

The Auricle

Moray Beekeepers Association Newsletter
Hot off the 'press'

Issue No: 6/11

September 2011

ANY MEMBER CAN SPONSOR THIS NEWSLETTER FOR JUST £10 – IT HELPS COVER THE COSTS!

HEATHER HONEY

Over 30 members enjoyed a delightful meal at the Delnashaugh Hotel in August and then made the short trip to the Association heather stance at Lynn Stewart's pretty mountainside garden at Ballindalloch. It was a glorious sunny day and the bees were working well with plenty of heather pollen going into the hives. After a short talk by Tony Harris on 'Moving Hives to the Heather', the hives were opened and it was pleasing to see supers filling up with honey.



Heather honey is the 'Rolls Royce' of honey and Scottish heather honey is much sought after demanding premium prices in the jar and as cut comb, so it is worth making the effort to get some, particularly as we live within easy reach of the heather.

Hives are moved to the heather about the last weekend of July for about six weeks and if the heather secretes nectar for a couple of those weeks there should be at least one super of honey on each hive.

The hives must be absolutely packed full of bees. Some beekeepers place a few combs of sealed brood in from other disease free hives, 3 or 4 weeks before the move to achieve this. Other tips include moving frames of eggs to the outside of the brood frame and frames of honey and sealed brood to the centre. As the bees usually like to store honey in the outside frames, leaving the centre frames for the queen to lay in, they usually move this honey to a super, and this should be done a couple of weeks before and then again a couple of days before the move. If you have your hives in pairs, as long as there is a nectar flow on you can move one to another part of the apiary, allowing the flying bees to safely enter the remaining hive going to the heather – this will give you a very large number of foraging bees! Young queens are also an asset for heather going hives as they tend to lay longer, again meaning less space in the brood nest for the bees to store the precious honey – remember, we want the honey in the supers!

The day before the move you should remove any honey supers and place 1 super of drawn comb or thin foundation on the hive cut diagonally for cut comb or in 2 inch strips. A ventilation screen is placed on top of the hives, the entrances blocked with a strip of foam and the hives secured with triangles, and straps.

An early start is the order of the day and the bees are moved to the heather at first light but can also be moved at dusk when the bees have stopped flying. If weekly checks show a good nectar flow, supers can be added as required.

Heather honey is naturally in a gel like state so cannot be spun out of the frame – it has to be cut from the frame and pressed through a Honey Press and you can borrow one of these from the Association

OUR NEXT MEETING IS A WORKING PARTY AT BIRNIE APIARY ON SUNDAY 18th SEPTEMBER, 2.30PM START, FOLLOWED BY A TALK ON 'PREPARING YOUR HIVES FOR WINTER'.

Full details of all Monthly Meetings, Open Apiary Sessions and Courses are at

www.moraybeekeepers.co.uk

EXTRACTING HEATHER HONEY

Heather honey is 'thixotropic' which means that it is a jelly in its natural state but when agitated it becomes liquid for a short while before returning to jelly. This means that it cannot be spun out of the comb like normal runny honey. A hand held loosener or larger looseners can be used to temporarily make the honey liquid and it can then be spun out of the frames. However, most beekeepers will use a honey press to harvest it (MBA has 2 for members to borrow) or will use thin unwired foundation to get cut comb honey that is simply cut up and sold as it is without any extracting.



heather moor



heather honey press



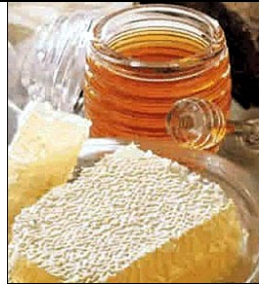
frame of heather honey



hand held loosener



Smith comb cutters



nice!



cut comb honey



heather honey

If there is just 1 filled super on the hive you can easily strap the hive up and bring home but any more and it may be better to remove them first unless you want a bad back. If you do remove them, remember to place 1 or 2 empty supers back on the hive to provide space for the bees during the move home. Don't forget to ensure the ventilation screen is secured on top as you don't want the colony to overheat!

If the honey is to be eaten or sold as cut comb it is a simple task to use a Smith comb cutter or a knife to cut the size required. But if you want to jar it you should use the honey press. Line the inside box of the press with fine linen cloth (available from suppliers), cut the comb from the frame and place into the box. When full, wrap the cloth around the comb, close the 'press' and then, by gradually turning the handle, pressure is exerted on the comb, forcing the honey out of the press into the honey bucket underneath.

The cloth will filter the honey and it can be bottled immediately without any form of heating which can damage it. The air bubbles do not rise to the top but stay in the honey and this gives it a very attractive look in the jar. You may be too late for this year's heather honey but why not make plans to take advantage of this premium honey which is right on your doorstep, next summer.

BIRNIE APIARY UPDATE by Apiary Manager, Tony Harris

It has been quite a successful season at our Training Apiary at Birnie as we consolidate on the setting up of the apiary last season. It is easy to forget that the apiary is less than 18 months old so everyone concerned with it should be congratulated and encouraged at the progress made in this, only our second summer!

This season we have run a queen rearing project that eventually allowed us to provide 7 new members with their first bees under the 'Adopt a Nuc' programme and ran 'Introduction to Beekeeping' Courses and 'Honeybee Taster Sessions' for the general public. Fortnightly Apiary Inspections have been well attended by members wanting to improve their beekeeping skills and the practical training and assessment for the Scottish Beekeepers' Association Basic Beemaster Assessment took place at the apiary.

Any profits raised from these courses have been re-invested in hives, feeders, medicines and other equipment for the apiary and training courses.

A small number of volunteers have been involved in the management and maintenance of the Apiary but we could do with a few more volunteers. So, if you would like to join the Apiary Team, and increase your beekeeping knowledge and experience at the same time, let me know - all that is required is enthusiasm, some spare time and the ability to work as part of a team.

We plan to take 8 hives into winter and they will be placed in double brood boxes with 8 frames in each box this month and the floor insert left out of the open mesh floors to allow ventilation. Insulation will be placed under the roof of each hive. They will be treated with apistan and then trickled with oxalic acid in December. Fondant will be placed directly onto the top bars in January and will be checked every 3 weeks and if necessary relocated so it stays directly over the cluster of bees if they move (this to try and combat isolation starvation). It also looks like we will get a couple of supers of honey this year. Jars of honey will be given as gifts to landowners, farmers and others who have helped the Association and the remainder sold, proceeds going into apiary funds.

There is a working party at the apiary on Sunday 18th September, 2.30pm start, so please try and attend with garden spades, forks, rakes, power tools, hammers, screws, saws etc so essential maintenance can be carried out on the shed and portacabin. If anyone can bring some willow cuttings these can also be planted around the site.

We are running short of hessian sacking at Birnie for use in smokers so if any member can get hold of some it will be much appreciated and put to good use. Please bring along to any meeting at Birnie.

GUARD & ROBBER BEES

When you are feeding your bees in the autumn, after any honey flow has ended, it is a prime time for robbing to start, so you must be on the lookout for the tell-tale signs as weaker colonies can be wiped out.

Bees fighting outside a hive is an early sign of robbing and can be confirmed by the flight of the robber bees on approach – it is nervous and erratic and in a characteristic 'zig zag' pattern. Guard bees will recognise this flight pattern and will be on high alert!

If you watch the entrance to the hive carefully you will observe the behaviour of the guard bees. They challenge and examine all entrants for a period of about 1-3 seconds by antennal contact, the time it takes to determine a nest mate from an intruder - the nest mate will have the same colony odour, recognisable to the guards. If an intruder it is usually mauled by the guard clamping onto a leg or a wing, and curling the abdomen into a position enabling it to sting the intruder. A fight ensues, and the robber is marked with 2 heptanone from the mandibular glands. Other guard bees recognise the alarm and raise their abdomen and sting chamber, releasing a further alarm pheromone, isopentyl acetate that smells of bananas. The robber struggles and may escape but sometimes is stung and dies.

If the intruder has tried to enter the hive by accident, when challenged, it often offers food and begs its way into the hive.

By the way, if your sense of smell is good you will be able to smell the alarm pheromone 'banana scent' released by the bees, and if you smell this when examining the hive, be prepared for an attack, or close up the hive till a later date.

When a robbed colony succumbs and silent robbing ensues, the robbed colony continues to work normally, while at the same time robbers also enter and leave the hive. The only tell tale sign now is the flight of the bees returning directly to another hive. Also, robber bees leaving the robbed hive, laden, will have the rear legs forward as opposed to a bee leaving the hive on a forage flight, unladen, when the rear legs will be trailing askew. Eventually, the robbed colony will be devoid of stores, may abandon the nest or even die off.



rapid feeder



guard bees evicting a robber bee



reduced entrance block



nucleus being robbed

When robbing starts in an apiary it is difficult to stop it so it is important for the beekeeper to know how to prevent it and what to do if robbing has started. Robbing is more often than not brought on by the actions of the beekeeper. This can be due to spilling sugar syrup on the floor when feeding the bees, leaving brace comb in the apiary or leaving hives open longer than is absolutely necessary. So make sure you don't do any of these things. Also, make sure every hive or nucleus is bee proof, the only way in being via the entrance. Also important, when making up nuclei to remain in the same apiary, don't feed the nuc for 4 or 5 days as any of the flying bees returning to the parent hive could recruit nest mates to return to the nuc for a feed and it could be robbed out while in this vulnerable state.

Feed your bees at dusk when flying has ceased as this will reduce any excitement and the darkness will prevent the flying bees from leaving the hive and searching for the source of food. Feed all your colonies at the same time. With the brood nest getting smaller in late summer, the colony will also be shrinking in size and there will be fewer guard bees on duty so reduce the size of the entrance hole down to about 'four bees wide' or 10 mm. You can do this by inserting a 'reduced entrance block', easily made at home (see photo above), which is pushed into the hive entrance.



MBA Chairman,
Andrew Tassell
presents a 'thank you'
bottle of wine
to our August
meeting host, Lynn
Stewart

SUGAR BAG PROJECT SUCCESS

Moray Beekeepers, 'Donate a Bag of Sugar' project was a great success and thanks are due to Viv Hill for organising it and Store Managers for allowing collection boxes for the sugar to be placed in their shops.

Customers at Asda and Tesco stores throughout Moray donated over 300 kg of sugar to help feed the bees for winter, and this is already being put to good use feeding the bees at Birnie Apiary.

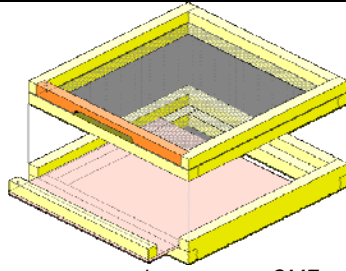
OPEN MESH FLOORS

An Open Mesh Floor (OMF) is simply a floorboard where the solid wooden section is replaced with a sheet of wire mesh, virtually leaving the bottom of the hive open to the elements. You can buy them from equipment suppliers from about £35 or you can easily make one yourself. OMF's have been around for a few years now but not everyone is agreed on whether they are beneficial particularly when it comes to over-wintering bees so let's have a look at the evidence.

Field tests carried out by beekeepers before varroa arrived in the UK in the early 1990's found that the OMF's provided better ventilation, temperature and humidity control and colonies prospered in both summer and winter when compared with colonies in hives with solid wooden floors (see Dave Cushman's website). This meant that there were no mouldy combs in winter or chalk brood in spring and because of the greater ventilation, reduced entrances could be used without the bees 'bearding' outside the hive in summer and minimising the likelihood of robbing. The increased ventilation and humidity also means there are less bees having to fan in spring so there is more foraging normality, and the bees do not embark on early brood rearing so don't suffer any significant forager bee losses at this crucial time. You should have your hives on hive stands or at least placed on wooden batons to keep them off the floor and allow wind circulation around them as this also prevents damp.



suitable mesh



you can make your own OMF



OMF and floor insert



bearding outside the hive



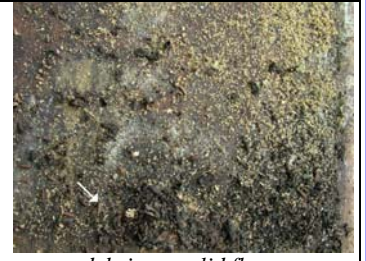
mouldy combs



sugar dusting bees



propolised mesh on top of hive



debris on solid floor

OMF's are an important part of an Integrated Pest Management regime in the control of varroa. Mites that drop off bees fall through the mesh and die whereas if a solid floor is in use, the mite can hitch a ride on a passing bee back up into the brood nest. If you dust your bees with icing sugar during the active season, once or twice a month, it will cause more mites to fall off bees and thus out of the hives and every mite out of the hive is better for your bees. Combine this with regular drone brood removal and you are likely to keep varroa under control until your main autumn or winter treatment. OMF's also come with a floor insert which can be used to monitor the natural mite drop at different times of the year but it must be emphasised that to gain the maximum benefits the insert must be left **out** for the majority of the year, including the winter! Some beekeepers place the insert in the hive in early spring for a month or so when brood rearing starts to increase as they feel it gives the bees a hand in maintaining the temperature at 35C, but they place a matchstick under the corners of the crown board to allow CO₂ to escape from the brood chamber

The most commonest error new or inexperienced beekeepers make is to think that their bees will get cold or even freeze to death in winter so they pack their bees in all sorts of additional insulation, reduce the entrances in an attempt to stop those nasty draughts and block off every nook and cranny in the hive. Sure, the bees will be nice and warm inside the hive, but research has shown that they need some ventilation as the winter cluster produces CO₂ and this has to be allowed to 'escape'. Generally, bees do not die of cold, it is damp conditions that causes bee deaths. Beekeepers in Canada, North America and colder European countries, using OMF's, sometimes have to dig their hives out from deep snow to find all is well within the brood box.

Another advantage of using OMF's is **CLEANLINESS!** Hive debris and waste pollen tend to drop through the floor making a cleaner hive and this means there is no debris and therefore no hiding place for wax moth to hide!

The main disadvantage of OMF's is the obvious one - it is colder and draftier inside the hive. This leads to increased heat loss through the floor and results in a 10-15% higher food consumption by the bees compared with bees in a hive with a solid floor. But, if you have fed your bees well in the autumn, and placed fondant on top of the cluster as a back up in the depths of winter, is the increased food consumption that much of a problem?

So what does the bee's behaviour tell us about their love or not of OMF's? Well, we all know that they will seal up with propolis any opening they don't like in the hive and you will see this all the time if a piece of mesh is fixed over the feed hole in the crown board. It is quickly sealed up with propolis, isn't it? But, interestingly enough, the bees never propolise the mesh on the OMF so it appears they are giving it their approval. Also, with solid floors, the bees will very often extend the comb from the bottom of the brood frame and attach it to the floor, but this doesn't happen with OMF's, making colony inspections easier.

So if you have not used an OMF, perhaps now is the time to try! Mouldy combs, chalk brood and wax moth problems can all be eliminated or lessened if the interior of the hive is dry and well ventilated and the easiest way to achieve this is to use an OMF!

YOUR BEES IN WINTER

Autumn is a busy time for beekeepers, what with extracting all that honey (we can live in hope!), feeding bees, treating them for varroa and securing the hives for the onslaught of winter, but what will your bees be doing in the colder months?

Well, having built up on the spring nectar flow and then stored a lot of honey in a short time on the main flow to provide stores for winter, the bees will be busy too. When the main flow comes to an end, the bees first of all reduce brood production, thereby conserving stores. The poor old drones are evicted about the same time resulting in even fewer mouths to feed over winter.



drones being evicted



winter cluster



propolis going into hive



spring pollen – a sure sign the queen is laying

Stored nectar or honey will have to be ripened, to reduce the water content to about 18% so the bees will have hung it in empty or half empty cells to provide maximum surface area for evaporation. Currents of air are distributed around the hive by bees fanning their wings, bringing in dry air and expelling moist air. As the water content diminishes and the sugar concentration approaches 80%, the honey is moved, the cells filled and capped with a pure wax capping with a minute air gap beneath the capping and bees will be fanning their wings to evaporate moisture from the nectar. When ripe, they will be making wax to seal the honey in the cells.

During the winter, as the ambient temperature outside the hive drops, the honeybee colony adopts 3 mechanisms to ensure its survival down to very low temperatures. These are, clustering, generating their own metabolic heat and ensuring the nest is draught free by using propolis to fill any gaps or cracks.

As the temperature drops to 14C the bees begin to cluster and the colder it gets, the tighter they cluster, resulting in a smaller surface area and therefore less heat loss. As it gets colder, the bees on the outside of the cluster, bury their heads in it and spread their wings, forming an efficient heat protecting layer.

The bees generate metabolic heat by micro vibration of the indirect flight muscles maintaining the surface temperature of the cluster at no lower than 7.2C, the critical temperature, as any lower and the bees on the outside of the cluster are immobilised, drop off and die`.

The bees use propolis to seal up any gaps in the hive thereby preventing cold winds blowing into the nest. Propolis is the sticky secretion from tree buds and the like and the bees collect it and use it to fill up any gaps where cold drafts could get in. It is not stored in the nest but used when and where it is needed.

The last feature that enables the honeybee to survive the winter is the ability to vary its lifespan from about 6 weeks in summer to 6 months in winter. The winter bee consumes large quantities of pollen and honey and thus develops the number of fat bodies which store glycogen, protein and fat. Due to the lack of foraging and brood rearing duties there is a large increase in the winter bee population, i.e. those bees hatching out in August and September, and these bees have the ability to develop the hypopharyngeal glands, vital to produce food when brood rearing starts again in late winter. There is some thought that the queen doesn't completely stop laying eggs in winter but she certainly starts again after the winter solstice when the days begin getting longer and by mid February you should see spring pollen going into the hive, a sure sign that brood is present.

The honeybee can also extend its rectum almost the whole length of the abdomen and this is very useful to store waste when the bees are confined in the hive for long periods due to low temperatures. On the first sunny day, when the temperature rises, the bees will leave the hive for a defecation flight, and you will be surprised how much 'poop' 10,000 bees can produce. If you or your neighbour happen to have your washing on the line at the time you will certainly be able to spot the evidence and you will have some explaining to do if your neighbour figures out that it was your bees that did it!

So, pretty much like us humans, the bees 'baton down the hatches' in the depths of winter and stay in the relative warmth of the hive. Unlike us though, they 'don't freeze to death, just starve to death' so provided you have fed them well in autumn, treated them for varroa, ensured a degree of ventilation and made the hive secure and weather proof, the bees have every chance of making it through to spring.

The Secretary has a limited number of Apistan packs (treats 5 hives) for sale at £17 a pack or you can buy 2 strips (treats 1 hive) for £3.50. First come, first served, so please contact Tony Harris to order, tel. 07884 496246

MORAY BEEKEEPERS ASSOCIATION (MBA) HONEY SHOW PART OF THE FORRES FLOWER SHOW, 10th SEPTEMBER

Due to the sudden resignation of the MBA Show Organiser, Moray Beekeepers' Association will have no input into the Show this season. So, unless the organisers of the Forres Flower Show organise the Honey Section exhibits and judging themselves, the event is basically **CANCELLED!**

THE SCOTTISH BEEKEEPERS' ASSOCIATION

AUTUMN CONVENTION

Saturday 10th September 2011

8.45am – 5.10pm

At Dewar's Conference & Sports Centre, Glover Street, Perth

BOOK EARLY TO AVOID DISAPPOINTMENT

Dr Giles Budge - Random Apiary Survey: What a Whopper!
- Recent Advances in Understanding Foul Brood

Terry Clare - Taking the Present into the Future – (Bee Breeding)

Willie Robson - Reflections on Beekeeping with an Emphasis on Colony Survival

Tickets £25 including coffee, lunch and tea (students half price)

TRADE STANDS

Bee Books New and Old, Beecraft, BIBBA, CirComb, Beeware Apiaries, SBA
Bookings for the Convention to Iain F. Steven, 4 Craigie View, Perth, PH2 0DP.
Telephone 01738 621100

(cheques payable to 'SBA' and enclose SAE for programme/receipt)

MORAY BEEKEEPERS' WINTER PROGRAMME

Wednesday 26th October, 7.00 – 9.00pm
'My Beekeeping Year', Dr Stephen Palmer

Tuesday 29th November, 7.00 – 9.00 pm
'What's Wrong with my Bees?' (Bee Diseases and Other Nasty Things',
Dr Stephen Palmer

Thursday 26th January, 7.00 – 9.00pm
Annual General Meeting

Tuesday 21st February, 7.00 pm
'My Life as a Bee Inspector' Kirsty Sutherland

The venue for all winter meetings is the large room at Elgin Library. MBA Membership card gains free entry. Non members pay £2.00 on the door

ASSOCIATION HONEY EXTRACTORS



If you don't have your own honey extractor you can borrow one of the Associations. The one on the left is a heather honey press and the one on the right is a manual radial extractor for liquid honey and we have 2 of both



You can borrow them for free by contacting either

Andrew Tassell (Keith area) Tel 01466 771243

Or

Tony Harris (Fochabers area) Tel 01343 821282

COMMITTEE VACANCIES

Graham Hill, Viv Hill, and Gerry Thompson have recently resigned from the Committee and on your behalf we would like to thank them for their contribution to the Association.

We really need to co-opt 3 or 4 members onto our volunteer team on the MBA Committee asap.

If you would like to be involved in some exciting projects, and increase your beekeeping knowledge and enjoyment, please contact Tony Harris who will fill you in on what is required.

Experience is not necessary, just enthusiasm and some spare time!

OXALIC ACID TREATMENT FOR MBA MEMBERS' BEES

As part of the ongoing service to members and to the bees, MBA are offering an oxalic acid trickle treatment in December for £5 per hive (each additional hive £2 each).

This is an extremely safe and effective way to tackle varroa and even if you treat with Apistan or Apiguard in late summer it is advisable to use the oxalic acid in winter when there is no brood present.

You must be a paid up member for 2011.

To book, please contact Tony Harris or Andrew Tassell.

VOLUNTEER NEEDED TO INSPECT ACCOUNTS – PAYMENT A COUPLE OF JARS OF HONEY

As a charity, a person independent of the Association, who is experienced in accounting, must verify our end of year income/expenditure accounts. So if you have a friend, associate or family member who would be willing to check the accounts once a year, please contact the Treasurer, Donna Clark.

SCOTTISH BEEKEEPERS ASSOCIATION (SBA)

Moray Beekeepers Association is affiliated to the SBA and you are encouraged to join. Membership of £25 a year will give you a monthly magazine, £2 million Public and Product liability insurance, a compensation scheme if you lose your bees and access to beekeepers throughout Scotland,

Contact membership convener: Mr. Phil McAnespie, 12 Monument Road, Ayr, KA7 2RL

SBA web site: www.scottishbeekeepers.org.uk

BEE SUITS/GLOVES /SMOCKS

Quality bee suits and clothing from BB Wear, for MBA members who receive a 15% discount (please order via the MBA Secretary)

BB1 Full suit £84.00

www.bbwear.co.uk/

A WARM WELCOME TO THE FOLLOWING NEW MEMBERS

Doug Mortimer, Paul & Helen Webster, Stephen, Tracy & Zoe Legg and Margaret Maskew

The Association website is packed with lots of useful information on beekeeping and bees and has an interesting blog that you are encouraged to contribute to. It is well worth a visit - the address is

www.moraybeekeepers.co.uk

Items for inclusion in the Newsletter to be sent to the Editor: Tony Harris, Cowiemuir, Fochabers, Moray, IV32 7PS or you can e mail: tonyharris316@btinternet.com or phone 07884 496246

IF YOU DON'T PAY YOUR SUBS BY 31ST AUGUST, YOUR MEMBERSHIP CEASES!