

FEEDING BEES THROUGHOUT THE YEAR, and WINTER MANAGEMENT

This information is derived from a talk Peter Guthrie gave to GBKA in March 2011. Reported by Jackie Knapp.

It is important to note that when syrup ratios are quoted, this is driven by weight. For example, for a 1:1 solution use 2lb/1 kilo sugar to 2pt/1 litre of water, or for 2:1 use only 1pt/0.5 litre of water, and then scale up these amounts as appropriate.

Spring, Nucs & Swarm Feeding

A "contact feeder" using a 1:1 syrup solution (or Ambrosia syrup) should be used to stimulate growth. For Spring (Feb/Mar) this is to prevent starvation and encourage brood development so make sure the crown board holes are as near to the winter cluster as possible (although note that unnecessary feeding in spring increases bees and will introduce more risk of swarming in May, so check remaining stores first). A gallon bucket is a good sized feeder as this will only need a super to house it rather than a brood box for a 2 gallon (Peter says, the bigger the trailer the bigger the tractor you need!). If you are a DIY guru and want to save money, these can be made from any suitably sized plastic container with a lid punctured with approx. 15 x 2.5mm holes....it truly works, I (the author) know but make sure there is no strong odour from the container's previous use! For Nucs and Swarms, feeding optimises wax production to encourage drawing out of new foundation, however use a half gallon bucket in this case as a gallon size is usually too big for a small colony.

Emergency Action.....Late Summer Feeding

August can be a dangerous month for colonies after all, or some, of their honey supplies have been extracted at a time when the availability of nectar and pollen is reducing and this can put your bees at risk of starvation. If a colony has dramatically reduced in size since your last inspection and look drunk and drowsy, then your bees are probably at the point of starving so they need an emergency and easy access injection of food. In this case, use a "frame feeder" which holds 3pts of syrup and sits adjacent to the nest, and can save a hive. It may also be a good idea to dribble a 1:1 syrup solution on your dozy bees to help revive them. (Note that a frame feeder can also be used to avoid wasps in Aug/Sep of course together with a small entrance, and also for nucleus colonies instead of a contact feeder).

Ensure Winter Survival.....Autumn Feeding

A "rapid feeder" should be used for Autumn feeding using a 2:1 syrup solution (or Ambrosia syrup) with the objective of quickly building up the colony's food stores for winter after honey extraction and before the cold weather kicks in. Peter mentioned the Miller and Ashforth feeders, and said that the Miller should be used the "cold" way to minimise drowning (i.e. the feeding station at right-angles to the entrance). They both hold 3 gallons which should generally be consumed within 7-10 days. Beware though that you can over feed hives at this time of year so keep to the guideline of 15-25 kilos of stores per hive as Peter said that it is not advisable to enter winter with all frames packed solidly as the surplus can become unwelcome frozen slabs during winter. Therefore heft or inspect, then feed accordingly. With feeding at any time of year, beware of robbing but particularly in Autumn when the wasps are at their peak and looking for a cheap meal - your colonies will be in grave danger of being wiped out completely if not monitored and the entrance isn't small enough for the colony to be able to effectively defend their patch

Don't Forget or Neglect....Winter Management

Peter has always checked his colonies throughout the winter (November to March) on a monthly basis when he "hefts" to assess the level of stores and although generally discouraged across the beekeeping community, he also cracks open the crown board at the same time to record how many seams of bees there are, but only if there is no rain or chilling wind. He has found this a successful winter management regime with no adverse effect on the bees.

Winter pests, pests, pests....firstly Woodpeckers, wire netting is too fiddly for monthly checks, so Peter uses poultry pellet bags instead which disrupts their balance as the feet, tail and beak are not on the same

plane! Now the Badgers, they will eat honey in a super through woodpecker holes so one suggestion is to use a damp proof course, shiny side out, tacked to the outside as prevention - Peter says beware, they will come back next year if they found food in your hives this year. Birds.....Tom Tits in particular...tap tap and then mmm... honey bee for breakfast...Peter suggests a piece of glass over the entrance which will hopefully minimise the inevitable massacre!

Winter stores...if your bees are short at any time through the winter, you should give them a supplement such as Ambrosia candy which Peter recommends over conventional candy because it retains moisture. This is important because as the bees come out of deep winter, they critically need water to break down their winter stores to develop the brood etc. so ensure they have a good supply as otherwise the bees will extract moisture from the candy itself. Peter recommends a $\frac{1}{2}$ tyre containing some peat, but any water source should be at least 10 meters away from your bees. An approx. amount of 1.6kilos of candy should be given from around Xmas through to spring, preferably in two doses during that period to avoid the candy becoming too cold to be eaten.

Pollen Substitute, this is not critical for your colonies' survival but something you may want to consider in mid-late February as it will give the Queen a kick-start into laying and will allow you to spring feed with sugar syrup earlier. You can make this up from scratch yourselves, or as recommended at the meeting by one of our association's most experienced beekeeper's Malcolm Salter, "Feedbee" pollen substitute is wonderful stuff...make up as per instructions and then stick about half a kilo in a sealed plastic bag, make a hole and put directly on the frames over the cluster...you should see a marked improvement in the mood and development of your bees afterwards! Note though that there can be a huge variation in how much pollen is stored by different colonies, so Peter recommends "pollen frame" swapping if you have different levels of pollen in your apiary, as this improves the temperament of the bees as they come out of the winter months into spring.

Let's Spring into Increase

Now we are into spring you need to build your hives up as strong as possible. If you have over wintered on a "brood and a half", or "double brood" then when the queen has started laying well in the top box, move it to the bottom. This is because bees spread vertically (and not horizontally) into a rugby ball shape so if you invert that rugby ball, the queen will work hard to re-instate that shape in her brood nest. Once the colony has a good sized brood, then give them spring 1:1 syrup solution when adequate pollen is available, a good indication of this is when the dandelions are out! When you put your first super on, use 11 frames as less will make the super too cold for the bees to move upwards, but after that use 9 frames of drone comb for optimum honey storage.