



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

February 2002
Number 550

NEWS

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The Federation, its Council and its Officers cannot be held responsible for the views expressed in the Newsletter or possible errors.
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Future Events

19 th February 2002	Federation Annual General Meeting	
15 th March 2002	Leaver Memorial Lecture	Details Next Month
27 th April 2002	Stoneleigh 2002	

FROM THE EDITOR

The Federation Annual General Meeting is on Tuesday 19th February at the Wesley Hall Caversham. As this is a General meeting, any member of an Association within the Federation is entitled to attend.

Yes it is 2002, time is marching on, when you read this Newsletter February will be knocking on the door and it won't be long before the bees will require your presence, back to the sticky interior of the bee hive, but until that time arrives I expect there will be many beekeepers repairing and modifying equipment, ordering spares and updating records in readiness for the coming season.

The concern of my well-wishers was very much appreciated, as was the offer of assistance if required.

The comments on the mistakes, timing and layout of the article "Feeding your bees with syrup" have been noted. This was added un-checked and without the knowledge of the Editor. It would be better if such comments were in writing. Articles for inclusion in the appropriate Newsletter will be welcome but must be sent to the Editor. If by e-mail, the article must include a name and address and preferably in RTF or Word format.

RFC

THE APIARY IN FEBRUARY

At this time of year, external activity in the apiary is at its lowest and there is little that can be done apart from an occasional check that all is apparently well. Inside the hives however, preparations for next season are already under way; if you were foolish enough to open a hive now, you would expect to find a small patch of brood being raised as the start of the new force of foragers.

Since no practical work is possible, this is a good time to take stock of your beekeeping and lay plans for the future. There are several questions which are worth asking yourself.

- 1) Do you intend to increase the number of stocks that you manage? If yes, then have you enough hives, frames etc.? An order now would mean that the goods would be available in good time (and you might even get a discount).
- 2) Have you enough supers to take the 2002 harvest? The bumper crops of past years may well be repeated in 2002 if the summer weather pattern is right and the crop pattern is suitable.

- 3) What about possible swarms, your own or other peoples? Is there sufficient spare equipment (brood boxes, frames, floors and roofs) to cope with events in May or June? And what policy are you going to adopt with regard to stray swarms? There has been a move recently to avoid hiving swarms of unknown origin because they might be carrying disease. However, if you refuse to use swarms, how do you propose to replace any winter losses or, more important, prevent swarms going feral thereby exposing your own and other peoples' bees to disease.
- 4) Are you satisfied with the quality of the bees in your hives or are they prone to swarm and/or sting without due provocation? A surprising number of beekeepers tolerate such bees and it never seems to occur to them that the trouble can easily be remedied by requeening with a new queen from a different strain. Apart from the nuisance to you, poor quality bees in your hive supply drones to transmit their undesired characters to your neighbours new queens. For those beekeepers who are not in a position to raise their own queens, a bought-in queen may be the answer. Ask around to find a recommended supplier and order early.
- 5) Have you made preparations to do a Varroa check next month? See the CSL attachments for details and start getting the gear together now. Also don't forget that foulbrood checks are in order during March and April.

Locum Tenens

LETTER TO THE EDITOR

Reference Donald Thomson's letter in December Federation News, much of which I agree with, but I feel seeds for this problem were sown many years ago, for example I lost bees in large numbers in the years 74 - 5 - 6 - 7 with a complete wipe-out in 76 due to spray poison, and again in 89 and 97 but not so severe.

The wipe out in 76 was filmed by the BBC Nationwide team. In the 1977 I had an interview with our local M. P. (he was a honey customer of mine) he wrote to the Agriculture Minister and sent me a copy of the reply he received, it was about as useful as a chocolate fireguard.

In 1976 there were 103 confirmed poisoning incidents reported affecting more than 700 colonies, this was thought to be by John Walker of Luddington only a small proportion of the precise number.

During the late Fifties and early Sixties I was helping out on foul brood inspections and killing bees with confirmed foul brood, during this time I was asked by the Bee keeping teacher at Watlington School to have a look at a nucleus which the bee club had just bought from a Honey Farm, on inspection I had no doubt it had EFB but would have to send a comb away to get official confirmation, the reply was " many thanks" if you says EFB we will kill them tonight to protect our other stocks.

Around this time Oxfordshire had a county bee instructor who was keen to establish more beekeepers. Quite a few had started to take lessons and had got a few bees and equipment when the spray damage started, their bees were killed and they got rid of their beekeeping gear. The master at Watlington gave up teaching beekeeping and their equipment was disposed of.

Then came the real shock, it was brought to notice by a young man who is now a member of SCBKA that four hives had been dropped off at a certain spot and he was convinced they had foul brood within and were being treated, he had some good stocks near and could I do something.

In a roundabout way I had to get the position of these hives and contents over to the CBI and they quickly vanished, some time passed before I saw the CBI and when I asked about the four hives the reply I got was "please forget you knew anything about them". "Never" was my reply. Double standards by MAFF were operating; bees were being brought from Hampshire in and elsewhere to Oxfordshire and were being treated with an American drug (all legal?). Bad news always travels fastest.

So Editor is it not possible that what has happened in the past has a bearing on today's reluctant beekeepers?

I have all the reports and documents referring to this letter, if there are any readers out there would like to see them, they are welcome, make no mistake things are better for beekeeping but there is still room for improvement.

My hope for the future is that the craft will survive in some form and that double standards and the silence that a day's hunting, shooting, or fishing brings from official departments will no longer be the norm, also that beekeepers will no longer be conned as they have been in the past.

Happy New Year.

John Vickery BKID 6274

Your Regional Bee Inspectors are: -

Dr. Beulah Cullen. Hillingdon, Middlesex. Fax/Telephone number 01895 810469

South Eastern Region:- Mr. James Morton Fax/Telephone number 020 8571 6450

READING and DISTRICT BEEKEEPERS ASSOCIATION

On the 14th of February we welcome George Hawthorne, who will talk to us about his life with bees. George began beekeeping as a boy and has been totally immersed in all aspects of this craft, all his life. He is an interesting lecturer, and will explain all aspects of our craft from the Skeppist and his management system, to the manipulations in the various sorts of modern hives. He is a collector of interesting artifacts, honey pots and horse brasses, all with beekeeping connotations. He was the County bee Inspector and lecturer at the Burchetts Green College of Agriculture for many years. He also has a great passion for steam traction engines. It is indeed a pleasure to have him in our midst, a man with a wealth of knowledge. Certainly not an occasion to be missed. May I remind you all that your subscriptions were due in January?

Happy beekeeping,

Secretary: Mr. R. Kiff, 114 Silverdale Road, Earley, Reading RG6 7LU Tel. 0118 966 5358

SOUTH CHILTERN BEEKEEPING ASSOCIATION

I am pleased to be able to say that at an Extraordinary General Meeting on 5th December all the vacant officials posts were filled and South Chilterns will therefore continue into 2002. A new member, Linda Scurr, volunteered to be our new Treasurer, Brian Carter agreed to take over as our General Secretary with George Butler as Chairman. Committee members were voted in namely – Anne Arlidge, Viola Crowe, Reg. Hook, Harry Jessup, Tim Selwyn and John Westcar. The retiring officials were thanked for their very valuable services to the Association.

On 19 December we had our pre-Christmas non-beekeeping meeting. Extra chairs had to be found for our nearly full house of over 25 members when we heard Russel Cherry talk on "The Thames – A historical journey along the Thames Path from Source to Berkshire" illustrated with beautiful slides. Russell has already been booked for next Christmas to continue the journey to the Thames barrier. After Russell's talk our Ladies provided our usual Christmas fare of mince pies, Punch etc. Our raffle organised by Reg. Hook (and all his ladies!) realised it, so I was told, nearly £80 towards the association funds.

Our next meeting will take place on Wednesday 20th February when James Morton, Regional Bee Officer, will talk on his method of producing a few queens.

George Butler - Chairman

SLOUGH AND DISTRICT BEEKEEPERS' SOCIETY **Incorporating Windsor, Maidenhead and adjoining communities.**

The AGM in November saw the committee re-elected to office and the accounts approved. It was agreed that the addition of the above 'strap line' to the name of the Society whenever appropriate, would better reflect the wider area that our membership is drawn from. In addition, in anticipation of known future increases in capitation, it was agreed to step up the annual subscription in stages to cover this. Have you renewed yours yet? Afterwards we enjoyed the informal supper – our thanks to everyone for bringing their contribution along.

In December, we had a visit from John Furzy, who took us through a year in his life as a bee farmer. He brought some slides along to illustrate the various aspects of his talk, for example the way he extracts the honey and bottles it. It gave a fascinating insight, seemingly multiplying a hundred or so times the work of the hobbyist beekeeper – a daunting thought.

The February meeting will be on Tuesday the 12th, when Roger Hoskyn will be talking to us about 'Beekeeping in Antiquity'. How much have methods changed over the centuries? We hope you will be able to join us to find out, at the All Saints Parish Hall on the corner of Frances and Alexandra Roads, Windsor for an 8'oclock start.

March brings the time for our Annual Dinner. This year, we are back at the Aurora Garden Hotel on Friday the 15th at 7.00 for 7.30pm - have you booked yet? Menus and booking forms have already been distributed, so be sure to get them back to Don Church by the 21st February to guarantee your place.

Newsletter items: Joy Dodson Burnham (01628) 664091

Wokingham & District Beekeepers Association

Our AGM was held on 14th November and the motion to continue annual membership at £18 was endorsed. Members will be receiving renewal forms shortly.

After the formalities Bob Loades gave us a run-down on the large collection of books we, as members of the WBKA, own in our Association library. They run from simple beginners' guides through "*How to pass Beekeeping Exams*" to books on pollen and plants that bees like and on to reminiscences by famous beekeepers such as R.O.B. Manley and Eva Crane. We even have a facsimile copy of the first book on beekeeping in English written in the Seventeenth Century.

It was sad to hear Bob say that this extensive library is under-used when it is so interesting and so easy to borrow from - you just dial 01189-61-9631 and say when you'd like to come and browse.

It was thought that it might be helpful to submit a "Bee-Book of the Month" review in the Newsletter about some of the books to give an idea of what's on offer. Rosemary Bayliss agreed to make occasional contributions.

*It has been necessary to reschedule our winter talks for January and February 2002. **Beulah** will cover **Bee Diseases** on **13 February**.*

"Honey Days" by Oliver Field

The author of this very pleasant little book is a bee-farmer who used to live in our area, he kept bees in Berkshire and also took hives down to Dorset for the heather. In a conversational style he goes through the year month by month, describing the sort of work he has to do - feeding, supering, swarm-controlling, extracting. This is the sort of thing we all have to do, but he does it on a huge scale (it must be non-stop in June/July). Field obviously loves his workplace: the open fields and woods. He is a naturalist and a fisherman and he weaves his observations and experiences into the book so that it is not just a record of work or a manual of beekeeping, but an expression of what beekeepers love to be involved in - nature and the passing seasons in the countryside.

It is an easy book that anyone will like - non-beekeeper, beginner or National honey judge.

Rosemary Bayliss

Secretary John Edwards. ejedwards@btinternet.com

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.

Honey for sale, surplus to requirement in 30lb containers at £1.15 / lb

Telephone. 0118 9479450 1-4



I can't believe how quickly the last inspection season has passed and it is again time to review progress. The start of the season was blighted for many by Foot & Mouth Disease. This meant that the inspectors as well as some beekeepers, were unable to gain access to certain apiaries. However, when compared with other Regions, the Southern Region fared very well. The next unpleasant surprise was the discovery of pyrethroid resistant varroa mites in Devon and Cornwall - more on this later.

Foul Brood

European foul brood (EFB) continues to be a major problem in the Region. As usual, most of the cases were found by the **inspectors!** At the end of this letter is a table showing the distribution of reported disease in the Region and the fate of the infected colonies. The good news is that only 3 cases of American foul brood were reported in the Region. Also, about 3500 colonies inspected in the Region were apparently disease free.

The incidence of EFB will not decline unless beekeepers learn to recognise and report it in its early stages.

If you have not already done so, please try to include some element of disease recognition training in your summer programme. Apiary tours and disease recognition workshops, (Disease Training Days) will be on offer, as in previous years. I particularly recommend apiary tours, for several reasons. The less experienced beekeepers have the opportunity to see colonies and apiaries other than their own; they are able to see, question and have explained, any abnormalities seen within the colonies. From the Bee Inspector's point of view, apiary tours provide a much more efficient service because the Associations (you) make the arrangements. No, I am not just trying to wriggle out of a job. You know where many of your members live, how to contact them and where they keep their bees. You know the local geography. By organising apiary tours, some Associations manage to have all of their members' colonies inspected every year! No one needs to stay with the tour all day, as long as there is always someone present who knows the next port of call. An approximate timetable can be arranged and members can ring a mobile phone number to find out how far the tour has progressed, if they wish to join later in the day. Do phone me if you would like more information. Please remember that weekends are at a premium in the early part of the season, so book your dates as soon as possible.

Shook swarms for EFB control

The "Shook Swarm" trial continued during the season and so far the results are most encouraging. In the not too heavily infected colonies, recurrence of EFB was found in

only 4% of the colonies that were shaken and given oxytetracycline, compared with recurrence in 21% of the colonies that were given antibiotic alone. In the more heavily diseased colonies, EFB recurred in 36% of the shaken, treated colonies; but this means that 64% of the colonies that would previously have been destroyed, were 'rescued'. In the Southern Region, 38 infected colonies were given the "shook swarm" treatment this year. A full report of the Shook Swarm trial is scheduled for the April edition of BBKA News.

Brood Comb Change

During winter, bees rely on spells of fine weather to allow them to take cleansing flights. In prolonged periods of inclement weather, bees may be forced to defecate in the hive and may deposit pathogens on the combs. Other bees have to "clean up" and acquire infections themselves. The causative organisms of Nosema and Amoeba diseases are passed on in this way. In some localities, nosemosis, is probably second only to varroa as the cause of death in honey bee colonies. It is also possible that undiagnosed foul brood bacteria may be present on the brood combs from the previous season. If possible, change all brood combs each year; failing that, at least three from each colony should be renewed. Comb renewal helps to keep the "pathogen load" on the combs below the economic damage threshold.

Pyrethroid Resistance

Every one must know by now that CSL Bee Inspectors have found pyrethroid resistant mites in Devon and Cornwall. CSL introduced this screening programme to provide an early warning system for developing resistance, so that the widespread colony collapse experienced in other countries would not befall us in the UK. It is all but certain that pyrethroid resistant mites will appear in other areas before long. If we are not to have further widespread loss of colonies from varroosis, it is vitally important that we test our bees for the presence of resistant mites during next season, so that if they are present, alternative control measures may be taken.

Bee Inspectors will continue to make routine, targeted checks but beekeepers must also check their own bees. The technique is simple and can be demonstrated at apiary meetings. Some National Bee Unit (NBU) testing kits have already been issued to Association secretaries; I have a few spare kits, which can be borrowed. At the end of this letter are the instructions for using the NBU kits. Also, as an attachment to this e-mail, you will find instructions for a simple Apistan resistance test, which requires no special apparatus, and a form for reporting results.

Abandoned Apiaries

Please notify the NBU of the results of all tests, whether negative or positive, indicating which test system you used. All suspect positive results will be followed up by CSL. Further details can be found on the NBU web pages, which will be updated regularly, as the resistance picture changes.

<http://www.csl.gov.uk/prodserve/cons/bee/resistance>.

We hope that there will be alternative treatments to pyrethroids, registered as varroacides in the not too distant future.

Teaching events

Last season, Southern Region Bee Inspectors spent 9 days on apiary tours, gave 12 apiary demonstrations and 5 disease recognition training days. In addition, during the year there have been 15 talks to BBKA's.

We are here to help – use us!

Basic Microscopy Courses

Early this year, I held two very basic microscopy courses at my home, which were very well received. If there is further interest, I shall be pleased to repeat the course. I prefer a weekday but if anyone interested can only manage a weekend, it could be arranged. Possible dates are Wednesday or Thursday, 6th & 7th March and Saturday, February 23rd. The topics covered would be diagnosis of the adult bee diseases, Nosema, Tracheal mites and Amoeba; diagnosis of the brood diseases, EFB and AFB; making slides of pollen grains and, if time allows, some bee anatomy. The dates are not irrevocably fixed; if anyone is interested please give me a ring. I hope to have 6 participants for each day and I expect to start at 10.00am and finish around 4.00pm. All equipment will be provided but you may bring your own bees to test.

BBKA Training Courses

Is your Association maintaining its membership? In my experience, the most successful Associations are generally those that offer educational opportunities. Last March, BBKA held a "Train the Trainers" weekend, to launch a training course for beginners. Next March, there will be another "Train the Trainers" weekend, designed around preparation for the BBKA Basic Assessment; the "beginners course" will be repeated next November. NBU inspectors have been assisting BBKA with these training programmes. Perhaps you have a member who just needs a little encouragement to take on some teaching; the BBKA course would help!

Spray Liaison Co-ordinators

Please will secretaries send me the names of spray liaison co-ordinators as soon as they are appointed. If I hear nothing, I shall use last year's names or the Association secretary's name as a contact, if I receive any spray-related enquiries.

If you are aware of any badly neglected or totally abandoned apiaries in your locality, please let me know; they may be harbouring disease. A map reference or directions for finding such apiaries would be most helpful. Any information received will be treated as absolutely confidential and will only be passed to the appropriate Bee Inspector. We have a responsibility to control disease and the beekeeper has a responsibility to manage his bees. Abandoned and poorly managed apiaries have been a source of disease in the past.

Honey Prices

Thank you to all those who returned the 'Honey prices and yields' questionnaire. Because this information was requested by DEFRA (statistics and commodities branch) earlier this year than last, I was only able to distribute it by e-mail, so not everyone will have seen it. The results were quite interesting; there is an enormous variation in the amount that is charged for honey. I will include the results at the end of this letter.

Major Public Events

During the season the National Bee Unit was represented at the New Forest & Hampshire Show. We were kept very busy at both of these events, with plenty of interest in our exhibits, particularly from the young generation. We also assisted at the Marwell Bee Week, which was another extremely successful venture. Again, well done to those who arranged it.

Newsletters and foul brood maps by e-mail

This letter and the monthly foul brood maps issued during the inspection season are available to any interested person by e-mail. Enter "subscribe" in the subject line, followed by the Southern Region county in which you are interested and send to me at the address below. If you have e-mail but receive this letter by Royal Mail, please send me your e-mail address for future communications.

Change of Association Secretaries

Don't forget to let me know if your Association appoints a new secretary; please send me the details.

Thank you all for the help and encouragement you have given to me and to the seasonal bee inspectors during the past year. I hope you all have had a very Happy Christmas and New Year. Did I hear you ask for a blow torch in your Christmas stocking?

Beulah

**Regional Bee Inspector
Beulah M Cullen
26 Sweetcroft Lane Hillingdon
Middx UB10 9LD**

Tel/Fax 01895 810469 e-mail b.cullen@csl.gov.uk

Notes for beekeepers on how to use the NBU field kits

INTRODUCTION

This document describes a field procedure for testing the resistance of Varroa mites to pyrethroids such as Tau-fluvalinate, which is the active ingredient (a.i.) of the proprietary varroacide Apistan.

The method involves placing approximately 400 bees taken from brood frames into a field test cage, together with an Apistan package bee strip suspended for approximately 3-4 hours in the cage. The mites 'knocked down' by the treatment fall off the bees onto a sticky surface and are counted. The bees are then washed to remove any remaining mites and these are also counted. The comparison provides basic information on the sensitivity of varroa mite populations to the treatment and therefore an assessment of treatment effectiveness.

Regular sampling of colonies should provide early warning of the development of resistance. The field kit allows suspected resistant populations of mites to be identified. Apistan package bee strips can be re-used 10 times. Do not re-use strips if during sampling procedure foul brood disease is detected.

MATERIALS

Semi-disposable field-test kits

Sticky back plastic circular sheets (e.g. 'Fablon')

Apistan package bee strip (one strip is viable for approximately ten tests: tally of use must be kept by suitable marking system). Store the strips away from heat and sunlight.

Container (box) for carrying field kit(s)

Large plastic tub, with a shiny interior surface, of about 5 litres volume (eg washing up bowl): or glass/plastic beaker equivalent

Indelible marker pen (optional)

Liquid detergent

Set of suitable stacked sieve(s), e.g. coarse kitchen/ending sieve (mesh size 2mm), fine sieve (0.7mm) or white nylon jelly bag (0.7mm) placed underneath the coarse sieve. Note: A sieve with a mesh size of approximately 2.0 mm will retain sampled bees. A sieve with a mesh size of 0.7 mm or less will retain varroa mites.

Shower head fittings for wash through procedure

PROCEDURE

Sampling Bees

1. The Apistan package bee strips can be re-used up to 10 times. Carefully label and number, e.g. with indelible pen each strip and keep a tally, e.g. on a separate sheet, so that use of each strip does not exceed 10 times use.
2. Remove the mesh lid from the field test cage. Ensure that one Apistan package bee strip is fitted into the cage. Suspend the strip (e.g. use small nail to pierce and hang strip) through the top slot of the cage. Place the sticky back plastic circular sheets (fablon) to the bottom of the mesh lid. Ensure whole surface is covered to catch fallen mites.
3. Open the hive selected, locate and keep the queen safe to avoid sampling her. For example: by placing her on a frame to the side of the hive, by temporarily caging her during the sampling or for greater speed by sieving sampled bees through a queen excluder into a collecting box or container.
4. Select a suitable brood frame from which to sample adult bees.
5. Gently shake bees into the plastic tub, tip the tub to about 45 degrees to amass the bees, and then pour bees into the field-test cage until it is about half full. Immediately close the cage by refitting the mesh lid. Return surplus bees to the hive and release the queen if confined.
6. Place the field-test cage mesh side down in a suitable container to prevent it from tipping over. Protect from direct sunlight.
7. Carefully close up the hive.

Sampling and counting mites

1. Leave the field-test cage for 3 to 4 hours. Give the cage a sharp tap to dislodge any mites trapped with static or in between bees. Then peel off the sticky back plastic sheet and count the number of mites knocked down. NOTE: If the wash through procedure is delayed beyond 4 hours (see 3 below), turn the field cage upside down and replace in the transport container until it is done. You must remove the strip after maximum of 4 hours.
2. Record the data on the Voluntary Varroa Resistance Test form (VVRT1). The form can be used for several apiaries belonging to the same beekeeper. Record the relevant details: beekeeper's name and address, apiary details, map references, county code, colony ID etc. in the appropriate columns on the form. Then enter the number of mites knocked down (KD) in the Mites KD column.
3. Prepare a detergent solution with water, suitable for light washing up, in the plastic tub (or other suitable container such as a glass/plastic beaker).
4. Immerse the field-test cage in the detergent solution. This will rapidly drown the bees (some mites will also fall off the bees during this procedure).
5. Prepare the stack of sieves, (coarse above, fine below). To ensure that no mites dislodged are lost during detergent-water phase, pour the detergent solution together with the bees directly into the top coarse kitchen sieve. Rinse with additional water if necessary. Mites will sink in detergent solution.
6. Separate any remaining Varroa mites from the bees by washing through suitable sieve(s) using a good strong flow of water, e.g. shower head fitting on tap to wash the dead bees to remove any remaining mites. Bees will be held in the coarse mesh and mites will be washed through into the fine sieve attached underneath.
7. Count the number of Varroa mites washed off (WO) the bees. Record the details on the VVRT1 form in the Mites WO column.
8. Calculate the efficacy of the product as a percentage. Work to the nearest whole number.

Example of calculations:

The efficacy is calculated from the number of Varroa mites knocked down by the treatment divided by the total number of Varroa mites (ie the number knocked down plus the number washed off), and multiplied by 100.

If 196 mites are knocked down and 4 mites remain on the bees, that is:

$$196/200 \times 100 = 98\% \text{ efficacy}$$

$$\text{Efficacy \%} = \text{KD}/(\text{WO}+\text{KD}) \times 100$$

Record the result in the Efficacy % column on the VVRT1 form and send completed form to the National Bee Unit, at Sand Hutton, York.

Clearing Up

1. Dispose of bees and mites in a suitable manner such as composting.
2. Dispose of used Apistan strips safely by wrapping in paper and placing in the domestic refuse.

SUSPECT CASES OF RESISTANCE

If the calculated efficacy above 80%, it is assumed that the mites are susceptible, and killed by the product. A reasonable number of mites are required for a meaningful result (5 mites+). If you calculate the **efficacy** and it is **below 60%**, resistance is likely. Advise your Regional Bee Inspector and the NBU Laboratory at Sand Hutton immediately. The laboratory will advise you on the next steps.

FURTHER INFORMATION

For further information, contact your local bee inspector or the National Bee Unit at York.

Tel: 01904 462 510 Fax: 01904 462 240

Email nbu@cs.gov.uk

website www.cs.gov.uk/prodserv/cons/bee

Voluntary Varroa Resistance Test		IN CONFIDENCE	Product: Pyrethroid
Your Name (Print)	<p><u>Send completed form to:</u></p> <p>Central Science Laboratory</p> <p>National Bee Unit Room 10GA01/02 Sand Hutton York YO41 1LZ nbu@csl.gov.uk</p> <p>Tel: 01904 462510 Fax: 01904 462240</p>	Test Used: NBU Apistan Test Kit * NBU 'leaflet' method *	
Your Address (Print)		* delete whichever is not applicable	
Postcode		Key to column headings: Mites KD = Mites knocked down initially Mites WO = Mites washed from dead bees (test kit) or dropped from dead bees after freezing (NBU leaflet method) Efficacy % = KD/ (WO+KD) x 100	
Tel. No.			
Beekeeper's NBU ID No. (if known)			

Apiary Name	County	O/S Map reference (or Post Code)	No. cols in apiary	Colony Tested	Mites KD	Mites WO	Efficacy %	Test Date	NBU Ref. No. (Office Use Only)
				1					
				2					
				3					
				4					
				5					
				6					

Instructions

1. You have space on this form to submit results for one apiary. Simply use additional forms if you wish to submit more results.
2. Please indicate on the top left of this form what test you used (Method in CSL leaflet 'Managing Varroa' PB2581(2000) OR the NBU field test kit*)
3. You only need test **1 or 2 colonies per apiary** (preferably 2) to get a meaningful result **with the NBU field test kit**. If you follow the **leaflet method** then **6 colonies** is preferred but don't worry if this is not possible. Submit your results anyway.
4. We would be very grateful if you could provide us with the Ordinance Survey Reference of the apiary if possible. This allows us to plot the location on our computer mapping system. The personal information you provide is in confidence.
5. For more information please visit our website at <http://www.csl.gov.uk/prodserv/cons/bee/>

* The field test kits are loaned out by your Regional Bee Inspector on a discretionary basis due to limited availability

VVRT(1)