Beetalk

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

Things to do in January and February. In fact all the winter months.

Lots of us beekeepers make the mistake of doing nothing when the bees are bedded down for the winter. Oxalic Acid treatment carried out and the jobs a good un, so we say in this neck of the woods. The truth is there are lots of jobs to be doing in the workshop/ bee house, which are best done over the winter months. We will list a few below.

Firstly you cannot do anything to the bees as they are now in a cluster, with the candy you put on last month, along with the mouse guards. It's up to you how you have looked after them and built up your bees ready for going through the winter, along with some luck and decent, cold, dry weather, and you will know if you have won when the bees start to fly again. Don't do into them, leave them alone as you can do more harm than good if you do.

Make sure your hives are secure and protected from any winter rain and storms, put some weight of the roof and tilt the hive forwards. Make sure you have an open mesh floor on the hive which will give the bees plenty of ventilation. Cold will not kill bees but dampness will.

Check and replace any damaged frames in any stored equipment and replace any dirty combs. If you take the wax foundation out ready for melting, always sterilize the frames with a blowtorch which will get rid of any disease that may be in them.

Any brood boxes or honey supers can be sterilized, again by taking out any frames and going over the boxes with a blow torch. This will again get rid of any problems that may be there.

Storage of your brood boxes and supers. These should be stored above acetic acid. The easy way is to place an eke on the floor, then put a bowl of acetic acid on the floor also. By doing this you will keep the acid away from the frames. On top of the eke can be stored the brood boxes and supers with the frames and wax foundation. About 6 high is about right. In top put a crown board so that everything is sealed in. By doing all this, all will be air tight and will let the fumes circulate around. It is a sure way to keep out any wax moth which can be a big problem with stored equipment. They say it also helps control any Nosema spores that may be about. About a week before you are ready to use them all you need to do is air everything out and the jobs a good one.

Make sure you have one extra, clean set of equipment for each hive you have. Many beekeepers make the mistake of not having enough equipment of hand when the honey flow starts and are left running around and panicking. This is the time when things are quiet to get at least one set of equipment ready and have enough of everything to carry out your swarm control method when the time comes.

Make sure you have enough clean supers ready for the honey flow as you will be, again running around when you come to look for them and nothing is ready.

On a nice day check to see if your bees are flying as this is the time the bees will go out on cleansing flights. Honeybees are capable of retaining their waste products in the bowel which can be greatly expanded to almost fill the abdomen and as soon as they get a mild day they will come out and empty them. It's nice to see them flying as you know that they are ok. Again don't go into the hive as you will cause more harm than good and if you did there is nothing at all you can do.

Check your protective clothing, wash and mend.

Instead of going and buying any equipment, start to make some of your own. Equipment can be very expensive and there are lots of things you can make yourselves. We have, on the website, under the banner, Plans for Hives and other Equipment, lots of plans, where you can have a go at making your own stuff, which will save you a small fortune. Have a go and you will be surprised what you can do.

Read a few books and maybe, if you are inclined, study for some of the BBKA Modules. The best place to get books is at Northern Bee Books, where you will find more than anything you will ever need. If you want to go for the BBKA modules and it matters little if you don't want to bother. You will have to join the BBKA.

.

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.

E H Thorne (Beehives) Ltd disclaims all responsibility for all consequences of any person acting on, or refraining from acting in reliance on, information contained above.

From EH Thorne's online catalogue 2010 - other sources are available

Winter feeding your bees.

We are now in Mid January, The weather as been wet but not cold, so chances are your queen could be laying. If she is, then you could, if you have not fed hard enough before they went into winter, be faced with them feeding the brood and themselves and running out of food.

This is, unfortunately what as happened to quite a lot of beekeepers over the last year or so.

So what can we do ?

Its never to late to put on some winter fondant onto the bees and here is what to do. Make sure you do it quickly so as not to chill any brood that may be in there.

Fondant for the winter.

Fondant is ideal for winter-feeding the bees, this can be fed directly to the bees.

4 parts white sugar (by volume) + 4 parts 2:1 syrup mix (by volume) + 3 parts water (by volume).

In this case, boil the water and slowly add the sugar and syrup, stirring until all is dissolved. Keep heating until the temperature reaches 114° C (238°F). Let the mixture cool, without mixing, and when just warm to the touch begin to mix again and allow the mixture to air, it should lighten in colour. Pour into shallow dishes and save for later use.

We recommend storing the fondant in small plastic containers (old takeaway containers work very well) with lids and when ready to feed the bees, remove the lid and place the container upside down on top of the frames in the brood chamber. Put them all over, so as the bees can get at them.
Some beekeepers leave fondant on all winter, so that if the bees need a feed it is available to them. Others like to check regularly and feed as and when required. It's all personal preference, but whatever your way of feeding just ensure the bees do not starve.

Preventing the Sugar Fermenting

If sugar syrup is left for a while, the syrup can start to ferment and go moldy. To prevent this you can add small amounts of Thymol and surgical spirit.

Add a teaspoon of Thymol and Surgical Spirit to every gallon of syrup mix, these are such small amounts that they have absolutely no effect on the bees - in fact, it is the healthiest option, and protects the bees from mold and bacteria that could potentially wipe out an entire hive.

Also later on you will need to give then some pollen substitute. Here is a recipe for you to make.

Pollen Patties and why should you feed?

Many beekeepers can easily tell if their hives have stores of honey. But what is usually missed going into winter and in pre-spring is pollen stores. Without stores of pollen adult bees become weak and there is little to feed the winter brood or available for the spring build up. As an added bonus, bees in pollen or protein rich hives live longer, sometimes as much as 15 days longer. This adds to the overall hive health and the ability to produce and care for more bees both in winter and at spring build up.

How much pollen or patties do you need?

As a rule of thumb, one kilogram of pollen is needed for every one kilogram of bees (9,000 - 10,000 bees). Near the same amount is needed in patties. Once you start supplying patties you must continue until natural pollen is available or the hive will decline and/or collapse.

Where to place your pollen substitute patties.

In mid-February, remove hive cover and smoke the bees down below the top bars. The patty, flattened into a cake about l.5 cm (l/2 inch) thick, should be placed on the top bars directly over the centre of the cluster. IT MUST BE PLACED WITHIN INCHES OF THE BROOD TO BE EFFECTIVE. This leaves the upper box available for grease patties and so on.

How to use the pollen patty.

The top of the cake must be covered with waxed paper to prevent dehydration and hardening of the patty. The inner cover, when used, should be inverted with rim side down to provide space for the cake. New cakes should be added before the previous cakes are consumed. Feeding patties at seven to ten day intervals is generally satisfactory .

To make 24 (1 lb.) patties:
0.5 kg pollen - or more (800 ml or 3.3 cups)
2.5 kg hot water (2.5 l or 10.6 cups)
5.0 kg white sugar (5.3 l or 22.5 cups)
4.0 kg brewer's yeast (6 l or 25.5 cups)
(plus up to 600g or 900ml extra yeast as necessary)
(Up to125g or 225ml more yeast)

HIVE HEALTH CHECK LIST.

Inspecting the brood combs of a honeybee colony is the only way to determine the health and general condition of the colony. However, you have to know what you are looking at and what it means in order to make a diagnosis. In general, a healthy brood comb simply 'looks healthy'. The brood capping's have a 'digestive biscuit' colour; the larvae are white, glistening and 'fat'. The capping's of the brood cells are uniform and the overall pattern is solid, with few holes. A good queen will start laying eggs in the lower centre of the combs and radiate out from there. Once the oldest brood emerges, the queen lays in those cells, and the youngest brood on the comb will now be in the centre. Once the brood-rearing cycle gets underway in the spring or following the introduction of a new queen, all stages of brood should be found at each inspection.

A handy checklist

The following check list was recently found which would be helpful when inspecting your colonies. Here are some conditions you may observe during your brood inspections and their possible causes:

No eggs, no brood present
(a) Not brood-rearing season.
(b) No queen.
(c) New queen not yet laying.
(d) Extended shortage of pollen.

No eggs, but brood present
(a) Brood-rearing ceased - end of the season.
(b) Queen has died or colony is preparing to swarm
(c) Lack of pollen curtailed brood-rearing.

Test for Presence of a Queen If there are no eggs and you can't determine if there is a queen present, put in a brood comb with young larvae from Another colony. Check back in three days; if the suspect hive starts queen cells, it has no queen.

Eggs present, but no brood
Brood-rearing has just resumed after being halted for some reason.

Wet-looking pollen - in the centre of the brood nest
If there is no queen and during the off-season, pollen may be stored in the centre of the brood nest and can take on an unkempt look - wet or glazed over. When the workers anticipate needing the pollen to feed brood, they move the pollen and freshen it up and it has a dry look.

Clean, empty cells - in the centre of the brood nest
The opposite of the wet-pollen look. When the workers anticipate that brood cells will be needed for eggs, they move nectar and pollen out of the way and give the cells a polish.

Too many eggs per cell
(a) Young, inexperienced queen, usually settles down quickly to laying one egg per cell.
(b) Something happened to queen and laying workers developed.

Scattered brood
Same-age brood scattered over the comb, not in adjacent cells, means:
(a) A failing queen running out of sperm.
(b) Something is killing the brood. In early spring, cold nights when there are too few adult bees to keep the brood warm can result in chilled brood. Sometimes pesticides or poison pollen can cause scattered patterns.
Clue: Is only one colony showing the symptoms, or are several?

Raised capping's on worker cells
The capping's look like the ends of bullets. Cause: Drone brood is developing in worker cells, because:
(a) Queen has become a drone-layer. Usually her sperm reserves are depleted, due to her age.
(b) Laying workers; lay only infertile eggs, resulting in drones.

Raised capping's in drone cells
Normal drone brood has a 'bullet' look, but not as pronounced as when it is in worker cells. Normally, queens lay unfertilized eggs in the larger (both in circumference and depth) drone cells. These are frequently found around the bottom edges of the brood comb and in areas where the comb has been damaged. The presence of some drone brood indicates a vigorous, well-nourished colony.

Queen cells
Queen cells are constructed along a vertical plane, as contrasted with the horizontal plane of worker and drone brood cells. They somewhat resemble peanuts (in the shells).
(a) Queen cells near the centre of the comb, growing out of worker brood cells – these are replacement cells the workers have developed in emergency, loss of a queen.
(b) Queen cells everywhere, particularly near bottom of comb. This is swarm preparation—the old queen will soon depart with about half the bees (called the 'prime swarm'). Tip: For a quick check of swarm preparation, in a hive with two brood boxes, break the boxes apart and look along the bottom bars and bottoms of the combs in the top box. Most colonies preparing to swarm will show cells along comb bottoms.

Dead larvae (not white)
(a) Chilled due to cold snap (usually in spring) when there are too few adult bees to keep the brood warm.
(b) Died due to lack of care for some reason.
(c) Disease: Sacbrood, American foulbrood, European foulbrood. Call the Bee Inspector.
(d) Pesticide damage.

Mummified larvae Older stage larvae turn white and hard.
This is probably Chalkbrood.

Mouldy pollen
Soft, white stuff in pollen cells - probably due to insufficient hive ventilation.

What about mites? After some training, you can pretty easily identify Varroa mites on adult bees' abdomens and on your open mesh floor tray. Also, you can uncap pupae and pull them out of the cells and check for dark Varroa attached to the white pupae. Varroa are especially attracted to drone brood and can often be found in the bottom end of the cells from which drone pupae are extracted. They may run out of the cells as pupae are being extracted.

From the Beehive, published by Northwest Ohio Beekeepers Association. – via eBEES.

Early use of Supers

Although supers are used for storing honey their main purpose in the early Spring is to make room in the brood chamber for the queen to be able to lay it out fully. This can be achieved only if room is given above the brood chamber (bc) for the bees to move the stores, in the bc, into the first super placed immediately above the bc. Supers are usually shallow boxes but deep boxes can be used as supers. The disadvantage of the latter is that they are very heavy to lift. In each case a queen excluder must be placed between the bc and the super.

Beginners will not have drawn supers available, so supers containing foundation have to be used. These are best added without the queen excluder and at the next inspection (ten days later), the queen excluder can be added. After adding the queen excluder the super must be inspected to ensure the queen is below. Even if you have drawn supers it is helpful to put them over the bc without an excluder until the next inspection, since this gets the bees into the super quickly. Scratching the surface of sealed stores on the outer frames of the bc encourages the bees to move the honey to the super.

When the middle six super frames have been drawn and covered with bees it is then time to add the second super. I would recommend adding it under the first. At this time I would exchange the drawn super frames in the centre with the partially drawn frames on the outside of the cluster of bees. The super frames will have been on narrow spacing (37 mm). When all frames have been fully drawn they can be wide spaced (50 mm) apart. Correct spacing can be achieved using large plastic ends. In fact, narrow plastic ends need not be used at all because narrow spacing can be achieved by using large spacers on alternate frame ends to get narrow spacing of the frames in the first instance.

Some beekeepers prefer not to use spacers at all because they space the frames by eye! Wide spacing lends itself to easy uncapping
of the frames before honey is spun out using the extractor, and if no spacers have been used then no time is wasted pulling them off the frames before extraction and replacing them afterwards. Additionally, fewer frames means less cost. Some people use Manley frames which can be used without the need to change the spacing for foundation or drawn combs; however, they were designed for machine uncapping and when propolised are difficult to remove manually from the super.

If the weather is likely to be cool, or very cool nights are forecast, and the bees are foraging on oil seed rape (OSR) then it may be wiser to put the second super on top so that the OSR honey is kept warm and is less likely to crystallise. With OSR honey it is best not to wait for all the cells in the frames to be capped, as there is the danger of the honey crystallising. Thus the frame cannot be spun in the extractor to obtain the honey that then has to be cut out and melted. The suitability of the uncapped honey can be ascertained by shaking the comb over the super and if any falls out it is insufficiently ripe for extraction. Do this test in the morning as if left to the afternoon there will be lots of recently collected nectar, to drop out, that needs the following night in the hive for the bees to reduce its water content.

Finally, one should have a third super ready and installed before the second is full of honey and bees.

With thanks to Essex Beekeepers.

Obituary

Charles D.Michener, University of Kansas Professor Emeritus of Entomology and of Systematics and Ecology, has died at the age of 97. He was considered the world's foremost authority on the natural history, classification, and evolution of the world's 20,000 species of bees.Mich was born in Pasadena, California into the perfect family for a boy with his gifts. His parents were serious amateur ornithologists, and in their immense and densely treed back-yard, Mich learned as a young child to observe nature and record data, assisting his parents as they captured, banded, and released 45,000 birds in the course of their studies. By the age of ten Mich had made meticulous water-color paintings of 120 California wildflowers. New plants becoming hard to find, he switched to collecting and drawing insects, producing over 1200 pages of detailed illustrations and scientific notes. When the principal North American bee expert of that time received a scientific inquiry from a precocious 14-year-old in California, he sent a quick and encouraging response, and soon Mich was accompanying renowned entomologists on collecting trips to the Mojave and Colorado deserts. Mach's first scientific paper appeared when he was 16, based on observations begun when he was 12.Arriving at the Berkeley campus of the University of California in 1936, Mich as a freshman was assigned office space among the graduate students in the entomology department and while still an undergraduate began the research for his PhD dissertation, which he completed in 1941, just two years after graduation. In the course of that same year, while working as a lab instructor, he married his student Mary Hastings after a four-week courtship. (Their marriage would last 69 years.) In 1944 his dissertation was published as a monograph by the American Museum of Natural History. This work, "Comparative External Morphology, Phylogeny, and a Classification of the Bees," began what a colleague recently termed "the Michener era" in bee studies. Mach's fascination was not with honeybees, but with the many thousands of other species of bees worldwide that do not live in large colonies or make honey, but which are essential pollinators for both the natural environment and crops. But the only bees most institutions considered worthy of study at that time were honeybees, so Mich accepted a position at the American Museum of Natural History in New York City as curator of butterflies and moths. This turned out to be an excellent move that was to have a lasting effect on his career. The museum staff at the time happened to include many major figures in twentieth-century biological thought, and the institution was a center of debate on evolutionary processes. Further, as the resident expert on butterflies (and a quick study), Mich was consulted by an interesting variety of amateur lepidopterists, including Vladimir Nabokov and a 15-year-old Paul Ehrlich. Following a two-year stint studying disease-carrying mosquitoes and chiggers in the Army Sanitary Corps, then two more years back at the American Museum, Mich accepted an associate professorship at the University of Kansas. Mich, Mary, and their three children, David, Daniel, and Barbara, moved to Lawrence in 1948 and the following year bought the home Mich occupied until three days ago. At KU Mich was able to return full-time to the study of bees and settled into a routine of teaching, research, and publishing punctuated by the birth of another son, Walter, and by innumerable overseas trips to collect examples of the world's bee-fauna. Awarded a Guggenheim Fellowship in 1955, Mich took his entire family to Brazil for a year, and a Fulbright Research Award in 1957 took them for another year to Australia. A second Guggenheim Fellowship in 1966 allowed Mich, Mary, and their two younger children to spend 14 months in Africa collecting bees and traveling almost 3,000 miles by road from South Africa to Uganda. On shorter trips Mich collected bees and shared notes with colleagues in Mexico, Costa Rica, Panama, Peru, French Guyana, New Guinea, Fiji, China, and Thailand, as well as the U.S. and Canada. In 1974, Mich published The Social Behavior of the Bees, which summarized everything then known regarding the development of sociality in bees. Appearing just as E.O. Wilson and others were launching the revolution in biological thought known as "sociobiology," the book's theories regarding the evolution of social behavior in insects and its wealth of examples were indispensable tools in the debate. In 1978, in a volume of papers assembled in honor of Mach's 60th birthday, Wilson wrote, "For forty years he has contributed an unbroken stream of books, monographs, and technical articles notable for their quality, breadth, originality, and intrinsic interest. His impact has been enormous. Thanks to the efforts of this modest and charming man, the art of the study of bees is in an advanced state and an ornament of American entomology." Who could have known that Mach's career was only at midpoint? Mich formally retired from teaching at the University of Kansas in 1989 but continued researching, publishing, and mentoring. The culmination of his life's work, the massive Bees of the World, appeared in 2000. A thousand pages long, it contains accounts of 16,000 species. Mich published an expanded second edition in 2007, when he was 89. In 2010 he lost Mary but soldiered on. His final scientific paper, his 514th publication, appeared this year, exactly 80 years after his first (and in the same journal). In the course of his 80-year career, he gave names to 618 previously unknown species and has had 92 species named by others in his honor. In spite of all this, the first thing that Mach's former students recall is his kindness, his readiness to help younger scientists, and his famous willingness to be interrupted at any moment to talk with others about their research. Paul Ehrlich, who followed Mich to Lawrence and was his PhD student, recalled, "He was always calm, dispassionate, helpful. Since he almost never reprimanded, the slightest twitch of disapproval was enough to send any graduate student reeling."Mich's last years, in a wheelchair and with his beloved wife Mary gone after seven decades of marriage, must have been difficult, but he never uttered a word of complaint, and his dignified, gracious, and gently formal manner never changed. He continued to work in his university office, to exchange letters and specimens with researchers around the world, and of course to publish. Even in his late nineties, he could remember precisely a bee he had collected in Brazil in 1955, or in South Africa in 1966, probably the species of flower he'd found it on, and very likely the name of the closest village. There was a moment, though, as he lay in bed the day before his death, that it suddenly became apparent that his mind was not in the same room as his body. He seemed to be addressing a group, probably of students, and with his eyes closed he said with a half-smile, "I suppose all I have to say about these critters is that I don't know much about 'em."

I had the pleasure of meeting this great man when he visited Thailand in around 2005. What wealth of information and such a lovely quiet guy. The beekeeping world will be at a loss with the passing.

Editor

Dancing inherited from Daddy.

In the dance world, not all bees are equal. In a colony of bees at any one moment, each element has a special task, be it laying of eggs (the queen) collecting propolis, or scouting for nectar and performing dances (the round dance
for nearby forage, the figure of 8 dance if it is more than 100 metres away), to increase her comrades enthusiasm for a good source or diminish it when the supply is running low.

However some foragers master this type of communication perfectly, while others are noticeably less gifted.

Wolfgang Kirchner and his team, at the university of Bochum in the Ruhr have discovered in their research into bee behaviour that specialization even extends to the dances. The workers must perform several types of dance, but
those that are more gifted for one type of dance are less so for another.

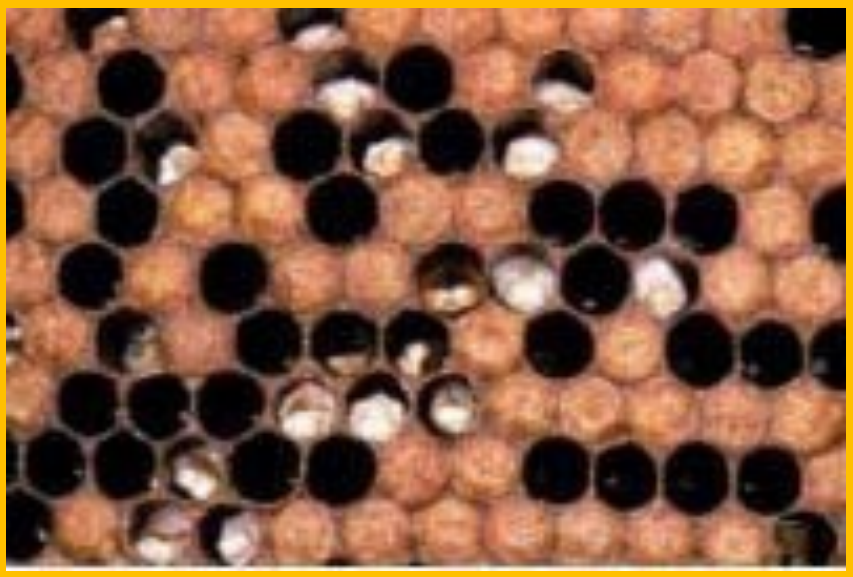
The most surprising thing is that this 'gift' is hereditary! All the workers in a hive have the same mother but they may have different fathers.

At any given time there will be sisters and half sisters. Kirchner's team examined the dancers' genes after noting the frequency with which each bee practiced one or other of the dances. The result was astonishing! The 17
groups of 'true' sisters were noted and sorted according to their preference for each type of dance. The results showed that the predilection for using the figure of 8 dance over the round dance or vice-versa was significantly related to the sibling grouping.

For Kirchner's team, that proves the importance of genes inherited from the father. According to which father she has, a forager will be more or less specialised in one or other of the dances, more or less assiduous in the performance of two communication codes that are related but different. If it were not the genetic inheritance, you would have to suppose that true sisters can recognise each other and regroup inside the colony to practice a kind of nepotism in certain activities! Impossible! says Kirchner. How on earth would they manage it?

Article from Huntingdonshire BKA, via eBEES

Chalk Brood



Chalkbrood is a fairly common non-notifiable disease of honeybee brood and is caused by a fungus Ascosphaera apis. The fungus grows through the bodies of infected larvae sending fine vegetative thread-like growths into the larval body tissues, eventually overcoming and killing the larvae after its cell have been sealed.

It is not regarded as a serious disease in normal circumstances, its effects on the colony being only slight. It is generally present in the majority of colonies at some point in time and can be present in its spore stage without affecting the colony. A vigorous colony will usually control any infestation by removing infected larva but in severe cases, treatment by either queen replacement or replacement of foundation might be advised.

NOSEMA AND DYSENTERY.

Dr Leslie Bailey, (1981) "A survey of over 100 naturally infected colonies, during a winter when dysentery was prevalent, showed that although it was clearly associated with the death of many of the colonies dysentery was not caused primarily by N. apis. "

Ingemar Fries, (1997) "No specific clinical symptoms are connected with N. apis infections. Heavy infections are often correlated with dysentery, not because Nosema infections cause dysentery, but rather that when dysentery occurs, the disease is aggravated and effectively spread in the honeybee colony."
To summarise: bees may have Nosema without dysentery, or dysentery without Nosema, or they may have both at the same time. Thus dysentery is not an indication of the presence of Nosema, despite the common and persistent belief that it is; this is another item of "knowledge" which ain't so.

Swarm Collecting: Cautionary Notes.

Collecting a swarm has got to be one of the most satisfying parts of beekeeping, especially if it's large and not one of yours. There it is hanging from a single branch, five feet off the ground, one tap and a cup of tea later and you've boxed a swarm and have the best machine known to man for drawing out the much needed comb. But what if it's hanging ten feet up a tree, or it's integrated in the soffit and the gutter? There are a thousand different scenarios that bees can get themselves into. In today's world of health and safety and the 'you sue me, I'll sue you' culture that we live in, are you sure that the British Beekeepers Association insurance will cover you for any mishap? It will definitely not cover you for personal injury and was the swarm worth six weeks off work with a broken ankle?

The insurance says it covers you for beekeeping activities including swarm collection, but we all know when it's time to pay up insurance companies have a tendency to bring out the rule book and the small print. Were you qualified to remove the roof tile, that caused a leak, that ruined the roof, that collapsed the ceiling that fell on the owner - who was very grateful when you removed the swarm but can see a large payout coming his way? Was the ladder you used the correct one for working in that environment? It may well have been good enough when you fixed your own gutter but did it comply with the British Standard for anything other than personal use on your property? When it slipped and went through the conservatory or the windscreen of the new Jaguar car, were you trained to work at height? (That came in during 2005).

We then come to the really grey area of having to dispatch a swarm or a colony that have established themselves in a chimney or roof and there isn't a viable way to get them out other than to use a chemical of some kind. Wasp killer will do it, but unless you're registered and trained you will only be able to get amateur use only and using that on someone else's property is it still deemed as amateur? What if you have killed the bees, do you know what the legislation insists you do then? A qualified pest controller was fined £15,000 in 2008 for not following the correct procedure.

I am not trying to put anyone off collecting swarms but please be aware of the possible consequences that may or could happen, people always appear so grateful when you get the swarm, but when it's all over they then start to think differently! Don't put yourself in the firing line and please don't put yourselves at risk. If in doubt don't let your ego get the better of you, tell the occupier to phone a qualified pest controller who specialises in wasps and bees including bumblebees.

BAD NEWS FOR BEES.

With bee populations dropping dramatically in many parts of the world, could these missing scents be a factor? Scientists trying to pinpoint the cause of bee declines have variously blamed viruses, mites, bacteria, pesticides, and even cell-phone radiation. Jay Evans, of the Bee Research laboratory in Beltsville, Maryland, was intrigued by the new study but hasn't seen bee behaviour that suggests trouble with scents. "Over the last couple of summers I don't think the bees in this area were bringing in much less food," he said. "It might be that they had to work harder, but it seems like as long as there were bees to collect food they were finding flowers somewhere." Evans also noted that beekeepers didn't report big drops in their honey yields, which would have occurred had food been harder to find.

But Fuentes fears that the fading smell of flowers may stress insects already faced with an array of other threats. "The effects shown in these studies will simply exacerbate whatever the bees are going through right now," he said. "It's something that is really worthwhile paying attention to."

Air pollution is killing the smell of flowers, possibly eliminating the "scent trail" that helps guide those terribly important pollinators, like bees, to the plants that depend upon them for survival, scientists believe. The discovery could be one of several factors in the "colony collapse disorder" that is wiping out honey bees around the world. While it is still too soon to determine the full impact of air pollution on the symbiotic relationship between insects and the flowers they pollinate, researchers at the University of Virginia are confident they have shown that pollutants are killing the scent trail, and that could turn out to be extremely significant.

Before the industrial revolution, the trail extended at least half a mile from the flower, but today at that distance "it's almost completely destroyed," said Quinn McFrederick. Scientists have known for some time that airborne chemicals like ozone, hydroxyl and nitrate radicals -- major components of smog -- alter the chemicals produced by flowers that give them a specific smell. But it had not been known how that affected the trail that helps lead insects to the flowers. Scents that could travel for more than half a mile in the 1800s now probably travel less than about 600 feet, according to Fuentes. "This makes it increasingly difficult for pollinators to locate the flowers."

McFrederick said that the scent trail deteriorates even very close to the flowers, and that could discourage insects, especially bees and moths, from even sampling the flower to see if it contains the nectar they need for survival. And if they pass up the flower, it will not receive the pollination it needs. So both the pollinator and the pollinated suffer.

At this point the research consists of a mathematical model into which the researchers inserted the known impact of various pollutants on the molecules carrying the scent. They then extrapolated out to various distances to see how much of an impact that would have. But the findings haven't been tested in 'the real World.

Swarm Collecting: Cautionary Notes

Collecting a swarm has got to be one of the most satisfying parts of beekeeping, especially if it's large and not one of yours.

There it is hanging from a single branch, five feet off the ground, one tap and a cup of tea later and you've boxed a swarm and have the best machine known to man for drawing out the much needed comb. But what if it's hanging ten feet up a tree, or it's integrated in the soffit and the gutter? There are a thousand different scenarios that bees can get themselves into. In today's world of health and safety and the 'you sue me, I'll sue you' culture that we live in, are you sure that the British Beekeepers Association insurance will cover you for any mishap? It will definitely not cover you for personal injury and was the swarm worth six weeks off work with a broken ankle?

The insurance says it covers you for beekeeping activities including swarm collection, but we all know when it's time to pay up insurance companies have a tendency to bring out the rule book and the small print. Were you qualified to remove the roof tile, that caused a leak, that ruined the roof, that collapsed the ceiling that fell on the owner - who was very grateful when you removed the swarm but can see a large payout coming his way? Was the ladder you used the correct one for working in that environment? It may well have been good enough when you fixed your own gutter but did it comply with the British Standard for anything other than personal use on your property? When it slipped and went through the conservatory or the windscreen of the new Jaguar car, were you trained to work at height? (That came in during 2005).

We then come to the really grey area of having to dispatch a swarm or a colony that have established themselves in a chimney or roof and there isn't a viable way to get them out other than to use a chemical of some kind. Wasp killer will do it, but unless you're registered and trained you will only be able to get amateur use only and using that on someone else's property is it still deemed as amateur? What if you have killed the bees, do you know what the legislation insists you do then? A qualified pest controller was fined £15,000 in 2008 for not following the correct procedure.

I am not trying to put anyone off collecting swarms but please be aware of the possible consequences that may or could happen, people always appear so grateful when you get the swarm, but when it's all over they then start to think differently! Don't put yourself in the firing line and please don't put yourselves at risk. If in doubt don't let your ego get the better of you, tell the occupier to phone a qualified pest controller who specializes in wasps and bees including bumblebees.

What to look for with queen cells

Left. A hatched queen cell. Centre: A sealed queen cell.
Right: A torn down queen cell.
Thanks to Ludlow & District BKA via e bees

A BEELINE TO GOLD Garth Cambray, Science in Africa

As the world twitches in recession, gold, that ancient repository of value has been enjoying increased popularity as an investment. Africa has always been a large producer of gold, and hence the price of gold has a direct effect on the future of Africa. In this article we look at something that has never been used as an indicator of gold sales before – the beehive in the mosque at the Taj Mahal.

The bees in India are responsible for pollinating crops such as mustard seed and various beans, mangos, other fruits, nuts and squashes. I have seen the hive in the Taj on two occasions now – in late January 2007 and in early February 2009. The bees are the giant Asian honeybee, Apis dorsata, who build hanging comb colonies Typically the hives would hang from tree branches, or from cliff overhangs in nature. In the modern Indian environment, the bees more often make their nests hanging from street trees, water towers, skyscrapers and ancient monuments such as the Taj. A single Apis dorsata colony can have hundreds of thousands of individual bees in it, and compared to their domesticated cousins, Apis mellifera, who forage over a distance of 3-6km, the larger Apis dorsata forages over a region of around about 10 kilometers.

In the case of a medium size colony such as the one in the Taj Mahal, the bees will fly out of Agra into the surrounding mustard fields and pollinate flowers there. In Jan-Feb the mustard, a quick cash crop, flowers profusely turning the countryside of northern India yellow. Mustard is a crop which requires cross-pollination by insects to set seed

Each Apis dorsata forager, according to researchers in India, visits in the region of 15 flowers per minute, and repeat visits give greater pollination. It is critical for pollination of Indian mustard that the flowers be provided with pollen from another flower to ensure proper seed set. Hence it can be roughly calculated that one colony of Apis dorsata, such as the one on the Taj Mahal, with a population of about 200,000 bees and 50,000 foragers will result in the creation of around about 45 million mustard seeds per hour – or, at a seed weight of 0.0035g/seed, about 157.5kg/hour, 1.26 tons per day, and 50 tons over the total flowering period of the mustard.

If the seasons before were unfavourable, the beehive may not have been able to develop as many workers ready to pollinate the canola flowers. If one then works on a work force of only 25 000 workers, it means that the bees will only be able to pollinate 25 tons of mustard seed over the season, and farmers will get an overall much lower yield, which means they will have less money at the end of the season, and hence, the farmers will buy less gold and as a result, gold demand will be lower and this will be a contributing factor to a generally lower gold price.

In this way, a simple beehive at the corner of the Taj Mahal gives us an indication of the health of beehives in the surrounding areas, and from this we can gain a small indication of the success of the forthcoming mustard crop, and the impact of that on the gold price, and of course the higher the gold price, the better the hundreds of thousands of people in Africa who are related to the gold mining industry will fare

MONOGAMY IS RESPONSIBLE FOR THE EVOLUTION OF BEES Karen Shultz, Scientific American.

For decades, a divisive debate has raged among biologists over the evolution of eusocial insects—those that thrive in cooperative societies of queens, workers and drones. On one side is the argument for "kin selection," a theory asserting that the non-reproducing members pass on their genes by helping relatives reproduce. The members of a colony should therefore be closely related. Yet those on the other side—most notably, renowned biologist Edward Wilson of Harvard University—contend that eusocial insects work together in colonies because it is to their individual advantage; their cooperative spirit is simply a consequence. If there is high relatedness in a colony, then it is a result of individuals choosing to stick around to reap the benefits of group life.

Researchers led by William Hughes of Leeds University say they have the first clear evidence that supports kin selection, rather than group selection, in eusociality. They examined 267 eusocial species of bees, wasps and ants and found that the insects evolved from monogamous conditions, which maximize a group's degree of relatedness. Moreover, they found that polyandry (having more than two mates) transpired only among lineages where workers had become permanently sterile—a prediction of kin selection theory for species that have become irrevocably eusocial. Behavioral biologist Andrew Bourke of East Anglia University says that the study indicates that kin selection is an essential precondition to eusociality. Wilson, however, disagrees, asserting that Hughes' work does not include data on many lineages that did not evolve eusociality and that the emergence of polyandry in eusocial societies has explanations not related to kin selection.

SCENTLESS SPRING National Geographic News

Soon it may be harder to stop and smell the roses. Growing levels of air pollution from power plants and automobiles have reduced the potency of flower fragrances by up to 90 percent as compared with preindustrial levels in the United States, a new study has found. The trend is unpleasant for human noses, but may be life-threatening for pollinators such as bees and butterflies.

"Many insects find flowers by detecting the scent produced by those flowers," said Jose Fuentes, University of Virginia. "This pollution makes it increasingly difficult for pollinators to locate the flowers and feed on their nectar." Flowers also stand to suffer when this symbiotic relationship falters. If insects can't find enough flower-based food to survive, their movements won't pollinate plant species.

Flowers produce volatile scent molecules that bond with pollutants such as ground-level ozone, in the process breaking down the plants' sweet smell. With more pollution in the air, the aromatic molecules don't remain potent as long and travel shorter distances on the wind. The new study's model suggests that in the mid-19th century, when pollution levels were first recorded, scent molecules would have been able to travel some 1000-1200 metres. Today, in the polluted air found downwind of large metropolises, scents may only make it some 200-300 metres. The impact is especially pronounced during high-pollution "code red" days in summer. "Lots of vehicles are releasing nitrogen oxides," Fuentes said. "When the gases are in the presence of sunlight they are converted into these molecules that we call ozone -- one of the main pollutants that we find in the summer months. Fragrances are overwhelmed by it."

Holidays

Tired with the noise and pollution and the same old Costa Holiday?????Then why not try a different Costa Holiday.

Come to Costa Geminiano

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

Respect your Neighbours

There are some sound reasons to be aware of and be respectful to your apiary neighbours. The first is disease; we all have a responsibility to avoid the spread of diseases. It cuts both ways, you don't want theirs and they don't want yours. Make sure your bees are healthy. Know about the location of neighbouring apiaries and try to be aware of the health of their bees. Treat swarms with great care; isolate them for a time until you are sure they are fit and well. The second reason is forage availability; with a doubling in our membership in two years there is an increased possibility of overcrowding of hives in an area. Again this cuts both ways, overcrowding disadvantages all parties. The only realistic way to find out about neighbours is through contact in your division and with neighbouring divisions. Please use the network of contacts that exists in our association when you are setting up a new apiary and be particularly mindful of disease if you take swarms collected by another beekeeper