Ayr and District Beekeepers

March 2009

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Buzzword's new feature from Ian Jamieson.

March Comment

What you do in March in this area will depend on the local climate where you live which will be influenced by the shelter and altitude. Colonies can be at quite different stages of development at this time of the year due to the above but also to their genetic make-up, and operations have to be adjusted accordingly. For many colonies it will still be too cold to disturb the brood nest at this time, but checking at the feed-hole in the crown board or even gently raising the crown board can be done to check that there are adequate stores. This is something which needs to be done. The queen will be (or should be) increasing her egg laying and this puts an increasing demand on the stores of honey and pollen in the hive. Even colonies, which have gone into the winter with apparently adequate stores, can be running low. Strong colonies going into the winter need a lot of food to keep them going – how much will depend on the type of winter – the milder it is, the more they will use up. The weather this winter has been cold and often wet with the consequence that bees have been confined to the hive for much of the time. If you find that your bees are desperately short of food, you must feed them or you may well lose them. In more favourable sites where the bees are more advanced, you can feed sugar syrup in a contact feeder over the feed- hole. The concentration depends on how soon you expect the bees will be able to gather nectar naturally – if that should happen in the near future, then feed weak syrup which is 1lb sugar to 1 pint of water, otherwise thicker syrup, say 2lbs sugar to 1 1/2 pints of water. Weak syrup stimulates the colony which you should avoid unless there is an early flow (of nectar from flowers or trees) in your area. If you are in a late area, then a bag of damp sugar with a small hole cut out of the paper on the face of the bag, can be put over the feed-hole, face down under an empty ice-cream tub.

If you have a sheltered site, bees may have been able to visit snowdrops and crocuses, but for many the weather has been too cold, wet and windy for the bees. This year, the gorse, which is usually a useful and reliable source of pollen and possibly nectar, is only just starting to bloom. Soon, hopefully, the willow will be providing both nectar and pollen. There are, of course, many other plants which are useful at this time, e.g. the Hellebores and Mahonias. It is worthwhile planting some useful plants or trees within easy reach of your hives, for the early part of the year when bees are unable to fly far from the hive.

In addition to monitoring the stores of food in the hive it is essential that you start looking for signs of disease e.g. brown spots on the front of the hive which could be caused by dysentery or nosema; bees with dislocated wings, which might be acarine or deformed bees, which is likely to have been caused by a serious build up of varroa mites. Nosema, acarine and dysentery can be serious but quite often as the hive builds up the problem disappears during the summer. Varroa destructor is however well named and if there is a serious infestation, it has to be addressed or your hive will die out. Apistan or Bayvarol are the most efficient treatments but they have to be used with restraint or there is the danger of mites becoming resistant, apart from other side effects.

A new feature for Buzzword which we will now see on a monthly basis from Ian Jamieson. Beginners I think will find it especially useful, and old hands will no doubt have their own views—if so, please let me have them and get some debate on the pros and cons of beekeeping; after all that's what beekeepers do anyway whenever they get together! Thanks Ian for March Comment, and indeed future Comments.

First Talk to Beginners at Doonfoot 2009

A gratifying number of beginners turned up for the first talk of the season at Doonfoot.

Phil commenced with an introduction of the contents of the remaining weeks and continued his talk by giving a summary of the type of hives historically associated with the honeybee: The Skep - a very basic structure with the disadvantage that the bees had to be driven off to gain access to the honey. Also at this time protection for the beekeeper was very primitive.

WBC Hive - the most iconic hive. Double walled therefore awkward to move.

National Hive - the Modified version now the most common, and easy to transport.

Some interesting facts regarding the number of flowers visited ie 50 -100, flower specificity and the fact that in order to produce 1lb of honey 55,000 bee miles need to be flown. Due to the amount of pollination the bees carry out they are reckoned to contribute $14.6million dollars to the USA economy. The weight of pollen the bee carries is equivalent to a human carrying 20Kg.

Using slides Phil demonstrated the difference between the Honeybee and the Bumblebee, and described how our original native honeybee died out in the 1920s due to disease, and other strains were introduced, creating a new mongrel strain.

An outline of bee anatomy followed with microscopic views of internal organs and the venous system, the difference between female and drone eyes and the ultraviolet spectrum which the bee beholds. Very cleverly, nature provided the bee with a version of velcro long before humans invented it and this is used to overlap the bee wings using the Hamuli in order to maximise her flying abilities.

A description was given of the type of bees found in the hive and their respective life cycles

The roles and duties of each was explained, and the determination of the first Queen to emerge to be the only ruler of the colony was shown.

Pests and diseases were mentioned, and Varroa mites explained with an outline of treatment.

The benefits, both internal and external of the end product of the bee's season, namely honey, was also spoken of.

Phil gave a very spirited talk and showed some excellent slides. The information was given in a manner which, while being informative was not too detailed, but designed to whet the appetite of those present for more details.

Tony's Talk on the Honeybee (see also page 8)

Tony commenced by showing slides which clearly demonstrated the differences between the Honeybee, Bumblebee and Wasps. The life cycle of each was explained, including the different type of feeding allocated to each, and how this affects whether a Queen or a worker emerges.

The substance Royal Jelly is fed to the Queen for three days initially, and she increases her body weight x 1500 in five days.

Cells are capped at nine days, however Drone cells are not capped till day ten, and this together with their larger size makes them more vulnerable to Varroa. The cells are sealed with a mixture of pollen and wax to allow the grubs to breath, whereas honey is sealed with wax only.

Tony described the life of the worker from emergence from cell to foraging and how important it is for young bees to be fed sufficient pollen, to enable them to make wax when they are older. It takes 9lbs of honey to make 1lb. of wax.

Anatomical aspects of the bee were explained and demonstrated with slides which gave clear and graphic sight of the main features of the honeybee e.g:

tongue, compound eye, wings, sting and nasanov gland. Wax scales underneath the body and statically charged hairs were all shown and explained.

Bee space is a critical 8mm. If gaps within the hive are more than this the bees will fill them with brace comb, if less will glue with Propolis, a substance which has antibacterial properties, but can be a nuisance when sticking hive parts together. Propolis is also used to mummify intruders the bees have despatched until they can be removed.

Foragers will return to the hive and indicate to their sisters by means of their waggle dancer where they can find a source of nectar or pollen. The dance can be a figure of eight, or a circle depending on the position of the sun which they use as a compass. The further away the food source the more elaborate the dance. How can they communicate this inside the darkness of the hive: it seems they do this by means of gravity; upward wagging means the food lies towards the sun, downward wagging indicate the opposite direction. (This is a very simplified explanation)

The importance of Queen pheromone, and the role of this singular being in the hive was reinforced with visual display of a Queen laying eggs, and their position in the cell.

A clear and logically arranged talk, excellent material for beginners.

:BEES NEED WATER

>
> Water is a very important resource for the honeybee colony and vital
> component in the honeybee diet. It is involved in
> carrying dissolved food materials to all parts of the body, assisting in
> the removal of waste prod-

ucts and digesting and
> metabolising food. It is used to liquefy part crystallised honey and is
> required by nurse bees whenever it becomes necessary to dilute honey in
> the processing of larval food. When fresh nectar is available this need
> is diminished. Caged workers or queens readily take in water when it is
> offered to them and live longer than bees that lack water.
>
> Water is also used for cooling and humidifying the interior hive
> environment. In hot, dry weather water is deposited on the tops of combs
> in small cell-like enclosures generally made from old wax and propolis.
> It is also deposited in indentations in the cappings of brood so that
> the comb looks as if it had been sprinkled with water. Lindauer (1955)
> observed that tiny droplets of water are also placed inside the cells,
> especially those containing eggs and larvae where it prevents drying of
> the larvae. Bees actively ventilate the hive interior by fanning and
> evaporating the water droplets by manipulation of the water upon the
> tongues of house bees.
>
> Water collectors are experienced foragers and tend to collect water from
> the nearest available supply. Water-gathering round
> trips take less than five minutes. A bee commonly spends a minute or
> more in taking up a load of water. When a water carrier brings her load
> of water into the hive and climbs on the comb, she begins vigorous
> dancing. Usually four or five bees follow each dancer and, at more or
> less frequent intervals, the dancer pauses long enough to transfer a sip
> of water to one of the nearby workers. At times a water carrier dances
> for a full minute before transferring her load. Sometimes a water carrier
> enters, “performs” a brief dance and then proceeds rapidly to dispose of
> her load. Sometimes she gives a small amount to each of half a dozen
> bees in quick succession before resuming her dance and then, after
> dancing a while, transfers the balance of her load to one or two bees.
> It is not unusual to see two or three bees being supplied all at one

Then she almost invariably gives her tongue a swipe between her front feet, rubs her eyes, often cleans her antennae and then leaves quickly. Water foragers continue to collect water as long as hive bees relieve them of the water in their honey stomachs. They often make more trips per day compared to nectar or pollen foragers.

These "water specialists" may fly 50-100 trips per day. Water foragers tend to collect water from the nearest available supply especially if that supply is continuous. If a water supply is not available within a quarter of a mile from the hives, provide a tank or pan of water with floating pieces of wood or gravel for the bees to land on. When nectar and water are not available bees cause problems by visiting water taps, garden ponds and bird baths. Once they become accustomed to a watering place they will continue to use it all through the foraging season.

Water must always be available close to hives starting the day a colony is established or moved. The activity of the bees at the watering place can give you a clue about the nectar flow. When the flow begins the bees use dilute nectar in place of water and very few bees continue to visit the regular source of water. Extremely hot weather, however, may bring them back for water to cool the hive. There is no doubt that water is very important to the survival of a colony. In hot areas where water supplies are sparse, the consequences can be very serious unless water is supplied to the hives.

Since bees do not normally stores water in the hives except in the honey sacs of reservoir bees, bees confined for any length of time must be provided with water.

Thanks to Rosie for submitting this piece.
Originally by Harry Fulton, Mississippi BKA

Thanks to our main contributors this month - Ian and Rosie, for their sterling pieces of work. If you have any thoughts on any of them, please send them in to Buzzword.

Next month Buzzword will have another new feature - a FAQ's. Send in your queries and an experienced beekeeper will answer them e.g....

Q. - What is bee space?

A - The space through which workers, drones and Queen can pass through inside the hive. It measures around 6—8 mm.

BEE ACTION PLAN

http://beediary.wordpress.com/french-manifesto/

THE U.N.A.F. CHARTER FOR SURVIVAL OF BEES

1. Join with UNAF to gain government support for a genuine protection of bees
2. Demand a strict application of Directive 91/414 to control agricultural pesticides
3. Encourage a farming system which respects the natural environment
4. Ban the use of pesticides, toxic to bees, from all parks, gardens & civic land.
5. Do not proceed with the licensing of genetically modified crops in France
6. Plant flowers which provide pollen and nectar for bees and insects
7. Promote advisory and educational materials for farmers
8. Encourage the creation of new bee colonies and new beekeepers
9. Encourage knowledge and education of bees and beekeeping among the public
10. Promote the role of the bee as a sentinel or watchdog for the wider environment
11. Promote the economic value of beekeeping and research to help it flourish
12. Encourage international exchanges between beekeepers to foster co-operation

The French UNAF site is at:

http://www.unaf-apiculture.info/

CO-OPTION AND FUNDING OF THE BBKA BY BAYER PESTICIDES

You may or may not be aware that there has been an intense battle going on within the UK's national beekeeping NGO for the last 5 years - and many people like myself have resigned over the issue that the BBKA had set up a secret contract to endorse Bayer pesticides in return for large sums of cash - since 2003. The membership were not consulted about this contract - not about the secret company -BBKA Enterprises which was set up as a conduit to channel money from Bayer to the BBKA Executive. As far as we have been able to discern from the accounts, the BBKA has been in receipt of approximately £20,000 a year from Bayer for endorsing five specific pesticides as 'bee friendly'; but it is an uncontested matter of record that every one of these five pesticides kills bees on contact.

Many of us believe that the BBKA has been co-opted by Bayer and we also suspect that key members of the BBKA Executive have overt conflicts of interest in that they may be in receipt of research grants from Bayer in their personal professional contexts; we cannot as yet prove this, but there is really no other explanation for the BBKA's 'pro-pesticide' and 'pro GM crops' stance.

DIFFICULTY OF ARRANGING TRULY INDEPENDENT RESEARCH ON BEES AND PESTICIDES

I was not surprised that you have had difficulty getting any university or bee-research group in the UK to accept your offer of funding. There is strong evidence that Bayer's strategy has been to neutralise and co-opt any university bee-research agencies through a process of generous grant-aid for research into Bayer pesticides - where the research parameters are closely defined by Bayer. They would be very unlikely to willingly join a truly independent research project into the effect of neo-nicotinoid pesticides on bees because this would endanger much larger funding from Bayer and their long-term relationship with Bayer.

I am equally concerned that you will be approached by key members of the BBKA Technical Committee - with the offer that they will help you to identify a suitable research team and they will also offer to define the research parameters. Please be aware that these people have done everything possible to deny any relationship between neo-nicotinoid pesticides and bee-deaths in the UK - and I would strongly advise you against allowing them to design or influence any independent research that you commission. They have gone to extraordinary lengths to suppress information and honest debate on this issue: they

to design or influence any independent research that you commission. They have gone to extraordinary lengths to suppress information and honest debate on this issue: they have banned a number of expert-contributors from their web-forum; they removed any critical comments from their web forum and - they have repeatedly taken the line "there is no evidence of any problem with pesticides and bees in the UK".

I have no axe to grind - other than that I would like to see a genuinely independent research study carried out here in the UK without it being nobbled by the pesticide companies or their co-opted spokesmen in the BBKA and other agencies.

FRENCH AND GERMAN RESEARCH
The irony is that the French carried out the necessary independent research into Neo-Nicotinoids back in 1999 and concluded that Imidacloprid was indeed toxic to bees - with a lethal dose of just 5 parts per billion in the pollen or nectar of crops like oilseed rape or sunflowers; they found that the dosage of the nerve poison which disoriented and incapacitated bees was far, far lower - just 0.1 ppb. I attach a short summary paper of the French research by Dr Bonmatin's team from the University of Montpelier. This has been consistently ignored by the BBKA and the Pesticides Safety Directorate for the last 8 years.

I would be grateful to talk to you about how independent beekeepers can collaborate with the Co-op's initiative and foster a truly original research programme into this vexing problem.

Sincerely
Graham White
3 Oxenrig Farm Cottages
Coldstream
TD12 4EY
01890 882 713

The above item was submitted by Rosie. It is by Graham White, a beekeeper who has worked in Environmental education for 20 years. He has written books on conservation and the environment including "The Nature of Scotland " in collaboration with Magnus Magnusson.

Re the above - go to the Co-op website for more information on their policy on the use of pesticides.

Many Congratulations to Phil on being elected to the position of

Vice President of the Scottish Beekeepers Association.

Well done from all at Buzzword and the Ayr and District Beekeepers.

There was no room for this at the bottom of page 2. For those of you of a certain age, you can sing the following to the tune of "Champion the Wonder Horse" - if you wish:

Tony our President! -
Tony our President!
A President of national renown
A Beekeeper who never wears a frown
He says, come and see us at our Apiary,
Beginners far and wide can come and see
And learn the secrets of the Honeybee
Three cheers for
Tony our President!
Tony our Pre—si—dent!

Ayr and District Beekeepers.

President	Mr Tony Riome	01292 443 440
Vice-President	Mrs Joyce Duncan	01290 550132
Secretary/Treasurer	Mrs Lindsay Baillie	01292 570 659
Librarian/Newsletter	Mrs Suzanne Clark	01290 700 370

Buzzword email: bees5@btinternet.com.

"We love Honeybees"

TEA'S READY! (an event on the evening of Phil's talk)

Beginners came expectantly
About the Honeybee to hear

The skills of modern technology
Gave wondrous slides for all to see!

The drama of the hive Phil spoke
Where Queens destroy and Varroa stalks.

Rapt members all were unaware
Of the drama happening right there.

Tony to Bill - let's make the tea, so
Off to the Urn they go quietly.

Then Tony says - only five bags have we
To make thirty cups for the company!

Bill blanched - " good grief " said he,
Let's hope some prefer Nescafe'!

He said - " give the bags a really good rumble,
And nobody will ever tumble"!

Then Tony said " only twenty-six cups have we"
— " Let's hope some have had their tea"!!

And so the good bodies' thirst was slake'd
And with chocolate biscuits were placated.

So Joyce, please hurry back from Down Under,
For this pairs tea is bloomin' murder!!