



National Bee Unit

Wales Annual Review 2021

The 2021 Season

We welcomed another good number of new beekeepers this year, showing that interest in beekeeping in Wales remains high, this runs alongside a continued increase in awareness of the importance of pollinators in general and the need for improvement in their habitat and our environment. This ongoing task is being addressed by our overseers in the Nature Policy and Land Use Branch of Welsh Government, as set out in the Action Plan for Pollinators, which NBU Wales is proud to be a part of ([Wales Biodiversity Partnership - Wales Action Plan for Pollinators \(biodiversitywales.org.uk\)](https://www.biodiversitywales.org.uk)).

Despite the ongoing Corona virus pandemic, we were able to get out in the field and continue our inspection programme in a more regular fashion this year. We found that beekeepers, particularly our beginners, were keen to be inspected and receive advice, no doubt a reflection of the lack of contact they have experienced over the previous year due to Beekeeping Associations having limited face to face meetings.

After a relatively mild winter and early spring, April was bright but fairly cool and most of May was wet which held colonies back and meant some spring forage was later than normal. In much of Wales there is only ever a very limited spring harvest and this year the bees had nothing to spare for the beekeeper, some even required supplementary feeding. Late May and June were generally good weather, so the colonies were able to build up strength which inevitably brought on the urge to swarm.

Then came a very hot spell of nearly three weeks in July which coincided perfectly with our normal strongest nectar flow from bramble, clover and other wildflowers which had been held back by the late spring. It meant those colonies in the right state to take advantage were able to accumulate spectacular surpluses of honey very quickly if they were given the space to do so. It's been a while since we've had such an extraordinary honey flow, unfortunately many beekeepers were a week or two behind the curve and our routine inspections revealed colonies crammed with stores with no space to accumulate more.

August continued warm and fairly dry, but the main nectar flow was over despite a strong showing from knapweed and willowherb. September and October were benign and colony activity continued throughout the month making use of balsam and other late flowers, notably ivy. If not filling supers at least many beekeepers didn't need to feed because the brood nest was full of nectar. So overall it has been a good honey harvest for some, with a marked variation in colony productivity. This was due to whether or not they were in the right state to take advantage of the brief bonanza.



Spring pollen



Green eyed drone

Honey yield: *The average honey crop per hive in 2021, as recorded by the Welsh Seasonal Bee Inspectors for their own areas, is 42 lb. That's a big increase on last year's figure of 19lb but it was not achieved in all areas, including England!*

The NBU, BeeBase and the team in Wales

We were sorry to lose Tony Davis in September, he retired after 5 years with us and I wish him a long and happy retirement. Near the end of the season, we gained an old friend when Edmund Thomas joined the team to resume looking after his previous area of Cardiff, Vale of Glamorgan and Bridgend.

From 1st April 2022, 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 the RBI ([Beebase - Beekeeping information resource for Beekeepers \(nationalbeeunit.com\)](https://www.beebase.org.uk/)).

Regional Bee Inspector	Area	Contact
Frank Gellatly	Mid Carmarthenshire 01267 202732	07775 119480
Seasonal Bee Inspectors	Area	Contact
Jonathan Garratt	Anglesey, N Gwynedd & Conwy	07775 119479
Vacant	Flintshire, Denbighshire, Wrexham	
Paul Aslin	South Gwynedd, North Powys,	07867 351605
Karen Smith	Ceredigion	07979 119374
Shane Jones	Powys	07827 552312
Chris Welton	N Pembrokeshire, SW Ceredigion	07900 166143
Maggie Gill	S Pembrokeshire, S Carmarthenshire	07979 119373
Paul Davies	Swansea, Neath Port Talbot, Rhondda Cynon Taf, Merthyr Tydfil	07557 566228
Edmund Thomas	Cardiff, Vale of Glamorgan, Bridgend	07385 930914
Daniel Baxter	Monmouthshire, Newport, Torfaen, Blaenau Gwent	07771 038646

Beekeeper and hive numbers

There are currently 3,713 beekeepers in Wales registered on the NBU's online database BeeBase. Between them they have 22,780 colonies in 5,264 apiaries, an average of 6 colonies per beekeeper and 4.3 colonies per apiary. These figures are a slight rise on last year.

Over the past 5 years, the number of new beekeepers registering on BeeBase in Wales has fluctuated - there were 205 new beekeeper registrations in 2017, 216 in 2018, rising to 317 in 2019 and back to 253 in 2020 and 272 in 2021.

We have continued updating BeeBase over the season, checking those beekeepers who haven't been visited for a long time and removing those who are not keeping bees anymore. Please take part in the 2021 National Hive Count launched on 2nd November, where you can update your BeeBase records with the total number of overwintering hives and you will help us maintain an accurate database.

BeeBase Registration and Association Membership Lists

I would like to remind everyone how essential it is that all apiaries are registered on BeeBase so that we can identify any at risk of notifiable disease or an incursion of an exotic pest into the UK and target control measures effectively. Self-registration is free via

the link at [Beebase - Beekeeping information resource for Beekeepers \(nationalbeeunit.com\)](https://nationalbeeunit.com) or you can register by contacting the NBU office on 0300 303 0094 or your RBI. All beekeepers registered on BeeBase with a current email address will receive an automatic email alert if disease is found within 3km of the registered apiary. If you are self-registered, please ensure that you keep your apiary records up to date or contact one of us if you are unsure. Self-registration is recommended as it also gives beekeepers secure password protected access to personal details and inspection records.

Your association can send us their list of members if they wish but can only do this if they satisfy the requirements of the General Data Protection Regulation (the Information Commissioner's Office (ICO) website provides guidance on best practice). These lists are very useful to us as they allow us to identify new beekeepers and to update contact details for existing beekeepers. We use our database every day to prioritise our notifiable disease inspections. An up to date list is something that will be hugely important if we are unfortunate enough to find Small Hive Beetle (SHB) in Wales.

Inspections

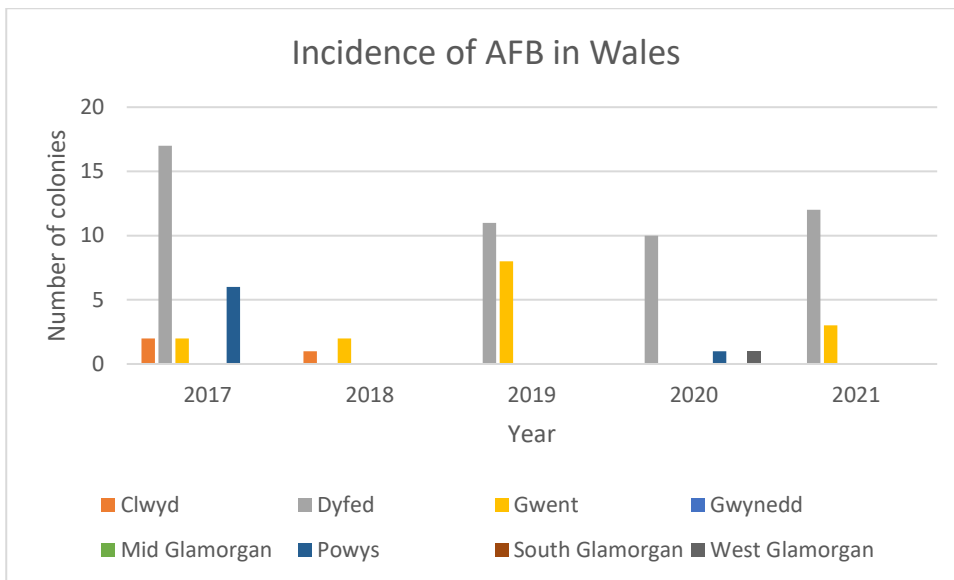
This year Seasonal Bee Inspectors visited a total of 663 beekeepers in 933 apiaries and inspected 5241 colonies in Wales. This represents a very slight drop in the numbers compared with 2020, we were one inspector down for a large part of the season until Edmund Thomas joined us in September.

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 in your apiary. Beekeepers can contact their RBI all year round, or their SBI in the summer, if they have concerns about bee disease or pests. You can take a photograph if you see anything suspicious in the brood, and in relation to insects, try to take a sample. The photograph can be sent by email or text to your SBI or RBI, or you can contact us by phone to describe the problem. If we can't rule out there being a statutory disease or pest, we will arrange to visit free of charge.

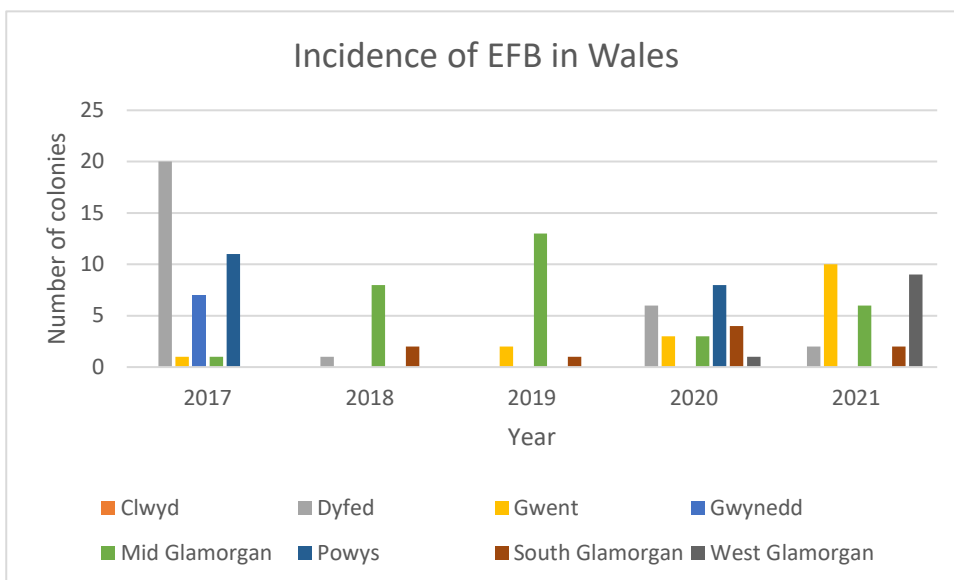
Disease and Pests

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

Details of disease found this year is on the disease incidence pages of BeeBase at [Beebase - Beekeeping information resource for Beekeepers \(nationalbeeunit.com\)](https://nationalbeeunit.com) together with the relevant grid squares, they are summarised in the graphs below. This season, foulbrood was diagnosed in 27 apiaries, affecting 44 colonies, which represents an increase on last year's figures.



Incidence of AFB in Wales 2017 – 2021 (per preserved county)



Incidence of EFB in Wales 2017 – 2021 (per preserved county)

South West Wales experienced higher levels than usual of AFB, with reoccurrences in Dyfed, notably Pembrokeshire, the Llanelli area, new cases near Kidwelly and a small amount in Gwent. Positive finds of EFB were largely in South Wales, in Swansea, Gower, Bridgend and Gwent. The latter have been linked to sales of nucleus colonies so I would urge anyone buying bees to seek advice about their source from their local BKA or inspector. We are always keen to inspect bees brought into the area.

On Gower a beekeeper kindly allowed the new Bee Disease Insurance whole apiary shook swarm treatment of his colonies to be filmed by Gwenyn Gruffydd for his YouTube channel. This is to educate other beekeepers about EFB and the treatment process ([European Foulbrood Diagnosis & Treatment In Honey Bees With The Bee Inspectors - YouTube](#)). Earlier in the year we filmed some fresh AFB combs with Gwenyn Gruffydd ([Identifying American Foulbrood In Honey Bees With The Bee Inspectors. AFB In Bees. -](#)

[YouTube](#)) and the inspection process out in the field with Lawrence Edwards of Black Mountain Honey [Bee Inspector - National Bee Unit - Visit From The Bee Inspectors - YouTube](#) again for their You Tube channels.

Amongst common brood disorders, chalkbrood remains a minor problem for most beekeepers. Sacbrood is the second most common disease, it has increased over the last 5 years and isolated cases of Chronic Bee Paralysis Virus still occur.

Varroa

Varroa continues to be a challenge, it's responsible for many colony losses each year, however its incidence varies across the country and depends very much on its management. Out in the field inspectors have found that the general level of knowledge amongst beginners about how to manage varroa was poor, probably not helped by the lack of BKA training due to the pandemic. We felt that many knew of treatments, but not much detail about them, which is something we hope to cover in our bee health events next year. It is strongly advised that beekeepers regularly monitor mite levels as part of the management of their colonies and take action if they reach damaging levels. Control can be achieved by using biotechnical methods and/or authorised products as directed by the manufacturer.

The manufacturers of the authorised treatments spend a great deal of time formulating how they should be used to ensure the maximum efficacy. Please ensure that when using treatments that the manufacturer's instructions are strictly adhered to in order to achieve the greatest benefit from the product. It is also worth noting that some treatments, such as those that are thymol or formic acid based are affected by temperature. Strips such as those containing Amitraz need to be placed correctly in the brood chamber in line with instructions, for maximum effect. There is a new authorised varroa product - Formicpro 68.2g Beehive Strips for Honeybees which is listed on the Veterinary Medicines Directorate website [Product Information Database - Currently authorised products \(defra.gov.uk\)](#)

Most beekeepers will complete two treatments at specific times in the year. The first after taking the honey off and checking for stores, often a thymol based treatment starting in August, which promotes healthy winter bees. Secondly a winter treatment with an oxalic acid based product in December, when there is little or no brood, keeping mite numbers low as new brood is reared in the spring. Both of these active ingredients don't induce resistance in mites through regular use, unlike some harder chemicals.

The rule of thumb is to have colonies going into winter with low mite numbers and likewise going into the spring. Treatments performed too late in the season, eg late September, will often be less effective, resulting in winter bees being weakened by the varroa mites feeding on them. As inspectors we often see colony mortality in the winter or early spring as a result of poor varroa management.

There's a legal requirement that the use of any medicines is recorded and these records must be kept for a minimum of 5 years. Full details can be found on Beebase along with

free fact sheets including the 'Managing Varroa' booklet. [Beebase - Beekeeping information resource for Beekeepers \(nationalbeeunit.com\)](http://Beebase - Beekeeping information resource for Beekeepers (nationalbeeunit.com))

Exotic Pest Surveillance

We carried out 88 inspections specific to exotic pests this year, targeting a combination of identified risk points and random sites. EPS inspections check for Small Hive Beetle (SHB), Tropilaelaps mites and Asian Hornets (AH) as well as being a normal brood inspection looking for foulbrood. The identified risk points are ports, airports, crude hive product importers, fruit and vegetable wholesale markets, larger queen importers and landfill sites associated with imported products. Given the continued presence of Small Hive Beetle in Italy this year and the continued spread of Asian Hornet in France and surrounding countries the importance of exotic pest surveillance work cannot be overstated. We in Wales are currently at the northern edge of the Asian hornet's European range and by working together hope to keep this invasive species at bay and protect our nation's important pollinators.

We have 15 Sentinel Apiaries in Wales in order to improve our capacity to combat the arrival of pests from abroad. Sentinel apiaries are set up in areas considered 'at risk' where a volunteer beekeeper agrees to monitor their colonies specifically for exotic pests. As well as visual inspection, floor debris from the designated hives is sampled twice a year and tested for Small Hive Beetle and Tropilaelaps. All equipment and paperwork is supplied to the beekeeper who collects samples as directed and sends them to the NBU laboratory for screening. SHB and AH traps are provided and checked at normal colony inspections by the beekeeper and noted on a log sheet. Thank you to those beekeepers who currently carry out this work and please do get in touch if you would like to be involved in the future.

In addition, by agreement with the beekeeper, NBU inspectors monitor a selected apiary 3 times each season near each of the 4 main freight ports in Wales due to the higher risk at these places. These are Milford Haven, Port Talbot, Holyhead and Newport in order of tonnage handled.



European hornet at Botanic Gardens



Asian hornet on Jersey

Surveillance of Small Hive Beetle (SHB) in Italy in 2021

Information from the National Reference Laboratory for Apiculture in Italy below, updated in September 2021, shows surveillance for Small Hive Beetle in Sicily with no positives found again this year. Meanwhile in the Calabria region on the mainland, two positive apiaries and five positive sentinel nuclei have been found, their website documents a total of 37 adult beetles found this year.



Yellow-legged Asian Hornet (*Vespa velutina nigrithorax*)

This season we held two exercises at the National Botanic Gardens of Wales where we were fortunate to find European hornets to practice the track and trace technique developed by the NBU, and to test our new Asian hornet mapping app on our ipads for finding Asian hornet nests.

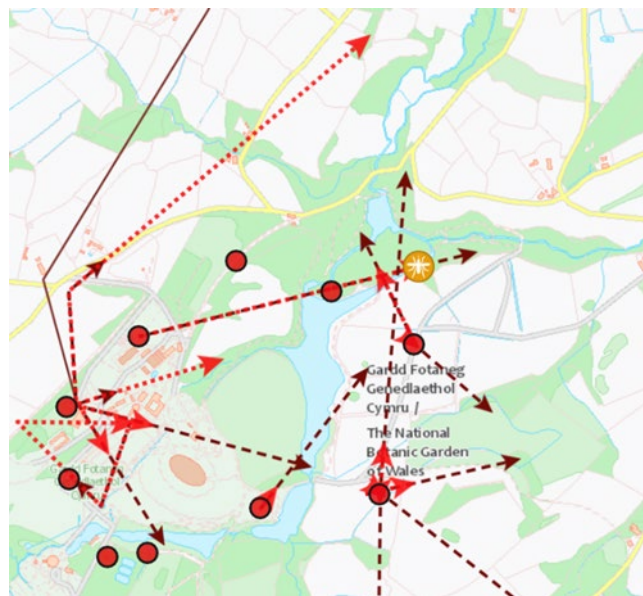
Late in the season in England a beekeeper in the Ascot area of Berkshire filmed live insects near a hive on Wednesday 6th October. He also photographed a dead *Vespa velutina* and reported the sighting using the free 'Asian Hornet Watch' app. They were confirmed as Asian hornet and after mounting a track and trace operation in the area, a nest was found in a poplar tree and killed on Monday 11th October. It measured approximately 35cm in diameter, the largest nest found to date in England. Monitoring continued in the area supported by local Asian Hornet Teams (AHTs). This involved residual trapping and surveillance and was carried out daily for 3 weeks following the

destruction of the nest. When nothing was seen or caught for 7 days all the traps were removed and the local AHTs and beekeepers were asked to remain vigilant.

This success was followed 3 weeks later by another report of Asian Hornets feeding on nectar on garden plants in the Buckland area of Portsmouth. The report via the Asian Hornet Watch App on the morning of Friday 29th October, was accompanied by clear photographs. National Bee Unit inspectors followed up the sighting quickly and were on site by 2pm that afternoon. An Asian hornet nest was located in a Norway Maple tree on Saturday 30th October shortly after midday and killed early Sunday evening 31st October. I'm very proud of the swift response and positive result achieved by my colleagues in Southern England. The nest was subsequently sent to Fera Science Ltd for analysis and monitoring continued in the area supported by local beekeepers.



Asian hornet nest found



Track and trace mapping app

October 30th in Portsmouth

The WBKA website has a 'Report an Asian Hornet Sighting in Wales' page with an interactive map that gives details of the local associations' Asian Hornet Team Coordinators and AHT verifiers who are trained in identifying Asian hornets. See <http://www.wbka.com/asian-hornet-reporting/>

If you have a smartphone please make sure you download the free Asian Hornet Watch iPhone or Android app and familiarise yourself with what the hornets and similar insects look like. I know it's a bit late now for this season, but 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 or contact the NBU.

Imports and Exports

The UK is now considered a Third Country by the EU and similarly all EU member states are now considered a Third Country by the UK, so Third Country rules apply for both imports and exports.

IMPORT of Honey Bees

Honey Bees imported from a third country must be accompanied by an appropriate export health certificate (EHC) from the Third country. This must be issued by the Third Country's Competent Authority or their Official Certifier. Currently only the import of Queens (in cages with attendant workers) is permitted under Third Country rules, except from New Zealand where the import of packages of bees is also permitted.

Importers wishing to import bees from a listed third country must comply with the import requirements. Importers must notify all imports in advance via the IPAFFS system (Import of Products, Animals, Food and Feed System). Imports from countries other than EU member states must enter via a Border Control Point (BCP). Until March 2022 imports from EU member states will be checked at destination by a Bee Inspector on a risk basis.

The Northern Ireland Protocol sets the principle of unfettered access for Northern Ireland businesses to Great Britain. NI beekeepers may continue to export packages and colonies to the UK. There will be no border checks on consignments despatched from Northern Ireland.

EXPORT of Honey Bees

Honey Bees exported to a third country must be accompanied by an appropriate health certificate. This is issued by the NBU once the bees to be exported have been inspected and confirmed free from serious notifiable pests and diseases.

Currently only the export of Queens (in cages with attendant workers) is permitted under Third Country rules to EU and Northern Ireland.

As Northern Ireland is treated as though it still resides within the EU, movements of bees to Northern Ireland must now be accompanied by a health certificate and the full Third Country export procedure must be followed. In the same way, only queens may be exported to Northern Ireland. The export of colonies and packages to Northern Ireland are no longer permitted.

To keep up to date with the latest guidance on importing and exporting live honey bees please visit the following link

Beekeeper training

Our primary beekeeper training is in the apiary as we inspect your hives, and we relish the opportunity to provide advice and guidance to those who require it. We hope to be able to continue with our bee health events next year, after a two-year break due to Covid, and will pick up the rolling programme with the participating associations. We are licensed to demonstrate diseased combs and endeavour to keep a well stocked fridge in the summer containing the very best examples of all brood disorders, be they common or notifiable.

WBKA have continued their proactive approach to beekeeper training and we were able to input to the webinar programme in February of this year with a disease recognition presentation. I thank Maggie Gill and Paul Aslin for their contributions to this.

Finally

It's been a more straightforward season this year in respect of us all knowing the ground rules for dealing with the Covid pandemic. Once again I offer many thanks to the SBIs for their valiant efforts in the field and to you for having us inspect your bees. As you know our inspections are targeted and we work hard to maintain a level playing field where everyone in a high priority area is inspected. It makes our work schedules much easier when you help us achieve this. We continue to keep notifiable disease at a low level and so far haven't had any confirmed sightings of Asian Hornet in Wales.

We strive to maintain an up to date database so have been contacting those beekeepers who we haven't seen for a long time to update their records. It's very helpful if everyone could respond to the annual hive count, which started at the beginning of November, to further maintain good record keeping.

This is my final year as RBI for Wales as I'm retiring in 2022 after 20 years with the NBU. I've very much enjoyed working with an excellent team of inspectors who seem to be getting younger all the time. It's also been a pleasure working with the hierarchy of WBKA in a friendly and constructive way. We are very fortunate to be funded by Welsh Government, who are prepared to put resources into the rural economy to ensure we maintain not only the health of our bees, but are also striving to improve the environment for pollinators in general.

I hand over to an excellent member of the team in Wales, Maggie Gill BSc (Hon) MSc, who was successful in this year's round of RBI recruitment. Maggie has been an SBI in Carmarthenshire and Pembrokeshire for 8 years and I'm sure will bring a fresh approach and vitality to the role.

I will continue with my own beekeeping and look forward to seeing many of you at future events.

With best wishes to you all.

Frank Gellatly

Regional Bee Inspector, Wales | Arolygydd Gwenyn Rhanbarthol, Cymru

National Bee Unit | Uned Gwenyn Cenedlaethol

Animal and Plant Health Agency (APHA) | Asiantaeth Iechyd Anifeiliaid a Phlanhigion

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