Quantock Quest

The newsletter of the Quantock Bee Keepers Association (QBKA)

Issue 33 May 2023

The Chairman's Musings!

There was an inspection of the bees in the apiary to see if there was any evidence of EFB after the destruction of infected hives in the autumn. Fortunately, the news so far is good and it appears that the outbreak has been contained. We can't yet lift the standstill order, however, until the bees have gone through two brood cycles and still show no signs of infected brood. This means that no bees or equipment should be moved onto or off the premises until further notice, and that we should pay particular attention to any personal items of clothing, gloves, boots etc. which we use. The apiary managers, Mick and Bob, are in the process of carrying out a shook swarm procedure on the apiary hives to ensure that the bees are all on clean comb. This has an impact on Nosema and other pathogens as well as being a weapon in the armoury against EFB. Mick gave a very helpful demonstration of this procedure at a recent apiary meeting.

Another matter of concern has been the theft of a nucleus and the potential theft of hives from our site. Thank you to all members and friends who have offered their help and support in this area, particularly Emma Faulkner and Richard Osborne, who is a professional security consultant. Richard (who has been a member of the division for six years) undertook a thorough security check on our premises and has produced a report and recommendations for the consideration of the committee. After his inspection he gave a very useful talk to members about security, both for the division and in their own apiaries.

Best wishes for the coming season. For those of you who want swarms, I hope they come. For those of you who don't want swarms, I hope they don't come. Or perhaps you could all meet up? And if you have oilseed rape coming in, you know what to do.

Best wishes

Barry Hulatt (Chairman)

An "Out Apiary" quandary!

Barry Hulatt writes:

So, I am having a cup of tea on a Monday morning when a phone call comes from the committee of the allotments where I have been looking after four hives. People had been stung – would I please take all the bees away as soon as possible? Of course, I agree to this as I don't know the seriousness of the situation and can't claim the usual defence of 'you don't know that it was one of my bees'. When I get to the allotment I find that only one person had been stung, and he didn't seem to mind too much. (A jar of honey will help). However, I was concerned, as presumably were the committee, that next time it could be someone who is allergic, and the last thing anyone would want would be a case of anaphylaxis in a fairly isolated spot where people are sometimes working on their own.

Now comes the tricky bit. These bees are in big hives (16x10 framed 'Commercial' brood boxes) with at least one super on each. Lifting them on my own will be impossible at this time of year. My first step is to make things a little easier by removing the supers that night and taking them home, ready to reunite before they realise they are queenless. Next I find a friendly (and fit) local beekeeper to help lift the brood boxes which I have strapped and taped. Together we lift the hives over the barb wire fence, through a gap in the hedge and into the back of my truck. The strapping and taping have held, pretty well anyway. On arrival home in the dark the hives are unloaded onto a trolley (now I'm on my own) and taken to the far corner of the orchard, uphill of course. They get their own stands and their supers back.

Part of the problem

Part of the solution!

All has turned out well and has been achieved relatively quickly, with only a few stings in the process. Thanks to my friendly beekeeper who made this impossible task possible, and thanks to the bees who now seem quite gentle and settled in their new home.

Apiary Security. An experts view!

Following the recent theft of a hive from the Apiary we sought the advice of Richard Osborne, who is a security expert (and a longstanding member of QBKA!). He has kindly penned the following guide to keeping our bees (and our assets) safe :-

"Security is not a dirty word Blackadder" said General Melchett in Blackadder Goes Forth. So it must be true in the world of beekeeping and the attraction of opportunist thieves who place value on our hives, the honey and our bees.

Theft of hives in apiaries across the world is now sadly not uncommon. Commercial bee keepers can lose thousands of pounds to those motivated enough to conduct theft of many hives. Thankfully, in Somerset theft of hives is rare. A hive on its own can be worth several hundred pounds. The colony of bees can be valued at £200 to £300, and honey in containers could fetch tens of pounds. The value of each these items makes them attractive to those people who are motivated to steal either for their personal use (yes, other beekeepers), or local criminals who know they can sell colonies complete with a hive on eBay or via social media. For them it's easily done and unlikely they will be caught.

As a security professional I recommend the following considerations for security of your hives and property. You can find several links at the bottom of this article to several recommended products, but please note that there are many other great products out there on the market.

1. Mark your hives to make it difficult for a thief to re-sell the hive. This could be done using a branding iron, a soldering iron, or by marking or scratching the surface of boxes. This makes it difficult to paint over or hide the indelible marking on your hive and harder to sell onwards.

2. Consider placing a tracking device inside the hive which then allows it to be tracked. There are now many types of GPS or Bluetooth trackers on the market which you could use. Examples include an AirTag (suitable if you have an Apple iPhone) or a Tile. These type of devices can be bought easily online, are reasonably cheap and easy to use. They rely on internal batteries which can last for 12 months or more. Often people buy such trackers to put on their car keys, or in handbags, cars, etc and can see where they are on a smart phone or computer at any time. Therefore, why not use them on your hive as well to give you the best chance of recovering your property with the assistance of the Police. In my case, I have glued an AirTag inside all of my hives. I have hidden them well and made them hard to remove. The problem is that I will need replace the device or battery every year.

3. Try to secure the base of the hive to another structure, making it difficult for a thief to lift and remove the hive easily.

Don't advertise the location of your hives. I note that the QKBA apiary is well concealed behind a high hedge, which means that passing cars won't even know the apiary is even there.

Security (Continued)

5. Signage placed discreetly in the right location be used to deter thieves. **"This area is monitored by CCTV and all hives are GPS tracked"** - this puts doubt in the mind of a potential thief before they decide to commit the crime, as the sign suggests they are more likely to be caught after they've stolen the hive. In my case, I have chosen to put a small sign from a company called Selecta DNA on my side gate, and marked all of my hives with smart microdots invisible to the naked eye, but detectable via an ultraviolet light. Perhaps an ambitious approach but it's another layer of security that deters a potential thief.

Whatever you decide to do, remember to make it as hard as possible for an opportunist to take your property. Please report any thefts to the police and the QKBA. This will help other beekeepers be vigilant and ensure they are aware of thieves and the tactics they've used.

Below are some useful website links should you wish to explore more about some of the products I've mentioned above.

Link to AirTags: https://www.apple.com/uk/airtag/
Link to Tile trackers: https://www.tile.com/
Link to SelectaDNA: https://www.selectadna.co.uk/

The dreaded AH words!

The Chairman has recently put out an appeal via the Whatsapp group for several volunteers to join the Asian Hornet watch team in our area (particularly the western part). There has been a worrying rise in sightings during April from places as far apart ans Northumberland and Folkestone. Be under no illusions, the Asian Hornet is here, and we must be vigilant in stopping it getting a hold. All of our colonies are at risk.

As an experienced Beekeeper I thought that I was on top of the identification part of this vigilance. However, the other day my good lady came in from the Greenhouse and said "There is a "giant Wasp" in there! I went to have a look and sure enough there was what appeared to be a large Hornet. Worryingly though, it had a Yellow face and legs! This set the alarm bells ringing. I trapped it and called our AHAT co-ordinator (the Chairman) and he asked me to take pictures and send them to him. He also advised me to "get the App"! This is an Asian Hornet recognition tool for your mobile phone and allows you to recognise, record and report anything resembling one of these invasive menaces. I downloaded the App and from there I could see that, although my specimen looked very like an Asian Hornet from the front and it had yellow legs, that it was in fact a European Dark Hornet. The giveaway was the diamond back patter on the Thorax instead of the dark single black band. An easy mistake to make (when you know) but the App clarified things nicely. And best of all, it is free! It is a vital tool in controlling the impending spread of this dangerous invader. Get it for Android at:-

https://play.google.com/store/apps/details?id=uk.ac.ceh.hornets (Also available for Apple)

QBKA Surplus Sale

We recently held a sale of surplus equipment from either the QBKA stock or donated items. The event was held at Ken Edward's house, as we could not use the Apiary because of the "lockdown" order. Thanks goes to Ken for allowing us to use his property. A good selection of stock was available and members went home with some real bargains. Here are a few pictures of the day.

The Nic Wills Problem Pages!

Once again, our regular contributor ,Nic Wills, has come up with a wonderful article on a problem that could face any beekeeper. Nic writes:-

I recently lost a colony over winter. It was a strong colony, and one that had plenty of stores and were taking down fondant during the winter months. However, on my first inspection I found the colony had died out! So what was the cause of this apparently healthy colony failing?

Looking at the amount of Bees on the hive floor, this was a strong colony. And given the amount of stores still in the hive these Bees did not starve out!

A more thorough investigation was called for. Close attention was paid to hive and it soon became obvious as to the cause. There was a large amount of Bee excrement on top of the frames and inside the wall of the Hive! It looke very much like the colony had suffered an outbreak of **NOSEMA!**

Nosema!

Nosemosis, or Nosema disease, is caused by two species of microsporidian parasites (a type of spore forming fungus) called Nosema apis and Nosema ceranae. N. apis is thought to have originated on European honey bees, while N. ceranae is thought to have evolved as a pest of Asian honey bees (Apis cerana) and has only started to affect the European honey bees relatively recently. N. ceranae appears to be more damaging than N. apis, affecting more cells in the bees mid-gut and killing infected bees faster than N. apis.

Infection of adult bees at a young age can cause the bee to have difficulty digesting food for the rest of its life. These bees usually do not produce brood food/royal jelly secretions from the hypopharyngeal glands and often skip the brood rearing stage of their life, becoming forager bees at a young age. The infected bee often has a shortened adult lifespan. When queen bees become infected they also have reduced lifespans and cease to lay eggs. These impacts cause reduced colony health, population and performance, which can ultimately result in the colony dying.

Both species of Nosema infect worker bees, queen bees and drones. The fungi produce spores which are ingested by adult honey bees when they feed on food and water contaminated with spores, or are picked up while cleaning contaminated combs, robbing contaminated hives or by infected bees drifting to new hives. A single spore can cause infection, and by the time that infection is fully developed in an adult bee, there could be between 30-50 million spores in the gut of the bee. The life cycle of both Nosema species are similar and consist of the following:

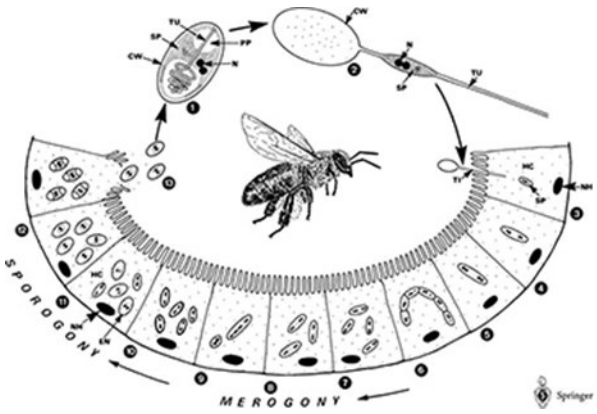
✦ Infection begins when a bee ingests Nosema spores, which then germinate inside the mid-gut of the bee.

✦ The fungus enters the cells of the mid-gut and begins to absorb nutrients. This causes the cell to become damaged and the bee to be more susceptible to secondary infections.

✦ The fungus grows and multiplies infesting more of the mid-gut cells and produces spores.

✦ Several million spores can be produced in a single worker. The spores either germinate within the bee's mid-gut, infecting new cells, or pass through the bee's digestive system.

Faecal material containing Nosema spores can contaminate food and water sources, where they can then be ingested by other bees. Spores can also be spread to non-infected bees when they clean contaminated combs, or rob contaminated hives and ingest spores in the process.



Life cycle of Nosema. The spore injects its contents into a gut epithelial cell, multiplies, and eventually causes the cell to burst and release the new spores back into the gut. Nosema can also produce 'vegetatively' cell to cell.

In the case of my colony, all the symptons of Nosema were present! Trouble digesting food, no eggs or brood resulting in the colony dying. But what could I do about it?

Stopping Nosema!

Another thing that I noted on my inspection was the blockage of the 10mm entrance hole by the dead Bees falling from the comb! This effectively stopped all movement into and out of the hive!

The blocked entrance hole!

The most effective control of the disease relies on maintaining strong hives and taking precautions to reduce the build-up of the disease.
The best way to manage Nosema is to maintain a strong, healthy hive. Good management practices such as ensuring that appropriate nutrition is available to bees, using young queen bees, and comb rotation every 3-4 years will keep colonies strong and remove possible causes of stress, which can make the colony more susceptible to the disease.
It is also good practice to try and avoid moving hives, or inspecting hives during winter, as inspections and movements at this time can increase the stress levels within the colony. When getting hives ready for winter, always ensure that there are not excess boxes on the hive, as well as ensure that there is enough good quality honey and pollen for the colony. If there is not, consider feeding a protein rich pollen supplement and sugar feeding.

All frames need to be cut out and wax burnt. You must then clean and sterilise the hive by torching. Due to the amount of stores still in the hive it had been caught early and was removed from the apiary, so other colonies could not rob and spread the spores. The other colonies in this apiary will be monitored. Hygiene between hives is a must so as not to aid spreading.

Using a serrated knife, cut around the inside of the frame. Doing this over a bucket is easier. Burn the comb

Colony Collapse?

Barry Hulatt writes:-

There have been several reports from members about winter losses in which there were apparently plenty of stores. This might, of course, be as a result of 'isolation starvation', where a clustered colony has empty combs between it and its full combs. Leaving a queen excluder between the brood box and a super also wouldn't help. However, some of the losses I have heard described sound like 'colony collapse', a phenomenon first described in the US. This is not well understood but is possibly associated with severe varroasis, in which a colony is overwhelmed by varroa and the viral load which it carries, which eventually kills the colony.

The collapse that happened to one of my colonies was, however, quite different (see the accompanying photos). This double brood colony had been on a solid stand, weighted on top and set next to a hedge away from footpaths. The site was fairly exposed, but the hive was stable. When I went to visit the out apiary, in the midst of the very cold snap in March, both brood chambers, the floor and the roof were separated and on the ground. The boxes were apart, and at first sight I despaired, thinking this strong colony must be lost. On closer inspection, however, I saw that the bees were tightly clustered in one of the brood boxes and appeared alive and yet open to the elements. And this was at a time when there was frost on the ground!

I reconstructed the hive, ensuring that the stand was still solid, only getting a couple of stings on the process. I suppose they were very torpid. The question remains, what knocked the hive over? It was fenced off from sheep and cattle, but something had gone through the hedge. A badger is a possibility, but it had not attacked the combs. (Also, I have colonies on another site which is almost on top of a badger set. This has never had any issues. Has anyone had badger problems?). The best bet I have for the damage is a roe deer as I often see them in the field. Perhaps one rubbed against the hive, got stung and panicked?

First Inspection?

Nic Wills has sent in some superb pictures of a colony during his first inspection of the year. These are notable, not only for the early Brace Comb, but for the peculiar, almost Red honey that they are storing! Could the more enlightened explain what this colony would have been foraging on, in order to produce such a coloured honey?

Keep Those Articles & Pictures Coming!

Please keep sending me any interesting articles, observations, pictures or items of equipment for sale adverts!. The Quest is only as good as YOUR input, and we would like to see more contributors. What about a regular article from a Rent-a-Hiver outlining their journey and experience. It would be wonderful to hear your side of things. I look forward to hearing from you.
Send any material or pictures to billmonteith309222@gmail.com

The newsletter of the Quantock Bee Keepers

Spaxton Rd Apiary,
Spaxton Rd,
Bridgwater
TA5 2NU.
https://www.somersetbeekeepers.org.uk/quantock.html
President : Mr K Edwards
Chairman : Mr Barry Hulatt
Secretary : Mrs Ruth Walker
Treasurer / Membership: Mrs Alison Monteith

2023 Programme of Events

May

Saturday 6th – -Setting up the observation hive 2pm- Apiary, **Cancelled due to the Coronation**

Wednesday 11th- Drop In – 7pm- Apiary

Saturday 13th– Making Increase- 2pm- Apiary, New beekeepers and all members

Saturday 27th-Open session– 2pm Apiary- New beekeepers and all members

June

Saturday 10th – Using Apideas -2pm- Apiary, New beekeepers and all members

Wednesday 14th- Drop In – 7pm- Apiary

Saturday 17th- Feeding a Nucleus – 2pm Apiary- New beekeepers and all members

Saturday 24th- Brymore Country Fair

July

Saturday 1st –Building up- 2pm- Apiary, New beekeepers and all members

Wednesday 13th- Drop In – 7pm- Apiary

Saturday 15th–Reading the comb- 2pm- Apiary, New beekeepers and all members

Saturday 29th-Open session– 2pm Apiary- New beekeepers and all members

August

Saturday 5th –Pests and diseases/moving bees- 2pm- Apiary, New beekeepers and all members

Wednesday 10th- Drop In – 7pm- Apiary

Saturday 19th–Removing honey and varroa- 2pm- Apiary, New beekeepers and all members

September

Wednesday 13th- Drop In – 7pm- Apiary

Saturday 16th–Preparing for winter/uniting/feeding- 2pm- Apiary, New beekeepers and all members

October

Wednesday 12th- Drop In – 7pm- Apiary

Saturday 21st–Maintenance and stock keeping- 2pm- Apiary, New beekeepers and all members

November

Tuesday 7.30 date TBC- Introduction to beekeeping course starts

Friday 17th 7.30pm QBKA AGM- Spaxton Village Hall

December

Saturday 9th- Oxalic Acid- 2pm- Apiary, New beekeepers and all members