National Bee Unit

2019 Southern Region Annual Report

Animal & Plant Health Agency

The 2019 Season

On the whole it's been another good year for beekeeping across the region. After a mild winter, there was a very warm spell at the end of February and although it cooled a bit in March colonies got off to an extremely strong start. Swarming came early, April and May didn't disappoint but there was a noticeable June gap and a wet first half of the month so colonies which had swarmed or been split in May struggled to get their queens back and mated, which resulted in some inevitable drone laying queens. Some who took a spring crop of honey found that feeding was necessary where forage wasn't available.

July was warm and dry, there was even a second wave of swarming, with some early swarms having another go. By the end of the month the honey flow had dropped off, but where both spring and summer flows were strong, so as long as the bees were well managed, large yields were achieved. This was prevalent, but in some places what had started looking like a wonderful season turned out to give only a little above an average harvest. There wasn't much of a Heather harvest although some got enough to make the trip worthwhile.

The ivy flow came late and when it did eventually start it rained nearly every day, making it difficult for the bees to add to their normal weight for winter. So hives which had not been fed and had too much honey removed, were at the point of starvation in September. Wasps were a problem in some places, but it did vary from location to location, and there were fewer European hornets around than in the previous year.

Inspectors noted a high level of *Varroa* in colonies this year. It is important to monitor levels and to be prepared to help colonies with a treatment if necessary; we do still find a lot of colonies failing to thrive and suffering high stress levels due to *Varroa* and deformed wing virus.

Some of my own hives earning a living *photo P Davies*

The NBU Southern Region

Wiltshire, Dorset, Hampshire & Isle of Wight, Berkshire, Oxfordshire, Buckinghamshire & Northamptonshire.

The team. We welcomed 2 new Seasonal Bee Inspectors to the team this year Avril Earl and Mark Lynch following the retirement of Robert Carpenter-Turner (Wiltshire) and Jonathan Palmer (Buckinghamshire).

Both Avril and Mark have settled into the team and following several weeks of training and accompanied working have visited numerous beekeepers and carried out several hundred colony inspections in their respective areas.

Kevin Pope has had a busy season in Dorset, Wiltshire (Training Avril) and towards the end of the season the New Forest area. Kevin had initially reduced his working to 4 days a week this season but from July onwards increased back to 5 due to the increased workload for which I thank him.

Dan Etheridge has been busy covering Hampshire & Isle of Wight and later in the season was a key team member in finding the 3 Asian Hornet nests.

Robin Oliver was covering the New Forest and surrounding area but left the inspectorate at the end of June to concentrate on his own bees and pursue other interests. The team and I wish him well. Kevin and Dan covered Robins patch from July onwards and spent several weeks visiting beekeepers in the area and later in the season on Asian Hornet duties.

Phil Spillane switched from covering the whole of Oxfordshire to covering East Oxfordshire and Buckinghamshire and had a busy season getting to know his new patch, dealing with several foulbrood cases and travelling to the New Forest to help with the Asian Hornet incursion.

Robert Poole covers Northamptonshire and crosses into neighbouring counties as required. Bob made good use of the dry summer in his patch and recorded a high number of inspections for the season attending many beekeeper call outs, carrying out exotic pest and foulbrood inspections and attending sentinel apiaries.

From April 1st 2019 you can use the post code search on the contacts page of BeeBase to check for your local SBI, but over the winter period please direct all enquiries to me. SBIs can be contacted on the numbers below from the beginning of April until the end of September whilst the RBI is contactable year-round.

Regional Bee Inspector	Area	Contact
Peter Davies	Southern Region	07900 292160 Peter.davies@apha.gov.uk
Seasonal Bee Inspectors		
Kevin Pope	Dorset	07775 119466 Kevin.pope@apha.gov.uuk
	New Forest	
Avril Earl	Wiltshire	07824 529422 Avril.earl@apha.gov.uk
Dan Etheridge	Hampshire & Isle of Wight	07979 119376 Daniel.etheridge@apha.gov.uk
Phil Spillane	East Oxfordshire, Buckinghamshire	07775 119470 Phillip.spillane@apha.gov.uk
Mark Lynch	West Oxfordshire & Berkshire	07824 530180 Mark.lynch@apha.gov.uk
Robert Poole	Northamptonshire	07990 138894 Robert.poole@apha.gov.uk

If you keep bees please ensure you are registered on Beebase, it is free, if your bees have been inspected by the NBU, you will be registered but it is not an automatic consequence of joining a local beekeeping association. There are substantial benefits in registering, including: automatic alerts in the event of foulbrood or exotic pests being found in the vicinity of your apiary; emails with timely advice on the basis of the inspectorate's findings during the season e.g. to feed if we are finding starving colonies mid-season; and a facility to maintain your own beekeeping and apiary records. In addition, we can come and check your bees and give advice in person if foulbrood or exotic pests are found nearby.

Southern region currently has 6,196 (up 190) beekeepers registered, with 29,719 colonies (up 2,700) kept in 8,388 apiaries (up 300).

Voluntary registration is very important and can be done online at www.nationalbeeunit.com or by calling our office on 0300 303 0094. This should be followed by periodic updating of Beebase records. To do so you will need a username and password and this can be obtained when registering or by calling the office.

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

Inspections

This year Southern Seasonal Bee Inspectors visited a total of 896 apiaries and inspected 4857 colonies.

This represents an increase from 2018 of *16% for apiaries visited and* 29% for number of colonies inspected.

Disease and Pests

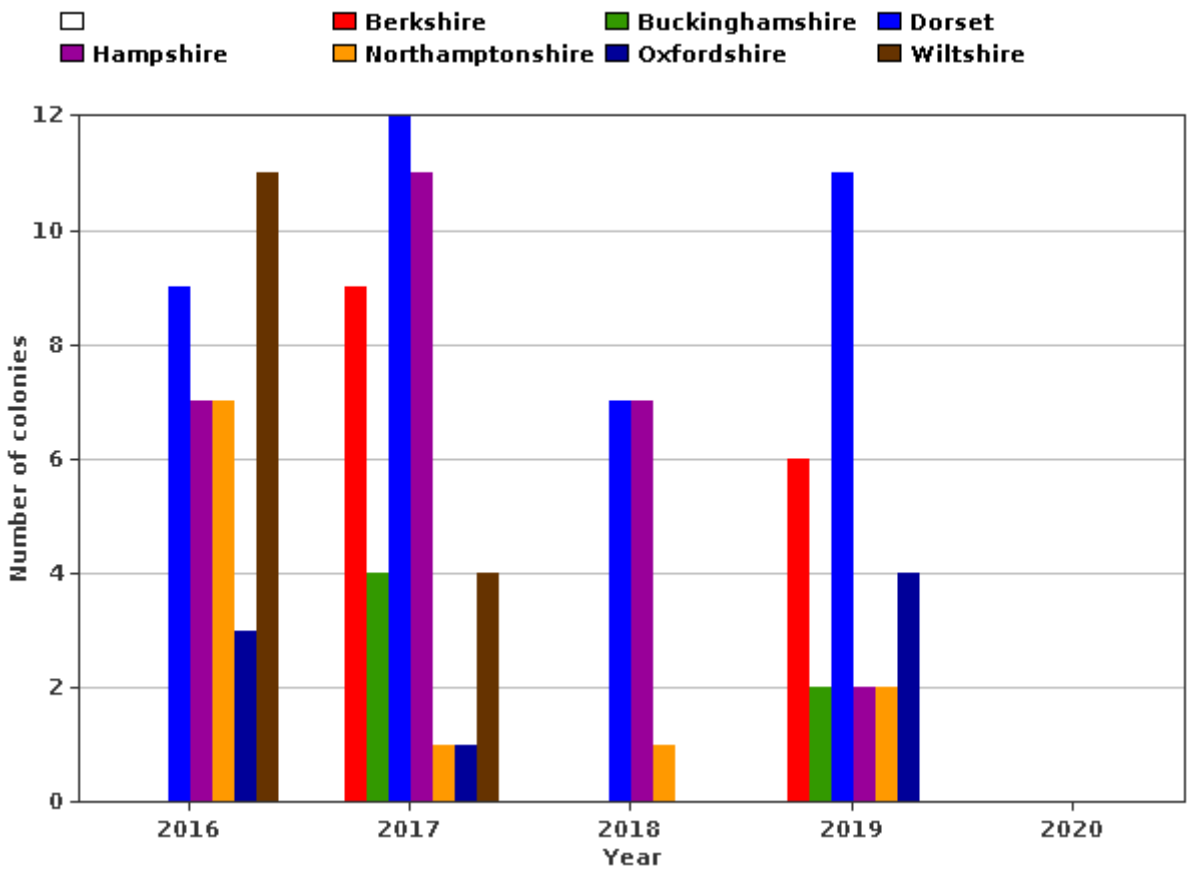
Notifiable diseases: European Foulbrood (EFB) and American Foulbrood (AFB)

This season European Foulbrood was diagnosed in 18 apiaries compared to 11 in 2018 a 39% increase. There were 27 colonies diagnosed this year compared to 13 in 2018 a 52% increase.

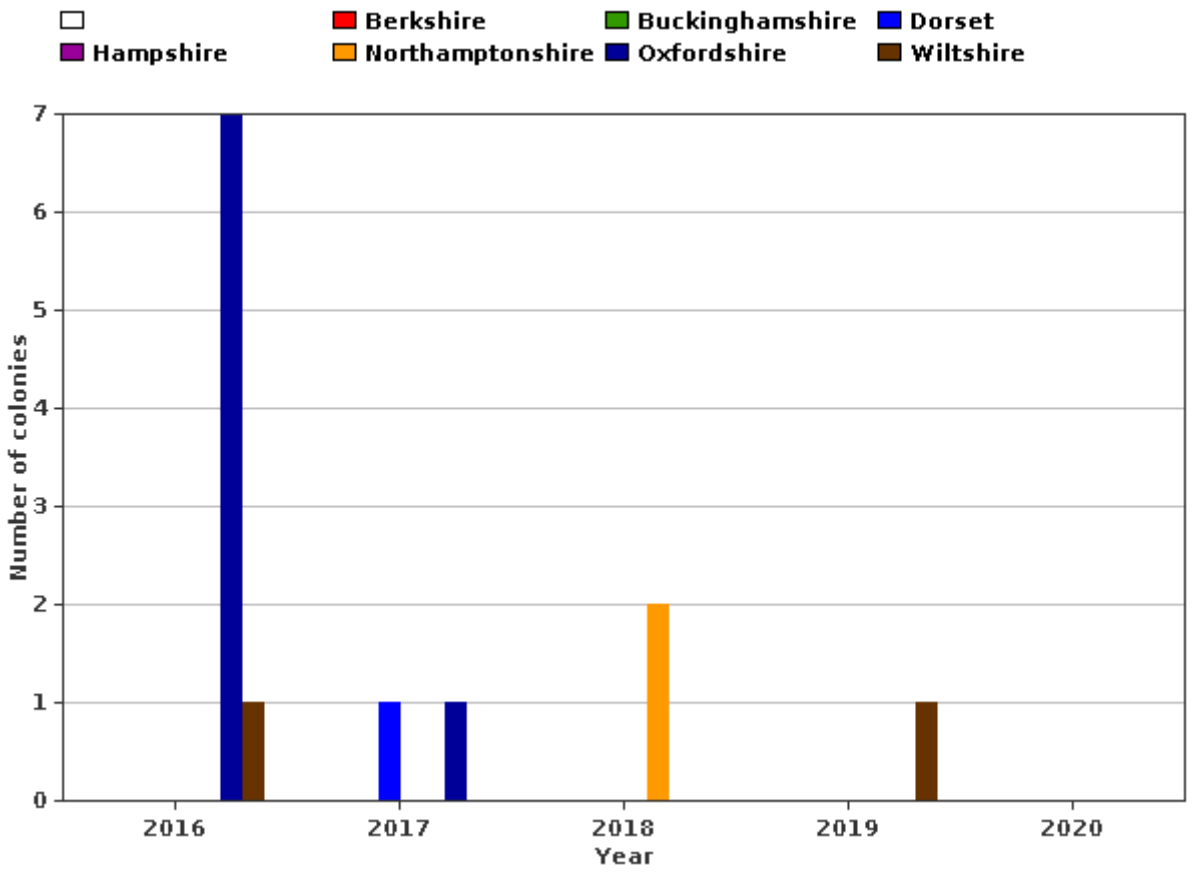
This increase reflects that we looked at over 1400 colonies more than the previous year

The old adage of 'If you don't look you won't find it' holds true.

Incidence of EFB in Southern region over the last 5 years



Incidence of AFB in Southern region over the last 5 years



This picture shows a winter dead out, not the usual *Varroa*, this time it was AFB

Photo P Davies NBU

Further details and mapping can be found on the disease incidence pages of BeeBase at www.nationalbeeunit.com. It is recommended that these are checked regularly to see if there is any foulbrood disease close by.

Varroa

NBU advice for strong, vigorous colonies is to monitor and control *Varroa* appropriately using biotechnical methods and authorised products as directed. *Varroa* treatments should be targeted before colonies start to produce their 'winter' bees but monitoring of *Varroa* levels during the season will help determine whether an earlier treatment is required. Viral damage, which is associated with *Varroa* as they are such good vectors for viruses, will seriously reduce the longevity of the adult bees and so impact on the foraging capability of colonies with a high *Varroa* infestation level in the summer period. Treated too late in the season, so that the winter bees are affected by viruses or purely weakened by the mites feeding on them, is frequently the cause of colony mortality in the late winter and early spring

NBU promotes Integrated Pest Management. Most beekeepers follow this practice to a degree, whether by design or not, using biotechnical controls such as splitting, induced brood breaks, drone brood removal, and open mesh floors.

When it comes to treatments it's important to use products authorised by the Veterinary Medicines Directorate (VMD), administer as directed in the instructions, and not to apply the same *Varroa* treatment several times in a row.

Since my last annual report there have been no new *Varroa* treatments authorised for use in the UK, however there are a number of highly effective products on the market containing more natural active ingredients including thymol, formic acid and oxalic acid as well as the chemical miticides containing synthetic pyrethroids or amitraz.

There's a legal requirement that the use of any treatments are recorded, and these records must be kept for a minimum of 5 years. Full details can be found on this link -

http://www.nationalbeeunit.com/index.cfm?sectionid=110

The Beebase website has pdf links to numerous free fact sheets including the 'Managing *Varroa*' booklet.

http://www.nationalbeeunit.com/index.cfm?pageid=167

Exotic pest surveillance (EPS)

We carried out 359 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 incursion of the Asian Hornet from across the channel in France, the importance of exotic pest surveillance work cannot be overstated.

We have 15 Sentinel Apiaries in Southern region 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 & AH traps are provided and checked at normal colony inspections and noted on a log sheet. Thank you to those beekeepers who currently carry out this work, but also, please do get in touch if you would like to be involved in the future.

Asian Hornet (the ‘yellow legged hornet’)

In 2019 three Asian Hornet nests have been located and destroyed by the National Bee Unit, following sightings by members of the public. The first one was near Tamworth, Staffordshire on 6th September.

On 4th October a further nest was destroyed following the confirmed sighting of an Asian hornet near Christchurch, Dorset and a second nest was destroyed nearby on 11th October. The latter being a primary nest, related to the nest destroyed the previous week.

In addition there have been two confirmed individual sightings of Asian Hornets. The first was on 3rd July of a female Asian hornet in New Milton, Hampshire, based upon visual examination, the hornet was likely to be a queen. A further sighting was reported by a member of the public to the south west of Ashford, Kent, on 9th September where a single hornet was captured.

This picture shows a marked Asian Hornet feeding on Suterra bait in the Christchurch area
Photo P Davies NBU

This marked hornet was subsequently tracked and led us to the nest in this photo, 50ft up in an Oak tree.
Photo P Davies NBU

We ask beekeepers and the general public to remain vigilant and report any suspect sightings using the iPhone and Android app ‘Asian Hornet Watch’, by filling out an online report form or by emailing alertnonnative@ceh.ac.uk .

- The ‘Asian Hornet Watch’ app is available to download free from the Apple and Android app stores.
- Members of the public can also report sightings by email to alertnonnative@ceh.ac.uk . Please provide a photo along with where you found it and a contact number to reply to.
- Reports can be sent via the online submission form on the Non-native Species Secretariat website, again with a photo.
- Details on the identification of an Asian hornet can be found on the Bee Base guide or the NNSS Asian hornet ID sheet.

The image gallery on BeeBase http://www.nationalbeeunit.com/gallery/index.cfm contains several pictures of the particular Asian hornet that we are concerned about and Small Hive Beetle as well as other pests and pathogens and general beekeeping topics.

Small Hive Beetle

Aethina Tumida Adult and larval stages

On the 18th June 2019, the presence of *A. tumida* (SHB) was again confirmed in eastern Sicily, in an apiary located in the municipality of Lentini in the province of Syracusa. Two adults of SHB were detected in two different colonies, this apiary had been under surveillance since May 2019 as on 2nd May, the authorities had intercepted a movement of 64 colonies from Sicily without any accompanying documents at the port of Villa San Giovanni on the Italian mainland.

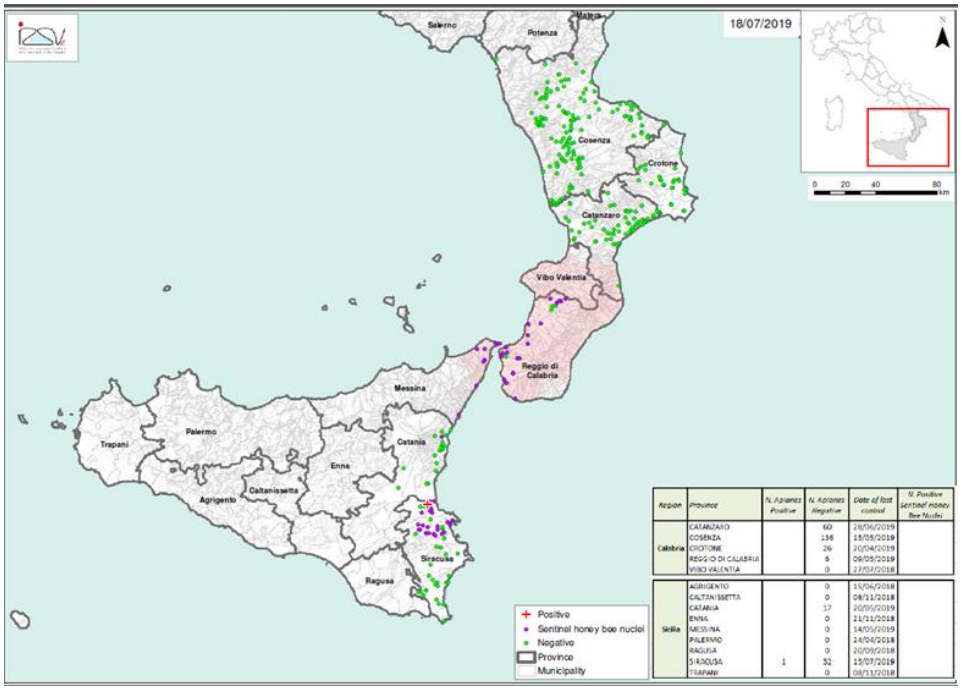
The colonies were sent back to the apiary of origin in Sicily. Several inspections were subsequently carried out in this apiary to look for *A. tumida*. During one visit 13 colonies of unknown origin were discovered and SHB was detected in two of them. Epidemiological investigations showed that these 13 colonies had been stolen on 9th June in the protection zone of Reggio di Calabria located on the mainland.

Aethina tumida had only been detected once in Sicily prior to this outbreak, on 7th November 2014. SHB adults were detected in a migratory apiary in the municipality of Melilli, located approximately 35 km away from Lentini. At the time, the epidemiological investigation had shown that the colonies were present in Gioia Tauro between April and August 2014. Gioia Tauro is the municipality of the Calabria region where the first detection of SHB appeared. Following this outbreak, surveillance was subsequently carried out every year with inspections in selected apiaries and sentinel apiaries.

As no new case had been discovered in the two years following this positive find, a Commission Implementing decision of 1st March 2017 had removed Sicily from the list of areas subject to protective measures in relation to SHB in Italy. A phylogenetic analysis was carried out on the specimens detected in June 2019. The results showed that the genetic profile of the specimens was similar to the one of other specimens previously isolated in the Calabria region but different from the genetic profile of the specimens isolated in the previous outbreak confirmed in Sicily in November 2014. It confirms that the outbreak was due to an illegal movement of colonies from the protection zone of Reggio di Calabria and not a consequence of the spread of SHB in Sicily.

The infected apiary was destroyed on 23rd June 2019 and the soil was treated with a permethrin solution. A protection zone of 5 km radius around the site was set up and inspections are being carried out in the 54 apiaries registered in the zone.

No new outbreaks have been reported in the protection zone of Reggio di Calabria, the original outbreak site on the mainland, since November 2018 when the last detection occurred in a sentinel apiary. No new outbreaks have been reported in the province of Cosenza (situated in the North of Calabria) since September 2016. It has to be noted that surveillance is ongoing in Italy and not all the scheduled inspections have been carried out and reported, for the moment.



The 100 km surveillance of SHB in Calabria and Sicily, dated 18th July 2019

The 100 km surveillance of SHB in Calabria and Sicily, dated 18th July 2019

Imports 2019

Import or export of bees, (including queens, packages and colonies) is permitted only if accompanied by an Official European Union (EU) or Third Country health certificate issued by the competent authority where the bees originated. It is a legal requirement that you notify the National Bee Unit of imports of bees from outside the UK. You can do this by completing the Importer Notification Form and posting, faxing or emailing it to the NBU office. Alternatively, if self-registered, you can log in to the Beekeeper pages of BeeBase and click the 'Import Notifications' link from the left hand index. It is of course illegal to import bees, queens or any bee-related products from within the SHB exclusion zone around the affected areas in southern Italy.
Further details can be found on the Imports/Exports pages of Beebase at http://www.nationalbeeunit.com/index.cfm?sectionid=47 which will require reference for any changes after Brexit

44 Import consignment inspections were carried out in the Southern region in 2019, these were consignments of queens, packages, nucs and colonies.

Beekeeper Training

During 2019 we ran 4 Bee Health days, Berkshire, New Forest, Romsey and Dorset.

These were reasonably well attended by a wide range of beekeepers. We brought selected diseased combs, displayed under special licence, to give attendees first hand and, we hope the only, experience of brood disease.

We provided information, talks and leaflets covering a wider range of pests, diseases and relevant good beekeeping practice, from *Varroa* control to biosecurity and exotic pests. The practical and visual elements of the events, especially the chance to see and handle diseased comb 'in the flesh', is an opportunity much appreciated by participants. As well as beekeepers going away with a better understanding of biosecurity, hygiene, good husbandry and the importance of inspecting for disease, we enjoy being able to demonstrate the work that we do to a wider audience in an informative and accessible way.

Further talks and demonstrations were given by the team and wider NBU colleagues across the region throughout the year.

Going forward we are happy to deliver Bee Health Days but would like to stick to the brief of a minimum 50-60 attendees. These events take a lot of time and resources and it makes more sense to use these for a wider audience on the day, it takes the same amount to deliver a day to 30 people as it does 60.

If you would like to discuss organising such an event with me please get in touch.

Finally

I would like to thank the team of Seasonal Bee Inspectors for all their hard work in keeping our managed honey bee colonies healthy. Please be vigilant, check for brood disease and look out for Asian Hornets, if you don't look, you don't find. Many thanks also to the local association secretaries/training officers who helped us to manage the programme of bee health days, we'd like more attendees next year so please come along and see what diseased combs look like, how to avoid disease, *Varroa* and spot those exotic pests. I'd like to wish you all a successful and trouble free season next year but, if the worst happens, please remember the NBU are here to help http://www.nationalbeeunit.com/

Peter Davies
Regional Bee Inspector, Southern Region - National Bee Unit

Wiltshire, Dorset, Hampshire, Isle Of Wight, Berkshire, Oxfordshire, Buckinghamshire, Northamptonshire

Animal and Plant Health Agency (APHA)

Email; .Peter.Davies@apha.gov.uk Mobile: 07900 292160

Website: www.gov.uk/apha | Twitter: @APHAgovuk Facebook: aphagov

National Bee Unit Website (BeeBase): www.nationalbeeunit.com tel: 01904 462510

National Bee Unit, National Agri-Food Innovation Campus, Sand Hutton, York, YO41 1LZ