



# THE TIVVY BUZZETTE

The Newsletter of Tiverton Beekeepers – February 2021

Tiverton Beekeepers are a branch of the Devon Beekeepers Association Registered Charity No 270675

*Answer.. Opinions expressed in articles in this publication are those of the author(s) and do not necessarily reflect either the opinions or the policies of The Devon Beekeepers' Association*

**Note from the editor. There are some freebies, pardon the pun, at the end of this newsletter but no skipping the bits in the middle.**

## LETTER FROM THE CHAIR



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As I write this, our beginners for this year have now completed their second training session on Zoom, which is proving to be very successful and a great result for all concerned. At least we are conducting some training during lock down. My grateful thanks goes to Derek and his Educational team for all their hard work on producing this. Thank you.

Now for some news that we as beekeepers didn't want to hear! Sorry its a bit long, but it is important that members are informed.

The Department for Environment Food & Rural Affairs have decided to issue an emergency authorisation to use a product containing a neonicotinoid to treat sugar beet seed in 2021, published 8th January 2021.

### **The British beet sugar industry stated**

The British beet sugar industry applied for emergency authorisation to use a targeted neonicotinoid seed treatment for the 2021 sugar beet crop as a last resort, after the extreme and unprecedented impact of Virus Yellows disease, which is spread by aphids, on the 2020 crop.

“Supporting bee populations is extremely important to us and our growers and having the right controls to ensure this was key to the application. The treatment is applied to the seed before it is sown – it is not a spray. It will be used in an extremely limited and controlled way

on the 2021 sugar beet crop, which is non-flowering, and only if a pre-determined, independent aphid forecast threshold is met in February.

“The emergency authorisation brings the UK into line with 13 EU countries which have already granted similar derogations for neonicotinoid seed treatments to be used for this year’s sugar beet crop.

“Across the homegrown beet sugar industry, we are progressing clear plans to tackle Virus Yellows without neonicotinoids, including through research and development to improve natural resistance in the crop.”

### **The BBKA has commented**

Beekeepers will no doubt have seen the news that the Government announce the Emergency Authorisation (derogation) for the limited use of the neonicotinoid seed treatment – thiomethoxam (Cruiser SB) for sugar beet for 2021.

The major points in their announcement are as follows:

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The advice of the Health and Safety Executive (HSE), the UK Expert Committee on Pesticides (ECP), and Defra’s Chief Scientific Adviser on the application was put to Defra Ministers. Based on the information provided, the Secretary of State considers the application meets the requirements for an emergency authorisation and has therefore decided that authorisation should be granted, subject to a number of conditions.

An emergency authorisation for the short-term use of a product (and placing on the market for no more than 120 days) may be granted if the following requirements are met:

- the authorisation appears necessary because of a danger which cannot be contained by any other reasonable means (the case for need)
- use of the product will be limited and controlled
- there are special circumstances

Emergency authorisations are a derogation from the normal requirements of pesticide authorisation. However, if the above requirements are met then the benefit of granting an emergency authorisation must be balanced against the potential harm from the proposed use of the product, taking into account the proposed conditions. Therefore, the potential risks to people, animals and the environment remain a key part of the evidence that needs to be considered.

The neonicotinoid seed treatment provides important protection to the emerging crop against insect pests and the viruses they can transmit. This protection cannot be provided by any other reasonable means. Sugar beet yields were significantly reduced in the 2020 season due to the incidence of virus, and similar conditions in 2021 would be likely to present similar dangers.

- The applicant proposed a reduced application rate for the seed treatment to deliver less of the product to the soil. In addition, the applicant proposed use of a virus forecasting model to determine whether treatment is needed, setting a threshold for the level of virus infection above which economic impacts would be incurred. If this threshold is not met the seed will not be treated. Sugar beet cultivation in England is also spatially restricted by proximity to 1 of 4 beet processing factories situated in the east of England. All UK sugar beet is grown under commercial contracting arrangements, and this is considered to provide an effective mechanism for controlling the distribution and use of the treated seed. To address the requirement to control use, the applicant proposed a stewardship scheme which includes several measures to address risks to pollinating insects, underpinned by industry commercial contracting arrangements.

The applicant outlined a plan for developing alternative, sustainable approaches to protect crops without the use of neonicotinoid seed treatments. This includes the development of resistant plant varieties, measures to improve seed germination and new

practices for growers. The plan is already being delivered. The plan is considered to provide a good basis to confirm that alternative, permanent solutions to neonicotinoid seed treatments for sugar beet are being sought as a matter of priority. The plan anticipates that applications for emergency authorisations for neonicotinoid seed treatments may be needed for three years (2021 to 2023). Any future applications will be fully assessed against the regulatory framework for emergency authorisations.

#### Risks to bees

Sugar beet is a non-flowering crop and the risks to bees from the sugar beet crop itself were assessed to be acceptable. The applicant recognised that risks could be posed to bees from flowering weeds in and around the crop and proposed to address this with the use of industry-recommended herbicide programmes to minimise the number of flowering weeds in treated sugar beet crops. This was considered to be acceptable. The applicant recognised that the persistence and mobility of neonicotinoids in soils could result in residues with the potential to cause unacceptable effects to bees in following crops. Measures were proposed to mitigate the identified risks through the exclusion of flowering crops in subsequent cultivations.

The Secretary of State is satisfied there is sufficient evidence to indicate that residues of thiomethoxam and its metabolite deteriorate over time, and that with mitigation measures in place the risks are considered to be acceptably low enough that the benefits outweigh them. Conditions are attached to the emergency authorisation to ensure that no flowering crops are planted as following crops for a period of at least 22 months, with an extended period of exclusion for oilseed rape (of 32 months), to minimise the risk to bees.

The authorisation is for the use of Syngenta's Cruiser SB on sugar beet only and covers use in 2021 in England only. Conditions are attached to the emergency authorisation to ensure that, if the threshold for virus levels is reached and it becomes necessary to treat seeds, use of the product will be limited and controlled and any potential risks to pollinators will be mitigated to an acceptable level. In particular, the application rate of the product will be below the normal commercial rate; no flowering crop is to be planted within 22 months of the sugar beet crop, and no oilseed rape crop is to be planted within 32 months. Industry-recommended herbicide programmes will be followed to limit flowering weeds in and around sugar beet crops. The applicant will be required to limit the sowing rate of treated seeds to achieve no greater than the normal commercial plant population, and to develop and implement their proposed programme to monitor soils and plants following use of the treated seed.

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The BBKA is extremely disappointed and concerned at this derogation. It is to be hoped that the mitigation steps mentioned are followed carefully, including a reduced rate of application of thiomethoxam. Increased uses of herbicides to reduce flowering weeds, however, we regard as having potentially damaging effects on the environment generally. It is particularly concerning that this derogation may continue for two more years. It is to be hoped that any such decision is discussed more fully especially since the farming press in the autumn did not indicate any more dramatic effects on the crop in 2020 when compared with a range of other crops all struggling with an exceptionally difficult year from problematic weather conditions.

*Further information can be obtained at:*

*<https://consult.defra.gov.uk/pesticides-future-strategy/sustainable-use-of-pesticides-national-action-plan/>.*

*Or*

*[tinyurl.com/BC2021-02-03](http://tinyurl.com/BC2021-02-03)*



### **Tiverton Beekeepers' Branch Members Meeting Programme 2021**

#### **February**

Wednesday 17th @ 7.30pm Branch Members' Meeting via Zoom - Lynne Ingram taking to us about the Adulteration of honey which is taking place on a large scale sometimes within the UK but mainly through imported honey. This is a highly recommended talk.

#### **March**

Thursday 11th Match @ 7.30pm. Branch Committee Meeting via Zoom

Wednesday 17th @ 7.30pm. Branch Members' Meeting via Zoom. Following on from last month's talk, this month will focus on some tips & advice to help us process our honey to create a beautiful, desirable & saleable product

#### **April**

Wednesday 21st @ 7.30pm This meeting is normally dedicated to providing our members with a testing process to identify nosema in their bees, this year we hope to include more opportunity to examine pollen, bees & disease under the microscope. More details to follow.

#### **May**

Wednesday 19th. Time to be confirmed Normally by this time in the beekeeping season we will have started practical sessions at our Knightshayes Apiary but keep it on your diary just in case.

**When joining a meeting via zoom you will be sent an email in advance with the link .**

It might be wise to open up this around five minutes before the start time to sort out the sound level and camera etc. and for everyone to settle in. If you need any steps to this they are all in the December Buzzette or if you have mislaid these email Tony Lindsell on [tony.lindsell@btinternet.com](mailto:tony.lindsell@btinternet.com) or telephone him on 01884 841257

### **DBKA Website Security Update**

Please be advised that passwords for access to the Members Area and Members Directory on the DBKA website were updated in January. The new passwords will be made available to you by contacting Jon Davies, Branch Secretary by email via [secretary@tivertonbeekeepers.uk](mailto:secretary@tivertonbeekeepers.uk). To avoid breaching GDPR we regret we are unable to broadcast them via the Buzzette.

### **ASIAN HORNET UPDATE**

Hopefully during January and February any self-respecting Asian Hornet queen will be hibernating and not causing any newsworthy sightings. So far in the UK this seems to be the case and so the sighting news is thin on the ground. Yet, as our winters appear to be becoming milder, the environmental conditions for the hornets to survive are also increasing.

In Willebroek, Belgium 10 January 2021 at the 160 hectare nature reserve, the Vespawatch volunteers were searching for a suspected queen sighting when, by chance, kicking over some fallen branches amongst the wood litter, a hibernating queen was discovered. The images below show the queen within the branch, with a blue glove top left-hand side of the image to provide a scale, (fig 1) and a closeup (fig 2)

Fig 1





Fig 2

The science behind the effect that this invasive species will have on UK biodiversity, pollinators and plant pollination gathers apace. A recent paper in the Journal of Biological Invasions (May 2020) provides solid data on the changes to honeybee foraging behaviour by the hornet but also provides more evidence towards the bigger picture concerning pollination.

### Synopsis

The Asian hornet is an effective predator of honeybees and other insects. The stability of ecosystem services provided by insects and bees, such as pollination of wild plants and crops, is threatened by the invasive Asian Hornet.

The study by Rojas-Nossa et al analysed the hornets' impact as hunters of flower visitors on plant pollination. They studied the hunting behaviour of *V. velutina* in flower surroundings, the effect of the hunting on the floral visiting behaviour of insects and the consequent impact on the amount of conspecific pollen (pollen specific to that plant species) deposited on the stigmas of *Mentha suaveolens* (Apple mint). Apple mint is a native and common herb throughout Southern and Western Europe.

From observations (field and video) in blooming plant patches with and without the presence of *V. velutina* and the quantifying of the deposition of pollen on the stigmas in the same patches, clear data emerged.

The hornets were frequent and successful hunters of the flower visiting insects which caused changes in the foraging behaviours of insects.

The patch visitation rate of honeybees (*Apis mellifera*), the flower visitation rate of small hymenopterans (other bees and wasps), the flower visitation time of bumble bees (*Bombus* sp) and hoverflies (*Syrphid* sp) were all significantly reduced in the presence of the hornet.

As a consequence the quantity of pollen also was significantly reduced.

This study demonstrated the negative impact the invasive Asian Hornet has on pollination in the invaded areas as a direct result of their hunting pollinators in flower patches.

The complete paper can be found at:Rojas-Nossa, S.V., Calviño-Cancela, M.

'The invasive hornet '*Vespa velutina*' affects pollination of a wild plant through changes in abundance and behaviour of floral visitors' *Biol Invasions* 22, 2609–2618 (2020).

<<https://doi.org/10.1007/s10530-020-02275-9>>.Gavin Nuttall-Owen AHAT Coordinator

## Winter feed – have you got enough?

Winter time is challenging hungry time for the bees and the wary beekeeper needs to ensure they survive by supplying feed if needed. Ever thought about making your own syrup or trying your hand at fondant? Neither are difficult to make so why not have a go and try out the recipes below. Don't forget, Tony Lindsell has been collecting lots of sugar with damaged packaging from Tesco. Probably not suitable for your table but your bees will love it. If you need sugar please get in touch with Tony via email. [tony.lindsell@btinternet.com](mailto:tony.lindsell@btinternet.com) or telephone him on 01884 841257

### Fondant recipe - suitable for bee feed

What you'll need:

1X Large saucepan

1 X Hand or electric Mixer

1 X Cooking thermometer

Shallow disposable setting pans (pizza type)

Ingredients (scalable):

4 parts granulated sugar

1 part water

1 Teaspoon White vinegar

#### Method

- Pour sugar, water and vinegar into saucepan and bring to the boil stirring constantly.
- Cover and gently boil up for about 5 minutes.
- Remove lid and check temperature with cooking thermometer, continue to boil with lid off until temperature reaches 234F.
- Remove from heat and cool to 200F.
- Whip with mixer (preferably electric) until mixture begins to turn white and creamy with air bubbles.
- Pour into shallow setting pans.
- Allow to cool undisturbed.

#### How to apply this

- To feed to the bees, place inverted pan on top of frames. Place an empty super on top and insulate dead space.

Note: Remember, if you intend to store your fondant keep it in a suitably cool and dry place.

#### Sugar Syrup

Mix 1 part sugar (by weight) with 2 parts water (by weight). Use hot but not boiling water to dissolve the sugar stirring until the mixture is clear. Again, always allow for the mixture to cool before giving it to the bees.

Note: a 1:1 mixture can also be mixed for Spring feeding.

### Top Tips

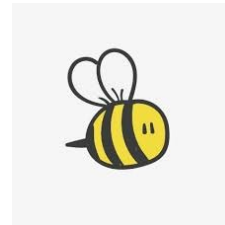
1. Milk cartons (4 pints) are ideal for storing syrup. I make syrup in batches and always leave some stored at my apiary ready to use.
2. I use old Tupperware to store my Fondant in. Put a lid on for convenient leakproof storage and simply invert onto the hole in the crownboard when you want to serve it. Then close fit of the Tupperware stops the bees from escaping into the roof space.
3. If you need a cooking thermometer – they are less than £5 on eBay. I prefer the glass bulb types that come with a clip you can hang the thermometer off the side of your large pan and watch the temperature rise hands free.
4. Protein. You can add pollen (or pollen substitute) as your mixture is cooling to add protein in your Fondant.
5. If sugar syrup is left for a while, the syrup can start to ferment and go mouldy. To prevent this you can add small amounts of Thymol and surgical spirit. Add a teaspoon of Thymol and Surgical Spirit to every gallon of syrup mix, these are such small amounts that they have absolutely no effect on the bees - in fact, it is the healthiest option and protects the bees from mould and bacteria that could potentially wipe out an entire hive.

### When and what to feed

- a. Autumn – 2:1 Sugar Syrup. for supplementing the loss of the bee's honey after harvesting.
- b. Winter – Fondant (some use Sugar Syrup).
- c. Spring - 1:1 Sugar Syrup. this encourages the drawing of the wax

*Thank you for all your hard work in managing this  
Derek*

*You have been , Unbelievable  
Volunteers needed, please line up*



### Bulk Buying Scheme

Well done to all those who saved money in our bulk purchasing of Frames and Foundation.

Our order came to almost £1,300, and I would like to congratulate everyone for collecting their order within the week. My house is now back to normal!

I would like to remind you all that this was my last time as Bulk Buying Coordinator, so if anyone would like to take on the challenge do contact Malcolm.

Derek EVANS Bulk Buying Coordinator





### **Beekeeping for Beginners Courses**

I would like to welcome Steve, Richard, Gavin, Charles, Christina, Daniel, Richie, Simon, Cath, John and Laurence on our Beekeeping for Beginners Course. The course began last week and is being held weekly via Zoom sessions on Monday evenings. Additionally, we held two further meetings with our Tiverton participants to introduce ourselves and to talk about beekeeping in the Tiverton area. Due to Covid19, we have abandoned our usual Uplowman Village Hall meetings.

This year we have joined in with three other Devon Beekeeping branches to organise and run a 10-week theory course, to be followed by 6 practical sessions, once Covid19 restrictions allow.

However, we have not forgotten last year's Beginners Course members who managed to complete the theory sessions before Covid19 arrived. When the opportunity arises, we will complete the course with the practical sessions up at our Apiary.

Additionally, we have not forgotten the people doing the Improvers Course from last year, which was interrupted by the first lockdown. We plan to continue this once the Covid19 situation has improved.

Derek EVANS

Education Coordinator



### **Friday 2nd July – Saturday 3rd July – Sunday 4th July 2021**

Due to the present circumstances the Bee Marquee at the show is reduced in size, to save money, and this means there will not be a Stevenson Trophy this Year. Due to our Clubs previous good record in this event at the show we have been invited to make a display for people who may wish to take up Beekeeping in Devon. Details to follow. I understand that most of the usual events will continue e.g. Honey Competition, Honey Tasting, Honey Sales, Candle Making, Observation Hive, etc. If you have any specific questions, please contact Liz Westcott the Bee Marquee organiser via email [lizwestcott@me.com](mailto:lizwestcott@me.com).

Derek EVANS, Display Organiser

*Apis Mellifera on winter honey suckle*



Around the apiary in February

by Keith Owers

February should be a quiet month. In spite of lockdown we can still go out to check on our bees. It is not a big job to do, all that is required is to lift the back of the hive to check if the bees have enough food. It is not an exact science but you soon recognise if your hive is light and needs feeding. If in doubt feed with some fondant or ambrosia over the hole in the crown board. With the weather we have experienced so far in January I would not have expected our bees to have consumed much of their stores. Should the weather turn mild in February then they might be getting short of food towards the end of the month.

With all this time at home I hope you have prepared your old frames ready for cleaning in hot soda water ( 1 kg washing soda in 5 lt of water ). A 3-4 minute soak in boiling soda water then rinsed off in clean water will have them looking like new. When dry do not be tempted to put new foundation in, it is much better left till you need them in late March or April. The wax tends to lose that nice smell which the bees like.

You may think to yourself " What a waste of time scraping and washing frames." You are quite right it is not a very nice job to do. I was brought up in an age of " waste not want not " and " make do and mend ". I still get pleasure out of producing a pile of clean frames ready for spring. It is the same story with saving wax and melting it down with a solar wax extractor. I have not had to pay cash for new foundation for years, it has been paid for by trading in. We all like something for nothing even if it does mean a bit of work at this time of year.

Keep scrubbing and stay safe.

## **Pollen analysis reveals the change in honeybee forage and fears for a dwindling food supply**

Scientists at Bangor University, Aberystwyth University and Lund University, Sweden used DNA metabarcoding to discover which plants honeybees visited in the UK countryside. They compared this with a study from 1952, finding big species shifts in the wildflowers available to bees.

In the 1950s, honeybees mainly gathered pollen and nectar from white clover. Today, with a substantial reduction in white clover, the bees seek out alternatives such as oilseed rape and Himalayan balsam.

As wildflowers disappear in hedgerows and fields, there are fears that honeybees and other vital pollinators are running out of food supplies.

Dr Natasha de Vere, head of conservation and research at the National Botanic Garden of Wales, states that the agricultural systems of today do not have enough nectar for pollinators with much of the habitat for bees being grasslands which she equates to a “green desert”. In the 1950s these pastures would have been full of white clover and other wildflowers.

The researchers studied honey samples sent by UK beekeepers after an appeal via *Gardeners’ World*. The samples were analysed by DNA barcoding (fragments of plant DNA isolated from pollen in the honey samples) and by microscopic examination of pollen structures present in the honey both in the previous and current studies.

The findings were that white clover, the favourite source of nectar for honeybees in 1952, while still important, was less prevalent due to plant scarcity. Instead, honeybees have switched to bramble; oilseed rape and Himalayan balsam.

Oilseed rape was first grown in the late 1960s, with a large increase in production in recent years although now decreasing due to an increase in flea beetle infestation and the banning of neonicotinoids for use as the crop pesticide.

Himalayan balsam, an invasive plant, has also increased in the landscape, especially along riversides and road verges.

Recommendations from the research include:

1. Providing more flower-filled hedgerows with bramble margins and grasslands rich in wildflowers.

Changes to grasslands dominated by a small number of grass species, where there are few flowers to sustain pollinators. Providing white clover and other flowers in this habitat would improve nectar resources for honeybees and other pollinators

The full research paper can be found in:

Jones, L., Brennan, G.L., Lowe, A. *et al.* ‘Shifts in honeybee foraging reveal historical changes in floral resources’ *Commun Biol* 4, 37 (2021), <<https://doi.org/10.1038/s42003-020-01562-4>>.

Gavin Nuttall-Owen

### **And finally as promised, freebies!**

I have collected some items of equipment which has been donated for the use of any member of Tiverton.

It is all second hand, in generally a good state of repair.

It is totally free to members, but I feel that if a single item went to a member, then it could be shared out a bit. Your choice.

It is all National equipment

1 x Brood box

1 x Roof (home made but good)

2 x round plastic feeders

1 x small smoker

5 x supers

1 x crown board

1 x Queen excluder

1 x old metal honey extractor.

SUGAR – Loads of it !!!! Just the weather to make fondant!!! Please don't buy it.

Contact Tony or myself to collect it.

Malcolm Crook (Chair)

01884 821927

### **From the Editor .**

#### **Further food for thought .**

You made it, well done reader. I confess I have had a little chuckle to myself though. Its a funny old world isn't it? On the one hand we are questioning the way we produce sugar in Britain and on the other hand we are quite happy to feed it to our bees.

I trust you will all have a good February. With a little more time than usual on my hands, having been off work for some months with a prolapsed disc, I have recently, bit by bit, been going through our stack of last years BBKA magazines, plus a few from 2019!.

" Why have I still got these?" I asked myself. Anyway I've been pulling out my favourite articles and putting them into a folder. I will probably still be unable to find the one I need, when I need it and it is bound to be that one that I decided to recycle along with the rest but at least I will be able to see the table again.

Stay safe everyone, heft those hives as Keith has advised and check on those supplies!

Now there's is a little bit of accidental poetry.

Best wishes

Hilary (Sanders ) 01884 266297

NB Deadline for all articles for the March edition is February 25<sup>th</sup>