

Central Coast Beekeepers – Honey Harvest



8000-year-old cave painting near from Spider cave, Bicorp Valencia, Spain.

History of honey



- One of the earliest sweeteners
- Mentioned in early books – Bible, Korean, etc.
- Colonies were originally destroyed to harvest honey

What is honey?

Honey is more than simple sugar solution



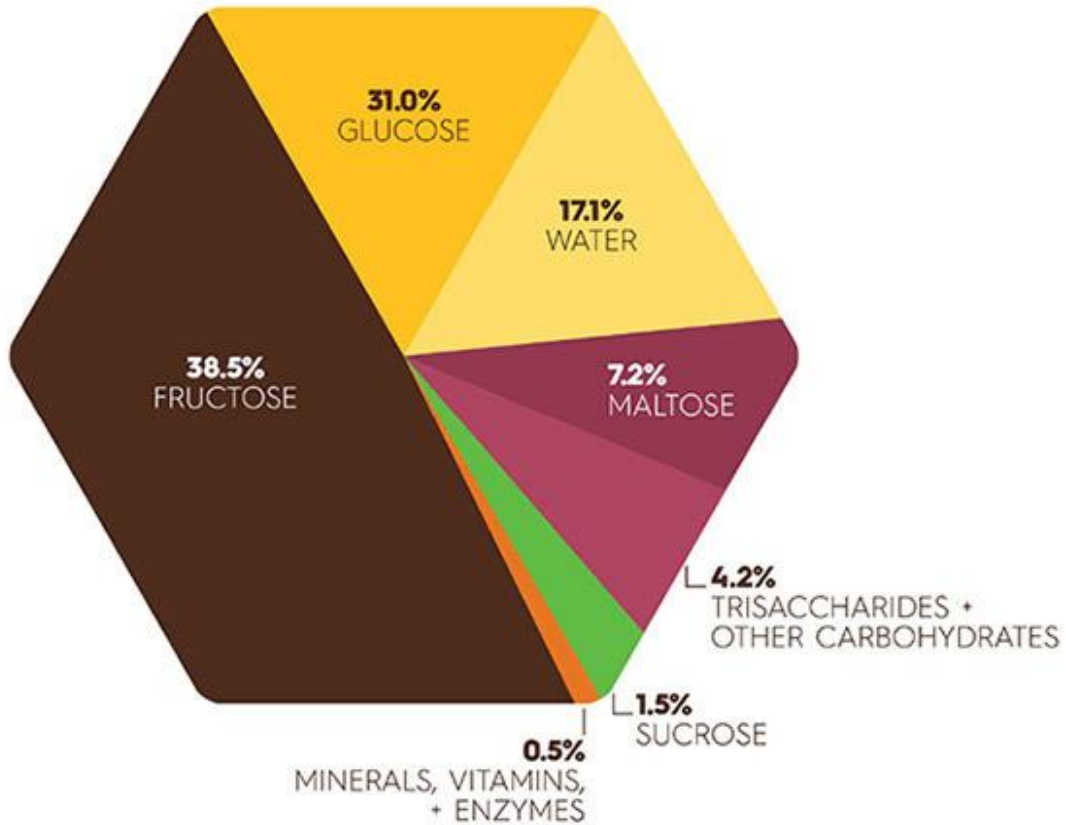
Sweet, viscid fluid produced by bees from nectar collected from flowers & stored in their nests or hives as food.

Sucrose \rightarrow Glucose + Fructose

Minerals, vitamins, acids, enzymes, sterols, aromatic components

Fun facts

HONEY'S NUTRITIONAL PROFILE



One bee will only make 1/12 tsp honey during life

Only insect that produces food eaten by man

Visits 50 to 100 flowers during a collecting trip

Bees might collect sugar from over 200 different sources in a typical season

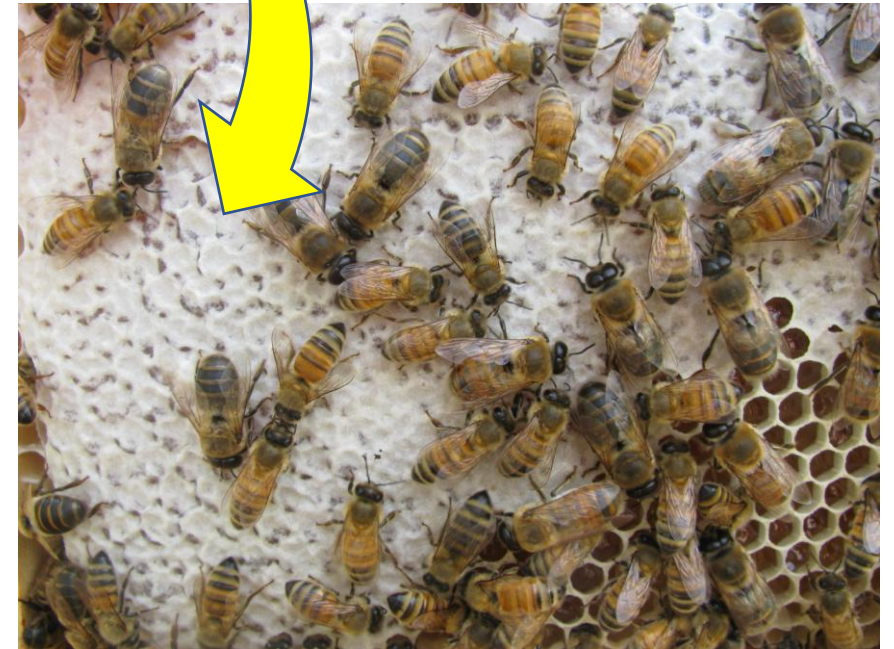
Has the nectar flow started?

Look for fresh white wax

Dramatic weight gain

Bees drawing out foundation

Lots of glistening nectar in cells



“Whiting”



Part One

Getting Bees Out of supers



**Giant
Honeybee
Honey
Harvest**

Honey Harvest – Removing supers

- Remove supers or individual frames
- Removal – low tech
 - Bounce and brush
 - Bee escape
 - Fume board
 - Bee blower



Getting Bees Out

Bee Escape Boards

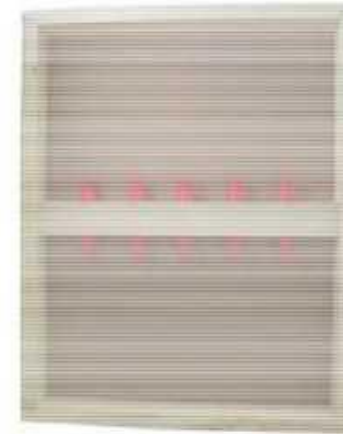


Porter



Triangle

Cone



Porter escape (stops ventilation, use late in day,
make sure gap = $\frac{5}{16}$ ")

Getting Bees Out

Fume Board



Bee-Quick Bee-Dun Bee-Gone



Fume Board

Getting Bees Out

Fume Board



Bee-Quick



Bee-Dun



Bee-Gone



Honey Robber



Bee-GO

Getting Bees Out

Bee Blower



Hard on bees, drifting & robbing, bees on ground

Getting Bees Out

Bee Brush



Getting Bees Out

- ∞ **Best to extract day of removal.**
- ∞ **Store bee tight warm area.**
- ∞ **Best to store in freezer if not extracting.**

Small scale honey extraction

Extract immediately, 92 degrees. Or freeze.

Use a bee tight area.

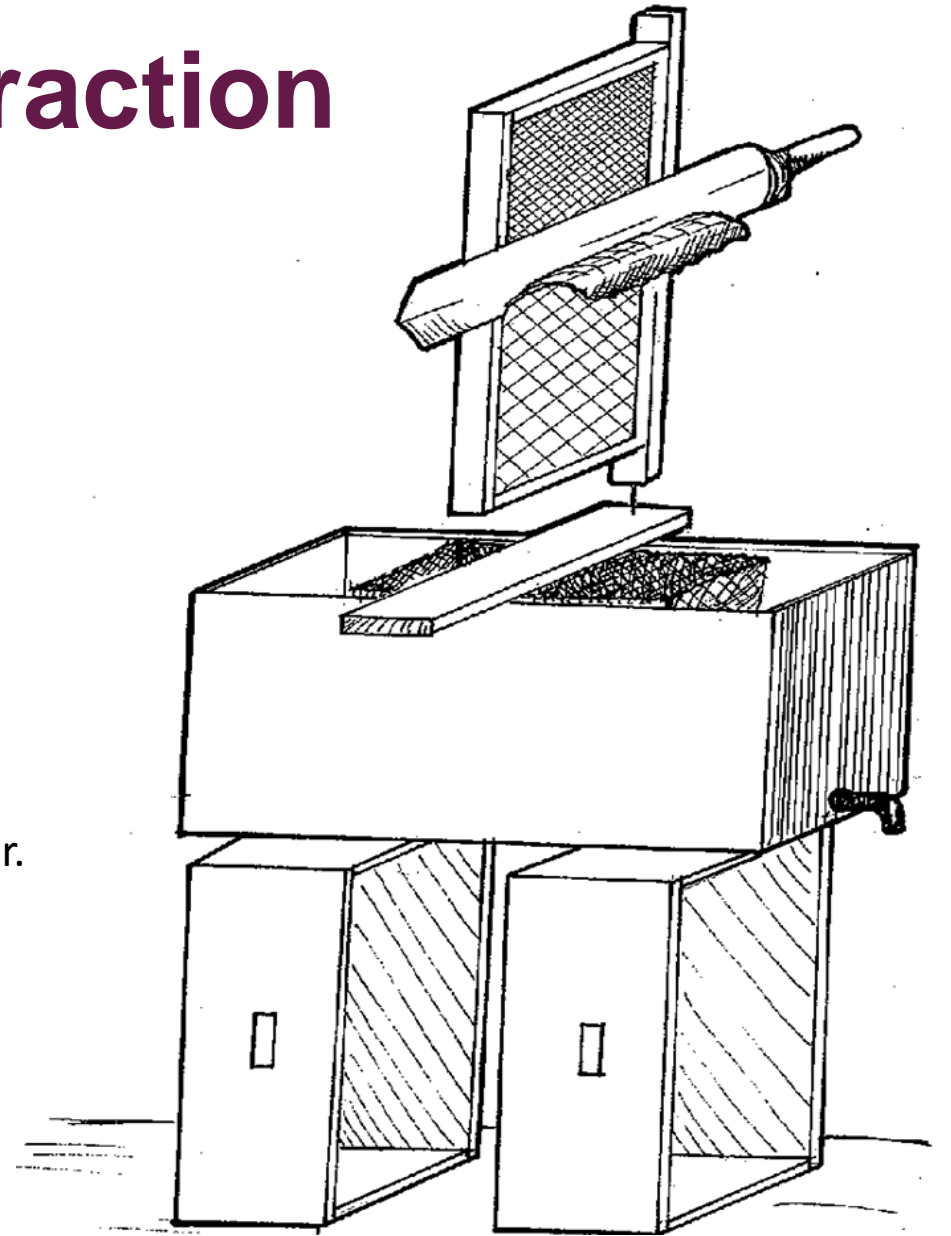
Use 100% cotton cloth to clean capping knife.

Cover floor & have fresh water available.

Check water content $\leq 18.2\%$. If higher save and feed back to bees.

Have bees clean comb or store wet. Bees will take to wet comb better.

Rinse cappings 3 times.



Part Two

Getting the Honey Out

Getting Honey Out

- **Extractor**
 - **Pros:** Best way to get liquid honey.
 - **Saves comb** for next season.
 - **Cons:** Requires more equipment and bee tight area.

Getting Honey Out



Getting Honey Out



Getting Honey Out

- ✎ **Extract all fully or mostly capped frames first.**
- ✎ **Using a new pail extract partially capped frames.
(check moisture with refractometer, dry if above 18.2%)**
- ✎ **Any frames not capped should be feed back to bees or extract in separate pail and feed back in feeder.**
- ✎ **Do not store uncapped frames with nectar, it will ferment.**

Getting Honey Out



Small scale honey extraction

Don't remove the supers from the bees until you are ready to extract!

70%+ OF HONEY MUST BE CAPPED



The honey harvest

- Put supers in warm dry room
- Uncap both sides of honey-filled frames
- Spin honey out
- Let settle
- Drain of cappings



Getting Honey Out



Getting Honey Out

Radial Extractor



Tangential Extractor



Extracting

Balance Frames

Keep gate valve open

Tangential extractor

Reverse frames repeatedly as you extract

Radial extractor

No need to reverse frames

Extracting



Filter or strain honey as you extract.

This will help to limit crystallization.

What is wrong here?

Settling after extraction



Producing a clear product:

- Let honey settle in warm room 1-2 days
- Put honey in jars/containers
- Bottle from bottom of the settling containers

Handling Cappings & Honey Supers

- Cappings will have considerable honey
 - Allow honey to drain from cappings
 - Heat wax in double boiler

NEVER HEAT BEESWAX DIRECTLY OVER FLAME

- Wet supers will be sticky - use to feed bees (controlled robbing – stack over colony needing additional stores)
- Dry supers – let bees clean
- Store supers protected from wax moth/scavenger pests

Storing Frames

- ☞ Protecting Honey Frames From Waxmoth.
- ☞ Before placing in storage put all frames in the freezer for 2 days to kill waxmoth eggs or use para-moth. (para-dichlorobenzene)
- ☞ Do not use naphthalene moth balls.
- ☞ Store frames in containers with tight-fitting lids or stack supers with layers of newspaper on top and bottom of stack.
- ☞ If para-moth is used, air out frames for a couple of days before putting back on hives next season.

Harvesting without an extractor



Harvest without an extractor



Destruction harvest
(crush and strain)

Extractors only work
with Langstroth-style
frames

Harvest without an extractor

- Destruct harvest – cut out comb, mash in nylon bag and let drain into bucket.
- Melt residue in double boiler to recover additional harvest.
- Good alternative - produce honey in comb, cut to fit containers or wrap in plastic wrap. Store in freezer



Products of the Hive

☞ Comb Honey



Cut-comb
honey



Round section (cobana) honey



Chunk honey

Other uses for honey

- vehicle for medicine (help the medicine go down!)
- allergy relief
- antiseptic & antibacterial (ingredient in cosmetics, lotions, soap, shampoo)
- ingredient in gum
- processing of cigarettes, pipe bowls
- golf ball center
- embalming fluid (since ancient times)
- counter alcohol effects in blood



Medical Uses

Research on honey for specific conditions includes:

- **Cardiovascular disease.** Antioxidants -> reduced risk of heart disease
- **Cough suppressant**
- **Gastrointestinal disease.** Relieves gastrointestinal tract conditions
- **Neurological disease.** Offers antidepressant, anticonvulsant and anti-anxiety benefits.

In some studies, shown to help prevent memory disorders.

- **Wound care.** Promotes wound healing, particularly in burns.
 - anti-inflammatory agent
 - stimulates new tissue growth
 - reduces scarring
 - contains anti-oxidants

Oregon honey label laws

See “Oregon label requirements for extracted honey” – prepared by Judy Scher for OMB, Jan 2015

- Product identity
- Weight
- Added ingredients
- Name and address

**See OMB
website**