



## **INSTALLING A PACKAGE OF BEES – WHAT CAN GO WRONG**

### **QUEEN RELEASE PROBLEMS:**

1. **Queen Released on Day of Package Install:**

The queen and the worker bees are strangers. It will take about 3 days for the bees to become accustomed to the new queen's pheromone and to accept her as their queen. If she is released prior to this acceptance, the workers will kill her.

2. **Queen Released prior to Enough Foundation Drawn Out for her to Lay In:**

Ideally, the worker bees are given feed (sugar syrup) and enough time to draw out the foundation so that 3 sides of the frames have foundation that is about 8" in diameter. The bees are getting the frames and combs organized for the cluster which makes the hive desirable to the bees. If the queen is released prior to this organizational effort being completed, then the hive will be seen as undesirable and the queen and workers may abscond (move out of the hive).

3. **Queen Painted Prior to Laying a Couple of Frames of Eggs:**

The workers need time to accept their new queen and this takes time. If she smells funny, the workers will reject her and may kill her. If you paint her prior to her laying at least 2 frames of eggs, then you risk the workers rejecting her and killing her.

4. **Queen is Dead/Injured Upon Examination of Queen Cage or is Injured/Dies during Installation:**

Immediately contact the package supplier for a replacement queen. Until you get a queen, you want the bees to stay with that hive. To encourage the worker bees to stay, place the queen cage in the frames with the dead or injured queen in it as the cage contains her pheromone. If you have other established hives, you can also place a frame with eggs and larvae in the new hive as this will also help keep the bees staying in that hive.

5. **Queen Flies Away During Release:**

A slow release, where the bees eat the candy plug in the queen cage prevents this from occurring; however, you don't want to give bees access to the candy plug for at least 3 days...so keep it covered up until the 3<sup>rd</sup> day.

If you are directly releasing the queen, you can hold a queen excluder over the top of the queen cage as you release her. The excluder will prevent her from flying away.

If the queen does fly away, generally she will return within 5-15 minutes – so wait it out. If she doesn't return you will need to supply a queen for the package or it will die.

6. **Drenching the Queen when you Apply Sugar Syrup to the Package of Bees**

This can cause her to be injured or die. Avoid spraying the queen with sugar syrup.

7. **Failing to Properly Install the Queen Cage:**

Never install the queen cage with the screened portion facing the foundation because the bees cannot access her. If the bees cannot access her then she will die of starvation.

Also, if you do not adequately secure the queen cage (preferably stapling the queen cage strap to a frame), then you risk the queen cage falling to the bottom of the hive face down. Again, in this scenario, if the bees cannot reach the queen to feed her, then she will starve.

Finally, after installing the queen, you should be able to fit all 10 frames (or 9 frames and 1 frame feeder) into the hive body. If you cannot fit all 10 frames (or 9 frames and 1 frame feeder), then your queen cage is not set correctly between 2 frames. If you don't fill all 10 spaces with frames/feeder, then you could end up with the bees building comb where you don't want it:



### **BEES NOT GOING DOWN INTO FRAMES AFTER PACKAGE INSTALLED:**

Normally, if the queen is placed in the hive, then the rest of the bees will follow. On occasion, a group of workers will accumulate under the lid and start building comb. To prevent this from occurring, check on your package installation 1 hour after you install it. Lift the lid up and if you see a collection of bees under the lid, then bump the cover so that the bees are knocked down to the top of the frames. The bees should then go down into the frames. Check again an hour later to make sure they haven't collected back at the top again.



### **PACKAGE MISHANDLED:**

1. **Package of Bees left out in Weather:**

Bees in package may die due to overheating or being soaked in rain

2. **Package of Bees not installed as quickly as possible:**

A package of bees is packed pretty tightly and they cannot spread out to cool themselves. If the temperature is in the 80s, the bees may need water 5-6 times during a 24 hour period. Ideally, packages should be installed on the day you receive them. If you do not install them the day you receive them, then your colony may become stressed and dehydrated which can cause colony failure.

3. **Package of Bees left out in Open Trunk or Bed of Truck when being Transported**

A package of bees should be transported inside a vehicle that is air conditioned, but not with cold air blowing directly on them.

### **IMPROPER OR INADEQUATE FEEDING YOUR BEES:**

Your bees will need to be fed 1:1 sugar syrup for both energy and for drawing out comb on the foundation you've provided in the hive. Ideally, you want to use a mason jar placed above the brood box in the middle of the hive with adequate holes in the lid so that they can empty the jar in a few days. When the temperature outside is cold, you'll know that your bees will not starve because they will be able to reach the mason jar.

As a back up supply of feed, it's good practice to supply a frame feeder with 1:1 sugar syrup or an entrance feeder with 1:1 syrup. Keep in mind that the bees may not discover the entrance feeder or frame feeder for a couple of days – but once they do the additional feed will help the bees to build out the comb.

If you fail to provide feed right above the middle of the cluster or if you fail to provide any feed at all, your colony will most likely suffer from stress, dehydration and will be unable to draw sufficient comb for egg laying.

### **ABSCONDING:**

#### **1. Having No Queen Excluder Put Between Brood Chamber and Bottom Board**

Absconding primarily occurs because there's not enough foundation or they don't have access to enough food at a fast enough rate.

Even if you do everything right, it is possible that a new package will abscond. Absconding means that the bees and queen decide not to live in the hive you've provided. To prevent this, put a queen excluder between the brood chamber and the bottom board. This will prevent the queen from leaving the hive – and if she doesn't leave then the worker bees won't leave either. Make sure to remove the queen excluder 30 days after the package installation (so you don't prevent drones from coming and going).

Keep in mind that it is possible that you are shipped a package with a loose queen and another queen in a queen cage – and this can cause the loose queen to swarm with the workers before you have ever released the caged queen.

In every package, bees are stressed. Our job as a beekeeper is to do what we need to do to destress them and provide them with all the tools they need to organize and develop the best nest possible.

### **DISTURBANCES/STRESS:**

Hive Disturbances:

- Fresh Paint Fumes or Painting Interior of Hive: Bees don't like this and will abscond (never paint interior of hive). Roughening the interior bare wood surface of the hive box can be beneficial as it can stimulate the bees to make extra propolis. Propolis has been shown to be beneficial for the immune system of the hive.
- Vibrations / Weed Wacking: Get your apiary landscape prepared before installing packages. Give your packages a month to get established before you start weed wacking or mowing right next to them.
- Going into the Hive too Often before they are Established: Always inspect your hives with a purpose and recognize that every time you go into the hive you are disturbing them and creating stress. Try not to go into the hives more than necessary.

**FAILING TO SPRAY DOWN BEES WITH 1:4 SUGAR WATER PRIOR TO PACKAGE INSTALL:**

If you fail to spray down the package of bees (but not the queen) prior to install, you will have the bees flying all over the place instead of staying in the hive. Make sure to spray them (not drench them) prior to install.

**FAILING TO KEEP YOURSELF, OTHERS AND PETS SAFE:**

Make sure when installing bee packages that you are adequately protected. Ensure your pets, children and others are a safe distance from the installation location.

**USING A SMOKER DURING INSTALLATION OF A PACKAGE:**

Never use a smoker during package installation. Bees don't normally become aggressive until they have an established home and resources (food and babies) to protect. Without an established and organized hive along with brood – the bees can easily be put off by smoke and not want to live in the hive you've provided.

**DRIFT:**

Drift means that some of your packaged bees drift from the hive you placed them in to another hive.

Packaged bees came from a hive prior to arriving at your apiary. This means that they already have had a flight orientation and are used to going in and out of an established hive. If they were in a row of 10 hives and they lived in the outer edge of the row, and then you install them in a middle hive in a row of 8 hives, they will most likely drift to one of the hives at the edge of your row of hives. Strong winds can also cause drift.

The solution to drift is to equalize your hives. This means transferring bees before queens are released (right before dark) or once brood rearing is plentiful you can transfer frames of brood to equalize the hives.