Beekeeping Throughout the Year

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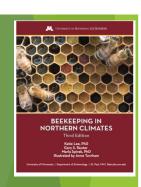
So, you want to be a beekeeper.....

- Beekeeping is applied bee biology.
 - Understand the biology to understand the needs of your bees.
 - Apis Mellifera our honey bee is non-native and is livestock.
 - Care for as we care for other livestock: shelter, food, water, protection from disease



4 Principles of Productive Beekeeping





- 1—Every colony must be protected in equipment with removable frames and located in a good apiary site.
- 2—Every colony must have a young, prolific queen.
- 3—Every colony must have adequate honey and pollen reserves at all times.
- 4—Every colony must be monitored and managed for diseases and mites, and treated only when necessary.

Why keep bees?

- **►**Honey
- **▶**Pollination
- **▶** Beeswax
- Fascinating hobby
- The bees need you?



Before you start:

- Time—Do you have time to do this. Bees are livestock.
- >\$\$--Used Equipment vs New Equipment. Start w 2 hives (best) \$1500.
- Location—Is your back yard the best location?
- ► What else can I do? Plant flowers.

Before you get your bees:

- 1—Order your bees. (The best suppliers run out.)
- 2—Assemble your equipment. Paint exterior surfaces.
- 3—Build a hive stand.
- 4—Choose a location. (If in doubt, ask an expert.)
- 5—Make syrup 1:1



April 15th -More than tax day Year 1:

Arrival and installation of package bees and/or nuc colonies. You have begun.

Usually fruit bloom and dandelion time in NE Kansas





Year 2:

Is your hive healthy?
Does your hive need
to be split?
Does your queen
need to be replaced?

Why Feed?

• Improved queen acceptance

Add food reserves

Stimulate queen to lay

Stimulate nest cleaning

Draw foundation

Always feed new packages

Spring goal: Grow the colony



Feed Feed Feed

- 1:1 white sugar and water by weight
- Heat water to near boiling
- Stir in sugar to dissolve --do not boil
- COOL
- Discard if syrup becomes moldy
- May choose high-fructose corn syrup









What does healthy look like?



Open
Teaching
Apiaries and
Mentoring

Who is qualified to be a mentor?

What's a "Bee Buddy"?

How often to inspect—what are you

looking for?

During hive growth, inspect every 7-10 days.

- Is the colony queen-right?
 - All stages of brood?
 - Eggs?
- How many frames of brood?
- How many frames of food? (pollen and honey)
- Evidence of swarm activity?



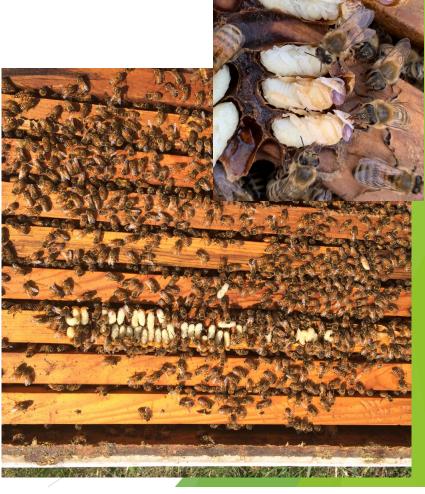
SWARM SEASON! MAY 1 - JULY 1 (May extend, March 1 - September 1)

- Reproduction Swarms
 - Asexual reproduction
 - ❖Seasonal ????
 - Abundant floral sources
 - Absconding swarms—the result of hive trauma



Signs or swarm preparation.





You see this....

Mature, capped queen cells.

No other eggs seen in the hive.

LOTS of brood.

Lots of food.

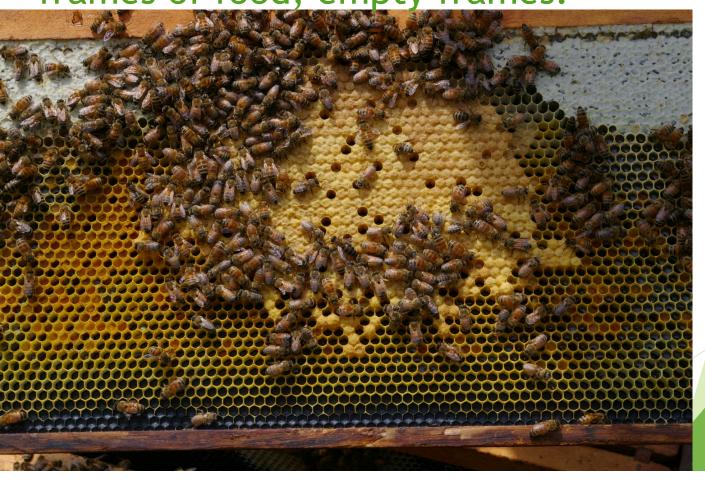
Little undrawn space.

Close it up and check back in 3 weeks.

Your hive swarmed.



The Count... frames of brood, frames of food, empty frames.





• Stop feeding when 2 deep **brood boxes** are filled













Time to make surplus honey—add a super! (and a queen excluder)

Supering—making honey!





How much honey does a colony make in a year?

Queen
Excluder?!?

Supering



Sign of nectar flow

Inspect supers weekly—every 4-7 days

Rotate and exchange partially filled frames for filled/capped frames—outside to inside.

Rule of 7—7 full frames, add another super!

Supering

Varietal honey--take advantage of seasonal harvest.



Beekeeping is farming everything is weather dependent.

Wax production is seasonal

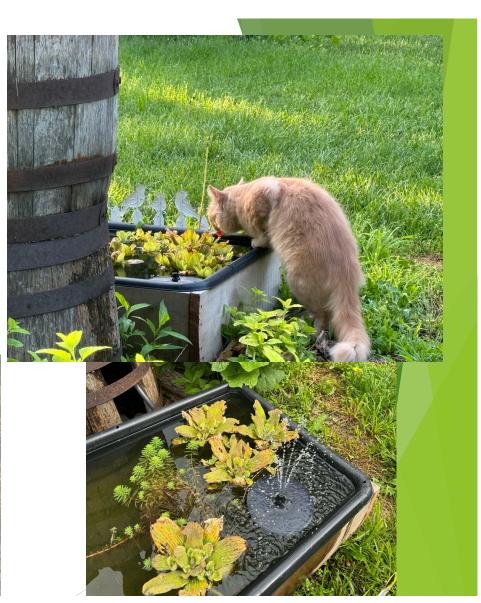




Water-essential in summer

- Not too close—20 yards away
- Set it up before they really need it
- Moving water is attractive
- A little rock salt is appealing
- Plants or floats keep bees alive





Honey Harvest



Honey for you, honey for the bees.

Control Varroa Mites

- Check mite levels MONTHLY
- Know the signs of high mite infestation
- Understand treatment choices







Know your treatment options:

TOOLS FOR VARROA MANAGEMENT

A GUIDE TO EFFECTIVE VARROA SAMPLING & CONTROL

HEALTHY BEES · HEALTHY PEOPLE · HEALTHY PLANET™



Free download—see your resources pages

Randy Oliver



ScientificBeekeeping.com

Oxalic Acid research and applications.

Timeline is variable

- Everything is weather and climate dependent
- Honey Harvest—mid summer
- Mite Treatment
- Feeding—as needed Early Fall
- Protection—First hard frost

Wintering is the basis for next year's success.



Beekeeping has two seasons, winter and getting ready for winter.

F A L L



Hive inspections &

- Take your losses in the fall—decision time

 Manipulations
- Winter # of bees ~ not # of hives
- Combine weak colonies with stronger colonies
- Evaluate health of queen
- Arrange brood in the bottom hive super





Protect the colony

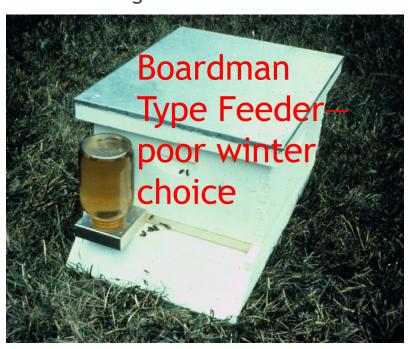


Mouse Guards

Place in colony before first hard frost.

Feed, Feed (while it's still warm) Winter feed:

* Hive weight is critical for successful wintering







Cold temperature biology-Thermoregulation

- F @ 57°F —bees cluster loosely
- A @ 30 °F bees cluster tightly
 - (smallest cluster)
 - Bees on outer mantle will maintain 46 °F
 - 55 °F -internal cluster w/o brood

Phoretic Mite Treatment Oxalic Acid Loose Cluster—50° day



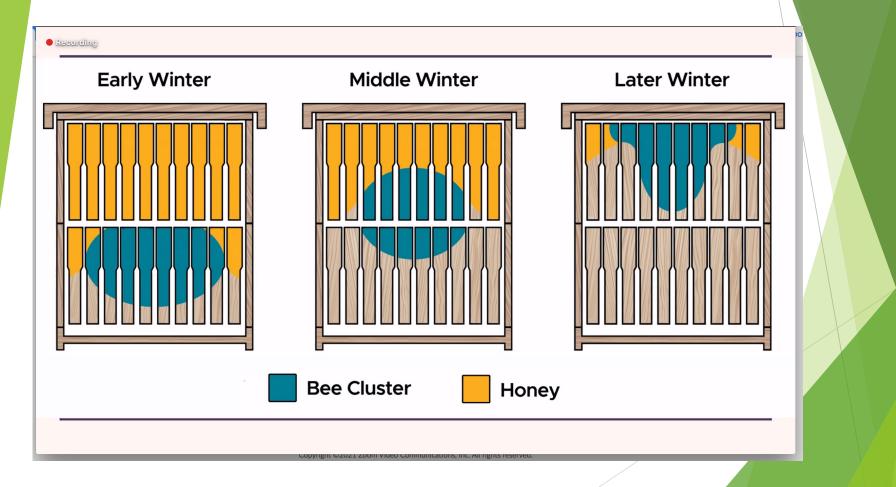


To Wrap or not to wrap?

Ventilation is important— moisture = ice = dead bees.



Movement of winter cluster



Dead out—Clean it up

- Remove all dead bees
 - Brush and blow bees out of cells
- Remove all usable resources and transfer to needy hives
- Secure hive to eliminate chance of robbing and or mice.
 - Store equipment in a cold environment OR store frames w/o honey with Paramoth crystals
 - Try to determine cause of death



Why Hives Die in Winter

Starvation—Check weight frequently

Move food frames closer to cluster

Small Cluster size-Combine in the fall to make strong colonies

Freezing—condensation accumulation

Vent hives on top

Disease—Control Varroa

Failing Queen—Evaluate during final inspection

Combine with stronger colonies—HOW OLD IS YOUR QUEEN?

In Nature only ¼ of new swarm colonies survive the winter

What can you control? What can't you control?

It isn't over til it's over

Most winter-kill colonies die in March.

- Increased brood rearing
- Increased food consumption
- Wild weather swings



Multiple factors in bee health decline

Lack of forage or poor nutrition makes bee more susceptible to other stressors Pesticide exposure

Pesticides from landscape & beekeeper-applied may affect behavior & health

Bee aware of false/fad bee Information.

Ask a true bee expert.

Management may affect colony success

Improper beekeeping practices

Viruses, bacteria, & fungi

Diseases affect development & survival

Mites feeding on bees may vector viruses impacting health & survival



Varroa destructor mites



Hive beetles & wax moths

Pests insects rob resources, damage hive structures, & destroy equipment



Most important factors to successful beekeeping:

Immerse yourself in bees

Learn all you can, see all you can, listen and ask questions.

Kansas Honey Producers Association



State-wide organization. Spring meeting March 7-8, 2025, Salina Kansas.

Register @ KansasHoneyProducers.org



- Another Class:
- Shawnee N.Community Center

300 NE 43rd St

Topeka, KS

3rd Wednesday of each month. Follows the Beekeeping year.

FREE

Email for schedule: bstbees@gmail.com

Date	Activity	Open Apiary*—Come to the farm and get inside the hives.	Notes/changes: See "Resources for Better Beekeeping" handout NEKBA membership www.nekba.org
2/19/2025	Honey Bee Biology—the basis of modern beekeeping	*Open Apiary events will be canceled for weather or illness. You must preregister with Becky to attend the session. <u>bstbees@gmail.com</u> 785-554-1591 (c)	KHPA Membership www.kansashoneyproducers.org Order equipment and bees NOW. See Resources Page for recommendations. DO NOT BUY BEES without getting a recommendation from someone you know.
3/19	Starting Right: Equipment assembly Installing packages & hive locations.	March 23—Open Apiary 1 st inspections of the year Hive Evaluation.	
4/16	Swarm biology, controlling swarming through colony division. Q & A about new olonies	4/20 Spring feeding and growth Making splits, installing queens	Using Q excluders Lighting smokers—smoker fuel SHB—traps
5/21	Summer beekeeping, monitoring buildup, controlling swarming impulse, supering, comb honey, recordkeeping.	5/25 Colony growth. Swarming and swarm catching	
6/7	Attend the NEKBA Funday (full day workshop— Becky will have flyers later this spring) AWESOME day of learning about bees.	DG. County Fairgrounds Register @ www.nekba.org	Amy Vu, University of Florida, Dr. Judy Wu-Smart (Univ. or Neb), Dr. Autumn Smart, Kim Mehalick, EAS Master Beekeeper. At the Hive with area experts.
6/18	What does healthy look like? Reading the frames. Disease overview: Nosema, Foul Brood, Varroa mite, Wax moth, SHB, et al.	6/22 Supering your hives Evaluating strength	
7/16	Harvesting your honey crop, extracting. Fair entries? Honey —care and handling.	7/13 Honey harvest—pulling supers for extracting at class NOTE THE DATE	Evaluating varroa
8/20	Monitoring hives, fall feeding, Varroa management IPM.	8/24 Varroa treatment options demonstrated	
9/17	Fall and winter management, emergency feeding, protecting your hives.	9/21 Winter preparation Mouse guards, wind breaks, feed	
10/15	Winter beekeeping activities		**want to learn something new, ask Becky or Steve

Steve and Becky Tipton 9491 X Road, Meriden, KS 66l512

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bstbees@gmail.com

Open Apiary:

Tipton Farm: 9491 X Road, Meriden

March 23 May 25 July 13

April 20 June 22 August 24 Sept. 21

(Weather conditions permitting)

Topic: 1st inspections, evaluating the colony, reversing the boxes

***MUST notify Becky before attending

RSVP—bstbees@gmail.com

785-484-3710

785-554-1591 (text)

***MUST wear protective veil. (we have veils you can borrow)



