

Swansea & District Beekeepers Gwenynwyr Abertawe a'r Cylch Newsletter

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Are We Due For Another Hard Winter?

It's 12 years since we had a hard winter in Swansea, so are we due another one soon? Honeybees can withstand the cold weather that we get in this part of Wales though in sub zero climates like Canada, they put insulation jackets on hives. However, that is not necessary in our region. In cold weather honeybees cluster in the hive and keep the centre of that cluster at about 27°C. The outside of the cluster can get as low as 9°C. The bees rotate in and out of the cluster and as temperatures fall, the cluster gets tighter and shrinks in size.

Heat from the cluster warms honey stores above it for feeding. In past years, beekeepers seldom opened hives in winter but with the advent of varroa it became necessary to treat when there was no brood in the colony, i.e. in dead of winter, when we administered oxalic acid. Nowadays, there are many treatments which do not necessitate opening the hive in winter so not everyone treats with oxalic acid.

If we get a fall of snow, make sure that you check the hives regularly to clear the entrances. The bees need to circulate air and an entrance blocked with snow can be detrimental. D. S.

There's Always Something New!

Just when you think you've seen everything, something new comes along. In this case it was on a packet of nibbles called 'Pretzel Thins'. On the list of ingredients was "dried honey". No, I'd never heard of dried honey either so I looked it up on Google and found that different forms of dried honey are commonly used in the baking industry. Because of honey's viscous properties, normal liquid honey is difficult to handle and measuring exact quantities is not easy.

To overcome these problems, dried honey has been produced. Several versions are available but the most common would seem to be a powdered form in which flour or, preferably starch, is added to the honey and this slurry then dried in a drum dehydrator. In this process the starch takes up the moisture from the honey, the moisture being released to the atmosphere.

The resulting honey-starch complex consists of 75% dry honey, 23.5% starch and 1.5% moisture. This remains free flowing on exposure to the atmosphere.

The Google information then goes on to add that a honey-starch complex possesses the functional properties of normal honey solids and gelatinized starch. This combination accounts for its improving effect on crumb structure, bread yield, flavour and shelf life which exceeds that obtained by honey alone or by starch and honey when added separately. It is used in bread, sweet dough products, biscuits and Pretzel Thins.

Dehydrating honey ensures an indefinite shelf life regardless of where it is stored. Dehydration also prevents yeast from growing on the honey which can affect its taste.

The information on Google was taken from "Baking Science & Technology", 4th edition, by E. J. Pyle & L. A. Gorton.

The Normal Water Content of Honey

Honey usually has somewhere between 15 and 20% of water content though heather honey has a little more. In practice, I have found that honey with water content above 18% is liable to ferment, depending on factors such as storage temperature, how air-tight the containers are etc.

One year I was horrified to find that that a 30 lb. tub had fermented, it was beyond recovery. After that I put together a 'Heath Robinson' rig using a dehumidifier and some flexible ducting in which I could reduce water content by a few percent. In operation it circulated air from a dehumidifier, up through a stack of 4 or 5 supers, and back to the dehumidifier in a closed circuit. Before putting the supers on the stack I shook out any unripe nectar from open cells, then stacked the supers, put the lid on and switched the dehumidifier on.

Twenty four hours run time would typically reduce the water content by about 2% and I could remove any possibility of fermentation.

The dehumidifier that I used was an old, square shaped one on which I could easily mount flexible ducting over the inlet and outlet. After it eventually broke down, I bought a replacement unit, but its modern design made it impossible to adapt like the previous one.

On a larger scale, some beekeeping friends in Derbyshire have a honey room in which they put all their supers prior to extraction. It has a dehumidifier in it and works a treat for them, bringing the water percentage down to any level they want.

D. S.

The Gower Show 2022

Tom Davies phoned me on 28th October to say that "all things being OK, the Gower Show will be held again in August next year". Good News. It is a great day's outing and gives us something to look forward to.

Do we interfere with our bees too much?

Ed. Back in September I received a letter from Rod Sewter about his experiences this year and asked him for permission to reproduce it. He wrote:

In February this year I developed symptoms which affected my feet, legs and lower back (a spinal issue apparently), this meant I was unable to attend to the bees in the normal fashion and at times not at all, as both my walking and balance were affected.

I had at that time 5 hives.

I was unable to thoroughly inspect the bees but made a few notes when I was able to just look in the hives. My wife although not an experienced beekeeper was a great help in inspecting some of the hives.

15th February Only looked to see if they needed any food but all OK

7th March No inspection, but fed all but one of the hives.

24th March Again no inspection and fed all except one hive which seemed very quiet.

6th April No Inspection but fed all except one hive.

8th June Just a cursory look but did notice that the one quiet hive was now very quiet and on further inspection found only drone cells on the frames, obviously either a drone laying queen or a laying worker. I was unable to take any action to correct this and the hive subsequently failed, leaving me with 4 hives.

I Suspect one hive had swarmed.

23rd. June With my wife doing the lifting we looked in two of the hives and found good brood in both.

10th July Added a super to one of the hives.

20th July Suspect another hive had swarmed but did manage to add another super to two of the hives.

18th. August Martin Davies very kindly volunteered to inspect the hives and do whatever was necessary with my wife's able assistance and with me watching!! He removed 45+ frames of honey for spinning and inspected all four hives from top to bottom replacing frames where necessary. We are very grateful for his invaluable help.

During the inspection Martin did not notice any Varroa or deformed wings and only found one cell of chalk brood.

We have now uncapped and spun out the honey taking us something like 15 man hours!!, but the good news is that we have something like 36 litres of honey which is considerably more than we have had for the past 4/5 years (usually about 15 litres from 4/5 hives.)

So I ask the question, Do we interfere too much with our bees or have we just been very lucky?

It's a very good question by D. S.

Some time ago, at an MSWCC Conference, Peter Tomkins, one of the speakers, gave a lecture based on that very question, and though I can't remember much of the detail, his conclusion was that opening a hive really does disturb a colony and if done too frequently it can indeed affect the yield of honey.

With frequent inspections there is also the risk of damaging the queen, something most of have done at one time or another. There are, of course, times when we need to inspect a colony but that should be limited to essentials only, swarm prevention in the spring, varroa treatments or feeding for example.

When I first started beekeeping, the older beekeepers used to say that the more aggressive colonies produced more honey. This was probably because they simply didn't have the courage to open them as frequently as they opened the docile colonies. Opening a very aggressive colony can be frightening. It's not something that I want to do but, luckily, I have always had reasonable colonies to work with.

However, there have been times when I have come across aggressive colonies. On one occasion I was asked to help take the honey harvest from a hive located on a farm in Gower. It was a particularly nasty colony so we did the normal procedure and moved the hive some distance away to go through it. With this technique the flying bees, who are generally the aggressive ones, go back to the original hive location and therefore don't bother the beekeeper who is attending to the colony which mostly contains nurse bees.

On putting the hive back on its original site however, the fliers took umbrage and continued to pursue us. We didn't want them to follow us into the car so for about twenty minutes we took refuge in a dark barn until they eventually gave up and returned to their hive.

We beekeepers sometimes forget that though our aim is to harvest honey and wax, the bees aim is to reproduce their species. To do this they must have stores to go through the winter months and will protect those stores with their lives.

D. S.

“When Bees were Bees” by Tom Davies.

On a trip around the State of New York in the U.S.A., a Mr. C. S. Rowe, of Kingston, New York, visited a Mr. Emil W. Gutekunst, of Colden, N. Y.

In the June 1930 issue of “Gleanings in Bee Culture”, Mr. Rowe described his visit, and also sent in a couple of photos, one of which showed a line of hives, most of them sporting 6 or 7 supers high, and this being the clover flow.

Colden is some 20 miles from Buffalo, N. Y. and is a large valley. MR. Gutekunst had obtained a large old orchard, described as a ‘home yard’, with 275 colonies, at the same time raising some 250 nuclei.

The site was kept tidy by allowing a small flock of sheep to graze there, also the photo showed a couple of chickens. It was quite a large area, allowing the nuclei to be given lots of space.

Mr. Rowe stated the supers were about ready for extracting, and that the basswood was just on flowering time, possibly following on from the

Clover to provide not only a second crop but as stores for the winter.

New York clover honey features well in adverts in honey sales, so this undertaking must have been up with the best in honey production.

Till next time Tom.

BBC ~ Farming today

My thanks to Paul Lyons for alerting me to the following item, broadcast on 14th Oct.

Prof. Elli Leadbetter from the Dept. of Biological Sciences at Royal Holloway University, London, has been heading up a study looking into foraging of urban and rural honeybees, and comparing their foraging patterns. The findings were published in the Journal of Applied Ecology.

Using ten sites in London and ten sites in rural the areas of Kent, Sussex and the home counties, researchers decoded 2827 waggle dances between April and September 2017. They then mapped out where the bees had been. They also collected data on sugar concentration from foragers by collecting 10 returning bees from each hive visit and inducing regurgitation of collected nectar.

From the waggle dances they calculated an average foraging distance in urban areas of 492 metres. This compared to 743 metres in rural areas. They found no significant difference in the amount of sugar collected by urban and rural bees, indicating that longer foraging distances in rural areas were not driven by far-away, nectar rich sources and that urban areas consistently provided honeybees with more available food.

Their findings support the idea that gardens and parks in cities provide diverse, plentiful, and reliable foraging resources. In agricultural areas it is harder for honeybees to find food so they have to fly further.

The researchers warn that rural areas are unlikely to support bee populations in landscapes dominated by intensive agriculture. They go on to say that conservation efforts should be directed towards increasing the amount of non-crop flowers in agricultural areas, such as wildflower strips. This would increase the consistency of forage available across the season and reduce the bee’s reliance on small numbers of seasonal flowering crops.

“More About Bees” by Tom Davies

An unusual year this, from my point of view not a very good one. A bad fall onto a paved path gave me bruised ribs, a sprained wrist, plus a good few other bruises to go with it.

If we had a Gower Show I would not have been able to go, as well as that I was not able to look after my garden very well and the weeds have taken over, so at the present moment I am reclaiming it.

On the good side, the flowers I planted came on well and the bees etc. have made good use of them, with quite a lot of honeybees among them.

About a month ago, I was invited to see some bees. A friend of my daughters has taken on a couple of swarms as a start, and they seemed to be still working well, so perhaps in the near future, we will gain another member.

The weather has been quite good this year fortunately. The amount of flowers on plants in general, particularly the blackberries around here, should have resulted in reasonable takes of honey, so if the Covid problem would go away we could have a Gower Show in 2022, and hopefully see some good entries on the shelves. Hope you all did well!

Till next time, Tom Davies.

Ed. I'm glad to hear that Tom is on the mend after his fall. If you intend showing some honey next year, put a couple of your best jars aside in readiness for the Gower Show. My thanks to those who send me these interesting articles and newspaper cuttings.

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The next newsletter is due out on 1st Jan. 2022. Please let me have your articles / items by **15th Dec.** Many thanks.