



Bee Talk

Newsletter of The Blackburn and East Lancashire Branch of
The Lancashire & North West Beekeepers Association
<http://www.homepage.ntlworld.com/kimberim>

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Registered Charity

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Editorial

JUNE 2004

SILVER JUBILEE

No, it isn't twenty five years, although it sometimes feels as though it is, but this is the twenty-fifth edition of BeeTalk that Arthur and I have produced.

We have made lots of changes, read hundreds of articles about beekeeping, done a fair amount of swearing both at the computer and at one another.

It has been a lot of fun and we have learned a great deal. We hope you have enjoyed it - we certainly have.

ANOTHER YEAR OVER

That's another beekeeping year gone, but another one starts again, right now!

When the supers come off you can start to get the bees prepared for Winter. Well fed, well housed and well ready to see Winter through. Don't forget the varroa - now is the time to hit them hard.

We can now make our plans for 2005. Make your plans, check them out with your colleagues to make as certain as possible that they are sensible and then STICK TO THEM that's the way to succeed and get some honey. Not that I do it myself you understand, anything new, someone's bright idea and I'm away trying it out without concern for the detailed plans that I've made. It is not to be recommended, don't do it. Stick to your carefully thought out plans - it's the only way.

If you look at the front cover you will find a new web address. The new web page has been much improved (by Michael Birt) .With links to a whole world of beekeeping, you can also down load Bee talk in colour try it out, it looks great, better than the booklet.

JOHN TAYLOR

With much sadness I must report the death of John Taylor earlier this Summer. John has been a member for over 15 years attending meetings regularly with his wife Maureen until relatively recently. Our thoughts go out to Maureen and the remainder of her family.

MIXED BAG

This edition of BeeTalk seems to be an even greater mixed bag than usual.

It is not easy trying to get the balance right knowing that there are extremely experienced beekeepers who look for the more technical articles whilst at the other end of the scale there are newcomers who are keen to learn the very basics.

Hopefully there is something for everyone with the odd few snippets which will tickle the fancy of even those who have not yet started out on this fascinating hobby.

YOU MUST TAKE A LOOK

If you don't have a computer find a friend who has and take a look at Michael Burt's brilliant new website for The Blackburn & East Lancashire Beekeepers Association.

It really is a tour de force and full of information for everyone.

This is the URL (the bit you type into the browser) <http://homepage.ntlworld.com/kimberim/>

He really does deserve a medal

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'

THE HONEYBEE GENOME BRINGS HOPE FOR APIARIANS

A fatal plague has been sweeping the world and infecting thousands of communities. Chemicals and quarantine are being used to fight back but it is a rear guard action, and the threat of a new outbreak of the epidemic is always lurking.

The victims are honeybees, and the recent completion of the honeybee genome brings hope for beekeepers. Around the world, they are battling with parasites and diseases, trying to stay one step ahead of existing threats. The genome recently completed by a team of US scientists provides a powerful tool for beekeeping. It is the first complete genome of a domesticated animal.

LOOKING FOR GENES

For thousands of years apiarists have selected bees for docility and a high rate of honey production. Now scientists can look for the genes that will help bees fight off ailments.

"I am optimistic that we will be able to breed bees resistant to a variety of diseases," says Jay Evans, a geneticist at the US Department of Agriculture. Mr. Evans works on the bee immune system and is seeking ways to boost its power. He is also developing diagnostic tools by looking for genes that are switched on when insects are sick or starving.

£200,000,000 POUNDS

There is more at stake than just honey. In the UK alone, bee pollination of crops is estimated to be worth about £200m annually 10 times the value of the honey they produce. The insects also perform an immeasurable service to the environment by pollinating wild plants.

VARROA DESTRUCTOR

Bees' most serious enemy is a 1 mm mite called Varroa destructor. The mites suck the blood of adult and larval bees and transmit viral infections that are deadly to whole hives. Beekeepers can control varroa with pesticides but the mites are starting to become resistant.

Varroa originally co-existed peacefully with a far eastern bee species but a century ago it switched to western honeybees.

Since then, varroa has spread around the world, reaching the US in 1987 and the UK in 1992. The impact on wild bees has been devastating. "In Europe and North America there are virtually no wild honeybees left," says Mr. Evans.

WE HAVE DONE IT

Bees have had millions of years of experience of coping with diseases. But we have made them vulnerable by moving them around, which brings diseases into hives with no natural resistance.

Rather than create genetically modified bees, researchers are likely to use the genome to influence breeding programmes. The genes that control behaviour could be the key to producing parasite-proof honeybees, says Ms. Ball. (Rothamsted research institute UK) We know that some bees are better able than others to detect and destroy infected larvae, for example.

THE WORST NIGHTMARE

The genome should help reveal how this is determined and breed more vigilant animals. The varroa mite is the beekeeper's worst nightmare, but it is not the only one.

Continued on Page 3

**A FATAL PLAGUE HAS BEEN
SWEEPING THE WORLD AND
INFECTING THOUSANDS
OF COMMUNITIES.**

THE EUROPEAN COMMISSION

In December the European Commission restricted bee imports in an attempt to keep out two other damaging parasites, a beetle and another mite. The insects are also prey to fungal and bacterial diseases.

Bees are vulnerable to disease for the same reasons that we are - they live in dense groups, where individuals are in constant contact. Their city-like hives support pathogens and give them the chance to spread. This makes them good models for understanding human disease. Researchers are already testing bees' natural antibiotics to see whether they could help combat human infections.

John Whitfield Published in the Financial Times 20th Jan. 2004

From Michael Costello

Hope you are all keeping well in sunny England. We are settling down nicely here, found a nice camp site about 18 miles from Jeni and are busy house hunting. Linda had an accident the first day here and ended up in hospital getting ten stitches in her leg so that put us back a bit as she couldn't get around much. Then a week later I got knocked off my bike and was limping around for a bit but we are OK. now and have found a place that we like very much and are trying to get it for the right price. We've been over to Jeni's a few times and have helped her take off and extract about 500kg of honey to date and I would imagine the next extraction in September should produce at least as much. The weather is really good and we have got to know quite a few people and are getting by with the bit of Italian we know which is increasing daily. Best wishes to all. Bee Happy. Ciao, Michael and Linda.

Michael Costello

THE BEE MASTER.

The, very word Bee master is redolent of old English village life, and seems to carry us back to the days when honey was one of the staple articles of diet of the countryman and mead was his strong drink. Even today, however, most villages still have an apiary or two, and a new race of bee enthusiasts is slowly rising, men who combine with their enthusiasm real knowledge of the habits of bees and a mastery of the new possibilities opened out by modern hives, appliances, and methods.



Although these recent developments have made beekeeping easy - so easy that many children have proved themselves capable beekeepers - yet the really large yields of honey, rising sometimes to 21 cwt. from a single hive, are still almost invariably obtained by those whose experience and careful study should well earn them the old title of Bee master.

Very different is he today, however, from the wizard like craftsman who knew only the straw skep and the sulphur pit, who to gain his harvest of honey had mercilessly to exterminate the whole army of workers that had striven so hard to gather it. And worst feature of all—it was always the best bees that were killed, for when the autumn came the bee master naturally robbed the skeps with the most honey in, while skeps with small supplies were left for another year. Thus the tendency was towards the slaughter—not survival—of the fittest.

Happily, the modern moveable bar frame hive has altered all this. No longer do we have to kill the bees to get our honey. Moreover, we can select and breed from the strains and races that give us the best results.

BIOLOGICAL CONTROL OF VARROA

Scientists at the Horticulture Research Institute are engaged in a study funded by DEFRA (Department for food & Rural Affairs) to investigate the natural enemies of mites to see if any had potential against Varroa. With resistance to pyrethroid treatments now reported in the UK, more eco-friendly forms of management are urgently required.

NATURAL ENEMIES

Biological control exploits the natural enemies of pests but because no natural enemies of the Varroa mite have been found, little work has been done on this type of control.

NON TOXIC

A desk study looked at natural enemies of mites and entomopathogenic fungi were singled out as the best candidates for testing. These fungi are widespread in the environment and some species naturally regulate populations of insects and mites. They are pest specific, do not harm fish, mammals, amphibians or other wildlife, are non-toxic to humans and produce no residues that may contaminate the environment.

CONTROL AGENTS

These features make them attractive as biological control agents and they are increasingly being exploited as microbial control agents of insect pests. Entomopathogenic fungi produce spores that attach to and penetrate insect or mite cuticle, causing the host to die within three to seven days after infection. Once the host has died the fungus then produces more spores on the surface of the dead host, which subsequently spread to other hosts.

HIGHLY SUSCEPTIBLE

Initial work has shown that Varroa is highly susceptible to entomopathogenic fungi and strains of fungi have been identified that kill Varroa but have no

effect on bees. Application techniques that allow the mites to be treated quickly and effectively in bee hives should be possible, in which case biological control would be an attractive option for both commercial and enthusiast beekeepers throughout the world.

DEFRA has commissioned HRI and Rothamsted Research to move the research into a second phase which will examine the effects of selected fungi on Varroa, coupled with studies of fungal ecophysiology and ecological risk assessment.

From an article by Sarak Cook, HRI.

TINCTURE OF PROPOLIS

A favourite of many home therapists, this recipe comes from the Spanish Ministry of Agriculture. They suggest that it be used for wound healing, a local anaesthetic and an antiseptic/disinfectant

They advise that to obtain clean propolis, the beekeeper should use a propolis screen in the hive.

For external Application: 1 part clean well ground propolis. 3 parts 96% medicinal alcohol. Mix well and keep for 10 to 15 days in an amber coloured glass container or a glass container covered with aluminium foil to protect from the light. Stir the mixture 3 or 4 times per day. When ready, filter the mixture well using a double filter. To make one of these, put some cotton wool in a funnel and over this, a filter paper (e.g. from a coffee machine). The filter paper takes out large particles and the cotton wool the fine particles. Keep the resulting tincture preferably in an amber coloured glass jar well protected from light.

The above article courtesy of Apis UK

NEVER MIND THE FISH - LOOK AT THE TACKLE!

SMILE PLEASE

Hobbyists are funny folk. Ordinary, rational people become obsessed once they become really involved in a hobby.

Take photography. Most of us old 'uns started with a Box Brownie - a black leather covered box with microscopic viewfinders which you peered down into and hoped you wouldn't chop the subjects head when you clicked the shutter.

You had to remember to wind on the film until the next number showed in the little red window. If you forgot, you finished up with grandma in the back garden partially obscured by a blurred image of Blackpool Tower with a string of donkeys in the foreground.

But if you got hooked on photography the pictures took a back seat in the scale of importance - the big thing was the GEAR.

THE SALESMAN

At first you winced when the camera salesman showed you a folding Brownie which cost one pound two shillings and sixpence but within a few months you were discussing with the same salesman the relative merits of the Leica against the Contax and whether the twenty five pounds difference was worth it.

All hobbyists are the same. Fishermen pay literally hundreds of pounds for a fishing rod. They still don't catch many fish but "Just look at the tackle I own!".

NOBODY CALLS THEM PLIMSOLLS

We used to go running in pumps or plimsolls, now runners pay a small fortune for designer labelled running shoes. Gardeners, sportsmen, bird watchers, the shooting fraternity, computer freaks, wood carvers - they all finish up with cupboards full of gear.

BANANAS

I just wonder if beekeepers are the same. My experience is a bit limited as the only beekeeper I really know is my old friend and your editor Bill Ainsworth. Now, if he is typical, then beekeepers break the hobbyist mould.

His beehives look as though he found them in Steptoe's yard. They are solid and dependable but if you look closely you may easily see that some of the

wood still had the marks of Fyffes bananas stamped on the side.

VOYAGE OF THE BEAGLE

His honey is top class and he is, by all accounts, a very knowledgeable beekeeper at both a practical and a scientific level. There again, if he was a "Hobbyist" his microscope would be a black and chrome job with some exotic foreign name, rather than an antique brass model which Charles Darwin might have used in his student days.

Perhaps I have got it wrong. Maybe Bill is just a miserable old skinflint and that you other members of the association have expensive trademarked hives, chromium plated extractors and protective suits with designer labels. Go on, drop us a line and tell us about your beekeeping hobby.

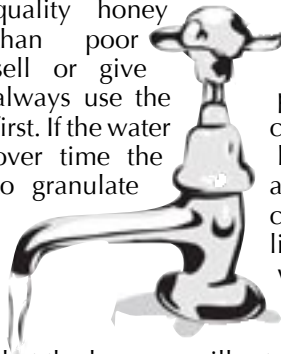


STORING YOUR HONEY

I hope that all of you have done well this year and collected more honey than in previous years. It may well be that next year is not so good and it is worth considering long term storage of your crop this year. Beekeepers that have more than say 5 hives are used to storing honey for a long time but if you have not done so before here are a few tips on how to keep the honey and how to ensure that it stays in good condition. Honey is known to be able to last a long time and honey of a recognisable condition has been found in tombs from ancient Egypt (over 3000 years old!).

WATER CONTENT

The first thing to remember is that good quality honey will last longer than poor quality honey so if you sell or give away honey always use the first. If the water content is high, over time the honey will start to granulate and the water content in the liquid phase will increase further. There is a danger



that the honey will start to ferment, reducing the sugar content further and increasing fermentation. Honey like this should not be stored for long periods. If you have a hygrometer try to use honey with a water content greater than 19% first.

BULK STORAGE

It is better to store honey in bulk rather than in jars. I use lidded food grade 30 lb tubs. These are ideal as they can be sealed to prevent any contamination and when you need more honey (to sell or use) the tubs can be warmed slightly to allow the honey to be poured into a gated bucket ready for bottling. Honey in this state seems to last well.

COOL STORAGE

If honey is kept cool it will slow down any changes to its physical form. Many people store their honey in a shed or garage and during the winter the honey is very stable and may not even granulate. The problem comes in the summer when outside temperatures rise. If you are lucky and have cellars or an old-fashioned pantry these are far better. It does not matter if the temperature falls below freezing so find the coolest place in your house to store the honey.

FILTERING

There is a lot of controversy about filtering honey. I believe that it is better to filter honey whilst it is warm and use an 80 mesh filter as the honey comes from the extractor into the settling tank. The honey should first pass through coarser filters otherwise the finer filter gets blocked easily. The honey can then be stored in tubs. When the honey is ready for use it should be warmed gently to about 40° C in a warming cabinet or a water bath and then filtered again, allowed to settle (to remove air bubbles) and then bottled.

Look after your honey and it will last for many years.

Ivor Davis Avon Beekeepers Ass. Via Bees.

WHAT IS "BEE SPACE"?

In 1851 a beekeeper, Rev. L.L. Langstroth noted that honey bees allowed themselves 3/8" between combs. If a hive had a 1/4"-3/8" space it wouldn't be filled with comb. Anything over 3/8" was filled with comb, anything less than 1/4" was filled with propolis.

He took this "discovery" and created the first movable-frame hive and is called by many the Father of Beekeeping.

PROPOLIS

RESINS

Propolis is a mixture of various amounts of beeswax and resins collected by the honeybee from plants, particularly from flowers and leaf buds. Since it is difficult to observe bees on their foraging trips the exact sources of the resins are usually not known. Bees have been observed scraping the protective resins of flower and leaf buds with their mandibles and then carrying them to the hive like pollen pellets on their hind legs. It can be assumed that in the process of collecting and modelling the resins, they are mixed with some saliva and other secretions of the bees as well as with wax.



Honeybees frequently use propolis to reduce the size of the entrance for better defence.

DEAD ANIMALS

These resins are used by worker bees to line the inside of nest cavities and all brood combs, repair combs, seal small cracks in the hive, reduce the size of hive entrances seal off inside the hive any dead animals or insects which are too large to be carried out and perhaps most important of all, to mix small quantities of propolis with wax to seal brood cells.

These uses are significant because they take advantage of the antibacterial and antifungal effects of propolis in protecting the colony against diseases. Propolis has been shown to kill the bee's most ardent bacterial foe, *Bacillus larvae* - the cause of American Foul Brood (Mlagaan and Sulimanovic, 1982; Meresta and Meresta, 1988). The use of propolis thus reduces the chance of infection in the developing brood and the growth of decomposing bacteria in dead animal tissue.

AVID COLLECTORS

The composition of propolis depends on the type of plants accessible to the bees. Propolis changes in colour, odour and probably medicinal characteristics, according to source and the season of the year. Moreover, some bees and some colonies are more avid collectors - generally to the dismay of the beekeeper,

since propolis is a very sticky substance which, in abundance, can make it difficult to remove frames from the boxes.

Foraging for propolis is only known with the Western honeybee *Apis mellifera*. The Asian species of *Apis* do not collect propolis. Only Meliponine or stingless bees are known to collect similarly sticky resinous substances, for sealing hives and constructing honey and pollen pots for storage. In this bulletin,

however, propoli shall refer only to resins collected by honeybees, since almost all of the research has been done on it. There may well be similar traditional uses for resins collected by Meliponids.

In the natural distribution ranges of *Apis mellifera*, a multitude of traditional uses are known for this versatile substance. The Greeks and Romans already knew that propolis would heal skin abscesses and through the centuries its use in medicine has received varying attention. The ancient Egyptians knew about the benefits of propolis and in Africa it is still used today, as a medicine, an adhesive for tuning drums, sealing cracked water containers or canoes and dozens of other uses. It has been incorporated in special varnishes such as those used by Stradivarius for his violins (Jolly, 1978).

A RAINY DAY WITH NOT MUCH TO DO.

I took up a piece of wild comb I had put to one side some days ago. I started to measure the cell diameters. The best I could come up with was 27mm across the flats over 5 cells, something just over 5.5mm per cell. There were not any great differences over the 5 cells on various parts of the comb, but there were definite differences. I came to the conclusion that comb building is not as precise as some books would have us believe.



The big surprise was, that I found myself very uncertain as to the orientation of the cells with regards to gravity. (When we buy foundation the cell pattern is impressed into the wax, we put the foundation into the frame, it is all predetermined, we cannot go wrong). However if you were to get a square piece of comb it could go two ways one at 90 degrees to the other, look at a comb

you will see what I mean. I could not tell whether the parallel cell walls were arranged vertically (as is impressed on foundation that we buy) or horizontally. The comb I was looking at could well have been between the two.

The problem of course was that the comb was not in situ and I had failed to notice the orientation when I cut out the comb. So I would be grateful if some one could show me a piece of wild comb in situ not moved in any way at all.

It's only a matter of my own interest. I don't think any of this matters to the bees at all. They will do their thing, no matter what my measurements are. *Bill.*

A NICE GREASY PIE

It seems that feeding your bees a nice greasy pie will help in the fight against varroa! It's easy and this is how it works.



Feeding a grease patty to each stock in early spring will encourage the bees to groom themselves. Work 10 oz icing sugar into 5 oz of soft vegetable fat. This is enough for two stocks, so half of it is laid on something grease proof directly on top of the brood frame around the end of March. In clearing the stuff out, the bees become greasy and groom themselves more actively. Lots of mites will fall off and if you have an open mesh floor, completely out of the hive.

Maurice Field

Editor's Note: I'd like to hear comments from any one on this - Maurice is a very experienced beekeeper from Surrey and the article comes from a recent Epsom Division of Surrey BKA's newsletter.

WE HAD ONE OF THOSE!



Solid silver, made about 1905. This little item is about two inches long. The little collar slides backwards and forwards. What on earth can it be? A clue? Well a gentleman would use it.

The answer on Page 13

OPEN MESH FLOORS (OMFS).

HIVE VENTILATION

OMFs were first mentioned in *BeeCraft* in the early 1990s. However, before this, a German named Helmut Horn published his findings in the use of OMFs in the 1980s. His experiments were contrary to the methods used on the continent at that time, i.e. bee houses and insulated hives. Horn's method was an OMF with an insulated roof. He found that:

1. Colonies on OMFs showed slightly higher store consumption compared with solid floors.
2. Brood rearing stopped earlier in the autumn and commenced later in the spring, but that colonies developed more rapidly after a month or so, compared with solid floors.
3. Loss of colonies was less in the winter with OMFs.
4. No mildew occurred on the outer frames during the winter. Other people who have experimented with OMF floors have found:

1. Colonies eventually develop more strongly in the spring.
2. Prof Winstone is of the opinion that approx 30% of varroa mites that fall off bees fall through the OMF and can't get back into the hive. This is a form of varroa control in itself but needs to be used in conjunction with other treatments.

THE HIVE IN THE WINTER.

We have a colony of bees in a hive., the bees give off heat which rises to the plywood crownboard - which will be cold as most hives have through - ventilation in the roof. The hot air rising from the cluster is exhaled air and contains water vapour. On hitting the cold crownboard it condenses, and drips could fall on the cluster causing disturbance. There will be a small amount of circulated air exchanged at the hive entrance.

LESS CONDENSATION

Now consider an OMF and an insulated pad over the crownboard. this time there will be less condensation, the air circulating around the periphery of the brood box and the moist air will drop through the OMF. One of the things that started me thinking about OMFs was that on occasions that I put a piece of perforated zinc over the porter bee escape holes in the crownboard I found that every autumn the bees would propolise them up. Rightly or wrongly, I have assumed that the bees did this because they did not want a through draft. It would appear that they disagree with a lot of bee books.

NO MILDEW

I am fairly new to OMFs but so far I have been impressed. I have found that on inspections in January the colonies appear in good shape and there is no moisture or mildew in the hive.

ADEQUATE VENTILATION

The advantages of OMFs when moving bees is that there will be adequate ventilation through the OMF floor.

POSSIBLE PROBLEMS

There could be problems with OMFs when feeding with the bucket type feeder as there is usually some spillage, which would run through the OMF and perhaps lead to robbing. Again, if the hive was subject to attack by ants the OMF would be difficult to defend.

WATCH THIS SPACE

However, this winter I am making more OMF floors using the epoxy resin coated mesh sold by beekeeping suppliers. In the roof I am using 1 inch thick insulation pads from builders' supply merchants. [So watch this space for further findings.]

Gordon Hartshorn. Courtesy BEES

HAPPY BIRTHDAY - JACK

We only have one life member in our association, he purchased his membership in "1900 and something" for £20 or thereabouts and he is certainly making the most of it! **Jack Armistead** was ninety years young on the 20th of August this year and he is still keeping on, keeping bees.



Jack has been a beekeeper for something like 75 years. He has been a member of our society for about the same time. He has always done his share of work for the society. For instance he was chairman for very many years.

I have had a long relationship with Jack and consider him a good friend, he took me under his wing when I first decided to become a beekeeper. I shall be ever grateful for his patience and generosity.

Now a sneaky bit of information. Jack was a RAF officer during the war, an intelligence officer no less. From what I can gather he seemed to have spent most of his time whilst serving King and country in France, by helping a french farmer by the name of M. Tarnaud to manipulate his bees. All done with schoolboy French from Jack and no English at all from M. Tarnaud. I suppose that is where the intelligence comes in. When moved to a different part of France he did the same for two spinster sisters, who lived in a large chateau - sounds a bit Agatha Christie to me.

Any way happy birthday Jack may you be a good husband man to your bees for many years to come.

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
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'PHONE 01422 882751

THE SECRETARY SPEAKS

Well here we are into September and another season nearly over. I think it has been an unusual year for me with some strange swarming incidents with my bees but no council call outs to swarms, which probably means the local wild colonies have died out.

The Bar-Bee-Q went well at Angela's again this year. Nice day despite the plague of wasps that wanted to join us. It was not as well attended as previous years when we had it in September. Maybe next year we could revert to that month again because it is a great meet and venue. Thanks to Angela and Rob for their hospitality.

The next meeting is at Ken Gaiger's house and also Ken has agreed to let us hold the AGM at his place now we have lost the brewery. We also have the Honey Show coming up in October at Castle Cement. Please try and support this event. I would love to see some of you entering the county show the week after. Anyone who would like to do this but can't get there can let me have their exhibits and I will take them. If anyone is going to go please let me know because I may need help that day because of my work commitments. . See you soon.

John



EARLY DAYS WITH BEES.

It is best to begin with one hive for the first year, and by observation and study to follow the habits of the colony throughout the season. If the stock is purchased in the early Spring the beginner will be able to see how it strengthens as the laying activity of the queen increases and the young brood hatches out.

The beekeeper will see the sheets of wax foundation being drawn out into cells, and the first of these being filled with honey and pollen.

We may even see queen cells being formed. When the honey flow is in full swing the first task will be to put on additional shallow frames. Later there will probably be the excitement and experience of capturing a swarm, and introducing it into a new hive.

In the autumn there is the task of extracting and bottling the honey from shallow frames, and, finally, closing down the hive for the Winter, with the provision of syrup and candy to ensure sufficient food supplies.

BEE GENOME UNRAVELLED.

The first draft of the honeybee genome has been released to public databases, after a year of work and at a cost of \$8 million. It is the third insect genome to have been completely sequenced (the others are the mosquito and the fruit fly).

The work was done by a team led by Richard Gibbs at the Baylor College of Medicine in Texas.

Scientists are now hoping to be able to identify the genes linked to social behaviour. They may also eventually be able to produce bees with less painful stings, bees that are more productive, and bees that can be used to produce antibiotics. *(from New Scientist)*

HINTS TO BEEKEEPERS.

There are many persons who have never embarked upon beekeeping because they do not think about it until they see the bees buzzing about the flowers in the height of summer. They are then told that it is no use beginning until next spring, and so year follows year and they are always too late. There are others who really do begin, but because they do not realise the importance of beginning early they are disappointed with their first season's yield of honey.

The whole secret of obtaining large yields is to take advantage of every day-every hour-of the "honey-flow," that great six week or so when the main nectar-bearing flowers of the locality are in full bloom;

the days are long, and every bee in the hive is literally working itself to death to fill all available cells with honey. To take full advantage of this honey-flow not only must the bees be obtained in good time, but as many workers as possible are required in the hive, to gather the harvest. For the more workers there are the greater the yield. Moreover, as many as possible of the workers are needed in the fighting line, so to speak, gathering nectar. If half of them are secreting wax and building comb, it is obvious that the yield will suffer. To this end, therefore, beekeepers should see that the hive is fitted throughout with full sheets of comb-foundation. In that way the bees can be saved labour at the most vital time of the year.

FEEDERS.

The characteristics of a good feeder are that it enables the bees to take syrup at the rate required, it prevents the bees from drowning, it provides access for the bees so that they can clean and dry up the syrup. Each hive should have its own feeder which can be used as a permanent crown board and it should be checked each year before put into use.

SEVERAL TYPES OF FEEDERS:

1. Contact. These are plastic buckets with covers and are available in quarter, half and one gallon sizes. The buckets are filled with syrup, the cover affixed and inverted over another bucket to take up drops of syrup while a partial vacuum is formed in the base of the inverted bucket. It is then put over the feed-hole in the crown board. The rim on the cover allows for bee space underneath and an eke* may be necessary to accommodate it on the hive. This type of feeder is ideal for slow stimulative feed in the spring as it can be placed over the cluster and the bees are not chilled.

2. Round top feeders. Entry is via a tube in the centre and down the outside of the tube to the syrup, the whole of the feeding area being enclosed by a removable cover. The feeders are made from plastic, are long lasting and easily filled in situ. An eke is necessary.
 3. Miller feeder. It consists of a tray 8cm deep, the outer dimensions are the same as the brood box. The bees enter via a slot in the middle extending from one side to the other which is covered to prevent the bees escaping. Its capacity is 2 gallons, it allows for rapid consumption of syrup and is ideal for Autumn feeding. It is made from timber and is costly.
 4. Ashford feeder. Similar to the Miller except the feeding slot is placed to one side. Again, it is costly.
 5. Bro. Adam feeder. Similar to 4 & 5 but has a central entry.
 6. Frame feeder. This is in the form of a brood frame with wood sides and open at the top to allow access to the bees, ideal for feeding nuclei.
- By Dennis Ryan in The Irish Beekeeper.*
(*Eke = Simple rim to allow the roof to be fitted without sitting on the feeder. Ed).

NATIONAL GEOGRAPHIC MAGAZINE MAY 1993

Oddly enough, beekeepers' families tend to develop sensitivity to bee stings more often than the general population. Some doctors believe that the allergies arise because beekeepers come home with their clothes dusted with a fine white powder of bee venom. The venom drifts into the air, and the family inhales it. That may have happened to Jeff and Christine Anderson's daughter.

"Rachel was two when she got stung on the foot," Christine told me. "Her little nose and eyes and ears and lips all swelled up, and she had welts all over her body."

To build up her immunity, doctors gave Rachel a series of injections over a four month period. To maintain immunity, she needed a shot or a bee sting every six weeks for several years.

"So we'd go outside and catch a bee said Christine." Rachel, now 13 remembers this ritual clearly: "Mom would take hold of my arm and roll my sleeve up. Then my Dad would make the bee mad and stick it on me and count to ten before he took the stinger out. But it worked. Now when I accidentally get stung, it barely swells, it barely hurts."

WARNING RE WOOD PRESERVERS

DEAR OLD ALBERT

Many of us have fond memories of Albert Morris and the many articles he wrote for BeeTalk. One of the 'bees' in Albert's bonnet was Creosote and it's use for painting beehives.

The following item has been taken from a letter to The Scottish Beekeeper, April 2004, about wood preservatives for beehives and their relative toxicity. I thought the information would be useful and of interest to readers. Reproduced courtesy of BEES...Ed

ORIGINAL CREOSOTE

Some wood preservatives contain chemicals highly harmful to humans, plants and bees; others are less harmful. The original Creosote is very effective for fence or shed and once it has been used, will preserve wood for 20~40 years. Creosote is no longer safe due to its carcinogenic properties but it is still available to trade people - presumably because they will wear breathing apparatus when applying it.

Creosote Alternative or Creocote looks like creosote, smells like creosote, but contains a chemical, dichlofluanid. Wood preservative with the active ingredient dichlolluanid (a sulfamid fungicide) has created a disaster in Denmark. It was marketed in Denmark under the retail product name 'Rentolin' and without a warning against indoor use. Some wood preservatives containing dichlofluanid are marketed as 'Preventol' and 'Flourofolpet'. People who used Rentolin indoors suffered serious injury. Many houses are now uninhabitable and several people suffer from chronic diseases. Some have the diagnosis of MCS (Multiple Chemical Sensibility).

Dichlolluanid is on the EU list of hazardous substances, classified as an allergen and hazardous to the environment .

CUPRINOL

Cuprinol decorative wood preservers, including Red Cedar shade, may be used externally on empty beehives, providing hives are opened up and allowed to dry thoroughly for a minimum period of six weeks. No beekeeper should use wood preserver on the hive whilst bees are in the hive. Both preservers contain as their main ingredient, dichlofluanid. I am surprised Cuprinol did not warn beekeepers that dichlofluanid is harmful to bees, but Cuprinol insists on drying the wood thoroughly after preserver use (minimum six weeks) before introducing the bees. Preservers have advantages over paint in that the wood can breathe and water vapour can escape easily.

RONSEAL

Ronseal say that their "quick drying wood stain is OK for bees. Do not confuse with Ronseal's other stains for garden furniture, decking, etc.

Preservative should be used only on the outside of the hive and well aired before use. There is significant evidence that residues from materials have been found in bees, brood and wax if preserver is used inside the hive or where it has contact with bees

Wood preservatives include insecticide, fungicide and pesticide, therefore bees can be put at risk if they are used. Only use externally and allow to dry out thoroughly before using on the colony.

WE HAD ONE OF THOSE!

Put the hook in a waistcoat buttonhole and place the edge of your dinner napkin between the patterned front and the rear ring, slide down the collar which acts as a clamp - voila!

An ideal gift for the man who has everything

THE 25TH BEETALK

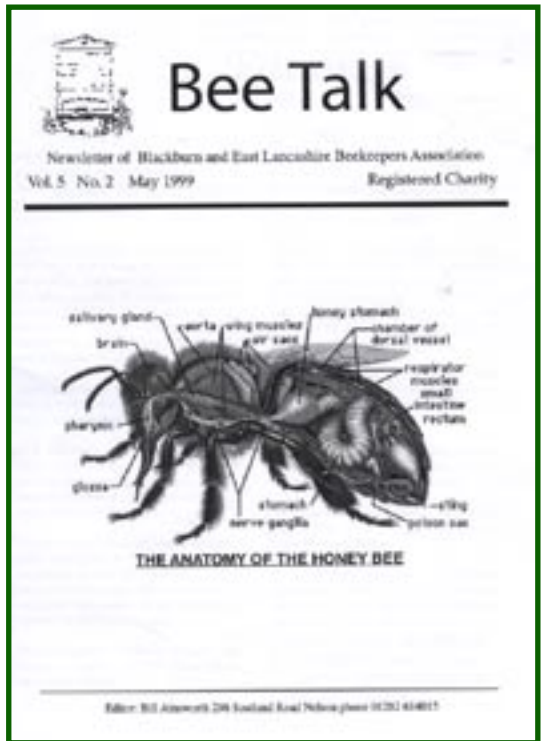
That's the number of editions of BeeTalk produced by Bill and Arthur.

The illustration shows the front cover of the first BeeTalk designed by them which was printed in May 1999. It had just eight pages as against twenty-four in this current issue.

That issue contained two articles on Varroa (One by Jake Windle). Albert Morris wrote his first 'Keeping in Touch' article and apart from notices, that was it.

Over the five years many people have helped by making contributions and finding illustrations.

Don't forget, it is your magazine. If there is something you would like the editors to include, or if there are subjects you would like to see covered, just give Bill Ainsworth a call.



DETECTING VARROA ASSESSING VARROA MITES

Early detection and accurate assessment of the degree of varroa destructor infestation is necessary to prevent honey bee colony injury or loss. This is also important for reducing control costs by indicating when control measures are warranted or when treatments can be delayed.

Collect a cup full of bees from the hive to be tested (approximately 300 bees). Place them in a jar and add one heaped teaspoon full of icing sugar, cover the jar with a piece of mesh (no greater than a 3mm mesh). Roll the jar about to get the bees well covered in sugar and let the jar stand for one minute.

This allows the bees to clean themselves of the sugar and at the same time they remove the varroa mites.

The sugar also appears to clog the pads on the feet of the mites thus preventing them from re-attaching themselves to the bees.

Now shake the jar, mesh side down over a piece of white paper for one minute.

Should the weather be windy use a white enamelled pan with water in it instead of the white paper this will stop the mites being blown away.

1 to 5 mites	low infestation.
6 to 30	medium.
30 +	high infestation

On Page 17 you will see Bill's alternative method of doing something similar. His is by no means a proven method nor is it as accurate but it seems to do the job

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person a night. Interested? Need to know more? Ring 0039 0525 76169.



THE ITALIAN CONNECTION (29TH JULY 2004)

The long Winter turned suddenly into Summer at the beginning of May with no Spring at all. The temperature soared literally over night to the upper 70's°F. This was a bit of a shock for everything and every one, having no time to "cast a clout" as they say in your part of the world.

DANDELIONS

I hasten to get all the supers on as the fields were yellow with dandelions and the apple trees blossomed stupendously. No time to Spring clean the bees, leaving it up to them, and I knew they had a lot to do as the first cycle of brood had all died through the cold and lack of pollen. I could see a lot of debris on the entrance boards.

WEAKENED

The Winter had left the bees weakened so I was expecting fewer swarms and had only noted one very strong stock when putting the supers on. Needless to say swarming began in late May, like everything else they seemed to be three to four weeks behind the "normal" year. A local did tell me that we were a moon behind, that sounded like a very Italian explanation but I'll go along with it. I'm very glad that I didn't wait for the moon to be right before getting my potatoes and peas in. I've now harvested my peas, beans, garlic and onions, which have all done well and I know I have some good potatoes, which is a lot more than many folk round here. Having no proper rain since early May it makes growing vegetables difficult in the height of Summer, even when water is available the air is too hot and dry for a lot of green stuff, like lettuce.

AWKWARD SWARMS

Earlier in the year Michael Costello left me a skep which I've found extremely useful for those awkward swarms. I even had it tied to a hang glider pole at one stage to reach up into a walnut tree where a swarm had ended up in a strong wind. I spent all one afternoon hiving it, only to have it abscond the very next day after having had a good feed of my thymol laced syrup first. All I can say is good luck to them!

TWOS AND THREES

As usual I united all the swarms. Prime swarms, two together, small swarms and casts three together, it certainly pays off as having just taken the supers off that were full, some of them were this year's first swarms. Again I

was three to four weeks later taking the first honey off due to many reasons such as the lateness of swarms, hay making, whitewashing the extracting room and lack of available helpers. Also I had not thought there was any great rush or need. How wrong can you be.

FLYING START

Meanwhile Lynda and Michael Costello



had arrived in Borgotaro in June and got off to a flying start. The first news the day after they had arrived was that Lynda had had an altercation

with the caravan steps. The steps won of course leaving Lynda needing ten stitches to a nasty gash in her leg. The next news a week later was that Michael had been knocked of his bicycle by a lady driver with no insurance! Fortunately no serious damage to Michael but he received a lot of cuts and bruises.

BROTHER

So the taking off of supers was put back a bit but it turned out well , as my brother arrived from England to give me a hand where needed. So the three of us made a good team and got the supers off in two sessions.

To clear the supers I use a blower, some thing I'd not come across in England. Here, it is common practice, especially where there are lots of hives to do.(Picture shows an Italian beekeeper using one ready made for the job, with a proper stand. Mine isn't so posh).

I still haven't got all the honey into jars as I have been held up through lack of jars. Ordered two month ago! But then it is Italy. Fortunately I still had a lot of jars left over from last year, so at least the bulk is done. I estimate there to be over 400kgs. in total, a nice surprise when the bees had such a late start.

ALFALFA

At the moment there is still a lot of "herba medica", alfalfa in the fields, a plant that never ceases to amaze me as it comes after the fields have been cut and seems to need very little rain. The bees love it so I'm hoping that in the next six weeks or so the bees will fill some more supers for me. We shall see.

With very best wishes for a good season for you all.

Tante salute, Jeni.

ASSESSING VARROA

This is a sort of footnote to the article on page 14.

If like me, you find collecting a cup of bees, not all that easy in a force 9 gale with rain running down your neck , then I will tell you what I'm doing about it. When the supers are off put the Bayvorol strips in as recommended with a clean varroa insert under the varroa floor. Give it 24 hours then count the varroa drop if there are no more than about twenty mites, take the strips out and leave alone. If there are more than twenty leave the strips in as recommended on the packet. The only time I tried this was last year but it seemed to work out OK, but one year doth not a Summer make. *Bill*

PS The real reason for assessment is to ensure we don't use Bayvorol when it is not necessary as this can cause the mites to become resistant to hard chemicals.

FROM THE LIBRARIAN

I want to express the thanks of all our members, to Paul Aldred for his donation of a great heap of beekeeping books, many of which are right up to date and of course all are relevant to your hobby.

Members are invited to make more use of our library.

Thanks again Paul.

Brian Jackson (Librarian)

AN ALTERNATIVE TO VIAGRA?

Some Bulgarian beekeepers have launched a thistle honey, claiming that it is a natural and cheap alternative to Viagra. The trade fair where it was introduced had to be **extended** because of the demand for the product.

MEMBERS SERVICES

Bayvoral £3.10 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.

FROM THE TREASURER

Subscriptions for 2004 were due 1st November. The new full membership rate will be £14.00 and £2 for each additional family member. Associate membership remains at £4.00.

The rates for Bee Disease Insurance (B.D.I.) are:-

First 2 hives £1.50 covered by subscription
 up to 5 hives £2.25
 up to 10 hives £5.25
 up to 15 hives £7.50
 up to 20 hives £9.00
 up to 25 hives £9.75

Above 25 hives see Treasurer.

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

ARE YOUR HIVES VARROA FREE?

Scrapings from hive floors can be sent to :-
 Diagnostic Services

National Bee Unit

Sand Hutton

YORK

North Yorkshire YO4 1YW

They will send you a report and the service is free of charge

COMMITTEE MEMBERS CONTACT DETAILS

Michael Birt	Chair	01706 222849
Bill Ainsworth	Vice Chair	01282 614015
John Zamorski	Hon. Sec	01200 427661
Ken Gaiger	Hon. Treas.	01282 778887
Pauline Roberts	Honey Show Sec	01282 438615
Brian Jackson	Librarian	01535 634503
Brian Jackson	Education Officer	01535 634503
Robert Bradshaw	Member	01254 261216
Angela Moyle	Member	01200 445398
Joe Wrigley	Member	01200 447621
John Tracy	Member	01204 888650

DELEGATES TO THE CENTRAL COUNCIL

John Zamorski	Hon. Sec	01200 427661
Ken Gaiger	Hon. Treas.	01282 778887

APIMONDIA 2005

This is the equivalent of the Beekeepers Olympics. A spectacular six day event for beekeepers from all over the world. In 2005 it will be in Dublin, probably as near to us as it will be for many years

If you have internet access, take a look at the website <http://www.apimondia2005.com>. It really does look to be a magnificent international event.

LANCASHIRE BEEKEEPERS HONEY SHOW

This year The Lancashire Beekeeper's Association is holding the annual honey show at Croxteth Hall, Liverpool on Saturday 16th October.

If you are entering in our own show at Clitheroe on October 10th, your entry could well stand a chance at Croxteth.

Have a word with John Zamorski and support our 'Parent' association

THE CONVENTION

The Lancashire Beekeeper's Association is holding the annual Convention at The Thatched Hamlet, Billsborough, just North of Preston on the A6.

It is on Saturday 30th October and the cost is £7. There will be excellent speakers and it will be a first class day out.

A leaflet is enclosed with this issue of BeeTalk.

INFORMATION ABOUT 'BEETALK'

Planned Publication Dates: December 2004, March 2005, June 2005, September 2005

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

PROGRAMME OF EVENTS

DATE	TIME	VENUE	SPEAKER	SUBJECT
Sun 19th Sep	2.30pm	At Ken Gaiger's	Bob Fulton	Mead and other things
Sun 10th Oct	2.30pm	Castle Cement	Pauline and John Zamorski	THE HONEY SHOW !
Wed 3rd Nov.	7pm	Ken Gaiger's		Annual General Meeting

NOTES ABOUT THE EVENTS

At Ken Gaiger's on Sept. 19th there will be all sorts of things going on but Bob Fulton is an expert on Mead and other drinks (See advert). There's bound to be a tasting or two.

If you want to know more about any of the events or how to get to the venue, please telephone either John Zamorski (01200 427661), Bill Ainsworth (01282 614015) or Ken Gaiger (01282 778887) for full details. They will be glad to help.

Don't write off the AGM as just another boring meeting, It is your opportunity to ensure that the Association is run in the way you want it to be run. The officers and committee put in a lot of effort and attending the AGM is one way of showing your appreciation.

PLEASE NOTE

At events where there are hives - weather permitting - we shall open one or more for the benefit of beginners and others. So, always bring protective clothing.

WRITE IT DOWN - **NOW!**

The Honey Show - **YOUR** Honey Show is 2.30pm on Sunday 10th October at Castle Cement, Clitheroe.

It isn't so much a competition as an opportunity to see how your honey, beeswax, cakes, mead and other honey products compare with other members of the association.

Don't be put off through lack of experience or because you are a beginner - there are classes for everyone. Join in and make this year's show a real success.

Whilst the judging is taking place there will be two workshops for beginners

Contact the Show Secretary. Pauline Roberts or John Zamorski for more details.

Scrapings

METAMORPHOSIS? ?

The name given to the changes that take place during an insect's life as it turns from a young animal to an adult. In the case of the honeybee, the changes take place within the capped cell as the young larva pupates before emerging into the hive as an adult bee. Metamorphosis of this kind is said to be complete.

BEAUTY

Did you know? Honey's ability to attract and retain moisture means that it has long been used as a beauty treatment. It was part of Cleopatra's daily beauty ritual.

TEMPERATURE

Worker bees will fly at 10°C to cleanse themselves, but need a temperature of 15° to go out and forage.

A very famous zoo keeper (I've forgotten his name) was of the very definite opinion that ALL animals tend to be bad tempered at below 29.5 barometric pressure.

WAXMOTH

Following a discussion on preventing Wax Moth damage at our local Association meeting I was given this tip from Ron Taylor, President of South Carolina and Colleton County Beekeepers;

- 1 Use a two litre plastic drink bottle with a 1" diameter hole cut on the curve towards the top of the bottle.
- 2 Mix one cup of granulated sugar, one cup of vinegar, one whole banana peeling and eight cups of water.
- 3 Hang this bottle in the apiary all year round

Replace as needed. Use one bottle for every four hives

Rick Leber, Mobile, Alabama

I'll bet this workes a treat on wasps too
Ed

BEE IMPORTS

You cannot just import bees, indiscriminately from anywhere in the world. The law forbids that. But looking at the new list of countries that you can import from make you think! To be fair there are a lot of rules and regulations that these exporting countries have agreed to do to prevent exporting disease etc. with their bees but it still makes you think!

Third countries Listed in Council Decision 79/542 from which imports of bees may be allowed from 2004

Albania, Algeria, Argentina, Australia, Bahrain, Belize, Belarus, Bosnia-Herzegovina, Botswana, Brazil, Bulgaria, Canada, Chile, China, Peoples Republic of, Columbia, Costa Rica, Croatia, Cuba, Cyprus (Northern), Czech Republic, El Salvador, Estonia, Ethiopia, Falkland Islands, Greenland, Guatemala, Hong Kong, Honduras, Iceland, India, Israel, Kenya, Latvia, Lithuania, Macedonia, Madagascar, Malta, Mauritius, Mexico, Morocco, Namibia, New Caledonia, New Zealand, Nicaragua, Panama, Paraguay, Poland, Romania, Russia, Singapore, Slovak Republic, Slovenia, South Africa, St Pierre and Miqueton, Swaziland, Switzerland, Thailand, Tunisia, Turkey, Ukraine, United States of America, Uruguay, Yugoslavia, Zimbabwe.

"We have chosen to fill our hives with honey and wax; thus furnishing mankind with the two noblest of things which are sweetness and light"

Jonathon Swift 1667-1745



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