

## NHBKA October 2013 Newsletter

Our first indoor meeting of the winter season was well attended with several new faces amongst the ranks of our more seasoned beekeepers. Our chairman, Helen Amey, welcomed us all with the news that the BBKA part of the membership subscription has been increased by £2 and as the committee decided that the Association could not absorb the increase, it is being passed directly to members as an increase in the annual subscription. This means that a subscription with the minimum level of bee disease insurance (BDI) will be £27 for 2014. BDI recently introduced a web-based returns system that is able to email receipts to members. It facilitates the processing of subscriptions for members who do not have bees and do not require BDI, so we are able to offer this in 2014. Our annual subscription excluding BDI for 2014 will be £25. All the subscription changes are reflected in the membership application form available on our web site, <http://www.bbka.org.uk/local/northherts/>. The committee also proposed an increase in the out-apiary rental from £1 per hive to £2 per hive and a request for voluntary donations for refreshments at the indoor meetings to cover some of the cost.

The speaker at our first meeting was Peter Folge, our local Bee Inspector who covers Hertfordshire, Bedfordshire, and Cambridgeshire. The Bee Inspector's role used to be just to inspect bees, but because of an increase in number of beekeepers, the role is now more advisory, very often providing advice on the phone. As Peter's talk was about bee pests and diseases, I anticipated slides of the ropiness test, and bald brood but Peter, unfettered by props of any kind, kept us entertained for the whole evening with new facts about bee diseases and anecdotes from his travels. A modern version of the medieval story-teller.

Peter was keen to recommend registration with BeeBase, <https://secure.fera.defra.gov.uk/beebase/> (not the data source for bee research with the same name!). BeeBase has a wealth of information about diseases that can be downloaded. You can register your apiary site details and keep hive records on the system. If BeeBase are advised of a disease outbreak, registered apiaries within a 3km radius are informed. Peter also encouraged members to inform either their local association or the local Bee Inspector, if they came across hives and were unsure of the ownership.

Here are a few notes from Peter's excellent talk

### **Foul Brood**

American Foul Brood (AFB) is a spore based bacterium that enters the country in packaging and imported honey; it has been seen in Cambridgeshire. It is not treatable and an infected colony and its frames are burned. The spores can remain active for 50 years, and the disease can be perpetuated if bees move into a space vacated by a dead infected colony. There are fewer cases of AFB each year because infected colonies are destroyed.

European Foul Brood (EFB) is treatable using the shook swarm technique; the bees are retained and hives can be cleaned, the infected frames are burned. The infection has been propagated from cultures of 3 year old infected comb. EFB increases as the number of colonies increases and the best precaution is use of barrier measures – disposable gloves, disinfection of hive tools between colonies, etc.

Herts and Beds have a good record on foul brood but more EFB is being seen in Herts, to the south of Stevenage, and in Bishops Stortford.

### **Asian Hornet**

This is likely to be in the UK next spring. There are details of hornet traps on BeeBase, and it is important not to trap other beneficial insects, UK hornets, etc. Try to catch the Asian Hornet queens before August as colonies produce thousands of queens in huge tree top nests and consequently can spread quickly.

Peter's recommended wasp and hornet cocktail for the traps is equal parts vinegar, sugar, water, banana skin. It certainly deserves a name, perhaps Hornet Shrub or Wasp Slammer.

### **Wasps**

There is generally something wrong with the bees or the beekeeper if a colony is lost to wasps.

Peter's view is that there are no excuses - reduce the entrance to one bee space and remove combs from edge of the hives, the wasps use these first as they are away from most of the bees; if the wasp exits, it will return with more of its friends.

### **Varroa**

Most people who keep bees, treat for varroa.

Sheffield University students (part of E.A.R.S.: Eastern associations research studentship) are looking at why the varroa mite is invisible to bees and why it is not being removed; one theory is that it has a similar smell.

If varroa absorb the hive smell, then why, when varroa are moved from one hive to another, don't the bees detect them.

The 3 year research programme found that even dead mites pick up the smell of a colony. When all smells were removed from a mite and it was then placed in a colony, the dead mite picked up the scent of the bees and the larvae. The skin of mite picks up chemicals which travel across the mite's surface; in 3 hours it becomes invisible. Now further research is required to develop a treatment. At this point Peter reiterated the need for associations to contribute to research funds noting the paucity of contributions from Herts.

The low levels of varroa seen recently may be due to a break in the brood cycle as a result of a shortage of pollen in the spring.

Peter doesn't treat for varroa and has kept one swarm for 3 years so far. He mentioned that neonicotinoids have the same chemicals as varroicides so perhaps may be responsible for keeping mite numbers down.

Available treatments are oxalic acid, formic acid, Bavarol, Apistan, Apiguard (good for beginner), and MAQS.

### **Nosema**

Nosema is a fungal infection that gets into intestines of bee and competes for food and if levels get too high it will kill the bee. The infection comes from dirty old comb, and the storage of infected containers.

Nosema Apis is the oldest of the nosema strains, and Italian and New Zealand bees are more susceptible. If weather conditions are poor there are often signs of nosema, usually in the spring; the bees stay in hive, and dead bees don't die in field but remain in the hive and compound the situation.

Nosema Cerani affects the larger Asian bee but has crossed to the European bee. The disease is not easy to spot if bees get infected, and it tends to occur in the summer. The effects are a little like Colony Collapse Disorder (CCD) as the bees fly out and do not return.

There are no over-the-counter treatments for nosema and beekeepers should employ good management - keep the bees on new comb, not more than 2-3 year old and exchange any comb that is more than 3 years old.

A Fumil B treatment is available but only from vets as it contains antibiotics. Affected colonies can be requeened to reduce the problem.

### **Acarin**

Peter said that this disease, which affects bee airways, had mostly disappeared because of varroa treatment.

### **Bald brood**

This is precipitated by wax moth larva that tunnels through brood; the brood is capped over then uncapped as if the bees know something is wrong and the bees develop with capping. On examination, it appears that there is varroa in the brood and the uncapping allows the adult mites to escape.

### **Small Hive Beetle**

The beetle arrives from abroad on fruit and on dead bee parts in cut comb. It can exist in temperate climates and is found in the States from the southern states to the Canadian border. The treatment, Check-mate +, is a rather nasty chemical that is put under plastic and is not accessible by the bees. The beetles hide in the area to pupate and lay eggs. The beetle life cycle is one month and one beetle can lay 1000 eggs. The larvae look like wax moth larvae and a week after hatching they look for light and exit the hive. They bury themselves in the ground and emerge as adults after two weeks. They can fly up to 3-8 km and can detect where a hive has been opened. They eat honey and larva and spoil a hive. Strong colonies will manage to survive but weak colony will be most affected. Volcanic sand has been used to good effect under the hive as it has a sharp profile and cuts up larva as they emerge from the hive.

### **Treatments and Pest Management**

The reactive approach identifies the disease then treats, whereas a proactive approach is better and beekeepers should employ integrated pest management. Although Peter didn't approve of the proactive approach used in the States as the treatment employs the wholesale use of antibiotics. In the Netherlands, beekeepers use shook swarm every year, not because of disease management but that is just the way they manage bees. The shook swarm technique does reduce swarming.

Peter uses Snelgrove boards to separate a colony and move bees to new comb; it is similar to a Bailey Comb Change. The queen and the brood are separated and the flying bees emerging from the original brood join the queen. Eventually all the brood in the original colony will have emerged, then the honey can be extracted and the old comb thrown away. A steam extractor would be required to melt the small amount of wax in the old comb.

In response to a question about the environmental effects of treatments, Peter said that oxalic acid and formic acid are naturally occurring and will break down, and both can occur as traces in honey. Apistan is an insecticide and doesn't break down.

It is more important to treat hives in an apiary at same time, more so than changing to different treatments each year. Our thanks to Peter for a very informative and entertaining evening.

Now the weather has become much colder, a final reminder about mouse guards and netting to deter woodpeckers!

We have been offered a chance to show a film about bees in conjunction with the Friends of the Earth (FoE). The film is called 'More than Honey' ([www.morethanhoneyfilm.com](http://www.morethanhoneyfilm.com)) and is an in-depth look at honeybee colonies in California, Switzerland, China and Australia, touching on the issues affecting bee populations globally. The film is directed by Oscar-nominated director Markus Imhoof and is a foreign language film with English subtitles.

**We are replacing our currently scheduled talk by Andy Johnston on Queen Rearing with the film. The film will be shown on Tuesday, 19th November at Howgills. The film is free, and our members can view it without charge. Reserve a place at the film by contacting me or Helen.**

The Queen Rearing talk has been rescheduled to the February meeting.