The Auricle

Moray Beekeepers Association Newsletter

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HEATHER PICNIC

Sixteen intrepid MBA members enjoyed the trip to the spectacular heather stance at Ben Rinnes and the trek was well worthwhile. The scenery is fantastic and the heather was in full bloom covering the mountainside in wonderful hues of mauve and purple. Unfortunately it wasn't the warmest day so not many bees were flying although some heather pollen (grey/creamy coloured) was going into the hives. The colder spell at the beginning of August had caused a temporary halt to the nectar flow so there wasn't that much honey in the supers.

After a short talk by Tony Harris on 'Preparing Hives for the Heather', a splendid picnic, prepared by secretary, Anne Black was enjoyed by all in the shelter of a rather nice bothv.

HONEY EXTRACTION DEMONSTRATION

Our next meeting is on **Sunday 21st September, 1 pm start, at Birnie apiary** when the MBA Training team will be giving a talk and demonstration on 'Extracting Honey'.

The talk will be followed by a raffle and refreshments.

And if you are ready to jar your bumper harvest of honey the MBA shop will open selling 1lb honey jars at a bargain price of £20 for a box 54.

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

www.moraybeekeepers.co.uk

PREPARING BEES FOR THE WINTER

by Tony Harris

The best conditions for a colony going into winter is to have a young queen and plenty of bees, sufficient stores to last until the spring flowers arrive, disease free bees and protection from pests and predators. The bees should be in a sound, waterproof hive so that they are dry, preferably on stands with good air circulation around them, situated in a dry, warm, unexposed apiary.

A **YOUNG QUEEN** is likely to continue laying later in the season which means more bees that don't have to live as long under winter conditions and it is the bees emerging from August onwards that will resume foraging and house bees duties in the spring. You should assess your colonies to see if they are strong enough to get through the winter and if not, for example there are only 3 frames of brood or bees, consider uniting with another colony.

uniting with newspaper

Unite using the newspaper method. Remove one of the queens first and then at dusk, dismantle one hive, place a sheet of newspaper over the brood box and place the queenless colony on top. You may want to make a few small holes in the newspaper with your hive tool. The bees will chew through the paper and as they are doing so, the colony odours will combine, resulting in a peaceful uniting process. Late August and into September, after the main flow has stopped is also a safe time of the year to re-queen those colonies where the queen is old or of undesirable qualities, e.g. bad tempered.

SUFFICIENT STORES. Towards the end of August and into September, after any honey harvest has been removed is the time to feed your bees for the winter, and you should aim to complete it as quickly as possible. I did hear one MBA member say that they leave the syrup on the hives until November but that can be a big mistake and can cause problems for the bees later in the winter. Honey or sugar syrup that has not had the moisture content reduced to an acceptable level for the bees is likely to ferment and this can lead to digestive problems for the bees and dysentery. This will be evidenced by brown streaks of bee excrement on the combs and around the hive entrance and it can lead to the demise of a colony.

So, get the bees fed as quickly as possible, before the cold nights draw in, and you can do this by using a rapid, Miller or Ashworth feeder. It is very important to pour a small amount of syrup down the feed- hole in the crown board so that the bees know it is there, as sugar syrup has no smell that the bees can recognise.

Miller feeder

How much syrup do we have to feed? Well, this will be different for each colony so first of all open up each hive and assess its stores by eye and then decide. If you bear in mind that 1 B.S. brood frame, full on both sides, has about 5lb of honey, and that Ted Hooper recommends 40-45lb of stores, you should be able to work out how much syrup is needed. And if you are still not sure you can do what I do - feed syrup until they stop taking it down as long as it is finished by mid September. It is best to feed the bees in the evening, so that darkness will help quell the excitement, feed all your colonies at the same time, and don't spill any in the apiary as this will help to reduce robbing. We feed our bees only white granulated sugar, either from cane or beet sources, i.e. refined sucrose. Brown or unrefined sugar should not be used! For winter feeding it should be thick syrup. i.e. 2lb of sugar to 1 pint of water.

Lift your hive and get to know its weight when stores are plentiful so that you can take action if you feel it weighing a lot less during winter. If it does, DON'T feed with more syrup! Instead, place a block of candy or bakers fondant (available in supermarkets) over the feed-hole or on the top bars directly over the cluster of bees with an eke to house it. To prevent isolation starvation, when the bees starve even with plenty of stores in the hive, you can quickly look in the hive every 3 weeks and move the fondant so it remains over the cluster.

DISEASE FREE AND PROTECTED FROM PESTS AND PREDATORS Varroa is endemic in Moray and you will not get away with ignoring it. Various techniques have been described in past Auricles to combat varroa during the season and it is also advisable to treat the bees for varroa once the honey harvest has been removed. **There are various treatments available but you are strongly advised <u>not</u> to use Apistan anymore as there are pyrethroid resistant mites in Moray which means the Apistan will not be effective!** You are advised to follow up your autumn treatment with Oxalic acid, trickled or vaporised in late December.

MICE are a problem in the winter. If they get into your hive while the bees are clustering, the bees will leave them alone and they will eat and remove comb, and can lead to the demise of a colony. So fit mouse guards over the entrance and leave in place till the spring.

Other predators include **BADGERS** and the way to keep them out of your apiary is to erect a strong wire fence, sunk at least 2 feet into the ground. **WASPS** can also be a problem as they try and get into the hive to rob the honey. An easy way to deal with this is to make a wasp trap or sink a jam jar filled with sugar syrup or runny jam into the ground – you will catch lots more wasps than it does honey bees.

SOUND WATERPROOF HIVES. Make sure your hives are waterproof and there are no holes in them. Although bees do not freeze to death due to low temperatures, they can die due to cold winds, so it is especially important to protect the hives from northerly and easterly winds – if necessary build a windbreak!

VENTILATION is a dilemma for beekeepers, because if the bees propolise any cracks to reduce draughts, what degree of ventilation should we provide in the hive over the winter? The experts can't agree but make sure you read the article on Open Mesh Floors (OMFs) on page 4. As well as using an OMF with or without floor insert you can raise the crown board by inserting a matchstick under each corner to allow CO2 to escape.

INSULATION. Many beekeepers place additional insulation under the hive roof for winter, e.g. expanded polystyrene, loft insulation roll, but others do not – again experiment and do what suits you.

SNOW can be a problem because if it settles around the hive it can give the bees a false sense of brightness that can cause them to leave the hive on a cleansing flight, and this can prove fatal at low temperatures. If snow does settle around your hive then simply place a piece of wood over the entrance so that it is kept in the dark and that should prevent the bees from flying. Leave the snow where it is!

mouse guard in position

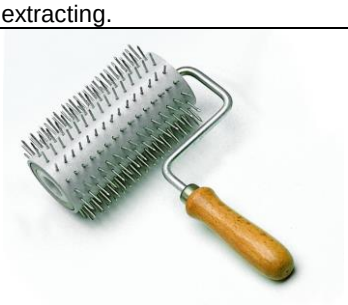
If your bees are in more than one box and you have a queen excluder between them, please remember to **REMOVE THE QUEEN EXCLUDER**, otherwise the queen can get left in the lower box if the cluster moves above, and that will be the end of her and your bees!

And FINALLY, tie down the hive or place a large brick on the roof so it won't blow off. It won't be long before the first sunny day in February, when your heart will be gladdened as you see the bees bringing in the first of the season's pollen – a sure sign that the queen is present and has resumed laying.

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 hobby 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 honey 'press'


hand held loosener


Smith comb cutters


nice!

About the first or second week of September is the time to bring your hives home from the heather. 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 a 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 years heather honey but why not make plans to take advantage of this premium honey which is right on your doorstep, next summer!

GUARD & ROBBER BEES

When you are feeding your bees in the autumn 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 at this time of year.

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.


guard bees evicting a robber bee

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.

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, due to spilling sugar syrup, leaving brace comb in the apiary or leaving hives open longer than is necessary. So make sure you don't do any of theses things. Also, make sure every hive or nucleus is bee proof, the only way in being via the entrance.

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. 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 by inserting a 'reduced entrance block'.


a reduced entrance block

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.

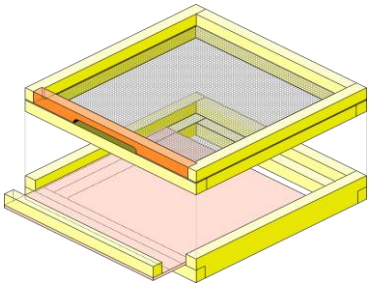
Field tests carried out by beekeepers before varroa arrived in the UK in the early 1990's found that the OMF's provided better ventilation, temperature and humidity control and colonies prospered in both summer and winter when compared with colonies in hives with solid wooden floors (see Dave Cushman's 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 and this also prevents damp.

bees 'bearding' outside a hive

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.

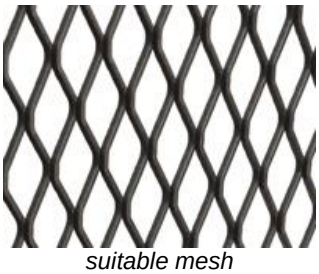
OMF's also come with a floor insert which can be used to monitor the natural mite drop at different times of the year but it must be emphasised that to gain the maximum benefits the insert must be left **out** for the majority of the year, including the winter!

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 then place a matchstick under the corners of the crown board to allow CO2 to escape from the brood chamber



you can make your own OMF

The most common 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.



suitable mesh

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!

hive debris on a solid floor

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 is a rarity with OMF's, making colony inspections easier.

sugar dusting bees

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!

OMF's can help prevent mouldy combs

If you do try an OMF this winter, let us know how your bees faired when you open up the hive in the spring!

POPULAR MISCONCEPTIONS – HIVE INSULATION!

We all have our own ways of looking after our bees and it is probably good that there is such a variety of views on beekeeping management systems. There are though many views held by beekeepers that have been formed without any 'evidence' and here we will look at just one of them, the idea often stated that 'warm bees in the winter are happy bees'.

'Cold, even severe cold, does not harm colonies that are in good health! Rather, cold seems to have a decided beneficial effect on bees!'

Hard to believe? Well, so says Brother Adam, Buckfast Abbey fame in his book, 'Beekeeping at Buckfast Abbey' and he has plenty of experience and practical testing to back up his beliefs. He describes a type of protective wintering case, on the market from America in the 1920's that consisted of up to 8 inches of insulation around the entire hive, and he decided to test the claims made that this was a better wintering management system for the bees. The tests were carried out several times, the latter involving 168 colonies in two different localities in Devon and Wiltshire and the results, which will surprise you, were the same each time.

First examinations of the hives in spring showed that *'they were bone dry and without a trace of mould on any of the combs. But a great disappointment was to follow. The colonies, without exception, failed to build up! The normal brood-rearing urge, managed by the other colonies not thus protected, as well as the upsurge of energy and industry was completely lacking. The colonies wintered in the makeshift hives with little or no special protection, made rapid strides in the spring build-up'.*

The results of these experiments led Brother Adam to conclude, **'In short, this form of wintering did not only prove a complete failure but in actual fact had a detrimental effect on the well being of the colonies'.** Ah! you may say, 'But the climate is much harsher here in Scotland so those results don't count for us! Well, Brother Adam reminds us that this form of wintering was gradually abandoned in the much colder climates of the U.S.A. and Canada by writing, *'bee-keepers on the Continent, where extra winter protection was until recently considered essential, have gradually come to the same conclusion as our findings made half a century ago.'*

So to sum up those findings which remember are based on research, he writes,

'The results palpably demonstrated that undue protection has a positive harmful effect and cold – even severe cold – exerts a beneficial influence on the well-being of a colony'.

' Winter losses are not the direct result of exposure to low temperature, but are generally due to a lack of timely cleansing flights, unsatisfactory stores, queenlessness or disease etc.' Brother Adam goes on to write, *'strong, healthy colonies will manage perfectly well even in adverse climatic conditions*. **The honeybee is doubtless a creature of the sun, but one that does not need any pampering'.**

Maybe that will give you something to think about as you are considering wrapping your hives in all sorts of additional insulation, rather than merely insulating between the crown board and roof and protecting from cold winds!

MBA MEMBERS' HONEY SHOW 2014

Exhibits should bear no identification marks as they will be registered and numbered by stewards. There will be no cash prizes but prize cards – 1st, 2nd and 3rd – will be awarded in each class. Competitors can win one place only in each class, with a maximum of two items per class, per exhibitor. A novice is a person who has never entered a Honey Show before. Here is the schedule.

Class 1 one jar (454g/1lb) of light honey
Class 2 one jar (454g/1lb) of medium honey
Class 3 one jar (454g/1lb) of dark honey
Class 4 one jar (454g/1lb) of set honey
Class 5 one jar (454g/1lb) of heather honey
Class 6 one section of honey
Class 7 one piece of cut comb honey, min 227g
Class 8 one frame of honey for extraction

Class 9 one piece of wax 227 gm/8 oz min.
Class 10 novelty wax 3 different mouldings, includes candles, rolled or otherwise

Class 11 one bottle of clear mead, addition of fruit is acceptable

Novice Class 12 one jar (454g/1lb) of honey, any colour or type
Novice Class 13 one piece of cut comb 227g/8ozs approximately

Class 14 four honey buns
Class 15 honey carrot cake
Class 16 four rounds of honey shortbread
Class 17 six small squares of honey tablet
Class 18 one colour photograph with a beekeeping theme (no larger than A4 size)

The baking classes must conform to a set recipe and these are available on the website www.moraybeekeepers.co.uk.

For more information, help or advice contact Show Convener, Andy Watson or any member of your Committee!

SUMMER & AUTUMN PROGRAMME 2014

Sunday 21st September	Talk & Demonstration, 'Extracting Honey' Birnie Apiary, 1.00pm
Saturday 27th September	SBA Autumn Convention, Dumfries
Saturday 18th October	MBA Honey Show, Birnie Apiary. Judge Mr Les Webster
Tuesday 28th October	Talk by Dr Stephen Palmer, Elgin Library, 7pm 'Beekeeping in an Arable Desert'
Tuesday 25th November	Talk by Bryce Reynard, Elgin Library, 7pm, 'Skeps and Skep Making'.

NOTICE BOARD

THE SCOTTISH BEEKEEPERS ASSOCIATION

AUTUMN CONVENTION
Saturday 27th September 2014, 8.45am to 5.10pm
in SRUC Barony Campus,
Parkgate, Dumfries, DG1 3NE

Ian Molyneaux – Regional Bee Inspector, North of England
Long Range Beekeeping – Management of my bees in Ireland
The development of the Manchester BKA's centre of beekeeping excellence

Simon Rees – FIBKA, Dublin - How Bees Fly, Langstroth and His Breakthrough
(The development of the moveable frame hive)

Alan Riach SBA - Polymerase Chain reaction in the SBA

Tickets £30 inc coffee, lunch and tea (students half price)

TRADE STANDS
BeeCraft, Bee Books New and Old, SBA, Brunel information, Solway Bee Supplies, Scottish Govt Bee Inspectorate, Abelo, British Bee Feeds, Beehivemaker

Bookings for Convention to Mike Thornley
Glenarn, Glenarn Road, Rhu, Helensburgh, G84 8LL
Tel. 01436 820493 Email: masthome@dsl.pipex.com

M.B.A. SHOP SALES AND RULES

MBA members can benefit from discounted prices on beekeeping equipment and also save on postage by buying from the MBA shop. The prices are shown below along with the shop rules.

Deep wired foundation, pack of 10	£ 9.00
Shallow wired foundation, pack of 10	£ 5.50
DN4 Unassembled Hoffman frames, pack of 10	£10.00
SN4 Unassembled Hoffman frames, pack of 10,	£10.00
1lb Honey jars and lids, pack of 54	£20.00

You must have paid your subs for the current year and **produce your membership card** at the time of purchase! (if you haven't received a membership card or have lost it please contact Donna Clark).

Equipment will only be on sale at advertised Apiary Sessions or Monthly meetings (see website or membership card) and **credit is not allowed**.

Pre-ordering to Andy Watson by phone, Tel 07786247327 is recommended, as your journey will be wasted if your item is not in stock.

A maximum purchase of 30 frames and 40 sheets of foundation only will be allowed. If you have more than one hive and require more then you should order direct from the equipment suppliers at the start of the season.

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

Yvonne Stuart Tel: 01343 842317

Members must return the extractor within 1 week otherwise a charge of £5 becomes payable

SCOTTISH BEEKEEPERS ASSOCIATION (SBA)

Moray Beekeepers Association is affiliated to the SBA and you are encouraged to join. Membership of £30 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

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