



# The Scottish Beekeepers' Association

Registered Charity No. SCO 09345

## SBA Technical Data Sheet no. 18 - Obtaining your first bees

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[www.scottishbeekeepers.org.uk](http://www.scottishbeekeepers.org.uk)

[www.sbai.org.uk](http://www.sbai.org.uk)

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## Introduction

### Advice on obtaining your first bees.

There are reports of high winter losses again this year (2012), and so there may well be a repeat of last year's shortage of bees. It is essential that all beekeepers exercise caution when sourcing bees.

It is worth remembering that most of the pests and diseases we have to contend with now came into the country by beekeepers importing them with bees. Although we hope that the present controls will prevent the importation of any pest or disease, this must be borne in mind even when ordering bees from within the UK, taking care not to bring affected bees into disease-free areas, specially not to move bees into varroa free areas, or to source bees from where AFB and/or EFB has been reported in the last three years.

Also the best bees for you are probably those adapted to the local conditions, and if you bring in different strains of bees, the first cross with the locals may well turn out to be aggressive.

So, where from? First of all talk to your local association secretary and members, and hope that someone will be raising nucs this year, or can be persuaded to do so – remind them that if you do have to bring in from outside the area it could be detrimental to all local beekeepers. If you have to bring in from outside your area, make sure you know what type of bees you are getting. There are reports of large numbers of bees being imported, so ask the supplier where your queen was raised, and when he or she last imported bees from abroad.

And finally, remember that not all potential beekeepers will read this, so if you hear of anyone thinking of keeping bees, contact them, encourage them to act responsibly, and to join the local association and the SBA.

This Technical Data Sheet contains four sections to help you get your first bees:

1. **Before you get your nucleus.**
2. **Choosing a site for your apiary**
3. **Nucleus – Specification and Source**
4. **Looking after your nucleus**

## 1 Before you get your nucleus.

You will need both equipment and beekeeping knowledge and some expertise to care for your nucleus properly and ensure that it builds up well enough to survive the winter.

The minimum equipment needed is a hive with a varroa floor and a feeder, and standard beekeeping kit of protective clothing, smoker and hive tool. You will also need to keep a record of what is happening in your hive, and of what you do, preferably with record cards (see the [SBA website, under Downloads](#) for a suggested card).

You would be best getting an accepted type of hive, preferably that in use in your area. Hives in common use in Scotland are the National, the WBC (frames are the same in these two hives), and the Smith, all with similar size brood boxes. Hives with frames are far better and easier to manage than top bar hives, so do not be seduced by the reduced cost of top bar hives. Get your hive in plenty of time, as if you buy in a flat pack you will have to assemble the hive and the frames with foundation. When getting a nucleus, assemble the whole hive (usually brood box and two supers), assemble all but two of the frames for the brood box and put foundation in them (as this will leave room for the two dummy boards), but leave those frames and the ones for the supers unassembled as they will take up less space and the foundation will keep better in the pack.

If you get a second hand hive, be very careful where it has come from, avoiding areas where there has been AFB or EFB in recent years. A second hand hive is only economic if it is in good condition, with firm joints and no rot. The whole hive should be flamed with a powerful blow-lamp or propane torch until it is a light brown colour, making sure the heat penetrates into the joins. You could then pressure wash it, and treat the outside with an approved treatment available from bee suppliers. It is not worth getting second hand frames, as cleaning them effectively is difficult, and a new frame is well worth the expense as it will last many years if handled properly.

Siting your hive is important, as you must give consideration to the effect of the location on the bees, yourself and the neighbours. Bees will establish flight paths to sources of nectar, pollen and water, and if these cross lawns or paths or anywhere there are people or animals there may be problems. A tall (about 2m) hedge or screen between the hive and such locations will cause the bees to fly above that height, so above people and animals. It is wise to be insured against such problems, and joining the SBA will give you insurance against a number of eventualities, as well as many other benefits. In future years you may wish to have a second hive (or more), so bear this in mind when choosing your location. See the following section, 'Choosing a site for your apiary' for guidelines on location of hives.

When you get your nucleus, you will have to transfer it to the hive, and then check that it is building up well, so you will have to know how to open up a hive and inspect frames for a number of things – presence of the queen, eggs, larvae and sealed brood, amount of stores present, and absence of disease. You will have to know how to feed the bees, and to check for varroa, and to treat if necessary. The best way to get this expertise is to join your local beekeeping association, go on a course by a reputable instructor, and attend any apiary visits. Your local association may have a system of mentoring where an established beekeeper will help you gain experience, either at their apiary or by visiting you, but if not ask a local beekeeper for help, as beekeepers are friendly people and most are keen to help newcomers – I tell those I help that I do it for the bees, not for them, and there is a lot of truth in that as I don't like to think of bees not being properly cared for, but despite that attitude I have made a lot of new friends.

Some people suffer a severe shock reaction to a bee sting, needing immediate treatment, and although this is rare, you should be aware this might happen to you, so until you have been stung, always have someone nearby who can help you if you react unfavourably. However, if you handle your bees properly you should rarely get stung.

## **2 Choosing a site for your apiary**

If your bees are in a suitable hive, and you make sure they always have food and are free from disease, they will probably survive wherever you put your hive, but if you care for the welfare of your bees and look after them properly, you will have the satisfaction of having a healthy happy colony and they will reward your extra effort by producing more honey.

There are a number of situations to avoid if possible when choosing an apiary site. Although bees should survive most of the cold winters in Scotland, some shelter from the north and north east is advisable. This can be a natural feature such as a hill, or a hedge (preferably a good nectar or pollen source if you are planting one), or a wall or fence. If in an open landscape, shelter from the prevailing wind is also useful. All of these screens will decrease the risk of hives being blown over. The apiary should not be in a hollow which can be a frost trap, and will also tend to be damp, as can some locations under trees, which should be avoided.

Bees will benefit from the warmth of the sun on the hives, so a site open to the south is good, and if they get early morning sun they will be foraging early! However, bees can suffer heat stress on a hot day in summer, so avoid too much of a sun trap.

The other consideration in choosing an apiary site is how good or bad it is for you or other people.

A site in your garden has many advantages for you – ease of access, everything you need is close to hand, and you can easily keep track of what is happening on a day to day basis. However, when the bees take cleansing flights, you will almost certainly get brown spots on cars, garden furniture and

washing hung out to dry. Bees will visit garden pools, bird baths and any other source of water, and could be a nuisance. Flight paths to forage may cross lawns and paths, and collisions with even the mildest of bees can lead to stings. Raising flight paths by putting a screen (such as a 2m high hedge or fence) between the hives and open spaces will usually overcome this problem. You must also be prepared and know what to do should your bees swarm, though you should initiate a swarm control programme.

All these disadvantages apply to your neighbours also, so it is essential to discuss your proposed apiary with all who may be affected. Tell them what you propose to do, and the possible effects on them, both the disadvantages as above, but also the advantages of better pollination of fruit trees and other advantages to the environment in your locality, and promise a donation of honey from your first harvest. The more colonies you have the more potential problems, so starting with one is always good, but consider how many you will want to keep in future. If you only have one, and lose the queen for any reason, all is lost, but if you have two there is then the option of raising a new queen (rearing new queens should be a part of your management programme, as young queens will be far more productive than old ones, and leaving bees to produce new queens and then swarm is not a good strategy).

If your apiary is on someone else's land, full discussion of the pros and cons as above is essential, but there are other considerations to take into account. Ideally, it should be well away from public roads and paths, but easily accessible by car for you, as there will be equipment to take there, and hopefully full supers to bring away. Thefts of hives are on the increase, so out of sight is an advantage (and don't advertise your presence with a shiny white bee suit!). If on farm land with animals, it must be fenced off so animals cannot knock hives over.

Availability of forage for the number of colonies you plan, and the distance the bees will have to fly for it, and for water, should be considered, as should whether there are other apiaries nearby that will compete for available forage, so aim to be about 3km from any other apiary.

Should there be any problems, think again about your chosen site, and possibly look for another one, as it will be easier now than having to re locate and move hives at a later date.

Having chosen your site, check:

*For the bees:*

*Dry, sheltered, some sun but not too much, near forage and water, safe from humans and animals.*

*For you and others:*

*No nuisance to neighbours or passers-by, out of sight but easily accessible for you, with enough space to work the hives.*

A good source of local knowledge and help is your local beekeeping association. For Scotland, these are listed on the [Scottish Beekeepers Association website](#).

Hopefully you will have many years of happy and productive beekeeping in your apiary, but it is wise, I would say essential, to insure against the unexpected. The best way is to join the Scottish Beekeepers Association (SBA), and among the many benefits of membership, this includes insurance against many eventualities. [Application forms can be downloaded from the SBA website](#).

### **3 Nucleus – Specification and Source**

There have been many definitions for what constitutes a Nucleus, going back to the original British Standard 1372 of 1947 through to the latest advice on FERA's factsheets.

Suffice to say that in summary a Nucleus can comprise of 3 to 5 British Standard (BS) Deep frames of bees with all stages of brood having been laid by a this year's laying queen and sufficient food to allow them to be transported and become settled.

Ideally your Nucleus should be on 5 frames. In Scotland you should avoid getting a 3 frame Nuc after the end of June, a 4 frame perhaps until mid-July. After this time the nucleus should be on 5 fully drawn frames in order to allow it time to build up sufficiently for winter.

If you are on large format hives (Langstroth, British Commercial or Dadant) then the above 3, 4 & 5 BS frames can be translated to 2 up to mid-July and 3 thereafter as the frame sizes are much larger. Ideally the bees you source should be from your area as bees become acclimatised to their local environment. Use a reputable supplier and don't be afraid to ask for references.

Bees are also supplied in "Packages". A Package is 1.5 to 2 kg of worker bees, a Queen and sugar or candy in a ventilated shipping container. Packages are unusual in the UK and would only be suitable for Scotland if obtained before mid-May by professional beekeepers.

You may also come across "Mini-Nucs" These are essentially very small hives used for queen breeding and only contain a cupful or so of bees. They should NOT be on offer for sale

This specification however deals with Nucleii on full size BS (or larger format) Deep frames.

**Specification - A Good 5 BS Deep Frame Nucleus will:**

- Have a good quality, young laying queen – ideally from your area
- Have all stages of brood
- Have at least 3 frames with brood
- Be free of signs of disease (ask advice of your local Bee Inspector)
- Have at least 4 frames covered with bees
- Have the equivalent of a full comb of stored honey and half a frame of pollen.
- Have good quality frames and all frames fully drawn out
- Have been examined by a competent person prior to purchase
- Include a statement of what varroa treatments, if any, have been given

**Delivery Container**

Your nucleus may arrive in a Nucleus hive, in a temporary transportation box (usually plywood with ventilation strips) or if sourced locally, you may collect the five frames in your own hive. If the latter, it is best to deliver your hive with 2 dummies and four frames of foundation to the supplier a few days before collection – he can then install the 5 frame Nucleus of bees ready for you to collect.

**Sourcing bees outside your area**

If you "import" bees, (and as stated above, please make all attempts to source local bees), you must be very careful to observe the relevant import rules. These are aimed at controlling the spread of pests and diseases. Guidance is given on FERA's National Bee Unit BeeBase website.

## **4 Looking after your nucleus**

Having sourced your nucleus according to the advice in the previous section on Nucleus – Specification, your nucleus may arrive in a Nucleus hive, in a temporary transportation box (usually plywood with ventilation strips) or you may have collected the five frames in your own hive. If you have collected in a full size hive, insert dummies either side of the frames of bees and put foundation frames outside the dummies to prevent the whole lot from sliding about during transportation.

Your nucleus may be on 3, 4 or 5 BS frames (2 or 3 of the larger frames (Langstroth, 16 x 10, Dadant)). A 3 BS frame nucleus should only be sourced up to the end of June, a 4 frame perhaps until mid-July. After this time the nucleus should be on 5 fully drawn frames in order to allow it time to build up sufficiently for winter. The FERA Best Practice Factsheet Number 5 "Advice for Obtaining Honeybees" (see Beebase) advises that you obtain a 5 frame nucleus.

**Actions:**

1. The nucleus, transport box or hive should be put in the position the bees are going to occupy in the apiary and allow them to fly immediately. They may have an urgent need to collect water to nurse brood.
2. Leave them alone to settle until the next day when they may be transferred into their final container if necessary. If you are transferring them into a full size hive then insert a frame of foundation between frames 3 and 4 and a dummy on either side of the six frame grouping.

- Keep them hemmed in with dummies as this will prevent them from expending energy exploring a whole box filled with chilly foundation.
3. Place the brood box on a varroa floor and insert a tray.
  4. Put in a restricted entrance block with an entrance of about 6 cm x 8 mm.
  5. Feed them generously with 1:1 sugar syrup during build up as they may have a shortage of foragers to begin with. The feed may be given in a rapid or contact feeder set over the feed hole on the crown board. You will need a spare super or brood box to give clearance for the feeder (a rapid feeder is easier to check for sufficient content and is easier to replenish). Check regularly for stored food, and if low, continue feeding.
  6. Examine them about once per week giving another frame of foundation as they require more room. The aim is to get them sufficient frames of drawn comb by autumn feeding time, in order that they can store sufficient food for winter (generally bee-feeding should be finished by the end of the 3<sup>rd</sup> week in September). As you get to the end of July, change the feed to winter strength (0.55litre water to 1 kg sugar)
  7. Move out the dummies gradually as they draw out the frames of foundation. Check that storage of food is not restricting space for the queen to lay. If by the middle of September they have stopped drawing out the foundation, say at 8 or 9 frames, then leave the dummies close to either side of the group of drawn frames over winter.
  8. Check that the queen is laying well and that there is no sign of disease.
  9. Keep a record in a notebook of the actions you perform on the colony and of the things you observe.

Ask your supplier whether the nucleus has had any varroa treatment. Take regular counts of varroa mite drop and if the drop is above the levels requiring treatment (check the FERA documents on Beebase), then plan a treatment. Check with your local association as to which varroa treatments are still viable –e.g. many mite populations are now resistant to pyrethroid treatments such as Apistan & Bayvarol.

Provided your bees have been well fed for winter and the varroa population is under control and a mouse guard has been put in place, your bees should survive winter without incident. They will not use much food from November through to February. By February however they will start to increase their production of brood and consequentially will consume much more food. Check regularly (3 weekly) at this time that they have sufficient stores and as a precaution place a wetted sugar bag or some candy over the feed hole on the crown-board in late January (this may need a spacer “eke” or a super to provide enough space). Place a porous piece of material over this extra feed and over the rest of the crown-board to conserve heat, making it more inviting to visit the feed – a folded hessian sack or thick piece of felting is ideal. Their rate of consumption of this extra food source will give you a good indication of whether they are short of food.

If your local association provides mentoring for beginners, take advantage of this and contact the mentor(s) if you are in any doubt.

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