



## **Annual Report – National Bee Unit North East Region December 2016**

### **The 2016 Season – An Overview**

After a fairly cool and wet summer the autumn of 2015 turned exceptionally mild with record UK temperatures for November and the warmest December since records began in 1659. However, the mild conditions came with a price as low pressure to the west drew warm, moist air from the sub-tropical Atlantic region. Storm Desmond in early December and storm Eva just before Christmas brought heavy rainfall in the North, which left the ground saturated. This was quickly followed by a further Atlantic low pressure system which brought the very heavy rain on Christmas Day and Boxing Day. Rainfall of up to 120mm (5 inches) fell in 24 hours in the Lancashire and Yorkshire areas causing probably the most widespread flooding in living memory. The Met Office issued 24 severe flood alerts for Yorkshire alone. The Aire and Calder rivers peaked at 5.2m and 3.6m respectively - both 1.2m above previous records – and the Ouse also peaked at 5.2m, nearly matching the record at the turn of the century. The resulting widespread flooding caused damage to infrastructure and many properties all along these river systems. Beekeepers were affected too, though most who had experienced loss due to floods in North Yorkshire in 2012 had taken the precaution of moving colonies away from areas previously affected. As reported elsewhere, one beekeeper at Linton-on-Ouse, refusing to be defeated, had constructed a floating pontoon and saw his colonies rise majestically nearly 6 foot above the flood waters! However, the rapid rise in river levels, particularly the Aire, gave little chance for others to mount a rescue attempt and it was sad to hear of the number of colonies lost and even whole apiaries washed away.

The mild winter continued into the New Year but the expected early spring never materialised due to weather conditions more appropriate to late winter persisting well into the season. By late March there were several reports of colonies that had dwindled rapidly during this period. This was not necessarily specific to particular areas of the region suggesting that it was more a result of colony condition. Early depletion of winter bees due to increased colony activity during the mild weather may have been a factor but most colonies examined had high Varroa levels. These may have resulted from mite levels increasing post late summer treatment or missed or ineffective winter treatments due to continued brood rearing and difficulty finding an appropriate time to treat.

Oil seed rape came into flower a week or two later than normal in most areas but there was little bee activity initially due to persisting cool, damp conditions. However, those colonies that had remained strong or picked up more quickly and were in areas which had



a wider range of forage managed to produce a good surplus during the extended, if intermittent, spring flow. It was perhaps a case of being 'in the right place at the right time'. With so few consecutive days of good weather, queen rearing was rather 'pot luck' too. Unsuccessful or poor mating was very common and many colonies that appeared to have a laying queen subsequently became queenless or turned to drone laying.

The late and extended spring delayed the June gap into July and many colonies were found to be consuming stores at an alarming rate, prompting a starvation alert from the NBU office. A large colony can consume a good two full deep frames of stores in a week and so I would advise to ensure that at least this amount of food is present at every inspection. Failure to do so risks the slowing of colony development, or in a worst case, starvation.

Improving weather coincided with the flowering of the main summer crops such as blackberry and rosebay willowherb and in some areas a very good flow from the limes. The earlier wet spring also benefited the Himalayan balsam which did better than the last couple of years. In recent times the ling heather has often started to bloom by the end of July, but this year was more reminiscent of a bygone era when beekeepers aimed to have their bees on the moors by the 'Glorious Twelfth' (August) – the start of the grouse shooting season. The heather bloom looked good but in southern and lowland areas had mostly stopped yielding by the end of August. The North Yorkshire moors did better; average yields of 45lb per colony being reported in some instances. Kinder conditions on the moors this year were less demanding on the bees which came back in good condition with queens still in lay. Some were surprisingly light after removing the crop; many single brood box colonies needing a supplementary feed to boost the winter stores.

Honey yields for the region were the most variable I can remember with individual averages from 'next to nothing' to over 100lbs per colony. Overall averages, though still poor in many parts, were up on last year at about 35lbs per colony for spring and summer honey combined and perhaps 30lbs of heather honey from those colonies taken to the moors.

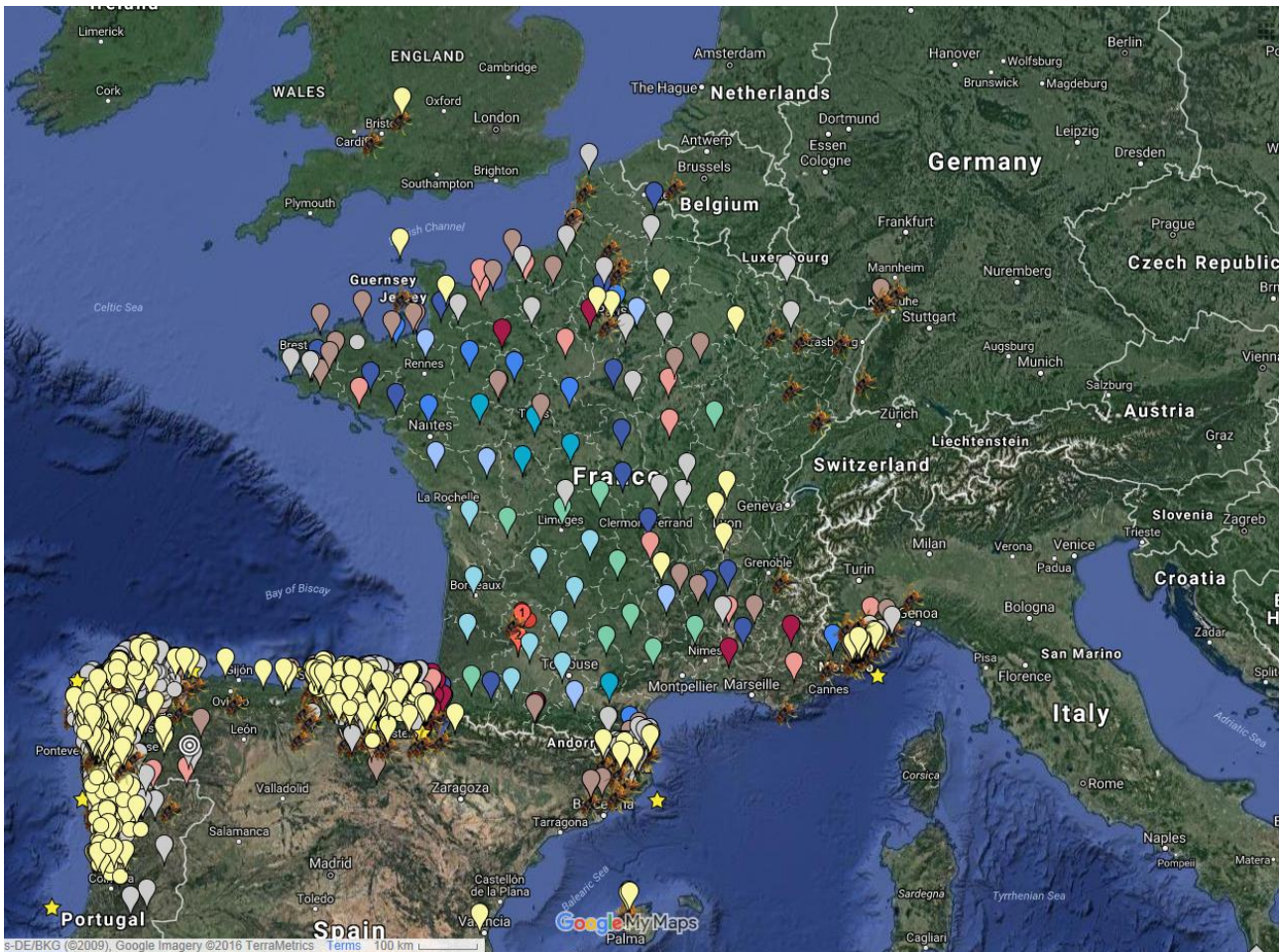
In late July a simulated discovery of small hive beetle near the South coast initiated a NBU Contingency Exercise in Dorset. This was followed in early August by a second simulated outbreak in the North East due to a fictitious movement of bees into the Region from the restricted area. Although these exercises were expected, no forewarning was given of the location and timing of the outbreaks, giving a more realistic experience of dealing with a real contingency. A big 'thank you' goes out to all the beekeepers in the York area who kindly gave of their time and allowed inspection visits at short notice and the local Associations for their support and willingness to help with communications with their



members. Lessons were learned and no doubt helped with the response to the real contingency – albeit with a different cause – when Asian hornet was discovered for the first time in the UK in Tetbury, Gloucestershire.

### Update on Asian hornet and Small Hive Beetle in Europe

A natural or assisted spread of the Asian hornet, *Vespa velutina*, from mainland Europe into the UK had been anticipated and a Contingency Plan put into place to deal with any confirmed outbreak. The google map illustrated (updated November 2016) shows the continuing spread of Asian hornet in Europe, including the first incursion into the British Isles in the Crown dependencies of Alderney and Jersey and subsequent incursions in the UK in Gloucestershire and North Somerset.



<https://www.google.com/maps/d/viewer?msa=0&mid=1jRfoi4oF6GmiGRgbXuD71Qpbw8s&ll=46.60925415505642%2C2.689161067645273&z=6>

The recent Defra press release <https://www.gov.uk/government/news/asian-hornet-outbreak-contained-in-gloucestershire-and-somerset> confirms the destruction of the nest



found at Tetbury, Gloucestershire and no subsequent Asian hornet activity in this area or that of the two individual sightings in North Somerset (both dead specimens). Further details and pictures of the nest at Tetbury can be found on BeeBase 'recent news', <http://www.nationalbeeunit.com/public/News/news.cfm#177>



With the amount of traffic, both commercial and private, entering the UK from Europe further incursions are highly likely and, as experience has shown, could occur anywhere in the UK, not just in the higher risk areas along the South and South East coasts. The NBU will be assisting beekeepers in placing hornet traps in the affected areas early next year but all beekeepers are advised to put out monitoring traps with a sweet bait in apiaries in late winter. Experience in France has shown that these are highly attractive to queen hornets coming out of hibernation. These should be checked regularly, preferably daily so that non-target species can be released, and any suspect sightings reported to the Non-Native Species Secretariat at [alertnonnative@ceh.ac.uk](mailto:alertnonnative@ceh.ac.uk) and the NBU office or your Regional Bee Inspector. A fact sheet detailing a suitable home-made monitoring trap can be found on BeeBase at <http://www.nationalbeeunit.com/index.cfm?pageid=167>



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An updated identification sheet for the Asian hornet and further information on the Asian hornet can also be found on the dedicated pages on BeeBase at

<http://www.nationalbeeunit.com/index.cfm?pageid=208>



There are also some Asian Hornet videos available for viewing on the APHA YouTube channel which may be found here:

[https://www.youtube.com/playlist?list=PLouExecY1KnfANGcLUd2D6KkLRHE\\_n-T](https://www.youtube.com/playlist?list=PLouExecY1KnfANGcLUd2D6KkLRHE_n-T)

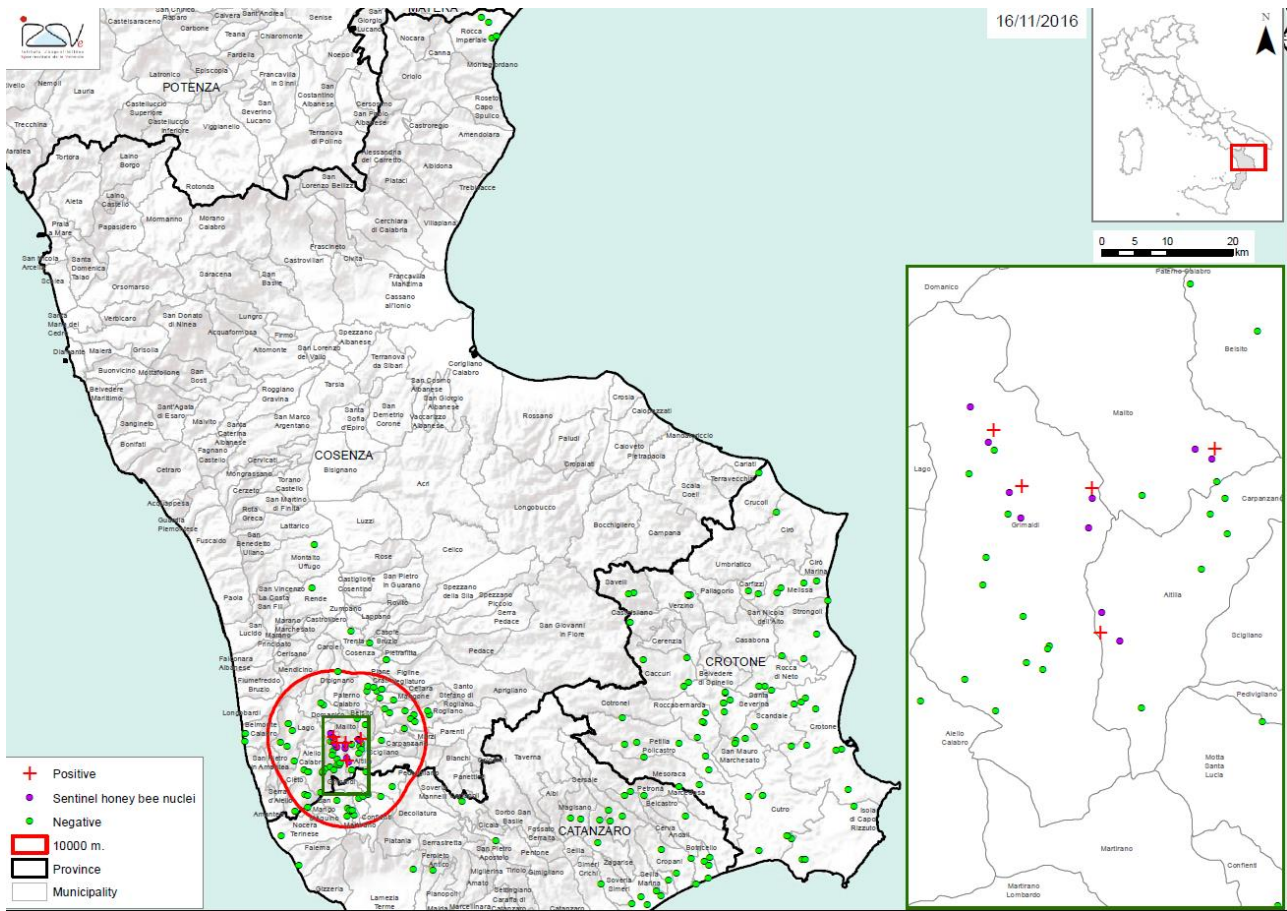
### **Small Hive Beetle**

In July this year we had the unwelcome news of a further outbreak of Small Hive Beetle about 100km north of the original finding near Gioia Tauro in Calabria, South West Italy. It is understood that this outbreak was found after the Italian authorities became aware of and traced an illegal movement of a significant number of colonies from the restricted area to several apiaries in the province of Cosenza, Calabria.

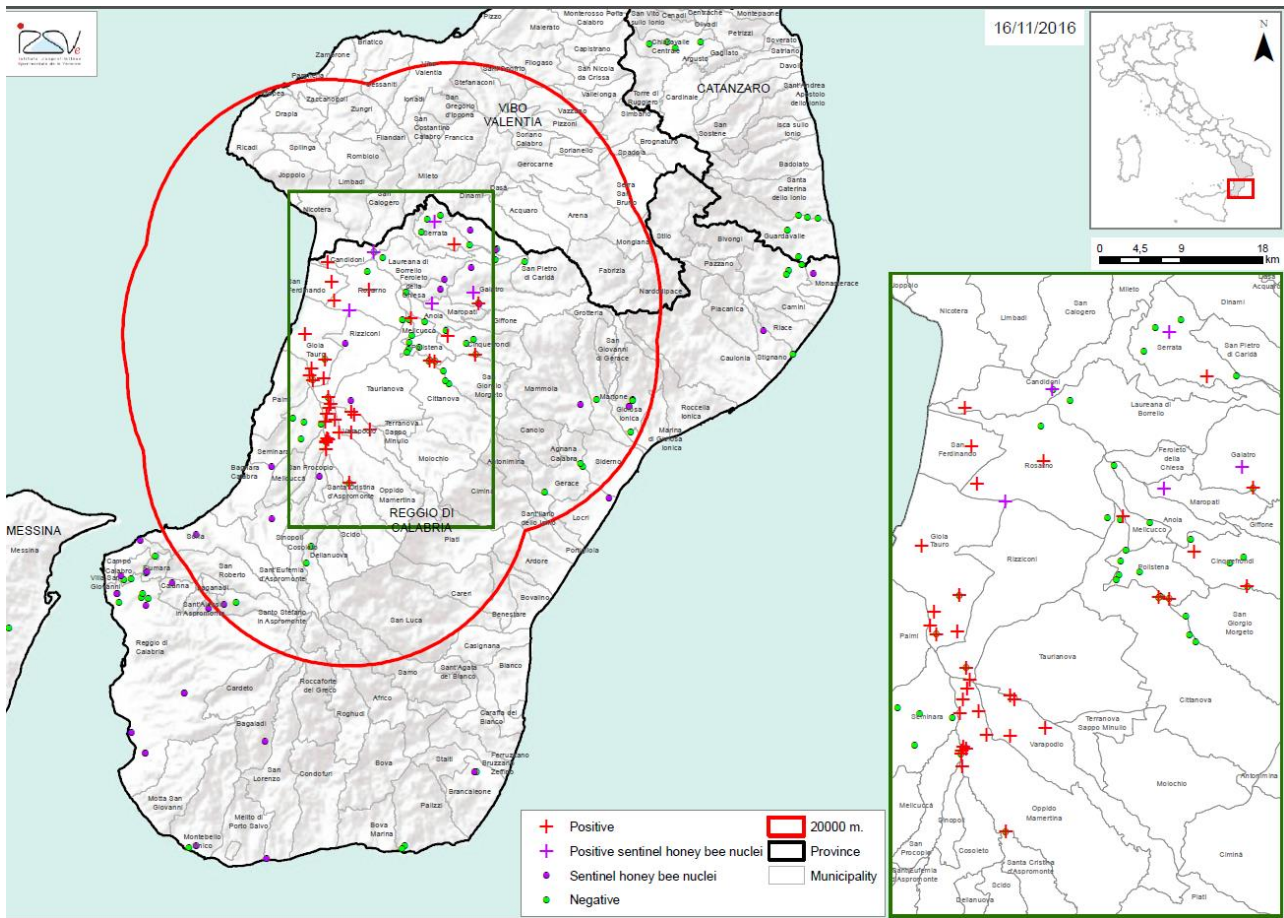
All the colonies were destroyed and inspections of surrounding apiaries commenced. A small number of adult beetles have since been found in one other apiary close by. Only time will tell whether the prompt action has eradicated SHB from this area as (so far) appears to be the case for Sicily where colonies were moved just before the first outbreak was discovered.



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A large number of sentinel apiaries have been set up in Calabria and Sicily, near apiary sites where SHB has been previously found and to monitor for any spread into other areas. Once again this year there was little found until late summer, apart from some adult beetles and one larva picked up in a small number of sentinel colonies in Calabria. However, since September and to date (16/11/16) another 34 apiaries within the original protection zone have been found to be infested with a significant cluster to the south of Gioia Tauro.



See <http://www.izsvenezie.com/aethina-tumida-in-italy/>

Despite considerable effort it is apparent that the Italian authorities have not yet managed to eradicate SHB from southern Italy, demonstrating the absolute necessity for the earliest detection of an incursion for this to be possible. The NBU continues to step up monitoring for SHB under the exotic pest surveillance programme at apiaries within England and Wales near to identified risk points for incursion. I am thankful to those beekeepers who add to the surveillance effort by being part of the Sentinel Apiary programme but I would encourage all beekeepers to make themselves aware of the signs of SHB and monitoring techniques as described in the NBU leaflet, 'The Small Hive Beetle – a serious threat to European apiculture', available as a download from BeeBase at [www.nationalbeeunit.com](http://www.nationalbeeunit.com) or as a hard copy.

I make no apology for mentioning once again how essential it is that all apiaries are registered on BeeBase (as well as beekeeper contact details) so that we can identify apiaries at risk in the event of an incursion of SHB into the UK and target control measures effectively. Self-registration is free via the link at [www.nationalbeeunit.com](http://www.nationalbeeunit.com), or you can



register by contacting the NBU office or your Regional Bee Inspector. It is also essential that all beekeepers abide by UK regulations for the import of bees from Europe and elsewhere, including submitting an Importer Notification Form, either on-line or to the NBU office so that we are able to follow up on imports. It is of course illegal to import bees, queens or any bee-related products from within the 100km zone around the affected areas. Further details can be found on the Imports/Exports pages of BeeBase at <http://www.nationalbeeunit.com/index.cfm?sectionid=47>

### Colony Losses 2015-16

The figures presented are derived from information gathered during inspection visits and personal contact with over 220 beekeepers taking 1721 colonies into winter and give an indication of 'winter' colony losses for the period 30<sup>th</sup> September 2015 to 1<sup>st</sup> April 2016. The combined average for 2015/16 from across the region was 29.1%. Even accountings for losses due to natural disasters, these figures are higher than anticipated for the mild winter. 2015 was another poor year for queen mating and so queen failure during the winter together with difficulties encountered controlling Varroa may have been significant contributory factors. Some County results were from a small sample so perhaps skewed by individual high losses and therefore the usual County average in the table has been replaced with the average figure across the whole Region, which should be statistically more meaningful.

Region	Colony Losses (%)								
	2007-8	2008-9	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Derbyshire	31.2	34.6	26.8	17.5	17.1	35.9	9.2	32.1	41.7
East Yorks	48.6	19.8	18.0	18.0	15.8	33.7	2.2	33.8	23.5
North Yorks	31.0	11.7	28.5	12.5	16.4	23.1	11.2	14.3	22.2
Notts	58.3	15.7	14.4	19.7	5.8	50.4	11.5	22.4	60.6
South	56.5	32.3	36.8	14.5	13.9	37.0	7.6	18.2	36.0





Yorks									
West Yorks	35.7	21.7	23.3	25.5	13.0	33.9	9.0	17.2	24.5
Region Average	35.8	15.7	25.0	15.0	14.8	30.8	10.0	18.1	29.1

The National Bee Unit also conducts a randomised husbandry survey of beekeepers each year as part of the healthy bees plan to monitor trends. The survey provides valuable information on beekeeping practices and the health of colonies in the UK and I would encourage all beekeepers selected for the survey to take part.

### Foulbrood Diseases and Inspection Statistics 2016

3778 colonies were inspected and 774 apiary visits made within the region. 13 cases of AFB were found, all in West Yorkshire and the highest number for several years. 42 cases of EFB were found in the Region. The highest incidence was in North Yorkshire, largely in areas with some previous history of foulbrood but there were also 8 cases in Notts that are associated with a larger outbreak over the Lincolnshire border. Over half of the apiary inspections were also carried out as part of the NBU exotic pest surveillance programme, covering imports and apiaries in areas where there is an increased risk of an exotic pest incursion.

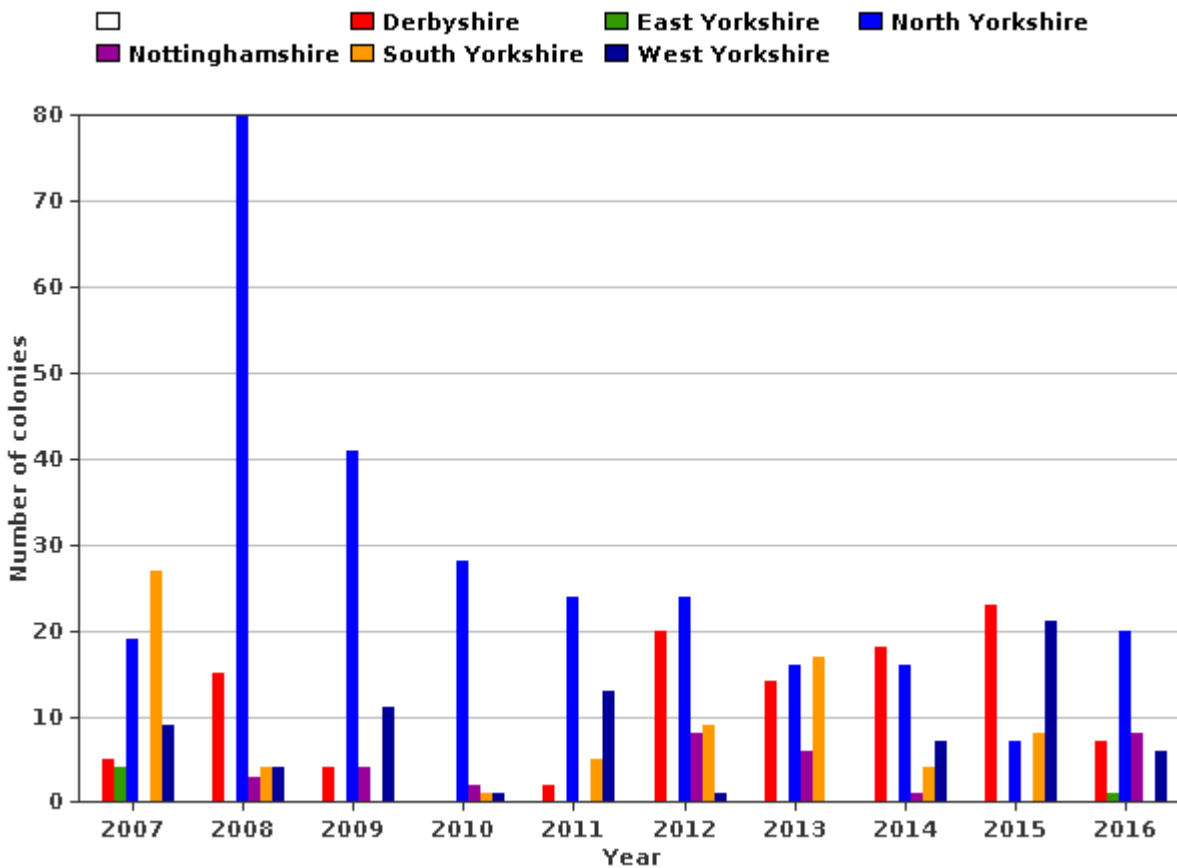
The locations of foulbrood disease by 10km squares are listed in the following table:

County	10km Square	Colonies with EFB	Colonies with AFB
Derbyshire	SK34	3	
	SK47	3	
	SK57	1	
North Yorks	SE25	2	
	SE35	1	
	SE36	2	
	SE45	5	
	SE46	6	
	SE56	3	
	SE86	1	
East Yorks	TA02	1	



Notts	SK57	3	
	SK76	1	
	SK77	4	
South Yorks			
West Yorks	SE13	1	10
	SE14		3
	SE23	4	
	SE24	1	

EFB Incidence in North east Region by County



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

All beekeepers registered on BeeBase with an email address will receive an automatic email alert if disease is found within 3km of the registered apiary. If you are self-registered,

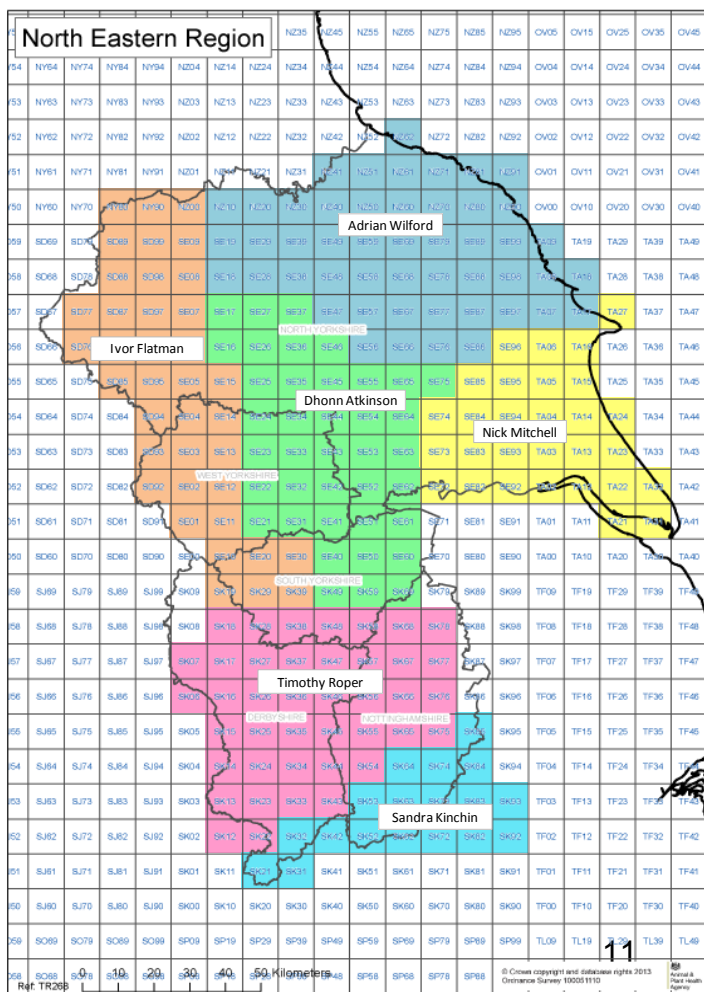


please ensure that you keep your apiary records up to date or contact me if you are unsure. Self-registration is recommended as it also gives beekeepers secure password protected access to personal details and inspection records.

### Education and Advisory Services

I would like to thank Bradford University and Bradford BKA for providing the facilities and hosting the major North East Bee Health Day event attended by over 80 beekeepers from across the Region and beyond. Talks and workshops provided by staff from the NBU, Fera and Bradford University were well received and the buffet lunch provided by Bradford BKA excellent! I am hoping that we can build on this for future years. A number of other talks, workshops and demonstrations were provided for District and County Associations and Bee Farmers throughout the year by the NE team of Regional and Seasonal Bee Inspectors. If Associations hosting an event require assistance from the team on topics related to bee health then please contact me before the start of the season.

### North East Inspectors and 2017 Season



Changes based on Ordinance Survey 10km squares made to inspection areas for 2016 will be maintained for the coming year. Dhonn Atkinson will continue to be responsible for central North and West Yorkshire and Doncaster, whilst Adrian Wilford covers the area further north. Nick Mitchell now covers essentially the whole of East Yorkshire and Tim Roper the area south from Sheffield down to Nottingham and Derby. Sandra Kinchin is responsible for the lower parts of Derbyshire and Nottinghamshire together with border areas of Lincolnshire and north Leicestershire. My own inspection area is the remainder of West and South Yorkshire.



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From April 1<sup>st</sup> 2017 you can use the post code search on the contacts page of BeeBase to check who your local SBI is, but over the winter period please direct all enquiries to me.

I would like to take this opportunity to thank the Seasonal Bee Inspectors who make up the NE team for all their hard work during the past year.

The new season will start on 1<sup>st</sup> April 2017 and from that date their contact details will be as follows:

Sandra Kinchin	<a href="mailto:sandra.kinchin@apha.gsi.gov.uk">sandra.kinchin@apha.gsi.gov.uk</a>	07775 119440
Dhonn Atkinson	<a href="mailto:dhonn.atkinson@apha.gsi.gov.uk">dhonn.atkinson@apha.gsi.gov.uk</a>	07775 119437
Tim Roper	<a href="mailto:timothy.roper@apha.gsi.gov.uk">timothy.roper@apha.gsi.gov.uk</a>	07775 119441
Adrian Wilford	<a href="mailto:adrian.wilford@apha.gsi.gov.uk">adrian.wilford@apha.gsi.gov.uk</a>	07775 119444
Nick Mitchell	<a href="mailto:nick.mitchell@apha.gsi.gov.uk">nick.mitchell@apha.gsi.gov.uk</a>	07796 548575

Finally I would like to wish you all a very Happy Christmas, good wintering and very Best Wishes for the New Year.

*Ivor*

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