

Package time

Jennifer Berry

It's always good to review the basics and to make sure you get it right the first time.

Commercial queen and package producers in Georgia have been gearing up since last Fall in anticipation of “package” time. Colonies that have been properly managed had populations at their peak by the end of March. This month bees are being shook by the millions into packages (weather dependent of course) and shipped all across the country. It is an intense time for queen and package producers. They're working from sunup to sundown and still wishing for that one extra hour of daylight.

Hopefully you have been busy as well and completed your “things I need to do this Winter” list. Chores appearing on that list included ordering queens and packages, assembling new hives or repairing old ones, painting, painting, and finding the best location for your new arrivals. If you ordered your packages last Winter then you should be first in line for your bees. If you haven't placed an order you may have a hard time finding packages before the nectar flow ends. Maybe purchasing nucs would be a better choice this late in the game, however finding nucs maybe just as difficult. Spring beekeeping, with either established colonies or new ones actually starts in the Fall/Winter. If you remember that you'll always be ahead of the game.

Now let's get those bees in their new home.

Bees are shook into a wooden framed, metal screened box. Usually packages contain three pounds of bees but some operations will sell higher or lower poundage. Each package is given a canister of sugar syrup and a caged queen (if ordered). However, some producers will sell queenless packages. After the packages are complete they

are shipped off to their final destination, your home. Here at the lab when we order packages the post office calls requesting us to please come collect our bees as quickly as possible. We've been receiving packages for years now so the postal service isn't as stunned to see thousands of stinging insects, buzzing and humming, in their back room. But that wasn't always the case. In the early, inexperienced package receiving days, the phone would ring here at the lab and the postal worker on the other end would inform me that the bees had arrived and would I please come pick them up at my earliest convenience, of course. However, the tone in her voice was actually conveying, “come and get these *\$!#*& bees before they kill us all!!! And yes, have a nice day.”

Your bees have traveled a good distance so take great care with them once they arrive. If you are unable to install the package the day they're delivered, place them in a cool, dark environment away from children and pets. It's a good idea to place paper or cardboard under the package since debris can scatter out from the box leaving behind a mess. If you are installing more than one package it is a good idea to install them later in the day. This will help to discourage drift since bees are anxious to bed down before dark. This gives them 12 hours to adjust to their new digs.

There are several different ways to install a package. Let's review the two most common methods. The first, more traditional way to install packages is to physically shake the bees into the hive. To do this, you first want to remove a few frames from the hive in order to leave a space for the bees to fall into. Using a hive tool, pry the plywood lid off the package exposing the top of the feeder can. To keep the bees from flying once you remove the can, lightly spray the bees with a thin mixture of sugar and water. Don't soak the bees, just lightly spritz them. Next locate the queen cage. There should be a wire or tab stick-





ing out from the side of the feeder can. Take hold of the tab while removing the feeder can. The can may be snug so use your hive tool to pry it out. Take the queen cage out, remove the cork plug next to the queen candy and staple, wedge or wire the queen cage, candy side down, to the frame side exposed to the opening you created by removing the frames. Don't place her on an end frame or off to the side. You want her to be in the center of cluster. She still needs to be fed until she is released. Now comes the scary part, shaking 10,000 bees from their temporary home to their permanent one. Actually it's not scary, but definitely strange the first time you do it.

Lightly shake the bees from the package into the hive. Not all the bees will be removed on this first pass so knock the package on the side to collect a mass of bees then tilt the package back and forth to allow the bees to sprinkle out from the hole. There may be a few bees remaining inside the package. That's fine; just rest the package with the hole facing the entrance of the hive. The remaining bees will be attracted to the scent of their sisters and the queen, leaving the package behind. Next slowly return the frames, and then place the inner cover and lid and you're finished. Well almost finished. You still have one more thing to do.

Another package installation technique is actually less stressful to the bees. Follow the same procedure as mentioned before except remove half the frames, and don't shake the bees from the package. After you remove the lid, feeder can and secure the queen, place the now "opened" package on their own which is less stressful than the first method. Shaking bees into or out of packages can result in some mortality so the second method cuts down on the number of dead bees. After a few hours go back to retrieve the empty package and return the removed frames.

Even though there may be a nectar flow occurring at the time your bees arrive, it will still take some time for your bees to orientate themselves to their new surroundings and find any food. It is always a good idea to feed your newly installed package. Actually it is imperative that you do so or they will die. Gallon baggies placed on top of the brood chamber are quick and simple however do require an additional empty super to account for the space taken up by the baggie. Entrance feeders work well only if the temperatures are in the 50s and above. Cold temperatures keep bees tightly clustered and unable to move great distances. That's why it is a good idea to feed directly on top of the cluster during these unpredictable Spring months. Plus, entrance feeders can encourage robbing if there are numerous colonies in the area. Gallon buckets, top feeders or division board feeders will work as well. Plan to feed your new colony a 1:1 syrup for six to eight weeks to help them get established.

It is also a good idea to feed pollen patties or a pollen substitute to your newly installed package. The queen will begin to lay eggs shortly after she is released and pollen will be needed to feed the young larvae. However, unless you have supplied your new colony with pollen frames or patties there will be none to be found. Again the bees will take a few days to orientate themselves to their new environment so why not give them a head start. There's a variety of pollen and pollen substitutes available on the market. If you want the real thing, natural pollen is available from several commercial sources. You can usually

buy it powdered or granulated. Mix it with honey or sugar syrup until it forms a solid patty that holds its form. Place it on wax paper and center it over the bees.

Now for the issue of treating for diseases and mites. There is considerable controversy over when, how, what, and where to treat or even if one should treat at all. To simplify life I'll tell you what we commonly do (unless the design of the experiment calls for otherwise). In addition to feeding our new colonies, we feed, feed, feed then feed some more. That's it.

One more point. If you are installing several "queen-less" packages at once you may want to reconsider. The bees can be a bit disoriented and may drift about from colony to colony causing a population shift to occur. Here is an example of what we experienced one year after installing packages. During the swarm season we split our colonies or shake packages for use in research projects. One important lesson learned (the hard way) was it's better to introduce a queen sooner than later. Here is what happened. We were setting up an experiment which required 40 colonies. We ordered queens from a local producer however decided to shake bees from our own colonies to reduce population levels and save money. After the packages were complete we installed them into their individual hives (in an apiary a good distance away from the original). Next we added the caged queen. When we returned the following day we had a mess on our hands. Some colonies were busting with bees while others only had a small cluster surrounding the queen cage. The problem was drift. Bees for whatever reason decided they preferred the colony next door as opposed to their own. Some of the colonies were starting out with six pounds of bees while others had less than one. This was unacceptable so back to the drawing board we went. When we shook the bees the second time we introduced the queen into the package immediately, left them overnight and installed them the next day. There was minimal drift the second time. The point: if you purchase a queen from a source other than your package it has been queenless for several days. You will want to introduce a queen sooner than later in order for the bees to adjust to the scent of her. Obviously, you don't want to open the package until you are ready to install it so place the queen cage, mesh side toward the screen on the side of the package. This is especially important if you plan on installing more than one package in a single apiary.

If you purchase a queen with your package, drift can



still occur but maybe not to the extent that we experienced. For one, the bees have been with each other and the queen for days and have, hopefully, united.

Now comes the hard part, keeping those bees alive and productive. Beekeeping is an art that will teach you many different skills. There's a certain amount of knowledge needed but more importantly, a whole lot of work. But unlike inherent talent at least it can be learned and understood. Just be attentive, be patient, be gentle and be happy with your new bees.

See ya! **BC**

Jennifer Berry is the Research Coordinator at the University of Georgia Bee Lab.