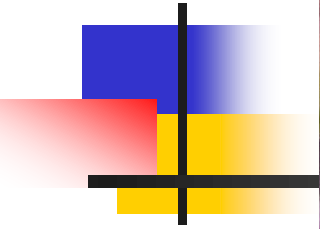


Extracting precious liquid "gold"



winfridus.bakker@gmail.com



# COMPOSITION OF HONEY

**Sugars:** concentrated solution composed of a mixture of fructose and glucose, and near 30 other complex sugars.

Honey sugar content on average 80–83% (304 kcal/100 g).

**Organic acids:** such as acetic, butanoic, formic, citric, succinic, lactic, malic and pyroglutamic acids. pH between 3.5-5.5

**Minerals:** has about 3.68% like potassium, chlorine, sulfur, calcium, sodium, phosphorus, magnesium, silicon, iron, manganese & copper.

**Vitamins:** Very minimal and mainly Vit C and B complex.

**Polyphenols:** up to 400 mg / kg.

**Antibiotic properties:** Mostly Hydrogen peroxide & MGO.



# ANTIBIOTIC PROPERTIES OF HONEY

## UMF (UNIQUE MANUKA FACTOR)

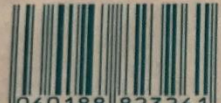
UMF	MGO (MethylGlyOxal) mg/kg
10	263
12	356
14	459
16	572
18	696
20	829 (3.1x)

The *levels* of MGO in multi-floral *honeys* are low, ranging from 0.4 to 5.4 mg/kg



**MANUKAhd<sup>®</sup>**

Honey impregnated absorbent dressing



5 060188 823261 > [REF] MM0017

**10cm X 12.5cm**  
**4" X 5"**

- Contains 100% *Leptospermum scoparium* honey
- Helps maintain a moist environment conducive to healing
- For moderate to heavy exuding wounds

[STERILE R] Sterilized using irradiation Do not reuse

Do not re-sterilize Do not use if package damaged Keep out of sunlight

Latex Free Keep dry Consult instructions for use

**ManukaMed<sup>®</sup>**  
3 Edwin Feist Place  
Masterton 5810  
New Zealand

**Distributed By:**  
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MANUKAMED<sup>®</sup>

**MANUKApli**

**Sterile honey wound dressing**

Helps maintain a moist wound environment  
conductive to healing

Contents: 2 Tubes  
Net weight 1 oz • 30 g

[REF] MM0049

100% Active *Leptospermum* Honey from New Zealand

Manuka honey pads  
& creams for animal  
and human hospitals





**ORGANICER**  
Manuka Honey UMF 15+ 250g  
**U\$D 61**  
**\$84.99**  
2515961 9326695000905



**U\$D 252**  
**\$350.00**  
2845477 9326695005689

# SOME COMMENTS AND TIPS

- ❖ Bees →hive ventilation to convert nectar in honey, →cells are capped with wax.
- ❖ Unripe honey can cause fermentation, →Extracted honey is raw.
- ❖ DO NOT feed honey to infants less than one year old (botulism).
- ❖ Crystallized honey can be re-liquified by putting jar in 120°F (water bath).
- ❖ Honey is hydrophilic.
- ❖ Raw honey is normally strained honey.
- ❖ Creamed (whipped) honey → small crystals so that honey does not crystallize.
- ❖ Allow bees to reuse the drawn-out comb next season.
- ❖ 8 Lbs of honey to make 1 lb of beeswax.
- ❖ Bees use propolis to seal gaps within the hive, →anti-bacterial & anti-fungal properties, → Made from tree resin, honey & enzymes.
- ❖ It's nature's Gorilla Glue, difficult to clean off tools & clothing → Soft & sticky at normal temperatures, → brown in color.



1838, [Johann Dzierzon](#), a Polish [Roman Catholic](#) priest and beekeeper devised the first practical movable-comb beehive;

Idea was further developed by [L. L. Langstroth](#), an American pastor and beekeeper in [Philadelphia, Pennsylvania](#) who patented his beehive design in 1852.

1865, Invention of the extractor by [Franz Hruschka](#), a former Officer in the Austrian Army who was by then a beekeeper in Italy

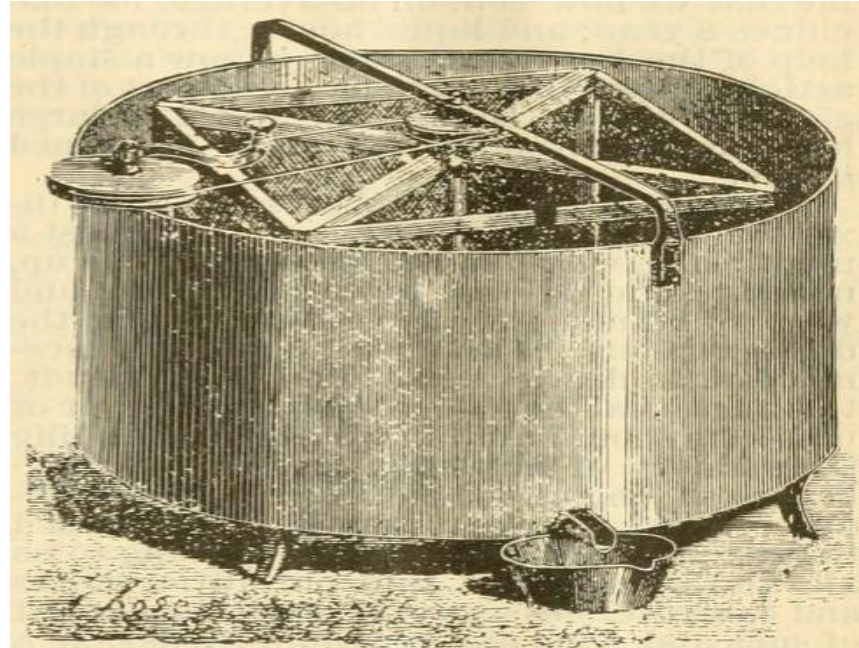


FIG. 3.- HRUSCHKA'S PERFECTED EXTRACTOR.



1940





# 1-HONEY EXTRACTION TIPS



- ❑ Do it with high enough temperatures (July-August).
- ❑ Use a leaf blower to take out the bees from the supers.
- ❑ Bee escape boards are OK but on newer equipment.
- ❑ Cover immediately the supers.
- ❑ Bring the supers to an enclosed room (garage, workshop).
- ❑ Place the supers on carton bottom board (dripping honey).
- ❑ Organize the table so you can work quickly and finish 1 super at a time.
- ❑ Make as a habit to continue uncapping till super is empty.
- ❑ Avoid overheating the capping knife.
- ❑ Have a good stable table to do the uncapping.
- ❑ Have at least 80% of the honey cells capped & honey staying in open cells.
- ❑ Have a bucket of clean water available with some cleaning cloth.
- ❑ Work as hygienic as possible.
- ❑ Spin the extractor between 2 to 4 minutes depending on extractor type.
- ❑ Avoid over filling the extractor with honey (air bubbles).
- ❑ Let honey settle for 24-48 hrs before bottling.
- ❑ Use with preference glass containers for your stored honey.



## 2-HONEY EXTRACTION TIPS

- ❑ Use a fan in the extraction area when it is hot ( $>80^{\circ}\text{F}=27^{\circ}\text{C}$ ).
- ❑ If wet and sweaty after taking of the supers take a shower and change to dry clothing before extracting.
- ❑ Straggler bees in extraction area normally do not sting.
  - Open top window for them to get out.
- ❑ Honey attracts humidity so check % RH in extraction area.
- ❑ Wax capping's hold a lot of honey (up to 10%).
- ❑ After finishing place damaged super frames on top of the hives for repair & cleaning (few days to maximum a week period).
- ❑ If enough outside space can let the bees clean extraction equipment but....
  - ❖ Avoid doing this if you do not have a large garden,
  - ❖ Place equipment far enough from your house,
  - ❖ Avoid trouble with your neighbor.
- ❑ I prefer to clean the extractor and buckets immediately.













# Capping scratcher

























# WEIGHT OF HONEY FRAMES



Full **ten-frame deep** weighs 80-90 lbs (36-41 kg),

- ❑ 1 deep frame holds  $\pm 8$  lbs (4 kg).

Full **ten-frame medium** weighs 65-75 lbs (29-34 kg),

- ❑ 1 medium frame holds  $\pm 6$  pounds (3 kg).

Full **9-frame small** super weighs 36 lbs (16 kg),

- ❑ 1 small frame holds 4 lbs (1.8 kg).



# FALL MANAGEMENT

[winfridus.bakker@gmail.com](mailto:winfridus.bakker@gmail.com)

# 1-FALL MANAGEMENT



- Starts in end of August / beginning of Sept. of each year.  
Dry month of July, August, Sept?  
Autumn flowers to replenish the hives?
- Check for mites (what is the infestation level).
- Need to stimulate the queen to make a good batch of new bees.
- Give for 2 weeks 1:1 Sugar:Water solution.
- Add a protein strip on top of the frames in the hive.
- Watch for hive beetles and write down infestation level.
- After you confirm visually if the queen is laying and more brood is on the way, switch to Sugar: Water solution of 2:1.
- Pick up the hives with another person with a double brood box to have an idea on the weight of the hive.
- Check for mite drops again, so you know if a treatment is warranted.
- Have water resources available especially in warm dry Autumn.

# 2-FALL MANAGEMENT



- Combine weak hives with stronger hives.
- Leave at least around 30 lbs of honey in the hive as reserves.
- Never wrap plastic tightly around the hive for the winter.
- Monitor the hive entrance.
- On a mild winter day, when bees are flying lift the cover and peak inside. Do not remove frames.
- Check for capped honey stores and if hive is too light start feeding and keep feeding till the bees bring in pollen & nectar.
- Many colonies starve to death!!!
- If you think there are too many mites, do a drip treatment with OA.
- Clean, repair and store your equipment.
- Order equipment if needed for the next season.
- Continue to attend bee club meetings & ask all the time questions.

