

## **Dealing With Swarms**

Due to the increase in Foul Brood disease care should be taken when hiving swarms. Both EFB and AFB can be transmitted by infected honey, which of course swarming bees take with them to convert into wax to build their new home, and provide food in the early stages. The advice used to be to hive swarms and feed immediately to give them a good start. The idea was that a swarm would not starve if there was a spell of poor weather before they got established. As there is a chance that infected honey would be stored, and introduce a problem to an apiary that was previously clean, it is unwise to do this unless you know the swarm has come from a colony that was free of foul brood disease.

My suggestion is not to hive the swarm on combs but on foundation, and don't feed. The bees will use up all the honey they brought with them to make wax and build out the foundation, and will not be able to store any honey that may be infected. If the weather was bad for foraging it would be sensible to feed after a few days, but only if there was no food in the combs. Don't forget that a swarm has no brood to feed for several days, therefore they need a lot less food for maintenance than a full colony.

If you only have comb available then use that, but you should be much more vigilant in looking for brood disease, and it would be sensible to quarantine them in some way, such as keep them at a distance from your other colonies so that incoming bees will not go into the wrong hive. It is difficult to say what distance this should be, ten yards is better than one, and thirty is better than ten. If you are cramped for space have them temporarily facing a different direction from existing colonies. They can be moved later if they are clean, and you should know that within 3 weeks of the queen starting laying. If they have shown to be clean and you need to get them into their final location you can either move them about 3 feet per day or wait until a cold snap in the winter.

Don't think that every swarm is diseased, it isn't. It is only likely to be a problem with EFB or AFB, but by taking simple measures you could avoid a great deal of annoyance and disappointment. In over 45 years of beekeeping I have only ever known of one swarm to be infected with Foul Brood, and that was taken by a beginner from a well known EFB "hotspot". Most colonies have nosema and acarine to some degree, and swarms are usually fairly free of varroa, although there are exceptions. I think swarms are a lot cleaner than some would have you believe, but there is no room for complacency. If you think about it a badly diseased colony would not be strong enough to swarm anyway. If you do have Foul Brood in a swarm then don't forget that at the time of writing they are both still notifiable diseases, and the Regional Bee Inspector should be informed. Tell all other beekeepers within about a 3 mile radius of where you got them, so they can check their colonies and hopefully the source can be found.

In a full colony the vast majority of varroa are in the brood. A swarm is an excellent opportunity to remove a lot of the mites from the swarmed bees, and the reader should refer to current advice on dealing with this, but it must be done before brood is raised.

### **My suggestions for dealing with a swarm.**

Books will show photographs of swarms being taken in skeps, but any sensible lightweight bee proof container will do such as a cardboard box or plastic bucket. Most swarms don't hang on apple trees six feet off the ground as we are told, and it may be necessary to resort to a variety of antics to secure them. Bees are attracted to things that have had bees in for some time before and this can be used to your advantage. On many occasions I have enticed a swarm from a difficult position such as a hedge by somehow getting a handful of bees and putting them in an old skep or on an old brood comb. They will start to scent fan and often the rest of the swarm will join them. On one occasion a swarm was on the end of a branch so high up a tree that I couldn't get at it. I shot the branch away with a 12 bore shotgun!!

A settled swarm will take wing at almost any time during the day and for that reason it is advisable to take and hold it captive as soon as you can. Once it has taken wing it will usually travel some distance, and at a speed it is difficult for anyone less than a marathon runner to keep up with.

If a swarm is in a position to shake into your container then do so. Lay some form of beeproof cloth on the ground such as a sack, old sheet or tablecloth. When the swarm or most of it is safely in the container turn it upside down as bees always run uphill and will cluster in the top. Place this on the cloth and tie the cloth round your container to prevent escape, but don't forget the bees will need air. If you haven't got all the bees then just rest one side on something such as a stick, and if the queen has been captured the bees should call the rest and they will soon join up.

If you are unable to shake a swarm directly into your container it is important to find the queen if you can and cage her, either in a queen cage or a matchbox, or clip her wing unless of course she is a virgin. Wherever you put her the bees will find her and stay with her. Be aware that if there is one virgin queen in a swarm there may be several, depending on the circumstances of the colony it came from. If there are several small swarms in the same area it is likely they have all come from the same colony, and each will contain one or more virgin queens, and they have settled in different places. There will be no problem putting them all together.

The taking of swarms is often done in conditions where innovation is required and I have seen some rather amusing antics. An important piece of equipment can be a camera! As an alternative to a cloth to cover the container I have found old pillowcases and duvet covers good for putting the whole lot inside then tying it up, but make sure they have no holes in them.

The books will tell you to take and hive a swarm in the evening. This is because there is less chance of them absconding. I have rarely found this necessary and is why I try to find the queen quickly and either cage her or clip her wing. Another thing that can be done is to put a queen excluder under the brood chamber for about five days.

In my experience swarms with virgin queens can behave differently than those with fertile queens. They can often settle at a much greater height, and are more likely to abscond.

Don't forget that queens in swarms, especially virgins can fly very well, and often do. Some won't take much messing about, and when they take wing it's often in a hurry.

Once swarms have found a home and especially after they have started building combs they are difficult to remove, so if it is in a building find out a bit about it first, otherwise you will need building skills as well as beekeeping ones. Catch them before they get that far.

In general I would suggest one of the following ways to hive a swarm.

1. Put a board in front of the hive so it is sloping upwards towards the hive. Throw the swarm down on it towards the bottom, and they will spread out and start to run uphill, slowly at first, then rapidly increasing momentum. This is a wonderful sight even if you have seen it many times before. Look for the queen and if she is fertile clip and mark her and run her into the hive with the rest. If she is a virgin or you are not sure then cage her and put her on the top of the frames.

2. Assemble the hive with a queen excluder underneath the brood chamber with all but the outside frames removed. Throw the swarm into the gap and the bees will soon start running up the inside walls of the brood chamber. Quickly replace the remaining frames, put the crownboard on, and cover it up quickly.

The reason I suggest clipping the queen is because the scout bees have probably already found a home and may decide they like that better than the one you provided them with. This is quite common and more likely if they are hived on foundation. Once they start working the foundation they will usually stay, although I have known of swarms absconding several days after hiving. Do check for a day or so as it is possible for the swarm to come out, and as the queen can't fly they will stay with her, and that could be under the hive if she can't get back in.

If a swarm goes into empty comb they start storing their honey almost immediately. There is nothing you can do in this situation except wait. Do not panic and try to move it as the bees may get disorientated and go into the nearest hive. This could be a big problem if they are infected. The best thing would be to leave them alone, but at the same time treat them as a possible threat. When inspecting your colonies check a swarm much more rigorously than normal and do them last, so that if you spot a problem with the brood you are not likely to spread disease to your other colonies. Don't forget that AFB is much easier to detect than EFB, which appears to come and go depending on conditions.

When hiving a swarm it is better if you have a brood chamber only, without any supers. They won't need them. It will take them some time to establish themselves and there is a danger of the bees going through the queen excluder and leaving the queen behind on her own. Don't forget that bees naturally build their nest from the top downwards, and don't recognise queen excluders.

In normal circumstances a fertile queen will start laying in a day or so and a virgin queen within 10-14 days. A swarm is made up of adult bees and as there is a break in age due to no brood emerging for 3-4 weeks, they will lose numbers until their own brood starts to emerge and they can build up again. Some books will tell you that all the bees in a swarm were previously flying bees, but I believe there is usually a high percentage of young bees that have never flown before. If you look closely at a swarm you will find many obviously recently emerged bees, and I believe these are needed to feed the brood.

If you have taken the trouble to rear good bees it is unlikely that a swarm will be better than your own, although on occasions I have obtained some very good bees, generally this has been quite rare. If the queen is fertile it is likely that she will be in at least her second season, and having swarmed once is likely to do so again. Unless they are good I always requeen at the earliest opportunity and certainly in the same season.

For several days before a swarm issues scout bees look for potential homes, and one that has already been occupied by bees is obviously quite attractive. This is the reason why bees sometimes show an interest in hives with combs in. It is an indication that a colony in the area is preparing to swarm and the first thing to do is

to make sure that it isn't one of yours. This activity can stop instantly and it may be that the swarm has found another home, decided against swarming, or the beekeeper has used some method of swarm control.

Some beekeepers leave a "bait" hive out to attract swarms. In view of the risk of disease and what has been written above I think it is important that all swarms are collected in some way. It is much better in my view to deal with a potential problem in a controlled way than possibly having a feral colony in the area that nobody is tending, spreading disease for some time.

There is a little art in making up a "bait" hive. Bees prefer somewhere that bees have occupied before and a home they can easily defend. I usually put only one or two combs, preferably old ones that have been discarded, in either a super or brood chamber. If a swarm does take up residence you can quickly transfer it to foundation and destroy the old comb with no loss apart from a frame. I prefer old equipment and don't clean it up, leaving any brace comb and propolis. I never make the entrance more than an inch or so as I have found bees reluctant to use a hive with a full entrance, and to date have never had a swarm go into a hive with an open mesh floor, presumably because they see it as being totally open and difficult to defend, so I prefer a solid floor. This is an excellent use for old equipment.

Appliance dealers sell swarm lures, which are synthesized pheromones. I have never used them as I have had good success with bait hives, and see little need to change. It also seems like cheating to me and cuts out the skill and fun.

Most swarms are good tempered, with only a few that are touchy. It is impossible to tell the temperament of a colony resulting from a swarm, and it is only when they are established that you can assess them.

#### **What else can I do with a swarm?**

There are several things that can be done with a swarm if you are careful and I list a few below.

- Put two or more together and let the queens fight it out
- Add to a weak colony (providing you know why it is weak)
- Add to either a queenless colony or one with a laying worker.
- Hive them on a super of honey with a section rack above if you are working sections. This is a trick the old beekeepers used as some bees are notoriously bad at filling sections.

In each case it would be better to put them into the entrance as in 1. above. I know that most of these suggestions involve having bees on combs and is against what I said earlier, so will require extra vigilance.

All the above is assuming the swarm is prime and has a fertile queen. A cast or subsequent swarm will be much smaller and will always have one or more virgin queens. Sometimes prime swarms will have virgin queens, especially if the previous owner clipped their queens.

When going out to collect a swarm don't forget to take the following as a minimum:-

- Veil for yourself and a spare for others if they are interested.
- Smoker and fuel.
- Hive tool.
- Saw.
- Secateurs.
- Queen Cage.

- Scissors or something to clip the queens wing with.
- Container, preferably if it has had bees in.
- An old dry brood comb.
- Cloth, old pillowcase or duvet cover.
- Strong string.
- These notes.

Due to the possibility of litigation it is important that you follow guidelines published by BBKA. I will not comment further other than to say that you may put yourself at considerable risk if you are not careful.

**NOTE**

At the time of writing (issue 2) bees are not always behaving as they should. The reasons have not been determined although they are very widespread. For this reason the information you may find in books or above may not always be followed by the bees. In particular queens may “disappear” or be superseded soon after commencing laying. It is now quite common for bees to swarm leaving just one supersedure cell, and for this reason queens in swarms often fail soon after commencing laying in their location.

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