



Packages and Nucs

New beekeepers often wonder which is better for starting – a package of bees or a “nuc”? (“nuc” short for nucleus colony)

The short answer: it depends. Packages and Nucs are both things beekeepers buy to start full-size colonies.

Packages generally cost less than nucs, and after several months under a beekeeper’s care, it is hard to know the difference.

So what are the differences?

A package is several pounds of bees in a box, along with a queen. The bees in the package consist of both workers and drones. The bees are usually not related to the queen. They can be ordered and shipped by the Post Office, or you pick them up at your local supplier. Often the supplier will have run a truck to Georgia or one of the other southern states and brought back a load. Packages are usually less expensive than nucs.

A handful of dead bees on the bottom of a package is normal. An inch of dead bees is not.

Package boxes, while traditionally made of wood, are increasingly made of plastic. The most common size, 3lbs, contains just over 10,000 bees.

Temporary nuc boxes are made of cardboard, some wax coated, while more permanent ones come in both wood and various plastics.

A nuc consists of 3-6 (or more) frames of bees with a laying queen in a nuc box. Good nucs have bees in all stages of development, from eggs to emerging bees.

The box is sufficient for holding and transporting a new colony for a short while.

For some unknown reason, queens provided in packages are sometimes superseded (meaning the bees believe the queen somehow deficient and replace her. The replacement queen mates with drones in your area. All of which is a convoluted way of saying the purchased genetics may be significantly diluted.)

When both packages and nucs arrive at their new home, the beekeeper moves the bees into a full-size hive. Packages always need food immediately. The nuc seller should tell you if the bees need feeding. If it is cold, consider feeding inside the hive: an inverted quart Mason jar placed directly on the top bars of the hive works well.

Both nucs and packages build up fine for winter. The population of a package initially declines, then catches up as new bees are born.

Nucs may originate in the south, though they are made in Maine too. Think of Nucs as a bee colony in miniature. They come in a box that holds 4, 5, or 6 deep Langstroth frames. They are typically first available in mid-May, depending on where you live. (medium-sized nucs are not common, but do exist)

So which is better? Again, it depends!

If you want to install the bees in something other than a deep Langstroth hive, start with a package. Why? There are no frames in a package – the bees don’t care if they are going into a Top-Bar hive. They don’t care if



they are going into a Warré hive. They don't care if they are going into a Langstroth hive.

What package bees do care about is that they've come with a queen in a cage. The beekeeper needs to organize the release of that queen and give the bees food (usually in the form of lite or 1:1 sugar syrup); The bees take care of the rest: Drawing out frames, releasing the queen, and once organized, collecting nectar and pollen.

All nucs are NOT created equal

Nucs can be big business. Some Producers bring them from the south. There are countless ways to create nucs; The differences can impact the new beekeeper in profound ways.

Most nucs sold to new beekeepers are made following a very traditional formula. Into a nuc goes two frames of brood and two frames of stores - both honey and bee bread (pollen), one undrawn frame, a young already mated queen, and time. 4 to 6 weeks is not uncommon.

The time allows the new bees to hatch and the new queen to start laying. The intention is to have the nuc's population of young bees rapidly increasing just as they get to the new beekeeper. And too, the nuc maker gets a chance to judge queen performance. (Ideally, nucs with sub-par queens don't get sold.)

Some nucs get made using queen cells – or unborn (and therefore unmated) queens. In those instances, the beekeeper is gambling: 1) that drones are available to mate with the new queen and 2) that the weather will allow for mating to occur.

Nucs can be made up in late summer, over-wintered, and sold in the spring. These are called not surprisingly "over-wintered" nucs and command a premium price – the premium based on the queen's proven ability to lead her colony through winter and the observation by some beekeepers that queens in their first full year out-produce all others.

Individual Beekeepers tend to make up nucs (sometimes called "splits") as a swarm prevention measure. Selling such nucs is a way to keep colony counts low and to gain revenue. These nucs vary in

terms of quality and performance. For example, the selling beekeeper may see swarm cells and make up a nuc (and sell it) before the queen cell has a chance to hatch.

In Maine, apiaries that sell nucs/packages must be inspected for the presence of bee diseases before sales can happen. The inspections can be as much as a year before the bees arrive! Remember – inspections are for health, not quality!

It is prudent to learn the treatments the bees have received. It is not unusual for both packages and nucs from the Southern States to come with Small hive beetles and Varroa mites. In the case of Varroa mites, if the seller can't tell you what treatments the bees received, it is best to assume they are infested enough to warrant immediate treatment.

A newly installed package is free of brood, and one treatment should reach all the mites. (In packages, as the queen is caged, you can test for Varroa mites with no worries of injuring the queen.)

A nuc comes with drawn comb. The beekeeper should learn how old the comb is and the treatment history. Good nucs will have comb a season or two old. (Older comb can carry disease and pesticide residues.)

The question of which is better is left unanswered. If you can use the drawn comb and are willing to risk that there might be a brood disease, nucs can be a great way to start.

A seller of nucs may provide for inspection before purchase. They may not- both ways are common practice. The prudent buyer will ask about this in advance. Knowing the reputation of the seller is huge if inspection is not an option!

If you have something other than a Langstroth hive, plan to requeen with a particular stock, or just don't want more drawn frames, packages may be great for you. Many beekeepers have started with them over the years. Watching package bees making their nest and getting organized can be educational!

For both, asking questions of the seller is expected. Willing buyers and sellers can transfer most anything. In a fair transaction, both sides are informed.