Auckland Beekeepers Two Bucket Extractor.

At the Apiary we have,for years, been using various bucket and sieve arrangements to separate honey and wax collected during hive inspections. Burr comb,excluder scrapings,culled comb etc. can all be collected along with contained honey. Paul Brown developed a system of two buckets with a sieve between and tied together with a wire hooked around the handles.

With the advent of plastic frames from which can be scraped off and the frame returned to the hive for the bees to refill and an increasing number of members with top bar hives we thought we might make more use of the continuous harvesting concept.

It was decided we needed : A tap on the bottom bucket and an easier way to hold the contraption together.

General Arrangement. Note the honey gate,bee escape and the Mk 2 holding straps.

The square bucket makes it much easier to fit the honey gate. Various taps, vented and unvented, were tried but they proved to be too slow. One of the problems cited by members was the number of bees that could be caught if the lid was left off for long. The bee escape might give some of them a fighting chance. The Mk 3 has a neater arrangement of straps using a plastic clip, involving less threading and easier connection

The type of bucket used allows us to anchor the holding straps by threading it through a slot cut with a knife and drill bit into the plastic reinforcing, wrapping it around a piece of plastic and back onto itself and sewn (I actually melted the ends together with a hot iron.) .

Various methods have been tried but the most practical and versatile way of supporting the filter is to place it under the bottom of the top bucket.

The lid for the bottom bucket is cut away leaving a supporting flange of at least 20mm.

Lid for bottom bucket note flange must be at least 20 mm.

Should you wish to use a soft flexible filter such as muslin you may have to leave more supporting material as in

But the surface area is less and it will drain much slower.

The bottom of the top bucket is drilled and cut in a similar fashion maximizing the surface area but keeping support. If too much is taken away the bucket walls will distort resulting in leakage.

Cutting the plastic can be quite time consuming I used a jig saw for this, trimming with a knife and sand paper. Note that the mesh filter can be seen through the bottom of this (top) bucket. If you were using a supportive bottom lid you would have to make sure the holes lined up.

To keep the honey flowing you must vent the bottom bucket with a small hole near the top. A 5mm. Hole above the handle should be sufficient you may wish to vent the top bucket as well but if you have a bee escape that will do it.

Various things have been used as a filter. Your choice will depend on cost, purity of honey required viscosity of the honey and time to filter. Some of the things tried are :

$2 shop “splatterguard” The stainless mesh is about 1mm x1.5mm. And can be cut with scissors.

Plastic “shadecloth” as used for propolis

My favorite! plastic queen excluder.

Thick materials should be cut to fit inside the bottom rim of the top bucket, thin materials such as cheesecloth, thin stainless mesh, or muslin should be cut larger,this will hold them in place and reduce leaking when the straps are tensioned.

You could use the “bag” system where a large cheesecloth bag is suspended inside the top bucket with the top folded over the outside. After several hours the bag is lifted out and squeezed or wrung out. This has been proposed for Manuka but I haven't tried it.

The Honeygate or tap should be fitted as low as possible but don't forget to allow for the width of the inside washer.
The Bee Escape should be fitted the correct way up.
This leaves us with the “dogbone” I have made mine from a piece of quila decking but any hard easily cleaned wood will do. The screw is stainless and is to rest the frame on when scraping.
It must be wide on the sides to stop rolling over. It is not attached but fits closely on the rim and easily removed for cleaning.

If you are not scraping or uncapping frames you will not need one.

List of Materials.
2 square buckets I bought these from Stowers containers in Neilson St. Onehunga Auckland. They cost $22.15 the pair, with lids, including GST. They are 15 litres and are called 6902PHNA Logisticx Square pail & lid . They also sell various taps and washers but not honey gates. A tap and threaded nut cost $5.70 but didn't work very well.
Stowers also sell the 10 litre version which are probably better. The 15 litre version will hold the scrapings from 20 frames but the weight will be too much for the straps to hold ,the top will separate from the bottom leading the honey to leak out (at best!).
The 10 L. Version would be lower and more stable. Weight-wise even 10 frames of honey is probably a bit much if it has to be carried any great distance.

The Bee Escape, Honey Gate and Plastic Queen Excluder were from Ceracell Beekeeping in East Tamaki Auckland.

The Plastic clips were from Dave's Emporium in Manukau Auckland (Lambie Drive?).

The Splatterguard and Tiedown Webbing were from “look Sharp “ $2.00 Shop in Onehunga.

Useful Tools.

Battery drill and Holesaws, craft knife, Felt pen, sandpaper, hacksaw blade ,Jigsaw and 10 cups of coffee.

I hope this is of some use and guidance .
Possible improvements would be : a better seal between buckets.
Some sort of quickfit lid-that fits around the “dogbone” to stop

bees flying in.

A stand to keep the honey gate clear of the ground.

Thanks for suggestions and critique from those club members that love to tinker.We would love to see some photos of your version for the next journal.

Paul Walsh