



Extracting Honey Basics...Equipment Needed

A Quick Overview

Removing Supers &
Checking for Moisture
Content

Best Management
Practices for Handling
your Honey Crop

Northeastern Kansas
Beekeepers Assn
February 2025 BBC I



Did you know???

"Honey is NOT the favorite food of the honey bee! Honey is just a method of winter storage of nectar;

...and NECTAR is the favorite food of the bee."

George W. Imirie, Jr. Certified EAS Master Beekeeper

100% Pure Honey

- ▶ Pure
- ▶ Unfiltered
- ▶ Raw
- ▶ Local
- ▶ Beekeeper
- ▶ Honey

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Beekeeping for over 50 years 1973 - 2025
Northeastern Kansas Beekeepers' Association
Kansas Honey Producers' Association
American Beekeeping Federation

Introduction

TODAY'S PRESENTATION

HONEY HARVESTING. THE 2ND BEST THING IN BEEKEEPING.



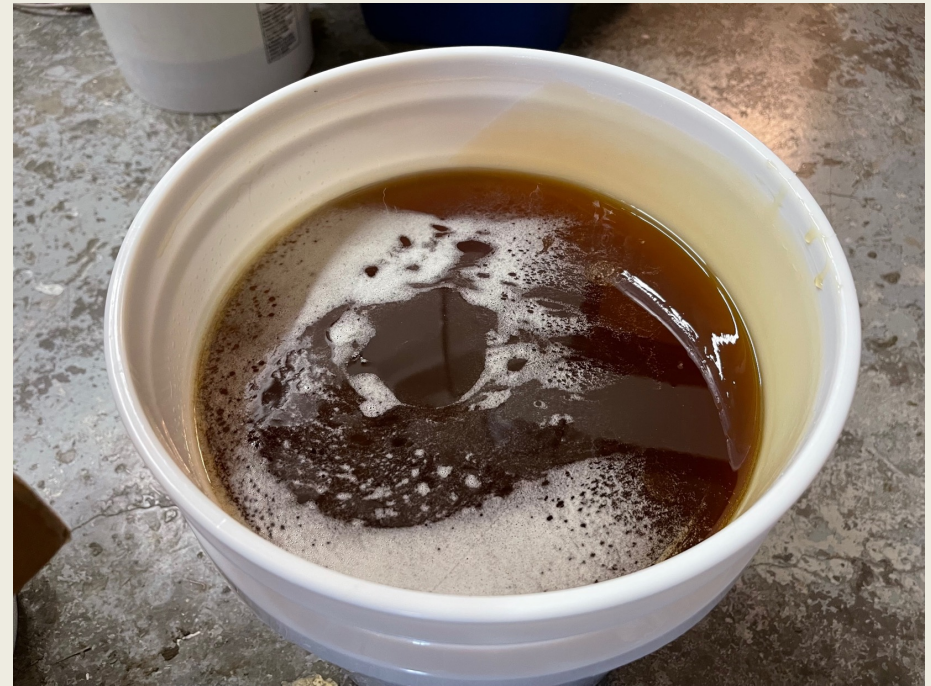
Summer 1980



Summer 1978

HONEY HARVEST PROCESSING – A QUICK OVERVIEW

1. Harvesting – three main ways - brush/escape or fume board
2. Uncapping – removing the beeswax caps on the cells
3. Extracting – using centrifical or centrifugal force
4. Straining – strained to remove wax and debris parts
5. Bottling – ready to bottle, label, and store



TODAY'S PRESENTATION - EQUIPMENT

HONEY HARVESTING AND PROCESSING

Harvesting: main tools for REMOVING bees from the supers:

- brushes,
- bee escape board and fume board
- Blowers

To Un-cap: "Uncapping means using a tool to remove the thin beeswax covering from the comb.



TODAY'S PRESENTATION - EQUIPMENT

HONEY HARVESTING

BEE BRUSH



- Labor intensive...usually 2 persons
- Bees won't be friendly to brush...
- Place frames in empty box & cover



TODAY'S PRESENTATION - EQUIPMENT

HONEY HARVESTING

TRIANGLE ESCAPE BOARD



- Place the escape board on at least 24-48 hours prior to removing the honey super (1 day per super)
- May still have a few bees remaining to be removed...



TODAY'S PRESENTATION - EQUIPMENT

HONEY HARVESTING

A FUME BOARD & CHEMICAL USED IN CONJUNCTION FOR RUNNING BEES OUT OF THE HIVE



TODAY'S PRESENTATION - EQUIPMENT

HONEY HARVESTING

BLOWING BEES OUT FROM COMBS...



Cordless battery Workshop Blower...

My preferred method of removing bees from honey supers after using a bee escape board.



Cordless battery leaf blower...

HONEY HARVEST PROCESSING – A QUICK OVERVIEW

2. Uncapping – removing the beeswax caps on the cells
uncapping knife or hot knife; capping scratcher



HONEY HARVEST – EQUIPMENT NEEDED

Food Safe Gloves are recommended... for light duty...

- Nitrile
- Vinyl
- Poly



HONEY HARVEST – EQUIPMENT NEEDED

Un-capping tubs

Nylon Strainer

Tools for un-clapping: scratcher and knife



HONEY HARVEST PROCESSING – A QUICK OVERVIEW

Uncapping – Strainer

- . VERSATILE - Use for a variety of applications, including paint, hydroponics, beer brewing, or protection of plants or food from bugs and pests
- . HIGH QUALITY - These filters are made of a durable nylon mesh that won't rip or tear easily
- . FINE MESH - These filters are designed to filter out particles that are larger than 200 microns. (the higher the number, the larger the holes; 200 is finer than 400 or 600)



HONEY HARVEST PROCESSING

Food Safe Buckets. 2, 3, 5 gallon buckets...various lid types

High-density polyethylene construction withstands temperatures up to 180°F.

Bucket Food Grade

Buckets made of HDPE (number 2) are generally considered the best material for food storage, especially over the long term.

All HDPE are food grade.



HONEY HARVEST PROCESSING

- Hand Towels for washing/drying hands...
- Smaller bucket for hand and tool washing...



HONEY HARVEST PROCESSING

Uncapping – Strain & Save!

Requires an un-capping tub or tank.

-SAVE TO WASH & PROCESS LATER



HONEY HARVEST PROCESSING

3. Extracting – using centrifical or centrifugal force

THE 'CRUSH & STRAIN' METHOD OF HARVESTING HONEY IS THE EASIEST METHOD BUT IS NOT MODERN. THE EXTRACTOR OR SPINNER OR CENTRIFUGE WAS INVENTED IN 1865.

MANUAL EXTRACTORS HAVE A CRANK USED BY HAND TO SPIN, USUALLY HOLD 2-4 FRAMES, AND TAKE ABOUT 15 MINUTES.

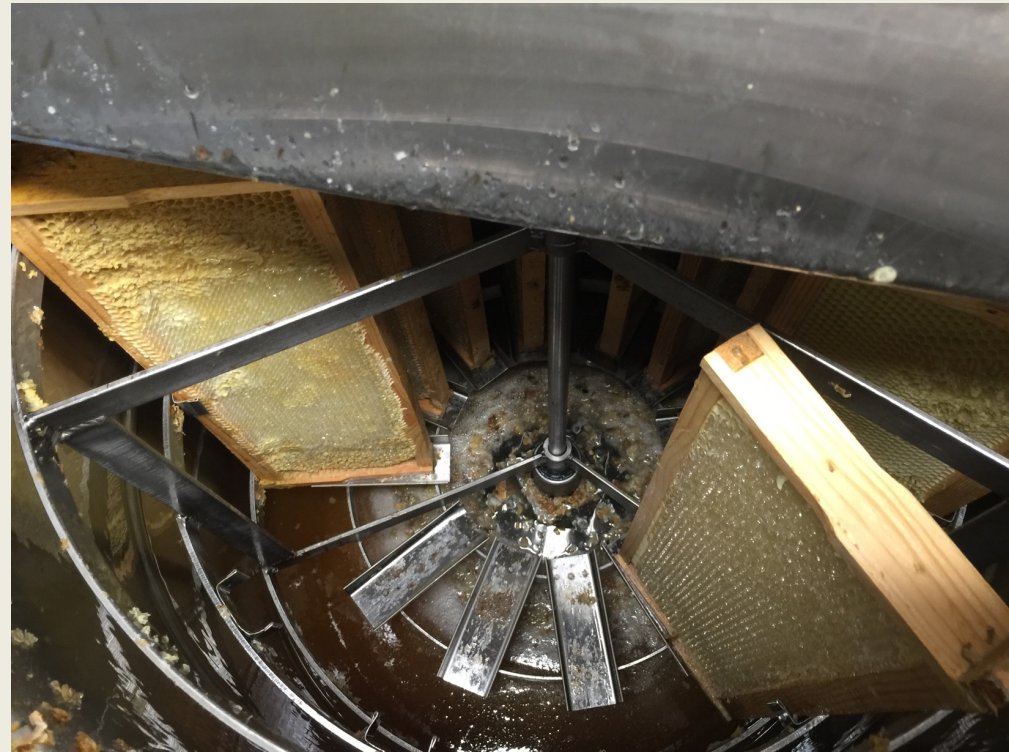


HONEY HARVEST PROCESSING

3. Extracting – using centrifugal force

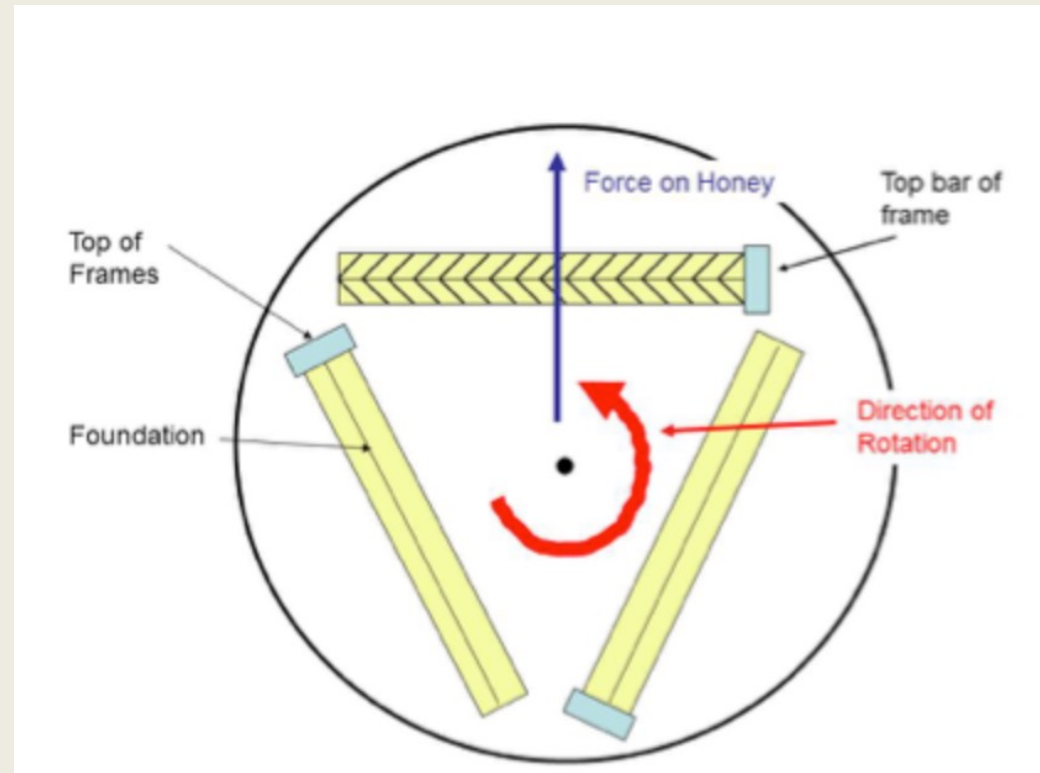
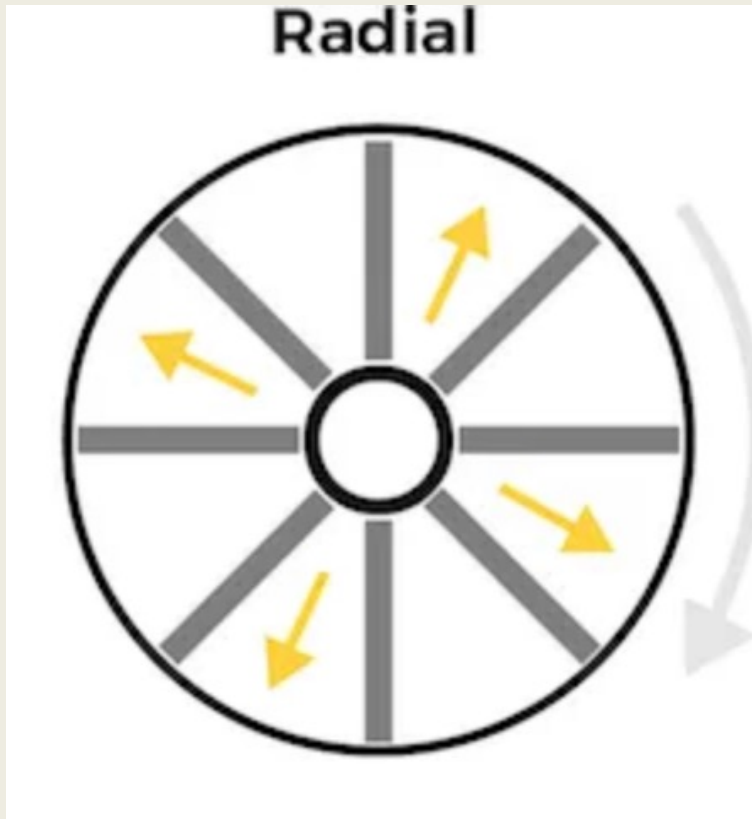
ELECTRIC EXTRACTORS ARE QUICKER AND EASIER. BASKETS CAN BE TANGENTIAL OR RADIAL.

“TIME IS MONEY” “BUY IT RIGHT, OR BUY IT TWICE”



HONEY HARVEST PROCESSING – A QUICK OVERVIEW

3. Radial vs Tangential Extractor....what do we mean?

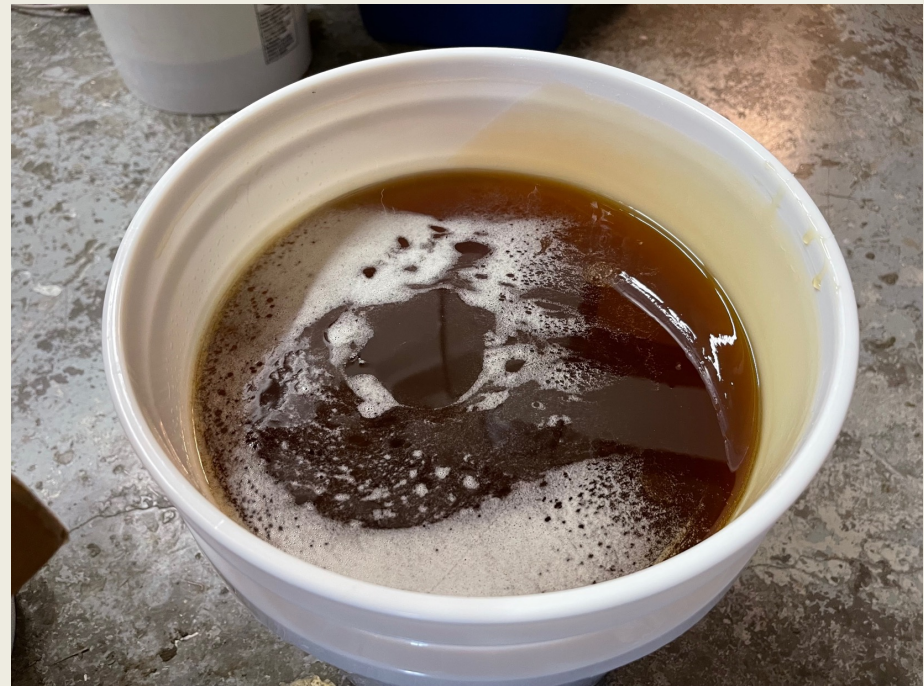


HONEY HARVEST PROCESSING

CHECKING FOR MOISTURE CONTENT

Store your honey correctly

- TOO MUCH WATER INCREASES THE RISK OF FERMENTATION
- IMPORTANT TO STORE YOUR HONEY CORRECTLY



HONEY HARVEST PROCESSING CHECKING FOR MOISTURE CONTENT

HONEY REFRACTOMETER

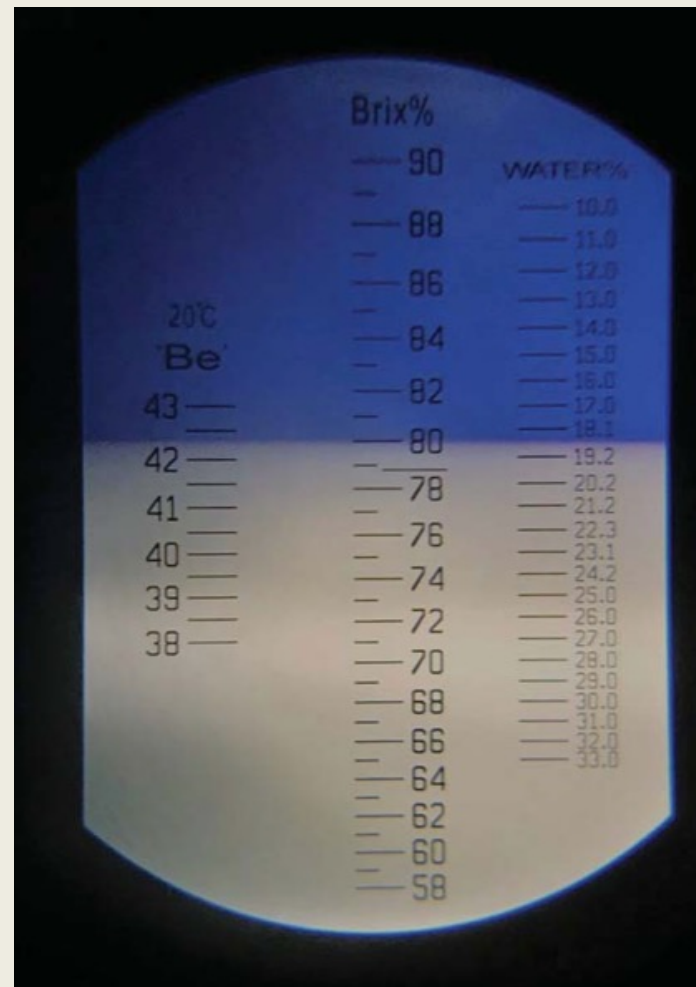


USING A HONEY REFRACTOMETER

Once you understand how a honey refractometer works, it is simple to use. There are many variations in design, but these are the basic steps:

- Calibrate the device with distilled or deionized water
- Put a drop of honey on the prism
- Close the trap door that flattens the specimen
- Focus the eyepiece
- Read the scale

*make sure to buy one used for honey



HONEY HARVEST PROCESSING

CHECKING FOR MOISTURE CONTENT REFRACTOMETER DIAGRAM



Refractometer – Moisture Content

All You Need to Know

There is no universally accepted number for what moisture content honey should have, but a good guide to aim for is somewhere between 16-18%.

- 1) Below or <17% moisture content, no fermentation will occur.
- 2) At 18% no fermentation will occur unless there are large amounts of yeasts present.
- 3) >19% and <20% moisture there is a definite danger of fermentation - regardless of the amount of yeasts present.
- 4) >20%+, yeasts will multiply freely, and the higher the moisture content, the more rapid the fermentation process.

HONEY HARVEST PROCESSING – A QUICK OVERVIEW

4. Straining – strained to remove wax and debris parts

-REMAINING DEBRIS PARTICLES PROMOTE CRYSTALIZATION

-DO NOT USE CHEESECLOTH AS IT CAN LINT YOUR HONEY (FOOD)



HONEY HARVEST PROCESSING

- 5. Bottling – now ready to bottle, label, and store (after settling)

-DO NOT STORE IN NON-FOOD PLASTIC
-OR METAL CONTAINERS
-FILL TO PROPER LEVEL (fill line+)



<http://www.nekba.org/honey-labeling.html>

HONEY HARVEST PROCESSING

- Containers – glass, plastic, metal

Glass - it is non-porous, non-reactive, and doesn't leach chemicals into the honey, thus preserving its flavor, quality, and nutritional value

...**Long-term storage**: When stored in a glass jar, honey can maintain its quality for extended periods.



HONEY HARVEST PROCESSING

- Containers – glass, plastic, metal

Plastic -Honey can be stored in food-grade plastic containers if they are airtight and FDA compliant. However, some say that glass is better because it's more durable and recyclable.



HONEY HARVEST PROCESSING

- Containers – glass, plastic, metal
 - **Metal** – not recommended... While you technically can put honey in a metal container, it's not recommended as the honey's acidity can react with the metal, potentially causing oxidation and affecting the taste of the honey.



HONEY HARVEST PROCESSING

- Containers – glass, plastic, metal



HONEY HARVEST PROCESSING – EQUIPMENT

Extracting kits for purchase...stainless steel equipment

Extractor package may also include:

- 5-gallon pail and lid equipped with a 1 1/2" (3.81 cm) honey gate
- a multi-purpose uncapping tool
- an uncapping scratcher
- a 120-volt electric uncapping knife
- a stainless-steel double sieve, and a pail filter stand



HONEY HARVEST PROCESSING

- 5. Bottling – now ready to bottle, label, and store (after settling)
 - allow honey to ‘settle’ for a day or so to allow air bubbles to settle to the top
 - food ‘packaging’ & presentation are important
 - preference of glass vs plastic



HONEY HARVEST PROCESSING

- 5. Bottling – now ready to bottle, label, and store (after settling)

Honey is sold by weight – not volume
Labels need to follow federal label laws

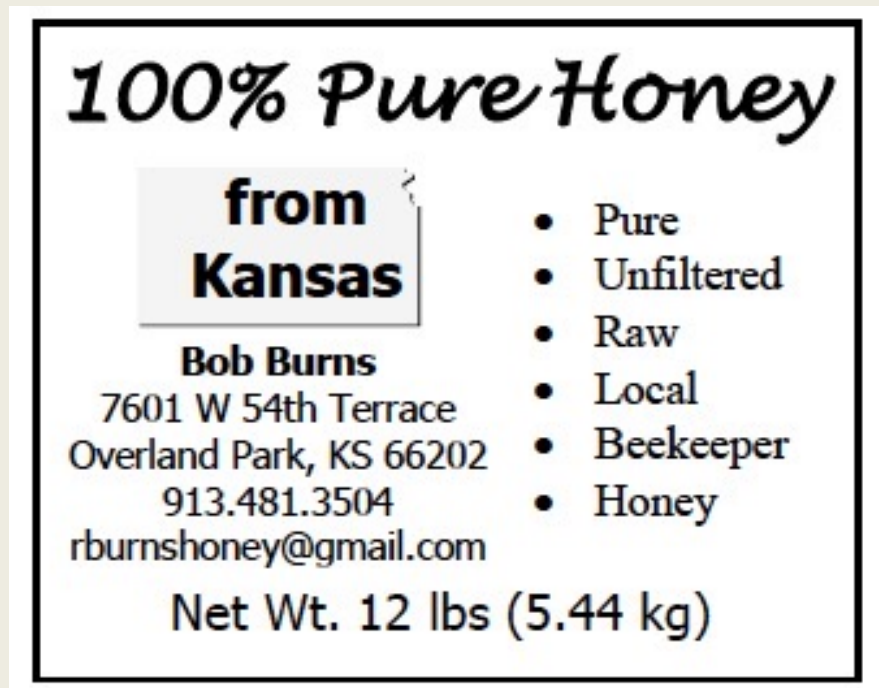
In Kansas, every packaged food must be labeled
find more about labels on the association website:

<http://www.nekba.org/honey-labeling.html>

Expert Tips for Honey Storage

Here are the top Rules for storage:

1. Keep it in a tight sealing container
2. Store your jar in a dark location
3. Keep in a warm location – it may crystallize less quickly



TIPS for a better honey harvest:

1. Harvesting can be an all-day event. Plan for all day.
2. Probably a happier spouse by not harvesting in the kitchen.
3. Harvest honey in an area inaccessible to bees.
4. Make it worth your time to harvest in large batches.
5. Harvest when honey & weather are warm. Don't wait until fall or winter.
6. "Clean as you go" with plain water near and hand towels.
7. Extraction for one day and bottle (pack) for the next.
8. Use the bees for clean-up by placing empty supers back on the hive.
Do not set supers out in the open to be robbed or "cleaned out" by bees.
*Don't want to promote robbing or potential for spreading disease(s).
9. Involve family or a friend for an extra set of hands.

More information through your local beekeeping associations:

Northeastern Kansas Beekeepers since 1948 (KS local)

website: <http://www.nekba.org>

Kansas Honey Producers since 1903 (KS State Beekeepers)

website: <http://kansashoneyproducers.org>

Midwestern Beekeepers since 1947 (KCMO & greater metro)

website: <http://www.midwesternbeekeepers.org>



Thank you!

**Best Wishes for the 2025 Bee Season.
Questions**

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1970s with Siblings



Summer 1978 - Mother



Survey for Today's Class