Beetalk June 2024

General info and news about bees

Hello and welcome.

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

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.

Michael Birt

Editor

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

Please e-mail them to the editor

Michael Birt

at

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HOW WE CAN HELP CONTROL FOULBROOD IN 2024.

The European foulbrood (EFB) outbreak in Harrogate in 2012 was a most unwelcome addition to a difficult season for beekeepers. We are all hoping for better weather in 2013, but that is quite outside our control. What is not out of our control is what we all do with our bees to help defeat the disease in the coming season. Here are some suggestions:

1) Check all colonies for signs of disease.

This is a vital first step which will enable any diseased colonies to be found as soon as possible. Try to make one of the early inspections of each colony a specific careful look at the brood just for foulbrood. Go through every brood frame, and shake off the bees sothat the brood can be seen without being covered in bees. For EFB ensure that all the larvae are pearly white in colour, that they are lying curled up neatly at the bottom of the cells, and that the segmentation can be clearly seen. For AFB, look for sunken, greasy cell cappings, for perforated cappings, and for dried up remains stuck to the bottoms of cells. Full details of what to look for are in the National Bee Unit book-let "Foulbrood diseases of honeybees" available on the internet at https://secure.fera.defra.gov.uk/beebase/index.cfm?sectionid=26 or in printed format directly from the National Bee Unit (telephone 01904 462510).

If you have any concerns about the appearance of your brood contact the bee inspector immediately.

The contact details are at the end of this article, and are in the Association directory.

2) Do not try to hide the disease

EFB is no respecter of beekeeping experience, and there is no stigma attached to finding it in your colonies. In 2012, EFB was found in colonies of beekeepers with a wide range of experience. If you have any concerns about the appearance of your brood contact the bee inspector immediately. All full and partner members are automatically insured with Bee Diseases Insurance for 3 colonies, and additional colonies can be insured for modest cost. .

3) Keep colonies strong and well fed.

EFB in particular can be a problem to weaker colonies, or to colonies that are expanding rapidly in the spring. Keep a careful eye on the stores at your weekly inspections, and feed colonies that are very low on stores. If you have a weak colony it may well be better tounite it with a stronger colony early in the season.

4) Only obtain bees from trusted, local sources.

With the increased demand for bees in recent years, unscrupulous dealers have sold infected bee colonies through adverts or online. As well as giving the buyer grief, such colonies can act to introduce disease into other local colonies. It is much better to buy colonies from people you know and trust. Locally reared bees will, in many cases, be better able to deal with the local conditions than bees from farther afield .If you must import colonies into the area, insist on a current certificate of health from the seller's local Bee Inspector.

5) Make every effort to prevent swarming.

This is particularly important for all beekeepers with their bees in or close proximity to each other. For the 2013 season all swarms will have to be treated with great suspicion of being infected with EFB. It is much better for us all if we can reduce this risk by redoubling our efforts to prevent our bees from swarming. A prime first swarm can take any beekeeper by surprise, but such a swarm is much less likely if you are doing regular weekly inspections and **taking appropriate action to split the colony into two, in some way, as soon as you see eggs or young larvae in queen cups**. Repeated swarming (casting) from a colony is down to bad beekeeping, and really cannot be tolerated if we are trying to control the spread of EFB through the control of swarming.

6) Please- Do Not Move Colonies Out of the Area.

It will greatly assist in the reduction of the number of colonies at risk if we all refrain from moving colonies away from Harrogate and the surrounding areas.

7) Treat all swarms with suspicion.

If you do find a swarm of bees of unknown provenance keep it as far away from your other bees as possible. Inspect it with full hygienic precautions-liberal use of washing soda solution use of disposable gloves, and frequent laundry of bee clothing.

Nutty Cobbler.

2 tablespoons Honey, 1½ lbs rhubarb, 1 tablespoon sugar, 1 tablespoon water
1 ounce chopped walnuts, 6 ounces plain flour, pinch of salt, 2 teaspoons baking powder
3 ounces butter, ½ egg, ½ teaspoon cinnamon

Prepare rhubarb. Place in a fireproof dish with water and sugar and cook in the oven until tender.

Make cobbler pastry using only 2 ounces butter, and mix with egg and honey.
Roll the pastry into an oblong, spread with the extra 1 ounce of butter and sprinkle with the cinnamon.

Roll up as for a Swiss Roll, cut into rounds and place on top of rhubarb.
Bake in hot oven for a further 15 mins.

Just before serving, brush cobbler topping with extra honey and sprinkle with walnuts.
Serve with hot custard or cream.

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RESPONDING TO INFORMATION RECEIVED

A look at life inside the hive and a consideration of some of the ways in which the colony uses cues from the hive to adjust its activity. Pheromones, dances and vibrations are all involved with these systems. We will look at a three examples.

Rearing drones

During the Summer colonies have drones present. They start rearing the first drones early in the year and, from then onwards, drones and drone comb are generally present until late Summer.

Although the numbers of drones reared depends to a large extent on colony size and resource availability, where large numbers of drones are lost from the colony, more will be reared.

This can happen, for example, when sacrificial drone brood is used for Varroa control, but is also a natural process. It is not clear whether the control is ultimately pheromonal, but it probably is. Information on drone pheromones is meagre.

Food processing

Foragers bringing nectar into the hive do not unload it into cells, but give it to other house bees, called receiver bees. The speed at which unloading occurs influences the subsequent behaviour of the foragers: if their nectar load is accepted readily (20 seconds or less) by a few receiver bees, they will often go and dance to indicate to other foragers where the forage is. They may recruit other bees, who are resting, to observe waggle dances by vibrating them in a dorsoventral abdominal vibrating dance (DVAV dance). If, however, they are kept waiting to unload, (40 seconds or more) and have a long search for receivers, they will conclude that there is too much food coming into the hive for the food processors to handle and will not dance to recruit other workers to forage.

They may instead move into the hive to attempt to recruit more receiver bees. This they do by performing a tremble dance. The bee runs about the comb on the hind two pairs of legs,

holding its front pair of legs up, at the same time causing its whole body to twitch and tremble. This results in the recruitment of more bees to honey storing and processing duties.

As a secondary effect, if the trembling bee encounters a bee performing the wagtail dance it head butts it, and briefly pipes, and this seems to be a stop signal.

The dancing bee stops doing the waggle dance, does not therefore recruit more foragers and usually flies out of the hive. In this way the balance between returning foragers and receiver bees is restored Food processing is of overwhelming importance to a colony if it is to survive the Winter and this very sophisticated system ensures that the whole process works as efficiently as possible.

Comb building

As we all know, bees will only draw new comb when they need it. That is why, when we provide our bees with new foundation, following a Bailey comb change or shook swarm, we need to feed them with weak syrup (1lb of sugar to 1 pint of water) unless they are on a very strong nectar flow.

In the natural state, a swarm begins to build comb very rapidly. This is essential as the queen has to have somewhere to lay so that the embryo colony can develop. The bees in the swarm will have brought food with them, which they can convert into wax, and many of the bees will be the right age for wax production.

Once the initial comb building has taken place, wax production slows, and thereafter comb will only be built as it is needed: to accommodate the eggs that the queen is laying and the nectar stores . .that the foragers are bringing in. If they have existing space they will not produce more.

How do they know? Do the patrolling bees, who walk around the hive apparently aimlessly, have a function here? If so, how do they communicate the needs to the wax-building bees? Is it another effect of slow receiver bees? After all if they take time to find a cell to put the nectar in, that may be an indication that more space is needed. Is the brood nest full? Is the queen having to look around to find a cell to lay in? How is this translated into a need for more comb? So many questions! The more you think about the marvellous organisation in a bee colony, the more questions arise. That is the fascination, and the frustration, of looking at colony organisation.

At some point a question about the intelligence of bees arises.

At one time it was thought that everything a bee did was down to innate instinct. We now know that bees can work things out, remember and, to some extent, think. (There was a suggestion that they can recognise human faces – that may be good or bad, I have not decided yet!)

How far this goes we do not know, but I suspect that there is still a lot more to learn about the marvellous but tiny brains that our bees possess

Starvation Risk.

Important Information about Colony Food Levels. With the continued poor weather looking to persist through to the end of April, colonies may be starting to run out of food (if they haven't already). It would be advisable to check the food levels by opening the hive and making a very quick observation on their store levels. Key points to remember are:

- The colony may still have stores available which are at the other end of the brood chamber to the cluster of bees. If there are 'empty' frames between the two then the bees could still starve, despite food being in the chamber. Move the frames of food directly next to the outer frame where the cluster resides, ensuring that you score each frame of food (not excessively, but enough to stimulate feeding). Be sure not to knock or roll the bees when doing this and to be as quick as possible.

- • If the colony has little or no frames of food then give them a block of candy or fondant. You want to aim for about 2.5 kg per hive and although this may seem to be a great expense, it is far less than the money you will have wasted should the bees die.

- • Mini plastic bags that are used to store loose fruit in from the supermarket are perfectly acceptable for holding the fondant and cost nothing. Pack the candy in the bag and then pierce holes in the appropriate place once you get to the hive. If the bag seems fragile then you can double bag it (just be sure to pierce both bags).

Wide Spacing as a Varroa Control.

Over the last few years there have been a number of articles in Italian beekeeping magazines about the use of wide frame spacing to control varroa. A presentation was made on the subject by Dr Tiziano Gardi at the Dublin Apimondia. His presentation was on a 3-year project, financed through an E.U grant, completed in August 2006 and submitted to the Italian Ministry of Agriculture, Food and Forestry. The objective was to evaluate the effects of the "Spaziomussi Bio-Technique" in colonies of *apis mellifera ligustica* and its ability to reduce varroa destructor numbers, (Spaziomussi is a method of spacing frames devised by a Mr Mussi). 855 hives with wide frame spacing were set up in 15 apiaries in 6 provinces in Italy; the resulting observations in colonies were significant and were as follows.

a. An immediate increase in the drop of both mature and immature mites.

b. b. A lower tendency to swarm and in the 3rd year practically no swarming was experienced.

c. c. No deformed bees were found.

d. d. A more compact brood pattern was observed.

e. e. Healthier bees, a result of the reduction in virus infection and chalk brood.

f. Honey yields increased on average by 22%. The report concluded that from the above observations and the accompanying data, Mr Mussi's spacing method is effective. In the U.K 35mm spacing is the norm and the nearest we have to the wider spacing used in the Italian trial is by using Manley frames or B.S using castellation and 10 frames both give a 41mm spacing. With our National Brood Boxes that have 11 frames, to create a similar arrangement, take one frame out.

This leaves you with ten. Put a wide plastic spacer on the first frame followed by a narrow plastic spacer on the second etc. So your ten frames now have alternating wide and narrow spacers in the box. If the temperature is still too cold. Place the fondant directly above the bees, turning the crown board if necessary so that one of the porter bee escape holes is above the cluster. Please be aware that this should be done as quickly and carefully as possible and although it may seem too cold to open the hive now, it is far betterto do so knowing the bees are ok than not to and find later that they have died.

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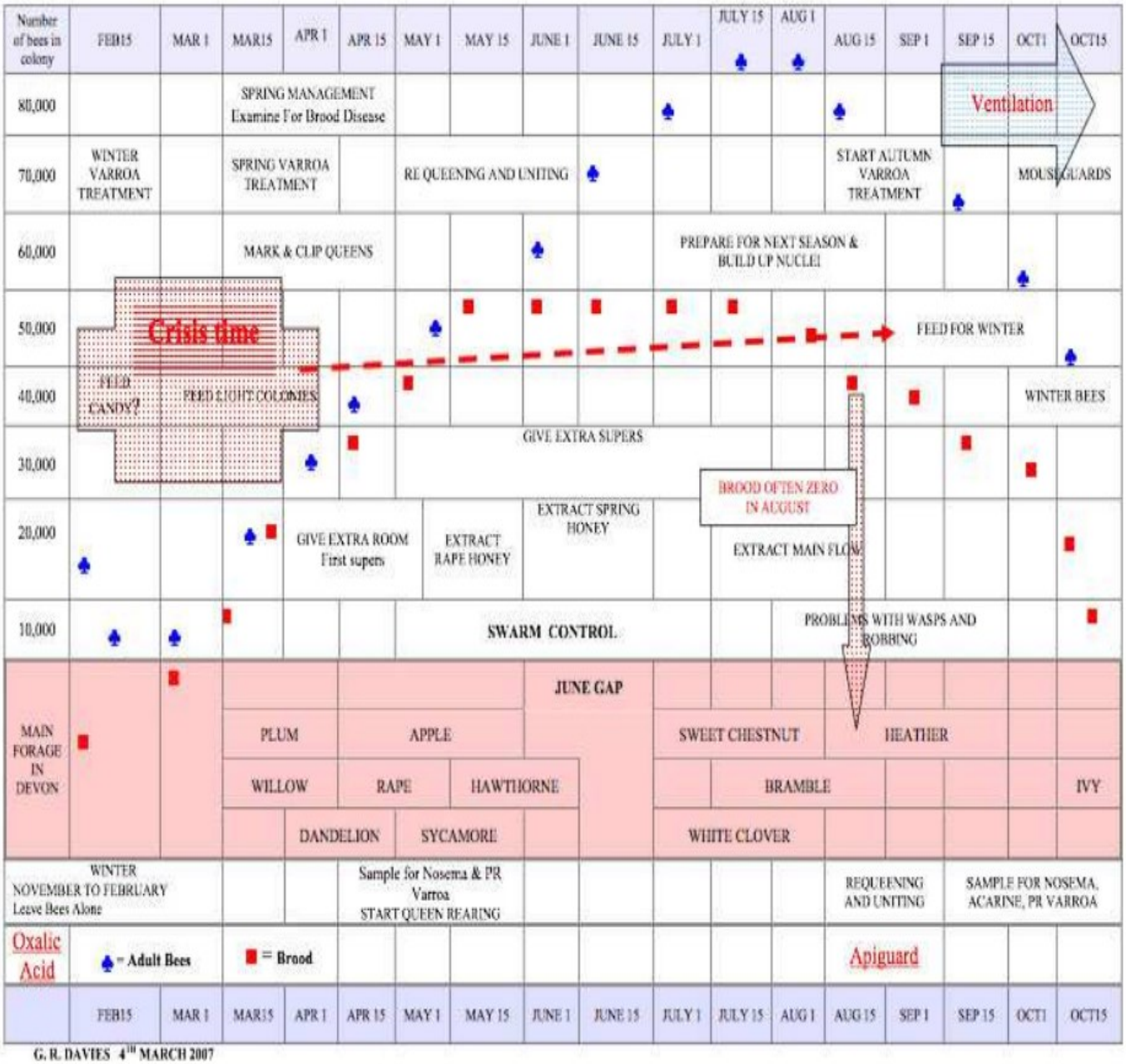
Queen returning with the mating

A BEEKEEPING TIMETABLE



This exceedingly useful chart has been sitting waiting to go into the News Letter for ages. If you increase the view size to about 200% it will be easier to read. It is an excellent chart to print off and refer to; the more you read it, the more you see. Set out in two week blocks, it is a guide to the year

Mr Bee.

Drones make up to 13% of colony numbers and pass on the colony's genes.

Drones, called drones because when they fly they make a droning noise, take the longest time from egg to adult, are the heaviest bees in the colony and have more sense organs than the other bees. Days 1 to 7 they are fed brood food in the centre of the colony; from day 8 they are fed honey and nectar. At 12 days they are sexually mature and fly to drone congregation areas and at 15 to 16 days they are at their peak.

Drone congregation areas are still something of a mystery; they tend to be in traditional places that do not change, usually over pasture,; drones find them, but knowledge of their whereabouts cannot be passed on as the drones don't survive more that one year. Drones have magnetite crystals in their structure and so can use the earth's magnetic field for navigation; it is also possible that drone pheromones may persist in an area and so be findable the following year. These congregation areas can be huge: 30 to 200 metres across and between 10 and 40 metres from the ground.

There will be several within the area of a hive and there can be 10,000 drones from 238 colonies attending one congregation area. When a virgin queen enters a congregation area, which she finds by scent, she is frantically pursued by drones who mate with her with incredible rapidity, each mating as rapid and quick as click, click clicking a finger, and the drone then falls away dying, leaving his endophallus in the queen. When the queen leaves the area, the drones do not pursue her.

Drones also suffer high mortality in their mating flights, mainly from birds. At 18 days, 80% of them have perished. They also 'hive hop', leaving their own hive, they will call in and lodge, and get fed, at any hive that they find and stop at. Between 13 and 18 drones mate with a queen, donating six and a half million sperms. More than enough for the life of a queen.

SAVE OUR BEES.

A Bee-keeper carried out a trial over 2020/2021 and his hives not only survived one of the worst winters that we have ever had, but the brood increased by 30%.

HOW? There were very varroa few mites at the time of the brood. WHY? These results have continued.

1. All hives were kept clean and free from chemical insecticides. It is thought that over time, insecticides impregnate the fabric of the hive and are a serious cause of colony collapse . So new frames, or frames free from contamination are needed.

2. A winter feed of 5grams of garlic to 1 kilo of sugar in solution was given until the new brood started. The garlic was then discontinued during honey production. However replacing garlic with an infusion of nettles to the last feed increased the brood by 40%. Many humans use garlic to boost their immunity to disease. Does it also do this in bees? Nettles contain trace elements, do these increase fertility? Garlic is also known to kill and/or cause the varroa mite to leave the bees.

3. The colonies were large, at least 1 1/2 times the brood. This ensured warmth in winter and ample workers for food gathering.

4. The garlic controlled the varroa mite in winter and icing sugar dusting controlled the mite in spring and summer.

5. Nectar and pollen rich flowers are necessary. Please plant them. This system is cheap, organic and it works!

Could garlic, or any alium spp, alter the odour balance inside the hive to the detriment of the varroa mite? If so, would it not upset the bees' pheromone communication? At worst it seems harmless, and proprietary feeds contain supplements, possibly even nettle extraction. Only proper trials would give a clear result, but it is an interesting thought.

Ed.

Questions and answers

Q1.

I don't use stands because no one seemed to do that in the sixties when I started. I have discovered that they need to be well enough clear of the ground to keep the damp reasonably at bay. It sounds a lot of timber and would mean my woodpecker cages would need extending. As it is, I've got only two so will have to make three more. The woodpeckers were flying over the bees yesterday, yelling as only they can. I am in the process of mending my ways with the entrance blocks, though! Tell me - do you have an exact measurement for the slot? It'll be wasp time shortly so they'll be essential anyway.

A1.

Entrance slot dimensions are 5/16" (8mm) high and about 3" (76mm) wide. It's a good idea to put the block in position with the slot at the top; that way any dead bees do not block the entrance during the winter months. As I said, I keep my blocks in all year; this helps the bees better ventilate the hive. I use a few Gilbert Louvres and these use round 3/8" (10mm) holes. Note that the mouse's skull is such that the mouse cannot get through a round hole although it can get through a 3/8" (10mm) high slot. It's a good idea to make stands so that the bases of hives are some 18" (460mm) off the ground. Make stands long enough (1400mm) to take three hives but initially use them for two hives. This enables a third hive to be used for manipulations such as swarm control. It also saves the beekeeper's back!

Q2.

One of my colonies has a very odd habit I've not encountered before - a propensity to hang around in clusters, particularly on the hive wall. Even when I've not been near, there's often a congregation of them up the front. They seem disinclined to move with smoking and it was a helluva job to put the occupied super back on over the excluder as there were bees hanging everywhere. I had to resort to picking them up in handfuls in order to get the lid on! It was an hour or so before they'd all largely gone back in. They're said to be Carniolans. Have you come across this trait?

A2.

This is a classic case of the bees not having enough room, or the daytime temperature is very high. These honeybees need more room either in the form of a larger brood chamber, or another super. I would under-super in this case. When bees are occupying more than five or six seams in the super they should be given another super.

Q3.

By the way, everyone says you need to swap out a proportion of brood combs so you don't harbor disease. But how on earth do you do it, given they've mostly got brood and stores on? And, come to think of it, where do you put the ones you're removing?

A3.

This is largely a question of planning well ahead and preparing in the previous season by moving frames with lots of drone cells and damaged areas, e.g. holes, to the outside positions in the brood chamber. Early in the year these frames can be removed and, the space released used to place drawn frames adjacent to the brood nest; or between the outer partially laid-out frame and the more fully laid-out frames of the nest. The old removed frames can be placed on the bird feeder if they contain brood at a stage (blue tits love them), or alternatively in your solar extractor.

A Comparison of Wild Bee Colonies and Hived Bees

This article is a made by Professor Thomas Seeley. (Chairman in the Department of Neurobiology and Behavior at Cornell University, and author of the' Wisdom of the Hive' and 'Honeybee Democracy'.) Over a period of years he had studied an area of natural woodland, with relatively poor foraging, the habitat in which bees have evolved for millions of years, adapting to the cavities available for nesting, foraging and the need to reproduce by successful swarming.

The general findings and conclusions of the study included :- ● Wild colonies were found to be spaced an average of 840 m apart. ● The colony shape was invariably tall and cylindrical, with a typical volume of 45 litres (a bit less than a national brood box and one super). ● The entrance height was an average of 8 m above ground. ● The entrance size was much smaller than a National full width entrance, but varied in size, and large natural entrances were significantly propolised to make them smaller. ● The naturally rough walls were varnished all over with propolis; any dross in the bottom of the cavity was also totally encased in propolis. ● The colony moved down and up through the year, starting with brood at the top in the Spring and then gradually working down to the bottom and then rising again through the Winter as they used their stores. ● The colonies swarmed every year and some of them twice in the year. ● The survival of swarms was however only 24%. ● The survival rate of the original parent colony was very high. ● There was typically 17% drone brood. ● All the colonies had varroa infestation, but none of the infestations exploded in spite of the high proportion of drone brood, and no colonies died as a result of varroa during the study.

His explanation of this last finding was that it was the varroa that had evolved, not the bees. Suggesting that a successful parasite does not kill its host especially if it is transmitted vertically from generation to generation of the host– this will occur in the wild with very little drifting (horizontal transfer) and lots of swarming. Also varroa, with its short generation time, will evolve more quickly than the bees. The presentation finished with an inconclusive discussion about whether the findings of the study suggested that we should be doing anything differently as beekeepers. Our aims are very different from those of wild bees after all. We wish to keep our bees in apiaries, maximise honey production and minimise swarming; whereas wild bees choose their homes and want to multiply and spread.

Wild bee comb in a tree hollow

Wild bees nest in a tree cavity exposed

Bait Hive Recommendations

Although we may now be well into the 'swarming season', with the severe loss of colonies during last Winter it may still not be too late to set up a bait hive to attract any scout bees looking for a new home. The following is some advice to make your bait hive as attractive as possible. Bait hives and pheromone lures are of course commercially available but making your own from disease-free old equipment is inexpensive and a great way to recycle frames and hive boxes. ● The most effective height is approximately 4.5 m above the ground. (Whereas the previous article refers to 8 m as the height of a wild bee colony entrance.) ● A well shaded but highly visible location is best. Bees avoid or abandon bait hives in direct sun.

Improving Beekeeping Practices

One thought however, is about the effectiveness of bait hives. Perhaps they should be high up, just one brood box in size, and with small entrances. Another thought is about our drone brood and whether we give our bees enough opportunity to produce sufficient drones and of good quality. Do we encourage our bees to produce enough drones for the competitive mating process, especially if we use drone culling as part of IPM ? Perhaps we should experiment by putting one frame of drone foundation in each brood box in early Spring. With last year's poor mating of new queens it may be worth trying something different. Wild bees create small entrances to their nest cavities, suggesting that reducing the standard hive entrance size may be preferable to the bees.

Apparently the most effective height, but not very convenient for the beekeeper.

Bait Hive Recommendations

♦ The distance from other, possible parent, hives is not important. ● The total entrance area should be approximately 10 to 12 sq cm. ● The entrance position should be near the floor of the hive, but the shape is not important. ● An entrance direction facing south is preferable but other directions are acceptable. ● The cavity volume should about the size of a National brood box. The shape is not important however. ● The bait hive should be dry and snug, especially at the top. ● Various types of wood are fine, but bees may avoid new timber. ● Preferably paint the bait hive a dark colour. ● The odour is important. Old frames with comb are attractive, if you don't have old comb consider using a frame with a strip of foundation since beeswax is also an attractant. Various other aromatic substances have been used to render bait hives attractive to bees. The essential oil 'Lemongrass' apparently mimics the scouts' communication scents and can be used in bait hives of any shape. Check the bait hive weekly, and monitor for wax moths if using untreated old comb. The chances of attracting a swarm of bees to pick your bait hive is a bit of an art, but it may well be worth the time and effort.

Honey bee's genetic code may tell a story

Researchers have uncovered a new element of the honey bee's genetic makeup, which may help to explain why bees are so sensitive to environmental changes. Scientists from the University of Sheffield, Queen Mary, University of London and the Australian National University, have found that honey bees have a 'histone code' – a series of marks on the histone proteins around which their DNA is wrapped in order to fit into the nucleus of a cell. This code is known to exist in humans and other complex organisms in order to control changes in cell development, but this is the first time it's been discovered in the honey bee. Histone codes can also be affected by nutrition and environmental factors, so the scientists believe the finding may be another part of the puzzle to explain how eating royal jelly ensures honey bee larvae turn into queens and not workers. "The development of different bees from the same DNA in the larvae is one of the clearest examples of epigenetics in action – mechanisms that go beyond the basic DNA sequence," Dr Mark Dickman from the University of Sheffield said. The scientists believe their findings will open the door to further study of the interplay between environment, nutrition and how the honey bee develops. The first step will be to identify exactly how larval diet influences the histone code to ensure development into either a queen or a sterile worker. But the potential impact is much wider, Dr Paul Hurd from Queen Mary's School of Biological and Chemical Sciences, said. "Indirect dietary-mediated effects are also of particular relevance to insect pollinators. Prime examples are from systemic pesticides used on agricultural crops, which accumulate inside nectar and pollen and therefore enter honey bee diet, in some cases with detrimental effect. By studying the impact of diet and particular chemicals on the histone code during honey bee development and behaviour, we may be able to identify how certain pesticides contribute to the decline of some colonies," Hurd said. …..…..……

Courtesy of ZeeNes.com - scientific study reported in Insect Biochemistry

‘Spring Beekeeping’

Many of us are suffering the consequences of last year’s poor summer followed by a cold and miserable winter and only as we open the hives for our first spring inspection (hopefully, sometime soon!) will we see the consequences. Ian talked to us about how to spot and deal with some of the ensuing problems that may manifest themselves as a result

Signs and Symptoms of Queenlessness?

Bees agitated – more defensive • fanning • roaring (a quite distinctive sound!) • aimlessness of workers • brood cells not polished (therefore no eggs) • building of queen cells • multiple eggs in cells Swarming and Supersedure:

Why?
They are both natural processes, with swarming designed to make increase and supersedure to give the colony extra life when aqueen becomes too elderly (or damaged) to lead it.

Drone Laying Queens or Laying Workers?
Drone laying queens: • eggs still laid at bottom of cell • still laid in a reasonable pattern but higher domed cells Laying workers: • eggs laid on side of cells • often multiple eggs in each cell • an erratic laying pattern • queen cells

Detection and Confirmation of Queenlessness?
Changed behavioural characteristics • use of a test comb (frame of eggs from another disease-free colony) - if queenless, workers will raise queen cells - if queen present, they will continue as normal.

I must emphasise the importance of not making a hasty decision that a colony is actually queenless. It takes a fair while before you can sure. From day of swarming (assume queen cell sealed on day 8): • 8 days for queen to emerge • 5-10 days before she mates (but can be up to 20 days) • so a total of 18 days before laying (but can be up to 33 days – i.e. 5 weeks!) • plus 21 days for workers to emerge • plus 10 -12 days before new workers forage This means that there are, potentially up to 66 days (i.e. 2 months!) before new workers forage.

Corrective Actions.
The best corrective action is preventative! • spot the first signs of swarming (appearance of drones) and prepare for action by getting equipment ready • make an artificial swarm - best method of varroa control - opportunity to change combs - achieves a colony split - opportunity to introduce a new, mated queen during the process and promote genetic diversity • use young, overwintered queens (they tend to swarm less)

The ‘types’ of queenless colonies.
Some of us will instantly recognise the part we played in ‘producing’ one or two of these!

The Deliberately Queenless Colony
Generally not a problem because under the beekeepers control • queen removed to allow introduction of new queen or queen cell • introduce to the colony what they would be i.e.. queen or queen cell) • sometimes beekeepers remove queen to use as a crop enhancement technique (mostly on heather)

The Accidentally Queenless Colony
Firstly, identify why the colony became queenless and don't do it again!!! • identify how long the colony has been queenless • unless you wish the colony to requeen itself, remove any queen cells which have been constructed • introduce to the colony what they would expect.

The Apparently Queenless Colony
Check the symptoms. Are you sure they are symptoms of queenlessness? • things aren't always what they seem. Read the signs carefully! test for queenlessness with a test comb (but only after removing all queen cells)

The Hopelessly Queenless Colony
Defined as one which has no prospect of raising a viable queen itself • it will not survive on its own and may be of little use to a new colony as its workers are liable to be too old and decrepit.

NBU Starvation Warning

With the continued poor weather looking to persist through to the end of April, colonies may be starting to run out of food (if they haven't already). It would be advisable to check the food levels by opening the hive and making a very quick observation on their store levels. Key points to remember are: • The colony may still have stores available which are at the other end of the brood chamber to the cluster of bees.

If there are ‘empty’ frames between the two then the bees could still starve, despite food being in the chamber. Move the frames of food directly next to the outer frame where the cluster resides, ensuring that you score each frame of food (not excessively, but enough to stimulate feeding). Be sure not to knock or roll the bees when doing this and to be as quick as possible. • If the colony has little or no frames of food then give them a block of candy or fondant. You want to aim for about 2.5 kg per hive and although this may seem to be a great expense, it is far less than the money you will have wasted should the bees die. • Mini plastic bags that are used to store loose fruit in from the supermarket are perfectly acceptable for holding the fondant and cost nothing. Pack the candy in the bag and then pierce holes in the appropriate place once you get to the hive.
If the bag seems fragile then you can double bag it (just be sure to pierce both bags). • At this time of the year we would usually start feeding sugar syrup but with these temperatures it is still too cold. Place the fondant directly above the bees, turning thecrown board if necessary so that one of the porter bee escape holes is above the cluster. Please be aware that this should be done as quickly and carefully as possible and although it may seem too cold to open the hive now, it is far better to do so knowing the bees are ok than not to and find later that they have died

Recipe (30) Chilean Honey Rice

5 teaspoons ***Honey***
9 oz long grain rice
1 ¾ pints milk
4 ½ oz butter
2 ½ oz soaked raisins
vanilla pod centre
2 ½ oz ground almonds
2 ½ oz glacé cherries

Gently boil rice in the milk and slowly add the butter. Cover the pan and cook gently until fluffy. Do not over stir.

Add raisins, the vanilla pod centre, almonds, cherries and honey when the rice is cool.

Recipe (31) Spicy Honey & Prawn Salad

The Salad
12 Radishes
4 oz fresh peas
Crispy lettuce
6 small carrots
4 oz prawns

Slice the radishes. Cut the carrots into fine strips. Wash the lettuce. Place all the salad ingredients and most of the prawns in layers in individual glasses - half pint tumblers are ideal. Decorate with the rest of the prawns, and serve with spicy sauce.

The Spicy Source
2 tablespoons ***Honey***
squeeze of lemon juice
4 teaspoons wine vinegar
2-3 drops soy sauce
pinch of mixed spice
pinch dry mustard

Shake all the ingredients together and pour over the salads just before serving.

Salad is sufficient to serve 4.

Recipe (32) Refreshing Honey Drinks

Asian Honey Water - stir 1 ½ tablespoons ***Honey*** into a glass (16 oz) of warm water. Chill in refrigerator until cold. Add a squeeze of lime or lemon, or better still 2 oz of gin for the 'bees knees'.

For a healthy option add ***Honey*** to green tea to make a sweet healthy and refreshing drink that can be drunk hot or cold. But do not add the honey until the tea has cooled from boiling.

Apparently Barack Obama brews honey beer. But it is possible to prepare a ***Honey*** solution of water at 80°C and just add this to enhance the flavour of your favourite beer - perfect for a hot and sunny BBQ day.

<u>And not forgetting</u>.

Recipe (29) Greek Honey Kebabs

Cut meat into 1 inch cubes and place in this marinade. Mix 3 tablespoons **Honey** with ¼ pint red wine. Add bay leaf, crushed clove of garlic, salt and pepper. leave overnight in the refrigerator. Place marinated mat on skewers, adding mushrooms, tomatoes, onions. Cook and serve with rice and salad.

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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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