The Food and Environment Research Agency

Annual Bee Report – North East Region
December 2010

The 2010 Season – An Overview

I am starting these notes on the 1st December and looking out of the window for inspiration onto trees and rooftops laden with snow and with more falling, rapidly adding to the accumulation of 6 inches over the last few days – small beer I know compared to some other parts of the region. Wintery conditions have returned early and no doubt the statisticians will revel in telling us of yet more records broken – I heard on the national news only last night of three for the small North Yorkshire town of Linton-on-Ouse, the warmest day, the coldest night and highest snowfall in 24 hours ever recorded for the month of November.

I would be quite wealthy if I had a pound for every time I have heard the question 'Whatever happened to global warming?' but I think that we are in an era when we should expect more extremes in our climatic conditions – be it cold, wet or even a return to the glorious summers that I seem to remember from early childhood (well, you have to be an optimist to be a beekeeper!).

The big question is what this will mean for our bees and beekeeping – personally I am quite sure that together with Varroa and associated pathogens, weather conditions and the challenges they have brought have had a part to play in the decline in colony numbers that we have seen over the last three or more years.

None of us, I am sure, need reminding that last winter saw the worst weather conditions in over 30 years and such a long period of confinement resulted in many colonies showing signs of dysentery, particularly those that had been to the heather. Perhaps there is some truth in the view of some of the older beekeeping authors that bees do not winter well on heather honey, at least in hard winters. Not surprisingly, Nosema was evident causing a rapid decline in the number of bees resulting in many colonies coming through in a weakened condition, some even dwindling away altogether. Results from the first year of the Random Apiary Survey (June 2009 to May 2010) have shown that Nosema is present (though not necessarily at a damaging level) in about half the apiaries sampled. What is more surprising is the high incidence of N. *ceranae*, either in isolation or in conjunction with N. *apis.* The Random Apiary Survey will continue through to May 2011 and will provide a wealth of information on the geographic and seasonal incidence of many of the diseases and pathogens that affect our bees. This is a research project and techniques to detect these pathogens have had to be developed along the way. There have also been the inevitable delays due to reliance on automated equipment but beekeepers that are self-registered on BeeBase will be able to view their individual test results as these are added to the data base.

Cold, damp conditions persisted right into May once again and despite the ravages of winter and pigeons delaying flowering of winter sown rape by almost a month,

many colonies had not built up sufficiently to take advantage of this crop. Attempts to raise queens early in the season were also thwarted by poor mating conditions.

As in 2009, summer came suddenly but favourable conditions persisted much longer, covering the period of flowering of many of the trees and early summer flowers. Those in arable districts did well from spring sown rape and field beans, limes were reported to yield well in parkland and blackberry seemed to do well almost everywhere. In some districts colonies expanded rapidly, honey seemed to be pouring in and beekeepers were running out of supers! Consequentially perhaps, a sudden surge in swarming occurred, but on the positive side new queens raised at this time were generally quickly (and I assume well) mated leading to a hope that fewer problems will be experienced this winter with drone laying or failed queens.

The hope that many (optimists again) cherished that June was to herald the return to those halcyon summer days of the past was dashed by a return to indifferent conditions in July and August and the early flowering heather in Derbyshire and the lower Pennine moors gave just a moderate yield. Some higher regions where the ling was a week or two behind saw a late flow during the few days of fine weather in early September. In the lower regions, particularly the Yorkshire river valleys, the Himalayan balsam flowered from July right through to October but didn't yield as well this year, except perhaps in the upper Calder valley where more rain had fallen in early summer.

Once again the bees and beekeepers in the North West of the region fared worst though most did at least get a little early summer honey this year. However, many colonies had consumed their remaining stores by early August and had to be fed in late summer to prevent starvation.

Overall honey yields in the region have been better this year though varying greatly from district to district. Migratory beekeepers in South and West Yorkshire and parts of Notts and Derbyshire have done particularly well with yields averaging up to 130lbs per colony. A more realistic average for the whole region is probably about 60 to 80 lbs depending on location – two to three times that for 2008 and 2009.

Varroa levels were generally low during the season, particularly where beekeepers had followed a late summer 2009 thymol treatment with oxalic acid in mid-winter. Perhaps a longer broodless period due to the extended winter also helped reduce build-up. Many beekeepers however reported an increase in natural mite drop during the early autumn, even in colonies that had an earlier thymol based treatment, suggesting that the mild weather in October was allowing re-infestation through robbing of wild or neglected colonies. Monitoring is the key – easy with an open mesh floor – so that suitable treatment can be applied to prevent damage to the winter bees resulting in late winter losses.

Colony Losses 2009-10

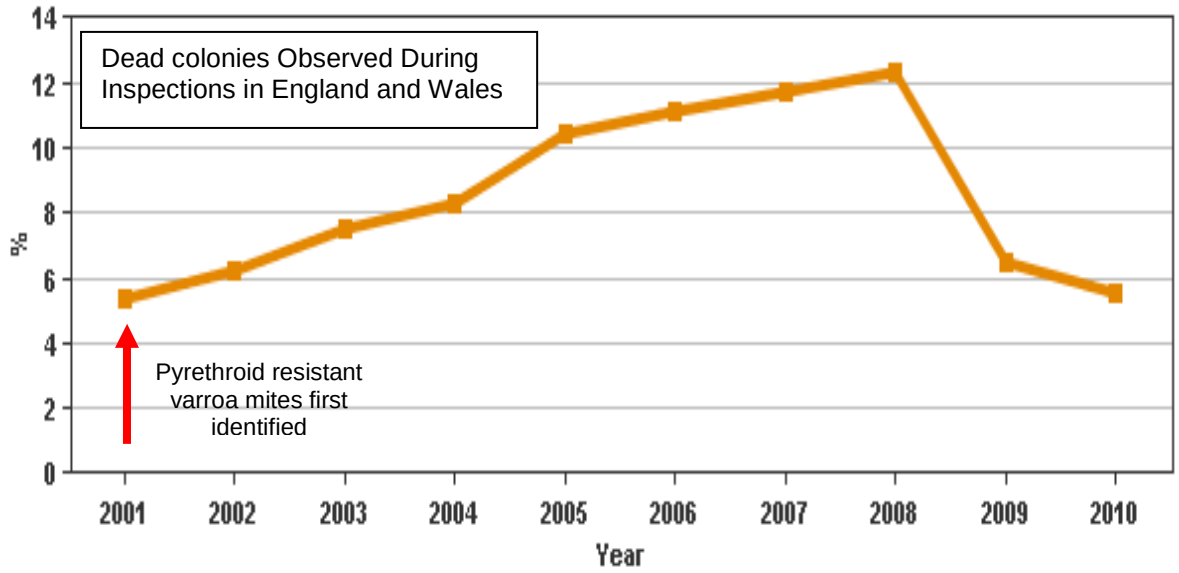
Some winter losses were weather related – some colonies starved, either because the beekeeper was unable to gain access to the apiary to give an emergency feed of fondant, or because the bees had consumed all the food around the cluster but were prevented by the cold weather from moving to food available elsewhere in the hive (isolation starvation). Other colonies, perhaps weakened by disease or Varroa infestation may have had enough bees to survive a normal winter but were just not strong enough to endure such an extended cold spell.

However, information on colony losses obtained by Bee Inspectors during apiary visits suggests that, if it is assumed that reported losses are replicated across the counties, then despite the hard winter colony losses overall were very similar to those in the previous winter of 2008-9. It may be significant that North Yorkshire, the County worst affected by the winter conditions, reported much higher winter losses.

Region	Colony Losses (%)		
	2007-8	2008-9	2009-10
Derbyshire	31.2	34.4	21.1
East Yorks	50	19.8	14.6
North Yorks	34	11.7	29.9
Nottinghamshire	48.3	15.7	12.6
South Yorks	56.5	30.7	36.8
West Yorks	35.7	21.6	19.1
County average	42.6	22.3	22.4

These figures were obtained from a survey of just over 200 beekeepers in the region managing 2100 colonies. This is just under 10% of known beekeepers in the region and nearly 17% of colonies managed. It is hoped to be able to obtain a larger sample in future years so as to give more confidence in the results.

The number of dead colonies observed nationally during apiary inspections has been monitored for several years and supports a general reduction in colony losses over the last two years. As reported last year, this is a reversal of the trend observed since the advent of pyrethroid resistance and may indicate that beekeepers generally have a better understanding of Varroa control.



It remains essential that beekeepers monitor Varroa levels throughout the year and learn to use a combination of alternative methods of control in an Integrated Pest Management approach. For further advice on Varroa control please see the free NBU booklet 'Managing Varroa' and information on the NBU web site,

https://secure.fera.defra.gov.uk/beebase

Foulbrood Diseases and Inspection Statistics 2010

We were sorry to lose Alan Johnston and Martin Dilks from the North East NBU Inspection team at the end of 2009 but welcomed Pete Allanson from York and Neil Pont from Egmanton, Newark onto the team from the middle of May.

A total of 4001 colonies in 933 apiaries were inspected in the North East Region. 32 colonies in 18 apiaries were found to have European Foulbrood (EFB), a significant reduction from last year although some new areas were affected.

The incidence of American Foul Brood (AFB) was also much lower with just 5 colonies in 3 apiaries affected. It is hoped that the outbreak first detected in 2009 in the Scarborough district is now completely under control.

The location of foulbrood disease by 10km squares are in the table below.

County	10km Square	Colonies with EFB	Colonies with AFB
Notts	SK54	2	
Derbyshire			
East Yorks			
North Yorks	SE35 SE45 SE52 SE54 SE56 SE63 SE64 SE65 SE66 SE69 TA09	2 5 2 2 1 1 3 9 1 1 1	 5
South Yorks	SE50	1	
West Yorks	SE02	1	

Details of disease incidence including maps and disease trends are regularly updated on BeeBase, the NBU web site:

https://secure.fera.defra.gov.uk/beebase

All beekeepers are welcome to register on this site and will be able to access personal inspection records, information on the Healthy Bees Plan, research projects, bee health, legislation, news and a wide range of advice and general information.

All beekeepers for whom a current e-mail address is held will receive an automatic alert if a new case of foulbrood is found within 5km of a registered apiary. It is essential that apiary records are kept up to date so that we know who to notify of disease found in the area. Please either use the self-registration pages or notify me directly if any apiary information needs updating or to add your e-mail address.

You can also sign up for NBU e-mail updates, such as the recent advice on wintering of bees and information about the Asian hornet. Again, let me have your e-mail address and I will add you to the circulation list.

Education and Advisory Services

2010 saw a second group of beekeepers attending the two-day Disease Liaison Contact course at the NBU. We now have 37 beekeepers from District Associations throughout the region that have been trained in disease recognition.

Other North East Region events included a one day Bee Health Forum which was attended by nearly 70 representatives from District Associations and the Bee Farmers Association and two very successful Bee Husbandry Days at Richmond and Chesterfield. One more Bee Husbandry Day is already planned for York in May but there is probably room for another one or two in my diary if suitable venues can be found.

The Food and Environment Research Agency is also supporting the BBKA 'Train the Trainer' events being held during the winter period. The one for the North East will be held at Fera, Sand Hutton on Saturday 5th February. Further details are available from Bill Cadmore, the BBKA Regional Training Coordinator.

My team and I also attended or helped at various local beekeeping events, demonstrations and a Safari day at Richmond. If your Association are planning such events for 2011 and would like me or one of the Seasonal Bee Inspectors to be involved, please feel free to contact me. I am also available for talks, mainly on bee health or bee husbandry, during the winter period.

North East Bee Inspectors

The Seasonal Bee Inspectors for the North East Region and approximate areas covered are as follows:

Dhonn Atkinson – Central North and West Yorks
Sandra Kinchin - North Yorks and Teeside
Pete Allanson – East and North Yorks
Tim Roper – Derbyshire and South Yorks (Sheffield)
Neil Pont – Nottinghamshire

To confirm who your local SBI is during April to September you can use the post code search function on the BeeBase contacts page or contact Ivor Flatman.

Postscript

Another 5 or 6 inches of snow has fallen during the day as I have written this report and extremely low night-time temperatures forecast for the remainder of the week. We will just have to wait and see what the future brings for our bees but I wish you

all a good winter and a Happy Christmas and look forward to meeting many of you again in the coming year.

Ivor Flatman
Regional Bee Inspector – North East Region
15 Waterton Close
Walton
Wakefield
West Yorks
WF2 6JT
Tel. 01924 252795 or mob. 07775 119436
e-mail ivor.flatman@fera.gsi.gov.uk