



Honey Extraction

Northeastern Kansas Beekeepers Association

Year 2

Presenter – Buck Bradley

BucksHoneyBeeCompany@gmail.com



Outline

- Removing honey supers
 - Equipment set-up
 - Extracting
 - Bottling & storing
-

A few questions before Harvesting Honey

- Do my bees have enough honey to survive
- When to extract?
 - spring, summer, fall
- Moisture level
 - <18.6%
 - Shake test
 - Fully capped



Refractometer

- Ensure you purchase fluid and calibrate before every use
- Ensure the refractometer is at the same temperature as the honey
- I like to test before and after extraction
- What to do if you are not below 18.6%



Removing Honey Supers:

- Shake & Brush
- Escape Boards
- Fume Boards
- Forced Air

Shake & Brush

- Time-consuming but low cost
- Extra super, bee brush, and towels are all the equipment needed
- Works best with two people
- Steps:
 - Remove frame
 - Shake off bees into super
 - Brush remaining bees off
 - Move frame into covered bee-free super
 - repeat



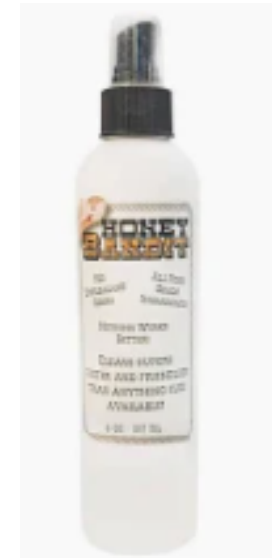
Escape Boards

- Extra equipment and extra steps are needed
- Place the escape board on at least 24-48 hours prior to removing the honey super
- Will still have a few bees remaining



Fume Boards

- Extra equipment and extra steps are needed
- Spray repellent on fume board and wait 10-15 minutes
- Potential to contaminate honey if too much repellent is used



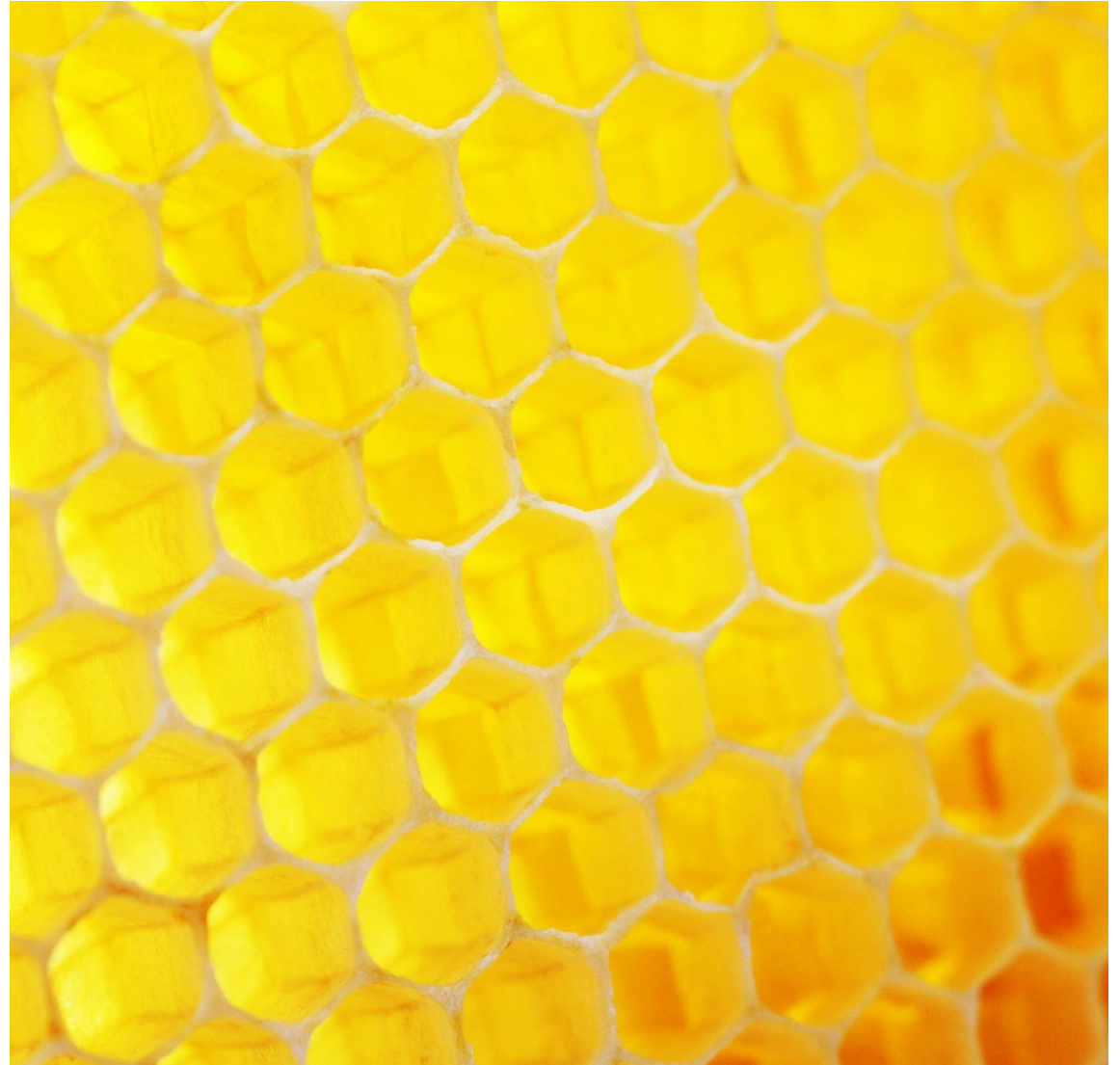
Forced Air

- Need leaf blower
- Quick, but the bees are not happy
- Electric vs. gas leaf blower
- Extra person is helpful



Tips and warnings for honey super removal:

- Tips
 - Extra tops are nice to make the bottom and the top of the super bee proof
 - Bee escape is nice while supers are staged
 - Duct tape is nice to have
- Warnings
 - Watch out for robbing while removing supers
 - Use your smoker sparingly
 - Need to extract within 24-48 hrs. because of Small Hive Beetles or Wax Moths



Area and Equipment Set-up:

- I like to have the equipment and room set up before harvesting the honey supers
- You want a clean working environment that can get sticky
 - Garage
 - Kitchen
 - Spare room
- Consider the “working triangle”
 - reduces wasted steps
- Plastic to assist with clean-up



Stations for Extracting Honey:

- Uncapped honey super storage
- Uncapping station
- Extracting station
- Filtering/Straining station
- Storage of extracted honey supers
- Storage of extracted honey

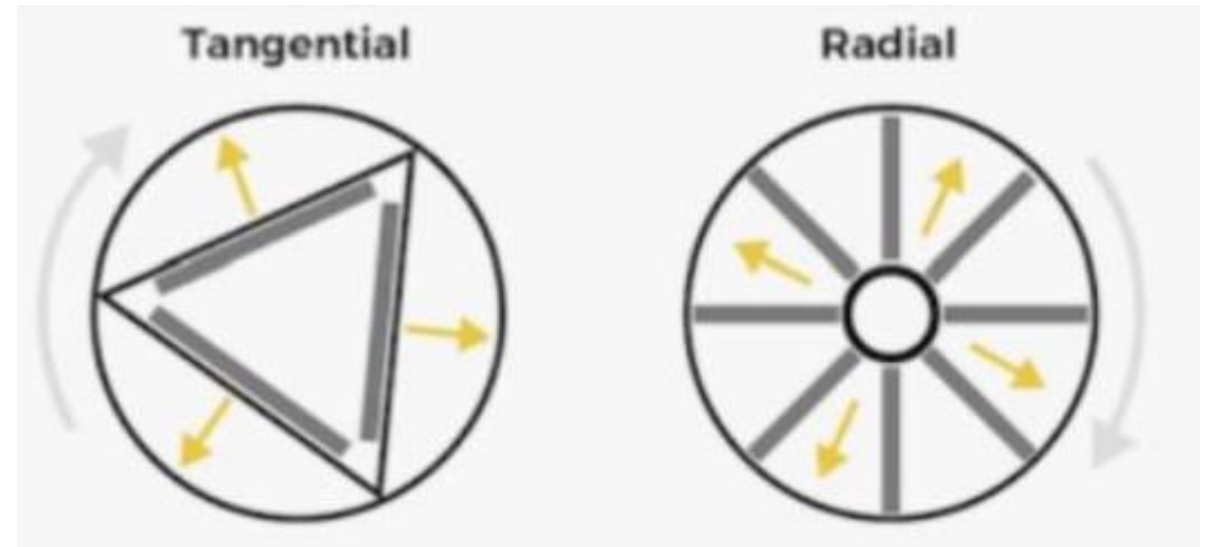
Uncapping station:

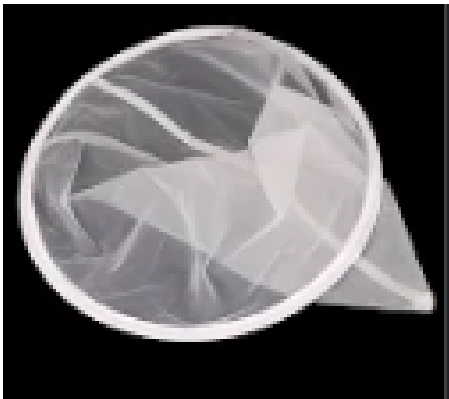
- Uncapping tank
 - Best if dual unit
 - Simple tub will work
- Tools
 - Hive tool
 - Uncapping tool
 - Unheated knife
 - Heated knife
 - Scratcher
 - Putty knife



Extracting Station:

- Size range from 2 – 60 frames
 - Check the fine print for the number of frames
 - Example: 9 Frame extractor: six medium frames are extracted radially with three frames extracted tangentially (large or medium)
- Power source
 - Electric vs. hand-cranked
 - Some models can be upgraded
- Tangential vs. Radial extractor
 - Blow outs
 - Tangential doubles the time

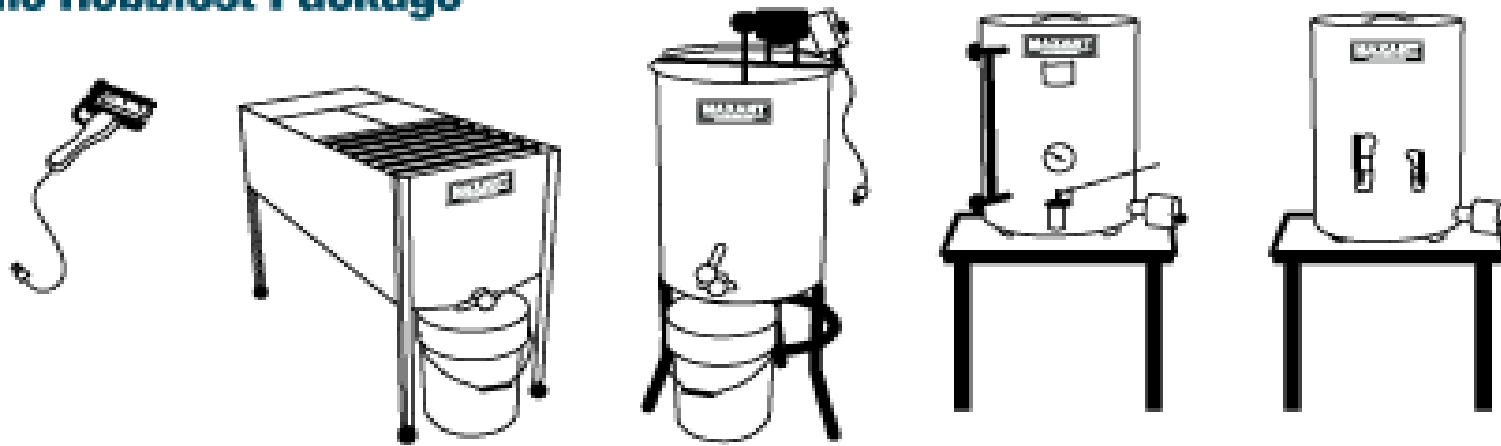




Straining/Filtering Station:

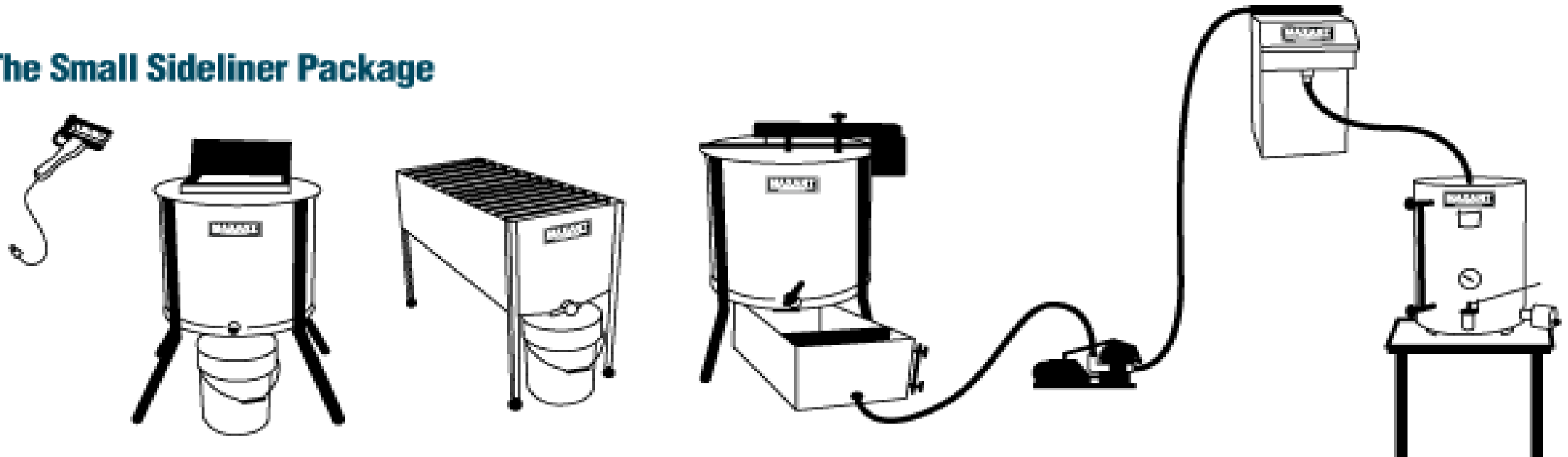
- Simple bucket with a strainer, filter bag, or cheesecloth
 - Removes bee bits and wax
- Honey clarification tank or advanced filtering system
- Pollen particles range between 25-150 microns
- Most honey supply stores have filters/strainers between 200-600 microns

The Hobbist Package



***Click for
Product Names
& Model Numbers!***

The Small Sideliner Package



Other tips or equipment:

- Honey bucket with honey gate
 - Plastic number 2, 4, 5 (HDPE, LDPE, PP)
 - Bucket and gate can be bought together or separately
 - 70 vs. 90 mils
- Drop cloth is a great addition to cover plastic
- Warming room?
- Other equipment
 - Pail perch
 - Filter stand
- Plastic gloves or a bucket of warm water



Pail Filter Stand

Odds and Ends:

- Wax Capping
 - Let drain?
 - Feed to the bees?
- Extracted Supers
 - Leave in the open
 - Put back on hives
- Cleaning equipment
 - Uncapping tank
 - Extractor



Bottling, Labeling, and the “Crown”

- Bottling

- Best if the Honey is warm
- Honey bucket with gate is best
- Wait at least a day



Bottling, Labeling, and the “Crown”

- Labeling requirements, if sold, must include the following:
 1. The name “honey”. The floral source (clover, wildflower, etc.) can be part of the name if the product contains a significant amount of pollen from that flower.
 2. Name, address, and zip code of the person bottling the honey
 3. Net contents in ounces/pounds and grams
 - Note: Honey is sold by weight
- Let's talk word usage: pure, raw, unfiltered, local, “organic”
- The Kansas Department of Agriculture will review your label if requested.



Bottling, Labeling, and the “Crown”

- You can sell directly to consumers without needing a food processing license (cottage food laws)
- Can sell bulk honey to other business
- Can't sell honey in a retail setting without a KDA food processing license

References for Kansas honey laws:

- Foods Sold Direct to Consumers in Kansas: Regulations and Food Safety Best Practice by K-State Research and Extension revised Jan 2023 (<chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://bookstore.ksre.ksu.edu/pubs/mf3138.pdf>)
- KSA 65-689(d)(4) – direct to consumer exception
- KSA 65-656(w) – exemption for bulk sales to other business
- Handout #30: Food Establishment Licensing (https://agriculture.ks.gov/docs/default-source/fsl--handouts/-30foodestablishmentlicensing4B25093919D2.pdf?sfvrsn=6933b632_6)
- Guidance for Industry: Proper Labeling of Honey and Honey Products (<https://www.fda.gov/regulatory-information/search-fda-guidance-documents/guidance-industry-proper-labeling-honey-and-honey-products>)