

## Bee Talk

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

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About breeding a more gentle strain of bee.

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## **Editorial**

#### **MARCH 2005**

#### HERE WE GO!

We are starting on a new season.

Things should be stirring in the apiary by now. Ken Gaiger is keen to warn us that the Queen will have been laying out since the very beginning of the year, due to Global warming.

With this in mind we should think about the dangers of starvation. This is certainly the danger time, with the new bees being bred and no incoming nectar, it can be disastrous. So if in any doubt at all - *feed!* Candy certainly, but I suppose syrup will do now, as there will be a few days from now on where the bees can fly out and evacuate themselves.

Do have a look at the article on page 14 let me know if you have any suspicions or observations. The article on page 3 'The Danish Tradition' also needs to be taken into consideration in this context, especially if it is the virus and not the varroa that is to blame.

#### LETTER TO YOUR MP

Still on the disease front. Your Secretary, John Zamorski, reports that the letters to your M P campaign are getting a good response and looks to be going well. Me, being the old sceptic that I am, do not have any faith. In fact, the new test kits for determining if foul brood is present, both AFB & EFB are very accurate and must be a godsend to DEFRA.

Any beekeeper can now be very certain in diagnosing foul brood, so why employ personnel to do the job when beekeepers can do it for themselvers. This will probably be the answer we will get when we complain. It will be a case of DIY.

#### THE ANNUAL DINNER

The Annual Dinner has been organised by John Zamorski again. So far, every one of them has been a "Good Do" and there is no reason to think this one will be any different. Do support him. We don't apologise for mentioning it three times in this issue, it is important to have a get together in the beginning of the year, especially for beginners. Proper information can be found further on but DO LET HIM KNOW IF YOU ARE GOING TO BE THERE.

#### **BUSY BFFS**

There is an article 'Busy bees' on page 12 it is a continuation of a piece in the last issue of BeeTalk if you have the previous issue read them both together and more than that, study them, you will find a wealth of information in there. Contact Bill Ainsworth if you don't have the old copy.

#### **FEEDBACK**

If I ask Bill "Does anybody say anything about Bee Talk?" I get the standard reply "Aye, it's alright".

For me in particular, and I suppose Bill to some extent, it would be good to know if what we do with the little magazine is what you want. For instance is it too lightweight?; too heavy?; do the illustrations irritate you?

We would love to hear from you,.

Although I realise, being a true Lancastrians, that "Aye, it's alright" has to go down as praise indeed.

(Arthur Asst. Ed.)

#### 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'

#### MY BEES HAVE SWARMED

What to do, when to do it, are questions often confronting new beekeepers. Don't despair, experienced beekeepers can and are caught out by their bees swarming.

There are numerous methods of swarm control and post swarm management procedures, but detailed below is a basic

system for dealing with a swarm from your own hive.

Before the problem arises you will need the following equipment;

- (1) Spare hive, i.e. floor, brood box with frames, crown board and roof,
- (2) Rapid feeder and empty super box to contain it.
- (3) Large board, 2ft wide and 3 to 4ft long.
- (4) White cloth bigger than above board.

When the swarm issues, what to do? Normally a swarm settles within 20 to 30yds of the hive and can remain there for minutes or days! The following is a simple way of managing the situation,

First collect the swarm into a box, a standard 12 bottle wine box is ideal quickly cover the box with a cloth and place it on its side in the nearest cool shady position. With luck and assuming the queen is in the box, the bees will start fanning to attract the remaining members of the swarm.

Prepare the spare hive and make-up the syrup for the feeder.

Early evening, set-up the empty hive next to original hive with an empty super above the open crown board. Place full feeder in position and put roof on. Top up the feeder as necessary, particularly if foundation is being used . Next place large board covered with white cloth up to the hive entrance, ensuring the board is slightly inclined upwards towards entrance, bee naturally climb up.

Collect swarm box and throw swarm onto the white cloth close to hive entrance. The bees will soon start marching into

the empty hive.

following inspect the original hive, find a good uncapped gueen cell to save and mark frame with a drawing pin pressed into the top bar of frame. Make sure this queen cell is in a safe position, that will not be damaged during manipulations. Carefully inspect the remaining frames and destroy all the queen cells.



Seven days after the swarm issued, move parent hive with queen cell to new location at least 3ft away, minus any supers. Now move swarm hive onto original stand. Remove feeder etc, place queen excluder in position and any supers from original colony on top.

Four to five weeks later inspect original colony to ensure a new queen is laying. Also mark the new queen!

Summarising, this is a relatively straight forward method which minimises the risk of secondary swarms or castes as second or more swarms are called that are led by virgin queens. The beekeeper can keep the extra colony or unite it with another colony later in the season. Finally remember every beekeeper needs spare equipment to deal with swarms etc. That means at least one spare hive at all times. *Ken Gaiger July 2004* 

#### THE DANISH TRADITION

An article by Danish Beekeeper, Einer Olsen. Translated by David Ashton

Many who know something about Danish beekeeping are puzzled as to why the Danish beekeepers, as part of the legal requirement to prevent disease in the bees and to preserve the hygiene and cleanliness of the honey, change their brood combs yearly. Einer Olsen explains the reasoning why Danes change every bees wax brood comb.

#### INHERITED CHARACTERISTICS

The German monk Brother Adam, who lived most of his life at Buckfast Abbev in England, worked most of his life with the genetic properties of bees. He travelled widely in Europe and Africa, and took bee

brood back home with him. With this brood he tested the various races of bees for inherited bee diseases.

Brother Adam made a chart of the inherited characteristics which actually did not cover very much space about 6cm x 9cm. He carried this chart everywhere with him, **BROTHER ADAM** and despite the fact it



did not cover very much space it was in fact his life's work which was written down there.

#### POOR RESISTANCE

One of the conclusions that Brother Adam came to from his life's work was that the brown bee, Apis Mellifera Mellifera had extremely poor resistance against bee and brood diseases, and also had a propensity to swarm very often. On the other hand it had a top characteristic of +6 for its long life, ability to fly in all conditions, resistance to weather, a good sense for orientating itself, and a very

good sense of collecting together, and building new honey comb. It is, in fact, very impressive that Brother Adam gave the Brown Bee a top character of +6 on his own scale for eight characteristics. One of the explanations he gave for this was the wide distribution of this race of honeybee. Once you consider that the brown bee has some extremely poor characteristics, and others which are at the very top of his range, it is interesting to speculate as to why this is.

#### WHY THEY SWARM SO OFTEN?

Perhaps the answer to this question is that most of Europe was once covered in forest, where bees made their homes in rotten trees, and later skep and log beekeeping was practised. These types of homes for the bees most probably stimulated the swarming nature, which in the skep and log beekeeping period was thought to be an advantage.

#### CAPACITY TO SWARM

Perhaps the answer to this question is that for thousands of years the brown bee Apis Mellifera Mellifera did not have the need to develop genes resistant against bee and brood disease. Because they had a great capacity to swarm and build new comb, this in itself is a valuable protection against these diseases, by all the time building new clean combs in either hollow trees, skeps or wooden logs, clean from disease. The brown bees were in a situation were they could build themselves a new clean home a factor which underlines the fact that in all those hundreds of thousands of years bees lived in the forest in trees, later in log bee hives and skeps. They were never troubled by bee diseases, and even the skep beekeeping literature mentions very little. It was with the introduction by Langstroth in the USA in 1851 of the movable framed hive, that mention starts to be regularly made of foul brood and other bee diseases in literature.

Cont on page 4

Cont. from page 3,

#### **FOUL BROOD DISEASE.**

Foul brood spores are often found in honey, and are often encapsulated in bees wax combs which bees build themselves. Indeed, bees have a certain resistance to these disease spores; it is only when they build up to intolerant levels that disease moves in and takes over. As is well known with Danish beekeeping, by melting down the frames every year we find large concentration of foul brood spores, and other diseases, which are destroyed in the bees wax melting refining and filtration process.

#### **POLICY SINCE 1945**

Taking the logic and scientific evidence of the above, coupled with Brother Adam's evidence, it seems as if the Danish beekeeping policy of changing all combs on a yearly basis is not only a good strategy to overcome disease but is also very rational, despite widespread criticism of this method by beekeepers outside of Denmark.

This policy, since 1945, of yearly comb changes and renewal with clean foundation is now proving its worth, in an age when consumers, public health authorities, and trading standards are becoming more and more aware of the dangers that the widespread use of antibiotics and chemicals used by food producers and processors, poses for public health.

Coupled with the danger of bugs resistant to antibiotics, the problems with acid indigestion, and stomach upset, and asthma are on the increase. It seems as if the quality and purity of Danish honey due to Danish beekeepers' husbandry methods is something from which beekeepers around the world could learn a lot.

From "The Welsh Beekeeper"

Courtesy of BEES

#### **DISCOVERING THE QUEEN**

The minimum amount of smoke should only be applied when looking for the queen, otherwise she may be inclined to run from the smoke to a part of the brood chamber where she may not be easily found. Remove the supers and queen excluder. Then remove one or two frames from the rear of the brood chamber. Examine each carefully for the queen and then place in a nucleus box near the hive. It is most unlikely that the



queen will be found on these frames. A comb containing eggs is where the queen is likely to be located.

On occasions when bees cluster on the comb the queen may remain concealed beneath the cluster. The cluster can be broken up by gentle smoking, or better still by using the fingers in a patting motion. Should you fail to locate the gueen at this examination of the brood combs, then close up the hive and conduct a re examination at a later date. If things get desperate, take two more combs out and carefully look for the gueen on them before putting them in the nucleus box. Now space the remaining combs -two by two- with a good space between them. Leave alone for five minutes. The queen should now be in one of the seams between the two by twos- she will have gone there, out of the light, so only the inner faces of the combs need to be examined to find her. You could do the same with the combs in the nucleus box just in case you missed her there.

#### FILL THOSE SUPERS

Let us hope for a good harvest to make up for the unseasonable weather conditions we have encountered this spring. Hopefully we will be successful in preventing swarming, and if so our bee stocks should be very strong and ready to collect the last drop of nectar from the flowers during the next six weeks or so.

#### PLENTY OF STORAGE

Once the nectar starts to flow, we should not experience any further incidence of

swarming, as the bees will turn to gathering the honey crop while the opportunity is present. All we have got to do now is to keep the colonies supplied with plenty of storage space in the form of supers. Should we experience a rise in temperatures 18 to 20°C

during the month of May we can expect an early flow.

#### ANTICIPATING THE HONEY FLOW

For the majority of Northern beekeepers the weather prevailing over the six weeks (mid June to end of July) will control the 2005 honey crop. Let us suppose for instance that we only get ten to fifteen days of warm sunny weather during the above period, we can be assured of a good crop, provided of course that our stocks are in good condition and disease free.

#### **DON'T KEEP LOOKING!**

We have got to remember to allow the bees as little disturbance and no lengthy examinations of the brood chamber during these critical sunny days. Research has shown that frequent examinations during the nectar flow period tend to reduce honey production by up to 50%.

Storage space must be provided before it is required. We have got to remember that in a heavy flow a strong colony will distribute nectar over the comb area of a shallow super in one fine day. Should this empty super not be available in the hive at that time then the bees are restricted for space.

During a heavy honey flow a shallow super can be filled in two or three days. A super is required when the brood chamber is nearly filled with bees. Another sign that the bees require extra space is new white wax built between the frames and under the crown board.

#### GOOD JUDGEMENT

The idea of supering is to give ample space to house the bees themselves and to provide space for nectar ripening and the storage of honey. Should the honey flow be expected to end soon, then it is better to leave the bees to finish off what they have got. Empty supers can then be

removed so that the bees can concentrate on finishing off ripening the honey in the supers that are filled. Good judgement in supering is more an art than a science.

#### **JUDICIOUS HANDLING OF BEES**

All the above operations require handling the bees. One of the greatest assets a beekeeper can have is the ability to handle bees judiciously and to recognise the conditions under which it can best be done.

Vicious strains of bees do exist but can usually be reasonably well handled by a competent beekeeper. On the other hand a normally quiet colony can become troublesome throughout the season due to persistent bad handling. When handling bees, use slow deliberate movements. Sudden jerky motions attract the attention of the guard bees. Judicious use of the hive tool does much to reduce the wrenching and snapping of propolised combs, which also tends to upset the colony.

**DURINGAHEAVY** 

HONEY FLOW A

SHALLOW SUPER

CAN BE FILLED IN

TWO OR THREE

DAYS

## **SUPER BEES**GRAFTING

We are told to breed only from queens showing desirable qualities. What these qualities are can vary, but top of the list for hobbyists must surely be good temper. However, like does not always beget like! Last year, although complete beginners at bee breeding, we



had a go at grafting and were quite successful with our first crosses from a pure Italian breeder queenthey were mild mannered and productive. They did however, grow into vast colonies and needed feeding to get them through the winter. We had also had Carniolans recommended as gentle, hard working bees, so we bred a few first crosses to see which we preferred.

#### **LEATHER COLOURED LADIES**

The queens were lovely, leather coloured ladies and they built up promisingly quickly in the spring. On the first inspection we thought they were a bit lively, but gave them the benefit of the doubt as it wasn't that good a day. After the second inspection, we retired them to an isolated apiary, well away from people and stock. After the third, when, hardly able to see for the bees covering our veils, we were chased across three fields being well peppered from behind, we decided that let alone beekeeping has a lot to recommend it. They actually thrived on neglect.

#### **DISEASE FREE**

Each colony gave us two or three supers of fat frames, clothed in immaculate white cappings. Only one of the five swarmed and they appear to be disease free. (We did manage to Apiguard them, as it involves no interference with the brood nest.)

In many ways these bees were perfect, but with the best intentions, we had bred bees that were too dangerous to keep and thought seriously about destroying them. In the end we managed to re queen them with a first cross Italian queen. Getting them ready for the heather was still quite exciting, but by the time they had been on the moors for another couple of weeks the bad temper had all disappeared.

#### **NOTORIOUS**

We found out later, from an expert bee-breeder, that Carniolans are notorious, in this country, for producing really vicious first crosses. In future, we shall stick to Italian first crosses or breed from only the best tempered "native" black queens we have.

We tried to produce Super Bee, but what we got were Super B's!!!

Judith and Mike Rowbottom.

And so say all of us. ed

#### INFORMATION FROM THE NBU.

Number of beekeepers in the UK:	44,000
Number of colonies:	274,000
Members of beekeeping associations:	22,000
Bee Farmers with over 40 colonies :	400
Beekeepers with over 150 colonies:	200
Value of honey bees to commercial crops:	£120,000,000.
2001 UK honey production:	6,000 Tonnes
Honey Imports:	12,500 tonnes

#### TAKE WATER FOR BEE STINGS

The following letter is extracted from the book 'Your Body's Many Cries for Water' by Dr. F. Batmanghelidj. Reproduced courtesy of BEES and The Cheshire Beekeeper:

A year ago, while climbing out of the pool, I grasped a rail to help me climb the steps. I felt a sharp pain in the palm of my hand and immediately recognised a bee falling off my hand. Soon my

hand began to swell and the pain increased severely. I recalled a comment

heard by a doctor on a recent TV programme about the

necessity to drink lots of water in order to flood the system and wash toxins out of the body.

I determined to co- operate with my own need and rushed home.

At home I drank a 12 oz. glass of water every 15 minutes until I'd drunk 6 in all. At that point the pain ceased suddenly and the swelling went down. It is a lesson I'll never forget. Now I drink 5 or 6 glasses a day and feel on top of the world.".

#### **BEE CANDY RECIPE**

Having printed and studied all the bee candy references in the archives, we decided to attempt to make a fudgy or fondant-like candy. We used a small amount of vinegar (volatilized in process) to break down the sugar. Our first pour, on a greased metal sheet, yielded a suitably friable cake but one too brittle for easy handling. Pouring onto wax paper on a towel gave a nice cake, but too thin. Cooling to 200F prior to pouring increased cake thickness.

- 1. Use 1 part water to 4 parts sugar.
- 2. Add 1/4 tsp. vinegar per lb sugar.
- 3. Bring to boil, stirring constantly.
- 4. Boil without stirring for 3mins, .
- 5. Use a thermometer, and boil until 234F is reached.
- 6. Remove from heat, and cool to 200F.
- 7. Whip with whisk until white
- 8. Pour (QUICKLY!) on to waxed paper having a towel beneath.
- 9. Allow to cool undisturbed.
- 10. Remove waxed paper, and store each cake in a plastic bag.

The cakes thus made can be handled as normal, but are fudgy. They are totally white with whiter areas inside. Tiny crystals shine from a broken edge of a cake. The waxed paper is readily removed before storage. If the towel is fluffy the wax paper depresses, limiting the spread of the cake. (From the web)

#### **SWARM CONTROL**

A sensible approach to management is to re-queen regularly, make sure that the brood chamber has combs of good quality and is not clogged with too much unused winter food, put on supers well ahead of need rather than too late, clip and mark the queen and then carry out regular fourteen day inspections for swarm control.

#### **REGULAR COLONY INSPECTIONS**

Once queen cells with larvae have been discovered in the hive some method of control must be instigated to prevent a swarm leaving. There are many methods.

#### **DESTRUCTION OF QUEEN CELLS**

The purpose of this method is to make provision for re-queening without swarming. In the first instance, on finding queen cells remove every single cell. Shake the bees off each frame, check it carefully and remove all larvae from queen cells. I cannot stress how important this is. Now give the bees more space in the form of another super.

#### FIRST THINGS FIRST

Before the next inspection decide how you will deal with the hive if it has made queen cells again. Sometimes knocking down the queen cells and giving more space will stop swarm preparations, about 25% will give up. If you just continue to knock down the queen cells the bees will get disheartened and you will not have much honey. The other disadvantage to this is that eventually the bees may be so determined to go they will leave as soon as the queen has laid an egg in a queen cell.

#### AFTER NINE DAYS

After breaking down all the queen cells when first found, you now must return after nine days and re-examine every frame for queen cells. If you found none

then the colony has given up swarm preparations and you can carry on with the routine inspections for the rest of the season.

On the other hand if there are queen cells present you must find your clipped and marked queen and take her out, make up a nucleus for her if she is of good quality other wise you may wish to kill her. Then select a good open queen cell with a well-fed larva.

#### **DIMPLES**

It is advisable to choose a rough finished



cell, with dimples over the outside and not at all smooth. Do not shake or invert this frame as you may drown the larva in its queen cell. Mark the location of this cell using a drawing pin placed on top of the frame over the cell Cut out all other queen cells.

#### NO MORE SWARM CONTROL

Return after seven days and first check the selected queen cell on the marked frame and if it is okay then break down all newly formed queen cells and close up the hive. Leave the colony alone and the new queen should be laying after three weeks. There will be no need for swarm control inspections for the rest of the season.

#### PONDER ON THIS.

Written by Peter Griffiths, in the British Bee Journal, just after he had come out of hospital.

I think it does none of us any harm to take stockoflife now and then, to consider wherever



lies our pleasure and good fortune. Certainly on my return home I found pleasures came all the

sweeter, as I looked out into a sun dappled garden with bees still contentedly going about their timeless business, with no more concern for my presence than my absence.

Nowadays I find such pleasures lie more in the normality of life than on some passing novelty, and I savour the sight of a bumble bee scrambling amongst the fuchsia flowers, realising that it was making the most of what providence offered.'

Courtesy of BEES

#### FIRST PRINCIPLES

From the book A Practical Treatise on the Hive and the Honey-Bee, by L L. Langstroth, 1853.

Punctuations and emphasis as originally printed:.

There are a few first principles in beekeeping which ought to be as familiar to the apairian as the letters of his alphabet:

- 1st. Bees gorged with honey never volunteer an attack.
- 2nd. Bees may always be made peaceable by inducing them to accept liquid sweets.
- 3rd. Bees, when frightened by smoke or by drumming on their hives, fill themselves with honey and lose all disposition to sting, unless they are hurt.
- 4th. Bees dislike any quick movements about their hives, especially any motion which jars their combs.
- 5th. Bees dislike the offensive odour of sweaty animals, and will not endure Impure air from human lungs.
- 6th. The bee-keeper will ordinarily derive all his profits from stocks, strong and healthy, in early Spring.
- 7th. In districts where forage Is abundant only for a short period, the largest yield of honey will be secured by a very moderate increase of stocks.
- 8th. A moderate Increase of colonies In anyone season, will, in the long run, prove to be the easiest, safest, and cheapest mode of managing bees.

- 9th. Queenless colonies, unless supplied with a queen, will inevitably dwindle away, or be destroyed by the bee-moth, or by robber-bees.
- 10th. The formation of new colonies should ordinarily be confined to the season when bees are accumulating honey; and if this, or any other operation must be performed, when forage is scarce, the greatest precautions should be used to prevent robbing

The essence of all profitable bee-keeping is contained in Oettl's Golden Rule: KEEP YOUR STOCKS STRONG. If you cannot succeed in doing this, the more money you invest in bees, the heavier your losses; while, if your stocks are strong, you will show that you are a bee-master, as well as a bee-keeper, and may safely calculate on generous returns from your industrious subjects.

#### **LOVE HONEY**

What a nice gift for someone... or for yourself. Delicious in tea, fabulous on hot buttered biscuits or French toast or vanilla ice cream... It's so easy to make and tastes absolutely decadent.

- 1 cup honey
- 2 cinnamon sticks, broken in half
- 1 teaspoons whole cloves
- 1 piece lemon, rind of (1-inch x 1/2-inch)
- 1 piece vanilla bean (2-inch long)
- 1/4 teaspoon ground ginger
- 1/8 teaspoon ground cardamom Warm the honey slightly and pour over spices in a jar. Seal the jar and leave to blend for 3 to 4 weeks.



#### **PROPOLIS**

Everything you didn't know, you didn't know about proplis

Propolis starts as the sticky resinous sap which seeps from the buds of certain trees and oozes from the bark of others. The bees gather this "bee glue" and carry it back to the hive where it is blended with wax flakes secreted from special glands on the underside of the bees abdomen. Propolis is used to line the interior of brood cells in preparation for the Queens laying of eggs. With its antiseptic properties it provides a hospital clean environment for the rearing of brood.

Research shows that propolis offers antiseptic, antibiotic, anti-fungal, and even antiviral properties. It is often called "Russian Penicillin" in acknowledgement of the extensive research that has been done by the Soviets. One of the most valuable properties of all the natural bee hive products is that they exhibit true immunostimulating characteristics.

Unlike many modern medical drugs, propolis does not depress the immune system, but instead boosts it.

Chemical antibiotics destroy all bacteria in the body including the friendly and necessary flora required for healthy functioning. An individual constantly takes antibiotics for one condition after another soon learns that the drugs no longer work as well as they once did. As the bacteria get "smarter" the drugs become less effective over time. It is a medical fact that some biologically

harmful strains of bacteria develop a resistance to antibiotics.

Propolis, being a natural antibiotic works against harmful bacteria without destroying the friendly bacteria your body needs. Propolis has been proven effective against some strains of bacteria that resist chemical antibiotics.

Propolis is collected by commercial beekeepers, either by scraping the substance from wooden hive parts, or by using specially constructed collection mats. The raw product undergoes secondary processing to remove beeswax and other impurities before being used in a variety of natural health care products (eg., lozenges, tinctures, ointments, toothpaste).

Propolis is derived from the Greek words pro ("before") and polis ("city"), and refers to the observation made by beekeepers in ancient times that bees often built a wall of propolis at the front entrance of their colony.

Propolis has been used by man since early times, for various purposes, and especially as a medicine because of its antimicrobial properties (Crane, 1997). Ancient Greek texts refer to the substance as a "cure for bruises and suppurating sore", and in Rome propolis was used by physicians in making poultices.

The Hebrew word for propolis is tzori, and the therapeutic properties of tzori are mentioned throughout the Old Testament. Records from 12th century Europe describe medical preparations using propolis for the treatment of mouth and throat infections, and dental cares.

One of the non-medicinal uses of propolis is as a varnish, and it has been suggested that the special properties of Stradivarius violins may be partly due to the type of propolis used, although the claim cannot be substantiated.

## BUSY BEES (PART TWO) THE LIFE OF THE BEE

More recent work has been reported by Seeley, who considers that in a normal, balanced colony there is a steady progression of glandular changes apparently linked to a steady increase in the level of juvenile hormone in the blood and a corresponding development in the work performed. Seeley suggests that we can usefully consider four phases in the life of the bee, as shown in the table below, but with substantial overlap between phases. There will also be much variation with the season of the year

<b>PHASE</b>	<b>ACTIVITY</b>	<b>AGE IN DAYS</b>
I	Cell cleaning	0-2
2	Brood nest work	2-11
3	Food storage	11-20
4	Foraging	20+

#### **COMMUNICATION**

How are we to understand all of this? We have a pattern of organisation within a colony of perhaps 30,000 individuals that has no central organisation such as we accept in human societies. Each job will be performed most efficiently by workers who have specialised in that particular task. We see this operating in foragers who normally operate on only one flower type, so making for efficient pollination. But with no means of communication within the hive, it would be difficult to recruit specialists to the spot where they are needed, and so we have the observed pattern of bees working in the brood nest, able to perform many different tasks in that area and patrolling until they find a job waiting to be done.

#### REPEL ROBBERS

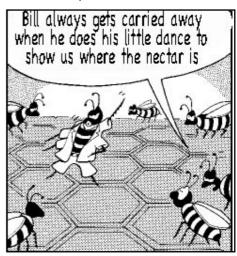
This random performance of work can have odd results, as when work started by one bee is undone by another, though we are thankful when the queen cells started last week have disappeared by the next beekeeper inspection. The little piles of used wax or propolis found on top bars and elsewhere suggest to me that a bee was on her way to do something when she became distracted by something else. An interesting exception to this random allocation of work is the occasional urgent need to summon defenders to repel robbers, and beekeepers, by the production of an alarm pheromone.

#### **ORGANISATION**

Some ten years ago Tofts and Frank suggested a simple way of thinking about the hive organisation. Each bee is born in the brood nest and immediately starts work there; as more bees emerge, she is pushed outwards and so undertakes other work in the brood area. This process continues as she comes into contact with the foragers and the entrance, and so begins to process nectar and to fly before moving out further to the world of flowers etc.

#### THE DANCERS

The organisation of this is made more effective by the use of two dances.



The dorso-ventral abdominal vibration (DVAV) dance or "shaking dance", sends workers who are storing nectar onto the *Cont. on page 13* 

Cont. from page 12

"Dance floor" where they come into contact with foragers performing one of the dances aimed at the recruitment of foragers. The "tremble dance" is used by a forager who, on returning to the hive, finds difficulty in unloading her honey crop; it is a signal to say, "Come to the entrance to receive incoming nectar."

The assumption underlying the proposal by Tofts and Frank is that each worker bee actively seeks work (if not resting), and patrols the hive looking for things to do, and in this she is aided by these two dances, which direct her to where she is needed.

#### **DIFFERENT FATHERS**

This story is not yet complete. For the last forty years we have known that queens mate with many drones and this leads to "patrilines" within the colony, subgroups of workers with the same mother but different fathers. It is possible that this system has come about because different patrilines have different specialities within the colony. Now that the honeybee genome has been recorded we can expect the variations between these lines to be identified with particular behaviours.

There is always something new to learn in beekeeping.

#### **ARE YOU AT RISK?**

The treasurer reminds everyone who has not paid their subs that these were due last November.

No subscription means no membership certificate which means you are not covered for third party insurance which is included with your subscription .

If renewal is not received before March 31st. then insurance cover will not begin until forty days have past from the date of renewal.

#### PLEASE RENEW NOW!

## UNITING A SUPER OF HONEY AND BEES

Sometimes in the summer we find one colony building up more quickly than another. The under developed colony can be given a boost from a strong colony, by removing a super of honey and bees from the strong colony and adding it to the weaker one.

Take a crown board and cover up the porter bee escape holes with a thin piece of plywood which has an 8mm. hole drilled in it, this hole being over the central porter bee escape hole. Assuming both colonies are in the same apiary and are near to each other:

- (a) Take the roof off each colony and lightly smoke.
- (b) Remove the crownboard from the weak colony (shaking off all the bees) and replace it with the modified crownboard with the 8mm hole.
- (d) From the stronger colony, gently take a super containing honey an bees and place on top of the modified board.
- (e) Replace roofs and crown boards on top of both colonies. Leave for a few days, then remove modified crownboard.

The bees can only unite by passing through the 8mm hole, which allows room for 2 bees at a time, thus creating a slow mingling of the bees, as the bees below enter the super when they smell the honey. Because of the slow mingling there is no fighting. Also very few bees from the super return to their original hive.

Courtesy Of Dave Cushman, BIBBA & RFFS

#### **BEES, DRONES AND VARROA**

Two colonies died out some time about Christmas last year 2004 - something that has never happened to me before. It is most unusual so early in the season.

#### SHORT OF BEES

They were not short of food and I found

R. L. P.

Here Lies

the Body

A Good Stock

of Bees

a small marked Queen in each of the colonies. The cause of death was undoubtedly shortage of bees. Both colonies had only a couple of hands-full of bees, well below the 'Critical Mass' according to our atomic energy expert Ken Gaiger. This meant the Queen was not laying sufficient eggs to produce the required

number of bees, or if she was why were they not reared to become the Winter bees that are so necessary?

#### **WELL FED**

I know it was a very poor back-end last year, but they were fed well enough, they even left food behind when they died out. Difficult to understand then why there was a distinct lack of bees to carry them through the Winter.

#### **SMALL QUEENS**

I wrote in Bee Talk (June 2004 page 7) about small Queens and as yet, I'm not satisfied with the quality of the Queens that I rear and intend to do something about it.

#### LOSS OF WORKERS

Just recently, in the last two weeks or so, I have been reading that there is a feeling abroad that varroa or the virus they spread around may be responsible for more bother and destruction than has been attributed to them so far. There appears to be evidence that varroa or virus is interfering with the reproduction viability of Queens or may be the drones. So far it seems to be people reporting a distinct loss of workers with no obvious reason for it and I am wondering if this is what is happening to my stocks.

#### **BETTER QUEENS**

In the coming year I intend to raise better Queens and get the varroa infestation down to a much lower figure. As I write, it comes to mind that both the stocks referred to were more heavily infested last year than any of the others (I have just checked the record cards and it is so!

1111111111111111111111111111111111

Bill Ainsworth

ARE YOU COMING TO DINNER? Our annual dinner is on Wednesday 30th March at Hillcrest Tearooms, Mitton near Whalley. You can pay John Zamorski on the day but PLEASE let him know if you are going to be there. Phone him on 01200 427661

## FOR ALL YOUR BEEKEEPING SUPPLIES Contact

## Judith David

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#### JENI'S JOTTINGS. Feb. 13th 2005.

#### **DRY WINTER**

After the extremely dry Summer of 2004, it's now been an extremely dry Winter, with only a few minor snow falls! This doesn't bode well for the water-table, the snow is much needed not just for here but for the Po valley as well.

#### **FOG AND SMOG**

At the present time the problem of Winter smog is affecting all the towns and cities there, the main culprit of course is the amount of traffic and it doesn't seem to matter what the authorities do, the problem just gets worse. Thankfully, here the prevailing winds keep it away but quite often when looking S.E. towards Palmer you can see the people there are suffering from fog and smog.

#### MARCH AND APRIL

All the snow fall and heavy rain has been in the South of Italy this year, much more than normal. Thinking back to last year the Winter came with a vengeance in March and April, so perhaps it will be the same this year. This of course won't do the bees any good. They have been flying quite a lot in the midday sunshine when the temperatures have allowed, as there have been some extremely cold days.

#### **CAN THIS BE SPRING?**



Many mornings when I've looked at the thermometer it has said minus 9°. So obviously the night-time temperature has been a lot lower. The ground has set solid with a layer of dust on the top and

nothing has been showing any sign of life until a couple of days ago when the

wind changed from the North bringing a breath of Spring.

The birds sang for the first time and a few hazel catkins started to look yellow. The bees have been making do with rabbit food for their pollen substitute much to the annoyance of the rabbits.

#### **ENTRANCE BLOCKS**

This Winter I put the entrances blocks on the hives, after last years 'experiment' and all that snow, I thought I wouldn't chance it again . As it's turned out they probably would have been alright without, as there hasn't been even strong winds to bother them.

(Jeni was continuing an idea of Jake's leaving the entrance blocks out to give more ventilation but it looks like high winds and snow last Winter put her off Ed.).

#### WINTER LOSSES

So far the losses are two stocks I think, as there looked to be some robbing going on, the next couple of months are important though, so I'm hoping (even though the snow is much needed) that it's not a long Winter again, as I'm sure last years losses, were due to this.

#### RARF BRFFD

Two new arrivals here, a Bardigiano foal



#### A BARDIGIANO HORSE

of seven months arrived in November. The Bardigiano is an ancient and rare

 breed of this area, used at one time as a work horse, small, stocky and sure footed - a proper mountain breed. Most of the females are kept for breeding but the males mainly end up being eaten.

The butcher was 'Karo's' destination before coming here and with the help of Michael and Lynda Costello we made him a loose box and paddock. He's now fit and happy, I'm just wondering if the bees will pick on him or not, being dark bay they might think he's a bear or some sort of threat.

We shall have to wait and see.

#### **GEMMA THE LAMB**

The other new animal is 'Gemma' a lamb born to old Bar-Bar. She too is growing fast and enjoying the sunshine.

I hope that the Winter has been kind to you all and your bees. With Very Best Wishes for the New Season.

Tante Salute.

Jeni.

#### THE GOVERNMENT WANTS TO CUT SEASONAL BEE INSPECTORS.

There is sad news for beekeepers in the UK with reports, that seasonal bee inspectors are to be reduced or axed.

Governments are strange creatures and appear to have an agenda all their own. Although Apis-UK always steers sharply away from politics, there is no doubting that politics always catches up with you.

When the seasonal bee inspector posts were first announced, they were deemed an 'essential' weapon in the apicultural armoury of the country. If they were essential then, they are essential now. In fact with the threat of the Small Hive Beetle looming on the horizon, even more so.

If they were not essential then, much tax payers' money has been wasted in the meantime.

There is always a good argument for reducing costs / posts etc. and these arguments will be put to the media and to beekeepers; better technology now available in fighting diseases; more knowledge about diseases; the results of research now available; let's be more realistic etc.

But many are nonsense and illogical. It is money, pure and simple. It is all very reminiscent of life in Her Majesty's Forces. The more tasks we were given around the world, the fewer there were of us to do them. Just get on with it boys and if you can't take a joke you shouldn't have joined!

Article taken from Apis UK. Free on the web!

Have you sent a letter to your MP. yet?

#### **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 £1.60 covered by subscription

up to 5 hives £2,40

up to 10 hives £5.65 up to 15 hives £8.15

up to 20 hives £9.90

up to 25 hives £11.50

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		
Bridget Beattie	Honey Show Sec	01257 452990		
David Rayner	Manager Holden C.	01200 426898		
Brian Jackson	Librarian	01535 634503		
Brian Jackson	Education Officer	01535 634503		
Robert Bradshaw	Member	01254 261216		
David Bush	Member	01200 428152		
Joe Wrigley	Member	01200 447621		
DELECATES TO THE				

#### 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.

#### **FOR OUR BEGINNERS**

Brian Jackson, our librarian and education officer is appealing for beekeeping magazines, periodicals etc so they can be distributed to new members.

The age of the material isn't important - after all very little changes in beekeeping.

#### INFORMATION ABOUT 'BEETALK'

Planned Publication Dates: March 2005, June 2005, September 2005, December 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
Wed 30th Mar	7.30pm	Hill Crest Tea Rooms		Annual Dinner
Sun 24th Apr	2.30pm	Holden Clough	One of our own	Preparing to receive Queen cells
Sun 22nd May	2.30pm	Mr & Mrs Brian Jackson's	lan Molyneax	Shook Swarms
Sun 20th Jun.	1pm	Towneley Hall	Everyone	Annual Open Day

This will be held at the Hillcrest Tea Rooms in Mitton ANNUAL DINNER on Wednesday 30th March. 7pm for 7.30pm. Please let John Zamorski know if you are going and remember there is only room for about thirty The restaurant is now licensed so we are no longer people.

able to take our own drinks

#### MAKE A NOTE - NOW!

The rates for Bee Disease Insurance (B.D.I.) have been increased and the new amounts are shown on Page 18.

The new insurance fee should be included when you pay your subscription which WAS due at the AGM on November 3rd. Your third party liability insurance is a part of your subscription. PLEASE NOTE you are not covered until your subscription is paid 

## 🥓 Scrapings 🦫

#### WHAT ARE SUPERS?

Supers are wooden boxes that have no top or bottom. Supers are stacked one on top of another as needed when the bee's population or honey storage requirements grow in size. A "standard" hive has a bottom floor, one or more supers that act as a hive body for the brood nest, usually one to several supers for honey storage and a cover for the hive.

#### WHY ARE HIVES PAINTED WHITE?

Actually, not all beekeepers paint their hives white. A lot do, and this is to help the bees in keeping the hive cooler in summer, especially if the hive is located in direct sun during the heat of the day. White (or light colours) have also been proven to be colours bees don't seem to mind. Some beekeepers in colder areas stain or paint their hives a darker colour to help the bees keep the hives warmer in the early spring when they start raising brood. Commercial beekeepers often use whatever light coloured paint they can find on sale. Light blues, yellows and greens are not uncommon.

## HOW DO BEES KEEP THEIR HIVE AT A CONSTANT 93-95 F?

Honey bees do this in several ways. As the temperature rises inside the hive due to warm weather, they will ventilate their hive by having some bees create an increase in air flow through the hive. The bees do this by lining up in one direction into the hive and back out again, and fanning their wings. This creates an intentional draught through the hive that keeps temperatures down. Should the weather get hotter some of the bees will then collect water, placing these drops of water in cells and spreading thin sheets of water between their mandibles.

The bee's fan-current evaporates the water, lowering the temperature even more (and you didn't think bees knew about air conditioning!). During cooler weather and winter the bees will actually "cluster", creating a ball shape that is hollow with the queen in the middle. The bees take turns eating honey and vibrating as they move through the cluster wall. The heat given off by calories being burned in the process warms the cluster. However, during the dead of winter when there is no brood being raised the temperature does in fact fall below the 93-95° range to about 85° Fahrenheit.

#### WHY A DOT ON THE QUEEN?

Most suppliers of queen bees will mark the queens they ship to you with a coloured dot of paint on the top of the thorax for a very small fee This coloured dot not only helps you quickly find the queen among the other bees in the hive should you need to, but will also signify what year the queen was introduced into the hive. Queen breeders use a colour numbering system so that queens marked with blue indicate years ending in 0 or 5, white a 1 or 6, yellow a 2 or 7, red a 3 or 8 and green for years ending in 4 or 9.

#### 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.



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## WHY NOT HAVE A GO AT HOME BREWING?



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