



STAHLMAN

BEEKEEPING NOTES

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Honey Flow Part III

It has been many years since I had to get up in the morning and go to work. Since I moved to North Carolina life has been pretty easy. But my two hives have grown to four hives. I made a split which is going to be my donator hive and I have ordered new queens to replace all the queens that are currently in my production hives. Several are from swarm cells. I have given up trying to raise queens in my back yard due to the number of colonies with unknown drone populations near-by. Hygenic queens have out preformed the queens I have raised in my home yard. More about that donator hive in later issues.

Two queens in my hives are two years old and came thru winter in great shape. The bees are getting a honey crop as I write this. However, I have found a good mite population in my hives. That is a sign that I have a problem. I have followed Sue Colbey thru the years since I knew her at The Ohio State University. She indicated that old queens use up their sperm at some point and go into a state of decline. It is important to know your queens well enough to replace them before that happens. I am now thinking about winter survival and getting honey extracted as soon as this Tulip poplar flow is over. In mid June, I will be making splits. I will explain how I carry out my plan in future issues.

I am going to expand my hive numbers from the current 4 to 10. I have equipment for that number of hives. I figure by fall, I will have a few queens that do not measure up and because I like strong hives going into winter. I will combine some of those hives with poor preforming queens with stronger colonies. I will also have the option of using Mike Palmer's double winter hive – one hive above another. I might add that I am on a roll right now. Maybe when the summer temperatures reach the 90's I will rethink my plans.

Bees are still swarming. Those beekeepers using queen excluders will keep brood out of honey supers but the queen below the queen excluder may find her brood nest congested. That is one of the many reasons bees swarm.

Those beekeepers in northern states may still be getting package bees and nucs. Their honey flow is yet to arrive. Queen rearing in the north is also delayed due to climate conditions. Honey flows are normal in some areas depending on growing conditions and weather. Judi, my wife, and I will



be doing a lot of traveling this summer. My schedule is booked from western North Carolina to Maine and beyond. We will be returning to Ireland in September for the third time.

I learn a lot from these trips. I get to talk to beekeepers about their own honey flows and their sources of honey. In fact, I collect honey from these beekeepers. North Carolina is famous for its Sourwood honey flows. Sourwood honey is ranked among the best honey produced in the U.S. It is light amber in color with a fine flavor and is slow to granulate. The bloom lasts from two to three weeks well after other honey flows have ended in the eastern regions of North Carolina. It is considered a mid summer

blooming plant. Many beekeepers move their bees to the mountains just to get this crop.

Regardless of where a honey flow is located, it generally lasts for a short time. Beekeepers in locations like western North Carolina are protective of those areas hives can be placed. Honey should be extracted as soon as possible due to small hive beetle issues and some honey varieties granulate very quickly. I am often asked, “how do you get granulated honey out of the comb?” There are methods used to heat honey in the comb but remember wax gets soft and melts easily. I usually advise the person asking this question to save it for winter feeding. One beekeeper shared that he sits granulated honey comb out for the bees to rob and recycle. The problem with that is it promotes robbing and the spread of disease.

Taking off honey is a term used by beekeepers. The job of removing honey from a hive is made easy with frames. In days of old, colonies of bees were killed to get the honey. Swarms were plentiful and killing a hive of bees to get its honey was wide spread. Even with primitive hives like a top bar hive, one must find a way to remove the honey and this usually requires destroying comb.

Some beekeepers are fblessed with both an early harvest of spring honey and then a later harvest with late summer blooming plants. Just remember that by the end of any nectar flow, bees will need a good amount of honey left for winter survival. As a beekeeper you must know something about when nectar is available in your local area. Weather plays a part in this as well.

The number of hives one plans to manage determines the methods used to harvest honey. Hobby beekeepers do not need an extracting building. Beekeeping is adictive! Two hives become ten hives and then maybe twenty or more.

The object is to get the bees out of the box of honey being removed from the hive. For a person with only a hive or two, brushing bees with a bee brush is easily accomplished. Each frame is removed from the box and the frame is held near the entrance as bees are brushed off. It may result in bees becoming aggressive. Another way is to smoke bees down into the boxes below. This causes distruption to the bees in the hive. But there is another way, buy a bee escape board that on cool nights allows bees to move from honey supers down to the bee cluster below. Bees

cannot then move back up into honey supers. This requires additional spending but if you have inner covers with a hole cut into it for a bee escape, it will serve the same purpose. Check your bee supply catalog for prices. Basically the bee escape works this way. The bees pass thru the escape in one direction but can not get back thru it if they try to return.

Another method to remove bees is a fume board (something like a top cover). It is placed over the honey super somewhat like an inner cover. It can be purchased or easily made. The key is an absorbent pad (could be a towel) which is sprinkled with a chemical product that repels bees. Products I am familiar with are (Bee Quick, Honey Robber and Bee Go). Be careful how you use them. Spill them on you and you will stink. My wife commented to me one time “What pig farm did you visit today!”

What is ripe honey? It is honey capped over. The general rule I follow is that a frame must have $\frac{3}{4}$ % of the cells capped. Open cells are near to bring capped. Ripe honey moisture content should be less than 18.6 % . This can be checked with a refractometer.

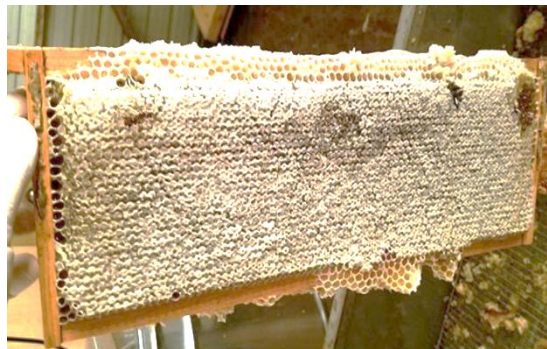


If the moisture content is a concern for you, A refractometer might be a good investment. A more common method to check moisture is to turn a jar of warm honey up-side down and watch the air bubble move upward. Slow movement would indicate less moisture and fast movement would indicate higher moisture levels. If the honey forms bubbles around the top of a jar, it might indicate high moisture. The

problem with high moisture in honey is fermentation.



Looking down on a honey super, one can see white capped wax on top bars and cells near the top completely capped over. The weight of a medium super of honey will be about 40 pounds plus the weight of the



box and frames.

This is a frame of completely capped honey.

Any frames with honey

and brood should not be harvested. Place the frame back into a super and place that super above a queen excluder. After the brood emerges, the honey can be extracted.



Honey can be messy. This is a friend of mine extracting honey outside in her back yard. Note the help her husband is giving to her.



First, the cappings must be removed as shown in the picture to the left. Then it must be spun in an extractor to remove liquid honey before it is bottled.

There is something else that must be done. Extracting honey like this also includes bee parts and wax particles floating in the honey. Honey must be filtered to remove non-honey things.



This is a fine screen which allows honey to pass thru but it catches those non-honey particles floating around in the extractor. Note wax particles and several honey bees on the screen. That is typical of what one will see when raw honey is taken from an extractor.

By the way, if the filter is not used, all these things will float to the top of honey. Honey buckets with a honey gate located near the bottom will produce clear beautiful honey if the honey is allowed to settle for a few days before being bottled.

Always remember there is clean-up time involved in harvesting honey.

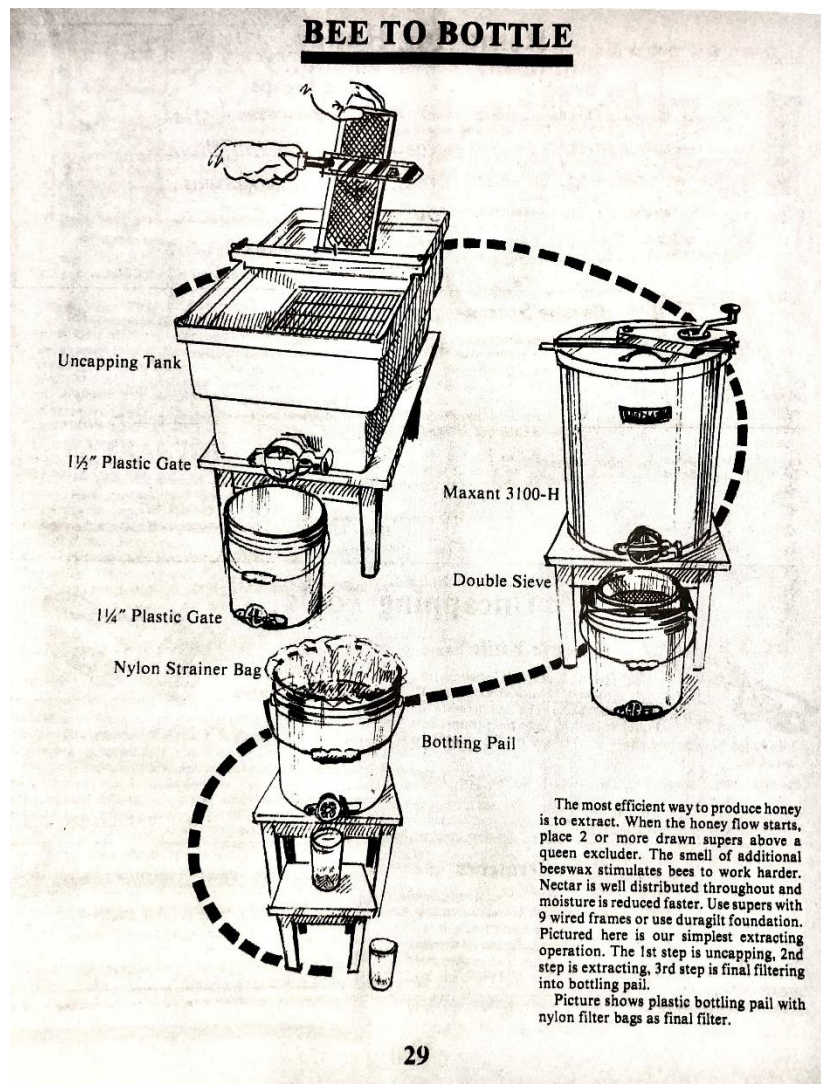
For those with a larger number of honey producing hives, the above process will not work well. Instead of a two or four frame extractor, they will use 12 to 20 frame extractors. Commercial beekeepers work with extractors that can handle 50 to 80 frames at a time. A used extractor is often hard to find especially if you need it now! They have a good resale value. Most extractors sold since the 1950's use stainless steel. Any old extractor or honey handling equipment might be made of galvanized metal. Lead was often used to seal seams in the metal. Thus, they should be avoided.

There is money to be made selling honey. In today's market, I don't see honey being sold for less than \$12.00 a pound by hobby and side-line beekeepers. Often I see honey sold for \$16.00 a pound. Hobby beekeepers can not afford to sell honey as cheaply as commercial beekeepers. The investment in bees, equipment and time justify the price of honey.

There is one other important point I would like to make. Local honey is unique. It is different from most store bought honey in that it has not been exposed to the high temperatures used by packers to reduce yeast to prevent granulation. Processed honey is usually blended honey from

many sources outside the U.S.A. If the honey contains pollen grains (most processed honey does not have pollen grains because of the way the honey is filtered) it is most likely produced by a beekeeper that bottles and sells honey. Honey with pollen grains can be used to identify the area where it was most likely produced. If I were to find pollen grains from Mesquite in honey produced in Michigan, I would know it was not produced in Michigan. Mesquite is a small tree that grows in semi-arid regions. Most likely it would indicate that the honey came from arid regions in Texas, New Mexico or Arizona. And Mesquite honey is light in color and has a mild flavor. It can easily be blended with other honey varieties and the bottle labeled - clover honey - as long as the mixture contains more than 50% clover honey.

The last I heard, the National Honey Board says “honey is honey even if it does not contain pollen grains”.



I found this illustration in an old Brushy Mountain Bee Farm 1994 Catalog.

They say a picture is worth a thousand words.

This sums up the extracting process for a hobby beekeeper.

The extraction process has not changed much in the past 30 years.