The Newsletter



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SBKA website www.somersetbeekeepers.org.uk



ALFRED DAVID CHARLES 1935-2020

David Charles died peacefully at his retirement flat in Glastonbury at the end of December 2020 at the age of 85, and with his going, many of us have lost a good friend and Somerset Beekeeping has lost a towering presence. Due to the current covid-19 regulations, only a comparatively few people could attend his funeral in person, but many more of his beekeeping friends were able to watch the service by live-streaming.

David came from an R.A.F. family, and because of his father's various and varied postings, he moved very regularly during his childhood. The outbreak of

the Second World War found him in Malta, and he and his mother were evacuated with twenty-four hours' notice, shortly before the Dunkirk evacuation, eventually berthing at Liverpool Docks.

Despite the regular disruption of his education, David did very well academically and ended up at Altringham Grammar School, where he decided to study horticulture. After several apprenticeships with major parks departments, he was able to take the Royal Horticultural Society professional exams. He was the outstanding student of his year.

David then decided that he would like to study further and become a teacher, and attended a one-year course at Newton Park College in Bath, training to be a specialist in rural science. When in September 1961 he was appointed to teaching post in Slough, he was delighted to find that the school had a beekeeping club. Before long he had taken over the running of the club, and not long after that he was on the executive committee of the Buckinghamshire Beekeepers Association. It was the start of a lifetime's commitment to the British Beekeepers Association and all that it does. In 1968 David moved to teach at St. Dunstan's School in Glastonbury, where he remained for the rest of his teaching career.



David threw himself into his beekeeping, studying for his Master Beekeeper qualification. He was, again, the outstanding candidate of his year winning the prestigious Wax Chandlers Award. He was very active in saving the flagging Glastonbury and Street Division, which later merged with the Somerton and District Division. He ran an equipment shop out of his garage, operating on very narrow margins for the benefit of his fellow beekeepers. David was active at county level in the Somerset Beekeepers, being the Chairman from 1986-1989 and 1992-1995, and later was County President. At the national level he served on the BBKA Executive Com-

mittee from 1975, serving on the committee until 1993, latterly as the President. He was instrumental in setting up the modern BBKA News and was its editor for several years.

Despite his important national roles, David was always a kindly helpful presence locally. He was always eager to help others, and particularly beginners.

My favourite memory of him is his judging of the beginners' classes at the annual Somerton Division Honey Show. Often the entrants had never shown before and certainly had never won a prize, so naturally they were very nervous. David in his kindly avuncular way would highlight all the good things about their entries, whilst telling them how they could be even better. It was a master class in both Honey Show expertise and human kindness.

In the latter part of his career, David was the part-time Somerset County Beekeeping Advisor based at Cannington College, a role that he thoroughly enjoyed, and in his retirement was still very active in beekeeping, travelling the world on beekeeping holidays. Recently he was the guest-of-honour at the opening of the Somerton Divisional Apiary, planting the Korean Bean Tree, a tree loved by bees, to celebrate its opening. Although David suffered ill-health in his latter years, he always maintained his total commitment to beekeeping.

We will miss him very much.

Joe King



Introductory Course 2021



The Introductory Course is being run online this year, as physical meetings are obviously out of the question, and we were all a bit concerned about how it would fare, especially as we threw open the doors to other divisions of Somerset BKA, and have other participants from Chepstow, Cornwall, Wootton under Edge and

one even joining us from Whitley Bay, for the first session. He has now seen the error of his ways, and moved to Somerset.

It is way more popular than we could have imagined, and as the limit of our Zoom account is 100 participants, we have, sadly, had to turn away about 10 people who would have liked to join in.

The first session was a bit of a mad scramble at the outset, as vetting 100 people as they signed in, became a three person job, with Chris King and Joe acting as register monitors. By the second session, it was much smoother and got off to a flying start.

Once the talk starts, the person delivering it can only see the slide and one or two faces, and it's quite daunting talking to a screen for an hour.

Practical sessions during the beekeeping season seem to be a remote prospect at the moment, but the possibility of one on one mentoring could aremore hopeful, provided that such mixing is permitted by that time. If anybody is looking for somebody to help them with the heavier tasks, this might be an ideal opportunity.

All new beekeepers will be looking for equipment and, of course, bees, so if you are raising nucs. this Spring, there will be a ready market. Let me know, and I will try to co-ordinate, putting new beekeepers in touch with both 'kit' and bees.

Stewart Gould - somertonbees@btinternet.com 01749 860755

In the Divisional Apiary

Chairman Eric, Nigel Gregory and Joe King still carry out weekly inspections of our bees at the apiary, and all 10 colonies seem to be coping with the warmish, but very wet winter.

Eric has made significant inroads into the water and electricity supply problems, and there is now mains water in the 'Beespace' building. Even better news is that he has received a quote from Western Power Distribution for installing an electrical supply, which about half what we were quoted in 2016. Back then they wanted £6500 to run a cable from the industrial buildings to the north of the apiary and we would still have to pay for a 250 metre trench to be dug and get a way-leave from the owner of the adjacent land.

The new quotation from WPD is for £2400, and the new owner of the adjacent land will give us way-leave. Furthermore, he will dig and backfill the trench for a sum not exceeding £1500. Amazingly, the total cost will now only be around £3900.

We have the funds, and the committee will debate this, giving the implications, and advantages, before reaching a final decision.

Apiinvert. Syrup ready to feed bees. Unlike sugar solution it requires no mixing, more readily accepted and less work required for the bees to invert (not wasting energy), more close to a natural food.

13kg 1 - 4 boxes £24 each, 5 + boxes £23 each

Apifonda. If you are venturing on a Queen rearing project this fondant is what you need. Very similar to Apiinvert, it is a paste not a liquid. If a colony becomes light through the course of the winter a dollop of fondant could well be the difference between life and death of the bees.

1 x 2.5 Kg bag £5.00, 1 box 12.5 Kg £25, 2 + boxes £24 each

The Apiinvert can be fed as a 'gee up' in the spring, emergency feeding during the 'June gap' and of course at the end of the season when preparing for winter.

Foundation. National brood and super, 14 x 12 brood available

Eddie Howe email:- redrascal444@gmail.com Mobile 07812 738793

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Membership Renewal for 2021

It's that time of year again. Member subscriptions should all be in by now, as membership runs from January 1st - December 31st. Renewal forms are being sent out with this newsletter, and should be returned to Alison Dykes, whose address is on the forms - as quickly as possible.

We are now in a period of grace, but if your renewal is not received by the end of February, we will take it that you no longer wish to be as member, and you won't receive this newsletter, or the BBKA News anymore. Your insurances won't be valid, and after that time, it will take 6 weeks for the processing of new insurances.

Those who became Associate Members as a result of attending the Introductory course last year, and now have bees, should really consider taking up full membership, as this will give you excellent insurance cover, and you will receive the BBKA News each month.

If you are attending the online introductory course, and live in the Somerton Division catchment area, you are now Associate Members of Somerton Division of Somerset BKA, and are entitled to join in any of our activities and you will receive this newsletter each month.

Common pesticides stop bees and flies from getting a good night's sleep

Just like us, many insects need a decent night's sleep to function properly, but this might not be possible if they have been exposed to neonicotinoid insecticides, the most common form of insecticide used worldwide, suggests research by academics at the University of Bristol.

Two studies by scientists at Bristol's Schools of Physiology, Pharmacology and Neuroscience and Biological Sciences have shown these insecticides affect the amount of sleep taken by both bumblebees and fruit flies, which may help us understand why insect pollinators are vanishing from the wild.

<u>Dr Kiah Tasman</u>, Teaching Associate in the School of Physiology, Pharmacology and Neuroscience and lead author of the studies, said: "The

neonicotinoids we tested had a big effect on the amount of sleep taken by both flies and bees. If an insect was exposed to a similar amount as it might experience on a farm where the pesticide had been applied, it slept less, and its daily behavioural rhythms were knocked out of synch with the normal 24-hour cycle of day and night."

The fruit fly study published today [21 January] in <u>Scientific Reports</u>, allowed the researchers to study the impact of the pesticides on the insect brain.

As well as finding that typical agricultural concentrations of neonicotinoids ruined the flies' ability to remember, the researchers also saw changes in the clock in the fly brain which controls its 24-hour cycle of day and night.

<u>Dr James Hodge</u>, Associate Professor in Neuroscience in the School of Physiology, Pharmacology and Neuroscience and senior author for the study, added: "Being able to tell time is important for knowing when to be awake and forage, and it looked like these drugged insects were unable to sleep. We know quality sleep is important for insects, just as it is for humans, for their health and forming lasting memories."

<u>Dr Sean Rands</u>, Senior Lecturer in the School of Biological Sciences and co-author, explained: "Bees and flies have similar structures in their brains, and this suggests one reason why these drugs are so bad for bees is they stop the bees from sleeping properly and then being able to learn where food is in their environment.

"Neonicotinoids are currently banned in the EU, and we hope that this continues in the UK as we leave EU legislation."

Papers

'Neonicotinoids disrupt memory, circadian behaviour and sleep' by Tasman K, Hidalgo S, Zhu B, Rands SA & Hodge JJL in *Scientific Reports*

'<u>The neonicotinoid insecticide imidacloprid disrupts bumblebee circadian rhythms and sleep</u>' by Tasman K, Rands SA & Hodge JJL in *iScience* [open access]

Spring is nearly here, and it's a very dangerous time for our bees!

We can all take comfort when we see our bees flying on a warm winter day, but the next eight weeks are the most likely time in the year for them to starve. Just as Scott of the Antarctic died of exhaustion and starvation only a few miles from a food dump of a ton of food, on his return journey from the south pole, our bees are vulnerable to starvation.

The annual statistics on managed hives in the southwest of the UK, show a typical over-wintering loss of 15 – 18% year on year, sometimes in a particularly challenging year somewhat higher. Years ago when I started beekeeping, it was often said that a colony would probably over-winter successfully on 30lb of stores. These days the suggestion is that 40lb of stores is more appropriate. What has driven the change is climate change; winters are warmer. This means that the bees are in a tight cluster for much less time, and are therefore using more stores. Also it is suggested that queens, rather than having a significant period when they are producing no larvae, may well be laying throughout much of the winter, albeit in much reduced numbers. Once there are larvae present the workers are obliged to maintain a brood temperature of 96°F, not much different from our own body temperature. They do this by generating heat by shivering their flight muscles, which requires significant use of stores. We therefore need to be able to monitor our hives for the danger of starvation. Traditionally this was, and is, done by hefting. One very gently raises the brood box and the super above by lifting a bit from the rear. I usually take off the roof before doing so. This allows an estimation of the weight of the hive and its contents. The trouble with saying 'heft the hive' to someone who hasn't had their bees for very long, is that they don't know what is light and what is heavy! One way around this is to put in two projecting screws, one on each side of the brood box; you can then use cheap hand-held luggage scales. You lift first one side of the hive using the scales and record the weight, and then do the same for the other and add them together. This gives an approximate total weight, which can be recorded. The process is then repeated every week or two and you can see the gradual reduction in weight. Sometimes in very wet weather the hive may even increase in weight just to flummox you, but this is because the woodwork has absorbed so much moisture.

The key thing is, that if you are in any doubt, feed your bees. Bees cannot take down sugar syrup during the winter, so a better bet is to feed fondant. This is a solid block of soft sugar which the bees find it much easier to handle. The recipe for fondant is on the following page. Those useful little rectangular

plastic tubs in which you get your takeaway from a Chinese restaurant are ideal for this purpose. You can also buy commercially prepared fondant.

Remove the lid of the box and place the fondant, upside-down and still in its box, over the feed hole in the crown board, as close to the bees as possible. If you don't have convenient plastic containers, then a plastic bag works well. You cut a cross in the bag, peel back the polythene to create an opening and place, opening down, over the feed hole in the crown board. The bees can then access the fondant from below. Make sure the fondant remains covered in some way, as otherwise it dries out and becomes dry and crusty, making it difficult for the bees to utilise. Monitor your hive weekly, and once the fondant supply gets low, immediately replace it with a further container. I find you can get between half a kilo and one kilo in each tub or plastic bag, and that's what I put on each time.

If you feel uncertain about any of this, then never feel shy to ask a more experienced beekeeper, we are always pleased to help.

Joe King

Tel 01749 890357

Fondant Recipe

Feeding bees during the cooler months used to be considered 'bad beekeeping', but as winters have got warmer, bees are expending energy when flying out to look for food on fine days. On their return to the hive they replace that energy by devouring their stores. Fondant is the stuff to use in winter. Products like Candi-pollene (a pollen supplement) are intended for boosting egg laying in Spring, and not the ideal food for the cooler months, although they can be used in the late summer to help the bees make winter bees, which have to survive for 6 months.

Buying fondant is fine, provided you find a source of pure fondant, and beekeeping supply companies have it in abundance, but it's not cheap. Other sources of fondant are risky, as they nearly all contain chemicals dangerous to bees. Why not make your own? It's relatively simple and much, much cheaper. Start hefting your hives soon, so that you know how much weight they are losing, but remember that hives can gain weight in wet weather, as the wood soaks up moisture.

Ingredients:
1kg granulated sugar
300ml water

Other materials:

Large plastic/wooden spoon to stir and ladle out. An electric mixer is really useful to stir as the mixture cools

Cooking thermometer

Large saucepan

Semi-transparent take away containers.

Method

Place the sugar in a saucepan and pour on 300ml of boiling water. While stirring, heat the mixture. There's no need to stir all the time, once the sugar is blended in, but an occasional stir will aid dissolving. Keep on heating until it boils, then keep on a rolling boil & monitor the temperature.

The temperature is critical, in order to set to the required consistency. Your mixture will only reach the required temperature when the correct amount of moisture has boiled off.

As soon as it reaches 232°F, remove it from the heat. Most recipes say 234°F, but I end up with a rock if I do that. Place on a tiled surface, or something cool and stir as it cools. Some recipes mention stirring once the mixture reaches 150°F, but I find that crystals are already forming by then. Stir thoroughly but not too vigorously, and the mixture will start to go cloudy, then milky and thicken. As soon as it starts to thicken, stop stirring and pour the mixture into the containers. It is vital to fit lids, or you will lose more moisture than required.

Notes:

You can use multiples of these quantities.

1 kg sugar will fill 2 takeaway containers

Semi-transparent take away containers mean that you don't have to lift them to see what has been eaten. Just raise the roof and look – less cold drafts.

Fitting lids will prevent further evaporation of moisture while cooling and stop it attracting moisture when cool.

If you can depress the surface of the cooled fondant with your thumb, you've got it right.

The stirring helps to keep the crystals apart while setting, meaning a softer set.

Overheat the mixture, and it will set like a rock. Break it up, add more water and try again.

While the appeal of McDonald's may be universal, there's one group that has never been catered for by the fast food giant until now: bees.

McHive - courtesy of the Guardian



While the appeal of McDonald's may be universal, there's one group that has never been catered for by the fast food giant until now: bees.

Home to progressive values and Scandi-style, Sweden has come up trumps for this small, but mighty insect by building a tiny McDonald's branch for the buzzing creatures. Named the McHive, the tiny miniature structure is practical as well as being completely adorable to behold,

and exists as a fully-functioning hive.

The insects enter the hive underneath the restaurant's iconic golden arches and can benefit from outdoor seating and a McDrive, if they're short on time.

Designed and built by award-winning set designer Nicklas Nilisson, the McHive was developed for a charity fundraiser for Ronald McDonald House Charities: a non-profit organisation affiliated with McDonalds that exists to support children and young people.

And, it's not the first time McDonald's has collaborated with these special insects. In Sweden, some McDonald's restaurants have installed beehives on their roofs in a bid to create a more sustainable environment in their local community.

Christoffer Rönnblad, marketing director, McDonald's Sweden said: 'We have a lot of really devoted franchisees who contribute to our sustainability work, and it feels good that we can use our size to amplify such a great idea as beehives on the rooftops – this miniature McDonald's is a tribute to franchisee Christina Richter's initiative.'

Dates for your diary

Online Zoom talks

Various upcoming online talks. Watch your emails.

Beginners Introductory Beekeeping Course 2021

Zoom Sessions January 20th, 27th and February 3rd, 10th, 17th and 24th.

At 7.00pm

All sessions are on Wednesdays

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