

NORTHERN LIGHTS

THE NEWSLETTER OF THE NORTH DEVON BRANCH
OF THE DEVON BEEKEEPERS ASSOCIATION

JANUARY / FEBRUARY 2010

www.northdevonbees.org



Editorial - Over the past few weeks we have seen some pretty arctic weather - with temperatures dropping to -12. I visited my hives and all was very quiet. I hope that the bees are tightly clustered and keeping warm. Often it is damp weather rather than extreme cold that kills bees. I noticed that there were flowers on the Mahonia 'Charity' planted 3 years ago. If we do get a warm sunny day there is at least some forage for the bees.

I am sorry to tell you all that I will be editing the newsletter without Mel from this edition. Due to ill health and a house move she will not be able to continue. We will all miss her and her cheerful and common sense approach to our Branch and its activities. Thank you Mel for all your support.

As we start the New Year I would like to encourage you all once again to send contributions for the newsletter. If you have any beekeeping observations or experiences, letters, photographs, articles, honey recipes, cartoons or poems, please send them to me for inclusion. Or if you have questions you would like put to a more experienced beekeeper - send them in.

Finally I wish you all the best for 2010. *Sylvie*

CHAIR CHAT

I've been reading an article in the BBKA news, written by John Whitaker, which is a set of calculations designed to establish whether or not a National brood chamber is big enough to accommodate all of the brood being produced at the height of the season. He concludes that one National brood chamber is sufficient.

However, my observation of how a brood chamber is utilized doesn't give the same picture.

A Queen at peak laying will lay 1,500 eggs per day. A worker takes twenty-one days to emerge. If we allow three days for the cleaning and re-polishing of the cell, this gives twenty-four days before the cell can be re-used. This means that 36,000 cells are needed to complete the cycle before any cells can be re-used.

On a National brood frame there are, conservatively, 2,200 cells on each side. If 30% is allowed for stores, this gives 1,540 cells per side for brood production. If one side at each end is not used, this gives twenty sides which in turn, gives a total of only 30,800 cells.

Therefore, according to my calculations, at the peak of the season a brood and a half could well be needed. Equally, if you apply the same calculation to a 12 x 14 brood, you get 45,948 available cells for a twenty-four day cycle - far more than is needed.

So, which is best? People have different opinions as always and there are other considerations to be taken into account but for those who, like myself, use the National it is worth remembering that in June and July one brood box may be too small, a double brood may remain unfilled so a brood and a half may be the best option. Anyway, good luck with your best guess next season, and a very Happy New Year to you all. *Chris*

Branch Winter Talk

At The Castle Centre, 25 Castle St, Barnstaple

Thursday 28th January at 7.30 pm

Kay Thomas

Beekeepers New Year Resolutions

Lets get it right for 2010.

Apiary Manager's Chat January 2010.

Here's Wishing Everyone and their bees a Marvellous Bee-keeping Year!

By way of a very great change this will be a short chat!

The bees are now snuggled down against the chilly winter enjoying their library books, hot water bottles and very soon, if not already a supply of fondant. Our hives were supplied with 3kgs each of fondant as Christmas presents placed in plastic containers. We chose food containers measuring approximately 4inches, (10cms) by 10inches, (25cms). Derek cut holes into the base of each container as access for the bees to reach the fondant. We studied the varroa inspection trays to roughly indicate the position of the bees in the colonies, in order to place the food directly above the bee cluster. This method prevents isolation starvation: where food is available, but the bees cannot access it since it does not lie within easy reach. The other advantage of leaving the lid of the container closest to the upper crown board is that re-filling does not necessitate disturbing the seal which the bees will have applied to the fondant feeding opening.

We will be recording how much each colony uses throughout the winter, as an assessment to gauge those colonies selected for possible queen rearing.

So as the bees munch their way through winter and beekeepers are busy reading Santa's bee present books, please let us know if you have any helpful suggestions and ideas for Horestone 2010. *Flowa*

Varroa Control for Beginners

Part 1

With the welcome increase in the number of people wishing to take up the craft of beekeeping I have great sympathy for beginners faced straight away with a major problem, that is - how to treat the colony for infestation of the deadly Varroa mite. Many are the treatments and their methods on sale, legal in this country and otherwise, and so much advice is offered on all sides the beginner is likely to be confused and bewildered. Having kept bees for thirty years I have developed my own programme of control, and proved that it works well in my own apiaries.

The official term, 'Integrated Pest Management' or IPM is well and fully explained in the National Bee Unit (NBU) leaflet 'Managing Varroa' (2005). The mite cannot be eliminated, but with our current knowledge it can be controlled by putting together a programme of different treatments. With over 36 pages the NBU leaflet is packed with information about the mite and offers approved and unapproved methods of control. The document is available free of charge from your local Bee Inspector, or downloaded from the NBU Central Science Laboratory website www.beebase.csl.gov.uk Follow the 'Public Pages' to 'Advisory Leaflets'. However, for a beginner the leaflet can be rather daunting, which I think is why I have been asked to produce a simpler version explaining my own control system. As is usually the case with experienced beekeepers, much wrangling goes on about management of bee pests and diseases, but here are some details of my own control system for Varroa control, and I have found them to be successful. It is difficult to judge the comparative values of each part of the system.

Bayvarol / Apistan strips

These are inserted between the brood frames and both contain the same active ingredient and have been used since the first Varroa mite in the UK was discovered by Maggie Saffery at a Torquay Branch training session run by Ron Brown in 1982. For the first few years it was all that had to be done – the magic bullet in fact. But, as predicted by the experts resistance, which had already developed in other EU countries, was eventually discovered a few years ago on the Devon/Cornwall border by our own Seasonal Bee Inspector, Peter Auger. This resistance has now spread across most of southern UK. So I can no longer rely on this method. However, it is convenient to use occasionally if there is an unexpectedly heavy infestation as it will still take out a high percentage of mites. But the latest reports are that the active ingredient accumulates in the beeswax and may be affecting the fertility of queens and drones. In the UK we, (including me and others in Devon) are having problems getting virgin queens mated. We find that the mated queens are then getting superseded. We don't know why but a theory is that we are putting so many chemicals into the colonies that it is affecting the drone sperm. It is well known that all animal sperm is susceptible to chemicals.

Open Mesh Floors

These are good for monitoring mite drop and assisting in control. The floors will take out a lot of the mite population. Dead and careless mites fall through the mesh. If they fall to a solid floor the live mites can jump back on to a passing bee. They are kept on all the year round except when the colony needs to be kept warm to build up wax comb e.g. the Shook Swarm procedure and Nucleus development when solid floors are used. Sheets are inserted under the mesh to catch whatever drops through. Some people smear Vaseline across the surface to ensure that the wind does not dislodge the droppings. The sheets are not left on permanently as they can be a place for the wax moths to breed and are only used about every three months to assess the mite levels to see if treatment is needed. The design could be improved as too many workers stray to the area below the wire mesh. I use clipped queens and on the rare occasions when I lose a swarm it returns to the hive within a few minutes as it is queenless. But it always returns and clusters under the mesh. The only way to return it to the colony is to put in a solid floor and shake the swarm off the mesh floor back into the colony. Examination of the inserted sheet provides information about what is going on inside the brood box e.g. size and location of the brood area / robbing / chalk brood activity / pollen identification. I use 'Parlour Board' obtained from the local agricultural merchants in '8' x 4' x 4mm sheets at £20 which can be cut up into about 8 inserts. Parlour Board is a white glossy plastic and it is simple to count Varroa mites and easy to clean afterwards. Some beekeepers mark it into squares to make it easier to count the mites.

Apiguard

This is sold in very convenient sachets and is used in August after the honey crop is taken off or otherwise the honey will pick up the thymol taint. Under ideal conditions Apiguard will take out up to 95% of the mites. But it is limited by temperature. Due to the variable Devon climate it will often be too cold to get sufficient evaporation so although I use Apiguard I consider that it is not such an efficient treatment as it depends on evaporation. Every apiary location has its own microclimate and is different so far as air movement and temperature is concerned and this will affect the application of the dose. An eke is needed to get the space for the sachets as they are laid directly on top of the brood frames. Empty supers have been used as ekes in the past but this gives an increased void inside the colony and so affects the dose. Shallow 45mm ekes are now increasingly being used. But opinions vary on the best depth of the eke as you can overdose or underdose.

Chris Utting

It's a Blue Year.

Blue is the colour you should use to mark your new queens in 2010. It is one of 5 colours used in sequence to identify the year of emergence of queens. The complete list of colours is:

Blue - years ending in 5 or 0 White - years ending in 1 or 6 Yellow - years ending in 2 or 7
Red - years ending in 3 or 8 Green - years ending in 4 or 9

REMINDER

If you haven't already renewed your subscription for 2010, please do so as soon as possible. It makes our lives much easier if we can have all the renewals in by the end of January. It also ensures that your insurance runs continuously. So make the Treasurer and Membership Secretary happy and send a cheque. If you have mislaid or need a new membership form, please contact Denise.

Many thanks, Derek

Holsworthy Branch Spring Convention Saturday 27 February 10 am - 4 pm at Chilsworthy Village Hall £12 including lunch. For further information visit the website www.holsworthybeekeepers.org.uk or email Christopher Smith christophersmith.270@gmail.com (01409 254 457)

REMINDER - NEW YEAR MEAL ON SUNDAY 17TH JANUARY. 12.30 FOR 1PM

Happy New Year and all the best for 2010.

If there are any of you who have forgotten to contact me with your names, numbers and food choices for our New Year Lunch at the Chichester Arms, Bishops Tawton, - please do so as a matter of urgency so that final arrangements can be made. Food choices are set out in December's Northern Lights. You can pay on the day but all meals should be pre booked by 6th January

The address and post code are below: The Multimap website can provide directions. There is a car park for guests opposite the pub.

Chichester Arms, East Street Bishops Tawton Barnstaple Devon EX32 0DQ 01271 343945

Barbara Carlyle, Shows & Social Events Co-ordinator, 01271 882303 or email baranlyle@hotmail.co.uk

January in the Apiary - Many beekeepers say that if you give the bees enough stores in the autumn you should not need to feed during the winter. All we can do is keep an eye on the hives and check by hefting to see if more stores are needed. It is better to err on the side of caution and it is relatively easy to place a block of fondant on top of the crown board and let the bees decide if they need it. You can check again in February and if they have eaten it then a replace it with another block. Other than that, make sure the mouseguard remains in place. If the ground is covered in snow it is a good idea to shield the entrance from the sun's rays to deter any workers from flying out attracted by the light, only to perish in the cold. Also keep the entrance clear of snow.



BEEKEEPING STUDY NOTES - MODULE 5 - Honeybee Biology.

Winter bees. The bees emerging in late autumn have very little brood to rear and the hypopharyngeal glands remain plump. The worker bees have many fat bodies as a result of the pollen consumption in the late autumn flows, eg ivy in the UK. Most of the fat bodies in the winter bee are stored in the roof (dorsal side) of the abdomen. It has also been shown (by whom we know not) that the life of the bee is proportional to the amount of pollen consumed. This is evident if a colony suffers a dearth of pollen in the autumn then it is likely to succumb during the winter because of the shortage of fat bodies. . . .

Worker Bees in Winter from *The Honey Bee Inside Out* by Celia F Davis

All worker bees eat large quantities of pollen in the days following their emergence from the cell. During the active season, the protein from the pollen is converted into brood food in the hypopharyngeal glands and this is fed to the larvae. However, bees hatching later in the year have very little, or no brood to feed so the hypopharyngeal glands remain plump and full. Some of the surplus protein is diverted into the fat bodies. The bees also eat large quantities of nectar or honey which helps to build up the fat bodies.

These two factors seem to be the main triggers to the increased lifespan. Abundant supplies of nectar/honey and, particularly, pollen are essential to the survival of the winter bees. It is interesting to see from experimental work that removing all brood from nurse bees in the summer, so maintaining their hypopharyngeal glands and fat bodies in a plump condition, extends the life of those bees.

The lower metabolic rate, resulting in a general slowing down, and the reduction in the amount of work, both inside and outside the colony, means that these winter bees have an easy time of it compared with their summer sisters. Of course, once brood starts to increase in early spring, these old bees have to work hard and their hypopharyngeal glands and fat bodies soon become depleted, the protein being passed on to the developing larvae. ~Some become foragers on the early crops such as sallow and crocuses and they are soon worn out and die, but not before they have helped to kick-start the colony into its spring expansion.

Both these books are available from the Horestone library - please speak to Julie who is a mine of information on all the library books - they are there to be used.

Winter Observations

I have been surprised by the number of wasps still active this winter, hanging around & having a sneaky trip into the hives whilst the bees were well clustered. Even in early December, whilst outside temperatures were still below 6 degrees, I observed a couple of adventurers having a go. Interestingly, if temperatures rise and the bees show signs of activity, wasps seem to stay away. During the summer and autumn months wasp activity in my apiary area was lower than in recent years - and wasp traps not so full - and there was no significant robbing. I tend to check my apiary area several times a day throughout the year but have never, in 30 years, observed low level robbing of this nature. Are wasps becoming hardier?

Alan Blamire

What is the Life Cycle of a wasp?

The overwintering fertilised queen wasp emerges from hibernation in early April and searches for a suitable undisturbed site for her colony. The first brood of wasp eggs laid (sterile female workers) then take over the task of enlarging the nest and providing food to sustain it. The process of egg laying will continue until late summer when the queen will lay eggs to produce males and new queens. These will mate and the fertilised queens will fly away to select a suitable site to hibernate.

With the onset of cooler weather the workers will become more sluggish and aggressive towards anyone interfering with them, often feeding on overripe fruit they can also become 'tipsy'. The onset of colder weather and frost kills off the workers and males with only fertilised queens surviving individually in hibernation to start a new colony (nest) the following year. Once a nest dies in the autumn the queen never uses it again the following year. She will always start a fresh nest the following season.

Broccoli and potato soup with cheese, honey and thyme-stuffed bread

Ingredients

2 tbsp olive oil
½ onion, chopped
½ potato, peeled and chopped
1 head broccoli, chopped
400ml/14 fl oz vegetable stock
100ml/3½fl oz double cream
salt and freshly ground black pepper

For the stuffed bread

½ small loaf country white bread
salt and freshly ground black pepper
2 tbsp olive oil
85g/3oz cheddar cheese, chopped
3 tbsp chopped fresh thyme
2 tbsp honey

To serve

1 tbsp double cream, to drizzle

Method

1. Preheat the oven to 180C/350F/Gas 4.
2. For the soup, heat the olive oil in a frying pan and gently fry the onion and potato for 3-4 minutes, or until the onion is softened. Add the broccoli and stock. Bring to the boil, then reduce the heat and simmer gently for 5-6 minutes, or until the potato and broccoli are tender.
3. Stir in the cream and season, to taste, with salt and freshly ground black pepper. Liquidise using a stick blender until smooth.
4. For the bread, hollow out the middle of the loaf and season well with salt and freshly ground black pepper. Drizzle over the oil, sprinkle in the cheese and thyme and finally drizzle in the honey. Place into the oven to bake for 4-5 minutes, or until the cheese is beginning to melt.
5. Serve alongside a bowl of the soup, garnished with a drizzle of cream.

DIARY DATES

New Years Meal - Sunday 17th January 12.30 for 1pm at The Chichester Arms, Bishops Tawton.

Thursday 28th January - BRANCH TALK - by Kay Thomas - *Beekeepers New year Resolutions - Lets get it right for 2010.* All welcome, an excellent opportunity to catch up with each other and to plan the year ahead. 7.30 pm at the Castle Centre Barnstaple.

Beginners Course at Horestone - starts Sunday 31 January.

Tuesday Meetings at Horestone - start of Spring Season - Tuesday 2nd March.

April 16th/17th BBKA Spring Convention Stoneleigh Warickshire.

Further Branch Talks are being organized for February/March. Look out for news re these on Messenger and in the local paper.



Please contact Derek Hunter, on 01769 561033

Or Dave and Jean on 01237 475705

FROM THE EDUCATION TEAM

TEACHERS NEEDED

“Calling all experienced beekeepers who are also practicing teachers, qualified teachers or retired teachers” The Education team would like more members to call upon to teach some sessions to satisfy the increasing interest in “beginner beekeeper courses”. Currently the teaching team comprises five members: Kay Thomas, Julie Elkin, Glenis Beardsley, Sue Madgwick and Jack Mummery. The team successfully delivered a ten week, 20 hour beginner course last spring and the second beginner course will start at the end of January. Our dilemma is that we would like another team of volunteers to possibly deliver another course if interest is as buoyant as some expect; for example there are 85 on a waiting list in Exeter. There would only need to be a commitment to deliver two sessions and perhaps help at some open days. **SO** come on all you teachers help spread the word and your knowledge of our craft to the enthusiastic newcomers.

MODULES

Why not consider sitting some module examinations? Chris Utting one of our prominent members is the BBKA Correspondence Course Secretary and will only be too pleased to help and advise any member wishing to proceed with some modules. Sometimes there is enough interest from members for a “discussion” group to operate. For more information go to the following link

www.britishbee.org.uk/examinations_and_assessments.php#abr

The examination fee for each module is £18.00. ALL exams are arranged for 20 March 2010. Closing date for applications to sit modules must be made by 28 February 2010. The fee for each module by correspondence is £45.00.

Information about the Basic Assessment and Modules as well as other beekeeping qualifications can be found on the BBKA web site.

Jack Mummery

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All contributions welcome, copy by 23rd of month for publication in following month's newsletter.

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