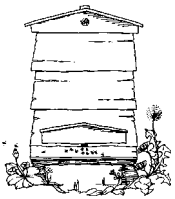

Bee Talk

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The Lancashire & North West Beekeepers Association
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What's in this month's Beetalk

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Editorial

March 2002

HAPPY NEW YEAR

A new Year in front of us for our favourite hobby of Bee Keeping. You might notice that Michael has used a yellow paper for our front cover, this being the -Queen Colour- for the year 2002. So all your new queens this year will be marked yellow if you wish to be 'With it'. If like me you are a blind old bat, white will be quite good enough.

You might also note that this booklet contains sixteen pages - Phew! - the reason is that we have so much good reading to put before you and Arthur got a bit carried away.

COMMITTEE MEETING NOTES

At the committee meeting in January, there was strong feelings that the raw beginner should be better catered for at our monthly meetings.

In future at *all* our meetings it is intended that a hive will be available to be opened and inspected with a 'What, why, and where' commentary of all that is going on.

If the majority wish to see the hive opened, then the speaker will just have to go along and assist with the demo - poor man (or woman)! Anyway he who pays the piper calls the tune. If on the other hand some wish to hear the speaker then we shall have two meetings as it were.

We will just have to see how it pans out. Protective clothing will be necessary at all meetings. A sealed plastic bag (a bin liner will do) in the boot of the car, would be following the advice on Bee Stings see Scrapings page 16.

HOLDEN CLOUGH

We can at last get to the Ken Preedy Memorial Apiary at Holden Clough. Everyone is welcome to attend. Dates and roster of Duty Managers are listed on page l4 for your information. Do ring the Duty Manager on the day you wish to attend, so that you may be sure that there will be something going on. The weather has a lot to do with visits and the decisions can only be taken on the day.

BEING AVAILABLE

We need to make ourselves more obvious and more available to the general public. This point was also discussed at the January committee meeting. The message now is advertise, advertise, advertise.

A glaring example of our shortcomings in this direction, was demonstrated to me last week. When a Burnley lady, who wanted a fair quantity of beeswax, rang me. Her tale of woe started when she decided she wanted four or five pounds of beeswax to paint onto some very old wooden beams in her home.

She, reasonably enough, thought a beekeeper would be the person to supply beeswax. She tried Yellow Pages and the library but to no avail. Eventually she obtained a phone number for somewhere in the Midlands (I think it must have been Thornes). They gave her a phone number for Manchester, who, in turn, gave her a phone number in the Wigan area. The Wigan contact suggested Judith's phone number in Fence. At last back home, what a long trail!

PUBLICITY

At he January committee meeting it was decided to appoint Barry Mellers to make contact with the local newspapers to see if he could obtain free publicity. (Too late of course for the lady at Burnley).

We have left the name of our organisation, the names and phone numbers of our Chairman, Vice Chairman, Secretary and Treasurer, with the library at Nelson and intend to do the same at Colne and Burnley. If you can put the message around in your area do so. You have permission to use the names and phone numbers of the principle officers, but not their addresses

WHAT A CLOWN!

When I first heard the news, and thought of that headline, there was an unprintable adjective describing this particular clown, I leave that to your imagination.

SO WHO IS THIS CLOWN?

I am told that he is not a member of the Devon Bee Keepers Association but is a member of the Bee Farmers (appropriate initials!) who has some 150 colonies in several apiaries spread between Hartland Point in north Devon and Launceston in Cornwall. Like all of us he has had to treat for varroa but unlike the sensible readers of this journal his treatment took the form of putting Bayvarol strips in the entrance of the hive for the foraging bees to walk across one side of the strips and then he left the strips in place for a year before replacing them!

THE RESISTANT ONES

It is well known that the mite family are very good at adapting themselves to whichever acaricidal treatment is meant to control them. They do this most easily if they are given a prolonged treatment with a low dosage of the acaricide so that selection takes place and the mites most affected are killed leaving the more resistant ones to reproduce.

BAYVORAL STRIPS

That is why the instructions which come with Bayvarol tell you to treat for six weeks and then remove the strips. Then for the rest of the year there is no selection pressure and the mites remain susceptible to the next treatment, except for those belonging to the B . . . . Clown in north Devon. Apistan has similar instructions for the same reason, and the advice also appears in the MAFF/CSL leaflet Managing Varroa with an explanation.

Readers will know that misuse of acaricides has resulted in the widespread problem of resistant varroa initially in Italy, more recently in France, the USA and elsewhere. All arising from the failure to follow the maker's instructions, and now we have the same problem in Devon for the same reason.

SO NOW WHAT?

Our Regional Bee Inspector and his team have done well to pick up the problem, and for the moment we must wait while they check as well as they can do at this time of the year, a problem which was first identified at the end of August.

PRELIMINARY TESTS

Small-scale preliminary tests suggest that the problem may not yet have spread in which case we must hope that it will be contained, by the standstill order, and by treatment with a specially licensed alternative.

We shall see whether this flagrant failure to follow the instructions results in a prosecution by the Veterinary Medicines Directorate, as we expect when a farmer kills bees by misusing spray treatments. But Medwin Bew tells me that Bee Inspectors come across many cases of beekeepers misusing strips, including YOU?

What can you do?
Consider testing some of your own bees (see the advice from the National Bee Unit). Be careful to follow the instructions yourself, it is to everyone's advantage that the easy-to-use and very effective strips continue to do their job well. We could easily find ourselves like the French beekeepers with no simple and reliable varroa treatment.

WHAT HAPPENS NEXT?

The press release which gave this news also tells us that the NBU estimate that there about 1,900 beekeepers in Devon managing about 12,000 colonies. The DBKA now has a membership of about 600, how do the others keep themselves informed? What can we do to ensure that the majority of Devon beekeepers are not so ignorant of developments that they make mistakes as has happened here?

Co-incidentally the Executive will be meeting at about the time you receive this magazine to consider a new form of cheaper County membership, perhaps this will encourage the missing 1300 to join us. But if they won't read the instructions on the maker's leaflet then perhaps I am over optimistic in thinking that they will read our BEEKEEPING journal.

From the Devon Beekeepers Association journal "BEEKEEPING"

HONEY BEE

Many hold the view that honeybees lack intelligence and Therefore can only respond to stimuli. At first sight the differences between intelligence and instinct may appear to be clear-cut. We equate intelligence with understanding and the use of knowledge. Instinct guides organisms independently of reason or experience.

AT THE HIVE ENTRANCE

At the entrance to the beehive a number of honeybees perform guard duty. Their function is to protect the hive and it's store of food against predators. All comers are inspected and on the basis of whether they are friend or foe, the visitor is admitted, or sent packing. Intelligence? On the other hand, drones are kicked out in autumn. It would seem that the honeybee is in this case acting instinctively.

PHEROMONES

A pheromone is a chemical substance produced by an individual and influences the behaviour of another. Over 40 such pheromones have been identified in the case of the honeybee. The most widely known of these is the queen-bee-substance, which is responsible for stability in the hive. When in short supply as with an ageing queen or in an overcrowded colony, the urge to swarm is manifest. Reaction to a pheromone is automatic. To some extent, there is an analogy between pheromones in a colony of honeybees and hormones in human beings, which are carried in our blood system to various organs in our body. We have no control over the response to hormones, but can become aware when there is a malfunction

COMB BUILDING

The catenarian "wild" comb with it's hexagonal wax cells is a marvel of construction. Mathematical studies have shown that it is most economical in terms of the use of space and materials. We have no evidence that older bees show younger bees how to build comb. So we conclude that this is indeed an inherited trait and that honeybees build comb instinctively. No doubt in the distant past honeybees developed the process and that this became heritable.

EGG LAYING AND BROOD REARING

The laying of eggs by the queen is a direct automatic response to feeding. When feeding ceases, as in preparation for swarming, egg laying ceases. Drones are produced from unfertilised eggs. How this arises is still a matter for debate. Does the queen make a decision -an intelligent action -about fertilising an egg with a sperm from her spermatheca, or does fertilisation take place in response to stimuli -like the width of a wax cell -an automatic response? Once laid, subsequent nursing of the egg, through larval and pupal stages to adult beehood is done instinctively by nurse bees.

HEARING

While honeybees do not have ears - that is to say they do not hear as we do - they respond to noise. They are sensitive to vibrations and respond to these. This response would appear to be automatic.

FORAGING AND THE DANCE

When a worker bee discovers a rich source of pollen or nectar, she is able to recruit other workers to it. She informs her sisters of the distance to the food source, the direction in which it lies by means of the waggle dance.

So the collection of information on food sources and the communication of this information are indeed intellectual activities of the honeybee.

SWARMS AND SWARMING

Honeybees have two methods of reproduction. One is sexual reproduction in the provision of new individuals, and the other is colony reproduction when the colony splits and about half of it issues as a swarm. There are now two colonies and by this means honeybees enhance their survival, as they have thus been doing for millions of years. The immediate responses to lack of queen-bee substance, inhibits the feeding of the queen ceases, so that she becomes light enough to fly,

The swarm that emerges does not travel far and soon settles. It is as if the honeybees realised that the instinctive emergence that they have just made is not going to get them very far. There is an urgent need to pause now and plan ahead carefully.

What follows are highly intelligent actions.

For further reading, see 'A Swarm Of Bees' on Page 10

KEEPING IN TOUCH. . . .*With Albert J Morris*

Continued from last issue where Albert and his new-found friend, Cornish man and beekeeper, Hedley Tonkin, go in search of feral colonies and 'escaped' swarms in an area of Cornwall in 1946.

NANTRELEW

As we removed many feral colonies and swarms from the village of Ponsanooth, Hedley was informed by the estate agent, that there was a colony, the removal of which was needed before the sale of the property could go ahead. It was established in the thatch of a bungalow roof in a small village called Nantrelew and after we had searched for the place for some time without success, Hedley asked a woman if she could tell us where to find the place.

A CORNISHMAN SHOULD KNOW

She asked him if he was a Cornishman and he replied with noticeable pride that he was. She then told him that he ought to know where to find Nantrelew, as the name itself, like all Cornish names, had within it that information. She then went on to say that the word Nantrelew told of the place by the stream where it bends by the woody banks. Armed with this information, we soon found it .

ON YOUR BIKE

There was a longtime established colony less than a mile from Hedley's home, of which he knew nothing and it was by coincidence that I learned of it from the manager of the Oate's Hotel in Redruth. I phoned Hedley and told him where it was and he arrived on his motorbike - our usual mode of transport.

Originally the swarming bees had found this site through a square overflow hole half way up a water tower and the bees had built their comb in a cavity formed by the wood surrounding the tank and the access doors. These could be reached by an iron ladder, set into the wall of the water tower of this, a raincoat factory.

THE BIGGEST EVER

It must have been the biggest colony either of us had ever seen. There were five combs which from side to side were some 20 inches and the depth of them was over three feet. Removing them was an easy task as there was little to which they were attached.

I had a wonderful time bee hunting in Cornwall but later found that Cornish bees brought to Lancashire, didn't work like our own home bred bees. When there were coldish spells, our bees were flying profusely but Cornish bees, used to warmer weather, mainly stayed in their hives. However after many generations, they eventually became acclimatised to our cooler weather.
Regards to All.

Albert

WE HAD ONE OF THOSE . . !

but we threw ours away

It looks as though it has feet. Could it be a prototype robot? Perhaps something in which to transport a Queen bee? A couple of clues. It's not more than an inch and a half high. It cost 3d (In old money!). It dates from about 1930. Albert Morris will know all about this (Again!!) The answer is on page 9.

CONFESSIONS OF A BEEKEEPER

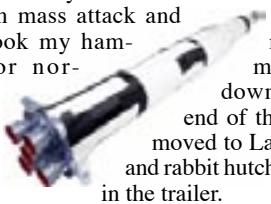
Happy B... Birthday!!

I was always terrified of bees, wasps and the like. So where on earth my husband got the idea from that I wanted to keep bees I shall never know. Imagine my distress, therefore, on seeing, one sunny May morning in our Essex garden, a hive (mercifully empty) and my smiling family standing by and singing "Happy Birthday ---"

I was appalled, but presumably said 'thank you' (instead of 'get that thing out of here now') and so was dragged, not even kicking and screaming, into the world of beekeeping, where a growing fascination with bees, meeting some lovely people and a love of honey have kept me ever since.

ASTRONAUT'S OUTFIT

I dutifully acquired a swarm, a book and an astronaut's outfit and, when no-one was looking, crept down the garden to inspect progress from hive to hive.



Gradually I realised that the bees weren't Hell bent on mass attack and they presumably took my hammering heartbeat for normal, so we settled down together. At the end of that first season, we moved to Lancashire with hive and rabbit hutch cosily side by side in the trailer.

GOOD OLD JACK !

I contacted the local Association which materialized as Jack Armistead, a great helper and friend ever since, Though patently at a loss to understand anyone so paralysed by fear in the presence of even one stray bee! Janet Taylor was another early beekeeping friend, who seamed totally fearless and oblivious to stings, but with whom I shared a few exciting swarm catching escapades, and whose apiary eventually ended up in our garden when she moved away, leaving me with a mixture of smith and national hives and various incompatible bits of kit.

THE FIRST STING

A few years ago, a hole chewed in my veil by the dog and inadequately repaired, allowed a bee to sting me, the ultimate horror! I swelled up alarmingly but I survived. (J. A. said 'If you'd been stung more at the beginning you'd be immune by now!')

HEAD TO TOE

So now I cover myself from head to toe on the grounds of good medical sense rather than cowardice and am prepared to meet any bee or bees that come along.(however seeing people at beekeeping meetings round hives, clad in shorts, still makes me feel somehow inadequate!).

Now I actually enjoy working with my bees, and I am happiest when quietly on my own, chatting away to the bees - - I bet I'm not the only one to do that.

KNIGHT IN ARMOUR

I'm sure I still do things wrong, but the bees don't seem to suffer. Swarm catching in local gardens must bring out the show off in me, but haven't we all felt like Knights to the rescue when we arrive, white-clad and veiled, skep at the ready, to rid the garden of this menace while the occupants peer from the kitchen window in admiration and gratitude?

BEE KEEPING SUPPLIES

The difficulties of getting supplies in our area twenty five years ago led me to start an agency for Thornes equipment which has resulted in (no, not making a lot of money!) but meeting a lot of local beekeepers, not to mention keeping fit running up the stairs to the attic where I try to keep a good range of the things people are most likely to need.

FOOT AND MOUTH

Now we've emerged from last year's isolation due to the foot and mouth outbreak, the "shop" is open again (although business did carry on with assignations at the bottom of our drive. Any neighbours watching might have wondered what was changing hands there!)

I hope to be at as many of this year's meetings as possible, and not just for business. Those monthly gatherings in Spring and Summer, in such varied and interesting venues among like-minded and friendly people are treats to look forward to. My thanks to those who work so hard to keep the association flourishing.

Judith.

THE ITALIAN CONNECTION

6th Febbraio
Salvi tutti da noi.

SCOTCH MIST

As I write this I'm looking out of the window at a very Scottish looking sort of day, mist down in the valley and heavy rain bouncing off the barracca roof and a small river running down our track and past the font door. But, strange as it sounds, we need it! Since the middle of November this is only our fifth or sixth wet day.

In fact our winter (so far) has been very kind to us. From the third week in November until the second week in January the temperature never rose above 0 deg. c. falling to minus 10deg. c. at night, a big freeze for eight weeks.

Apart from a 100 kph. blizzard of fine snow that took the tiles off the barracca roof, blew down one of our apricot trees and left deep drifts on all the roads and tracks, we have enjoyed clear blue skies and at times quite warm sun - even able to eat our lunch out doors now and again. A far cry from most of the low part of Italy.

TWO CAR POLLUTION

From the Po valley in the North down as far as Rome, have come constant reports of heavy smog. The results being full hospitals and then, in all the big towns and cities a ban on cars, as in previous years, using the number plates ending with odd numbers one day and even numbers the next. Italians get around this by owning two cars, one with odd and one with evens plates, so air pollution problems don't change at all! Quite often we can look towards Bardi and Varsi at the end of the valley and view a sea of mist and fog that never reaches this far up.

OUTDOOR WORK

With all of this dry weather we have spent our Winter outdoors and unlike last Winter have managed to keep ahead of most of our work. Now with an extra hovel to look after has come extra work - some of it a little unsavoury to write about - like finding the septic tank and cleaning it out, (should make some of our meadows grow greener) to window and door painting, extra gardens to clear and plant, fence posts to sharpen and new fences to erect. All this on top of our normal work on the land.

RUN RABBIT RUN

We have built a large out door rabbit runs built for our sixty rabbits, clearing boundaries, some building work on hovel No. 1. and the wood cutting has started in earnest, the mountains alive with the sound of chainsaws once again, heavy but important work as it means that we will be warm next Winter.

ACTIVE BEES

A good Winter for bees, they have been active from the first week in January getting out at midday for cleansing flights, one or two bringing back mysterious pollen lodes that we couldn't source. As far as we could see nothing in flower anywhere around us but obviously the bees had found something. Very pale yellow, perhaps a hellebore or two in a sheltered bit of woods.

CATKINS

Now as I write we have our first primroses out, lots of hellebores along with masses of hazel, a few early coltsfoot and the willows showing signs of life although they are normally flowering by now. For the last few weeks all the hives have been busy by mid morning and it has been good to see the amount of pollen brought home mostly from the hazel catkins.

In Colne we had very few hazel around and so never realised how important an early source of pollen they are. Here they are almost a weed tree, every hedgerow is full of them and along with the blackthorn seem to take over derelict and neglected spaces very quickly. The nuts are good to eat, keeps the mice, rats, squirrels and ghiri alive all winter who in return bury or stash them and are responsible for the next batch or clump growing

WHAT'S A GHIRI?

When we first arrived in Geminiana we had a family of ghiri, a smaller version of the grey squirrel with big eyes and nocturnal habits, living in our roof space, doing clog dances all night long above our bedroom and who had to be relocated when we put the new roof on, they did not move very far, next door in fact and we still see them in summer in the walnut trees tucking into the green unripe nuts. When we moved them out we found piles and piles of plunder, hazel nuts, walnuts, corn cobs and other grains so now we know who is mainly responsible for planting the hazels. Our bees have much to thank them for!

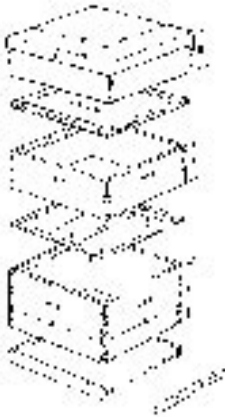
A DECENT START FOR VARROA

All winter we have been monitoring the screens below the hives and yes even with the Thymol and Oxalic acid treatments have found one or two Varroa and know with the early start to the season for the bees the Varroa will also be having a decent start as well. Along with Bee Talk arrived the B.B.K.A. news for December and your British fluvalinate Varroa seemed to be the main talking points. Bayvarol and Apistan I am sure will be a thing of the past. One of my first letters to Bee Talk was on just this subject as in Italy mite resistance to chemicals was noticed over 15 years ago. But I won't go on about it again, perhaps next time! Now it will soon be Spring again and another season in full swing, this year we have promised ourselves to be ahead more supers and foundation ready, honest! Hope your winter has been as kind to your bees as our has. Looking forward to a good year. *Saluti. Jake and Jeni.*

BEE SPACE

In 1851, probably the biggest event in beekeeping occurred when L. L. Langstroth patented his Beehive, which promoted the use of what he called bee space.

He was not the first, however, to see that there was something to how honeybees use space.



When looking at beehives made before 1851 it is obvious that some beekeepers had already figured out the bee space concept. The problem was that either they didn't have the whole picture, or didn't realize what they had before them. So their discoveries went unnoticed by most of the beekeeping world.

These were the beekeepers that helped Langstroth see the whole picture of what bee space was. Langstroth came to the conclusion that the concept of bee space needed to be used around the whole frame and not just for the top and bottom bars. His biggest contribution, in our opinion, was not in the actual discovery itself, but his promotion of it.

This concept started a whole revolution of new ideas in beekeeping because now a hive could be opened, the frames manipulated, and observations made of the mysteries inside without damaging the colony. Today, bee space is taken for granted because most of us really have never known what it is like to keep bees in skeps.

Bee space has been accepted over the years to be an open area measuring no less than a $^{1}/_{4}$ inch and no larger than $^{3}/_{8}$ inch. In human terms think of bee space like human space, for example the size of a hallway, or doorway in a house. If an open space between hive parts is less than $^{1}/_{4}$ inch, bees will usually fill it with propolis. If more than $^{3}/_{8}$ inch the bess will fill it with brace comb. Beekeepers normally notice these violations when trying to separate the hive bodies and pull frames from them.
Bee Culture - March 2001

CASTS: APPRECIATION AND PREVENTION.

MAJOR PROBLEMS

A colony which issues a prime swarm normally does not suffer any ill effects other than a temporary cessation of brood rearing and a decrease in nectar collection. The issuing of one or more casts however is a different matter and is the result of major problems existing within the nest. The nature of these will be dealt with in more detail in the following chapters.

Large swarms which occur early in the season have a much greater chance of surviving through the winter than smaller or later versions. Never the less, the survival rate of wild swarms within the temperate zones has been calculated at well under thirty percent. Those that do make it through the first winter do no more than double their survival chances. The population of the first cast to emerge may be as high as fifty or sixty percent of that of the prime swarm. Particularly large casts can, and often are, mistaken for prime swarms. Second and subsequent casts are progressively much smaller,

WHY COLONIES ISSUE CASTS

At some point during the life of a colony congestion, the lack of queen substance, etc., may become evident. These "imbalances" are usually corrected when swarming takes place and by this act colony life returns to normality.

There are however occasions when abnormality, in the form of imbalances, will prevail. These imbalances may manifest themselves in the form of overpopulation, low food stocks or a lack of some other resource. There is also a distinct correlation between the amount of sealed brood and the number of casts that a colony will throw. A great deal is dependent on how much the colony's adult population and emerging brood can support.

MULTIPLE CASTS

Any one of the imbalances can threaten the existence of the colony and it must take steps to rectify them. It does so by issuing a cast, the first virgin queen to hatch being forced out at its head. If that still does not rectify the situation, a second or even a third cast may issue.

Most researchers assume that the issuing of casts is a regularity factor, the objective being to control the number of mouths that the parent colony must feed. Put simply, the issuing of casts is a matter of self preservation for the parent colony.

HOW THEY ARE FORMED

When a prime swarm departs, most of the queen cells will hatch within a week or so. If the colony is balanced, the first queen to emerge is allowed to kill her un-hatched rivals, mate and head up the colony. On occasion, more than one queen may hatch at the same time and although they may tolerate each other for a few hours more often than not open warfare is immediate. Sometimes workers intervene, balling one of the protagonists.

PIPING

A newly hatched queen will announce her presence by "piping" and releasing pheromones. Piping is a series of pulsed, high pitched sounds produced by the queen pressing her thorax against the comb and exercising her flight muscles without actually opening her wings. These "tunes" can occur at other times but are most frequent when the first virgin queen emerges. As it is carried out on the comb, the vibrations are picked up by the tarsal pads on the legs of workers.

If imbalances exist and the colony is predisposed to issue a cast, these vibrations, coupled with the new Queen's presence has a stimulating effect on the workers. They become agitated and perform dorsoventral abdominal vibrations, (DVAV).

THE DANCES

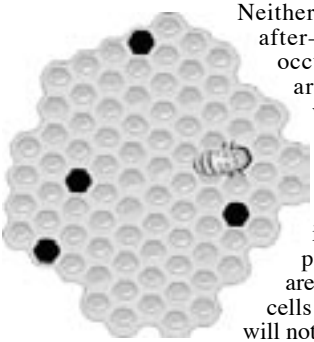
These "dances" may be carried out on the queen herself and/or on queen cells. The net results are
(a) to force a queen out with a cast and
(b) to prevent emerging queens from hatching.
(The un-hatched queens are imprisoned in their cells and thus mortal combat between them is prevented).

THE PIPER IS COMING

It is often the case that workers will physically prevent new queens from emerging from their uncapped cells until such time as a cast has issued. Second or subsequent casts follow a similar procedure as that of first casts. Mature queens which are still in their cells but ready to hatch may also pipe. This serves to inform workers and any emerged queen(s) of the imminent release of the piper. This type of communication is important to the colony as it will not swarm or issue a cast if there are no remaining viable queen cells or a queen within the nest. The piper provides an 'all clear' to a potential swarm or cast.

PREVENTION.

Before we get into prevention, it is important to recognise the signs of a recently swarmed colony. They are the absence of eggs and the presence of recently hatched queen cells.



Neither swarming nor after-swarming will occur unless there are one or more viable queen cells within the colony there can be any number of loose virgins in the colony but provided there are no viable queen cells after-swarming will not occur

If a swarm occurred only recently, i.e. within the past couple of days, it should be relatively easy to deal with. In the beekeepers favour is the fact that virgin queens will not have matured sufficiently to emerge from their cells.

No chances should be taken however and the hive opened immediately and gone through thoroughly to check there are no hatchings. If negative, a good queen cell should be selected and the frame marked for easy identification. Do not jar or shake it in any way for fear of killing the inmate, she is extremely delicate. Search the marked frame and all other brood frames for other queen cells. Destroy them all bar the one selected. Close the hive and leave it alone for at least three weeks by which time the new queen will have hatched and mated.

TIME LAPSE

If, however, there has been considerable lapse of time since swarming took place or, if during a colony inspection it is found to have swarmed, a different approach must be taken. (Bear in mind that the combination of a viable queen cell and one or more hatched virgins is a recipe for after-swarms. So too is more than one viable queen cell).

DESTROY THE QUEEN CELLS

The beekeeper must ensure that there are newly emerged queens present and then destroy all queen cells. It may not matter if you cannot find any emerged queens. Once you are certain you have noted all the sealed queen cells, you can release one or two of the occupants by removing the tip of the cells with a sharp knife.

Then every remaining queen cell can and must be destroyed. Providing there is at least one, the number of released queens is not important, fighting will eliminate all but one. Do not destroy all the queen cells until you are absolutely certain that there are young queens in the hive.

OTHER POINTS.

Sometimes a beekeeper will open the hive to find workers restraining virgin Queens from emerging from their cells. (They can be seen in groups covering the base of the decapped queen cells). The disturbance created by the beekeeper may upset the workers at their task and allow some young queen to escape from their cells. To prevent the possibility of casts being issued, the beekeeper must take immediate action using the method above, i.e. destroy every Queen cell.

ARTIFICIAL SWARM

If one of your colonies has swarmed and you know which hive it originated from, you should capture it and deal with it in exactly the same manner as you would if creating an artificial swarm. In short, open the swarmed hive, destroy all but one good queen cell, close the hive, move it about two feet to one side and leave it alone for three weeks.

Set up a new hive on the original site, dump the captured swarm into it and provide it with a gallon of one to one syrup.

If you discover a swarm in your apiary but do not know it's origin, it's probably your own. If you have only one or two hives they should be gone through to ascertain which of them issued the swarm and the colony can then be dealt with by whichever of the above methods is appropriate.

WE HAD ONE OF THOSE . . .
Yes, it's a gas mantle. Placed on the gas fitting to give a bright, white, incandescent light. But look at the price ! 3d in 1930. That must have made gas mantles more expensive, in real terms, than modern electric light bulbs. No wonder Dad said "Be careful with that taper!" When you lit your taper from the gas mantle before heading down the back yard to the outdoor toilet - otherwise known as the 'Petty'.

THE SWARM

Next time a swarm of bees alights in your shrubbery, pause before you call out pest control. For what appears to be an angry multitude of aggressive stinging machines, may in fact represent the best example of harmonious decision-making known to man.

WHO DECIDES?

What the swarm is doing, is deciding exactly where to form a new colony. But there are no leaders involved—the old queen that goes with them takes no part in the decision. The worker bees scout the area, locate all suitable nest sites, and reach a consensus among themselves as to which one is the best. When they have decided, the entire swarm suddenly lifts off and flies to the new site.

How is the decision made? These tiny minded insects manage to agree on the best quality nest site in the area, without any single bee having to assess the entire situation, or change its mind about which site is best.

A swarm of honey bees consists of several thousand workers and a single queen. They emerge from the colony in a cloud, and soon settle on a nearby branch to begin their conference. The environs are scoured for potential nest sites by scout bees. "Scout bees represent about three per cent of the colony," explains Prof. Seeley. "They tend to be the oldest workers in the swarm. You might think of them as the 'elders'."

COMMUNICATIONS

When a scout bee has found a site, it returns to the swarm and communicates its findings to the other bees, by way of the famous "waggle" dance.

The direction and length of the dance provide information about how far away and in what direction the scout has found a nest site. And if the site is very good, the bee will dance harder, and for longer, inciting other scout bees to go and inspect this excellent home. Experiments with artificial nest sites suggest that the swarm finds the available sites and consistently chooses the best one.

INDIVIDUAL NUMBERS

Prof. Seeley and Buhrman used swarms in which every individual bee was marked with a number, and they video-taped the entire process. "What's marvellous about bees is that the decision making is quite transparent," says Prof. Seeley.

VIDEO TAPE

From the video-tape, they could see which bees danced for which site, and monitor the popularity of each site, relative to the site that the swarm eventually flew to.

As they expected, at first there are bees dancing for different sites. Then one site grows in popularity. More and more bees dance for that site, until eventually all the scouts are dancing for the same site. As soon as that happens, the swarm flies. To understand how the bees always choose the best site, you need to track the behaviour of individual scouts.

NO CHANGE OF MIND

By observing video-tape, the scientists watched bees who began dancing for a site that was not eventually chosen. They discovered that these bees do not later change their minds and convert to the best site. They simply stop dancing.

But the real surprise came when they looked at bees who began dancing for the chosen site. Many of these bees also stopped dancing before a decision was made.

So the consensus is not reached because the bees who have found the best site never shut up. Instead, a scout bee is programmed to do its dance for about a day and then to stop. "

The decision is made by a process of differential recruitment," says Prof Seeley. More and more bees visit the better site, because they have seen other bees dancing so hard for it, until all the bees left dancing are just dancing for one site. "This is a very friendly way of reaching agreement," Prof Seeley adds. "The scout bees do not compete aggressively with each other."

WE WRANGLE, DEBATE & ARGUE

As humans, we are not very good at making group decisions. We wrangle, debate, argue, and persuade, but we usually end up resorting to a voting system, in which some people get what they want and others have to go along with it.

"Bees gain a consensus without any individual changing its mind or losing," says Seeley. "This is a remarkable system to emerge from some very small brained animals." Perhaps we ourselves have something to learn from the way it works.

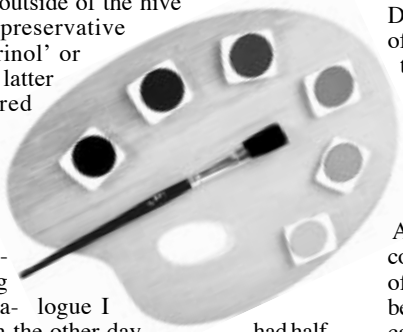
Lynn Dicks Daily Telegraph 15/9/99

PAINTING BEEHIVES?

CREOSOTE AGAIN

Read most British beekeeping books and they tell you that 'bare wood is the best'. Bare wood Breathes, so they say, and permits condensation on the inside of the hive to escape.

Some writers concede that you might, with advantage, treat the outside of the hive with a wood preservative such as 'Cuprinol' or creosote, the latter to be well aired before use.



In other countries hives are routinely painted. A Belgian beekeeping equipment catalogue I looked through the other day had half a page of products for painting beehives.

DOES WOOD BREATHE?

Along the grain, it breathes reasonably well - but who in their right mind would make a hive with the grain running from inside to out? Across the grain, which is the direction that water vapour would have to travel to rid the hive of condensation, is it a different matter.

Then, the route for an individual molecule of water to make the journey from inside to outside is long and tortuous and there is no way that this mechanism could deal with the relatively large quantities of water involved in condensation. You rarely see beads of water on bare wood because it has been absorbed into the surface layers.

THE THEORY

So the 'Breathing wood' theory does not work (I nearly said 'does not hold water') but when you look at the physics of the situation it gets worse. Dry wood is quite a good insulator, due mainly to the air trapped in the cells, and this helps keep the hive warm.

However, when the hive wall gets wet, with rain from the outside and condensation from the inside, the insulating performance of the wood deteriorates, the hive wall becomes cooler and still more condensation occurs.

WHEN THE RAIN STOPS

Even when the rain has stopped and the sun is shining on the hive there are still problems! Before the sun can warm the wall it has to evaporate all the water that has soaked into the wood and that takes a whole lot of energy i.e. sunshine.

THE PROBLEM IS NOT OVER YET

Do you remember something called 'latent heat of vaporisation'? To evaporate water takes over 5 times the energy required to raise the temperature of the same amount of water from 0˚to 1OO˚c ! As a result the hive stays cool for longer and bee activity is inhibited.

EXPANSION AND CONTRACTION

As I am sure you all know, wood expands and contracts as its moisture content changes. This lack of dimensional stability causes the hive wall to bend and twist and, if these differential movements cannot be accommodated by the structure, splits will develop. The same movements can cause cupping of the wood, which gradually loosens nails and can even spring glued joints.

The above arguments all highlight the importance of keeping the wood in beehives dry by painting or the application of some other wood treatment. It also seems to me that it is entirely logical to paint hives both inside and out, a suggestion that many will regard as the ultimate beekeeping heresy.

PAINTING INSIDE

You obviously paint the outside to prevent rain or dew penetrating the wood (and to reduce the denaturing effects of sunlight on bare wood), but why paint them inside, you might ask? Well, I can think of three good reasons.

1 So that any condensation that forms on the inside wall does not soak into the wood and cause loss of insulation.

2 If condensation is heavy, droplets of water will run down the wall onto the sloping floor of the hive and drain out.

3 To avoid differential moisture content of the inside and outside surfaces of the wood, which will cause the wood to bend.

Continued on Page 12

GET UP TO DATE

Having, in my time, done my share of outside house decorating, I can understand the reluctance of people to paint hives with traditional oil-based gloss paint. Flaking and blistering paint, that requires to be rubbed down or burnt off every few years, does not bear contemplation. But, come on, get up to date! Paint technology has made great advances over recent years and microporous paints and varnishes are now readily available.

MICROPOROUS

What does 'microporous' mean? It means that the paint film is permeable to water vapour but not to liquid water - in other words it is breathable, rather like modern waterproof fabrics such as 'Gortex'.

Old-fashioned, oil-based (nonporous) paints flaked and blistered because any small flaw allowed water to get trapped behind the paint film. Then, when the sun heated the surface, the inevitable happened. Microporous paints let the moisture escape before it can do any harm. No paint lasts for ever and hives do need recoating after a few years but the only preparation that is required is a quick rub over with sandpaper and the application of a fresh coat.What of that old favourite, creosote? Yes, it does do a reasonable job; it preserves wood, early in its life it does have some waterproofing properties, it is breathable and it is cheap. However, recent research has shown that creosote is carcinogenic.

WOOD PRESERVATIVES

Although it may be safe enough in the open-air on garden fences, I would not contemplate using it on what, in effect, is a food container such as a beehive. Throughout its effective life, creosote releases vapour, albeit small amounts, but I would rather avoid any possible risk of contamination.Wood preservative treatments like 'Cuprinol -and a host of similar products, do not offer much in the way of waterproofing and are not particularly cheap.

So my vote goes to the microporous varnishes and paints which all the main paint companies now produce. Some of the most effective products are water-based, no solvent release (environmentally friendly) and quick to dry.

Editor's Note.
This seemed such a useful article that I went looking along the shelves of a DIY store where the range of paints and finishes was remarkable. I found Ronseal Quick Drying Woodstain and B&Q Exterior Woodstain Quick Dry, both of which meet the water-based and microporous criteria. Ronseal tell me that their product has not been tested for effect on bees but there is no reason to believe that it will affect them; they also produce "Fencelife" which has been tested and is suitable for beehives. Similarly B&Q's suppliers say that this is a waterbased acrylic product which contains no insecticide or preservative but has not been tested on bees. Both seem very easy to use and give a pleasant finish,
reprinted from
The Welsh Beekeeper, thanks to BEES

HONEY RECIPES

OUT WITH THE SUGAR!

There is not much point in baking a cake with wholefood ingredients, only to forget your good intentions and smother it with sugary sweet icing,

So here is a suggestion for cake toppings and fillings which are slightly more wholesome, and which will add an interesting and original taste to your home-baking.

From an old honey recipe book

HONEY ICING

1/3 cup butter, softened
3/4 cup honey
1 tsp. Lemon or orange juice
Cream butter, beat in honey gradually, and add fruit juice.

FRUIT ICING

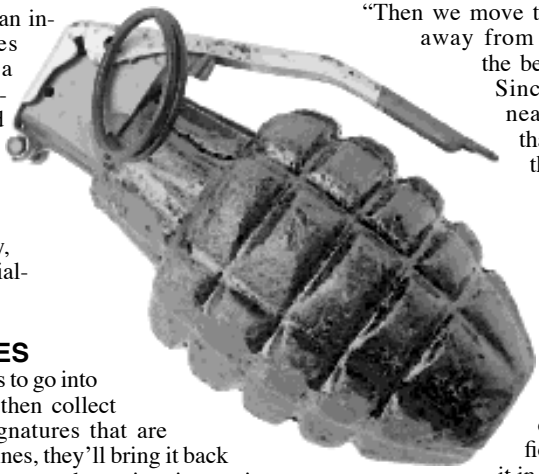
2 ripe bananas, peeled and chopped
1 tsp. lemon juice
2 dsp. oil
1/2 tsp. vanilla
1/4 tsp. salt
3/4 cup honey
Blend in blender at low speed.
Variations: For bananas, substitute 1 cup chopped dried apricots or peaches.

BEES AND EXPLOSIVES

FINDING EXPLOSIVES

University of Montana scientists have discovered that bees foraging for pollen and nectar pick up dust, soil and other particles on their bodies and bring them back to the hive.

Those particles can include explosives such as T.N.T. a primary ingredient in many land mines. "All land mines leak explosives into the environment," said Phil Rodacy, a land mine specialist at Sandia.



TESTING BEES

If you can get bees to go into that area they'll then collect the explosive signatures that are coming off the mines, they'll bring it back to the hive and we can detect it using various chemical sensors."

Bees bring pollen back to the hive on their back legs after a morning of foraging. "We're testing pollen, we're testing bees, we're testing honey, anything that may have a trace of TNT," said Sandia beekeeper Gary Bender. "And if everything works out with this project, it will be easy to deploy a box wherever you think land mines might be, and then you just look at the bees."

GREENHOUSE EXPERIMENTS

The researchers have set up a greenhouse experiment to study how plants incorporate explosive residue into their systems. Inside the greenhouse, they also are looking at how bumblebees deal with TNT-tainted plants. And Sandia has set up a field of land mines, minus the fuses.

"It allows us to observe the bees to see whether or not they're in the area," Rodacy said. "We can also take samples of the plants to see how much explosive is actually coming out of the mine and getting into the environment." A researcher moves the feeder further away from the hive. Ultimately, researchers hope to train the bees to actually go and find buried mines, sort of a game of "hive and go seek."

TRAINING BEES

So how do you train a bee? "We take a small feeder, place it near the bee hive and then get the bees used to going back and forth to that feeder," Rodacy said.

"Then we move that feeder farther and farther away from the hive, then cover it and the bees tend to follow that feeder. Since there's explosive crystals near the feeder, they associate that smell of the explosives with their food source." Sandia says its preliminary research looks promising.

THE PROJECT

"The project is at a stage where you could deploy bees in an area that you thought had explosives," Rodacy said. "If there were a high enough concentration of explosives in a field, you would be able to detect it in the hive."

The scientists plan at least two more years of testing, including a live land mine experiment next year. If all goes well, they hope to use bees for real

A BRANCH VISIT TO THORNES

This is going to be a cracking day out. We shall pick up from the Secure Car Park at Castle Cement at 8am and we need to know numbers ***BEFORE*** April 15th in order to book an appropriate sized coach.

The cost is £15 and you can take a picnic or use the catering facilities at Thornes.

Payments should be made as soon as possible but definitely before April 15th Cheques should be made payable to : L & NWBKA and sent to

Ken Gaiger,
2 Higham Rd,
Padiham,
Burnley BB12 9AP
phone 01282 778887

KEN PREEDY MEMORIAL APIARY

HOLDEN CLOUGH VISITS FOR 2002

Anyone wishing to help or just to watch, will be made most welcome. they should however contact the 'Duty Manager' on the day in question to find out what the situation is and times etc. Casual visits without making contact could prove to be a waste of time.

DUTY MANAGERS.

W Ainsworth	01282 614015	K Gaiger	01282 778887
M Birt	01254 814088	D Bush	01200 428152

SCHEDULE OF VISITS TO HOLDEN CLOUGH 2002. (EVERY TWO WEEKS)

DATE	DUTY MANAGER	DATE	DUTY MANAGER
March 31st	Bill Ainsworth	April 14th	Ken Gaiger
April 28th	M Birt	May 12th	David Bush
May 26th	Bill Ainsworth	June 9th	Ken Gaiger
June 23rd	Michael Birt	July 6th	David Bush

PROGRAMME OF EVENTS FOR 2002

Date	Time	Venue		Subject
Wed 20th March	7.30p	The Brewery Samlesbury	Bill Ainsworth	Welcome to a New Season (General Discussion)
Sun 21st April	2.30pm	Holden Clough	John Zamorski	Beginners & Preparation for a New Season
Sun 19th May	2.30pm	Brian Jackson's	Bill Ainsworth	Swarm Control & Easy Queen Rearing
Sun 16th June	1.00pm	Towneley Hall	John Zamorski	Open Day
Sat 13th July	8.00am	Messrs Thornes	Michael Birt	Branch Visit (See page 13)
Sun 18th Aug	2.30pm	Ken Gaiger's	Bee Inspector	Update on beekeeping
Sun 22nd Sept	2.30pm	Angela Moyle's	Barry Mellers	Honey Show Preparation
Sun 6th Oct	2.00pm	Castle Cement Works	Pauline Roberts	Honey Show & Auction
Wed 6th Nov	7.30pm	The Brewery Samlesbury	Michael Birt	AGM and Discussion

A FEW MORE DETAILS ABOUT THE MEETINGS

The first meeting is on March 20th at The Samlesbury Brewery. Bill Ainsworth will lead a general discussion about the new Season and what we would like to see The Blackburn and East Lancashire Branch doing and plan our strategy for the future. Please try to come along and have your say.

On Sunday 21st April at 2.30pm John Zamorski will be at Holden Clough to demonstrate the preparations for a new Season. This event is particularly directed towards beginners but there will be something there for everyone.

Brian Jackson will be our host on Sunday 19th May at 2.30pm when Bill Ainsworth will introduce the topic of swarm control and a very easy method of queen rearing for a backyard beekeeper.

Our Annual Open Day is at Towneley Hall in Burnley on Sunday 16th June starting at 1pm. It is a day when everyone should make a special effort to attend and spread the message to our visitors. Apart from all that it is a most enjoyable day out. Do check out page 13 for details of the

IT PAYS TO ADVERTISE!

Place and advert in BeeTalk and contact Beekeepers World Wide (At least two).
It also helps to pay postage costs for our little magazine

Full Page	£14
Half Page	£8

FROM THE TREASURER

The subscriptions for the year 2002 were due on November 1st. If your subscription is outstanding, could I ask you to pay as soon as possible in order to simplify administration.

The fee is unchanged at £11 per full member and £2 for each additional family member. Extra Bee Disease Insurance costs are:

UP TO	5 HIVES	£1.80
UP TO	10 HIVES	£4.20
UP TO	15 HIVES	£6.00
UP TO	20 HIVES	£7.20
UP TO	25 HIVES	£7.80

CHEQUES SHOULD BE MADE PAYABLE TO : L & N W B K A AND SENT TO KEN GAIGER, 2 HIGHAM RD, PADIHAM, BURNLEY BB12 9AP PHONE 01282 778887

INFORMATION ABOUT 'BEE TALK'

Planned publication dates :
Mid June 2002
Mid September 2002
Mid December 2002
Mid March 2003

Latest time for copy is the second week of the month prior to publication.

If you have any information, tidbits, articles or stories about beekeeping, please contact the editor :- Bill Ainsworth, 296 Scotland Road, Nelson, 'phone 01282 614015
e-mail:- bill@scotroad.free-online.co.uk or arthurbick@btinternet.com

Please don't worry about writing skills, between us we will knock it into shape.

Committee Members Approved at the AGM FOR THE YEAR 2001

Contact Details

Michael Birt	Chair	01254 814088	John Zamorski	Librarian	01200 427661
Bill Ainsworth	Vice Chair	01282 614015	David Bush	Member	01200 428152
Angela Moyle	Hon. Secretary	01200 445398	Barry Mellers	Member	01282 612985
Ken Gaiger	Hon. Treasurer	01282 778887	Joe Wrigley	Member	01200 447621
Pauline Roberts	Honey Show Sec	01282 438615	Robert Bradshaw	Member	01254 261216

SWARM COLLECTORS

Beekeepers prepared to collect swarms

Blackburn, Darwen & Mellor	**Robert Fulton**	**01254 772780**
Clitheroe	**John Zamorski**	**01200 427661**
Ribble Valley	**David Bush**	**01200 428152**
Nelson & Colne	**Bill Ainsworth**	**01282 614015**
Padiham	**Ken Gaiger**	**01282 778887**
Barnoldswick and Earby	**Ian Dent-Willoughby**	**01282 814374**
Accrington & Burnley	**John Wilson**	**01254 886120**

DIGITAL BEES

We have seen that like all creatures honeybees can be automatic and instinctive in their responses. Also, they measure, compute, communicate information and make decisions. These are the hallmarks of intelligence.

Anyone who has ever observed honeybees communicating with each other by means of their antennae cannot but marvel and speculate. We know that they can switch the polarisation of their antennae at will and are indeed passing micro-currents to each other. Are they communicating digitally? If so, they could well have had this information technology for millions of years, whereas we are only discovering it now. No doubt, whatsoever, honeybees are intelligent creatures.

Dr Michael Clancy, Co. Meith. Eire 'Dromore Buzzette'

NATIONAL HONEY SHOW

The National Honey Show is held on November 14th to 16th at Kensington Town Hall, London. If you are in or near London at this time, do have a look. It is reckoned to be the finest honey show in the World

CAVE PAINTING

A cave painting in Spain dated 15,000BC shows two men climbing to a cave containing bees and removing honey comb in a basket.

BEE INSPECTOR RETIRES

Ian McLean is to retire after eight years. His successor has not yet been appointed but is in the process of being selected and we hope we might see him at our meeting on August 18th at Ken Gaiger's place.

AN OLD FOLKLORE RHYME

When bees to distance wing their flight
Days are warm and skies are bright.
But when their flying ends near home
Stormy weather is sure to come

BEE STINGS

It is a fairly well known fact that the nearest and dearest of a beekeeper is liable to be more allergic to bee stings than the general population. Why? The answer is as follows.

The bee keeper on occasion gets a sting and the fairly regular injection of venom causes the bee keeper to become immune to the effects. Apart from the initial pain (Yeeeeoooowww! it has very little effect on him. The nearest and dearest however, gets a dose of venom from a very different and painless direction - - from the clothing ofthe bee keeper.

Whilst the bee keeper is working his bees, his clothing is being stung, the venom dries out and is ingested by his partner when he comes home takes his clothing off and shakes the venom dust all over the place.

Thus injection is the way to immunity and ingestion is the path to allergy. Therefore if the bee keeper opens himself up to an occasional sting, say by working with bare hands at suitable times, this will, in time, give him some imunity.

Wearing overalls or at least removing the outer clothing before going into the house and keeping such clothing outside the house, should prevent our nearest and dearest developing an allergy.

WORN OUT WINGS

During honey flows, foraging bees wear their wings to shreds over a period of two weeks and become prey for ants and other insects because of their inability to fly.

QUEEN BEES

A queen bee will lay up to 2,000 eggs per day, that is more than her body weight. ßThe queen's attendant bees groom and feed her up to eighty times per day

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