THE LEEDS BEEKEEPERS ASSOCIATION
BRANCH OF THE YBKA
AFFILIATED WITH THE BBKA

"The Leeds Beekeeper"

INDEX

© *Friends of the Honeybee*

I think there are few things that focus the mind as much as leaving your phone on vibrate in your pocket whilst inspecting your bees.....

CHAIRMAN'S NOTES

Hi everyone how's it going? Another month gone by, another month closer to spring. I have fondant on 98% of my colonies whether they need it or not and my losses so far are one nuc. Keep checking your bees for stores!

So what can cold February throw at us and what should we be doing. The good news is the days are getting noticeably longer and a little warmer. It could be a bit of a difficult time for the bees as the older workers care for more and more brood as the queen's laying slowly increases.

On a mild day when the bees are flying have a look at the entrance. If you see pollen being taken in it's a good sign that all is well inside. If you see nothing happening there could be more of a problem; give the side of the colony a hard rat a tat tat with your knuckles. If nothing appears at the entrance sadly it could be dead.....

No matter how much you are tempted, unless it is essential avoid opening the hive to look inside. The bees have to work hard to maintain their brood nest temperature. They can chill easily and use up the stores much more quickly bringing the temperature back up again.

If you have treated for Varroa, pollen is coming in and there are enough stores, all should be well. So all that is left to do is keep cleaning your equipment, reading your books and keep hefting.

Duncan Brearley

YBKA SPRING CONFERENCE, YORK, 25TH MARCH 2017

Whatever your skills are in beekeeping you will find something of interest at the next YBKA Spring Conference to be held at the Manor Academy, Poppleton in York. There will be a range of speakers with several workshops running alongside. You can select which workshops you wish to attend during the first break of the day. First come, first saved.

A taste of what will be on offer:

- Dr Sara Robb will talk about how she converts residual materials from the beehive in to potions, soaps and cosmetics.
- Yvonne Kilvington will share her experience of introducing children to beekeeping
- Dr Ravi Shankar will advise on managing bee & wasp sting allergies.
- Keith Bartlem will explain how bees fly with comparisons to the human aviation industry.
- Mark Patterson will advise on the importance of providing good quality forage for bees

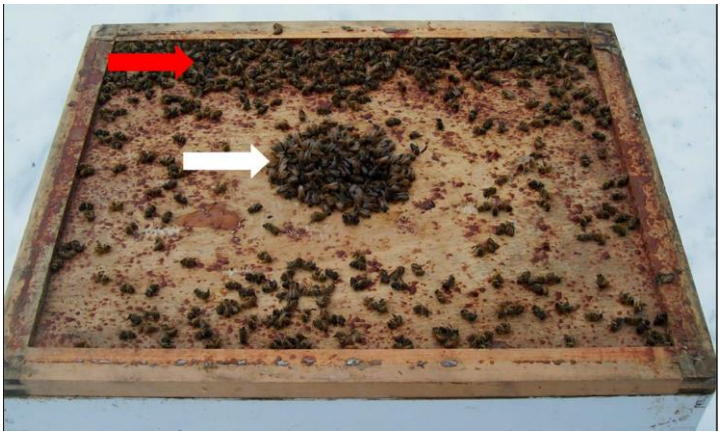
In addition there will be the workshops and drop-in clinics to choose from.

All this plus lunch for only £25.

Further details are available in the brochure. Send in your application soon to be sure of a place. If you prefer a hot lunch you should book before 22nd Feb as that's the deadline set by the caterers, after that only cold lunches will be available. **Book your place now**!

BACTERIA ISOLATED FROM VARROA

Researchers in Wisconsin have isolated *Serratia marcescens* from the hemolymph of dying worker honey bees during the winter. However the same bacteria was rarely present during the rest of the year. It was also found within around 50% of varroa present in the infected hives. The researchers believe the presence of this bacteria contributed to the failure of the hives within Wisconsin. However further work is needed to understand the transmission mechanism between the bees and varroa.



Active bees (white arrow), Immobilised living and dead bees (red arrow)

http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0167752

COLONY WANTED FOR POLLINATION

As a member of the LBKA David has been asked by a friend (not a beekeeper) if it would be possible for an LBKA Member to place a colony (perhaps more than one) in his back garden in West Park, Leeds. This is envisaged as a short term arrangement during the spring fruit blossom period. This person is also involved in the planting of fruit trees on public ground nearby, so there should be good potential nectar/pollen sources nearby to this particular garden. Any member interested should contact David Haigh on 07821 252958 or haighd@sky.com for details.

WINTER TALK – JANUARY

A late substitute was needed for the January meeting, as Dr Sophie Evison was unable to attend – hopefully her talk will be able to be rearranged for later in the year, with master beekeeper Jim Pearson giving an excellent talk on "Myths, Legends and Lies" surrounding beekeeping. The talk, and the following question and answer session were fantastic. It covered diverse topics such as apideas, extreme polyandry, deformed wing virus, Italian bees, black bees and virgin queens. Thus there was something for beekeepers both new and old; a great talk by Jim indeed. I wonder in light of his talk how many beekeeepers will be trying out water sprays on their bees this year?

A good turnout for the January meeting

This year's queen colour is yellow

Pens are available from the LBKA shop

A STICKY SITUATION

A Texas home owner found herself with a sticky problem when bees took up residence in her roof space. Attempts were made to remove the bees from the roof but the Queen bee could not be located. The home owner was left with honey running down the walls of her house – a whole new take on Willy Wonka's lickable wallpaper. See link for more details – beware of "Beeyonce" popping up half way through.....

http://fox2now.com/2017/02/06/bee-infestation-has-honey-dripping-down-walls-of-texas-home/

I SPY A YELLOW EYE

Magnifying glasses at the ready readers, Geoff Scott, a beekeeper in Southland has found drone bees within his hive with yellow eyes. Geoff, an experienced beekeeper with over fifty hives was a little surprised to say the least, he had heard of white eyed drones (which are incidentally blind) but not yellow.

Can you spot the yellow eyed drones? (image is clickable)

> *"At first I thought they had a bit of pollen in their eyes, but after closer inspection it became obvious it was not pollen changing their eye colour - They were born that way"*

Drones are of course the result of an unfertilised egg and thus only contain one set of chromosomes. It is likely that yellow eye colour is a rare recessive allele and thus rarely observed in bees. In female worker and queen bees with two sets of chromosomes the normal black eye colour is dominant such that even in those heterozygous carriers, yellow eye colour is not expressed in the phenotype. Unfortunately the queen responsible has since died

http://www.stuff.co.nz/southland-times/news/88701258/great-scott-yelloweyed-bees

BRINGING BACK THE BLACK BEE

Apis Mellifera ©William Banik

There are around 250 species of bee in the UK, including the honey bee, 24 types of bumblebee and many solitary species, many of which are in decline. Worldwide there are 27 variants of honeybee with ten distinct types located in Europe leading to genetic variation. It is this genetic variation which drives diversity and it is important to preserve the gene pool, but how can this be achieved?

Most commercial honey bees are from two Mediterranean varieties (Apis mellifera ligustica and Apis mellifera carnica), subsequent hybridisation between the two varieties and the native species gradually erodes the genetic integrity of the native species. Thus some biologists believe it is important to preserve native species and it is against this background that the B4 project has been established in Cornwall.

The “Bringing Back Black Bees” group hope to protect the UK’s black bees (Apis mellifera mellifera) and are working with researchers from Plymouth University using genetic control methods. They are trying to establish how much hybridisation has already taken place due to mating with commercial colonies. By using the latest in genetic screening techniques and looking at the traits present in the bees such as worker production, disease susceptibility, colony longevity and honey it is hoped to link these attributes to the different genetic signatures.

Additionally they are investigating the feasibility of cryogenically freezing bee sperm as a method to safeguard genetic variation for the future. For more details please see their website.

http://www.b4project.co.uk/the-project/

Apis Mellifera Mellifera

ARE NEONICS AN ISSUE?

It is often difficult (and costly) to conduct large scale field experiments and often conclusions about a species behaviour in the wild must be inferred from smaller controlled laboratory experiments. In the field of bee research few areas have been more controversial in recent years than the neonicotinoid issue. In the last 10 years around 18 field trials have been conducted on honey bees, bumblebees and in one case on the solitary red mason bee looking at the effects of neonics. A recent article by Jon Entine looks in detail at the conclusions of each of these field trails. His article highlights some of the discords between field trials and laboratory studies. One thing is for sure is that neonicotinoids are a complex and emotive topic within the bee world and a definitive answer regarding their potential harm is still pending.

What are the effects of neonics?

https://www.geneticliteracyproject.org/2017/02/06/gold-standard-assessing-neonicotinoids-field-bee-hive-studies-find-pesticides-not-major-source-of-health-issues/

BEES ON THE BOX

Dragons Den

For those of you who missed it, a couple of beekeepers were featured on a recent episode of Dragon's Den, looking for investment in their Just Bee drink range. The idea behind this is to use honey as a natural sweetener in place of sugar. Were they successful, you will have to watch to find out!

http://www.bbc.co.uk/iplayer/episode/b08d39rg/dragons-den-series-14-episode-12

Countryfile

Meanwhile a recent episode of Countryfile visited the National Botanical Garden of Wales where DNA barcoding is been used to establish which plants bee species visit. From their work they were able to establish that during the early foraging season, their bees were favouring plants such as willow, hawthorn and gorse.

http://www.bbc.co.uk/iplayer/episode/b08bcln2/countryfile-carmarthenshire

Only Connect

And finally as mentioned last year a group of beekeepers are appearing on Only Connect, find out how they did in their latest appearance as they try to reach the quarter finals.

http://www.bbc.co.uk/iplayer/episode/b08c42lm/only-connect-series-12-27-beekeepers-v-cosmopolitans

Sweat Bee © Javier Quezada

SOME BEES LIKE IT HOT

Often farming gets a bad press with regards to bees – habitat destruction and lack of diversity to name two issues. However in the Mexican peninsula of Yucatán the slash and burn approach of farmers is actually having a positive effect on the native sweat bees, where around 70% of crops require pollination. This form of agriculture creates attractive habitats for the sweat bees, and the farmers are rewarded by good pollination rates of the habanero chillies of which the major pollinators are the sweat bees. Other crops such as avocados, beans, passion fruit and star fruit benefit from the sweat bee's presence.

https://www.sciencedaily.com/releases/2017/01/170117140203.htm

HOW THICK ARE YOUR GLOVES?

Which type of gloves a beekeeper wears is often down to personal preference and/or experience. There are those who can be found skipping around the apiary "au natural", fingers exposed to the elements, offering up their ten little digits to the bee gods, whilst others prefer the thick leather approach.

A glove for every occasion

There isn't a right or wrong answer to the question – some beekeepers prefer thicker leather gauntlet type gloves, sure in the knowledge that their hands are safer from a stinging, and that helps to inspire confidence to manipulate the frames of bees. Others would argue that the lack of feel from a thick pair of gloves means you are more likely to accidently squash bees without realising, leading to the release of alarm pheromone and the subsequent change in bee behaviour this invokes.

What is important is hygiene; there is the potential when using leather gloves to harbour pathogens, using disposable nitrile/latex gloves removes this possibility. Also using the same gloves (or indeed beekeeping equipment) on multiple hives has the potential to transmit disease between those hives.

Personally I go somewhere in the middle – a thick pair of marigolds, something I know wont rip, but at the same time that sense of vulnerability helps to focus the mind.

RUSTY BUMBLEBEE ENDANGERED

It is the turn of the rusty bumblebee (*Bombus affinis)* to become the latest bee to be added to the US list of endangered species. They are so named due to the red "rusty" patches workers and males have on their backs. This comes hot on the heels of seven Hawaiian bees which were placed on the endangered list in 2016. Over the past twenty years the rusty bumblebee has declined by over 80% and what was once a common site is no more with the bees only been found in 8% of their former territory. The main issues facing the rusty bumblebee are loss of habitat, diseases and parasites, pesticides, and climate change.

Bombus Affinis ©Alamy

http://www.livescience.com/57469-rusty-patched-bumblebee-declared-endangered.html

BEES STOP PLAY

The recent match between Sri Lanka and South Africa included a bizarre delay as a swarm of bees took up residency on the field. Play was suspended for over an hour as attempts were made to disperse the bees from the playing surface including a groundsman with a carbon dioxide fire extinguisher.

Some uninvited spectators invaded the field © Reuters

After seeing the drama unfold on television, local beekeeper Pierre Hefer headed down to the ground with a box of honey in hand to try and tempt the bees away from the playing surface.

http://www.bbc.co.uk/sport/cricket/38868267

NASONOV GLAND


A honeybee fanning at the hive entrance, the Nasonov gland (white strip) can be seen above the last abdominal segment.

As we continue our tour of honeybee glands we find ourselves at the Nasonov gland. First described in 1883 by Nikolai Viktorovich Nasonov, after whom the gland is named, the Nasonov gland can be found between the 6th and 7th tergite.

Nasonov pheromone is secreted by worker bees from the Nasonov gland and is used for orientation. There are approximately 600 ducts which channel the pheromone into the groove between the tergite from where the bees use vigorous fanning to spread the pheromone enabling it to be detected by nearby bees. These Bees then use the pheromone to find the entrance to their hive and may also release it on flowers so other bees know where to find nectar, or to help identify a source of water.

The Nasonov pheromone includes a number of different terpenoids including geraniol, nerolic acid, citral (both isomers), nerol, (E.E)-farnesol and geranic acid. It should be noted that the levels of these components vary with age and indeed time of year. Production levels of Nasonov pheromone increase in bees between 7 days to maximum production at 28 days, this is reduced in bees over winter, presumably due to the lack of foraging. Nasonov pheromone can also be produced synthetically, consisting of a 2:1 ratio of citral and geraniol and is used to entice swarms into unoccupied hive equipment or indeed a swarm catching box.

ASK THE BEEKEEPER

Have you got a burning beekeeping question that you want an answer to? Then please send it to editor@leedsbeekeeper.org.uk and we will do our best to find you an answer!

12OZ HEXAGONAL JARS

Hopefully your bees have been busy and you now have lots of honey and not enough jars to put it in…. fear not LBKA have the answer! 12oz (340 g) hexagonal jars with lids are available in the shop at a bargain price of 23p each, they come loose so you can buy as many as you require. Please bring a cardboard box to carry them home in. If you require a large quantity, please email Duncan thebeeman@hotmail.co.uk or ring him on 07855 308143

Got an article for the next edition? Please email to editor@leedsbeekeeper.org.uk by 28th February, before you start raiding your fridge for eggs and milk.

FORTHCOMING EVENTS

February

Saturday 11th - Apiary Day – 10.00 a.m. – 12.00 noon

Wednesday 22nd – Winter talk - Preparing honey bees for Spring by Mr Ivor Flatman

March

Saturday 11th - Apiary Day – 10.00 a.m. – 12.00 noon

Saturday 25th – YBKA Conference