

Additional Q&A for Webinar talk 14 January 2021

Q - How do we make Wales self-sufficient in locally adapted bees? There are rather few commercial suppliers of bees in Wales and despite the efforts of many local Associations, we often cannot produce enough colonies to supply new beekeepers who can be tempted to buy from further afield.

A – Commercial sources of queens are probably not the solution because local means local, but just how local that should be I am not sure - if you get my meaning. For example, anywhere on Anglesey and the near mainland I would accept as local for us, but colonies up in the valleys of Snowdonia probably not. The booklet Simple Methods of Making Increase was written so that gradually we could persuade/train the majority of beekeepers in Wales to raise queens for themselves. On our ABKA training course all beginners are sold a 5-frame nuc of locally adapted bees (at a favourable price) in late June or July and their task is to build this up to survive its first winter. In their second year, if they want a second colony (and most do), they have to make it for themselves – we won't sell them one. Virtually all of them are successful at the first attempt (and are proud of this) and now have a skill and the motivation that will keep them going indefinitely. (If they do lose colonies through no fault of their own, we will, of course, come to the rescue). In the early years of our course, we provided all the nucs to fuel this system but last year (meaning 2019) we provided less than half – the rest were supplied by people who had been on the course in previous years. As far as we know, no one has purchased a colony or queen from an outside source in the last 9 years. A result, I think! If our associations want Wales to become self-sufficient for bees, they will just have to bite the bullet, get themselves organised and provide the necessary training to their members. WBKA aims to support its member associations to facilitate this, and that is the reason for the booklet.

Q - What colour are the Anglesey bees?

A – I am not sure that a worded description will suffice. So, if you look at the presentation on the WBKA website, the background to the title slide and slide 6 will give you some idea of their colour.

Q - What method of queen rearing would you suggest?

A - It would take far too long to answer this question but a full account can be found in the WBKA Booklet, Simple Methods of Making Increase, a PDF version of which is available free on the WBKA website.

Q - How does the average beekeeper ensure genetic diversity in their apiary?

Q - What about the genetic diversity within an area? Is there a chance of limited diversity?

Q - How much of a factor is the elevation of an apiary above sea level?

A – I am going to answer these three questions together. First of all, bees are extremely good at maintaining genetic diversity through multiple mating by the queen (10-25 drones) and, weather permitting, flying some distance from home to visit drone assembly areas. Realistically, the only way of losing diversity is through closely controlled queen breeding (isolated mating apiaries or the

ultimate method, artificial insemination). It is good practice to avoid having multiple colonies with the same mother in an apiary. So, providing we let them, bees will maintain genetic diversity. However, to answer the last question, does elevation create a problem? The answer to this is, yes it can because, along with elevation, often comes the likelihood of isolation; meaning there may be few (or no) managed bees within mating range, and there are unlikely to be any feral bees. A multiple colony apiary would probably provide an acceptable solution but might need its genetic pool supplemented every so often. We had a beekeeper who started beekeeping in his garden at home which was at about 300m and isolated, and where there was only space for a maximum of 2 hives. He could not get queens mated and had to transfer his apiary to a site at lower elevation.

Q - Are Black bees and AMM the same bees?

A – Yes. Strictly speaking, the correct non-scientific name is Northern Dark bee, but Black bee will suffice and is widely understood.

Q - Is there a difference between "wild" bees and those in purpose-built hives?

A – Obviously, if the beekeeper has bought in a queen from an outside source, or of a different race, the answer is no, they will not be the same as any local wild bees. However, a recent genetic study of the difference between hive bees and wild bees showed that, over most of the UK, there is little difference.

Q - Does Anglesey have varroa - I heard that it is/was varroa free . . . ?

A – I wish! Anglesey had its first Varroa quite early in 1996 and it was all over the island by 1998 and there is absolutely nothing that can be done to eliminate it – once it has got into colonies it is a permanent feature.

Q - Does Wally think that bees in the UK are able to resist genetic introgression as the bees in New Zealand have?

A - Yes, I do. In the UK they are not out-numbered as they are in New Zealand so the problem is smaller. In a cool, temperate climate, natural selection will quickly cause any genetic introgression which has occurred to diminish. Non-adaptive genes will be lost but others may be adaptive and they will tend to be retained. This is how a locally adapted bee is created.

Q - Many beekeepers believe that the progeny of Buckfast F2 Queens are defensive. Do you agree and why would this be?

A – Yes, this is the widely held view and I have no reason to think it is incorrect. Early in our beekeeping we were given a nuc headed by a Buckfast descendant queen. They were absolutely awful and the queen survived only 5 weeks before she got the finger-and-thumb treatment. We ensured it re-queened from a frame of brood donated by another colony. Why does this happen? I have no answer to that except to say that most inter-racial crosses tend to become more defensive

but the Buckfast seems to be the worst, and have been known to be thoroughly dangerous. The only explanation of which I am aware is that there is mis-match between the pheromones produced by the queen and what her workers expect.

Q - What year was the BIBBA survey that you sent samples to?

A – Sometime in the 90's is the nearest I can get. It was pre-Varroa so before 1998. As I said in the talk, my perception is that our bees have got blacker since that time. This was the only colony we have ever had vandalised (tipped-over by kids). It was re-instated within 20 minutes but unfortunately the queen must have been standing in the wrong place at the wrong time and was killed. Due to the time of year (February I think), it was unable to re-queen. It was also a time of year when it was too cold for the bees to exact their revenge. My daughter was able to identify the miscreants and the parents got a warning from the police!

Q - What do WBKA charge beginners for a Nuc?

A – WBKA, as the umbrella organisation for 19 associations across Wales, doesn't sell nucs. As in most parts of the UK, nuc prices will vary but we don't sell nucs commercially so cannot answer the question I think you are asking. In the past, we have been heavily criticised for selling too cheap. As a result, we **never** sell nucs outside our own local association. In order to encourage our beginners not to buy bees in from an outside source, we sell them a starter colony at a very favourable price. We will not sell them a second colony because we want them to learn to do that for themselves. Our beekeeping course teaches them how to do this (given practical help if necessary) and then they have a skill for life.