

## Beetalk March 2024

General info and news about bees

## Hello and welcome.

Beetalk is a compilation of news from across the bee keeping word.

Its not affiliated to any beekeeping group so you wont get things like the next meeting and what we are doing and such like.

We hope that the articles provided will be useful to anyone interested in the a rewarding hobby and in some way we also hope that you may gain some pleasure in reading some of the article that are included.

Also we intend to include articles that may be helpful to anyone new to the hobby.

Being based in Lancashire it would be great for any contributions from Beekeepers from the county. But as stated above, please nothing about your association or group.

Hope you enjoy.

**Editor** 

If you have any articles that you think may be useful to have included in Beetalk.

Please e-mail them to the editor

at

birt\_192@hotmail.co.uk

## Greater wax moth can sense highest recorded frequency.



Studies of the greater wax moth's ear could aid the development of new technologies.

The greater wax moth is capable of hearing the highest recorded frequency of any ani- mal in the natural world, researchers have discovered. A team at Strathclyde University in Glasgow found the moth can sense sound frequencies of up to 300kHz. Humans can only manage up to 20kHz, while dolphins, which use ultrasound, have limitations around 160kHz. The university hopes the discovery will lead to new technological innovations, such as miniature microphones. The findings, which have been published in the Royal Society journal, Biology

Letters, were recorded at the university's centre for ultrasonic engineer- ing. Dr James Windmill, who led the research, said: "We are extremely surprised to find that the moth is capable of hearing sound frequencies at this level and we hope to use the findings to better understand air-coupled ultrasound.

"The use of ultrasound in air is extremely difficult as such high frequency signals are quickly weakened in air. "Other animals such as bats are known to use ultrasound to communicate and now it is clear that moths are capable of even more advanced use of sound."

Dr Windmill said it was not clear how the moths had developed this ability. He added: "It is possible that they have had to improve the communication between each other to avoid capture from their natural predator - the bat - which uses similar sounds."

Dr Windmill and his colleagues now want to devel- op their understanding of ultrasound and how to transmit and receive ultrasonic pulses travelling in air. His team is working to apply this study and that of other insect ears to the design of micro-acoustic systems. It is hoped that by studying the unprecedented capabilities of the moth's ear, the team can produce new technological innovations, such as miniature microphones.

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#### Bee Vac



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If you are having a problem with difficult swarms then the beevac could be the answer or you. This apparently 'simple to make' appliance means that you should never have trouble removing a feral colony again. The pipe is inserted into the colony and the poor old bees are sucked from their home.

The plans are available from www.beesource.com/files/beevac.pdf

I have seen photographs of several ofthese home made products and read descriptions. The users eulogise over them, but I have no experience of using one. If anybody has, I'd be glad to hear about it. I would be intrigued to see

#### **Replacing Wax.**

Periodically, on a nice bright day it's good to go through all you super frames and get rid of all the mouldy, misshapen or any with pollen in them so that you know how much usable equipment you have available. Stack all the good frames back in the supers. Have a clear bench to work on. Instead of just running the hive tool through the top of the frame, breaking the wires and putting the wax into buckets or bags to save the wax (it does not matter how much you bash it about it still takes up a lot of room) - lay the frame flat on the bench and run the back of the hive tool across the comb breaking the hexagons. If it's cold it breaks very easily. Then turn the frame over and do the same to the other side so you are left with just the mid rib and a lot of dust, then carry on as usual. It does not take any longer but you will see just how clever the bees are to make something so strong yet use so little wax. Now when you put the wax in a bucket it takes up hardly any room so you don't have so much to store till you melt it down.

Now you are left with a stack of old frames that need to be scraped to get them clean so they can be re-waxed. If you can buy an old boiler or tea urn, a lot of clubs and organisations are getting rid of them for more efficient ones now, so you can sometimes pick them up cheap. It does make cleaning the frames easy to do but you won't be able to make tea in it again!. Get your boiler going - it's better to do it outside as it gets messy - put in a good handful of washing soda and when it's boiling just stand a handful of frames in the boiler for a few minutes. Wearing rubber gloves, give the frames a bit of a shake in the water then turn them over and do the other end you don't have to worry about scraping anything off the frames.

Once they have been boiled both ends, lift them all out and dunk into cold water. I do mine near the water butt from my shedso I just throw them in and put the next lot in the boiler. Then I use a wire brush on those in the cold water, mainly to take off the scum from the boiler, and they come up like new again, cleaned and sterilized in one go. Put them back in cleaned supers and leave out to dry. Then it's only a matter of taking out the top wedge and putting in new foundation - simples!

#### **Beware of the June Gap**

The June Gap is/was a term used to denote that there was a dearth of income for the bees in the month of June. This is the month in which the early flowering of trees and plants has finished so that there is neither pollen nor nectar available. The June Gap was exacerbated when farming moved into the monoculture era with widespread sowing of crops like Oilseed Rape (OSR), borage and field Bean. With our changing climate the June Gap may become the July Gap.

This year has giving colonies a late start by some 6 weeks because of the lack of early fresh pollen and nectar. Gardening has also had a late start this year. And the two usually go together. This year has been phenomenally late due to the wet and cold winter and early spring and so we are six weeks behind this year because of that. Experience has shown that observation of when flora is available, and the weather pattern, is the best guide as to when to perform certain manipulations of colonies. One cannot operate year after year to calendar dates.

Many different floras have blossomed this year at the same time and when you read this there will most likely be a shortage of forage. Traditionally the blackthorn (sloe) is one of the first sources of pollen together with pussy willow. Firstly, beware of taking off (extracting) all the OSR honey as this may produce a starvation problem in the weeks after. If you are unfortunate enough to find any of your colonies in this situation then you will have to feed 5 litres of weak sugar syrup (440g to 280ml of water). This certainly means no honey crop for this season.

And the bees will certainly need feeding well this year at the end of August and beginning of September in order to build up their fat bodies - it is this food which will be used to raise the early brood next spring. Without that the colonies will not have a good start. To anticipate any pollen shortage it is advantageous to use pollen patties (or pollen substitute patties) on each colony starting in March and continuing until the bees do not take any more (even when there is pollen coming in). My colonies have just (first week of May) finished their last patty - some have taken three.

The oilseed rape has been in flower for two weeks now on some sites and today on most sites but with these low temperatures there is so far no fantastic flow! June used to be the month in which swarming was most likely, simply because the bees could not forage and drones were at their maturity. May has found colonies without drones, or very few, and very little drone brood and therefore the peak of building queen cells will occur much later. The queens cannot best be mated until the drones are six weeks old.

My estimate is that the first two weeks of June could see some swarming. It is likely to be the second year in a run to produce poorly mated queens, so beware. By mid-July this year the worst of the urge for colonies to build queen cells should be over. However, I have known swarms to occur in September.

#### Editor's Note:

Don't forget to keep a check on varroa by carrying out your natural mite drop count. Some beekeepers use icing sugar to encourage the bees to groom the mites off, however, there are concerns about how the sugar may affect the developing larvae and the spiracles of the adult bees.

## **Novelty Hives**



## **BEEKEEPING INGENUITY**

John Gale of Birmingham & District Beekeepers using a portable "vacuum cleaner" to capture a swarm located in a cavity above a porch.

The PVC facia had to be removed and originally the bees were moved into a skep in handfuls. All seemed to be well with plenty of fanning taking place at the entrance. However, the bees had other ideas and went back into the cavity. They were then vacuumed up into the nuc which is the compartment on top of the 12v fan chamber. Photo by Norman Short



## A beekeeper's work is never done

Did I blink and miss Summer? The forecast for July is not looking too good "....There are indications that towards the middle of July, we may see a settled spell of weather once again, likely sometime between the 12-20th, but longevity of such a spell is uncertain and once again the predominant story is one of unsettled conditions and cooler than averagetemperatures ......."

The BBKA have issued Winter loss data – some 34% of colonies died last winter. That is a huge figure and one that we need to take note of so that we improve the way in which we prepare our bees for the winter; more of that later. So what should we be doing this month?

Extract whatever honey crop we have been able to get. Try to get the wet supers back onto the hives they came from, or failing that at least into the same apiaries. This minimises the risk of spreading disease around your colonies. To minimise robbing, put the wet supers back on the hives in the evening when the bees are not foraging. Weekly inspections continue as the bees will still be thinking of swarming.

Towards the end of the month take extra time on one of those inspections and do a thorough disease check, looking for any signs of European or American Foul Brood. If you are not sure about this, ask a more experienced beekeeper to help you. Also, download the Fera "Foul Brood Disease of Honey Bees" brochure to read. The link is

https://secure.fera.defra.gov.uk/beebase/index.cfm?pageid=167

We are now past the longest day and the queen will be reducing her rate of laying eggs. So our colonies are now at their peaklevels for the season, but the amount of brood will be reducing. So we can take advantage of this to start the process of changing old brood comb. We do this in stages, starting now and eventually replacing the old comb next spring. Firstly move the old comb, even with brood on it, to the edge of the brood nest. This takes it away from the place where the queen will most likely lay her eggs. Then at a future inspection, once the brood has all emerged, move the comb to the edge of the brood box. Over winter the bees will use it for stores and next spring you can remove it and replace it with a frame of foundation before the queen has started to lay in it. We should be replacing 3 or 4 combs every year.

What about re queening? Is your queen in top condition to take your bees into the winter and then support that explosive growth we need in Spring next year? July and August is a good time to be changing that queen for a new, well mated one. By the end of the month it will be cutting it very fine if you are expecting the bees to re queen themselves which results in a good mated queen. If we have been following an IPM strategy then the Varroa levels in the colony should be low. However, with a reducing amount of brood in the colonies, our bees are heading into dangerous territory. The amount of brood is reducing, so each adult Varroa mite can be competing to get into a reducing amount of brood to breed. This results in multiple occupancy, with one brood cell having more than one Varroa mite resulting in badly affected larva and young bees with poor health and short lives. These bees are going to be your winter bees, the ones that you are relying on to survive for 6 months, so if you are in the above situation that is very bad news. July is the time to start preparing the bees for the winter. As soon as the honey is off the hive, put on the Varroa treatment. Use a recognised, approved product and follow the instructions. Yes, we have all heard from the internet or from the "guy in the pub" about 'wonder products' that clean and re-invigorate the bees however I do not risk my bees with such, generally unsubstantiated, claims. I will pay the extra few pence for the approved varroicide, my bees are worth it and over the last 4 years I have not lost a single colony over the winter.

Because you are keeping Food Producing Animals, it is a requirement to keep a record of ALL treatments applied to your bees:- Product

Name, where you bought it, date applied, dosage, length of treatment and how you disposed of any surplus. Guidance note #14 from the

VMD gives more
details. Thelinkishttp://
www.vmd.defra.gov.uk/pdf/vmgn/
VMGNote14.pdf

Editors Note.

I have included this article as I am a great believer of looking ahead

# **BEE FACTS - Mouth parts**

## Did you know?

The honey bee uses it's proboscis which is a long, slender, hairy tongue that acts as a straw, to feed on liquids. They also have mouth parts called mandibles to hold and bite food.

Photo: BBKA



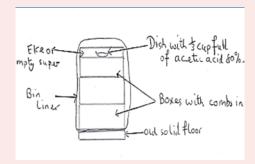
#### How!

Many beginners ask about using 'old' foundation and if they should throw out last years. Well, never throw wax away, always render it down for exchange at the Spring Convention; however, in many cases, foundation several years old can still be used after treatment.

Let's consider storage and some tricks to get the best out of your precious wax. Storage New foundation should always be stored flat and in a plastic bag. The reasons for this are firstly, that wax becomes brittle when cold and so will crack if laid unevenly while in hot weather it becomes more pliable and will distort. Secondly, over time chemicals evaporate from the surface of the wax and a white bloom develops; this makes it look and smell less appealing to the bees.



The photograph shows some wax that has fractured along the weakest point—where the wire was embedded into it. It has also lost its smell and Primrose colour. What can be done? Well, in this case I feel that rendering is the best option, although if you have time you could melt and trickle some wax along the crack but this is not a perfect solution. Drawn comb from healthy, disease free colonies can also be stored, but again, store it vertically in a brood or super box that is sealed in a wheelie bin liner. In addition, I would sterilize the frames with 80 % ethanoic acid (acetic acid) by sealing in a bin liner and stacking them as shown in the diagram. This will also kill wax moths larvae and eggs. Care must be taken with the acid, which is extremely corrosive to metal and concrete, so do not spill it and remove or coat metal parts with Vaseline. Always wear gloves and eye protection. If you do spill it, wash off with copious amounts or water. Leave the stack sealed up for several weeks and in fact until you need the frames because this will stop the entry of wax moths—just air the combs for a few days before use.



## How to deal with dull foundation

As mentioned above, old wax becomes less smelly and loses its colour but can easily be restored by one of the methods below.

- 1. Dipping the foundation in a bucket of hand hot water for a few seconds.
  - 2. Standing the box of frames in a warm greenhouse or conservatory.
    - 3. Spraying them with weak sugar syrup before giving to the bees.

All the above will work but take care not to leave the frame for too long in the heat and ensure they hang vertically or you will end up with a distorted mess at best, or more likely a pool of wax on the floor. This could cause serious grief if you do it in the conservatory.

Good beekeeping.

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## WATER SUPPLY FOR THE BEES.

Bees must have a source of water especially this time of year when natural pools around are drying up. If you can provide your apiary with a wildlife pond then here's some points to consider. It must have plenty of water plants and a beach to avoid the bees from downing, they are not the best swimmers and they need to be able to land and take off easily. Water plants that are ideal are water cless, water lilies, water forget-me-not and duck

weed. The beach is best made from clean gravel or grit and the larger the better, stones also make good landing/ drinking points in your pool too.

If you don't have a supply of water near by, then a natural source from guttering can be diverted to it perhaps. Whatever the source it needs re filling about every week this time of year when the bees need a lot of water. To keep the water clean and to preventit from getting stagnant the water plants help with oxygenation and pond snails, tadpoles, daphnia and Cyclops (water fleas) help too. Your pond needs to be as close to your hives as possible and in a light sunny spot. With the right balance of water plants and pond snails and water fleas it should be self maintaining apart from topping it up when needed

#### **Questions & Answers**

#### What are the differences between Summer and Winter Bees?

A 'winter' bee is produced at the end of the summer. They emerge into a very different world to those bees in other seasons. There is little or no brood to feed and there are plenty of provisions. Consequently the young bees feed on pollen for several weeks. Probably for this reason, unlike ordinary summer worker bees, winter bees have enlarged fat bodies with many globules of protein and enlarged hypopharyngeal glands. This improved diet may also contribute to their extended life span compared to summer bees. The trigger colonies use to switch from summer to winter bee production is unknown, but a leading hypothesis is that it is simply the cessation of brood rearing in the autumn. Nursing, after all, is hard work and the bees born into a nest with no nursing jobs have it easy and live longer. Although the verdict on the trigger is still out, it is clear that winter bees differ physically.

## Some of the key differences between winter worker bees and summer bees are:-

- Winter bees will live much longer (4 to 6 months) than a summer bee (45 days), probably due to less foraging and working. Free of maintaining incubation temperatures needed for brood rearing (32-36°C), the core bees lower their heat production and, thus, minimize their consumption of honey.
- Winter bees have fatter bodies on which they rely for nourishment during the non-foraging month, with greater dry weight, protein, fat, triglycerides, glycogen and glucose content..
  - Winter bees have significantly reduced metabolism, compared to summer bees at the same temperature.
- Winter bees have a different hemolymph (blood) protein profile, with high levels of vitellogenin, which is a potent antioxidant that protects the brain from oxidative cell damage. This protein is also used for producing brood food and protects bees from oxidative cellular damage. The maintenance of immune functions due to this protein, may also contribute to behavioural and physiological differences in stress resistant winter bees compared to summer bees.
- Winter bees have delayed degeneration of their hypopharyngeal glands compared to summer bees, and delayed increases in juvenile hormone, which is an initiator of foraging behaviour at high concentrations.
  - The transition from in-nest behaviour to foraging is delayed by several months in winter bees.
- Winter bees have stronger memory of foraging patterns due to less foraging activity, they can remember a food source from the previous autumn for a period of 173 days.

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### Colony survival rates.

Finally, it was interesting to look at whether the icing sugar treatment affected overall colony survival by the end of the 10 month experimental period. Of the eight control colonies that received no treatment, only three (38%) were alive by October. The average survival among the eight sets of randomly derived treated colonies was 39 ± 6.4% (where 6.4% is the margin of error). This certainly raises a number of questions, not least of which is why the overall survival rate was so poor. The researchers don't report at what time of year colony losses occurred, which may provide some clues as to whether losses were related to varroa or were brought about by factors independent of mite levels. Equally, they do not report what the varroa levels were at the start of the experiment, in particular whether the colonies were so badly infested that this level of loss could be anticipated.

#### Conclusions

Overall, the group concluded that there is some, albeit weak, evidence that icing sugar treatment results in lower colony varoa levels, as this was seen in 25% of cases. However, in 75% of cases, the treatment was ineffective, and there was no evidence of an effect on 10-month colony survival, which at 38-39% overall, was poor in both treated and untreated colonies.

Berry and colleagues concede that icing sugar may be useful as a component of integratedpest management programme, but only when used in conjunction with other components or methods.

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## **Swarm Stories.**

!t is never too early to think about bee swarms - their purpose / how to manage them / how to prepare your box to receive a swarm / how to capture a swarm - .

But what should you take if you are called on to deal with a swarm - besides a very experienced Swarm Collector !! Can you add to the following suggestions ?

- Secateurs / Long Handled Loppers / Saw
  - Skep woven / Cardboard Box
    - Queen Cage
    - Milk Crates / Long Pole
      - Smoker / Bee Brush
  - Sheet / Swarm Box / Duct Tape
  - Water Spray / Fabi Spray / Honey
    - Bee Suit / Gloves / Torch
      - Ladder and Steps
      - Mobile Phone

It is obvious that our team of Swarm Collectors need to be very well prepared and ready to deal with the unexpected - no two swarms are the same, and that is part of the excitement.

## **Gardening For The Bees!**

#### Lavender.



One of the quintessential scenes on a British summer's day is, without doubt, made up of the sight, scent & sounds of a lavender bush. The sight of the tall stems of blue, violet or lilac flowers, the rich, unmistakable fragrance and the sound of the constant buzz of the hordes of bees as they visit one of their favourite summer flowers! The origins of this cottage garden classic however, are very far from ourshores. Although grown in the UK since being brought here by the Romans Lavender is a native of the Mediterranean, where it thrives on dry, sunny slopes of well-drained soil. To get the most out of our lavender plants, we need to get the growing conditions as close to this as possible. It is the lavender oils – essential oils – within the plants that give them their distinctive scent. Lavender oil is believed to be produced as part of the immune system within the lavender plant. Plants produce higher amounts ofoils in hot, dry weather. Lavender has been used for its healing properties throughout time and has even been described as nature's complete first aid remedy. It can be used fresh, dry or as an oil. The ancient Greeks and Romans also used it to treat ailments such as insect bites, headaches, dizziness, kidney disorders, jaundice and dropsy. Roman soldiers used it as for its antiseptic qualities on war wounds, an application also used during the First World War with moss poultices when bandages ran short. By the 19th century lavender was promoted as a virtual 'cure-all'. It is one of the few essential oils that can generally be applied directly to the skin undiluted or with a carrier oil and it is perhaps best known for its ability to instill a feeling of all round well being and confidence. Lavender is also an excellent aid for a restful night's sleep and some claim will help ease snoring! It has a calming and restoring effect, especially good for the treatment of stress or nervous tension. The antiseptic properties of lavender are far reaching. As a first aid remedy itcan be used on abrasions, wounds, burns, sunburn, insect bites and stings. It is also an excellent insect repellent. All this AND it's nectar produces the

## most wonderful honey! How to grow Lavender

Gardeners can be spoilt for choice with lavender varieties. All would be a haven for your bees but here are a few to consider:

- ♦ Lavandula angustifolia 'Hidcote', a bushy, compact, dwarf form of the common English lavender often used in hedging. Narrow, silvery- grey leaves and small deep violet- purple flowers in dense, aromatic spikes 3-4cm in length.
- ◆ Lavandula angustifolia 'Munstead', a compact lavender, named after Gertrude Jekyll's garden at Munstead Wood. It produces dense spikes of fragrant, bluish-purple summer flowers above slender, aromatic, grey-green leaves. This is a lovely lavender for edging paths and borders.
- ♦ Lavandula angustifolia 'Loddon Pink', this is another English lavender that has been grown in England since before 1950. Flowers are pinky-grey and fade to soft mauve and the foliage is robust and grey-green.
- ◆ Lavandulastoechas, a French lavender with classic tufts on top of flower spikes but not as hardy as the English lavenders. Makes an excellent container plant to move to a frost-free place in winter. Annoyingly this is the most attractive lavender to bees! Damn those French! Growing in the soil

Lavender is best planted between April and May to get decent flowering the same year, but they can be bought and planted anytime. It thrives in poor or moderately fertile, free-draining alkaline soils in full sun. On heavier soils, like clay and clay loam, lavender tends to be fairly short-lived, becoming woody at the base. To prolong the life of your lavender on heavier soil, add organic matter and gravel to improve the drainage and plant on a mound. If growing as a hedge, plant on a ridge tokeep the base of the plants out of wet soil. Space plants 90cm (3ft) apart, or if growing a hedge, 30cm (12") apart or 45cm (18") for larger varieties. Once established, lavender is fairly drought-tolerant.

#### **Growing in pots**

Lavender can be grown in large pots, 30-40cm (12"-16") diameter, using multipurpose or loam-based compost such as John Innes No 3, with some extra coarse grit to improve the drainage and some controlled release fertiliser granules. Ensure that the compost is regularly watered in summer, but kept on the dry side during winter.

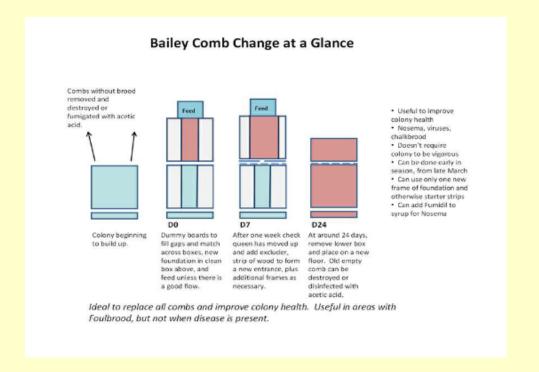
#### **Pruning**

Lavenders should be pruned every year to keep them compact. On established plants, use secateurs to remove flower stalks and about 2.5cm (1") of the current year's growth, making sure that some green growth remains. Pruning should be undertaken in late Summer after flowering, although Spring pruning is acceptable if we have a good Autumn and the plants are still flowering well. Lavender does not grow readily from old wood so neglected specimens are best replaced

#### **Bailey Comb Change**

A manipulation in beekeeping to displace old or diseased comb and replace it with fresh wax that has been drawn from foundation or starter strips. It was proposed and publicised by Lesley Bailey, the Rothamsted expert on bee diseases. This technique is also infrequently referred to as "the Bailey frame change". My version is a little more fastidious than Bailey's original, but my reasoning is that many hives carry high levels of virus these days, due to varroa and that the extra work is worth undertaking...

We can't see the viruses, but anything that we remove from the hive and clean, will lose whatever virus load it had. Part of what we intend by this manipulation is an improvement in cleanliness of frames comb and the hive in general so any hive part that can be removed and replaced with a freshly scrubbed one, that has had a lick over with the flame from a gas torch, will be of benefit. So regardless of the instructions listed below, if you can swap any item at any time during the period that the



process is running for a freshly sterilised one, take the opportunity to do so. This is not wasted effort as this Bailey method is not inherently as 'clean' as shook swarming and so anything we can do to reduce virus load will be to our advantage.

Many sets of instructions start by saying change the hive floor for a fresh one, I will go further and say change it at the start of the process and again at the end, when the old brood chamber is removed

I have not mentioned specific timing, local variations in conditions and knowledge of them will vary the times. Basically we are going to do this in early spring as the brood nest is about to be expanded and we are likely to be taking five or six weeks for the comb change process.

- 1.Remove any unoccupied frames and melt them down. Centralise what frames are left and fill the outside spaces with dummy frames. Place a fresh brood box on top of the original and put in one central frame that has a diagonally cut triangular sheet of foundation, Make up this box with frames fitted with starter strips until there are as many frames as occupied ones in the box below, then fill out the spaces with dummy boards or frame feeders containing syrup. Take this opportunity to use a fresh crown board, and add a contact feeder if you have not used frame feeders in the second box.
- 2.One or two weeks later, check that comb is being drawn and introduce a queen excluder between the two boxes, ensure that the queen is in the upper portion, add one or two frames with starters strips to the outer edges of the nest, if the bees are advanced enough to be working on all upper box frames. If comb drawing has not progressed as far as that ensure adequate feed is still available.
- 3. Three weeks after this point we will remove the old box and old frames, but in that interval we need to check whether extra frames with starter strips are needed and perhaps top up with syrup feed.
- 4. The last part of the comb change is the removal of the old box and frames, but this is not the end of the process. When I have done this in the past (and shook swarming) I have moved the whole hive to one side and placed a fresh stand, floor and brood chamber on the old site, then transferred the upper box frames, one by one, in the sequence that they were in. Finally filling out with frames that had starter strips, frame feeders or dummies according to conditions. If this upper box was full of frames that were mostly drawn, I would put a super on. the old frames would have any remaining bees shaken onto a hiving board temporarily attached to the entrance.
- 5. In the few weeks after this point the bees will build up rapidly, so rapidly that any congestion could trigger a swarm several weeks later.

## Just what can a queen bee do?



Back in early December, Sarah and I were inspecting our best performing hive. They were bringing in lots of honey and the queen was laying well and no signs of supersedure. While inspecting the bottom box we pulled up a frame completely full of honey and therewas the queen moving leisurely be- tween honey cells and seem- ingly having a good feed. We were stunned as we'd always been told that the queen is unable to feed herself. Sarah managed to take a couple of photos, but unfortunately being a bit rushed even the best photo doesn't really capture the feeding well. As far as we know (google image search) this is a unique photo After talking with a few senior beekeeepers, they were unconvinced and Common Knowledge stood firm- Queen bees are unable to fend for themselves!

When we had to requeen a cranky hive shortly after, we took the opportunity to see if the queen is able to feed herself (albeit outside of the

www.youtube.com/watch?v=VjVp\_q1LToU I reckon it might be an issue of expediency rather than inability. If we were alien observers and went back 20 years in time, we could observe Obama or Gillard making themselves a sandwich. Move forward to today and we would see all their meals being brought to their table. Would it be a fair assumption to make that they are unable to feed themselves? When a queen first emerges she spends the first couple of days, before she is mated and recognized as queen, feeding herself. Nothing about her mouth parts or feeding equipment has changed upon mating, so why assume inability? I think it just makes sense for the queen to be fed where she lays rather than have her waste time running back and forth to find a honey cell. It also allows the workers to control the queen's diet.

### From the newsletter of ACT Beekeepers Association - Australia



They are ready for the new season. Are You?

## PLEASE SUPPORT THE FOLLOWING.

NORTHERN BEE BOOKS OVER THE PAST TWENTY YEARS OR SO WE **BEEKEEPERS HAVE HAD** TREMENDOUS SUPPORT FROM NORTHERN BEE BOOKS. WE WOULD LIKE TO THANK THEM BY

PUBLICISING THEIR WEBSITE WWW.BEEDATA.COM THE POSTAL ADDRESS IS: NORTHERN BEE BOOKS **SCOUT BOTTOM FARM MYTHOLMROYD HEBDEN BRIDGE HX7 5JS** PHONE 01422 882751 BY THE WAY, THEIR **CONCESSIONARY RATE** www.beedata.com/beebooks.htm

## **UK Honey Labelling Regulations**

Below is our simple advice on honey labelling. For more detailed information - go to the website of the Food Standards Agency, www.food.gov.uk 1. The Word "HONEY" is required.

- 2. The weight must be on the label we will ensure it is the legal size and format.
- 3. You can specify the area where the honey is produced. For example, Lincolnshire, Forest of Dean, Scottish Borders.
- 4. You can specify the type of honey. For example, Heather, Borage. The honey must be at least 75% of that particular type.
- 5. If you are selling the honey, you must have your name and address on the label. It does not need to be complete but you should be able to be found from the information.
- 6. If you are selling the honey through a third party, you must have a lot number.
- 7. New for 2003 You must have a best before date on the jar. We suggest 2-5 years from now.
  - 8. New for 2003 You must have a country of origin on the jar. For example - Produce of England, Product of Scotland, Harvested in Wales. Adding the country to the end of your address is not

acceptable.

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## **Holidays**

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An Italian Pustic Farmhouse in the mountains of Faulia

An Italian Rustic Farmhouse in the mountains of Emulia Romagna Province of Parma

The property is situated at 650 metres above sea level on the edge of a small quiet village amid beautiful unspoilt Countryside. The nearest town Bardi is 12km away.

Accommodation comprises of 3 double bedrooms and 1 single bedroom. Self catering with meals can be arranged if requested. Guaranteed no Internet, no TV, no en suite bedrooms, no discos and frilly duvets- just the sounds of birds, cockerel alarm call and bees. Bring your own veil and walking boots for exploring the countryside.

Price per week 650 euros. Short stay B & B @ 30 euro per night
Interested, need to know more ring Jenny on 0039052576169



## **Show a Leg!**



We've all seen the classic photos of bees approaching the hive with their legs dangling and wondered why they adopt such an uncomfortable looking posture. Well there may be an answer! Unlike aircraft, having their landing gear down allows bees to fly faster. Dr Stacey Combes and her team from the University of California, Berkeley recently presented research at the Society for Experimental Biology's annual main meeting in Canterbury, Kent, showing that when orchid bees extend their hind-legs they pitch forward to achieve maximal speed. The legs also produce lift forces to either side that help prevent the bee from rolling. "The hind-legs resemble airplane wings, which probably explains why they also generate lift", says Combes. This research isn't only interesting to beekeepers – it has real world applications in the design of miniature flying machines, in which it may be helpful to be able to reduce the number of control components needed by using one structure (like the orchid bee legs) to control both pitch and roll. The researchers perform their experiments by encouraging the bees to fly in an outdoor wind tunnel using aromatic oils as an incentive. The bees can reach a maximum speed of 7.25 m/s (16.21 mph), but at these speeds they lose rotational stability: "They roll all the way to the side or often upside down, and crash to the ground", Combes observed. This means that what limits the bee's speed is not muscle power or wing beat, but the pitch of the body balanced with the resulting rotational instability. "Having the legs extended generates stabilising lift forces and helps reduce the moment of inertia and the low rolling, similar to when a spinning figure-skater extends their

arms."