter period - October to March - please direct all bee related enquiries to Colin Pavey.**

## **Beekeeper and hive numbers**

There are currently 4478 beekeepers in Western Region registered on the NBU's online data system, BeeBase. Between them they have 22371 colonies in 5,517 apiaries – an average of 5 colonies per beekeeper and 4 colonies per apiary. These figures are relatively static compared with last year, once the increase in the region from Avon is taken out.

The 2020 Hive Count – in which you are asked to update your BeeBase records with the total number of overwintering hives - has been underway for the last month and so far we have had an excellent response.

Over the past 5 years, the number of new beekeepers registering on BeeBase in Western has fluctuated; 359 in 2019 and 257 in 2020.

## **BeeBase Registration**

We desperately need to have as many beekeepers and apiaries registered on Beebase as possible, if we are to keep on top of Foul Brood outbreaks. Many beekeepers think that joining the BBKA results in automatic registration on BeeBase – this is not the case. Each beekeeper has to register themselves. The only exception is registration by our inspectors after an apiary visit.

All your details are kept confidential within the NBU – as you'd expect, a huge effort goes into making sure our processes and staff are GDPR compliant.

As a beekeeper, with apiaries and your e-mail address registered on Beebase, you get email alerts when foulbrood or exotic pests (including Asian Hornet) are found in the area of your apiaries. The benefit to the wider beekeeping community is that inspectors know where to look for disease or pests so that outbreaks can be quickly brought under control. If you are registered then thank you, but please do keep your apiary locations updated. If you have lost your BeeBase password then contact the NBU office for a reset. You can register online ([www.nationalbeeunit.com](http://www.nationalbeeunit.com)) through your Regional Bee Inspector.

The graphs and figures in this report are available on the public pages of BeeBase (the NBU website), in 'Bee Pests, Diseases and Maps'. The site also offers multiple pages of tips, advice and downloadable leaflets on disease control and bee husbandry.

## **Inspections 2020**

Nationally, NBU staff inspected just under 30,000 colonies - quite an achievement given the pandemic with some regions having staff shielding or otherwise unavailable for parts of the season.

In Western Region our Inspectors visited a total of 306 beekeepers in 630 apiaries and inspected 3331 colonies. These figures (excluding Avon/N Somerset for purposes of comparison) representing a slight decrease on 2019.

Our inspectors work from a risk-based list, taking account of disease history, however, should you see anything suspicious take a photograph and email to your SBI or RBI, or you can contact us by phone to describe the problem. If we can't rule out it being a

statutory disease or pest, we will arrange to visit (no cost to you). Please note that it's a **legal requirement** to inform the NBU if you know or suspect a statutory, notifiable disease or pest is present.

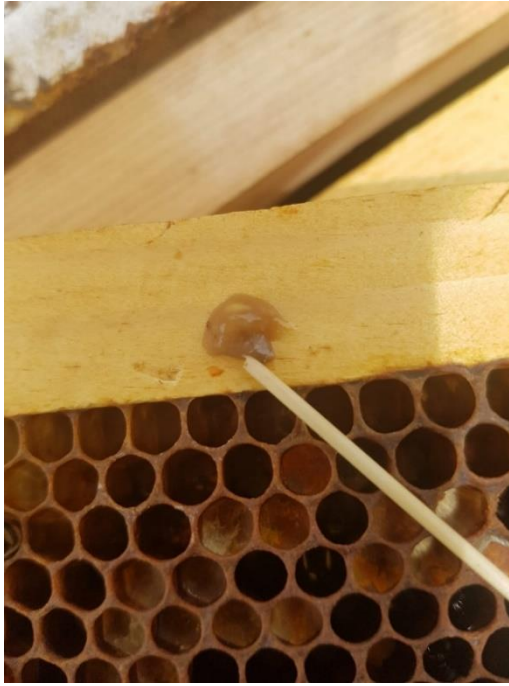
## **Disease and Pests**

### **Notifiable diseases: European Foulbrood (EFB) and American Foulbrood (AFB)**

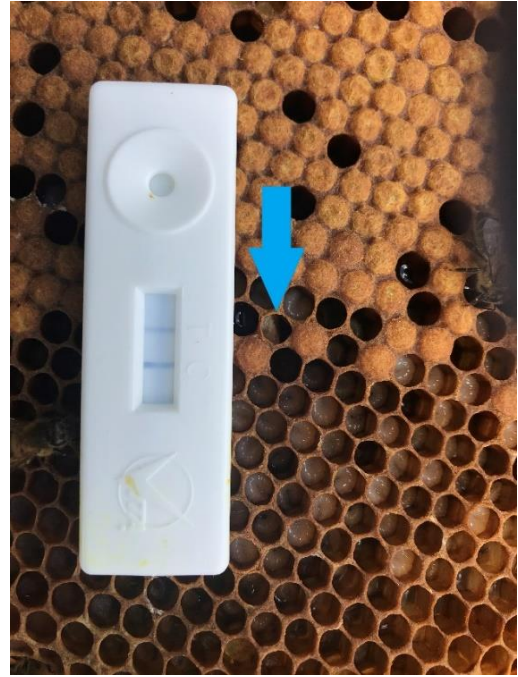


*If the brood pattern is very spotty, check very carefully – it maybe foulbrood. photo Ben Bowen*

In our Region, foulbrood was diagnosed in 49 apiaries, affecting 76 colonies (excluding Avon/N Somerset for purposes of comparison - these figures will be included next year). This represents a significant increase over last year and to some extent reflects the National situation, an increase in EFB over 2019, the environmental/colony conditions which cause the disease to break out were clearly prevalent. We had a couple of localised outbreaks where there were cases with several beekeepers in an area. In these cases, it was helpful that individual beekeepers put the word out that there was disease around and this led to 'open doors' to our inspectors and further disease finds.



*Decomposing EFB affected larva – you may just be able to make out the creamy white bacteria-filled gut photo Megan Seymour*

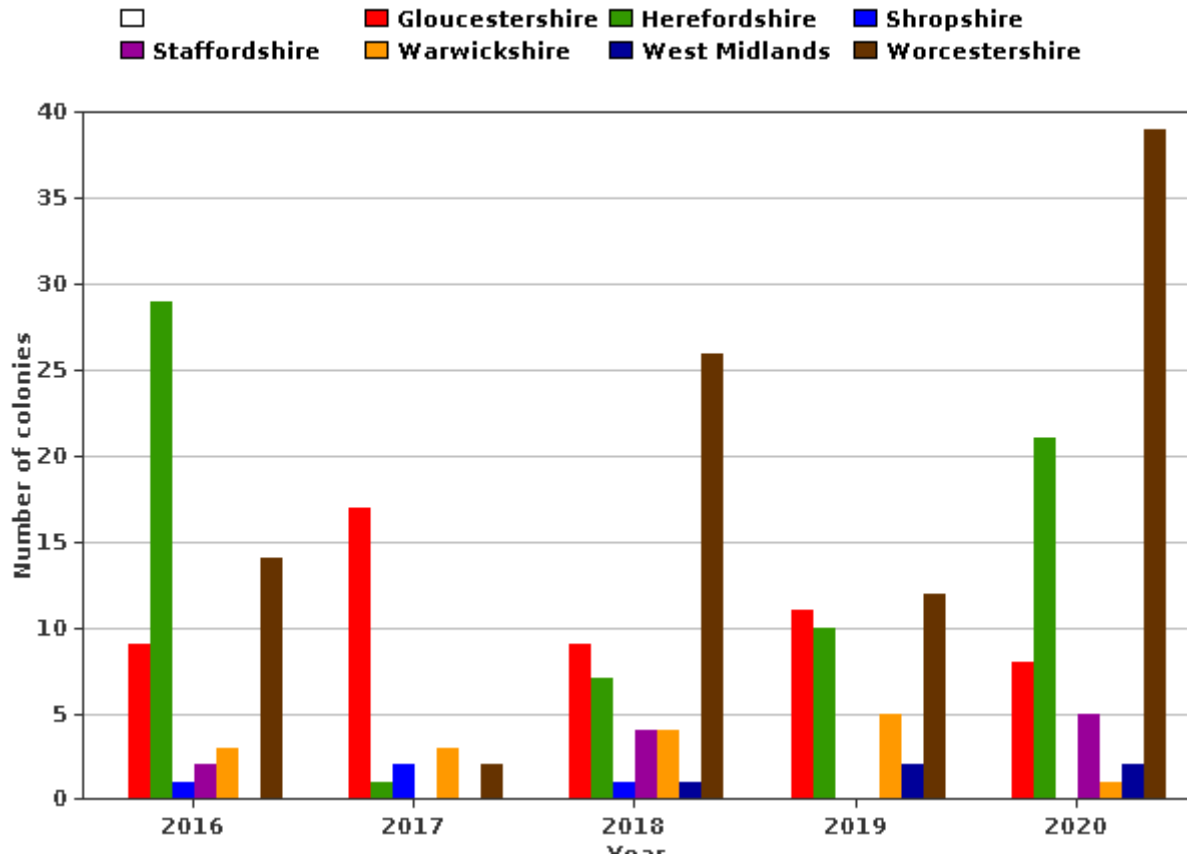


*Lateral Flow Device showing positive for EFB and symptomatic larvae photo Jonathan Axe*

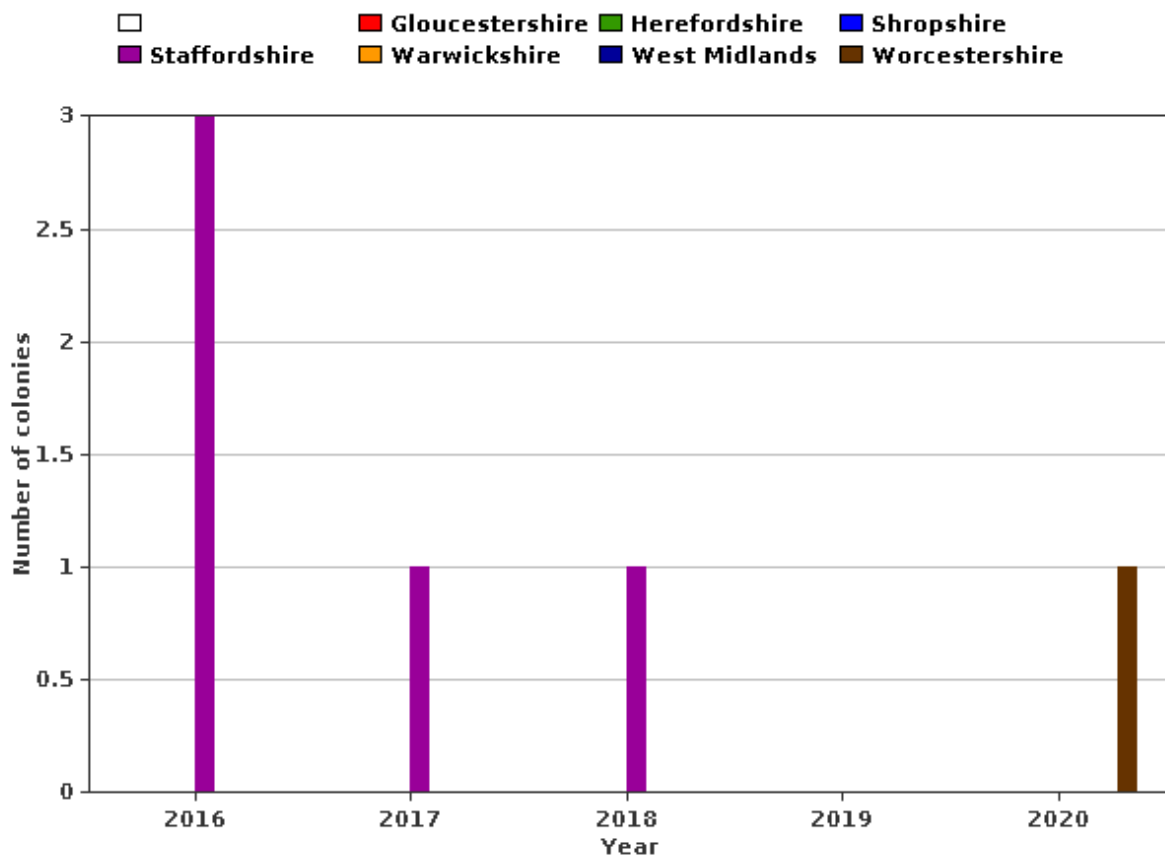
We had 1 case of AFB, included in the figures above, which we believe is isolated. It is unusual for AFB to reoccur, infected colonies show disease quite quickly and once destroyed, that's usually the end of it. EFB is quite different, it can remain, unseen in the apiary after the symptomatic (disease clearly showing) colonies are treated, then be ready to erupt again at some time in the future.

Regarding Avon/N Somerset, there were hot spots for EFB in that area too - and with a significant increase over previous years. There were a couple of isolated cases of AFB in that area as well.

Regional trends for EFB in Western – by County (Exclu Avon/N Somerset).



Regional trends for AFB in Western – by County (Exclu Avon/N Somerset).



Further details with grid squares can be found on the disease incidence pages of BeeBase. The live disease incident reports are there – have your Ordinance Survey apiary grid ref. handy so you can check if there is disease history in your area.

<http://www.nationalbeeunit.com/public/BeeDiseases/diseaseIncidenceMaps.cfm>



*Classic AFB ropiness test.*  
*Photo Frank Gellatly*



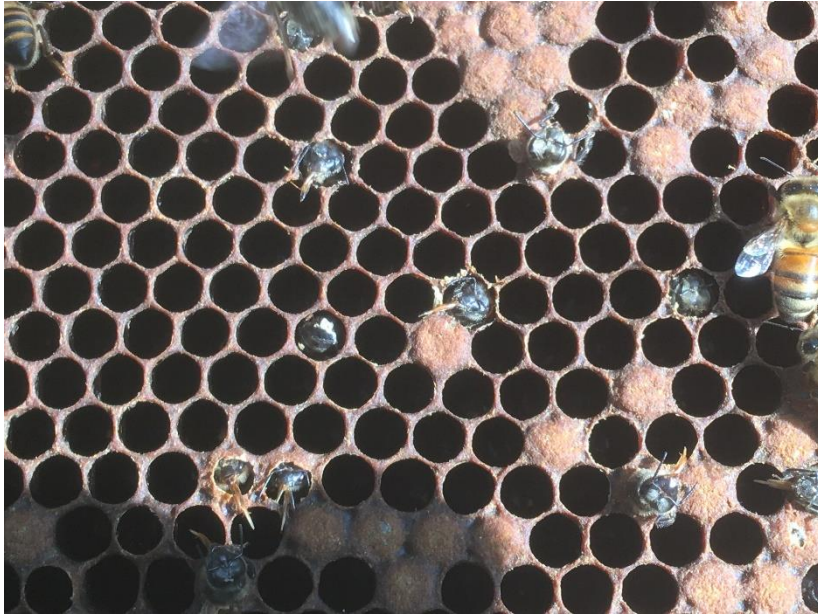
*Contorted larvae with EFB*  
*Photo Ben Bowen*

## **Varroa**

Over the season we have come across people who have mentioned that they are taking a light touch with regard to treatment of varroa; this may be fine, until the varroa population takes off, some virus or other comes along and the colony fails. No one wants to unnecessarily introduce treatments into their colonies; the answer is to regularly monitor varroa levels and being prepared with a treatment for those colonies which need it. We know our dogs and cats get worms, ticks and fleas and we treat them with an approved Vet Meds preparation. You could argue, bees are not much different.

Despite the awareness of potential varroa problems and the ready availability of safe, approved varroa treatments, we still see colonies suffering severely and in dire need of help.





*Collapsed colony - typical signs of late stage*

*Parasitic Mite Syndrome (Varroosis)*

*Photo Megan Seymour*

Control can be achieved by using biotechnical methods and/or authorised products as directed. Varroa treatments should be targeted before colonies start to produce their 'winter' bees; monitoring of varroa levels throughout the season will help determine whether an earlier treatment is required.

Many experienced beekeepers will do two treatments at specific times in the year, the most popular being a thymol-based treatment starting in August, after taking the honey off and checking for stores, and a winter treatment with an oxalic acid-based product in late December, early January. Both these have active ingredients that are not thought to risk promoting resistance in mites through regular use.

Varroa acts as a vector for viruses which will reduce the longevity of the bees and so impact on the foraging capability of colonies during the summer. Hives treated too late in the season may result in winter bees being affected by viruses or they may be weakened by the varroa mites feeding on them. This could lead to colony mortality in the winter or early spring.

This year the list of approved veterinary medicines remains unchanged. The list of those registered for use by the Veterinary Medicines Directorate (VMD) is available on their website, <https://www.vmd.defra.gov.uk/ProductInformationDatabase/Default.aspx> the 'Summary of Product Characteristics' giving full details of use. For the full list, select 'Bees' from the drop-down list of species in the product search link.

There's a legal requirement that the use of any treatments is recorded, and these records must be kept for a minimum of 5 years. Full details can be found on Beebase along with numerous free fact sheets including the 'Managing Varroa' booklet.

## **Exotic Pest Surveillance**

As well as NBU inspectors carrying out specific exotic pest surveillance inspections (for Small Hive Beetle and Tropilaelaps mites), we also have a group of volunteer beekeepers who have apiaries near risk points and who specifically monitor their honeybee colonies for these exotic pest species on behalf of the NBU. These 'Voluntary Sentinel Apiary' (VSA) holders represent a valuable front-line defence against exotic pest incursion. There are about fifteen VSAs in each of the eight beekeeping regions (i.e. 120 VSAs in total across England and Wales).

Risk points include freight ports, plant importers, airports, crude hive product importers, honey and queen importers. The distribution of VSAs both near risk points and at random sites maximises the likelihood of early pest detection. VSA holders are provided with a monitoring and sampling kit and regularly examine their colonies according to standard protocols. Samples of hive debris are tested twice in each season for the presence of Small Hive Beetle (SHB) and Tropilaelaps mites.

We are always looking for new recruits and would be happy to hear from any beekeepers who would like to join the scheme.

### **Yellow-legged Asian Hornet**

This year has seen a reduction in confirmed Asian Hornet sightings in the UK with just one Asian Hornet nest found and destroyed by NBU inspectors in an apple tree in Gosport, Hampshire on Friday 11th September. This followed reports from two householders in the area, one of which was a beekeeper who had identified Asian Hornets feeding on his grapes. The nest was small, approximately 20cm in diameter, local beekeepers were made aware through the Asian Hornet Teams (AHTs) and monitoring has continued in the area.



*Asian Hornet feeding on grapes*  
*Photo Gordon Brooks*



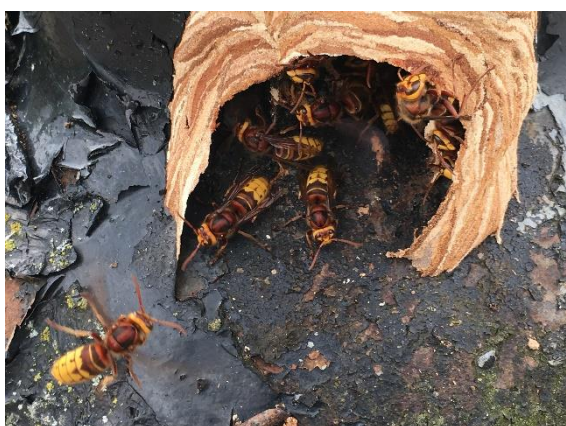
*Gosport nest in apple tree*  
*Photo Peter Davies*

The NBU has close ties with the Jersey Government's Asian Hornet Co-ordinator and team of volunteers, given their location between us and France. NBU inspectors have had field visits there in previous years so that we could learn from their experience. There haven't been as many Asian Hornet nests reported on Jersey this year either, with the tally of those destroyed on the island being 38 by October 15th, which contrasts with 83 found by the end of 2019. The reduction will be partly due to the ongoing eradication of nests and founding queens in previous years. The other most likely reasons given are the damp and variable temperatures between January and March this year making the over wintering queens more susceptible to fungal attack, and the reduction in traffic from

France, due to Coronavirus restrictions, reducing the number of founding queens hitching a ride over from the French mainland in the spring.

I would encourage all BKAs to keep the BBKA website up to date with details of their Hornet Action Team details and ask that individual beekeepers;

- download the free Asian Hornet Watch iPhone or Android app
- familiarise yourself with what the hornets and similar insects look like
- keep a look out on late summer flowering plants such as ivy where the hornets (and other insects) forage on the flowers.
- report suspect sightings using the 'Asian Hornet Watch' app, or by filling out an online report form, or by emailing [alertnonnative@ceh.ac.uk](mailto:alertnonnative@ceh.ac.uk) .



*You don't need to report this species!*

*Vespa Crabro, European Hornet*

*Photo Colin Pavey*

### **Surveillance of Small Hive Beetle (SHB) in Italy in 2020**

The threat of SHB incursion from Italy remains. Information from the National Reference Laboratory for Apiculture in Italy, updated in October 2020, shows extensive surveillance for Small Hive Beetle in Sicily with no positives found. Meanwhile in the Calabria region

on the mainland one positive apiary and eight positive sentinel Nuclei have been found containing both larvae and adult beetles.



### Imports and exports

2020 saw 21405 queens, 1882 packages (bees without comb) and 573 nucs/colonies imported into the UK. In our region, we carried out 53 import inspections – primarily to ensure the bees came from AFB-free areas and to confirm that there were no unwanted pests with them.

### Importing or Exporting Honey Bees after 31<sup>st</sup> December 2020 The UK has left the EU, new rules apply from January 2021

The transition period comes to an end this year on 31<sup>st</sup> December 2020. To find out how this affects Imports and Exports of honey bees as of the 1<sup>st</sup> January and what you can do to prepare please refer to guidance on [Gov.uk](https://www.gov.uk) and the [Border Operating Model](#), which provide information on the new processes.

For movements both ways between Northern Ireland and GB guidance may be found in the [Northern Ireland Protocol](#).

If you are planning to import or export bees it is your responsibility to follow these new rules and protect GB biosecurity.

Guidance on changes for businesses and citizens may be found at <https://www.gov.uk/transition> where you may use the Brexit checker to obtain a personalised list of actions.

### **If you import Bees:**

- [\*\*Check what you need to do to import from the EU from 1 January 2021\*\*](#)

You risk not being able to bring or receive goods from EU countries from 1 January 2021 if you are not prepared for the end of Transition

- [\*\*Check what you need to do to import animals, animal products, high risk food and feed into Great Britain from 1 January 2021\*\*](#)

There will be new processes that importers must follow. These processes to import from an EU country will be introduced in 3 stages:

- [1 January 2021](#)
  - [1 April 2021 \(included for completeness but only relevant to animal products and high-risk food and feed\)](#)
  - [1 July 2021](#)
- **You will need to register for the UK's new Import of Products, Animals, Food and Feed System (IPAFFS)**

You will no longer be able to import using the TRACES system from 1 January 2021.

More information:

[Importing animals, animal products and high-risk food and feed not of animal origin from 1 January 2021](#)

EU law prohibits or restricts the import of specific goods from third countries that are deemed to present an unacceptable level of animal, plant or public health risk. These prohibitions and restrictions will be transposed into UK law at the end of the Transition Period.

As GB and the EU are expected to be treating each other as third countries from a bee health point of view, these restrictions and prohibitions will currently prevent or restrict mutual trade in bees.

As a result, importers will only be able to import queens from the EU. Any associated packaging (including queen cages and attendant workers) will have to be sent to a designated laboratory for examination and for honey bees this is Fera Science. Importing packages or colonies will no longer be possible after the 31<sup>st</sup> December 2020. From 1<sup>st</sup> July 2021 imported queens will have to pass through a Border Control Point (BCP). Currently, only BCPs at Heathrow and Manchester airports will accept imports of invertebrates, which includes bees. The National Bee Unit will continue to carry out physical checks on consignments of queens according to risk.

## **If you export Bees:**

- [Check what you need to do to export to the EU from 1 January 2021](#)

You risk not being able to send or take goods to EU countries from 1 January 2021 if you are not prepared for the end of Transition.

The position regarding exports is similar to imports. The EU would also consider the UK to be a Third Country. This will mean that the EU would only accept exports of queens from the UK – providing we are listed as a third country approved to export to the EU. The export of packages and colonies will no longer be possible.

### **Further Advice:**

Please review the Gov.uk pages linked above for more detailed and the most up to date guidance. [BeeBase pages](#) containing Import and Export guidance will be updated on a regular basis for easy reference.

## **Beekeeper training**

All events since March, gatherings for business and pleasure, for education and training have been struck from our calendars, but we hope it will be a different story next year – we are already making plans for some video events. It is perhaps small compensation, but part of our inspection programme has included visiting many new beekeepers where we offer 1:1 education, socially distanced, at the hive side.

Zoom video conferencing software has facilitated beekeeper meetings and talks and we have supported a couple of such events across the region.



*To minimise risk of EFB spread, hive swarms on foundation and isolate Photo Colin Pavey*



*Not varroa but Braula – not often seen these days photo – Colleen Reichling*

## **Finally**

Beekeepers, like gardeners, are ever optimistic for a better year to come and there is never a more fitting time to hope for that than now. No one started the year expecting a pandemic and lock-down, but we can count ourselves fortunate that we haven't been deprived of the joy in managing our bees as well.

Many thanks to you for having us to inspect your bees and to the team of SBIs for getting out there in difficult times, and I look forward to seeing you next year.

## **Colin Pavey**

Regional Bee Inspector, Western England

*(covering Gloucestershire, Herefordshire, Shropshire, Staffordshire, Warwickshire, West Midlands, Worcestershire, Avon and N Somerset)*

National Bee Unit

**Animal and Plant Health Agency (APHA)**

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