



**FEDERATION OF
BERKSHIRE BEEKEEPERS ASSOCIATIONS**
President: Miss Margery Cooper

October 2001

Number. 547

Hon. Secretary
Mrs. S. Napper
56 Lamorna Crescent
Tilehurst
Reading
RG31 5WF
(0118 945 5094)

NEWS

The Federation, its Council and its Officers cannot be held responsible for the views expressed in the Newsletter or possible errors.
(E-mail: berksbees@lineone.net)

Hon. Editor
R.F.Crocker
25 Shiplake Bottom
Peppard Common
Oxon RG9 5HH
(0118 972 2315)
roncrocker@btinternet.com

Do not forget

The Federation Family Event

And Honey Show

To be held at:- Caversham Heights Methodist Church Hall
Highmoor Road (Off Woodcote Rd) Caversham
Ample Street Parking

Saturday October 20th 2001 2.00 pm

The Speakers are: Claire Waring and Ged Marshall
Refreshments and Raffle, Children especially welcome.

THE APIARY IN OCTOBER

We are now entering the quiet period of our beekeeping year. You should be completing your feeding program by now. Make sure you have adequately fed your bees for their winter supplies. Remember they need about 35lbs of stores to see them through until spring. You may have to use contact feeders as the days get colder as they will be reluctant to leave the cluster. Still keep your entrances small to allow them to defend their home against robbers and wasps.

Having completed feeding you should insert Varroa strips for six weeks. Don't leave them on longer than this as the active ingredient will become weaker, allowing the Varroa mites to build up immunity to this medication. It would be unwise to use medications that rely on evaporation (i.e. Apiguard or Thymovar) at this time, as the temperatures will not be enough to activate them. Use Bayvarol or Apistan.

Are you worried that wax moth will destroy your combs during the winter? I do not recommend stacking empty supers on to working hives – even in the active period, they should only be used when the bees require them. In the winter, they should be stacked on a queen excluder to prevent rodents getting in, clear of the ground if left outside, with a sheet of newspaper between each box and topped with another queen excluder and a roof. You could add a few crystals of moth repellent such as Paradichlor-benzine (PDB) between each one, not strictly necessary as freezing temperatures should kill the little blighters, but can we guarantee such cold conditions? They can of course be stored in a shed, but the queen excluders, newspaper and crystals should be used as recommended.

Now is the time to purchase or make some spare equipment. You should have at least three supers available for each hive. I have always used Smith hives. They are the simplest and easiest to make, they are top bee space, and hold eleven BS combs the same as Nationals and WBC's. Perhaps a slight drawback for some people is that the top bar is only 15.5 inches long, this leaves a shorter lug to 'catch hold of'. Personally, I have never found this a problem. It's a good idea also to have spare brood boxes. Even if you only have one spare, it would allow you to swap it with a gunged up box, which you could now clean up with a blowtorch. Why not make some Ashforth feeders? These are quite easy too, and will save a lot of time when feeding. I know a very experienced beekeeper that even makes his own frames and very good they are too.

Above all, enjoy your beekeeping. It relaxes the mind and will show you a small return for your labours. Look after your bees and they will look after you.

Ambrosia

FROM THE EDITOR

Except for the heather, the honey season is over, all that is left is ivy, and the yield from this can sometimes be heavy and can set so that the bees cannot use it. If this happens, the answer is candy or fondant.

I agree up to a point with Ambrosia on Thymovar, this treatment reduces in strength with time and the matrix is not destroyed or consumed as with Apiguard. It should not be left on the hive, but Apiguard can be used provided the colony is of reasonable strength (note: reasonable strength, not weak colonies) and the ambient temperature is mainly above 40°F. it will be found that the bees will distribute the medication by eating it. Having said that, the best advice is to stick to manufacturers' recommendations and at all costs, avoid under-treating.

Last year I picked up a swarm which I re-queened and treated with Apistan, it was still heavily infested with Varroa in the spring and was again treated. I saw a swarm emerge in May and go into an empty hive, I was told that a second swarm went out and was lost. These bees did not enter the supers in the whole season. In July, despite the spring treatment, they were found to be close to collapse with Varroa and after two swarms, still had their original marked queen.

Accompanied by another South Chilterns member, The colony was thoroughly examined for the benefit of a visiting Australian beekeeper who videoed the whole proceedings. We applied Apiguard and I am pleased to find the colony working well and, although Varroa cannot be eliminated, there is now no visible evidence of its presence.

RFC

Future Events

20 October	Federation Event and Honey Show	Gen. Secretary:- 0118 945 5094
November 15,16,17	National Honey Show	

Oxford Bee Company and Red Mason Bees (Osmia Rufa) by Derek Porter

This company markets a special kit, which is designed to encourage the Red Mason Bee to lay its eggs and thereby help to increase the number of these solitary bees. The kit consists of a plastic tube 170mm long and with a diameter of 70mm. Inside there about 30 small cardboard tubes. It is recommended that the kits are placed about 1.5m off the ground. I attached mine to a fence.

The female bees lay their eggs in the tubes and then seal the open end with chewed up leaves. In the spring, the larvae hatch out, after pupation, the young bees chew their way out, and the cycle begins again. Despite the fact that they are solitary bees, they like to lay their eggs in close proximity to other bees. Although I placed mine slightly late in the year, at least five tubes are now sealed. I hope to attract a lot more bees next year by putting the kit up in April. The kits are not expensive and they will help to reduce the decline in the numbers of the Red Mason Bee.

Coincidences Do Happen.

Towards the end of the swarming season last year, I received a frantic call from Heatherwood Hospital to say that there was a swarm of bees hanging on a windowsill and bees were getting inside the building. I rushed over and was directed to one of the older buildings on the site. Sure enough, there was a swarm but judging by the size of the cluster, it was more like a cast. Anyway, in view of the situation, I agreed to remove it. This was duly accomplished with the usual gasps and comments from the onlookers (you know the sort of thing!) and I took the bees away. They did not amount to much and quite soon dwindled away.

Earlier this year, my younger son announced that he wanted to do some work experience at a hospital as he was thinking of going into medicine as a career. His application was processed and he was allocated to, you've guessed it, Heatherwood Hospital. That was not much of a coincidence as there are not many hospitals in this area. But the real coincidence was that my son spent his week working in the ward from where I had removed the bees! Little did I know that only a few months later I would be returning to that ward for a non-beekeeping reason.

Derek Porter

DISEASE

BERKSHIRE FEDERATION FOULBROOD August 2001

Number of infected apiaries in 10km squares
 [Number in brackets () = Number of infected colonies]

SP20 Broadwell	SP30 Bampton	SP40 Cumnor EFB 1(6)	SP50 Oxford AFB 1(2)	SP60 Tiddington	SP70 Haddenham AFB 1(4) EFB 2(2)	SP80 Wendover EFB 1(4)	SP90 Berkhamsted	TL00 Hemel Hempstead EFB 1(3)
SU29 Buscot	SU39 Stanford in the Vale EFB 2(2)	SU49 West Abingdon EFB 1(2)	SU59 Dorchester	SU69 Benson	SU79 Stokenchurch	SU89 High Wycombe EFB 3(6)	SU99 Amersham	TQ09 Rickmansworth EFB 4(5)
SU28 Bishopstone	SU38 Letcombe Regis	SU48 East Wantage	SU58 Blewbury	SU68 East Wallingford	SU78 Henley on Thames	SU88 Marlow EFB 2(6)	SU98 North Slough EFB 1(1)	TQ08 Uxbridge
SU27 Aldbourne	SU37 Lambourn	SU47 Chieveley	SU57 Yattendon	SU67 Pangbourne EFB 1(1)	SU77 Reading EFB 2(2)	SU87 White Waltham EFB 1(1)	SU97 Windsor EFB 3(17)	TQ07 Staines
SU26 Great Bedwyn EFB 1(1)	SU36 Inkpen	SU46 Newbury	SU56 Thatcham	SU66 Burghfield Common	SU76 Shinfield EFB 1(3)	SU86 Crowthorne EFB 1(1)	SU96 Ascot	TQ06 Weybridge EFB 1(2)
SU25 Ludgershall	SU35 Hurstbourne Tarrant	SU45 Litchfield	SU55 Kingsclere EFB 2(3)	SU65 Basingstoke EFB 3(5)	SU75 Hook	SU85 Farnborough	SU95 West Guildford EFB 1(4)	TQ05 Ripley EFB 1(1)

I have added an extra upper row of squares to cover some of the "South Chilterns" territory -Beulah
Your Regional Bee Inspectors are: -

Dr. Beulah Cullen. Hillingdon, Middlesex.
 South Eastern Region:- Mr. James Morton

Fax/Telephone number 01895 810469
 Fax/Telephone number 020 8571 6450

Appointed Bee Inspectors:-

Mr. Julian Johnston. Oxfordshire & North West Berks: Telephone number 01993 850432
Mr. David Purchase. Hampshire & South West Berkshire: Telephone number 01256 781288

The Editor has cartons and pre-paid labels for sending complete combs to the National Bee Unit. He and your secretary can also provide plastic containers to send suspect larvae for examination or, on application; one of the inspectors will send a box or plastic container

Effects of neem oil on Varroa mites and bees

Peter Schenk, Anton Imdorf and Peter Fluri

Swiss Bee Research Centre, Federal Dairy Research Institute, Liebefeld, CH-3003 Bern, Switzerland

Under laboratory conditions, bees infested with Varroa were brought into contact with neem oil. Neem oil showed a damaging effect on the Varroa mites, which was dose dependent. However, the optimum application against the parasite in bee colonies has not yet been sufficiently researched.

The neem tree (*Azadirachta indica*) grows in the subtropical countries of Asia and Africa. In India it has been known for centuries as a source of numerous materials with abundant uses. In Sanskrit the tree is called "Arishtha", which literally means reliever of illness. For centuries different parts of the neem tree have been used in Ayurvedish medicine. Ayurveda, which literally means "the science of life", is the natural healing system used throughout India. Chewing twigs helped to protect teeth from decay. Different pastes made with extracts of seeds, leaves and bark were applied against lice and skin diseases. Farmers used the leaves of the neem tree, to protect their rice reserves from parasites.

Protection from insects

Scientific research of the content materials of the neem tree and their effects began after 1960. Then the German entomologist Schmutterer observed that during a locust invasion in the Sudan, the neem trees were the only plants which were not attacked by the insects. In consequence, he and many other scientists explored the reasons for this phenomenon (H. Schmutterer, 1995). Today more than 100 active agents have been isolated from extracts of seeds, leaves, and bark and described chemically.

How does neem oil work?

Neem oil has many known effects against insects, mites, thread worms, fungi and bacteria. Anti-cancer, anti-inflammatory, and other characteristics have been observed in vertebrates. In certain insects, the constituent, Azadirachtin, causes the natural intestine movement to cease; the insects can no longer void their faeces and consequently can no longer feed. In other insects, Azadirachtin affects the hormone system; the pupae cannot shed their skin, therefore, metamorphosis from the larval stage to adult insects cannot take place.

Owing to these characteristics, neem components are an interesting basis for the search after new, specific and natural organic pesticides. Some of the biologically active materials from the neem oil break down within a short time under the influence of sunlight.

Effects on bees

To examine the compatibility of neem oils with bees after an application for pest control, experiments were made with bees in flight tents. A control area was planted with Phacelia; a part of the area in bloom was sprayed with a neem preparation. The bees visited the sprayed and unsprayed bloom with equal regularity. There appeared to be no damage to the foraging bees or to the colony. However, 10 days after spraying with certain doses, pupae were found that could not release their skins and young bees with damaged wings. Further investigation showed that Azadirachtin could lead to metamorphosis disturbances and to the death of bee larvae. Since neem oil shows a good effect against different parasitizing mites, and since adult bees are relatively immune, it was obvious that the possibility of its use against Varroa should be explored.

Neem oil for Varroa control.

In the past, attempts were made to explore the possibilities of employing neem preparations for the control of Varroa mites in bee colonies. Thus the effect of applying neem oil was examined. The oil was filled into small dishes covered with gauze and fixed to the bottom of the frames. In these trials no effects were observed on the development of the bees or on the Varroa population. The conclusion was that the effective substances are not volatile.

Other researchers examined the effect of neem oil emulsified in water, which was then sprayed on to the bees six times at four-day intervals. They observed a 50 – 90 % death rate in the mites but also a greatly reduced breeding area and losses of queens. When bees and mites were brought into contact with neem oil that was spread on a surface, the treatment resulted in a 95 % success.

Experiments in Liebefeld in 2000

The aim was to find a dose-dependent effect of the oil on Varroa and bees. Under laboratory conditions the oil was brought into contact with worker bees infected with mites. In the trials small plastic cages were used with four sponges (2 x 4.5 cm) attached to their walls. Each cage contained 50 to 70 bees. 720 micro-litres of neem oil solution in various concentrations were spread evenly on the four sponges. The mortality of bees and mites was recorded daily during the four days. In the diagram below the effect of a particular neem oil solution (No. 903198) on bees as well as mites is shown.

Results

Under the chosen laboratory conditions the 75 % solution of neem oil formulation showed a mite death rate of approximately 100 % with 10 % mortality in the bees. In 50 %, 75 % and 100 % solutions almost all Varroa mites died in the first half of the treatment whilst the bees died mainly in the second half of the treatment.

High Varroa mortality was also observed in the control group (0 % solution), but only in the second half of the treatment. This may have been caused by unfavourable conditions in the experiment, e.g. the plastic cages could have been charged electro-statically through the movement of the bees.

Significance of the results

It was proven that neem-oil has a dose dependent effect on Varroa mites. It is not known, however, which of the over 100 components of neem oil are responsible for this effect. Based on experiments with other mites it may be assumed that Azadirachtin which is known for its damage to bee brood has no effect against Varroa. The compatibility with bees could be improved with better solutions, dosage and length of treatment without loss of effect on the mites.

And where to go from here?

In further research on the suitability of neem oil in the fight against Varroa, the components of neem oil which kill Varroa would need to be identified and tested for their compatibility with bees. Until a suitable varroicide is created, many years would have to be spent on costly product development. At the moment we advise against the use of neem preparations on bee colonies because of the risk of damage to brood and uncertainty with regard to effectiveness and further side effects.

Acknowledgement

We thank Professor H Rembold, Munich, for the free supply of neem preparations and suggestions. A complete report in German (including bibliography) about the experiments in Liebefeld by the autumn of 2000 can be obtained from the Centre for Bee Research.

SLOUGH AND DISTRICT BEEKEEPERS' SOCIETY

This month's meeting will be the annual Honey Show, starting at **7pm** – not the usual 8 'clock, on Tuesday, 9th October, at the All Saints Parish Hall, on the corner of Frances and Alexandra Roads, Windsor. All are welcome to attend and entry to the show is open to all surrounding associations. Judging will take place in front of the audience, so do come along, try your hand at showing, learn a bit about show judging and enjoy the evening.

This year, visiting entrants will compete for the cups awarded by the former Maidenhead Association, as only Slough and District BKS members are eligible to win our own cups. Details of all the classes were in your September newsletter, or you can contact Bernhard Schumann for a schedule, as below. There is no need for prior notification if you intend to enter five classes or less, just turn up with your entries. However, please let Bernhard know beforehand if you are entering more than this, so that he can prepare your labels ahead of time. He can be contacted either on 01189 343501, or by e-mail to bernhard@schumann2.freemove.co.uk.

When preparing your show honey, do try to do a second jar so that if your efforts are successful enough, they can go forward to the Federation Honey Show on the 20th. The normal two jars will be required in each class there. We look forward to an entertaining evening again, good luck to everyone!

The AGM will be next month, on Tuesday, 13th November at the normal time of 8pm. Nominations are invited for all officers and may be sent to the Secretary, Michael Sheasby at the address on the back of your annual programme, or call him on Slough (01753) 642656 for details. Please remember to bring along your contribution to the usual social evening held after the formalities are completed - they will, as ever, be much appreciated.

Newsletter items: Joy Dodson Burnham (01628) 664091

READING and DISTRICT BEEKEEPERS ASSOCIATION

The date and venue for our meeting in July was altered, as Ted Conway's hives had suffered from floods, which some areas had in the spring. Instead we were the guests of Tim and Hilary Whittaker in their lovely garden in Mapledurham. Tim's bees provided us with some unusual happenings.

Although we had not found any queen cells during our inspection some of the bees began swarming into a high tree, and began for form quite a cluster there. The hives were finally put back together again and the swarm dispersed and returned to its hive. I have never come across this phenomenon before perhaps someone can offer a possible explanation.

Afterwards we enjoyed some cakes, tea, and cold drinks – it was a **very** hot day. There was quite a good attendance in this lovely setting, in fact, it has been heartening to see the winter and summer events well supported. This encourages the committee to think that they are making the right decisions. Keep it up.

We are fast approaching our AGM where we must elect a chairman (chairperson). We have had occasions when the meeting has ended and thanking the host has been overlooked because we had no chairman. This situation cannot go on, we must have officers to function as a club. Please don't sit back and hope someone will volunteer. The older members have done their share in the past so it is up to you the newer members. Do you want the club to continue or do you want it to disband as has happened to Maidenhead? **Our future is in your hands!**

Our meeting this month at our usual venue will be on October 11th when the knowledgeable Mathew Allen will conduct a quiz. See you there.

Hon. Sec. Mr. R. Kiff, 114 Silverdale Rd, Earley, Reading RG6 7LU Tel. 0118 966 5358

SOUTH CHILTERN BEEKEEPING ASSOCIATION

We didn't have an apiary meeting in August; therefore, there is nothing to report on that front. From what I hear from most of our members, it has been an excellent year for honey – no records broken but very high averages generally. One member was moved to say that he was sick of the sight of the stuff!

Our next meeting will be the first of our Winter meetings – our AGM on Wed. 17th October. This will be a make or break time for the Association. We have functioned for a year now without a Chairman and Brian Carter, our Treasurer, indicated two years ago that he wished to hand over to someone else. He was reluctantly persuaded to carry on a little longer but his present term of office will definitely be his last. We do need volunteers to fill these vacancies and I must be quite blunt about the situation. If these vacancies are not filled, steps will be taken to suspend all activities of our Association until further notice.

Please feel free to call me at any time to discuss the matter.

Hon. Secretary: - George Butler 0118 983 2735

WOKINGHAM & DISTRICT BEEKEEPERS ASSOCIATION

Bad news from our Association's Apiarist. We have had a recurrence of EFB at our Wokingham site and all three colonies have been destroyed. Our two colonies at Hurst have also been checked and thankfully these are not infected. With the low level of interest in the Association's hives, Committee members will debate the future of all our hives at the next meeting.

We are very pleased to welcome three new members, Peter Kennedy, Richard Miles and Paul Shewry. They bring the Association membership numbers up to 50.

A number of members have expressed disappointment at the lack of news from Wokingham in some of the recent issues. The Secretary is very pleased to include any contributions by letter, e-mail or phone (ejedwards@btinternet.com) but if there are no submissions the Wokingham slot will remain unfilled.

Do remember our autumn meeting season starts on 10th October at St Paul's Parish Rooms with a talk on *Candle and Polish Making* by our Chairman, Derek Porter.

Hon. Joint Secretaries: Sylvia Smallbone & John Edwards 0118 934 0238
ejedwards@btinternet.com

PRESS RELEASE

BEEES: RESISTANT VARROA MITES FOUND FOR THE FIRST TIME IN BEEHIVES IN THE UK

Honeybee apiaries in the South West have been threatened by the first case of resistant varroa mites. Laboratory tests conducted during the week beginning 27 August 2001 at the Central Science Laboratory (CSL) confirmed that at least one apiary in Devon has mite populations resistant to pyrethroid.

The resistance found in Devon appears to be localised. Recent spot checks elsewhere in the country have revealed the continued high efficacy expected of Apistan and Bayvarol, the only two pyrethroid-based treatments authorised for use in the UK.

Medwin Bew, Head of Environmental Biology Group, CSL, said: "Beekeepers are requested *most strongly* to follow the label instructions on varroacide products carefully. Misuse (e.g., prolonged application of the product or abuse of the active ingredient, or use of cheap, untested analogues) has been the cause of every original focus of resistance in Europe.

"DEFRA is considering arrangements for dealing with this resistance case and any others which may be discovered. Updates will be posted on the CSL website (<http://www.csl.gov.uk>) as they occur.

"The beekeeper's colonies were first tested using a simple field kit developed by Vita (Europe) Ltd and CSL. This was part of a routine screening programme introduced some while ago by CSL with the aim of following up reported cases of suspect resistance or to check colonies of beekeepers believed to be misusing pyrethroid.

"So far five apiaries belonging to the beekeeper have been screened by field tests. The effectiveness of the test Apistan strips against varroa was found to be as low as 2%. This resistance is worrying and will almost certainly be of a similar order for both Apistan and Bayvarol. Apistan treatments are normally 95-100% effective. All the beekeeper's apiaries are under standstill notices."

Past studies have shown a close level of agreement between the results of field tests and confirmatory laboratory tests so we have no reason to suppose that the remaining unconfirmed field tests are other than sound.

Currently CSL is organising a resistance monitoring programme of neighbouring apiaries in the areas around these Devon colonies. This will be limited by the approach of autumn and its success will depend upon local beekeepers' co-operation. CSL has also stepped up its surveillance in other areas.

In the meantime, beekeepers wishing to undertake resistance testing on their own colonies should contact their Regional Bee Inspector for details about how to conduct the test and submit the results to the surveillance team at CSL.

Notes for Editors

1. Varroa is a serious Asian mite infestation of honeybees, first introduced into the UK in 1992. Colonies die if the infestation is left untreated. Varroa cannot be eliminated from infested hives but can be controlled to harmless levels through good husbandry and hygiene and by prompt treatment. Currently, two varroacides are authorised in the UK for treatment of varroa - Apistan and Bayvarol.
2. Varroa caused devastating losses of honey bees in the early years following its introduction. Although most beekeepers have now learned to live with the parasite, the majority of feral colonies have since collapsed. Since bees are important pollinators of many commercial crops and of wild flora it is essential that a healthy population is maintained. Without effective treatments available healthy managed colonies are now at risk unless resistant mite populations can be controlled and contained.
3. Apistan and Bayvarol treatments usually have an efficacy of 95-100% against varroa mites. A ten-fold reduction of this efficacy means that treatment will not reduce mite populations below the threshold necessary to both preserve the colony and prevent further spread of damaging levels of mites to surrounding colonies and apiaries.
4. There is estimated to be about 1,900 beekeepers in Devon, managing approximately 12,000 colonies of bees. Devon is also a popular location for migratory beekeepers from other counties wishing to take advantage of moorland blossom. Many hundreds of beekeepers move colonies into Devon for about a month each August to crop honey from heather.
5. Advice on finding and dealing with varroa, and reducing the risks of resistance, is contained in the leaflet "Managing Varroa" which is available free of charge from the CSL National Bee Unit, Sand Hutton, York, YO41 1LZ or from its Regional Bee Inspectors. Details are also available on the CSL website at <http://www.csl.gov.uk>

Newsletter "Deadline": - Contributions to arrive with the Editor by the First Post on the First of the Month for the Following Month.

To enable the Advertisement Manager to place adverts with the Editor for the 1st of the month deadline; adverts should be sent well before this time.

ADVERTISEMENT ENTRIES: - 2 Lines for £1.00. Commercial, £1.00 per line, together with your cheque made payable to FBBKA. To be sent to the Advertisement Manager: - Mr. Michael Blackburn, M.B. Photography, 41 Prospect Street, Caversham, Reading, RG4 8JV. Telephone:- (0118) 947 9450/5451

GET THE BEST DEALS LOCALLY by ringing John Belcher on 0118 984 2321 for the full range of Thornes equipment. Most items are in stock and the rest just a phone call away. Apistan, together with other approved treatments at very competitive prices including the recently released Thymol based products, Apiguard, and Thymovar. Rendered beeswax in exchange for foundation.