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Eastern Region Annual Report 2018
National Bee Unit

The 2018 Season – An Overview

The 2018 season started very badly for some beekeepers with reports of very high winter losses, some in excess of 60%. March was very cruel to the bees with temperatures failing to get above freezing for several days around the 3rd week of March, this at a time when they were struggling on the back of a very cold winter and this was then the final nail in the coffin for a lot of small stocks.

Consequently in the Eastern part of the Region being close to the North Sea stocks of bees struggled right through to July, when the hot sunshine brought on a very heavy flow of honey and beekeepers reported very high yields, this of course can never make up for the high winter losses .

The West of the region reported high spring yields and a steady flow right through to the end of July ,when it stopped abruptly and beekeepers started to report robbing from the 3rd week in July. August was very poor on the Heather moors with only beekeepers who managed to get their bees up early reporting any honey surplus, the Ivy yield was also down on the previous year by about half

The Bee Inspectors have had another busy season with the emphasis on checking for Small Hive Beetle and, throughout the season keeping an eye out for the ever-threatening Asian Hornet. EFB within the Region was very varied again with Norfolk leading the way with 18 cases, but Cambridgeshire gave them a run for their money having 16 cases, in an area of Cambridgeshire where we have not had any before and just proves that even if you are in an area without an history of foulbrood ,you still need to be forever vigilant. AFB was very low within the Region this year with only one case in Leicestershire.

Within the Region we organised 2 major Bee Health days together with a smaller event with West Norfolk and a Apiary Safari with Suffolk Beekeepers, all were well attended and gave beekeepers an ideal opportunity to meet the inspectorate and to get hands on experience in the ways we work, seeing brood diseases under controlled conditions as well as getting information about the latest Varroacides

As part of our surveillance for exotic pests we have set up several Sentinel apiaries around the Region and I must thank all those who have taken part this year, we have had. 21 samples in, which is up on 2017, so if there are any other beekeepers out there who would wish to set up an Sentinel apiary or an Enhanced Sentinel Apiary, which the local bee

inspector manages with the beekeepers cooperation, then please get in touch with myself at keith.morgan@apha.gov.uk or the seasonal bee Inspectors listed at the end of this report ,if you are willing to help.

Together with Sentinel Apiaries and the Enhanced Sentinel Apiaries, the inspectorate within the Eastern region carried out 391 Exotic Pest Inspections, which increased our surveillance for exotics, SHB and Tropilaelaps these inspections are carried out at the same time that we also look for EFB and AFB .

Another part of the Bee Inspectorate work is to monitor imports of both queens and package bees within the Region for the possible incursion of an exotic pest. Fortunately nothing was found this year.

Early in the season the Inspectors from within the Eastern Region were called upon to take part in surveillance for Asian Hornet in the Spalding, Holbeach and Boston area, as we had a report that an Asian Hornet found in a Cauliflower near Bolton in Lancashire had originated from the Fens. In response we set up a forward operating base (FOB) in Spalding and spent several weeks in April looking for old Asian Hornet nest in trees and hedgerows, as well as setting several traps in and around the area both in beekeepers apiaries and around the area that the alleged Cauliflower had come from. By the start of May and with no hornets being found we then took to more regular inspections of colonies in the area which also included monitoring known feeding areas for Asian Hornets ie Ivy and this went right through to the end of October.

The Eastern Team again was called on in September/October to help with incursions of Asian Hornet in Cornwall, Hampshire, Kent and Hull, more will be said about this further in the report

Foulbrood Diseases and Inspection Statistics for the Eastern Region in 2018

4888 colonies were inspected and 1000 apiary visits made within the Region, less than last year [5295 colonies and 1053 Apiaries] but we were down an Inspector in Lincolnshire which accounts for the slight fall.

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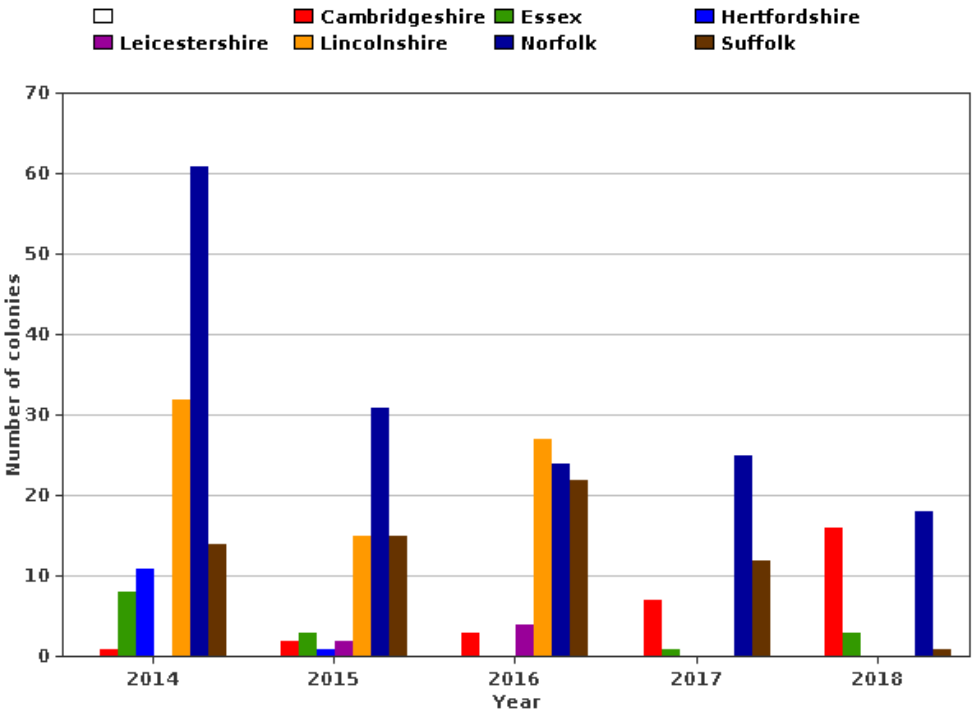
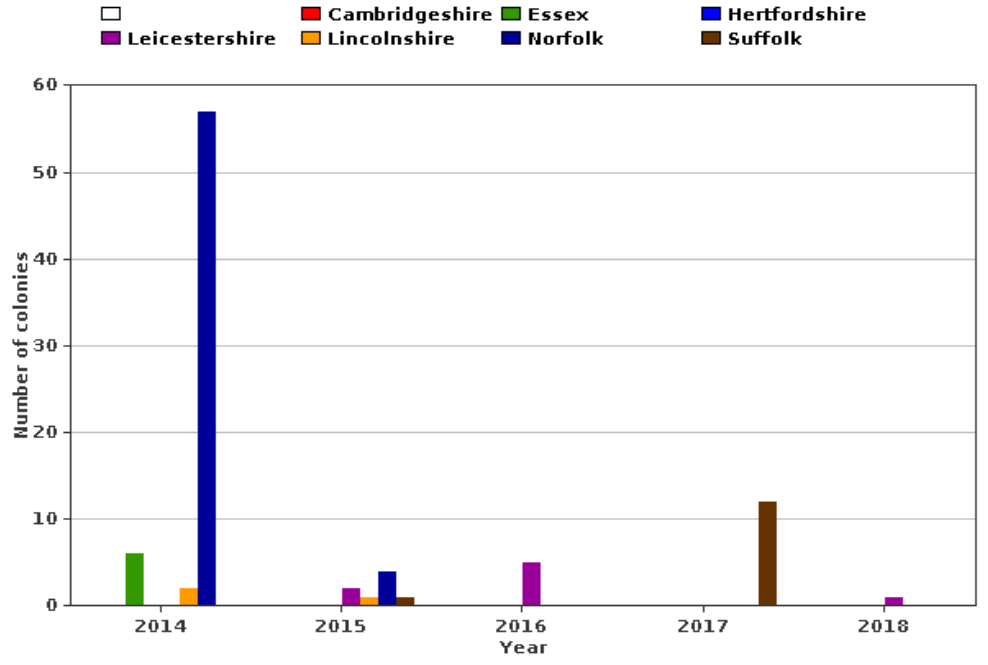
Regional trends of EFB- by county in the Eastern Region



Regional trends of AFB- by county in the Eastern Region



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OS 10km squares where EFB has been found in 2018

Sq No	Area	County
TL35	Kingston	Cambridgeshire
TL44	Triplow	Cambridgeshire
TL45	South Camb	Cambridgeshire
TL46	North Camb	Cambridgeshire
TL54	Linton	Cambridgeshire
TF63	Heacham	Norfolk
TF73	Fring	Norfolk
TM29	Hempnall	Norfolk
TM39	Kirby Cane	Norfolk
TM03	Dedham	Essex
TM24	Martlesham	Suffolk

OS 10km Squares where AFB has been found in 2018

Sq No	Area	County
SP39	Fenny Drayton	Leicestershire

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 by beekeepers to see if there is any foulbrood disease close by their own apiary sites.

BeeBase Registration and Association Membership Lists

BeeBase

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 www.nationalbeeunit.com, or you can register by contacting the NBU office on **033 303 0094** or your Regional Bee Inspector.

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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 me 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 Data Protection Act. The easiest way to do this is to amend the membership renewal form to contain the following phrase;

> *"Please note that a condition of membership is your agreement to membership details being held on a computer. This information will be used for the efficient running of the association by its officials, for the distribution of the BBKA magazine, for BBKA Insurance, for Bee Disease Insurance, and passed to the Regional Bee Inspector for inclusion on BeeBase to aid them in the control of notifiable bee diseases".*

These lists are very useful to us as they allow us to identify new beekeepers and to update contact details for existing beekeepers. **Secretaries** – if you currently have this in place, please email me your current membership list so I can ensure our records are as accurate and complete as possible. This is something that will be incredibly important if we are unfortunate enough to find Small Hive Beetle in the UK or Asian Hornet in our region in the coming season.

Education and Advisory Services

In 2019 we already have Six Bee Health days booked for Essex, Hertfordshire, Lincolnshire, Cambridgeshire, Bedfordshire and West Norfolk. If any other Counties wish to have a Bee Health Day then please get in touch. We also will be running the Eastern Region Forum on the 22th March, details will be sent to secretaries inviting representatives of all the associations within the Eastern Region to attend.

I will encourage all associations within the Region to run Bee Health Days at least every other year. These provide the chance for old and new beekeepers to get a more hands on knowledge of both the notifiable diseases and the potential Exotic threats we now face, to handle bees with the emphasis on disease spotting, to get updates on approved Varroacides, to see some diseased frames and, last but not least, to meet the inspectorate and fellow beekeepers.

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I will express my thanks to the committee of the Essex Bee Keepers who to our great surprise provided us with an exceptional lunch, whilst we were carrying out their County Bee Health Day

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Update on Asian hornet and Small Hive Beetle in Europe

There have been nine confirmed Asian Hornet sightings in England in 2018, beginning with an individual hornet found in a cauliflower by a householder in their kitchen in Bury, Lancashire, confirmed on 13th April. The cauliflower was grown in Lincolnshire but it is thought that it may have been stored with vegetables from France.

After a quiet summer a beekeeper in Fowey on the coast in Cornwall found a dead Asian Hornet in a trap in his garden apiary. He contacted his local SBI and a positive ID was confirmed on 3rd September by which time the South-Western inspection team had already been mobilised. Following an NBU surveillance operation, a nest was found in dense brambles within a kilometre of the initial find and destroyed on Sept 6th.

Nearby in Liskeard, Cornwall, a single drone was reported by a beekeeper caught in a trap, ID was confirmed 7th September 2018. After prolonged surveillance no further hornets were seen in the area. A single dead hornet was found in Hull, Yorkshire, confirmed on 9th September. After an extensive search in the area it was presumed to have been a single insect inadvertently brought over from France.

Meanwhile back in Fowey, Cornwall, all was quiet following destruction of the nest on September 6th until after a week later when a few further hornets were caught in traps in the same area and suspicions were aroused that these were more than stragglers from the first nest. Within two days a second nest was located in woodland adjacent to the first and on 20th September 2018 it was also destroyed.

It should be emphasised that although close to the first nest, the terrain was extremely difficult to carry out surveillance and the second nest could only be seen in the tree from one viewing position at the bottom. Analysis shows that the two nests in Fowey were primary and secondary nests from the same queen and so the same colony.

Later in the month in New Alresford, Hampshire, a householder reported seeing Asian Hornets foraging in his garden. The local SBI was mobilised and positively identified them. By careful observation he was able to get some lines of sight and located the nest within a few hours of arriving. It was low down in a bush adjacent to a house a short distance away and the nest was destroyed on 24th September 2018.

Following quickly on the heels of this finding, on the coast below Beaulieu also in Hampshire, a householder noticed hornets feeding on fallen apples in her garden and alerted a beekeeper friend who reported them. Within a few days on the 26th September 2018, a nest was found and destroyed in woodland half a kilometre away.

In Guildford, Surrey another dead hornet was discovered in a new Mini at a car dealership but the source of the insect is unknown.

Finally in Dungeness, Kent, two Asian Hornets were found, both foraging on ivy, one in a garden and the other at the RSPB reserve nearby. After several days of extensive surveillance no further hornets were seen and the operation was wound down with just a few traps being kept in the area. It is thought that these individuals may have been blown over from France. Both were identified as drones.

After a positive identification is confirmed, the process of finding Asian Hornet nests conforms to a Standard Operating Procedure whereby a Forward Operating Base (FOB)

is established at a suitable location in the area e.g. APHA offices or a fire station. The operation is closely monitored by the NBU and Defra policy with daily reports reaching right up to the cabinet office and Lord Gardiner. Bee inspectors are deployed with traps and bait stations around the area with the aim of establishing lines of sight of the hornets returning to their nest after foraging for food. This requires good observation, patience and tracking skills but is rewarded when they can be plotted on a map with the lines converging on the nest location. Even when the nest location has been narrowed down considerably, if the area is densely wooded it can still be very difficult to locate it in a thick tree canopy. This year we have trialled infrared photography, drones and radio tracking to enhance our capabilities but success has prevailed with human lines of sight above all else.

Nests destroyed this year have been sent to FERA for analysis, the results of this work will be released in due course. We are again reminded that the Asian hornet (and other exotic pests) could arrive almost anywhere in the UK given the vast volume of traffic and goods arriving in the UK from across the channel and other countries where exotic pests are endemic. Further sightings of Asian hornets have been confirmed this year in the Channel Isles, on Jersey. By the 4th October 52 nests in various stages of development had been found and destroyed right through the season.

Asian Hornet caught in trap at Fowey

Since the destruction and removal of the nests in Cornwall and Hampshire no further Asian hornets have been seen foraging in the areas or caught in traps.

However, it is possible Asian hornets could reappear in the UK next spring and beekeepers, along with members of the public, are urged to report any suspect sightings through the following routes:-

- 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 for a reply.
- Reports can be sent via the online submission form on the Non-native Species Secretariat website, again with a photo.
- Details on the appearance of an Asian hornet can be found on the Bee Base guide or the NNSS Asian hornet ID sheet.

N.B. A dead insect is much better than a missed photo, so catch the hornet if possible and freeze it or knock it down with anything to hand! Remember, our best defence against the Asian hornet is to quickly detect any arrivals and prevent them from establishing; monitoring traps are the best way to help aid detection. The traps can be home-made and there are links to a leaflet (and a YouTube video) describing how to make one on BeeBase, see http://www.nationalbeeunit.com/index.cfm?pageid=208 Monitoring traps are advised in areas away from a confirmed outbreak, as regular inspection will allow other beneficial insects to be released unharmed.

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. All images are subject to © Crown copyright but may be used free of charge in any format for non-commercial research, private study or internal circulation within your organization. When reproducing images, please associate the phrase "Courtesy of the Animal and Plant Health Agency (APHA), Crown Copyright" alongside each image.

Small Hive Beetle (*Aethina tumida*) Surveillance of Small Hive Beetle in Italy in 2018

Aethina Tumida Adult and larval stages

As of 26th October 2018, four cases of infestation by Aethina tumida have been identified this year in the province of Reggio Calabria in the South of Italy, the province where it was

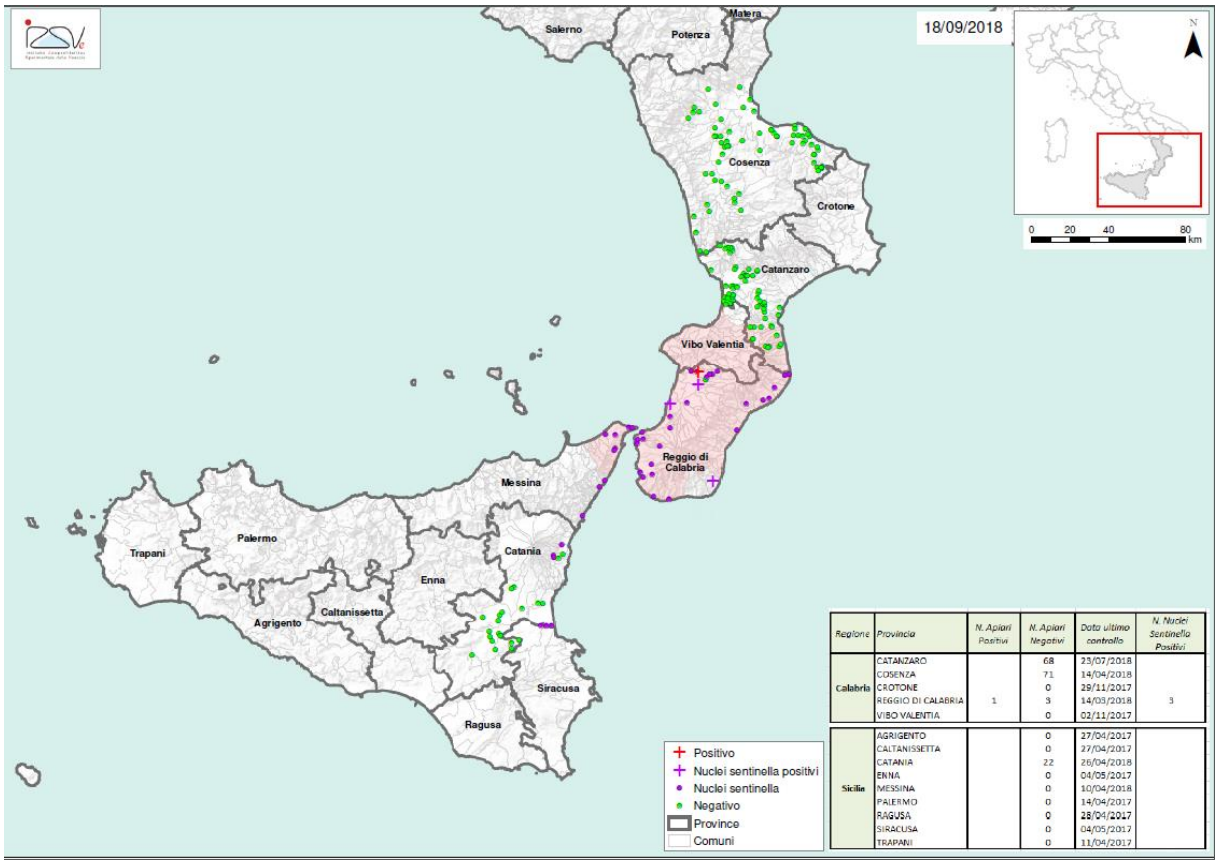
originally found in 2014. Three sentinel apiaries were confirmed positive (purple crosses on maps further in the report) two of which were situated in the protection zone of 30 km. The first one was confirmed on August 1st. in the municipality of Palmi where adults and a larva were detected. The second sentinel apiary was confirmed positive on August 7th in the municipality of Brancaleone situated approximately 15 km away from the protection zone on the south-east coast of the province of Reggio Calabria. Adults of SHB were detected. The last sentinel apiary was confirmed positive in Rosarno on September 4th. This sentinel apiary was infested with adults and larvae. It was situated approximately 12 km away from the outbreak confirmed in Laureana Di Borello – see next paragraph.

A new outbreak, not in a sentinel apiary, was confirmed on August 2nd in the municipality of Laureana Di Borello (red cross on maps) in the protection zone of 30 km. SHB were in a swarm which was infested by adults and larvae. It has to be noted that not all the inspections scheduled in the rest of the Calabria region and in Sicily have yet been reported when this news was published.

The clear status of Sicily remains unchanged where no new cases have been discovered since 2014. No new outbreaks have been discovered in the province of Cosenza, situated in the North of Calabria since September 2016. The regular reappearance of cases in the infested zones since 2014 show that SHB remains present in these zones.

The surveillance plan implemented in 2018 follows the monitoring scheme put in place in the previous years. Surveillance is ongoing in SHB free areas such as Sicily and the rest of Italy to guarantee the free status of these areas. Changes were brought in to the monitoring scheme, notably a reduced number of apiaries to be inspected in the protection zone was implemented (corresponding to an expected prevalence of 10% with a confidence interval of 95% instead of an expected prevalence of 5% applied the previous years). This reduction, along with the establishment of sentinel apiaries situated in strategic locations i.e. on the coast in front of Sicily, along the Ionian Coast, along the frontiers with Vibo Valentia and Catanzaro, in Vibo Valentia, suggest a gradual achievement of the objectives of the control of SHB spread and a containment of the infestation in the protection zone.

Note: The Commission Implementing decision (EU) 2017/370 of March 1st. 2017 removed Sicily from the list of areas subject to protective measures in relation to SHB in Italy and extended the period of application of certain protective measures until 31st. March 2019.



Regione	Provincia	N. Apiari Positivi	N. Apiari Negativi	Data ultimo controllo	N. Nuclei Sentinella Positivi
Calabria	CATANZARO		68	23/07/2018	
	COSENZA		71	14/04/2018	
	CROTONE		0	29/11/2017	
	REGGIO DI CALABRIA	1	3	14/03/2018	3
	VIBO VALENTIA		0	02/11/2017	
Sicilia	AGRIGENTO		0	27/04/2017	
	CALTANISSETTA		0	27/04/2017	
	CATANIA		22	26/04/2018	
	ENNA		0	04/05/2017	
	MESSINA		0	10/04/2018	
	PALERMO		0	14/04/2017	
	RAGUSA		0	28/04/2017	
	SIRACUSA		0	04/05/2017	
	TRAPANI		0	11/04/2017	

Imports 2018

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 us. 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

The number of queens imported into England, Scotland and Wales from other EU countries continues to rise year on year. Import numbers for 2018, at time of writing, are as follows (2017 figures in brackets for comparison):

- Queens imported from the EU 15,944 (15,210)
- Packages/Nucs of Bees imported from the EU 1,970 (1,795)
    - Of which from Italy 976 (1,310)
- Full colonies imported from the EU 52 (0)
- Queens from Third Countries 525-Argentina (525-Argentina)

Varroa

This year again there have been additions to the Varroa treatments available in the UK. The list of those registered and approved for use by the Veterinary Medicines Directorate (VMD) is available on their web site:

http://www.vmd.defra.gov.uk/ProductInformationDatabase/Default.aspx together with the Summary of Product Characteristics giving full details of use. For the full list, select 'Bees' on the drop down list of species in the product search link.

Oxybee Powder and Solution by DANY Bienenwohl is the most recent addition to become available in the UK; the active ingredient being oxalic acid dihydrate, an oxalic acid based treatment applied by the 'trickle' method.

In order to maintain strong vigorous colonies, the NBU advice is to monitor and control Varroa appropriately. Control can be achieved by 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 throughout the season will help determine whether an earlier treatment is required.

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 may lead to colony mortality in the winter or early spring.

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Below is a list of the approved Varroacides for 2019:

Product name	MA number	Company	Legal Category	Issued	Indications
Bayvarol 3.6 mg Bee-hive Strips for Honey Bees	00010/4090	Bayer plc	AVM-GSL	17/07/1992	For the diagnosis and control of flumethrin sensitive Varroa jacobsoni in honeybees.
Apistan 10.3% w/w Bee Hive Strip	17017/4000	Vita (Europe) Ltd	AVM-GSL	26/11/1998	Control of varroosis (Varroa destructor (formerly known as Varroa jacobsoni)) in honeybee colonies
Apiguard Gel (25% Thymol) for Beehive Use	17017/4002	Vita (Europe) Ltd	AVM-GSL	23/07/2003	Treatment of varroosis due to Varroa destructor.
Apilife Var Bee-Hive Strip for Honey Bees	23101/4000	Chemicals Laif S.P.A	AVM-GSL	24/06/2009	Treatment of varroosis due to Varroa destructor.
Thymovar 15 g Bee-hive Strips for Honey Bees	36234/4000	Andermatt BioVet GmbH	AVM-GSL	15/06/2010	Treatment of varroosis on honey bee (Apis mellifera) due to Varroa mite (Varroa destructor).
MAQS Formic Acid 68.2g Beehive Strips for Honey Bees	40476/4000	NOD Europe Ltd	AVM-GSL	26/02/2013	Treatment of varroosis caused by Varroa destructor in honey bees (Apis mellifera).
API-Bioxal, 886 mg/g powder for in-hive use	23101/4001	Chemicals Laif S.P.A	AVM-GSL	08/09/2015	Treatment of varroosis (Varroa destructor, parasite of Apis mellifera).
Apitraz 500 mg Bee-hive Strips for Honey Bees	20634/4009	Laboratorios Calier, SA	AVM-GSL	26/04/2016	Treatment of external parasitosis caused by Varroa destructor sensitive to Amitraz.

Oxuvar 5.7%, 41.0 mg/ml Concentrate for Solution for Honey Bees	36234/4001	Andermatt BioVet GmbH	AVM-GSL	28/10/2016	Treatment of varroosis on honey bees (Apis mellifera) due to Varroa mites (Varroa destructor).
PolyVar Yellow 275 mg Bee-hive Strip	00010/4216	Bayer plc	AVM-GSL	07/03/2017	For the treatment of varroosis in honey bees caused by flumethrin sensitive Varroa destructor mites.
VarroMed 5 mg/ml + 44 mg/ml Bee-hive Dispersion for Honey Bees	EU/2/16/203/001	BeeVital GmbH	AVM-GSL	05/04/2017	Treatment of varroosis (Varroa destructor) in honey bee colonies with and without brood.
VarroMed 75 mg + 660 mg Bee-hive Dispersion for Honey Bees	EU/2/16/203/002	BeeVital GmbH	AVM-GSL	05/04/2017	Treatment of varroosis (Varroa destructor) in honey bee colonies with and without brood.
Oxybee Powder and Solution for 39.4 mg/ml Bee-hive Dispersion for Honey Bees	EU/2/17/216/001-002	DANY Bienenwohl GmbH		04/04/2018	
Apivar 500 mg Bee-hive Strips for Honey Bees	48004/4000	Veto Pharma	AVM-GSL	15/09/2017	Treatment of varroosis due to Varroa destructor sensitive to Amitraz in honey bees.
Dany's BienenWohl Powder and Solution for 39.4 mg/ml Bee-hive Dispersion for Honey Bees		DANY Bienenwohl GmbH		03/07/2018	

Inspectorate Changes

In 2018 Peter Davies who covered Norfolk as a Seasonal Inspector was promoted to Regional Bee Inspector for the Southern Region and so this has left a vacancy within the

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Region, so I can announce that Dr Regina Nickel has successfully passed the interview process and will be taking over the role from Peter in April 2019, Regina is a former Research Scientist, runs a small number of colonies of bees and is based just South of Norwich. For Lincolnshire we have now appointed Mr Simon Oglesby, who will be starting his role on the 1st April 2019. Simon worked for the prison Service for 11 years and has been keeping bees for the last 12 years running up to 50 colonies. Finally, we have recently appointed Alexandra Grau to replace David Bonner, who is retiring. Alexandra joins us from Thornes having been their apiary manager.

2019 Seasonal Bee Inspectors contact details from the 1st April 2019:

Alexandra Grau - Leicester and Rutland

Alexandra.grau@apha.gov.uk Tel: tbc

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Jonathan Baynes - South Cambridgeshire, West Suffolk

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Simon Oglesby Lincolnshire

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Regina Nickel Norfolk

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In the meantime until start of season on 1st April, any problems please contact me by phone or email

Lastly, I would like to take this opportunity to thank all the Inspectors within the Region for their help and support over the year, and also the Associations for their cooperation and to wish all the Beekeepers out there a very enjoyable 2019 and let us hope that the weather is kind to the bees and your supers are filled and you stay clear of Pests and Diseases

Keith Morgan
Regional Bee Inspector, Eastern Region

(Norfolk,Suffolk, Cambridgeshire,Essex,Herts,Bedfordshire,Leicestershire Rutland,Lincs)

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