Annual Bee Report – North East region
December 2008

CENTRAL SCIENCE
LABORATORY

The 2008 Season – An Overview

This was my first year as the Regional Bee Inspector for the North East - and a season that many would wish to forget with high colony losses and poor honey yields being the norm rather than an exception! Many colonies that survived the winter were weak and generally not in a position to take advantage of the early flowering oil seed rape, brought on by the mild weather of the previous autumn.

Continuing poor weather, some disease issues and the lack of available pollen (I have never seen such a dearth of pollen during spring inspections of colonies in arable areas) further hindered colony development leading to a lower incidence of swarming than in 2007.

Although we didn't have the continual wet weather experienced last year during June and July and the bees were at least able to fly regularly, the promised spell of settled weather never materialised and neither did the summer honey flow. Conditions were not much better in August and swarms, nucs and small colonies were found to be desperately short of food, even to the point of starvation. Larger colonies were consuming much of the income and were unable to replace emerging brood with winter stores in the brood nest. Many beekeepers advisably commenced winter feeding much earlier than usual.

There was very little borage grown in the east of the region this year but those colonies that were able to take advantage did at least generally get some surplus.

Heather yields were quite low with some moors being affected by heavy thunderstorms. I saw for myself water gushing through dry stone walls after a particularly heavy downpour and heard one report of hives being washed away on the Derbyshire moors.

September proved a little better in some regions with good honey flows from the ivy in parts of Nottinghamshire and balsam in the river valleys of West Yorkshire. The average spring/summer honey yield for the region is quoted as 10kg and heather as 4kg per colony, though the number of producing colonies is thought to be much lower than in previous years.

Colony Losses

Despite most colonies seeming to have picked up in the Indian summer of 2007 winter losses were heavy in many areas of the region. Information on colony losses obtained by Bee Inspectors from beekeepers are similar to those from the BBKA survey and range from 56.5% in South Yorkshire to about the national average at 31.2% in Derbyshire.

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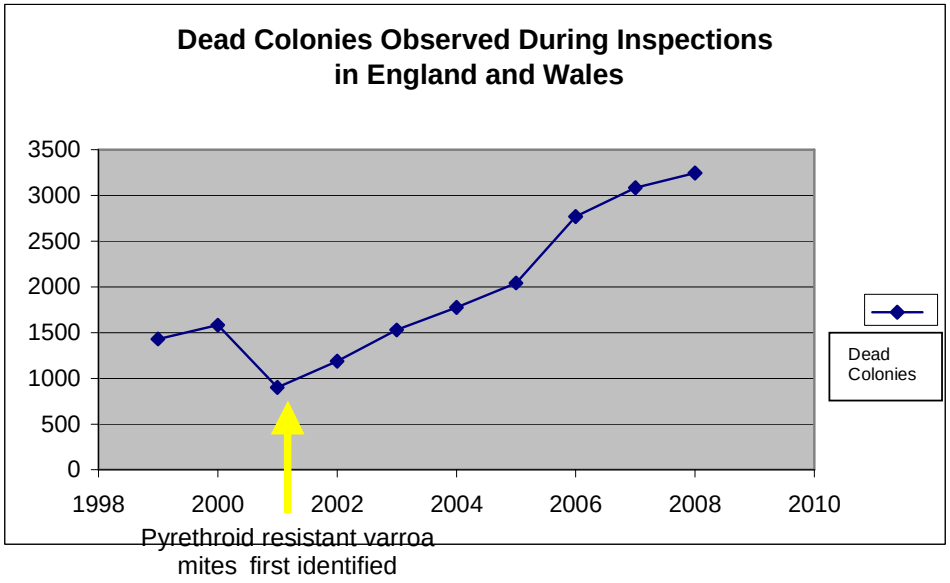
Region	Colony Losses (%)
Derbyshire	31.2
East Yorks	50
North Yorks	34
Nottinghamshire	48.3
South Yorks	56.5
West Yorks	35.7

The number of dead colonies observed nationally during apiary inspections has continued to rise since the advent of pyrethroid resistant mites in 2001.



Some winter colony losses were attributed to queen failure, presumably due to poor mating in the summer of 2007 but laboratory examination of dead and failing colonies as part of the Investigation of Abnormal Colony Losses indicated that varroa and viruses associated with varroa were still a major contributory factor in colony losses. Many beekeepers allowed varroa levels to build up above the level (approx. 1000) at which other pathogens become readily transmissible in the colony. The continued use by some beekeepers of pyrethroid strips (Apistan and Bayvarol) in areas with resistant mites and /or failing to adequately control varroa by other means resulted in reduced vitality of the winter bees and weak colonies that died out in late winter.

It is essential that beekeepers monitor varroa levels throughout the year and learn to use 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, http://beebase.csl.gov.uk or contact me.

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Chronic Bee Paralysis Virus was not as evident in 2008 as it had been in 2007 but Nosema was observed in many of the bee samples taken from failing colonies. Nosema leads to increased mortality in adult bees and poor overwintering capability, resulting in reduced spring build up and colony dwindling.

There are two known species of Nosema that can affect honey bees: *N. apis* and *N. ceranae*. They are microsporidia (primitive fungi) transmitted by spore ingestion. The spores are easily detected by microscopic examination of the bee's gut but accurate discrimination between *N. apis* and *N. ceranae* is only possible by molecular techniques. About 30% of the samples testing positive at the NBU were identified as *N. ceranae* (some samples actually found to have both species present).

N. ceranae is thought to be more virulent and less seasonal than *N. apis* and may therefore be a cause of colonies failing to build up or collapsing later in the spring.

Further information can again be found on the NBU web site but if you see unusual symptoms, have a significant number of losses or colonies that are dwindling this winter, please feel free to contact me. Colonies that die out should be closed up to prevent robbing until an inspection can be carried out.

Foulbrood Diseases and Inspection statistics

A total of 2510 colonies in 497 apiaries were inspected in the North East Region, an increase of 55% over 2007.

106 colonies were found to have European Foulbrood (EFB), this is an increase of 65% over the 2007 level. Previous infections in South and West Yorks have been largely brought under control but there was a serious outbreak in the Northallerton region of North Yorkshire and other cases in Derbyshire and Notts. Four colonies in three apiaries in Notts were found to be infected with American Foul Brood (AFB) and were destroyed.

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

County	10km Square	Colonies with EFB	Colonies with AFB
Notts	SK42		3
	SK52		1
	SK54	3	
Derbyshire	SK32	8	
	SK33	4	
	SK47	3	

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North Yorks	NZ40 NZ50 SE39 SE44 SE49 SE53 SE54 SE56 SE65	23 1 1 5 31 2 9 5 3	
South Yorks	SK49	4	
West Yorks	SD92	4	

Details of disease incidence including maps and disease trends are regularly updated on the NBU web site http://beebase.csl.gov.uk
All beekeepers are welcome to register on this site and will be able to access personal inspection records, information on research projects, bee health, legislation, news and a wide range of advice and general information.

If I or any of my colleagues can be of assistance during the coming year, please contact me.

With best wishes for 2009 – we are due a good one!

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