Montgomeryshire Beekeepers Association

The BeeHolder

Spring 2021

Early Spring Blossom

Editorial

In these strange Covid times the usual, busy schedule of forthcoming events has once again been cancelled. Just like last year it is still impossible to announce an event with any confidence. Still as you will read Gregynog 2020 was a year that presented an opportunity to update both equipment and practices. Read on and you will see that training did indeed continue throughout last year and will continue this year both for beginners and improvers.

Bees themselves have frequently been in the news and you can read about changes through import bans due to Brexit and the dangers of neonicotinoids to bees. A colourful guide to pollen and nectar rich flowers for spring is here too together with an interesting feature on the healing properties of honey on horses. We also take a look MBKA member, Mark Howarth's Flow Hive.

Jill Hills, together with all the other contributors has helped mightily in the transition of editors from Chris Leech. Although Chris has stepped down from editing he is still very much the publisher of The BeeHolder and my thanks go to him for his help, a sentiment echoed by all MBKA members. Jill has worked hard in both writing and gathering material for this issue and Joy Sisley has tutored me through all the software to produce these pages.

Carolle

www.montybees.org.uk

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2020
A Year of Change at the MBKA Gregynog Apiary

The following is a review of the change which has taken place at the Gregynog Apiary. Roger Stone and Bill Gough after many years managing the apiary, took the decision early in the year to handover the reins. A working party met at Gregynog in early March, to perform a number of tasks, including a review of the existing hives and apiary equipment. The apiary at the start of the year consisted of eight colonies, three of which were weak of which only one survived into the spring. The team was then impacted by the Covid crisis with the lock-down commencing at the end of March. Fortunately bee keepers nationwide were exempt the travel restrictions to ensure apiaries were managed. The colonies were treated in May with MAQS to protect against Varroa, in addition during July all hives were given standardised varroa floors.

Rachel Kellaway took on the management responsibility of the apiary, and developed a support team. The team consists of Jill Hill, Liz Childerley, Joy Sisley, Anne Wren, Mark Swain and Chris Wyton. Through a combined team effort tasks got completed. Liz rearranged the shed, ably assisted by Ian Hubbuck who constructed the internal shelving. Glyn Morris repainted the bee stands. Mark Swain restored and repainted many of the hive parts. In addition to the new shelving Ian Hubbuck also put in place an awning attached to the bee shed

The focus at the beginning of the year was to uplift the apiary to enable it to be a useful training resource to both new and existing MBKA members. To facilitate this, a number of new protocols were put in place regarding Health and Safety and Biosecurity. This included safe disposal of smoker fuels, members signing in, everyone using disposable gloves and using the foot bath, hive tools being put in washing soda after use and wax collected in a bucket. The support team attended the apiary each of the Sundays throughout the summer and undertook supervised sessions to inspect the colonies and give valuable experience in handling the bees.The 2020 intake of members have really benefited from the training facility. In addition to this training a number of spotlight sessions were delivered,

being available to all members. These sessions covered Varroa Treatment, Honey Extraction, Feeding Bees and Preparation for Winter.

The apiary ended the year with 10 colonies, all of which came through winter when the hives were briefly inspected on March 22nd 2021. No honey was harvested this year, and in fact the bees needed regular feeding during autumn. Paul Aslin inspected the apiary during August and was impressed with the improvements made. A further treatment of MAQS was applied, followed by oxalic acid treatment during December. The management of the apiary shed has now been handed over, into the capable hands of Joy Sisley who undertook a full inventory. The apiary now has sufficient equipment with only a small number of items required for this coming season. In addition to the national hives, Mal Shears has located within the apiary a Warre and a Kenyan hive. These will be populated with bees and will provide an alternative experience for our members to observe.

First Spring inspection

The colonies went into the winter period in a good healthy condition, mouse guards fitted, queen excluders removed and fondant feed in place on those hives requiring additional food. During November the team took the opportunity to tidy up the apiary, raking the leaves and levelling off some of the uneven ground. Spring bulbs have been planted and there are plans to plant a number of 'bee friendly' plants ahead of the spring. Further plans are already being formulated for 2021 with Ferol Richards tasked to revamp the visitor shelter.

Mark Swain

Training 2020 and 2021

Wales went into the first lockdown in 2020 just as ten new beekeepers were to start the beginners course. Fortunately, beekeeping is classed as animal husbandry and so I and the team, Mark Swain, Jill Hill, Joy Sisley, Chris Wyton, Anne Wren and Liz Childerley were able to complete both the theory and the practical sessions. Practical sessions covered such things as lighting and using a smoker and making up frames whilst introducing them to the Apiary. Throughout the sessions were were able to keep to the two metre social distancing rule and hygiene recommendations. We controlled numbers by having an hourly booking system and with such a large team we were able to offer individual tuition. Having ten colonies spaced over the large area in the Apiary was also a bonus. The weather too was so favourable that we didn't have to cancel any meetings.

In June all ten beginners had received a lot of hands -on tuition and beekeeping experience and bought strong nucs of locally adapted bees. Roger Stone and I also took the Class of 2019 through an improvers course to prepare them for their first spring and early summer of beekeeping. Liz is standing down from the Apiary team.

Class of 2020 graduating after lockdown

During the summer the Apiary was open every Sunday for training and held open sessions with a maximum of ten members in July on treatment for varroa mite and in August and September spotlighted such topics as honey, feeding for winter and winter shutdown preparations which Roger Stone, Mark Swain and I ran. MBKA Members were invited to attend general hive

inspections every Sunday and many of the beginners took advantage to hone beekeeping skills under the supervision of the team.

This year we are faced with the same uncertainties as last but we will be going ahead with a beginners course which will start on 25th April with a practical session at the Gregynog apiary, where the beginners will be introduced to the basics of beekeeping. This will be followed on Saturday the 22nd May by a two hour session on the theory of beekeeping which covers such topics as siting an apiary, hygiene, record keeping and much more.

Rachel Kellaway

Last Year's Beginner - Marie Shirley Smith

Becoming a beekeeper last spring was the perfect distraction during the trials and tribulations of a global pandemic! Training and visits to the apiary were all able to be carried out under strict guidelines delivered by friendly and knowledgeable MBKA members. It was a very steep learning curve (and continues to be so) as well as exciting and fulfilling - just what I needed. We keep in touch with my fellow beginners via social media, sharing videos and advice within the group on Whatsapp and Facebook, which I've found to be very supportive. It can be a bit nerve racking as a beginner, and I had a very busy spring, particularly with my first nuc swarming before it even was placed in my shiny new hive!

One fellow beekeeper's response was that bees don't read the manuals! I think that's the best thing about beekeeping, you never quite know what they're going to do next, no matter how many books you read. And they're always up to something amazing…

Marie's Hives

Bees in the news

As the Coronavirus vaccination programme rolls out across the UK, a timely article in the March edition of the Journal of Experimental Biology shows that bees are well ahead in protecting developing larvae from pathogens. Gyan Harwood and his team have demonstrated that queens transfer pathogen fragments into eggs which induces higher pathogen resistance in the resulting offspring. The fragments are transported to the royal jelly producing glands of nurse bees and incorporated into royal jelly. This also helps to develop the young bees' immune system against specific pathogens, similar to the effect of the jab we have had or are waiting for!

The concerns about declining numbers of honeybees in recent years should extend to all types of bees. A report in the January edition of One Earth, using data gathered through the Global Biodiversity Information Facility (GBIF), documented that there were 25% fewer bee species recorded between 2006 and 2015 worldwide than before the 1990s. Although the GBIF data is not infallible, it does confirm worries about the diversity and numbers of bees everywhere.

Recent concerns about the use of neonicotinoids in the UK, an issue raised by Mal Shears puts pesticides in the news again. The death of hundreds of honeybee colonies in Colombia has recently been reported by Phys Org, this time the likely culprit being fipronil. This is an insecticide which is thankfully banned for use on crops in Europe. The massive loss of colonies has coincided with the expansion of monoculture, particularly Hass avocados on which fipronil is used, according to the president of the Asoprobejas beekeepers' organisation. Large areas of land in Quindio were bought to grow this crop in 2016. Exports of avocados leapt from 1.7 tons in 2014 to 44.5 tons in 2019. Good news for avocado farmers but it appears honeybees and beekeepers are paying a heavy price.

Australian beekeepers (and honeybees) have been having a hard time of it in recent years according to ABC news. The exceptionally hot summers and the heatwaves during spring result in Eucalypts producing flowers with very little nectar, meaning average honey yields have dropped by 40%. The

bush fires have been terrible: for example, 24,000 hectares of the Beekeepers Nature Reserve ground was lost north of Perth to fires which burned for a week and is likely to affect honey production for the next decade. One beekeeper described how he was able to move his 450 hives and 50 nucs but explained that all bush diversity is lost after a fire, turning the land into a big sandy grass plain with no forage for bees. His bees got away with his help but for the native feral bees, there was no escape from the smoke and fire. To add to the problems, a queen bee shortage was reported in January. Apparently, the number of queen breeders has declined in the last 20 years. This is of great concern because it is estimated that about 1/3 of crops in Australia rely on bee pollination, with 227,000 hives being transported into Victoria alone to pollinate almond trees.

Finally, on a lighter note, for those of us who are desperate to get to the hairdresser and worry that our feet will never fit into kitten heels again after wearing wellies for a year of lockdowns, a recent clip appeared on BBC Science and Environment news to make us green with envy! Erika Thompson from Texas is young, beautiful, and armed only with make-up and gorgeous blond hair but no bee suit or gloves, removes a colony of bees from the floor of a shed. You can watch how it is done on https://www.bbc.co.uk/news/science-environment-56396915

Spring Planting for Pollinators

It would be easy to provide a list of plants that are welcomed by pollinators at this time of year, but that's not going to make for a very interesting read, so I'll stick to some pictures and a few broad principles.

This is the season for flowering trees and shrubs. All the Prunus species are good. Plum both wild and cultivated, damsons, cherry, almond – you can't go wrong; and there can be the bonus of fruit later in the year.

Plum blossom Prunus cerasifera

Flowering Currant Ribes sanguinum

Easy to grow flowering shrubs include the flowering currant (Ribes sanguineum), though the smell is said to be reminiscent of cat's pee!

Cowslip Primula vera

Primrose Primula vulgaris

Native plants providing a useful source of pollen and nectar are the cowslip (Primula veris) and the primrose (Primula vulgaris)

For those of you with a pond or a boggy bit in your garden the marsh marigold (Caltha palustris) can look spectacular, but stick to the single native form. The double variety is not so attractive to pollinators.

Marsh Marigold
Caltha palustris

And that is true for virtually all plants. The double or multi-petalled varieties are much more difficult for bees and other pollinators to access, so try to plant the simpler shapes where possible.

On a final note, although this short piece is about spring planting, don't forget the value of wild plants and flowers, the National Botanic Garden of Wales has recently published research showing that the most important source of pollen and nectar for honey bees was bramble, whilst in the 1950s, it was white clover. Reducing grass mowing and leaving some areas wild seems to be a key message. But the greater the variety of plants you have in your garden, the more pollinators you will attract.

Lots more information is available on the RHS (Royal Horticultural Society) website, and a useful book is 'Planting for Honeybees – The growers guide to creating a buzz', by Sarah Wyndham Lewis.

There is also your local Newtown Gardening Club, who always welcomes new members, and has lots of people very willing to share their knowledge and expertise (as well as some very nice trips out in the summer months).

Cath Boswell

Bee import ban

Since the end of the Transition Period and Brexit, the import of packages and nucs of bees directly into Great Britain from the EU has been banned. (The import of queens is still permitted and incredibly, 21,405 queens were brought into the country in 2020). This is however a happy consequence of Brexit, not a planned decision, but is still good news as it will help to support the use of locally adapted bees as promoted by the Welsh Beekeepers Association. Wally Shaw (Technical Officer for WBKA) describes the benefits and rationale of using locally adapted bees in the booklet "Simple Methods of Making Increase (available on the WBKA website). One of the reasons why bees have been so successful over thousands of years and in such varied climates is that natural selection has created races which are adapted to their local environment. Introducing bees from outside that environment "undoes" the natural selection process that had removed non-adaptive genes. Also of course, the transfer of pests and diseases from imports has always been a risk. Particular concern before the ban has been the importation of bees from Italy where Small Hive Beetle is present in the south of the country.

Not everyone agrees! At the beginning of February, there were a number of articles in the national press with emotive titles like "Brexit rules means 15 million baby bees may be seized and burned, says beekeeper". The articles and subsequent use of social media has suggested that these imported bees are essential to help farmers pollinate valuable crops, and that the number of honeybees is in decline in Great Britain. According to the NBU BeeBase website however, the numbers of honey bee colonies has increased from 108,000 in 2009 to 224,000 in 2020!

Unfortunately, a potential loophole in the trading regulations means bees can be imported into Northern Ireland from Europe and then transferred to England. This is classed as "bee movement" not bee import. The press coverage featured a bee supplier based in Kent who intends to use this loophole to continue bringing bees into the UK. WBKA is aware of the issue and it was discussed at the last Council meeting. Imported bees should be accompanied by a health certificate and have been inspected in Northern

Ireland, and your local seasonal bee inspector will always inspect new bees but be aware that he or she can only see if the bees are disease-free on the day of inspection and its our responsibility as beekeepers to monitor for disease. If you are buying bees from a local supplier, don't assume they are local bees, they may have been imported so check their origin. Buyer Beware!

I found useful information about this on the DEFRA media site: https://deframedia.blog.gov.uk/2021/02/08/bee-importation/ (DEFRA covers England not Wales but it is still a good summary of the regulations about bee imports and all the ensuing fuss).

Jill Hill

Good news about the Asian Hornet… so far

There was just one Asian Hornet incident in England last year resulting in the nest being destroyed on 11th September. A hornet was found on a bunch of grapes in Gosport, Hampshire. The Channel Islands, close to France which has a massive problem with hornets, have also noted a drop in sightings in 2020. There were six sightings in Guernsey (from 15 in 2019 and 70 in 2018) with three queens caught (compared to 10 in 2019) and no nests found. The Asian Hornet first arrived on the island in 2017 but a well-organised public campaign for identifying, reporting and destruction seems to be paying off.

A small team of us from Monty Bees had planned to visit the Channel Islands to help capture Asian Hornets and get some experience but lockdown prevented this. However, one of the benefits of lock down has resulted in people spending more time in their gardens therefore one would have expected an increase in sightings so hopefully this is good news.

As the new beekeeping season begins, we still need to be on our guard. Rachel Kellaway is our Asian Hornet Action Team co-ordinator on 07787 160930. Ideally take a photo of a suspected Asian Hornet and send to Rachel or alertnonnative@ceh.ac.uk. More information can be found on BeeBase.

They Paved Paradise

Neonicotinoids (NNIs) are really, really bad for your bees. Don't just take my word for it: there's a wealth of data out there. You could start, perhaps, with the report on large-scale field trials that was first published in Science on 30/6/17* So compelling has been the evidence of harm to bees and other pollinators that in 2018 their use was almost completely banned within the European Union, a move that the UK pledged to uphold after Brexit.

NNIs are basically nerve chemicals similar to nicotine (the drug that hooks smokers) which act on the central nervous system of insects, leading to eventual paralysis and death. Although pollinators are not the target of these insecticides, there is overwhelming evidence that they have been suffering serious sub-lethal consequences through exposure to them. NNIs or 'Neonics' impair learning and memory, foraging behavior and pollination in bees. The bee's 'body-clock' is undermined so that information transferred in the classic waggle-dance is less reliable, potentially catastrophic in a social super organism that relies so heavily on first-class communication between its members. The bee's talents as navigators and plant identifiers, as well as their capacity to identify potential predators are undermined, re-productivity is negatively affected, and the colony's chances of surviving the winter are lessened.

Because of a small loophole in the EU ban anxieties were recently raised when the UK government agreed to an 'emergency permit' to use NNIs in England in 2021 for a period of up to 120 days on sugar-beet crops. The Department for Environment, Food and Rural Affairs (DEFRA) said that it 'wasn't ideal", but still felt that the bees were less important than having yet more sugar. Although not directly affecting Wales, the WBKA, no doubt responding to its members feelings on the matter, wrote to express its concerns about this.

So what is the situation in Wales? A fellow Gwylio'r Gwenyn (a mid-Wales alternative beekeeping group) member was told by her MP, Ben Lake: "Alongside colleagues from the Senedd, I have sought clarity from the

Welsh Government that they will not be replicating such a damaging decision, and thankfully, it does not look as though Wales will be following England in this matter. I can assure you that my colleagues and I will continue to lobby the devolved administration against easing these restrictions." I hope that Welsh beekeepers will do all that they can to support their devolved government in maintaining this much more enlightened and ecologically forward-looking position.

In the event, the English emergency permit was rescinded, though that appears to have been at least as much on account of the weather itself having dealt with the problem - thereby removing the 'need' for insecticides - as opposed to pressure brought to bear by concerned environmentalists.

More and more people are realizing that it's time to think smarter and put our minds to working with the natural world, rather than rushing to get the chemistry set out every time there's a new problem: often one arising from our last attempt to solve a problem by working against nature. To quote bee expert Professor David Goulson of Sussex University "The current model of farming based on huge monocultures treated with dozens of pesticides is causing devastating environmental harm, undermining vital ecosystem services that keep us all alive". Or to put it another way, in the words of the 1970 song: "Give me spots on my apples, but leave me the birds and the bees - please!"

<https://science.sciencemag.org/content/356/6345/1393>

Mal Shears Alternative Beekeeping Member

Webinar wow: Patrick Pollock “Honey for Healing Horse Wounds”

HEALTH WARNING: Don’t watch this webinar if you’ve just eaten or have a queasy stomach!

Most of us have been fortunate to have been able to access bee-related webinars delivered by a number of BKAs while we’ve not been able to attend face to face events. I’ve watched many of them (I don’t have a telly!) but I really enjoyed the one on 10th March about treating horse wounds with honey by Patrick Pollock, organised by the Scottish BKA. Patrick is an equine vet, senior lecturer in equine surgery at Edinburgh University and a beekeeper.

The session kicked straight off into stomach-churning mode with a photo of a typical wound which Patrick described as a “pizza wound” (he needs to change where he’s getting his pizza from!) The picture illustrated “bioverdan” which is all the rubbish often found in an animal wound: pus, exudate, bacteria, slough, soil, food, bedding etc all of which can prevent healing. Honey helps to remove bioverdan, cleans it and promotes healing.

Honey has been used to heal wounds for thousands of years, with evidence of it being prescribed in 2,000BC. With the development of antibiotics from the 1930s, honey fell out of favour. With the development of antibiotic resistant organisms in the last decade, honey is enjoying a renaissance as a therapeutic tool in healing wounds for humans and animals.

The annual cost to the NHS of treating wounds in the UK is £5.3 billion (this would include surgical procedures, transport costs, nursing time etc, not just dressings). The honey dressings now in use contain Manuka honey which has been filtered and gamma-irradiated to sterilise it. Manuka honey is the only honey currently classified as medical grade, and its microbial action is related to a substance called Methylglyoxal present in the nectar of Manuka flowers.We all know how expensive Manuka honey is and how far it has to travel to get to the UK. Patrick described some research he has been involved in to shown to be as effective as Manuka at suppressing bacterial growth and led to headlines in the national press such as

‘Highland honey kills bacteria’ and ‘Move over Manuka honey….’ Further research is ongoing to determine what honey actually does to wounds, why different honey varieties have differing anti-microbial properties, and hopefully challenge the dominance of Manuka honey as a treatment for chronic wounds. See https://scottishbeekeepers.org.uk/events/webinars. WBKA have produced 13 webinars so far, with another 3 planned up to the end of April. Most of these will be available on the WBKA website later in the year. BiBBA has also been providing an extensive programme of webinars, available at bibba.com

Jill Hill

First swarm call of the year- false alarm!

1st March, some spring sunshine and with it, an email asking for help to remove bees from the wall of a house! The lady who called said she had noticed bees going in and out of the wall in the autumn, and that they had started coming out again with the warm weather. Oh no, bees in walls, not good news! I thought it was too early in the year to be a colony of any other sort of bee and the information that the insects had been seen in the preceding autumn did suggest it could be a colony of honeybees. I asked for a photo. Phew! It was a queen wasp!

I asked for a photo.
Phew- it looked like a queen wasp!

One of our regular swarm collectors went to check it out, given the story about the insects being there the previous autumn and apparently re-emerging. Interestingly, he had been called to remove a swarm from the garden of the same house a couple of years ago but it had disappeared by the time he arrived. Had they gone into the wall and simply stayed? I had given the house-owner the usual advice about not being able to work at heights, remove bricks etc. Happily, there was no sign of honeybees in the wall so presumably it was just a very busy queen wasp. Let’s hope she doesn’t find a hole in that wall!

Flow Hives on trial in Tregynon

Mark Howarth's interest in bees began with a liking for honey, it's as simple as that. Six years ago he joined MBKA to learn all he could about bees and bee husbandry. He spent that first year training and looking into all things bee, including hives. This was the year that the Flow hive made its appearance in the most spectacular of ways.

Father and son, Stuart and Cedar Anderson of Australia's Byron Bay had spent ten years developing a hive where the honey could be extracted without removing the frames. It was the closest to honey on tap that you could get. In 2015 they put together a video with the idea of raising $70,000 by crowd funding. It succeeded beyond their wildest dreams raising a million dollars in two hours and eight weeks on they had raised $12 million in pre-orders

Mark was one of those who was impressed by the Flow hive which works like a conventional Langstroth hive in that the brood box and queen bee excluder are normal but the supers above the brood box are very different and can be seen through plastic viewing windows. The frames for storing honey are composed of BPA and BPS free plastic cells that are almost complete so that the bees only need to fill and cap them. Once the cells are capped the beekeeper then attaches a tube beneath the frame and by turning a key, which is like an extremely long allen key, he splits the cells and the released honey flows down a trough and through a tube into a jar.

Mark put in his order for a Flow hive but obviously had to wait many months for its arrival. In the meantime he bought a Langstroth as this is the hive that the Andersons had chosen to adapt. He drove over to Roy Norris's place with the Langstroth intent on transferring a colony from a National hive. Sadly Roy has since passed away but on that afternoon he devised a board between the two hives and the bees, following their queen, migrated into the Langstroth.

Mark now has seven hives at home in Tregynon and five in Meifod although only two are Flow hives and they are at his home. So what does Mark think

of them? He is very candid for although the concept is sound the Flow hive isn't really suited to our part of the country. Wales isn't Australia or America it isn't even Devon and Cornwall where there are beekeepers who are happy with their Flow hives.

In 2018 he took 20 lbs of honey from three Flow frames but the traditional Langstroths gave more. The real problem comes from the ambient temperature not being high enough for the honey to flow freely. They were taking forever to drain so Mark resorted to bringing the top section of the flow hive into the house to warm up the honey sufficiently for it flow well. Last year there was no such problem for he didn't take any honey off the Flow hive, but then it was a bad year for all his hives.

It may have been an expensive experiment but the Flow hive has been a success in demonstrations at Newtown and Berriew shows. It is all part of the experience of beekeeping just as being part of the team collecting swarms is part of Mark's life using a home made bee vac which successfully removed a swarm from under the upstairs floor of a cottage.

In his words this is the most amazing hobby and to sit out on the ground by a hive and watch the bees as they go about their business is one of the greatest pleasures in life.

Carolle Doyle

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