Bee Talk

Newsletter of The Blackburn and East Lancashire Branch of
The Lancashire & North West Beekeepers Association
http://homepage.ntlworld.com/alan.huxley

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What's in this issue of Bee Talk

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Editorial
MARCH 2006

WE ALL LIKE A BIT OF PRAISE
Hi Bill & Arthur.

Just a note of thanks for all your effort put into Bee Talk making it so interesting and informative I am sure it takes a lot of time and effort to produce such a interesting booklet, not only this but the effort you put into making the Bee Association meetings interesting and successful.

Thanks. *Bob Bradshaw*

. . .and thank you, Bob (Bill & Arthur)

AND A BIT MORE
Dear Bill, Arthur,
We are Associate members of the East Lanc's Beekeepers Association.

Having moved out of the area some time ago we have continued with our membership because we really enjoy reading Bee Talk.

Peter Kay & Julie Davenport

NOTICES
Bee talk has been rearranged. The Bee-Notices have been moved to the centre pages. So that now when you pick up Bee Talk, it falls open on the pages that give you all the information you need with respect to our society and the events - times and dates you cannot remember, someone's name or phone number etc.

IS WHITE A COLOUR?
The title page is in black and white this year. This is because this year's Queen marking colour is white, if you can call white a colour? Any way it's what I would call a very practical and sensible colour to use. It is a shame it only comes round every ten years. For me every year is a white year.

SPRING CLEANING
I hope every one is up to date with the work of cleaning equipment and repairing all last year's damage. You can't be too early with this work, it needs to be done as soon as possible. In another six weeks or so you wont have time to attend to all that needs to be done. What with Spring cleaning in the house, catching up with the gardening and that damned lawn will need cutting as soon as the weather warms up a bit.

WINTER? WHAT WINTER?
What happened to the worst Winter for the last fifty years? This was promised or threatened in all the newspapers.

It hasn't been all that bad here in Nelson. Cold, certainly but with little rain and more bright days than dull. All my stocks have been flying this month. I put the second lot of candy on last week and all the stocks are consuming it at a fair rate. I know it's to soon to start crowing, but I'm feeling quietly pleased.

MODIFICATIONS
Had an idea some weeks ago and started to modify the very deep roofs that I have. It consists of knocking all the ventilating bits out of the inside and putting 2ins of insulation in its place, sealing every thing most carefully then finding some old paint and sloshing it on, three or four coats thick. This, hopefully, will make the whole roof water proof and insect proof. All this is to do with 'open mesh floors' of course where we do not want ventilation at the top of the hive.

THE BEES NEEDS
All we can do for the bees to get them through the Winter. Is to ensure they have food are dry and where we can, place them out of the cold winds.

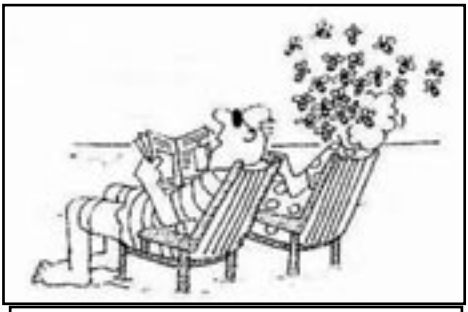
CASCADES
Do have a look at the very back page of this issue. Arthur is suggesting a cascade system for getting urgent information out to all members. We should be able to make it work. This year it would be a great boon where we are having difficulty with arranging speakers for many months in advance.

COMB REPLACEMENT

SHOOK SWARM METHOD.

'Shook Swarms' are artificial swarms made by shaking the adult bees from a colony into a new hive. Although originally used as a method of swarm control, today they are more commonly employed as a method of replacing brood comb in one operation as a means of reducing the risk of disease, by separating the bees from any pathogens contained in the old comb such as those responsible for foul brood diseases, chalk brood, nosema and varroa.

As an additional benefit, many beekeepers have found that shook-swarmed colonies will subsequently perform with a real zest



BEES DEAR? DON'T WORRY THEY'LL SOON GO AWAY

- just as natural swarms do - and usually build up rapidly to produce a good honey crop. Consequently, a growing number of beekeepers are now using shook swarms as a routine part of their colony management

PROCEDURE.

Usually effective from March until June, the earlier the better, weather permitting.

To draw a box of foundation, the colony must be strong enough to cover at least six BS brood frames, or equivalent

The colony must have a satisfactory, laying queen.

A good supply of nectar or sugar syrup must be available until the foundation has been drawn..

1. Move the occupied hive to one side.
2. Place a clean floor fitted with entrance block and a clean brood box fitted with foundation, on the original site.
3. Insert a queen excluder between the brood box and floor to prevent the colony from absconding. This must be removed when the colony has started to build comb. Alternately the queen can be caged for a few days until foundation is being drawn.
4. Remove 4 or 5 of the frames from the centre of the brood box to create a 'well'.
5. Open the old hive.
6. If possible find the queen and cage her until the process is complete. Otherwise, proceed carefully so that she is not lost outside the hive.
7. Carefully, remove each brood frame in turn together with adhering bees and gently lower it approximately 2/3rds of the way into the 'well' between the new frames in the clean brood box. Shake the frame sharply to deposit the bees on the floor (queen excluder) of the hive.
8. Place the old frame, now free of bees, into a plastic sack or spare brood box for burning or rendering to extract wax.
9. Repeat for remaining frames.
10. Replace the centre frames in the new brood box.
11. Release the queen into the new brood chamber if she was previously caged.

If necessary, place an empty super above the crown board to accommodate a contact feeder and replace roof.

DEALING WITH SUPERS

1. If there were supers on the hive, these may be returned to the colony once the new brood combs are drawn out However, this will reduce the benefit of the comb change in removing pathogens from the colony.
2. Ideally, empty super comb should be either extracted then rendered in a solar or steam wax extractor or, provided it is dry, sterilise with acetic acid (taking appropriate safety precautions) and aired thoroughly before re-use.

David Purchase Seasonal Bee Inspector for the original. Courtesy BBKA News.

QUEEN-CELLS.

The appearance of a queen-cell usually affords a clue as to the condition of its inmate. A normal cell, not built in haste, projects somewhat from the face of the comb, hangs downwards to the extent of about an inch, tapering, and has a corrugated appearance, the corrugations near the base having the form of incipient worker cells. The basal portion of the interior of the cell, originally part of the comb, is usually filled with royal jelly, and the young queen develops and matures in the part external to the comb.

A cell made in haste over a larva of the second or third day, as when a stock is suddenly made queenless, is small and often scarcely projects from the comb, and the queen within it is worthless.

A cell which has been greatly lengthened may contain a larva which has not developed normally and may be dead.

A cell with greatly thickened walls probably contains a dead queen, the bees having added wax to the walls whilst waiting overtime for the queen's emergence.

A smooth-walled cell is suspect even if of normal size. When the bees construct queen-cells over drone larvae, as they occasionally do in normal circumstances, and frequently when laying workers are present, the cell walls are usually smooth.

Queen-cells contiguous to sealed drone brood must be suspected, although if their walls are well corrugated they are likely to contain good queens.

Occasionally a worker bee is imprisoned in a queen cell from which a queen has recently emerged. For some reason the hinged cap falls, or is pushed back into its place, and the bees, in error, re-seal it.

It is well therefore, when selecting a particular cell from amongst a number, to choose it

before it is sealed and when the queen larva can be seen.

Herrod-Hempsall describes how the inmate of a cell may be inspected by cutting away a slice of the wall near the base with a sharp warm penknife. The slender larva or pupa of a queen is readily distinguished from the more bulky one of a drone. After inspection the excised part of the wall is replaced and its edges smoothed down with the warmed knife. The bees then complete the repair of the cell and its inmate is unharmed.

At the time of natural swarming, bees sometimes prevent young queens from leaving their cells on the sixteenth day, thus preventing them from issuing with second and subsequent swarms. A queen so imprisoned, unable to reach the residue of royal jelly at the base of its cell, would die of starvation but for the nurse-bees which pierce a small hole in the cell-wall just above the capping and through it feed her with brood food. The imprisonment may last for three or four days.

From Snelgrove's Queen rearing.

GENETICS - PART 2

Despite the fairly complicated family structure of a colony outlined in part one (Apis UK July 05), and the fact that a male bee emerges from an unfertilised egg, the basic principles of genetics still apply to bees, and now we go beyond generalities and plunge into chromosomes, genes and alleles. We know that queens and workers hatch from eggs containing two sets of chromosomes, one set of 16 from each parent (diploid), and that drones hatch from eggs containing one set of chromosomes (haploid). This latter process of drones hatching from unfertilised eggs is termed parthenogenesis.

HEREDITARY UNITS

The chromosomes contain hereditary units called genes. The specific place on a chromosome where particular genes are found is called a locus. On rare occasions a gene entering an egg or sperm has changed or mutated and will have a different effect than the original gene.

BLUE EYES

ll the forms of a gene that occur at a locus are called alleles. Allele is just a word that means a version of a gene. For example, genes for blue eyes and brown eyes are alleles (or different versions) of the eye colour gene. There is a gene that controls the sex of a bee and is of course called the sex allele. If there are two different sex alleles present, the bee will develop into a female (worker or queen). If there is one allele present, the bee will develop into a drone. There are two ways that only one sex allele could be present. Firstly as we have explained, the egg may be unfertilised and so will only contain one sex allele anyway; and secondly, both the mother and the father may contribute the same allele in a fertilised egg and this egg even though fertilised will also develop into a drone.

DIPLOID DRONES

The drone will then have two sets of chromosomes instead of the normal one (i.e. a diploid drone) and will not be able to function as a normal drone. These diploid drones are always destroyed by workers who eat them on hatching from the egg in the cell.

INBREEDING

When therefore inbreeding occurs and it is more likely that mother and father will have the same allele, the queen will lay eggs in worker cells that are in fact diploid drones. These will be eaten and so the brood pattern will be full of holes alternating with normal larvae. We've all seen it. So the closer the relationship between mating partners, the fewer the viable brood. A brother/sister mating will produce only 50% viable brood.

VARIABILITY

Genetic variability is therefore paramount and the idea behind queens flying to a Drone Congregation Area (DCA) to breed with as many drones as possible from as many different and widespread colonies as possible now takes on a greater validity. Scientists believe that there are around 19 versions or alleles of the sex gene and the more such alleles that are present in our bee population, the more solid will be our brood patterns and so the more bees will be available to collect honey.

STOCK IMPROVEMENT

While sex determination is therefore generally complicated, other characteristics can be even more complex. Different combinations of alleles at a locus can result in many different expressions of characteristics and all these different events result in complex genetic systems that produce a wide variety of character expression in bees. Alleles at other loci can also affect a characteristic.

For example, workers exposed to a component of the alarm pheromone, isopental acetate was estimated to be influenced by at least seven to eight genes and this variety is some of the raw material necessary for the genetic improvement of bee stocks.

In the next part we will look at how, using this raw material, ancestry can be communicated and how breeding plans can be devised by bee breeders to produce a variety of improved strains.

Courtesy Apis U.K.

WHAT TO DO WITH THE PARENT COLONY

Contemporaneous with the handling of the swarm is the management of the parent colony. It isn't wise to leave it to its own devices at this stage. To me, it presents one with another pleasurable and rewarding aspects of the bee-keeping craft and, although there are options here, I will contain myself to the simplest.

The priority is to check the queen cells: the ideal, I suppose, would be to find as well as sealed cells unsealed cells and, if the latter house good looking larvae, they should be retained and the sealed ones removed. This move gives some leeway - a timetable in fact. It means that it will be seven or eight days before virgins emerge - a time when many workers will become foragers - most likely several thousand of them. These 'older' bees can then be diverted to the swarm by the simple expedient of moving the colony to another spot in the apiary - even to the other side of the swarm, six to seven days after hiving the swarm - that is, two days before new queens emerge.

This operation affects matters in two ways:

1 It quite considerably reinforces the swarm thus boosting the chance of obtaining a decent crop of honey - the objective.

2 The removal of the 'older' bees minimises the risk of a cast or mating swarm coming off.

Convention has it that at the time of hiving the swarm any supers on the parent colony are given to the swarm This leaves the parent colony now just a brood nest which is pretty well all brood with little in the way of stores, and being deprived of its foraging force, it can be vulnerable for a short while especially if the weather is unfavourable.

A point to bear in mind and maybe act upon. *Jack Cox NDB*

ALLERGY

I would like to give my appreciation of David Knight. In 1980 I became allergic to bee stings. I was lucky in that, at the time, Dr. Riches was prepared to do the preliminary tests at Harefield Hospital thereby circumnavigating the usual allergy clinic waiting list. Unfortunately my own doctor did not want to do the series of injections at his surgery but was prepared to let another doctor do them if I could find a willing one. I found David Knight. I went to his surgery in Hoddesdon every week, throughout the winter, for my injections of bee venom starting with 1/500 of a bee sting and increasing to two whole bee stings worth. With one more injection to go we ran out of venom. What to do? 'Well, you're a beekeeper aren't you?' Said David, 'Go and get stung!' So I did and I am still here so it must have worked.

Hertfordshire beekeepers - courtesy BEES

THE ITALIAN CONNECTION

JENI'S JOTTINGS FEB. 2006.

Happy new year to you all and may you all have a good season with the bees.

IF WINTER COMES . . .

Since my last 'jottings' Winter has come with a vengeance. The beginning of last November turned very wet with the first snow on the 22nd. Since then there hasn't been a proper thaw and with snow on and off all through December and January.

The last week in January being the worse, with over a meter of snow (I think it was over a meter because I'd made a little fence and gate for the home veg. plot, to keep the chickens out, and the gate was forty inches high and all you could see were the little pointy top bits.

POROUS SNOW

As for the bee hives they had just disappeared! Fortunately Michael Costello rang me, just as I'd come in exhausted from digging out and seeing to the rest of the live stock, to say the bees would be OK. He'd read that snow is porous and not to worry. Thank God for that were my thoughts, as it then left me time to get some chestnut poles as supports for the wood-shed roof. Another job on the job list. But as it so often happens snow from the West is followed by rain. So after two days of snow, came two days of rain and now a thaw and sunshine! What a contrast in a short space of time.

THE 'POINTY BITS' AFTER THE THAW

CATKINS

Yesterday and today the bees have been flying, so good to hear and see them again. Nothing for them yesterday but today I've spotted some coming back with pollen, presumably from catkins though I haven't seen any locally, but then I haven't been so far afield, as the snow is still making walking difficult.

The bees have been on the rabbit food again and also on the bird seed tray, that I put on an upstairs window sill (out of the way of the cats!).

RABBIT FLU !?

All poultry and rabbits have had to be registered here. Presumably because of Bird Flu.

Do rabbits get Bird Flu ??

More work for the Health Authority, and no doubt more costs to us.

PASSED?

I have just received a letter (plus a rather large bill) to say my last years honey has passed. What it's passed it doesn't say, so to me it's just a bit of official nonsense and rubber stamping.

During the bad weather I have been busy cleaning up all the bee equipment, 'blow lamping' hives, queen excluders and wiring up new frames and generally trying to get organised for the big "Spring Clean".

This season I'm hoping to get the bees back in good order, as I feel they have been a bit let down over the last couple of years. I can only but try.

VAPOURISER

I have enclosed a copy of the equipment being offered here in Italy for the vaporisation of oxalic acid.

(I have the copy if anyone would like to see it - it's in Italian! Ed)

I think it's a brilliant idea (although I've not seen one in action) It means that the bees can be treated for varroa in December when the bees are going to benefit most from the treatment. With this appliance you don't need to open the hives and the bees don't get wet as they do with the trickle method. Which has to be done here in October at the latest and is a bit hit and miss. For instance last October was mild and the bees were still active, so I would suspect a lot of varroa were still lurking in cells. I intend to use thymol again this Spring or as soon as temperatures go up a bit.

API LIFE VAR™

The information here from the regional Association is to use Oxalic Acid in the Winter months and use Api Life Var™ in August as soon as the supers are taken off. Which makes good sense as thymol which is mainly what Api Life Var™ is, needs high temperatures to vaporize and also varroa are at their peak in August.

Well back to the blow lamp, best wishes, *Tante Salute. Jeni.*

NORTHERN BEE BOOKS

Over the past fifteen 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

B.E.E.S.

Whilst avidly (I hope) reading the articles in the mag, you may have noticed at the bottom of a few of them, an acknowledgement from a magazine, *courtesy of BEES*: It occurred to me that not everyone might know what this stands for.

BEES is an acronym for Beekeeping Editors' Exchange Scheme, run for 21 years by Jeremy Burbridge, of Northern Bee Books.

Editors of associations belonging to the scheme send a number of copies of each edition of their magazine to Jeremy, who in return, sends back a selection of other associations' magazines. These vary in size from two or three sides of A4, published monthly, to substantial magazines like our own, which are issued quarterly. A very few large associations produce a chunky booklet every month.

As an editor, I am full of admiration. All the copy in a magazine, unless otherwise indicated, is free for other editors to use, provided that it is acknowledged. This exchange of information and ideas is invaluable when trying to produce a well-balanced issue. It is quite a thrill seeing an article from Bee Talk published in someone else's magazine, and is one reason I am keen to have as much 'home produced' copy as possible.

The scheme is a free one, the costs being absorbed by Northern Bee Books, which is most generous of Jeremy. Northern Bee Books is the 'ultimate beekeeping bookshop' and should be supported.

The Association, through our Treasurer deals directly with them and can obtain books for you at a good price.

Courtesy of BEES.

RESISTANT VARROA

Now that Varroa mites are becoming resistant to pyrethroid treatments what is the long term solution to this threat?

We already have an alternative approved treatment with Apiguard. This works in a different way to the pyrethroids and hence is effective against pyrethroid resistant mites. This is the only approved alternative we have at present. Given enough years of continual repeated treatment it is possible, even probable, that Varroa will develop resistance to Apiguard, so we cannot simply switch from Apistan/Bayvarol to Apiguard and assume the problem is solved. It may be for the short term but this is clearly not a long term fix.

Other approved treatments may become available, especially as there are already alternatives available elsewhere in Europe. These could be licensed in the UK if the manufacturers see a big enough commercial opportunity.

FUNGI

Research is being carried out on new types of treatment, one based on pheromone traps and another based on the use of fungi which can kill mites without affecting the bees. It is likely to be several years before commercial products become available based on these approaches.

The only permanent solution to this problem is for our bees to evolve to tolerate Varroa. It is not usual for a parasite to kill its host, as there is no future for any parasite without its host. Apis cerana, the original host for Varroa, has developed the ability to control the mite and to survive. This is the only long term hope for Apis mellifera. As beekeepers we can help our bees by breeding from selected colonies which are better able to tolerate the mites.

Careful monitoring of mite levels in colonies, and using the minimum of treatments allows identification of those colonies which are able to keep mite numbers down. The wholesale and regular use of high efficiency treatments masks this ability and prevents identification of the 'best' colonies.

NO TREATMENT

The alternative of withdrawing all treatments and 'letting nature take its course' has been used by some large scale beekeepers. Colony losses were very heavy with perhaps only one or two colonies surviving from 100 or more. These beekeepers have then rebuilt their stocks from the surviving colonies and now claim that little or no treatment is needed to deal with Varroa.

I know a number of 'let alone' small scale beekeepers who have also tried following the same method (through neglect), but they either no longer have bees, or have had to restock. If you have only two or three colonies and do not apply any treatment, the chance of any of the colonies surviving for more that a couple of years is very small.

So there we have it. Beekeeping will have to change in 2006 if our bees are to survive and provide us with a rewarding hobby and plenty of honey. The future of our bees is in our hands, they will not survive without our help.

Graham Royle

READERS TIPS

DEAR LIZA . .

Carry a snap on lid bucket with diluted soda crystals to the apiary. You can keep your rubber gloves and hive tool clean of propolis. Also, take a small bucket to collect the bits of wax scrapings from the top bars etc. It really adds up and we should not leave it lying around the apiary.

THE GOOD BOOK

If you are like me, when faced with a problem at the apiary, your head empties itself of all relevant information that you ought to know. When you are at the apiary your bee-books are of little use on the bookshelf at home, so why not copy essential information out of them? Practical illustrations on swarm procedure, photos of disease, pictures of the age of larvae, gestation periods etc. Put fablon over them or better still get them laminated and keep them in your kit.

WRITE IT DOWN

Keep notes of what is going on in each hive, the action you have taken and what you plan to do next. Otherwise you may have forgotten by your next visit and you end up leaving the bit of kit you need at home. Notes such as:

"Hive 2: Did not see the queen but there are plenty of eggs and capped brood on 8 frames. Half the first super is filled and capped. Three queen cells with eggs in. Must do artificial swarm next time, etc"

FRAME CLEANER

This will really help your beekeeping.

Cleaning up old frames and replacing old brood with new foundation can be made easier by using a frame cleaner.

This is a gadget which is used for cleaning out the grooves on the side bars, which are left filled with wax when the old comb is removed.

They can be purchased from Beekeeping suppliers for about £5.00. If you want to save a fiver take an old screwdriver, a small one with a 3mm blade. Put the screwdriver in a vice and bend it about 10 to 12mm from the end of the blade. Bend it so it is at right angles. You now have a gadget that you can hold easily in your hand and scrape out the wax from the grooves.

Thanks to Gordon Hartshorn & Steve Watkins for these tips. What about sharing yours with other members?

Courtesy of Shropshire beekeepers & BEES.

MY SPELL CHECKER

I ave a new spell chequer ,
Its maid for my pea sea ,

It elps me with my Miss Steaks,
the wons that eye can't see,

eye strike a key and tipe a word,
and weight for it to say,
weather eye am rong oar rite,
it shows me strait away.

As soon as a mist ache is maid,
it nose bee fore too long,
and eye can put the error rite,
It's rare lea ever rong

Iv'e run this poem threw it.
I 'm shore your pleased two no.
Its spelling perfect awl the way,
my chequer tolled me sew.

BEE - NOTICES

SCHEDULE OF VISITS TO HOLDEN CLOUGH DURING 2006

It is intended to visit the apiary every Sunday morning starting 30th APRIL until the 24th AUGUST 2006

PLEASE RING ONE OF THE APIARY MANAGERS IF YOU WISH TO ATTEND TO MAKE SURE THE VISIT IS AS SCHEDULED. WHICH WILL BE SUBJECT TO THE WEATHER.
STARTING TIME APPROX. 9.30am

APIARY MANAGERS

David Rayner	01200 426898
Paul Aldred	01772 330159

MEMBERS SERVICES

Bayvoral £3. per pack of 4 strips
Thymol crystals £2.20 per 100 g
Beekeepers quarterly Annual subscription from the publisher is £24 - from our treasurer only £16.00 with a slight profit to our society.
The publication has just been expanded to include another publication 'Beebiz'.
Talk to Ken Gaiger phone. 01282 778887.
Library. There is an extensive range of bee books etc. that may be borrowed.
Our librarian, Brian Jackson brings some with him to our meetings. Contact him on 01535 634503 for special requests.

DISCLAIMER
The views expressed in any of the articles in 'Bee Talk' represent the personal opinions of the contributors and in no way should they be regarded as the official opinions or views of the 'Lancashire & North West Beekeepers Association' nor of our local Branch of this association 'The Blackburn & East Lancashire Branch'

FROM THE TREASURER

Subscriptions for the 2006 season are now over due . The new full membership rate will be unchanged, at £14 and £2 for each additional family member. Associate membership is £4.00. This has been achieved even though out goings are increasing.
The rates for Bee Disease Insurance (B.D.I.) Are:-
First 3 hives are covered by subscription

up to 5 hives	£2,00 extra
up to 10 hives	£5.25 extra
up to 15 hives	£7 75 extra
up to 20 hives	£9.50 extra
up to 25 hives	£11.10 extra
Above 25 hives	See Treasurer

Please forward your subscriptions whilst its fresh in your mind, it will save me a lot of trouble. Also early renewal is necessary to assure you have the public liability (third party) insurance which is included in your subscription
Annual subscriptions to THE BEEKEEPER'S QUARTERLY are due so payment of £16 would be appreciated.CHEQUES SHOULD BE MADE PAYABLE TO L. & N.W.B.K.A. AND SENT TO KEN GAIGER, 2 HIGHAM ROAD, PADIHAM, BURNLEY BB12 9AP
Telephone 01282 778887

COMMITTEE MEMBERS
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Ken Gaiger	Hon. Treas.	01282 778887

BEE - NOTICES

INFORMATION ABOUT 'BEETALK'
Planned Publication Dates: March 2006, June 2006, September 2006, December 2006
LATEST TIME FOR COPY - 2 WEEKS BEFORE THE MONTH OF PUBLICATION.
Please contact Bill Ainsworth, 296 Scotland Road Nelson BB9 7YS Telephone 01282 614015 .
Good, crisp photographs or line drawings are always welcome

ANNUAL DINNER

The menu hasn't been fixed for our Annual Dinner but we can promise it wont be just salad.

The Date is Wednesday 29th March 2006 and the venue is the Hillcrest Tea Rooms in Mitton.

Please make a note in your Diary, it's always a 'First Class Do'.

The restaurant is under new management and they seem very keen. They are now licensed, so you don't have to 'bring your own'.

Please ring John Zamorski now to reserve your places. He will contact you later with the menu and other details.

John Zamorski's brother in law and best pal has been very ill and consequently John has been unable to make plans as to speakers etc. We are sure he will soon take up the reins again and organize the various activities for us.

In the meantime here are the next three venues and dates

Sunday 23 April Mr & Mrs J Wrigley (Holden Clough)
Please ring 01200 447621 if you need directions

Sunday 21 May Mr & Mrs Jackson, Crosshills
Please ring 01535 634503 if you need directions

Sunday 18 June Mrs & Mrs Howarth, Red Lane Colne
Please ring 01282 862129 if you need directions

We will try to contact you by phone or email when we have more details of the actual event.

HISTORICAL NOTE.

This historical note is taken from the days of post revolutionary Russia and it seems that whether you liked his politics or not, Lenin certainly got it right when it came to beekeeping and evidently beekeepers held a special place in the order of things. It seems incredible to me that at that time of chaos and danger, the rulers of the fledgling Soviet Union could find time to administer to such matters. (Ed).

Decree for the protection of beekeeping (1919)

1. When the labour of individuals or their families is used for beekeeping, it is forbidden to limit by any rules either the number of apiaries or the number of hives. Such apiaries cannot be requisitioned or brought under any departments, but must be left in the possession of the beekeepers themselves, and therefore any claims by any organisations or persons to take over for their own use already existing working apiaries are unlawful.
2. Whatever decrees there may be limiting the quantity of honey which is to be set aside for the feeding of bees or for personal consumption are to be disregarded.
3. Taxation of beekeepers shall take place under the general direction of the finances and expenses of local councils. Beekeepers do not come under special tax laws.
4. Agricultural departments are bound to show every cooperation to all organisations and persons desiring to occupy themselves with beekeeping, and to offer every possibility to establish apiaries in the most convenient places. When an apiarist is transferred and new plots of land allocated, or when hives and equipment are moved to such places, there must not be any limitation of beekeeping.

   N.B. All working beekeepers have the right to demand from the veterinary workers' commission certificates of safe conduct and technical help.
5. Limitations of the exchange or sale of bees from apiaries is forbidden.
6. All orders and decrees of local authorities contrary to the present decree must be changed.
7. Those violating this decree will be prosecuted.

In accordance with the laws of the R.S.F.S.R.

President Sovnarkoz (Signed) V. Ul'yanov [Lenin] April 1919

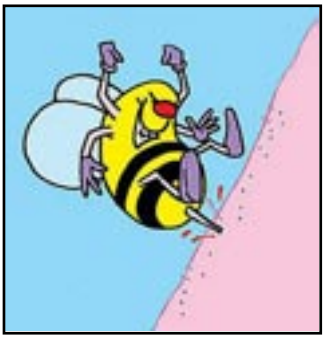
Courtesy of Apis UK.News Letter

THE COMPUTER-SWALLOWED GRANDDAD

Yes honestly its true
He pressed control and enter
And disappeared from view
It's devoured him completely
The thought just makes me squirm
Maybe he caught a virus
Or got eaten by a worm.
I've searched through the recycle bin
And files of every kind
I've even used the Internet,
But nothing could I find
I asked Jeeves,in desperation, my searches to refine
The reply from him was negative
Not a thing was found on line
So. If someday in your Inbox
My granddad you should see
Please SCAN, COPY, and PASTE him
In an Email, back to me.

LOSS OF IMMUNITY

I read some letters in old issues of Bee Craft reporting loss of immunity to bee stings the writers placing the blame on anti-inflammatory drugs.



Looking on the Internet for some confirmation of these claims I found similar comments in beekeepers forums and on one of Dave Cushman's excellent web sites http://website.lineone.netl-dave.cushman/beestings.html

PAIN FROM PAIN KILLERS

Some beekeepers are reporting bad reactions to bee stings when they have taken pain killers or anti-inflammatory drugs. the drugs may reverse their immunity to bee stings. Such drugs include:

Ibuprofen, Fenoprofen, Naproxen, Ketoprofen, Sulindac, Piroxicam, Suprofed And Tolmetin.

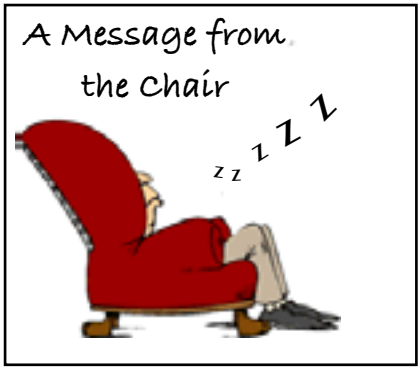
It has been recently reported that people who considered that they had an immunity to bee stings suffered much increased reactions to bee and wasp stings after taking a non steroidal anti-inflammatory drug.

Beekeepers are advised to stay away from ADVID and TYLENOL and over the counter pain killers in general. If any pain relief is required... Then take only ASPIRIN'.

If anyone is taking these medications routinely it might be advisable to seek advice from your doctor.

Curtisy Alnwick-dotes & BEES

Did you spot the pun? Anecdotes !Ed



HAPPY NEW YEAR TO YOU.

I have just got back from sunny Oz and hopefully I shall get warm during the next few days. The following piece was copied from the flight Magazine of Emirates "Open Skies".

URBAN BEES

A French study has discovered that bees reared in towns are healthier and produce more honey than their country counterparts. The study found that the higher ambient temperatures and diverse urban plant life meant that city bees enjoy a longer period of pollination from the wider variety of flowers while escaping the pesticides and other crop treatments that badly affect honey production in rural areas.

Hives placed on the roof of a theatre in Nantes easily out produced hives 30 K,s away, while the mortality rate among the city bees was just 6% compared to 33% of their rural cousins

It seems the car fumes do not affect bees as they are equipped with filters that help them cope with pollution. However, bees are helpless against the neurotoxins that are contained in some pesticides. The U.N.A.F. has been campaigning for some years against certain pesticides which it says are destroying the beekeeping industry.

UNAF = the Union of French Apiarists.

The only paper available on the plane on which to write was a "sick bag" It was clean and empty at the time so there was no inconvenience in getting it home.

All the best *Brian. Jackson*

BALLS OF FIRE

BEES COOK INVADERS

Honeybees that defend their colonies by killing wasps with body heat come within 5°C of cooking themselves in the process, according to a study in China.

At least two species of honeybees there, the native Apis cerana and the introduced European honeybee, Apis mellifera, engulf a wasp in a living ball of defenders and heat the predator to death. A new study of heat balling has described a margin of safety for the defending bees, says Tan Ken of Yunnan Agricultural University in Kunming, China.

ASIAN BEES

He and his team also report in an up coming issue of Naturwissenschaften that the native bees have heat-balling tricks that the European bees don't. That makes sense, the researchers say, since the Asian bees have long shared their range with the attacker wasp Vespa velutina, but the European bees became widespread in Asia only some 50 years ago and so have had much less time to adapt to the wasp.

The attacker wasps are "gigantic," says Thomas Seeley of Cornell University, who studies bee behaviour. Of all social insects, the species has the largest workers, with wingspans that can stretch 5 centimetres. The wasps build large versions of the papery nests of hornets found in North America, and they specialize in breaking into other social-insect nests and carrying off larvae as food for young wasps.

I've seen a single wasp overwhelm a colony of 6,000 bees" of a species that doesn't make heat balls, says Seeley. The invader wasp stands at the nest's entrance as one guard bee after another comes out to defend its home. "The wasp cuts the guard into pieces and waits for the next one," says Seeley. When all the defenders are dead, "the wasps strip-mine out the larvae," he reports.

ENGULFED

However, a few honeybee species can defend themselves by surrounding an invader. Researchers used to think that the few-dozen bees were trying to sting the wasp, says Seeley. Thermal cameras, however, revealed the balls' soaring heat.

To see what margin of safety the bees have, Tan and his research colleagues presented tethered wasps to six colonies each of native Asian bees and European bees. At each nest, worker bees engulfed the wasp immediately. Within 5 minutes, the centre of a typical bee ball had reached 45°C.

TURNING UP THE HEAT

To check the bees' and wasps' tolerance for heat, researchers then caged each of the species in incubators and systematically cranked up the temperature. The wasps died at 45.7°C, but the Asian honeybees survived heat to 50.7°C and the European bees made it to 51.8°C.

HEAT BALL

The native Asian bees, ancient adversaries of the wasps, mobilized half again as many defenders into a heat ball as the European bees did, the researchers report. Furthermore, Asian bees not mobbing the wasp were more likely to take shelter during an attack than bystander European bees were.

GENERATE HEAT

Heat balling is the flip side of bees nursing larvae in a nest, says Seeley. To keep the youngsters at the right temperature in cool weather, honeybees space themselves around the nursery and shiver their powerful flight muscles to generate heat. Seeley notes, however, that the nursemaids don't raise the temperature above 36°C, so the brood stays safe.

Susan Milius

IF WINTER COMES . . .

DORMANT SEASON:

Providing all the winter preparations are completed satisfactorily, there is nothing the beekeeper can do to assist his bees to get through the winter to the next spring. Apiaries should be inspected regularly-say once a fortnight-for damage from vandals, farm animals or wind or weather.
The hives should not be touched, even taking the roof off will lower the temperature of the cluster unnecessarily. If something is amiss then it must be put right.

Housed in weather-proof hives and adequately stocked with stores, the bees will over winter happily without their beekeepers interference.

HOW THE COLONY OVER-WINTERS:

Bees which enter the winter are going to live considerably longer than the 35 days or so of their summer sisters. The winter bee is a different animal than the summer worker, the difference being brought about by feeding and by lack of work.

FAT BODIES:

In late August and early September the workers feed very heavily upon pollen, and this bring their hypopharyngeal glands back into the plump form of the young nursing bee. At the same time a considerable amount of fat, protein and storage carbohydrate called glycogen or animal starch, is stored in the fat body.

This fat body is an organ composed of a sheet of large storage cells spread along the inside of the dorsal part of the abdomen. It is present in all honey bees but is considerably enlarged in the winter worker. It provides an internal store of food which is probably used to start brood rearing in the spring.

These physical changes in the worker occur when it is not involved in rearing brood; in fact its life span appears to be inversely proportional to the amount of brood food produced and fed to larvae. In this way the lives of winter bees are extended so as to carry the colony through the winter, some of them living for as long as six months.

THE EFFECT OF THE CLUSTER:

The bee is a cold blooded animal and tends to take the temperature of its environment. Muscular action will raise the temperature of the muscles and the heat will spread through the body. If the bee keeps flying, and thus keeps its body temperature up, it can fly around in temperatures below freezing. However if it remains still and allows it temperature to fall to 8ºC then it will be immobilised for good.

There is no temperature control mechanism in the individual bees body but the bee honey bee colony, however, has such a mechanism namely 'the cluster' and can control its internal temperature to within narrow limits over a very wide range of environmental temperatures. As the environmental temperature falls below18ºC the bees begin to cluster together, forming a ball with the combs running through it. The top of the ball will be in contact with the store of honey and below this, where the combs are empty, the bees will creep into the cells, making the cluster almost solid.

Why don't you come round to our place?

By the time the temperature falls to13ºC the cluster is completely formed. The effect of the cluster is to reduce the heat loss from the bees. The bees in the centre eat honey and metabolise it by activity, which can be lost by conduction, convection and radiation. Losses by conduction will be insignificant, for both bees and wax are fairly poor conductors.

TEMPERATURE CONTROL

Losses due to convection and radiation have shown to be about equal and to be proportional to the surface area of the cluster.

The loss of heat from the cluster can be controlled therefore by its expansion and contraction, and by coupling this with increased or decreased honey consumption the clustered colony has control of its temperature over a considerable range of ambient temperatures, a cluster temperature of 31ºC for instance with an air temperature of -28ºC has bee recorded, I.e. a difference of 59ºC.

PROVIDE DRINKERS

Adequate stores: During the winter period the honey being used will have to be diluted to a 50/50 ratio of honey to water, and whenever possible bees will go out for water. They fly at quite low temperatures, load quickly and away. Often in the winter and early spring at about mid-day there will be no sign of flight and then suddenly 20 or 30 bees will return to the hive in a couple of minutes, then all will be quiet again. It is always advisable to provide drinkers in the apiary and so avoid the danger of bees dying of the cold flying a long way from the hive.

DILUTION

When the weather is even too bad for water carriers to fly the bees in the cluster dilute the honey with the output from the thoracic and post-cerebral salivary glands.

Water shortage is unlikely in the cluster as the metabolism of honey produces carbon dioxide and water as its main residues. The winter colony is helped considerably if the combs outside the cluster are full of honey because this acts as a heat reservoir and buffers rapid temperature change.

Therefore the well provided colony is doubly lucky, not only has it plenty of food within reach but is also helped in the control of temperature fluctuations.

Courtesy 'An Beachaire' the Irish bee keeper and BEES.

BUYING SECOND-HAND EQUIPMENT

By far the cheapest way to start beekeeping is to buy second-hand equipment. I hope. these tips for the discerning buyer will help prevent that' bargain of the century' turning out to be a white elephant. As always ask a series of questions. I suggest the following:-

Do I need this equipment? Especially when you are starting there is such a lot to learn that it can all seem a bit overwhelming. Beware the temptation to buy things you don't need immediately. Just get the basics to start.

The first essentials on starting are:

(1) The best protective clothing you can afford,

(2) A good smoker

(3) A decent hive tool

This equipment will allow you to handle the bees calmly and with confidence - then you'll enjoy it.

Secondly you will need to consider what you will do if the bees swarm - so you will need a complete spare hive and frames.

Finally, you will need to think about harvesting honey. Unless you are really offered a bargain it is best to try and borrow extraction equipment until you can decide what you need and what will suit you. Is this the best price? Look at the beekeeping equipment catalogues to see what is on offer and decide what is right for you.

Then check the price new before buying second-hand.

It is easy to get carried away especially at auction sales.

Will this equipment match what I already have?

Not all equipment will mix and match.

There is nothing more irritating than equipment that doesn't fit together.

THE FOLLOWING LETTER WAS SENT TO THE EDITOR OF APIS UK AND REFERS TO THE ARGUMENTS WHICH HAVE BEEN RAGING ABOUT THE LOSS OF QUEENS WHICH MANY BEEKEEPERS HAVE EXPERIENCED.

Dear David,

I rarely write letters to 'the editor' as I suspect it's a fruitless exercise, but in the case of Roger Paterson's observations in the last issue of this newsletter re.queens etc, I feel I must point out one or two glaring errors in the article.

I have been breeding queens for over 20 years and like to think I have a modicum of experience in producing acceptable re-placement queens. While I sympathise with his problems I firmly believe some, if not all, are of his making and perhaps the following might be helpful.

The arrival of Varroa drastically changed the way things were done in the area of queen rearing, it created problems for many queen breeders, those who modified their methods were successful, and those who didn't went to the wall or developed a reputation for poor quality.

For as long as I remember most queen breeders relied on feral drones to help in the mating, a good drone pool was available with little extra effort from the breeder. With the loss of feral hives and a drastic decline in 'kept' bees this drone pool shrank to the point few queens were mating with sufficient drones. Lack of drones will lead to 'drone laying' or to a lower incidence of viable brood, and looking at the photo supplied I would suggest this is the cause.

Some time ago trials were done here in Ontario on close relation mating. It was established without doubt that 'spotty brood' was caused by brother-sister mating, producing results identical to the photograph in the article. So I would suspect the lack of feral drones, close family mating is the main reason for the various complaints of 'drone laying'.

Bee size, either workers, drones or queens is directly related to the available protein in the feed. We did some experiments with small mini hives forced to make queen cells as an experiment, with a lack of young bees and a shortage of stores they produced extremely small queens. While 'the book' puts an emphasis on 'lots of bees' in the cell builder, little is written about the quality of those bees. It is vital that a young hive is selected as a cell builder, little is gained by using a failing hive or one with little emerging brood, field bees are of little use.

There is strong evidence that 'mongrelisation' is also a serious problem for queen breeders, I hope soon to publish and article on this matter, but in the meantime would suggest Roger examines the pedigree of his stock for obvious colour and behavioral changes.

There have been reports of 'sterile' drones, perhaps caused by excessive use of Apistan. I haven't seen any evidence of this and have been using that particular treatment for the last 8 years, but do stress we use IPM and don't rely on just one treatment. www.beeworks.com/essentialoils.htm

All in all, I have to say I think Roger is crying 'Wolf' as a number of his problems are fairly easy to eradicate and don't constitute an 'unknown' new disease. Repectfully D.J Eyre

HIGH TECH BUTTERFLIES

PLASMA SCREEN

This short article has nothing to do with bees but is an excellent example of flying insect evolution which may be of interest to beekeepers interested in the wider subject of insects generally. In this modern world many of us are increasingly left behind by new and ever more complex high tech devices in our homes, but it may come as a surprise to learn that it's all old hat to some insect societies. For instance, the brilliant colours of a butterfly's wings are generated in the same way as high definition pictures of the newest plasma screen TVs.

30 MILLION YEARS

A study of the microscopic properties of the African Swallowtail butterfly's wing has found that for 30 million years these butterflies have manipulated light beams in ways that would baffle even the abilities of the best electronic engineers.

FLUORESCENT

The wings are coated with an ultra thin layer of molecules that form microscopic airspaces where fluorescent pigments absorb ultra violet light and re emit it as vivid patches of blues and greens. The air spaces have a complex of multi layered mirrors at the bottom to force light out through the top surface of the wings. Even more astonishing is the fact that the air spaces are arranged in such a precise and uniform manner that light cannot escape in any other direction thus ensuring that the colours are clear and bright.

LED

In the paper published in the journal 'Science', the researcher Dr. Peter Vukusic of Exeter University in the UK says that in effect, the butterfly has invented a biological version of the light emitting diode (LED) many millions of years before their human counterparts. An LED is essentially a device designed to emit light efficiently from where it is generated and the function of the micro scales (the air pockets) is identical to that of an LED.

CASUALTIES

A further reminder of the importance of learning from the past also cropped up last week with an observation about the astonishing high survival amongst wounded survivors of the Battle of Waterloo just three deaths out of 52 injured soldiers of the 13th Light Dragoons and Trafalgar just six deaths among 102 injured sailors on the Victory.

Despite the non existence of antibiotics, blood transfusions, life support machines

and other paraphernalia of modern intensive care, most recovered, observed Professor Mervyn Singer, of University College, London, in a public lecture. "Are we ignoring Waterloo at our peril?"

HONEY

So how is it that, throughout history, warriors have been severely injured and survived, without succumbing to infections and gangrene? The answer is honey, which we now know to be more effective in killing off bacteria-while simultaneously absorbing fluid from inflamed tissues, thus keeping wounds clean and healthy. "The Doctor goes on to say the Ancient Egyptians, the Greeks, the Romans, African tribes, American Indians used it, and it was known to the Aztecs too.

From the Sunday Telegraph extract from an article by Dr. James Le Fanu. Courtesy of the Warwickshire Beekeeper and BEES

WHAT IS PROPOLIS?

Propolis is a resinous substance collected by bees from leaf buds and exudates of trees and conifers. The bees modify the original resin composition to produce the Propolis and use it as a sealing agent and to keep the growth of microbes in the beehive under control. It is said, that the interior of a beehive is one of the most sterile environments in nature. Although the chemical composition of Propolis is very complex, the properties of Propolis have shown extensive antibacterial, antifungal, antiviral, cytotoxic, anti-inflammatory and antioxidant effects. Because of these biological properties, Propolis has been shown to have outstanding value to mankind for a wide variety of illnesses and maladies.

HOW IS PROPOLIS HARVESTED?

Raw Propolis is harvested by commercial beekeepers by scraping Propolis buildup from wooden hive parts or by using specially constructed screens. Extraction is used to remove beeswax, resinous substances, non-active components and other impurities before being used in a variety of natural health products.

WHAT DOES PROPOLIS CONTAIN?

More than 200 individual compounds have been established as the constituents of Propolis. The most abundant and the best studied class of chemical constituents of Propolis is the group of polyphenols, which provide pharmacological and very powerful antioxidant properties to the composition.

WHAT IS PROPOLIS USED FOR?

The ancient Greeks, Romans and Egyptians were very much aware of the healing properties of Propolis and made extensive use of it as a medicine. In the last decade many research projects and clinical investigations have been undertaken on the prophylactic and therapeutic properties of Propolis and of the bioflavonoids it contains.

HONEY HANGOVER CURE

Reported in 'The Times.' (Dec26th)

Forget prairie oysters and paracetamol: The best treatment for a hangover is toast and honey. According to John Emsley, of the Royal Society of Chemistry, this can speed body recovery by replenishing the body's supply of sodium, potassium and fructose, which helps break down chemicals that cause a hangover. ***Smile***

HONEY SCAM

17.7 tons of imported honey has been sold as English honey in village shops around Norfolk. A husband and wife by the name of Baker recently denied 12 charges of making false descriptions of food. The honey from China and Argentina was labelled as "Norfolk honey". The scam was uncovered by a local beekeeper who became suspicious about the huge quantity of honey on sale from a beekeeper he had never heard of. This is similar to a scam uncovered last year in the North East, also uncovered by a local beekeeper. In both cases there were convictions with heavy fines.

ARTHRITIS

Arthritis patients may daily, morning and night take one cup of hot water with two spoons of honey and one small teaspoon of cinnamon powder. If drunk regularly even chronic arthritis can be cured. In a recent research done at the Copenhagen University, it was found that when the doctors treated their patients with a mixture of one tablespoon Honey and half teaspoon cinnamon powder before breakfast, they found that within a week out of the 200 people so treated practically 73 patients were totally relieved of pain and within a month, mostly all the patients who could not walk or move around because of arthritis started walking without pain.

A cynical friend of mine suggested that it could also be taken with a pinch of salt Ed.

DO YOU HAVE AN EMAIL ADDRESS

We would often like to contact everyone to give information about some event or last minute bit of news.
If you have an email address, would you be prepared to receive such information and pass it on by telephone to not more than three members who don't have access to email.

If you can help please let us have your email address, or if you have already given us that information, confirm that you are prepared to join our 'Cascade' Team.

PLEASE LET US HAVE YOUR EMAIL ADDRESS

(Send it by email to bill@scotroad1.free-online.co.uk)