

"Tiggers don't like honey." -- A. A. Milne,
The House at Pooh Corner

The honey flow got off to a slow start in my neck of the woods. Others farther south reported strong build-up several weeks earlier. It goes to show that location is key; even a bad beekeeper can do well in a good location, and vice versa. Hive strength is critical as well. It takes bees to make honey. My hives have been busy this spring replenishing the feral bee population by sending out lots of swarms and my honey production will suffer as a result. But my wife says that I complain about my honey prospects every year, and every year things somehow work out just fine. That's her way of telling me to shut up. There's no point in counting chickens before they've hatched.

Once hope turns into honey, what do we do to get it out of the hive? Over 150 years ago, Reverend Langstroth played around with getting bees to store honey directly into inverted jars. There are people who enjoy doing this today. All you need is a piece of plywood with jar-sized holes cut into it. Put in on your hive, set jars over the holes and put an empty super over the whole contraption. If your hive is crowded with bees and the honey flow is raging, they'll fill up the jars with beautiful comb honey, ready for sale. This is a neat trick but isn't a very efficient or reliable method for harvesting honey.

A more conventional way to get your bees to do the packaging for you is to produce what used to be called "section honey". Ross Rounds are ready-to-use version of this technique. There are other variations on the market as well. Special retail-sized trays are placed into fit-for-purpose frames; these frames go into honey supers. The bees fill the trays. You remove them and pop on a clear plastic cover. Voila, your honey-in-the-comb is ready for market. As with the auto-filling jars, this method requires lots of bees and a strong honey flow. Otherwise the containers won't be filled fully and consistently.



Honey super fitted with Ross Rounds. Note the package full of capped honey, ready for sale.

Another way to harvest honey is to simply cut the honeycomb from the frame and put it in a jar. Called cut-comb or chunk honey, this is the old-fashioned way of selling and eating honey. Honey in the comb can be chewed like bubble gum and then eaten. The wax isn't especially nutritious but it is perfectly edible.

An age-old variation of this is to cut the honeycomb from the frames, put it in a suitable strainer bag (such as a nylon paint strainer from the hardware store) and squeeze the honey out of the comb. If you use plastic foundation, scrape the honey and wax from the foundation to achieve the same result. A fancy improvement on this concept is to put the comb in a honey press, a device which works like a small tabletop wine press.

These techniques all have a major drawback: the comb is sacrificed in an effort to obtain the honey. This is fine if your goal is wax production, but it reduces your honey harvest because bees must consume a lot of honey in order for their bodies to generate wax in their wax glands. By reusing wax comb in honey supers, beekeepers significantly reduce the amount of honey that the bees need and therefore increase the honey surplus that can be harvested.

Therefore the most efficient way to harvest liquid honey is to use an extractor, a specially designed centrifuge invented by Major von Hruschka in 1865. Today there are many variations on the theme, but the key idea is that honey-filled frames are placed in brackets within a bucket-like device. The brackets are attached to a central pivot. They are rapidly spun around until the honey is flung out of the cells of the comb. The honey settles at the bottom of the device and comes out through a spigot called a "honey gate." The frames are removed from the brackets and returned to the hive for the bees to fill up again. For those

old enough to remember such things, this concept works exactly the same as returnable glass Coca Cola bottles. The container (wax combs) gets emptied (by us), cleaned (by the bees) and refilled (also by the bees), saving a great deal of resources compared to forcing the bees to reconstruct the containers every time.

There are two types of extractors:

1. A *tangential* extractor has frame-holders that face the walls of the canister; think of a box within a cylinder. The spinning frames empty on the outer face, then must be manually flipped around and spun again to empty the other side. These typically hold two or three frames at a time and are the cheapest option for a hobbyist. Prices start at \$200 to \$300.
2. A *radial* extractor arranges frames like the spokes of a wheel. The spinning frames empty from both sides at once so there is no need to flip the frames. Radial extractors hold six, nine, even twenty or 100 frames. The price goes up with the capacity, starting at \$450 or so for a small six-frame model. Add \$300 or more for an electric powered model. If you have more than a few hives, I recommend a motorized version.



Hand cranking an extractor is fun for the first hour or two but loses its luster after that. It is cheaper and much easier to buy a motorized extractor from the outset rather than converting from manual to motorized afterward.

If the price of an extractor has you thinking Reverend Langstroth's straight-into-the-jar idea doesn't sound so crazy after all, don't despair. Several local beekeeping associations allow members to rent a high-quality extractor for a trivial fee (around \$10 for a 3-day rental). This is a great solution for beginners who want to try before they buy or only extract a few supers once a year.

Note that the choice of honey-harvesting method is entirely up to you. Nothing requires you to use an extractor if you have Langstroth-style frames or to use a cut-comb method with top bar hives; those are myths repeated by people with limited imaginations. The task is simple: get the honey from the hive into a suitable container. There are easy ways and hard ways, smart ways and dumb ways, but no one right way or wrong way.

Once you have liquid honey in a bucket (if you have gone that route), let it sit for a day or two before bottling. Air bubbles, bee legs and tiny bits of wax will rise to the top. Use a large spoon or

Honeycomb frames waiting to be reused

Maxant 20-frame radial extractor

something similar to skim off the frothy bits. Then you are ready to put the rest into bottles. A bottling bucket with a honey gate (spigot) makes this a simple task.

If your harvesting method leaves the drawn comb intact (e.g. using an extractor), put the frames back on the hive for the bees to either refill if the honey flow is still going on or to clean up if it has stopped. You can also set empty frames a good distance away from the hive for the bees to pick clean. Don't put empties close to hives or the resulting frenzy may incite robbing. Of the two methods, it is often best to

put wet supers on a hive for the bees to clean up. Scavenging bees treat the combs roughly, leaving jagged edges and wax flakes everywhere, but in-hive combs are treated with loving care.

When you are finished with your honey supers for the season, you'll need to store the drawn combs in such a way that they don't mold or become infested with wax moths or hive beetles. Note that moths and beetles don't want pure wax – they like old cocoons and bits of pollen. They also don't like sunlight. So if the combs have never had brood raised in them, I've had good luck storing them in such a way that they are exposed to sunlight and air. This can be accomplished by simply standing the supers on end in an open shed or carport, or by using some sort of nifty rack (see photo). If the combs have been used to raise brood, I have best results when I freeze them for several days to kill any pest eggs, let them dry thoroughly, then store them in a moth-proof container.



Wait... what does any of this have to do with Tigger? Tigger didn't like honey -- his favorite food was "extract of malt" -- and that's fine with me. That just leaves more honey for the rest of us. I don't care whether it comes in bottles, cans, jars or bags, or whether it is extracted, pressed or in the comb. Why should I? Genuine honey all comes from the same place: the nectar of pretty little flowers, carefully collected and cured by cute, fuzzy bees. The packaging process is a matter of convenience and preference. I hope

you have so much honey this season that you won't know what to do with it all! Just don't waste any of it on Tigger.



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