Queen Introduction

Queen introduction is very important after putting so much work into the queens.
Different cages are used for different circumstances, but push-in cages give the most reliable introduction, about 95% successful.

A queen has a much better chance of being accepted if she is laying eggs. Inseminated queens stay under the cage for a week, and then they are released by hand.

A different style push-in cage with a candy tube is used if you can't come back to release the queen by hand. Standard 3-hole candy cages are used for shipping, but push in cages are recommended for the best introduction.

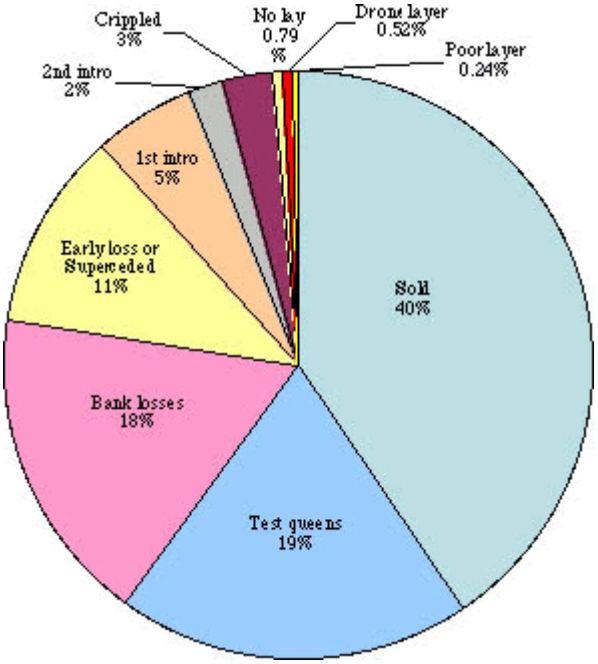
Once they have started laying inseminated queens generally perform as well as naturally mated queens.

Evaluating Performance

Since our top breeding priority is mite resistance, all of our test colonies go untreated. Colonies of all different types are compared in each yard. Mite counts are done twice a year in Jan and July for tracheal and varroa mites 100 bees are collected in a vial of alcohol for later testing. Varroa mites are washed off and counted. 10 bees are dissected to detect tracheal mites. Evaluation is done for honey production, brood production and gentleness. The best colonies are selected to produce the next generation of drones and queens.

The question everyone wants to know is which type of bee produces the most honey. I wish there was an easy answer, but there seems to be as much variation between colonies of the same race as there is between races. Every year there are outstanding colonies of each type. I've come to the conclusion that the most important factor is the combinations of subfamilies in each hive and how well they work together. So just as with people, it's probably not helpful to generalize by race, but to consider each colony on its own merits.

Before you all take out your calculators and conclude this might be an easy way to get rich quick, let's take a look at some hard facts of life. In any complex natural system there are lots of opportunities for losses to occur. Before a queen produced this way is ready for her final destination, she has already passed through 4 different colonies. At each step there are risks of damage to the young queen. One might expect that the biggest problem might be drone layer queens, if the insemination doesn't go right. But here you can see, that there are lots of ways to lose queens, but drone layers or poor layers only account for less than 2%. Introduction losses are not too bad only about 5 percent. Early losses can mean anything from ants or wasps attacking a nuc, to supercedure. The bank losses here are somewhat inflated because they include the several hundred queens I try to overwinter. I know I'll probably lose many of these queens, but it's still worth it to have some queens for my own use in January and February before I can raise new ones.



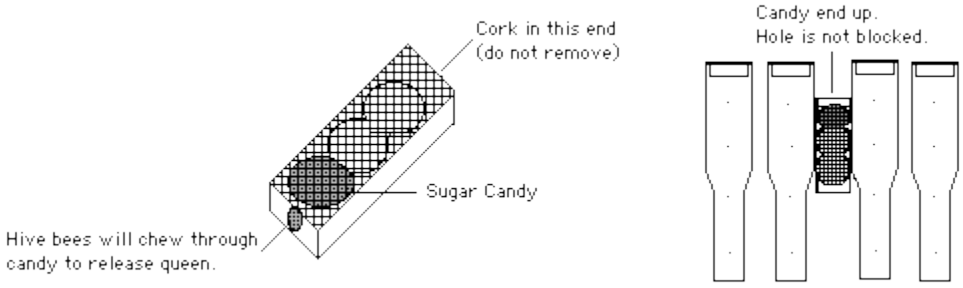
All in all only 40% of the queens are sold, and another 20% used for our own test colonies.

I show you this chart not because I'm especially proud of my record. Clearly there's room for improvement. But it may help you to know what kind of challenges to expect when you start producing inseminated queens. Perhaps the hardest lesson of all is to be able to accept the inevitable losses as the cost of doing business, without becoming discouraged.

Instructions for Queen Bee Introduction

Upon arrival place one drop of pure water on the screen of the cage so the workers can use it to dissolve the candy. Repeat every day the cage is not in the hive. The caged queen can survive several days outside the hive, but the sooner she is introduced the better. Keep the cage in a dark place away from breezes and at room temperature. It's not uncommon for one or more of the worker bee attendants to have died, this is not a problem.

The queen(s) you have received are in a combination shipping and introduction cage. There is no need to remove the worker bee attendants. Both ends of the cage have corks. Leave the cork in the end with bees. This cage provides food (white sugar candy) during shipment which also acts as a "timed release" barrier for your hive bees to eat through, allowing several days pheromone adjustment period.



Important: Avoid keeping queen cages in any room where pesticides are used, especially "NO PEST STRIPS". Also avoid leaving in sunshine. Keep at 65° - 80° F.

The hive to receive the queen must have no queen or queen cells already present. Ideally, the hive should be queenless for at least 24 hours prior to introduction.

The cage should be placed in the middle of the brood nest (if no brood is present, place the cage in the middle of the cluster). Position the cage between two frames, so that the candy end points up and the screen is not blocked. Squeeze the frames around the cage to firmly suspend it, any damage to the comb will be repaired by the bees when the cage is removed. Make sure the hole at the candy end is not blocked. Note: If 10 frames are used, one frame may have to be removed to accommodate the cage.

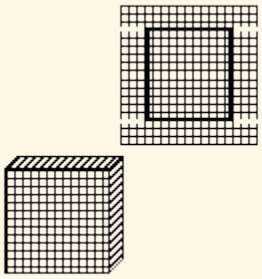
The bees in your colony will chew through the candy and release the queen within a few days. You can check the cage in four to five days to be sure she has been released. If she is not released and after the bees are no longer clinging tightly to the cage, release

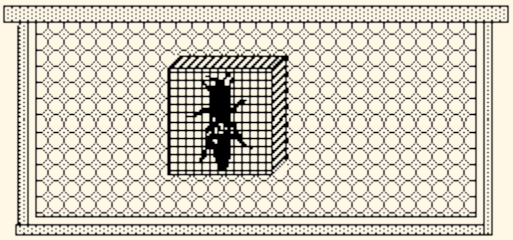
her. If the bees are clinging to the cage it means the hive bees have not accepted her yet, and more time is needed before the cage is opened. If she has been released and you want to be sure she is accepted, you do not have to find the queen, instead look for eggs and young larvae. The colony should be disturbed as little as possible for the next two weeks, while the queen establishes her brood nest.

Push-in Cage Instructions

A push-in cage is the best way to introduce your queen because it allows the queen to start laying eggs immediately. However this method requires handling the queen, which some people may not be comfortable doing. The cage comes flat. Bend the screen at the cuts near the corners and fold the screen over at the cuts. Select a comb with emerging brood. Brush the bees off the comb and place the push-in cage over an area of empty cells, a few emerging brood cells and open nectar. Remove the queen from the candy cage and put her under the cage. Do not allow any other adult bees under the cage. Push the cage into the comb about a quarter of an inch allowing the queen to move freely underneath. Be sure the hive bees can't get under the cage. Remove the push-in cage after four days or after the bees are no longer clinging to the cage. If the bees are clinging to the cage it means they have not accepted her yet, and more time is needed before the cage is removed.

Fold screen along darker lines.





The hive to receive the queen must have no queen or queen cells already present. Ideally, the hive should be queenless for at least 24 hours prior to introduction. The frame with the queen should be placed in the middle of the brood nest (if no brood is present, place in the middle of the cluster).

The colony should be disturbed as little as possible for the next two weeks, while the queen establishes her brood nest.

I took this excerpts from Tom Glenn's web site. They are pretty good instructions and advice about handling queens, either naturally mated or instrumentally inseminated.