2018 Issue 1

# HONEY BEE TIMES

Journal of the Wiltshire Beekeepers' Association

Migratory Beekeeping - Bees in Schools - Summer Planting

# Contents



*A honey bee gathers nectar and pollen from Goat willow catkins (Salix caprea), an important early sources of forage. Photo: Richard Rickitt*



# Chairman's report

**First, a big thank you to Chris Rawlings for his leadership over the past couple of years. On his watch the County saw an increase in membership and a steady number of people taking the Basic Assessment and BBKA module exams. We have also enjoyed two excellent honey shows.**

None of this would be possible without the work of dedicated volunteers, especially those at local level who organise the monthly meetings, run courses and provide an environment to help their members. They deserve our thanks and support. As do the volunteers at county level, who provide the important link with BBKA HQ, keep the association on an even keel, produce this magazine and organise the more advanced training opportunities.

As well as representing the interests of Wiltshire BKA at national and regional level, the association's objects are to improve and promote the craft of beekeeping and to advance the education of the public of the importance of bees in the environment.

Every year I aim to become a better beekeeper and I hope that you feel the same. All branches run an excellent series of lectures, which are open to members across the county. You will always learn something at these, and they are a good opportunity to discuss your successes and concerns with fellow beekeepers.

Another aspect of beekeeping is the preparation of the products of the hive: honey, wax and mead, cakes, biscuits, sweets, bee related photos etc. In the autumn all the branches held a honey show. There were excellent entries in that might have won prizes at county level but were not entered.

Meanwhile, Chris Rawlings, who organises the Bee Tent and Honey Show at the Royal Bath & West Show (30 May to 2 June), is keen to win back the Inter-County trophy from Somerset: since every entry counts, he needs your support.

Last year, two beekeepers from Melksham BKA were awarded the Junior Certificate. We need to attract more young beekeepers by working with schools, youth groups or setting up a junior section within a branch. Anyone who has links with a school, youth group or individual who has shown an interest in beekeeping should contact either me or their branch education officer.

To better meet our objectives, Wiltshire BKA would benefit from an updated website. This needs to work for the members, the branches and the public. If you have any ideas for the website and/or think you could help with this project, please get in touch.

Finally, February and March are difficult months for beekeepers. As I write we appear to heading for another spell of cold weather just as snowdrops, crocus, catkins and willow appear. Visit your colonies once a fortnight or so and heft the hives to check their weight and add some fondant if necessary. To discover where the cluster is, insert the varroa board for a few days rather than lift the crown board. Meanwhile, make sure your equipment is clean and ready for the coming season; it will be with us sooner than you think.

*Richard Oliver, Chairman WBKA (Kennet BKA)*

# Branch reports

## Kennet

**The autumn season started in October by the Association's AGM and honey show.**

The Committee was once again able to report back to members that it remained a strong, viable group, with membership numbers continuing to grow. Highlights reported to the Association's members included active promotion of beekeeping at fetes and fairs in the Kennet area. Award winners in the Honey Show, judged by Geraldine Lenert, were:

- Paul Hibberd Cup (best honey) –David Brown
- Silver Jubilee Cup (best in show) –Sophie Butcher (wax block)
- President's Cup (contribution to the Association) – David Brown

At the AGM, the following members were elected to the Committee for the 2018.

- Chairman – Robert Carpenter Turner
- Secretary – John Barber
- Treasurer – William Allen
- Apiary Manager – David Brown
- Membership Secretary – Sophie Butcher
- Fetes & Fairs Coordinator – Sarah Benson
- Education – Dick Church
- Website Editor – Sian Morgan

The November meeting was a talk by Ged Marshall on amateur queen rearing. It is anticipated that this talk will spur the Association to attempt an active programme of queen rearing in the coming year.

The December meeting was a social meeting, with some beekeeping being discussed, but for once, it was not the primary focus of the night. Food, beer and skittles took priority. The year ended with a varroa treatment, mulled wine and mince pie session at the Association's apiary.

The new year started with a general discussion evening. The panel included Colin and Liz Taylor from Melksham, and Alan Stonell and Robert Carpenter Turner. A range of questions were raised from beekeepers of all levels of experience and expertise. Particular debate focused on the use of bee gyms for the control of varroa.

The programme this summer is as follows (www.kennet-beekeepers.co.uk):

- March 2: A bee's eye view of beekeeping by Andy Willis.
- April 6: The importance of drones by Lynn Ingram.
- May 4: Pheromones by Ivor Davis.
- June 1: Bee chat.

All talks take place at Bishops Cannings Village Hall, starting at 7.30pm. Apiary sessions, weather permitting, are as follows:

- April 7: Apiary spring clean, varroa monitoring.
- April 21: General tasks including disease inspection, if warm.

*John Barber, Secretary*

## Melksham

**All in all, Melksham Beekeepers had a good year last year.**

Good and interesting speakers at the monthly meetings, excellent attendance from our membership at the Apiary on Saturday mornings, plenty of Apiary Angels to assist our Apiary Manager Liz Taylor which meant that novices had plenty of hands-on experience by the time the season came to an end. And Liz produced plenty of Club Honey for sale which will help the Club's finances.

Our Christmas gathering was a splendid and entertaining quiz night, organised professionally by club member Andrew Tyrer.

Terry Cooke's talk on Bee Farming was very interesting as a comparator with the hobbyist beekeepers that make up the majority of UK beekeepers. He was keen to distance himself from some of the 'brutal' procedures practised by bee farmers in the US, with which he did not agree. His procedure for swarm control: anticipate to make sure there is plenty of space inside the hive for the rapidly expanding colony is simple yet apparently fairly effective for him.

Coping with 300 colonies would be a nightmare for most of us but he was keen to point out that one needs to be efficient with the use of one's time. Could we spend less time peering into our hives and disrupting our colonies? I suspect we could. And no open floors? What about the varroa count? Yes you can have mesh floors but leave a solid one in place most of the time. I am going to put my wooden solid floor in place during this cold weather. I am not so sure about a metal one – perhaps it will be too cold and not help the temperature inside the hive. Food for thought.

As we commence another year, we are organising speakers for our monthly branch meetings at Broughton Gifford Village Hall, which has now been equipped with a very efficient modern heating system.

- February 26: Non-native honey bees by Claire Waring, editor of *Bee Craft* magazine.
- March 26: Beekeeping with the Warre hive by John Haverson.
- April 30: TBC.
- May 21: The importance of drones by Lynne Ingram.
- June 25: 12 months of forage by Andy Willis.

Members from other Associations are most welcome to our monthly meetings, held in Broughton Gifford Village Hall (except the Apiary Day). Contributions to our monthly raffle are also welcome!

https://mbka.org/branch-meetings-mbka

*Tony Awdry, Chair*

This year MBKA hosts the **Wiltshire Beekeepers Association AGM & Honey Show** at the Corn Exchange, Market Place, Devizes on Saturday 6 October. As this will be after most Branch Honey Shows, there is plenty of opportunity to enter your exhibits and compete with the best in the County. Speakers to be announced.

## Swindon

**Three committee members visited a possible new apiary site near Blunsden.**

After, discussing their findings, the committee decided that this site is not suitable as an alternative club apiary. However, if any member is interested on a personal level, please contact Kathy Hobson.

We have three viable colonies but are not going to expand the number this year due to lack of interest in running the club apiary. The apiary needs cleaning and maintenance, and we will need volunteers to help with this over the next few months.

TWIGS Open Days are scheduled as follows:

- 8 March
- 10 May
- 12 July
- 13 September
- 8 November

Although these are primarily Twigs days,

we open the beekeeping shed so visitors can view the apiary. This requires members to be on hand to answer questions related to beekeeping. You can, of course, sell your own honey at the same time.

Club meetings are held on the last Thursday of the month throughout the year, except December. www.sdbka.co.uk

The venue is in the Skittle Alley at the Haydon Wick Club, Blunsden Road, Swindon SN25 1JD. Start time 7:30pm.

- 22 February: Richard Oliver (County Chairman).
- 29 March: Swarm prevention and control.
- 26 April: Varroa mite control by Robert Carpenter Turner.
- 31 May: Thornes.
- 28 June: Small hive beetle by Ron Hoskins.
- 26 July: Beekeeping video.
- 30 August: TBC.
- 27 September: SDBKA Honey show and quiz night.
- 25 October: SDBKA AGM & open forum.
- 29 November: TBC.
- December: Skittles (date to be confirmed).

*Ian Cowdy*

## West Wilts

**As hosts of the County Honey Show in 2017, we had a busy year. It took place on 21 October in The Town Hall, Trowbridge.**

Parking was difficult thanks to the one-way system and the fact that it was Trowbridge Carnival Day. The number of members attending was lower than expected, as was the number of exhibits, possibly because of a poor honey year which was down to the bad weather in July and August. The speakers, Ken Basterfield, who spoke on Reading Bees, Dr Robin Wootton, who spoke of Bees as Flying Machines, and Margaret Murdin, who spoke about developments in the BBKA, were all interesting.

In October, Terry Cooke came to talk to us about Bee Farming, which provoked a lot of questions. We held our AGM in November. Dennis Pictor is now Chair, Ian Watt, Vice Chair and Geoffrey Lupton has joined the committee. Other posts remain unchanged.

In December, we had a skittles evening and a fish and chip supper at the Organ Inn in Warminster. In January, we held the Annual Branch Dinner at Cumberwell Park, Bradford-on-Avon.

We are holding a six-week Beginners Beekeeping Course starting 20 February. There are currently 15 learners signed up. Chris Rawlings will hold a six-week Basic Beekeeping Study Group in February/ March.

February saw Matt Simpson talking on the Development of Walled Garden Nursery with an emphasis on bee-friendly plants. We intend to do some queen rearing this year, hopefully with more success than last year.

Diary dates going forward (details on www.wiltshirebeekeepers.org.uk/west-wilts) are as follows.

- 12 March: Moving house by Geraldine Lenert, Chris Rawlings and David Newell.
- 9 April: A taste of microscopy.

Apiary visits are scheduled as follows – all on a Saturday, except 3 June*.

- 7 April
- 21 April
- 5 May
- 19 May
- Sunday 3 June *
- 23 June
- 7 July
- 21 July
- 4 August
- 18 August
- 1 September

*Geraldine Lenert, Secretary*



# Editor's Corner

**Spring is upon us – or nearly. On warmer days the bees have been out foraging on hazel, willow and crocus, bringing home small amounts of pollen to kick-start the colony.**

It's a time of great optimism for all beekeepers – and possibly some sadness should we find that one of our colonies shows no signs of life.

Even if your bees are buzzing and all seems well, we are at one of the most dangerous times of year. As colonies begin to expand, the overwintered bees begin to die off quite quickly. Healthy colonies will raise enough new bees to nurse the following generation keeping expansion at a safe and steady rate, but a sudden cold snaps can mean foragers can't get outside to gather new pollen and nectar, or water to help them dissolve existing stores. The result can be starvation.

## Dealing with starvation

If your colonies are low on stores after the winter, keep a bag of fondant on the top until you are sure that the weather is warm or there are plenty of stores in the hive. You can feed syrup from about the beginning of March if you need to.

Sometimes the queen lays more eggs than she really should at this time of year and the nurse bees can be really stretched to feed them and keep them warm. A cold snap can send the bees back into a cluster, which leaves any larvae on the edges of the nest exposed and unfed.

These untended larvae die and turn dark brown or black at the bottom of their cells. If you spot them it can be rather alarming, but it usually presents only a minor setback to the colony. The bees will clean out the cells and the queen will soon lay in them again.

## Introductory courses

Around now our associations will be running introductory courses and there will be lots of enthusiastic, if slightly confused, new faces at our meetings.

I would encourage everyone to talk to them, make them feel welcome, and offer them the benefit of your beekeeping wisdom. Should you find a new beekeeper who lives near you, try to spare a bit of time to mentor them over the coming months.

## All in a name

Someone recently asked why *Honey Bee Times* isn't called *Honeybee Times*. A quick scan of my bookshelf shows that about a third of my beekeeping books use the word honeybee, rather than the two-word option. However, let me quote directly from *Anatomy of the Honey Bee* by the much respected Robert E Snodgrass:

'Regardless of dictionaries, we have in entomology a rule for insect common names that can be followed. It says: If the insect is what the name implies, write the two words separately; otherwise run them together. Thus we have such names as house fly, blow fly, and robber fly contrasted with dragonfly, caddicefly, and butterfly, because the latter are not flies, just as an aphislion is not a lion and a silverfish is not a fish. The honey bee is an insect and is preeminently a bee; "honeybee" is equivalent to "Johnsmith."'

So that's my argument, and I'm sticking to it!

*Richard Rickitt, Melksham*

# NEWS

## Carpenter Turner and *The Bees*

**Best-selling author Laline Paull recently visited the Marlborough Literature Festival to talk about her novel *The Bees*.**

*Robert Carpenter Turner with author Laline Paull*

The book is a fantasy thriller based on life in a beehive and has been translated into at least a dozen languages. A large audience listened to Paull read from her book and answer their questions.

Although Paull thoroughly researched the life of honey bees before writing her novel, she decided she might need some expert help to answer questions about bees and beekeeping. Chair of Kennet Beekeepers' Association, Robert Carpenter Turner, was invited along to explain the intricacies.

In an almost entirely female audience, Robert said he felt like a lonely drone.

## Lawless beekeeping

**Those of you who subscribe to Netflix will be interested in a fascinating and slightly horrifying documentary about the criminal goings-on in the international honey industry.**

It's well worth watching, if only to see the scenes of US commercial beekeeping. The series to search for is called *ROTTEN* and the episode in question is called *Lawyers, Guns and Honey*. If you don't subscribe to Netflix, you can sign up for a free month just to watch this – it's worth it.

## Honey monitoring scheme

**A new National Honey Monitoring Scheme has been established to analyse and monitor British honey for pollen content and contaminants.**

The Centre for Hydrology and Ecology (CEH) is asking beekeepers from across the UK to send samples of their honey on an annual basis so that they can use advanced analytical techniques to identify plant DNA and measure contaminants such as pesticides. The scheme will provide early warnings of potential environmental threats in different regions.

Beekeepers who apply will be sent sample pots and return envelopes, along with instructions for submitting their samples and how to obtain their results. If you are interested, email honey@ceh.ac.uk

## Asian hornet videos

**Last year's Asian hornet discovery in Woolacombe, the only confirmed UK siting in 2017, has thrown up a number of questions about the role of beekeepers in spotting, reporting and controlling this exotic threat.**

Martyn Hocking, the beekeeper who reported the Woolacombe hornets, has questioned and criticised certain aspects of the official response to his case. You can see a video of a public talk recently given by Hocking to beekeepers, representatives of organisations with a special interest in the Asian hornet, university researchers and NBU officials, who attended the Asian Hornet Open Meeting in January.

Worth watching: http://bit.ly/hbt1801-1

Another fascinating video shows Asian hornets hawking outside hives. Watch if you dare! http://bit.ly/hbt1801-4

# Wiltshire BKA exam and assessment results and study programme

## Module examinations

Congratulations to all those who sat BBKA module examinations in November:

| | |
|---|---|
| Rachel Banyard (K) | Module 6 Pass |
| Sophie Butcher (K) | Module 6 Distinction |
| Dick Church (K) | Module 6 Credit |
| Ross Gregory (S) | Microscopy Certificate |
| Alan Hepper (WW) | Module 1 Pass |
| Peter May (K) | Module 6 Pass |
| Richard Rickitt (M) | Module 2 Distinction |

This winter a large group has been studying Module 3: Honey Bee Pests, Diseases and Poisoning, with study sessions being held in Seend Community Centre under the guidance of Richard Oliver. The exam takes place in March.

## Honey Bee Management

In the autumn, Richard Oliver will be running a study group for those wanting to take Module 1: Honey Bee Management. Although modules can be studied in any order, this is a good place to begin, so for anyone considering getting started with the BBKA exams, this is an ideal opportunity.

## Selection and Breeding of Honey Bees

For those who have completed a number of modules, Richard Oliver is considering running study group for Module 7: Selection and Breeding of Honey Bees.

## Microscopy

In November, a very successful microscopy course was run under the tutelage of Sally Wadsworth and Alan Stonell. Special thanks to Brunel Microscopes for the loan of equipment.

Plans are in hand to run another course later in the year.

## Find out more – Modules and Microscopy

For information on any of the courses, please contact Richard Oliver: Raoliver.62@gmail.com

## BBKA Basic Assessment

If you've kept bees for more than a year, it is well worth taking the Basic Assessment. It isn't particularly difficult, and can improve your knowledge, skills and enjoyment of the hobby considerably. If you've kept bees for a long time and haven't taken the exam, it's worth doing so that you are up-to-date on recommended procedures and treatments.

## Find out more – Basic Assessment

Contact the following for information about taking the Basic Assessment:

- Dick Church (Kennet) church175@btinternet.com
- Richard Rickitt (Melksham) beesknees1972@gmail.com
- Stephen Greenaway (Swindon) stephen@beenucs.co.uk
- Chris Rawlings (West Wilts) chris.rawlings@blueyonder.co.uk

Details of all the BBKA qualifications can be found on the BBKA website: www.bbka.org.uk/learn

# Gardening for honey bees – annuals for summer

**With some planning, annual flowering plants can provide forage for bees over a large part of the summer until the first frosts.**

By including biennials in your planting scheme, the season can be started in spring and provide forage during the critical June gap.

The choice of annual plants for the garden is overwhelming. However, not all are suitable for bees and other pollinators. Many annuals and other bedding plants have been bred for maximum show and rarely offer anything for bees. If some simple rules are followed when selecting annual seeds to sow, then you can have a guaranteed supply of nectar all summer for your bees. These rules include:

- Select single not double flowering plants
- Choose plants that are close to their native form rather than being over-hybridised.

## Colourful annuals

Annuals are classified as hardy annuals (HA) or half hardy annuals (HHA).

Hardy annuals do not need heat or protection for germination whilst half hardy annuals are frost tender and need protection until after the risk of frost. Hardy annuals can be sown at the end of summer or early autumn rather than in spring.

*Limanthes douglasii (Poached egg plant), a great self-seeder*

Doing this should give you earlier flowering plants, thereby starting your nectar flow earlier in the summer.

The following are a selection of annuals that are not only easy to grow from seed, but which also be a good source of nectar:

- *Amberboa moschata* (sweet sultan)
  - ◇ HA, flowers July to October
  - ◇ Range of colours from white to pink
- *Borago officinalis* (borage or starflower)
  - ◇ HA, flowers May to September. Self-seeds freely
  - ◇ White and blue flowers
- *Calendula officinalis* (pot marigold)
  - ◇ HA, orange flowers. Self-seeds freely
  - ◇ Colours from pale yellow to strong orange
- *Callistephus chinensis* (China aster)
  - ◇ HHA, flowers July to September
- *Centaurea cyanus* (cornflower)
  - ◇ HA, flowers June to September
  - ◇ Blue
- *Clarkia elegans* or *Clarkia unguiculata* (godetia)
  - ◇ HA, flowers June to September

*Phacelia tanacetifolia, a spectacular nectar provider*

- *Cosmos bipinnatus*
  - ◇ HA, flowers June to September
  - ◇ Colours: yellow, pink, white, red, purple
- *Eschscholzia californica* (Californian poppy)
  - ◇ HA, flowers June to August. Self-seeds freely
  - ◇ Orange shades
- *Helianthus annus* (sunflower)
  - ◇ HHA, flowers July to October
  - ◇ Range of heights, including multi-stemmed, and range of colours from pale yellow to deep reds
- *Heliotropium arborescens* (heliotrope or cherry pie plant)
  - ◇ HHA, flowers June to September
  - ◇ Cherry scented, hence the name
- *Iberis umbellate* (candytuft)
  - ◇ HA, flowers June to August
  - ◇ Shades of pink, purple and whites
- *Limanthes douglasii* (poached egg plant)
  - ◇ HA, June to September, or from May if sown the previous autumn. Self-seeds freely
  - ◇ Low growing, white with a yellow centre
- *Nigella damascene* (love-in-a-mist)
  - ◇ HA, flowers July to September
  - ◇ Colours from white to purple, short flowering season but the season can be extended by making several sowings, each a couple of weeks apart
- *Papaver rhoeas* (common or field poppy)
  - ◇ HA, flowers June to September
- *Papaver nudicaule* (Iceland poppy)
  - ◇ HA, flowers June to September
  - ◇ Range of colours including whites, pinks and oranges
- *Reseda odorata* (sweet mignonette)
  - ◇ HA, flowers July to September
- *Phacelia tanacetifolia*
  - ◇ HA, flowers June to August
  - ◇ Not the most attractive of flowers and usually grown as a green manure

*Myositis sylvatica (Forget-me-not), a useful biennial*

- *Rudbeckia* (coneflower)
  - ◇ HHA, flowers July to September
  - ◇ Range of orange colours

## Delightful perennials

As well as annuals, there are biennials that are great for bees. Biennials are plants that flower in their second year, usually spring and early summer. Two good, early sources of nectar are:

- *Cheirianthus cheiri* (wallflower)
  - ◇ Wide range of colours, sweetly scented
  - ◇ Flowers March to May
- *Myositis sylvatica* (forget-me-not)
  - ◇ Can be treated as a short-lived perennial, self-seeds freely
  - ◇ Range of colours including white, pink and the common blue

## Get sowing

Hopefully, the plants listed above will provide you with some ideas for what to sow this year. Either for flowering this summer, or for an early start next year.

*John Barber (Kennet BKA)*

# The ups and downs of beekeeping

**Last year I planned to take the BBKA's General Assessment in Beekeeping Husbandry (GCBH), for which I needed three honey-producing colonies, a queen-right nucleus and a queen rearing programme in progress.**

The assessment was set for 25th July but three weeks before this it was clear that I would not be able to meet the criteria. Where did it go wrong and what have I learned?

*Sally Wadsworth uses a microscope to look for signs of nosema, while Diane Sleigh looks on. Inset: a nosema spore at x400*

## Dead bees on the floor

At the end of March, I had six colonies, all but one of which had come through the winter well. There was a carpet of dead bees on the floor of the ailing colony (photo 1) so I assumed nosema.

A quick look under the microscope confirmed a heavy infection. I realised that the colony was probably doomed but the queen was there, laying steadily and supported by five frames of bees. Ever the optimist, I initiated a Bailey comb change to move the colony onto fresh foundation and fed some syrup. Sadly, the colony withered and had to be destroyed.

- **Lesson 1.** It is not worth time and effort trying to save a colony heavily infested with nosema.

*Photo 1: The impact of nosema*

## Manage swarms

By the last week of April, two of the remaining colonies were expanding fast. Both were on double brood with brood across both boxes and a super on each. The queen had plenty of room to lay, there was a little drone brood but no drones to be seen. However, there was one charged queen cell in a swarm position and several queen cups. With plenty of space to lay and no drones it seemed unlikely the colony would swarm imminently. As the weather was unseasonably cold I delayed my inspection and paid the penalty. It was freezing in the morning and 9˚C at lunchtime, with no sign of bee activity. Then the sun came out... and so did the bees. Luckily I spotted and retrieved the swarm in the garden.

- **Lesson 2.** If you spot a charged queen cell, assume the colony is preparing to swarm and take immediate remedial action whatever the weather.

## Making up nucs

The other strong colony in an out-apiary also swarmed, and with it went my best queen, the one which I had planned to be my breeder queen. All was not lost as this had been a very strong colony. There was enough brood and bees to make up three mating nucs and still leave the parent colony as a going concern (photo 2).

If all had gone according to plan I might have had four honey-producing colonies by the end of July. It was not to be. The weather in May was cool and windy. Only one of the four new queens mated successfully and the queen that did mate was subsequently superseded.

## Twarted by supersedure

Now into late June and despite these setbacks there was still an opportunity to recover the situation. There were two colonies at my other out-apiary that I would have been happy to breed from. I intended to use the Demaree method on the strongest of the two, which was on double brood.

This time I was thwarted by the bees for, when I arrived to initiate the procedure, the colony was in the process of supersedure. Ten days later the second colony followed suit!

Across the five colonies I might have been able to show that three were producing honey but any chance of queen rearing and so producing a queen-right nuc had disappeared. I could no longer guarantee to meet the criteria for GCBH and informed my assessors.

- **Lesson Three.** It pays to have a queen rearing programme and aim to have over-wintered queens available for just these circumstances.
- **Lesson Four.** If you are considering taking the GCBH, aim to start the season with more than six and preferably at least eight strong colonies to provide some leeway should your beekeeping not go to plan.

## Overwinter more queens

That the year started badly was entirely my own fault: I should have acted to prevent my two best colonies swarming as soon as I saw the signs.

There was nothing I could do about the poor mating or queens being superseded, though the situation could have been recovered had I had a couple of overwintered queens available.

I need to do better in 2018, and a little bit of luck would be welcome!

*Richard Oliver, Kennett BKA*

*Photo 2: Three mating nucs*

# Escape to the country

**I've kept bees for the past four years, until recently on an allotment close to where I used to live in Twickenham, in leafy but very urban west London.**

In March 2017, we relocated – with my one remaining colony after losing the other over winter – to a cottage in the Wiltshire countryside, where the girls now live in the garden. We all know that an urban environment is very different from the countryside – at least for humans. But how do the bees feel about it? I'm often asked: have they settled in alright? Are they happier? Does their honey taste any different?

2017 was an interesting season for many of us. For me, the transition to country beekeeper from an urban one made it even more so.

## Moving the girls

Our move coincided with the start of the season. We picked up the keys to our new house on 2 March and I returned to London a couple of week's later to collect the girls. It didn't take them long to become familiar with their new home and during my first full inspection (the first of the year) I noticed they were very calm. Their temperament in Twickenham had been a bit changeable – at times they'd been so fierce that I'd had to wear two pairs of gloves as protection from enthusiastic guard bees. I had thought that this was a genetic trait, yet other beekeepers in the area had the same problem, so now I am not so sure.

I'd read about oilseed rape nectar, but never had first-hand experience of it. Twickenham is surrounded by residential land and industry; there is no agriculture within the foraging range of three miles from the apiary. In our new location, fields of bright yellow flowers began to appear all around us soon after we arrived. The first thing that threw me was how much extra space the bees needed to store all this nectar. I added an empty super and quickly noticed they were still running out of space. I began to panic about extracting it – new to the area I didn't know anyone who might lend me an extractor. Eek!

## Swarm cells

But that was just the start of my problems. At the beginning of May I noticed some nice, healthy swarm cells and so began the process of swarm control with the hope of creating an additional colony. Not a problem in itself, but after leaving the colony alone for a few weeks, I inspected it and found no sign at all of the expected virgin queen.

Had she been eaten by something on her mating flight perhaps? Not only was there no new queen, I found I now had laying workers to contend with. I got rid of them by taking the hive down the road and shaking each comb onto the ground, returning home with an empty hive ready to

*The beehive in Twickenham*

await the flying bees' return. I then reunited their depleted number to the original hive. Just when I thought all would be well, I had a further problem: robbers!

In town I had only ever kept my bees in National hives. Having the bees in the garden prompted me to consider swapping over to WBCs. As well as being double walled and better insulated (our new house is in quite an exposed position), I have always fancied the more traditional style and so invested in a brand new WBC hive, which was carefully painted by my husband.

*My smart new WBC*

## Grumpy bees

Expecting a smooth transition, I was surprised, during subsequent inspections, to find that they were back to their grumpy old selves. It was then that I noticed that the bee escapes in the gabled roof are not only perfect for allowing bees trapped between the boxes and risers during an inspection to escape, but also for enbling bees from other colonies to get in and steal their precious bounty. I watched for ten minutes one afternoon as other bees snuck in through the 'one way' escapes and pillaged the hive.

I'm not sure how many robbing bees I had, but the problem was significant and the honey stores were quickly depleted. I put some wire mesh inside the roof vents to prevent any access/egress but soon noticed another weak spot, this time at the bottom of the hive. The pesky little thieves were getting in through a gap at the front of the mesh floor. I remedied the loosely fitting floor by hammering in a nail to fix it in place snugly. Problem solved.

Next, I noticed an increasing number of wasps trying their luck at the entrance. I bought some wasp traps, which I dotted about the garden. Wasps were something I'd never had to worry about at the Twickenham allotment where we were surrounded by fruit trees – a useful distraction from my girls' precious honey.

## Streaking on the tops of frames

Finally, at the very end of the season, before settling them down for winter, I noticed some of my bees had dysentery – not on the outside of the hive as can happen with nosema at the start of the season, but inside on the tops of the frames and a couple of streaks on my hand as a few poorly bees walked across it. I wondered if it was perhaps a chemical that was being used on some agriculture somewhere which didn't agree with them. I still don't know the cause, but once I'd treated for varroa (something I had hoped I wouldn't need to do this year), the problem seemed to disappear.

The fruit of our labours (or at least, what was left!) was finally extracted in September, just before the ivy nectar started flooding into the hive – another thing I hadn't really experienced before. The harvest was only about 20lb, which I know from speaking to other beekeepers in the area was not bad, since 2017 was generally a poor year for honey production nationwide.

Does the honey taste different from before? Definitely! The variety of forage in towns invariably makes for a more complex flavoured honey. Although I hate to say it, my honey now tastes much more bland and generic than it ever has. It also seems to crystalise much more quickly – probably because some of the spring oilseed rape honey remained in the comb to seed the summer honey.


*The joys of infrared cameras: my colony on Boxing Day*

## A change in temperament

The temperament of the bees has certainly improved since moving to the countryside. Apart from when they were being robbed, they have been calm and a pleasure to inspect.

My relocated bees are now secure in their winter cluster – I know because I photographed them on Boxing Day using my new thermal camera. I hope they will make it through to the next season intact, when I will put my hard-earned rural experience to good use.

Next year I will be ready with additional frames for the oilseed rape. I will extract it before it crystalises. I will make sure the hive is secure and place wasp traps out early. I can't control what happens to any future virgin queens but I know what to do if I have laying workers again. And I will be ready for the ivy. At least this is my plan.

One thing I have found very valuable indeed is the help and advice I have received from fellow beekeepers in the area. I could not have got through this year without my new neighbours kindly letting me borrow and buy supplies and equipment from them along the way, and sharing their infinite local knowledge and experience with me. I feel like I have made some firm new friends already. Maybe next year, and in years to come, I will be able to return the favour.

*Emma Morely, Melksham BKA*

# Neonics still in UK honey despite EU ban

**A brief report in *The Guardian* (6 January) stated that: 'Almost a quarter of UK honey samples remain contaminated, even after the EU placed a partial ban on neonicotinoid pesticides.'**

The report continued: 'The contamination has fallen from more than half the level before the ban, but a new study shows that these potent insecticides remain in the farmed environment and pose a risk to bees and other vital pollinators.'

Exposure to neonicotinoid treated oilseed rape crops has been conclusively linked to the long-term population decline of wild bee species across England, according to research published last year by the Centre for Ecology and Hydrology (CEH).

The research examined changes in the occurrence of 62 wild bee species and oilseed rape cropping patterns across England between 1994 and 2011 – the period spanning the introduction of wide-scale commercial use of neonicotinoids.

## A cause of wild bee decline

CEH found evidence suggesting that neonicotinoid use is linked to large-scale and long-term decline in wild bee species distributions and communities. The decline was, on average, three times stronger among species that regularly feed on the crop, such as buff-tailed bumblebees (*Bombus terrestris*) compared to species that forage on a range of floral resources, indicating that oilseed rape is a principle mechanism of neonicotinoid exposure among wild bee communities.

Neonicotinoids are a group of insecticides which can be applied to seeds prior to planting. The active compound is expressed systemically in the growing plant and can lead to ingestion when pollinators feed on the pollen and nectar of treated crops.

Despite the ban on flowering crops, neonicotinoids can still be used on non-flowering crops such as wheat. This appears to leave residues in the soil that can be taken up by subsequent plantings of flowering crops such as oilseed rape or field beans, as well as plants in field margins and hedgerows. Ben Woodcock of CEH says: 'While the frequency of neonicotinoid-contaminated samples has fallen, our data suggest that these pesticides remain prevalent in the environment.'

## Not just neonics

While media attention has focused on neonicotinoids, other agrichemicals continue to cause concern. The EU recently extended the licence of glyphosphate based herbicides (such as Roundup) for another five years, despite the fact that they are widely linked to cancer in humans, among other negative impacts. The EU has been heavily criticised for this decision and has recently announced the formation of a 30-person special committee to look into the way the decision was handled.

Another recent study has found that commonly used agricultural fungicides are the strongest factor linked to steep declines in bumblebees across the US.

The surprising result has alarmed bee experts because fungicides are targeted at molds and mildews and are widely used on all crops, including flowering crops. How fungicides kill bees is now being studied; it may make them more susceptible to the nosema parasite and also by exacerbating the toxicity of other pesticides.

*Richard Rickitt, Meksham BKA*

# Migration madness. Why California's almond farmers are nuts about bees

**At this time of year we begin to see the flowering of the first important forage plants of the season. The acid-yellow cotton balls of willow catkins *(Salix caprea)* light up skeletal hedgerows while, at ground level, crocuses and the last of the snowdrops bow and vibrate as they are mined for their valuable pollen.**

At about the same time, thousands of miles to the west, one of the great migration events of the modern world is taking place. Where countless buffalo once roamed the American plains, millions of beehives are now trucked towards California's Central Valley.

Every year, in about the second week of February, millions of almond trees begin to bloom in an expanse of more than 800,000 acres that stretches from Sacramento to Los Angeles. In the following weeks, more than 30 varieties of almond tree unfurl their five-petaled white and pink flowers at different times. In order to produce nuts, these flowers must be pollinated, receiving pollen grains from a different type of almond tree in order to produce viable seeds.

## Five-day window

Mature flowers on any given tree are only receptive to pollination for five days. If almond farmers want their trees to produce as many nuts as possible, they need to make sure the flowers are pollinated within that small window. Some flowers are pollinated by wind, but this is an unreliable and inefficient way of ensuring that every flower is fertilised. The best option is insect pollination. However, the trees are grown in seemingly endless orchards with no grass or wild flowers on the ground, or any other kind of uncultivated vegetation for miles around, and the trees are regularly sprayed with insecticides. Wild pollinators are rare or completely non-existent. Therefore, the only way to pollinate some 90 million almond trees is for hives of honey bees to be shipped in from across the continent.

## Moving 2,000,000 hives

Between October and February, beekeepers travel to California from all over the country, even as far away as Florida. They bring with them a staggering two million hives of bees loaded on thousands of articulated juggernauts. Forklifts stack the boxes on the trucks in the dead of night, when the bees are all at home. They drape nets over the boxes to catch any curious scouts and begin the journey. Sometimes the trucks crash, spilling boxes – and angry bees – onto the road, but most of the valuable travellers complete the journey safely.

*Hives are placed amongst the trees on pallets at a rate of two colonies per acre*

*A honey bee visiting an almond flower*

## 31,000,000,000 bees

It is estimated that some 31 billion honey bees are shipped to California in order to service the 2.5 trillion almond flowers that need pollinating. Each year, California produces between 50% and 80% of all the almonds harvested worldwide; this year California's orchards are expected to yield 1.85 billion pounds of almonds, which works out to about 700 billion individual almonds. Every almond grows from a successfully pollinated flower, but the bees probably pollinate far more flowers than this, since in April and May the trees shed as much as 15% of their almonds, depending on the year – similar to the 'June drop' in UK apples.

## Pollinating other crops

California's almond orchards are the most important stop on a massive annual migration of around 1,600 of the nation's beekeepers and their colonies. Today, many American beekeepers make at least half of their annual income not from selling honey, but rather from renting their hives to farmers to pollinate crops. After the almond bloom, some beekeepers take their honeybees to cherry, plum and avocado orchards in California and apple and cherry orchards in Washington State.

Many beekeepers head east to fields of alfalfa, sunflowers and clover in North and South Dakota, where the bees produce the bulk of their honey for the year. Other beekeepers visit squashes in Texas, clementines and tangerines in Florida, cranberries in Wisconsin and blueberries in Michigan and Maine. All along the east coast, migratory beekeepers pollinate apples, cherries, pumpkins, cranberries and various vegetables.

By November, beekeepers begin moving their colonies to warm areas to wait out the winter: California, Texas, Florida and even cavernous temperature-controlled potato cellars in Idaho. The bees stay inside their hives, eating the honey reserves they made in the summer and autumn – most of which have been made from the high-fructose corn syrup they are fed.

The result of this industrial-scale bee movement is millions of tonnes of fruit and vegetables that couldn't be produced in any other way. The growers are happy because their businesses thrive in polluted environments that otherwise cannot sustain

enough wild pollinators. The beekeepers are happy because they are able to make their bees pay (the going rate for pollination is about £100 per colony, per week).

*Stetrching as far as the eye can see, California has some 800,000 acres of almond orchards*

### Deeply unhappy bees

However, the bees are definitely not happy. Average winter losses for commercial bee farmers in the US are 45%. That means that almost a million colonies of honey bees will die each year and need to be replaced in the spring – mostly using package bees imported from abroad.

Some researchers, beekeepers and journalists have argued that migratory beekeeping is one of the primary reasons that so many bees die each winter and is also an explanation for colony collapse disorder (CCD) – the sudden and mysterious disappearance of an entire hive's residents, except for the queen and a few stragglers.

### Disease spread

Bringing so many bees together all at once guarantees that they will spread viruses, mites and fungi to one another. Forcing bees to gather pollen and nectar from vast swaths of a single crop deprives them of the far more diverse and nourishing diet provided by wild habitats. The flowers that bees visit grow on trees that are subjected to year-round high levels of pesticides, herbicides and fungicides.

The migration also continually boomerangs honeybees between times of plenty and borderline starvation. When on the road, bees cannot forage or defecate. And the sugar syrup (often made from maize, not cane or beet sugar) and pollen patties that beekeepers offer as compensation are not nearly as nutritious as natural pollen and nectar.

### A wildflower solution

One solution that seems to have positive benefits is to plant wildflower strips alongside the almond trees and other crops. These give honey bees more diverse forage and encourage the re-establishment of populations of wild pollinator species. The more native bee species that are available to pollinate crops, the less farmers will have to depend on honeybees – meaning less migration and less disease spreading.

Farmers can restore wild habitat by planting a mix of native flowering shrubs on fallow fields near croplands for around £400 per acre. Scientists have shown that such newly planted wild habitat attracts native bees, which increases crop yield by 10% to 15% and makes honeybees themselves more efficient pollinators.

And the increased yield is high enough for farmers to recoup the cost of setting up new habitat after just a few years. Now that's the kind of maths that could save the bees – and our future food supplies.

*Charles Inkpen, Melksham BKA*

# Beekeeping in the curriculum

**Some schools keep a hamster in the corner of the classroom, a few keep rabbits in the grounds. At Charlton Park Academy, London, they keep bees.**

This may seem counterintuitive in a special school: animals usually relax when you stroke them; bees require the beekeeper to be and remain calm. People working with bees find this out quickly. For young people with learning difficulties, beekeeping helps them learn the importance of remaining calm no matter what the bees are doing.

Beekeeping at Charlton Park began two years ago to enable the school to include more outdoor learning in the curriculum. Beekeeper Berenger Allee, now school's head beekeeper, was inspired by a visit to nearby Charlton Manor Primary School where they keep bees (see page 28).

*Students inspect a frame from the Flow Hive*

## Choosing a hive and bees

Charlton Park is a special school for students aged 11 to 21. About half the students have autism spectrum disorder, a few have severe physical disabilities.

After much thought, they decided to use Flow Hives, the latest design in hives from Australia, and the calm Carnolian bees. This year the students assisted Allee in two small honey harvests. They cranked a handle and within seconds honey poured out of the hive through a tube. The hive's the bees were attracted by the smell of honey, but they were not aggressive, probably because the hive was still closed.

## Cross-curricular learning

Beekeeping lends itself to cross-curricular learning – the students are absolutely fascinated by the bees. In literacy, they might read or write poems about bees. In maths, they weigh the hives in the morning and evening and consider why the weight might be rising or falling. They discuss pollination in science.

Beekeeping is open to everyone in school – from next year, the school will introduce the BBKA Junior Certificate, which is well suited to their students. They plan to buy the BBKA new teaching pack for primary schools this spring.

## Getting parents on board

Not one parent baulked at the idea of keeping bees at the school. Many wanted their children to benefit from the experience, although naturally there were anxious questions at the start about whether there would be bees in the classroom.

The hives are kept well away from the playground and properly fenced off. To date, the only grievance is that there is not enough honey for everyone.

Allee took time to explain to parents how their children might react to bee stings. Meanwhile, the school completed reams of risk assessments and staff received training on what to do if someone had a bad reaction.

In the event, only one student was stung last year. Allee called his parents straight away, anxious that they might stop him taking part in the activity. As it turned out, they were more worried that Allee might exclude the boy from the bee club.

### Developing confidence

The students' reactions to bees surprised Allee. They are captivated by these busy little creatures. A few who used to be scared of any insects have become his most enthusiastic assistants. At first students were careful around the hive, walking slowly and close to each other. Now they are fearless. Even if lots of bees are flying around them, they aren't alarmed.

Teaching them to be steady and sensible around bees is the key. Berenger show them that if he didn't flap his arms and behave aggressively, the bees remained calm too, and that, provided students are properly protected, it is acceptable and interesting to have bees land on them.

The school how has bee suits in different sizes so that almost everyone can take a turn observe close up. For children in wheelchairs, suiting up is a lengthy process, but two of them regularly attend inspections.

As a special needs school, classroom learning does not suit many students. They do best when they are active, on their feet and with their eyes popping out in excitement. Keeping bees offers the school endless possibilities to harness their fascination in these social insects.

### Tips for other schools

- Contact your local beekeepers' association to get some training in beekeeping.
- Look for an accessible, outdoor space to keep the hives that is well away from classrooms and the playground.
- Get your colleagues on board – bees offer a lot of scope for learning outdoors.

# Beekeeping as a confidence builder

**Tim Baker, headteacher of Charlton Manor Primary School, London, talks about the difference beekeeping has made to pupils.**

Our school has kept bees for seven years. It began when a swarm alighted at the school entrance. The children were fascinated and wanted to get closer to look at them while the staff anxiously tried to keep them away and wondered if we should close the school.

This rocked me. Not a beekeeper at the time, I still thought it muddle-headed that we teach children about how good bees are for the environment and then panic if we come across a swarm. Consequently two members of staff and I went on a beekeeping course at our local beekeepers' association and set up the school hive the following summer.

The school gardener manages the bees during the holidays; he happened to be on the same introductory course as my staff and me and now keeps his own bees.

The hive is set up next to a bus shelter-like structure which allows children to visit the hive any time to observe the bees flying in and out and to see them inside through the glass panels. The main beekeeping sessions are carried out after school and everyone involved is fully suited up.

The activity is open to all pupils, but each year we end up with a core of around 15, with a group of three or four handling the bees at any one time.

For children with special educational needs, beekeeping is a highly inclusive activity and a great leveller. It has made a difference to two children in particular, one with attention deficit hyperactivity disorder and one with autism spectrum disorder, both lacking in self-esteem and confidence. I don't know what it is about bees, but the children's difficulties seem to fade when they work with them. They behave responsibly and take the risks in their stride. They have blossomed so much that recently they were able to give a really good presentation to members of the local beekeeping association, the local MP and other dignitaries.

*Nick Shelley, the school beekeeper and gardener, opening up the observation panels for children to see inside the hive*

# School visits to a club apiary

**Gill Silvester is a member of Twickenham and Thames Valley Beekeepers' Association, which invites schools to its club apiary every year. Some return year after year with each new cohort. She explains how the club's education visits work.**

Teachers bring class groups to visit the club apiary, situated in the garden at the back of the association's clubhouse, during the summer term. Our aim is not to turn pupils into little beekeepers but to get them to understand the place of bees in the environment. A typical session starts with a short DVD, *Dancing with Bees*, which looks at the differences between honeybees, wasps and bumble bees, pollination and how bees in a colony interact and behave. A short Q&A session follows. The class then splits into two groups, one half go to the club's small discovery centre and the other half go and look at bees in the apiary outside, swapping over after about 20 minutes.

The discovery centre contains a display about the roles of the queen, drones and workers, how queens are produced, and swarms and mating flights. Pupils also play with a virtual hive to prepare them for seeing inside a real hive.

Meanwhile, the other half of the class are outside in a bee-proof tent beside a hive. The mesh allows them to both see and hear the bees. A beekeeper opens the hive and takes out frames of bees, one at a time, bringing each one to the tent for the children to look at through the mesh. Another beekeeper is on hand in the tent to answer all the pupils' questions. The whole visit lasts about an hour.

*Versions of these articles were first published in Special Children magazine, published by Optimus Education, edited by Sophie Butcher ( Kennet)*

# Di's deliberations – CBPV update

**You may recall that last summer two of my hives suffered from chronic bee paralysis virus (CBPV – *Honey Bee Times*, 2017, No 2).**

30 May 2017 saw the scene of the first 'shake out' – the recommended treatment for this condition. The colony was a standard National double brood with one super. I found and caged the queen and put her safely in the upturned roof.

## Protecting the queen

The three boxes were put in the car; I didn't bother to close the boot door.

We cleaned dead bees from the floor, placing a clean brood box on it with nine frames of new foundation and two of pollen from a disease-free donor, all over a queen excluder.

We put the queen in her cage on the top bars and put the roof on. The returning bees would have somewhere to go and they would find their queen there too. We drove the three boxes of bees about 100m across the field where we shook every frame into the air. We also had spare boxes to put the shaken frames into. I took the frames away for recycling and a thorough clean. Fortunately, I had two helpers; it was quite an effort and not for the feint hearted – there were a lot of bees flying about!

## Feeding fondant

Back at the apiary there were many returning bees. The idea was that infected bees would not be able to fly back. We released the queen, gave them a bag of fondant and left them to it.

On the 17 June there were five frames with brood in all stages, one full of honey

*These bees exhibit classic signs of CBPV. They have lost their hair on their bodies and have a 'greasy' appearance. Bees in this condition can often be found 'trembling' on the ground in front of a hive*

and half the fondant had been used. That's a lot of work completed in a couple of weeks. At some point I removed the queen excluder from under the brood boxes – I didn't make a note of when.

## Sickness returns

However, there were still signs of shiny, shaking bees so I repeated the exercise, this time on my own with only eleven frames. Disappointingly, I shook them out twice more in July.

To date, they have eaten a further three bags of fondant, had an Apistan varroa treatment and were flying as if it were Spring on the 10 Jan.

This has been quite an expensive, time-consuming colony. Would it have been better to kill them off, let them die out and replace them with new bees? How far should we go to save colonies that are ill and possibly doomed? You have to decide. I'll see how they fare this year.

The other colony died as I didn't get a chance to shake them out.

*Diane Sleigh*

# Books reviews reviewed by Richard Rickitt


## Planting for Honey Bees – The Grower's Guide to Creating a Buzz by Sarah Wyndham Lewis

This publication was inspired by a free booklet produced by the London-based honey company Bermondsey Street Bees, which urged Londoners to plant more forage for bees. Its aims remain the same: to persuade gardeners – whether in allotments, on rooftops or in window boxes – to plant for the bees.

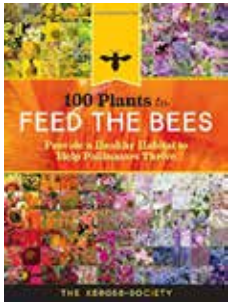
Beautifully produced with exquisite illustrations, the writer explains of how honey bees live, reproduce, and make honey before she moves on to plants and planting.

The book is then divided into a number of chapters which deal with planting in different garden scenarios. There is information on planting for plots and containers, and how gardeners can achieve a balance of flowering plants and fruit and vegetables whilst catering for bees' needs.

Further subdivisions list plants that could provide forage throughout the year. Many plants suggested for one season or location are also suitable for others, so there is a bit of repetition. The section on planting 'wild' lawns to attract bees is a welcome addition.

This book won't satisfy experienced beekeepers or expert gardeners but is aimed at non-beekeeping weekend gardeners who want to do their bit to help bees.

ISBN 9781787131460
Quadrille
143 pages, £12 Hardback




## 100 Plants to Feed the Bees

This colourful book 'does what it says on the tin'.

It includes a chapter on why plants are important for bees, covering the usual subjects of nectar, pollen, oils and resins, as well as information on how to create habitats that are rich in forage.

Each planting suggestion, which includes wild plants and weeds as well as garden cultivars, has a double-page spread describing the plant, its growing conditions and habit, as well as its usefulness to honey bees, bumblebees, solitary bees, moths and… hummingbirds, although the latter are rarely spotted in Wiltshire – this book is published in America so the information tailored for that readership.

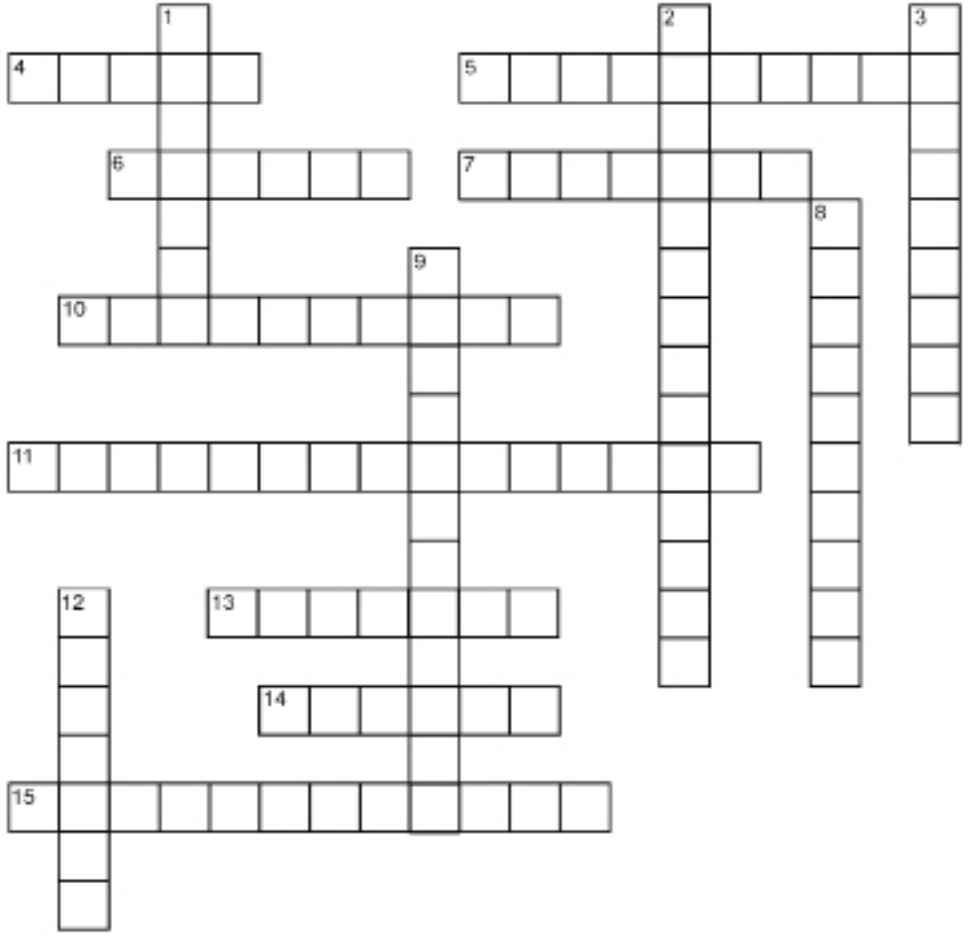
Nevertheless, most plants in this book are grown in the UK – although some of the common names differ. A map shows which parts of the US plant best thrive in. Again not much use to us in Wiltshire. However, the book is well illustrated with three photographs per plant.

Of course, the best book on the subject remains the IBRA publication *Plants for Bees* by WD Kirk and FN Howes (ISBN 9780860982715). However, at around a third of the price, this new book would make a good edition to any beekeeper's library.

Xerces Society/Storey Publishing
ISBN 9781612127019
240 pages, £12.99



# Beekeeping crossword




**Across**

4. Best wood for hives
5. Queen past her best
6. Can prevent spring build-up
7. Nuts needs pollinating
10. Fungal brood disease
11. BBKA first practical exam
13. Food for bees. Not fancy
14. Essential beekeeping tool
15. Effective cleaning agent for equipment

**Down**

1. Spikey garden plant for early pollen
2. Partly banned pesticides
3. A bee's drinking straw
8. The keeping of bees
9. A back leg storage compartment
12. Antique Niche for beehive

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