Introduction to Beekeeping

January 14, 2023

Brown County Beekeeping Association

Sponsors - Thank You!

Welcome

Videos

- President Welcome
- First Year Beekeeper
- Bee Biology

Housekeeping

- Restrooms
- Breaks
- Questions
- Lunch
- Silence Phone

Today

- Equipment/Hive Location
- Ordering Bees
- Installing Bees
- Bee Swarms
- Mite Management
- Hive Inspections
- Fall/Winter Prep (if time permits)

Additional Resources

www.browncountybeekeepers.com/bcbahandouts

Available to download

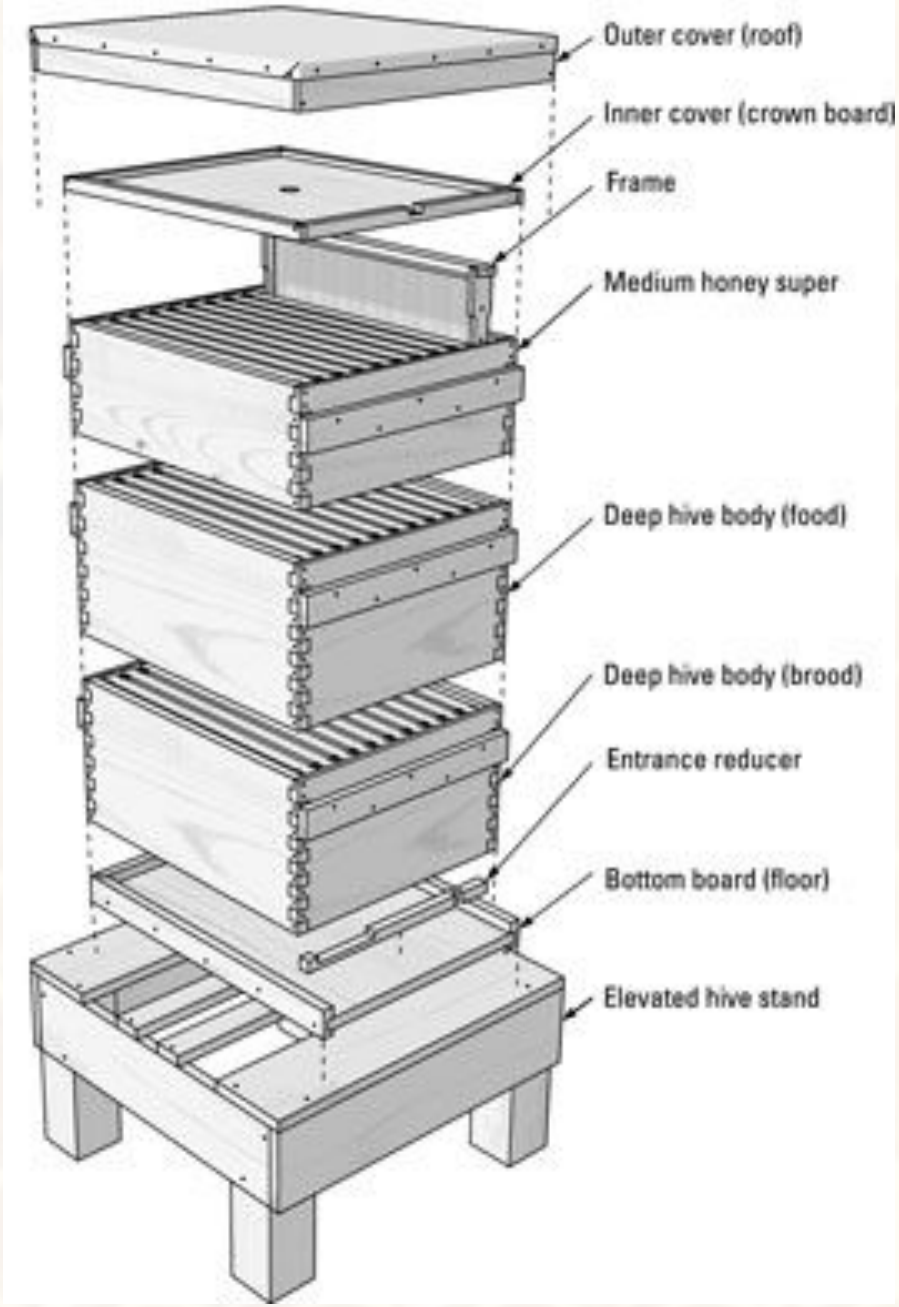
- First Year FAQ's
- Month by Month
- Recommended Books
- Presentation
- Bee Breeds

Equipment

Chris Groth

The Langstroth Hive

- Most commonly used
- Named for its developer, Rev. Langstroth (1853)
- Can be 8 or 10 frame wide
- Highly customizable vertical configuration
- Easy to use
- Excellent choice for beginners



Standard hive components:

1. Hive stand
2. Bottom board
3. Entrance reducer
4. Boxes for the brood chamber
5. Boxes for honey supers
6. Frames and foundation
7. Inner cover
8. Telescoping cover with metal top
9. Queen excluder (optional-not shown)

The number of boxes varies throughout the year as the bee population changes and nectar flows start and finish.

Hive Stands

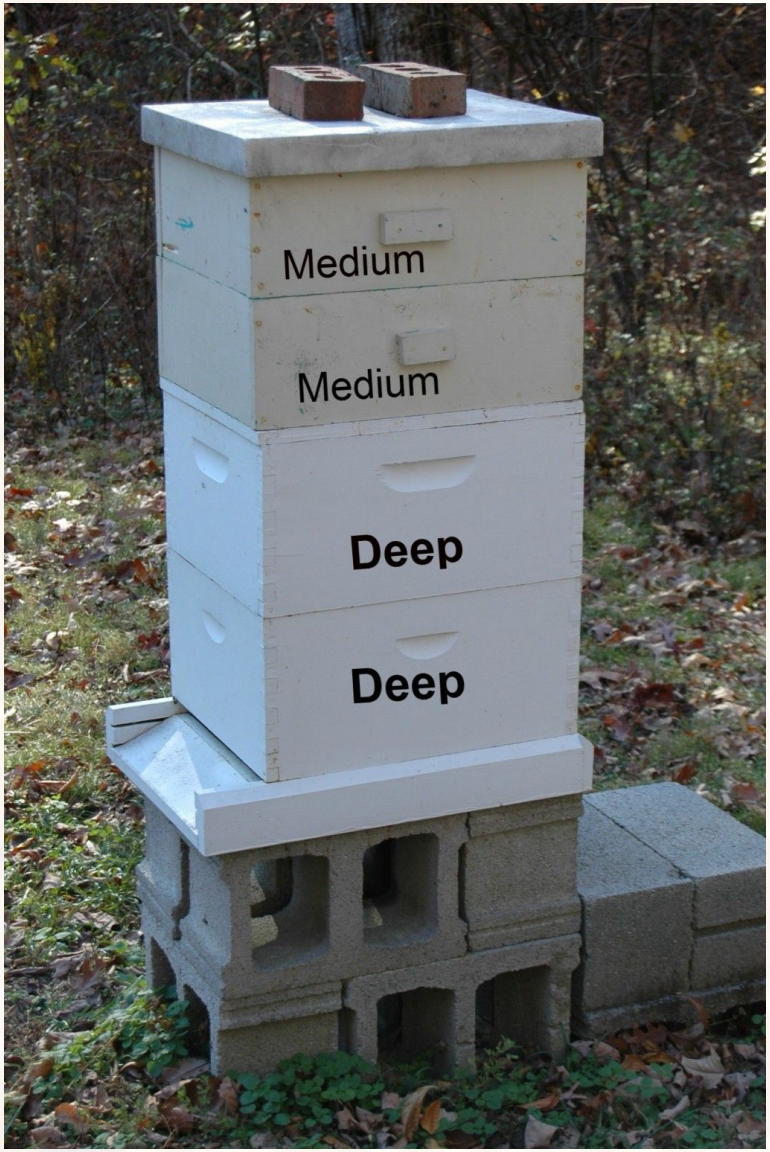
Hive Bodies

Name	Depth (inch)	Weight w/Honey
Deep	9 ⅝	80 pounds
Medium	6 ⅝	50 pounds
Shallow	5 11/16	40 pounds

Not Recommended

What are?

- Boxes
- Supers
- Honey Super
- Brood Chamber

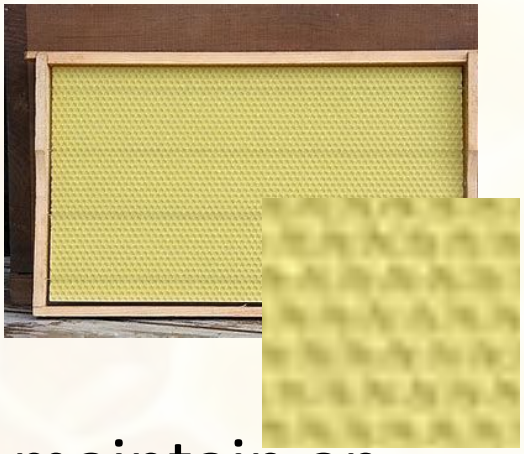


Thanks to:
https://dengarden.com/gardening/Beehives-A-Guide-To-Choosing-the-Right-Size-Boxes

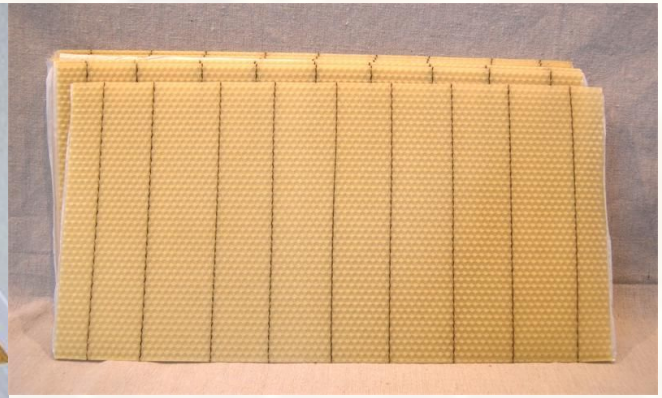
Frames

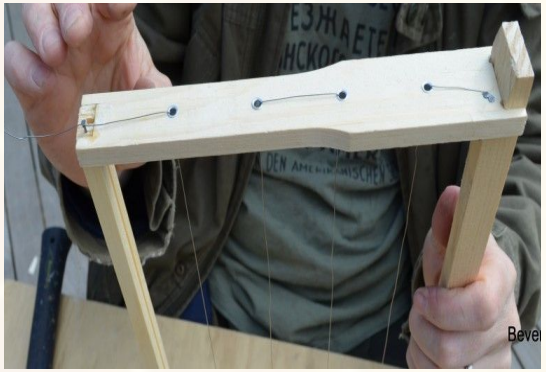
- Removable guides you *hope* bees build nice comb on.
- Built to maintain appropriate “bee space”
- May contain foundation (recommended)

Foundation



- Influences where and how bees build comb
- Imprinted with hexagons-helping bees maintain an even pattern
- Plastic foundation (Recommended for beginners)
- Wax foundation





Basic Tools

- **Protective Gear**: *Required.* Duh, stings.
- **Smoker:** *Required.* Calms bees while working with them.
- **Hive tool:** *Required.* Allows you to pry boxes apart and assist in freeing frames to be removed from the hive. This is a handy item for scraping and removing burr comb.
- **Mite Kit:** *Required.* To determine mite levels.
- **Feeders:** *Optional but highly recommended.* Feeding new bees get them off to a strong start.
- **Frame rest:** *Optional.* Keeps 1-3 frames outside the hive body during inspections.

Additional Tools

- Flashlight
- First aid, including Benadryl, EpiPen if allergic
- Magnifying glass
- Notebook and pen

Personal Protection

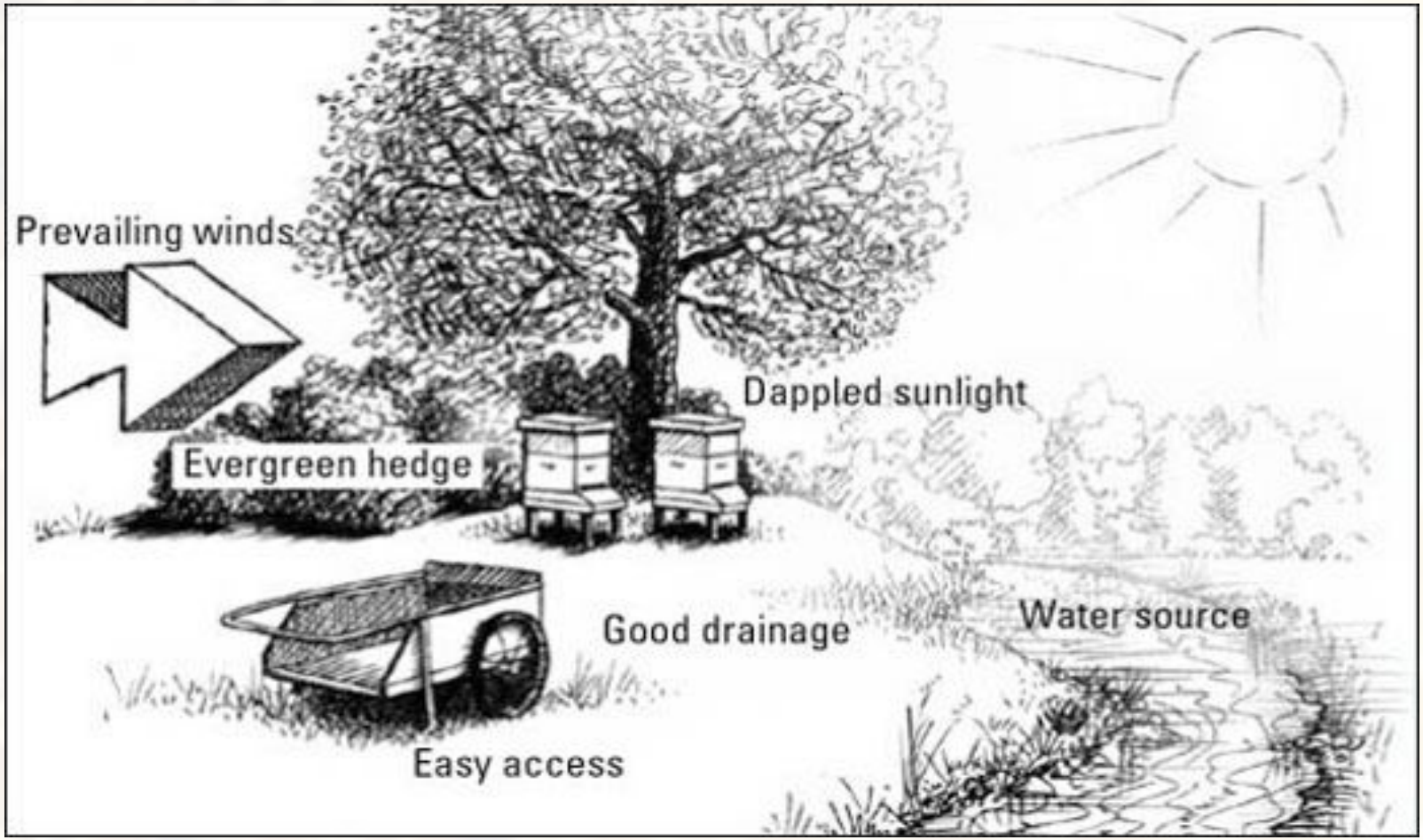
Equipment Costs

Langstroth hive • Two deep supers • Medium honey super • Bottom board • Inner cover • Outer cover	$250 to $500
Thirty **frames** with foundation	$100
Smoker and Hive Tool	$25
Bee Suit with Gloves	$125
Total	$500 to $750

Hive Location

Chris Groth

Where to put your hive



Adapted From: Beekeeping For Dummies

Where to put your hive

Location

- South facing is optimal - early morning wake-up to start foraging and warmth in winter
- Shade in PM - so the hive doesn't overheat in summer
- Access to water - needed to make honey and cool the hive
- Good air ventilation - so the hive doesn't get damp
- Wind block - man-made or natural, helps survive the winter

Where to put your hive

Bee Needs

- No obstruction in front of hive - bees like to exit and fly up
- Slight lean to the front - so rainwater can drain out
- Pollen and nectar sources - for honey production
- Level side to side - bees don't care but could hurt honey production

Human Needs

- Accessible by vehicle or cart - honey and equipment are heavy
- Permission - check local ordinances and neighbors
- Accessible from the back of hive - best to work from the back of hive
- Weeds and mowing - keep the hive weed free and trimmed

Break

10 minutes

Ordering and Installing Bees

Types or Races of Bees
Package vs Nucs
How / When to Order

Dick Sturm

Types or Races of Bees

Western or European Honey Bee

Apis Mellifera

- **Not native to North America**
- **Brought to New England in 1622**
- **Took 231 years to reach the West Coast**

Italians

Pros:

- Most popular in North America
- Very docile and calm on the comb, great choice for beginners
- Large population - more honey

Cons:

- Tendency to drift
- Tendency to rob

Carniolans

Pros:

- Not inclined to robbing or drifting
- Docile - calm on comb
- Economical in food consumption
- Overwinter in smaller clusters
- Expands the colony rapidly in spring

Cons:

- More likely to swarm
- Produces less honey than Italians

Buckfast

Pros:

- High honey producers
- Good foragers
- Low inclination to swarm
- Low inclination to sting*
- Cold hardy
- High tracheal mite tolerance

Cons:

- *Open mating produces future generations that are likely to be aggressive
- Continued need to purchase Buckfast queens

Russian

Pros:

- Resistant to Varroa and tracheal mites
- Brood rearing only during flow times
- Not aggressive*
- Low in honey consumption
- Overwinter well
- Maintains queen cells all season long

Cons:

- Tends to swarm often
- Expensive
- *Open mating produces aggressive bees

Local Open Mated - (Mutts)

Pros:

- **Well adapted to the local environment**
- **Overwinters well**
- **Acceptable honey producers**

Cons:

- **Unknown traits for aggression**
- **May need requeening for undesirable traits**

Getting Your Bees

- Ordering
- Packages
- Nucs
- Installation (will be demonstrated at a later date)

So what do you want to order?

Ordering Bees - Order EARLY!

Who to Order From?

- What is the seller's reputation?
- What if bees don't come in as schedule? Can you get a refund?
- What if queen is dead?
- When last treated?
- What availability do they have?
- When must you order by?

Pre-Work:

- **Ensure equipment and site is ready**
- **Have supplies available to prepare 1 to 1 Sugar Syrup**
- **Put on entrance reducer**
- **Have a plan for varroa mite testing, treatment and control**

Pickup Day

- Generally pick up in person. Some have a mail option
- Might need bee suit at pickup. A mesh laundry bag is helpful
- Bees are livestock! Hot vehicles and excessive movement can be detrimental!

Package of Bees

- A screened container to provide ventilation for the bees
- Includes:
  - A can of sugar syrup as a food supply during transportation
  - Has a mated queen inside a queen cage.
  - Bee package is usually 2 or 3 pounds
  - Cost generally $120 - $200

Package Advantages

- More adult bees than a nuc
- No brood diseases
- Replacements easier to obtained
- 2 or 3 lb. units most common, with or without queens

Package Disadvantages

- Queen stressed, could be injured
- No eggs/brood until queen starts to lay
- Must be fed to draw comb
- Could have pests
- More care and time to install

Nucleus Hives

- Small Box containing frames of brood in all stages of development, a laying queen, and some honey and pollen stores.
- Cost $175 - $230

Nuc Advantages

- Includes all ages of bees and brood and their own queen
- A NUC will grow faster than a package
- Easier to Install

Nuc Disadvantages

- Old equipment could harbor disease
- Comb could be old, need replacing
- Equipment may be of different types, sizes
- Queen could be old or of poor quality
- Higher potential for mites and small hive beetles

Installing Bees

Dick Sturm

Installing the Package into the Hive

Recap of a package bees

2-3lbs of worker bees with a newly mated queen not introduced to the colony.

Pros:

Most Economical - Shipper is not supplying frames of comb

Less spread of pests & diseases - no comb is involved

Readily available – earlier than nucs & can be mailed

Cons:

Slower to build up - Queen needs to be accepted, No eggs/brood until queen lays, Need to be feed to drawn comb & more time to install

One package is 3lbs or about 10,000 bees

Installing the Package into the Hive

3lb. Package of bees

~10,000 worker bees

Metal can with 50% sugar syrup

Queen with 2-3 attendees bees

Installing the Package into the Hive

Materials Needed

1. Spray bottle of 1:1 sugar to water

2. Supplemental feeding to provide food for package (1:1) sugar syrup

3. Hive Tool

4. Entrance reducer

Installing the Package into the Hive

Prep the Packaged Bee Cage and Brood Box

Remove 2-3 Frames from Brood Box for working room and gap. Install entrance reducer.

Remove the cover over the hole in the top of the package cage.

Installing the Package into the Hive

Continue to Prep the Packaged Bee Cage

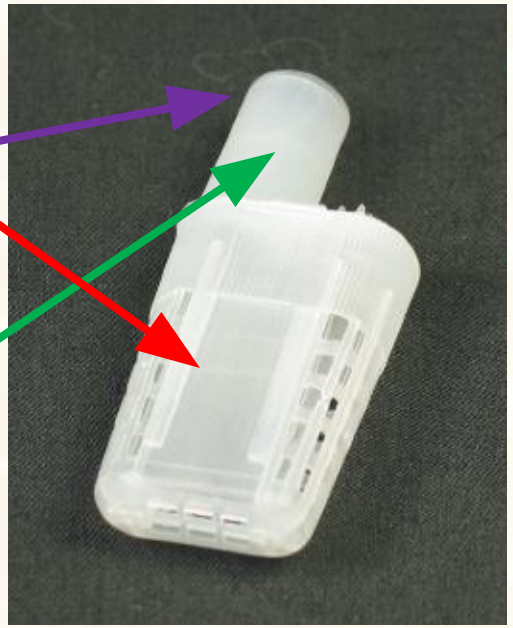
- Spray the package with sugar water only if outside temperature is above 55 degrees.
- One shake to cause the bees to fall to the bottom of the cage.
- Remove the syrup can and queen cage from the package and cover opening.

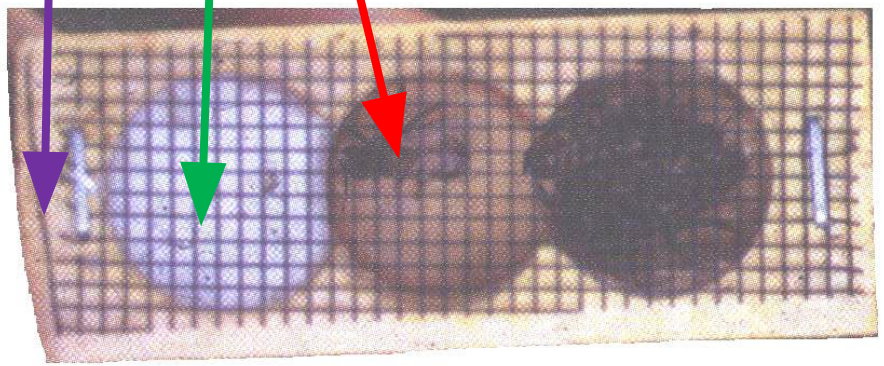
The wings of a honey bee carry the insect through the air at 15 miles per hour

Installing the Package into the Hive

Prep the Queen Cage

- Check the queen cage to make sure your queen is alive and well.
- Find the white candy end blocking the queen escape hole.
- Remove the cork, cap, or metal cover from the candy end of the queen cage.
- If no candy is in place, insert a piece of marshmallow.
- Poke Hole in Candy

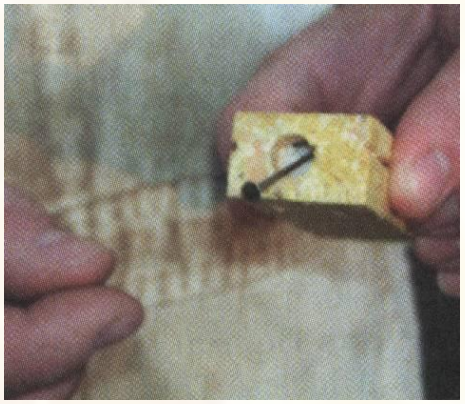




Installing the Package into the Hive

Prep the Queen Cage and Brood Box

- Place or hang the queen cage between two frames in the middle
- **Candy side up**
- The **bees must become acquainted with the queen before she is released** *(bees will eat through the candy in order to release her once she is accepted)*. This can take several days.
- Come back in a few days to ensure the queen is released. If still in cage, release her.



It will take about 45 days for the new population of bees to exceed the original package population.

Installing the Package into the Hive

Release the Packaged Bees into Brood Box

- Remove cover from package
- Shake bees over gap in Brood Box
- Replace frames – gently
- Install inner cover and telescoping cover.
- Feed 1-1 Syrup for 3-4 weeks.

Honey Bee is the only insect that produces food eaten by man

Installing the Nuc

Recap of a Nuc

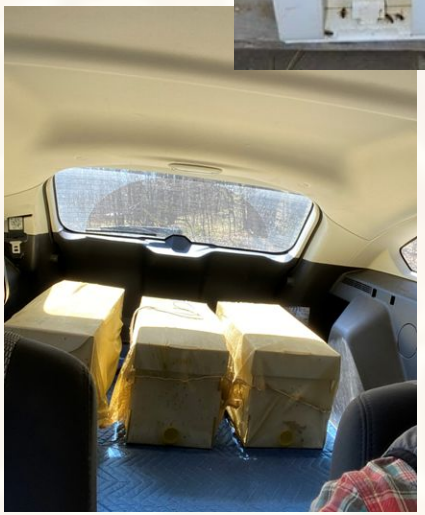
A “nuc” is short for nucleus colony. This is a colony of bees that is relatively small in comparison to a larger production hive.

Pros:

Faster Build Up - Already an established hive. Laying queen, bees in various stages of development & resources.

Availability – Arrives later in spring.

Installation - Easy



Cons:

Greater chance of pests & diseases – Old comb & equipment. Could carry mites.

Cost – Approximately $50 more than a package.

Equipment: May not fit your hive.

Installing the Nuc

- Place entrance reducer on hive opening
- Open nuc hive and gently smoke your bees.
- Transfer frames of bees in the same order as in the nuc
- Feed the bees until the bees have drawn out all the frames of foundation.

Smoker vs Sugar Water Spray

Installing the Nuc

Ready For TAKEOFF!!

Sponsor Presentation

Hansen Honey

Hive Inspection

Chris Groth

You have the perfect location ……

You have your bees installed….

NOW WHAT?

Why Monitor Your Hives

Integrated Pest Management (IPM)

Inspecting / Monitoring the Hive

Inspection - Rules of Thumb

When to inspect

- Sunny, warm, and wind free days - 65 to 95 degrees
- Mid-day is best - when bees are out foraging

Inspect from the back or side of the hive

- Standing in front prevents foragers from returning
- Irritates the bees

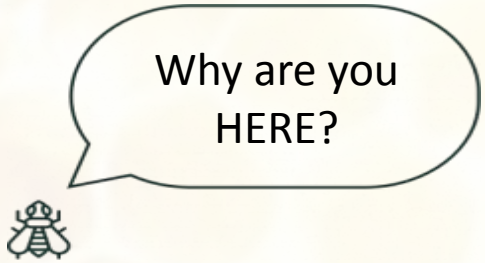
Frequency

- Monitor periodically
- Usually every 7 to 14 days

Understand what should be happening

- By time of year
- Based on weather conditions

For each inspection



Create a plan-know what you want to accomplish

Prepare before opening the hive-have tools and equipment ready, clean, and accessible

Lite the smoker-helps to calm the bees

Keep records-it's hard to remember week to week / year to year

WHAT SHOULD YOU LOOK FOR?

In a nutshell

1. How well is the **QUEEN** doing? Is she strong and laying nicely? Are they trying to replace her? Or planning to swarm? Is she ALIVE?
2. Do they have the **NUTRITION** they need? Do they look healthy - (from eggs to larvae to bees).
3. Are there any signs of **PESTS/DISEASE**? do you need to treat for mites or other diseases

Examine Your Hive from the outside first…..

What do you notice??

For example:

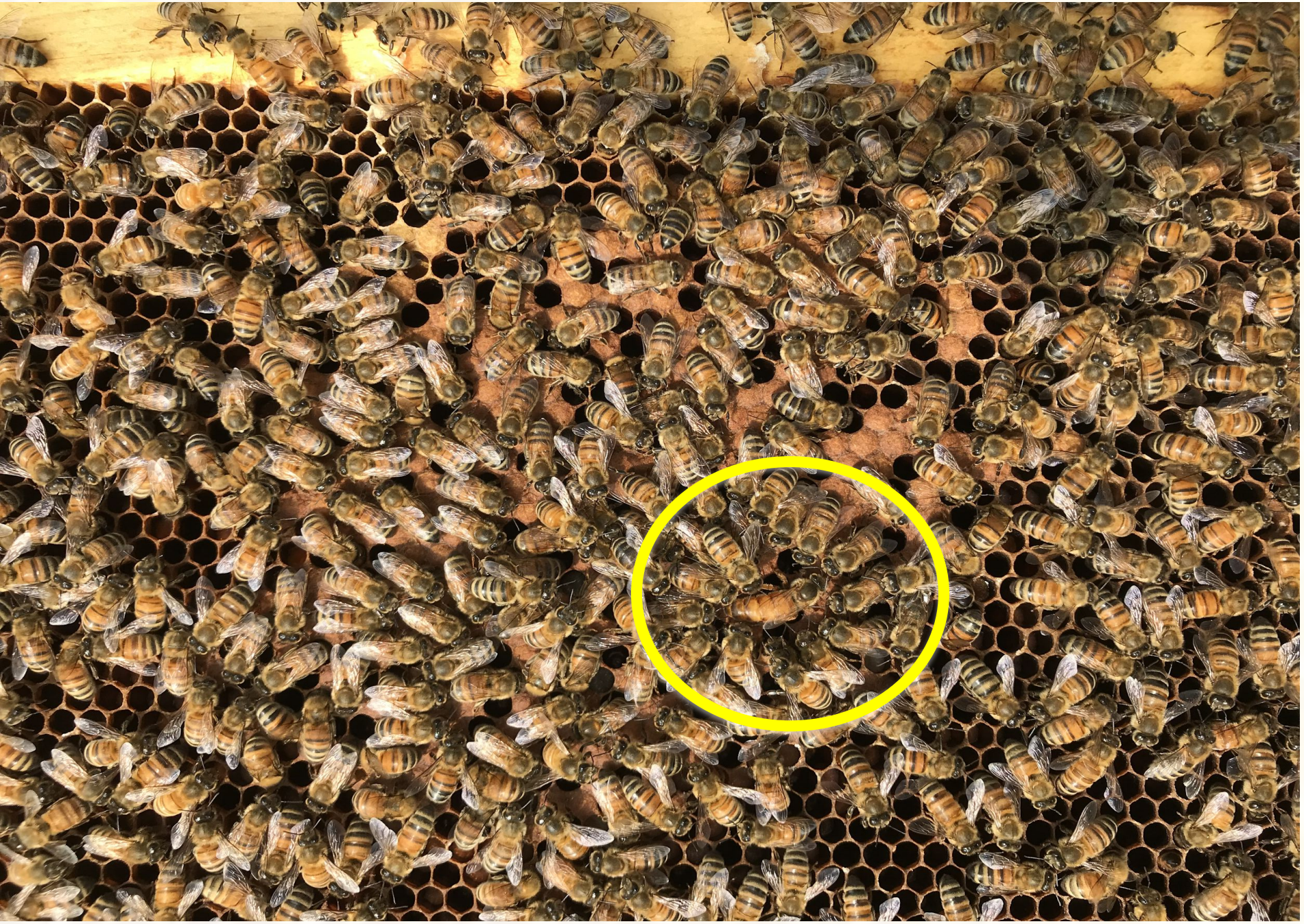
- Are the bees bringing in lots of pollen?
- What do you hear?
- What is the activity at the entrance look like?
- Crawling, hopping, twitching
- Is there a lot of bee excrement on or around the hive?

Opening the hive…
Inspection - What to look for

- What do you see when you look down at your frames?
    - How many frames of bees do you see? A strong hive will usually have bees on the top of t frames and/or packed between.
- Are they storing nectar and pollen like they should? Plenty of food?

Pull frame 1, 2 inspect and remove, slide frame 3, inspect and slide over.

FRAME 5 (AUGUST)



CONTINUING THE INSPECTION:

- Is there a QUEEN in the hive? OR are there signs of her?
  - Eggs, larvae, capped and uncapped brood?

- How many frames of brood?
  - Healthy hives will have lots of nurse bees covering brood
  - How does the larvae look? they should be swimming in royal jelly.
  - What does the brood pattern look like? it should be solid, in the center of the frames.

Larvae should be pearly white and curled into a C shape. They should be swimming in royal jelly, light cream colored.

Dry larvae are suffering from malnutrition or disease and show colony stress.

This frame from a medium brood chamber is close to ideal.

Honey and pollen is stored at the top of the frame

Capped brood fills much of the rest of the frame.

CONTINUING THE INSPECTION:

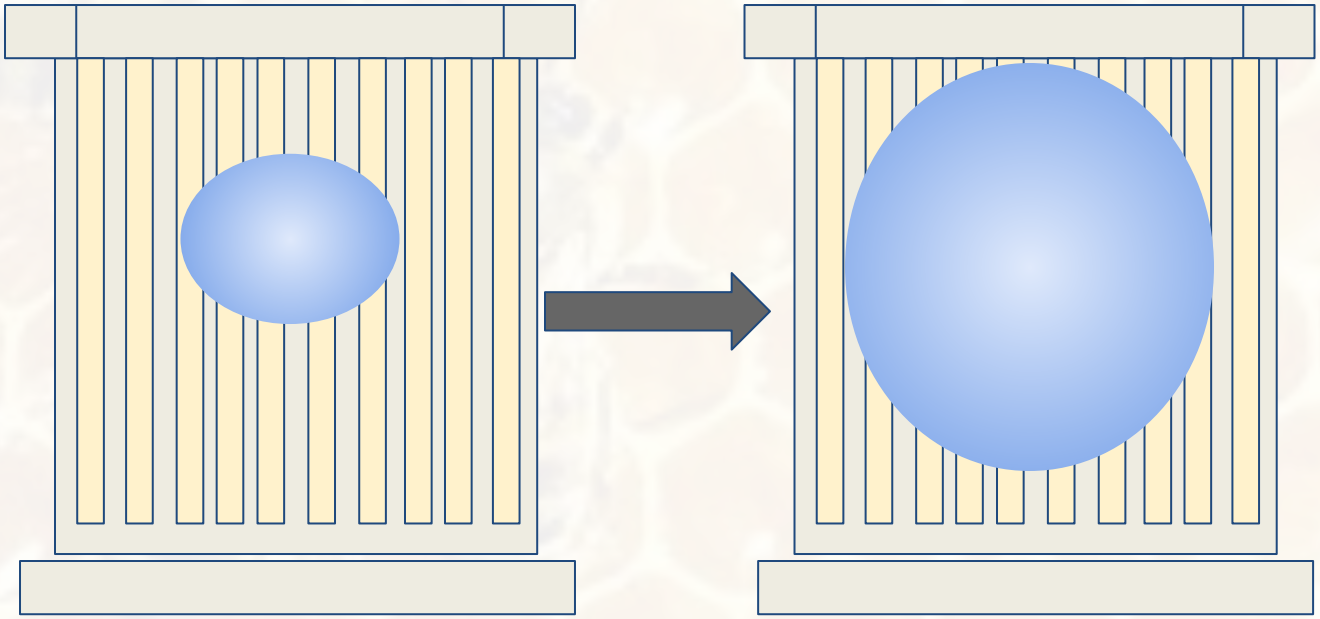
- Are there signs of OVERCROWDING? If bees need more space to perform normal functions, they will have a tendency to **SWARM**.
  - Add another deep, medium or honey super

<u>Note</u>: consider addition equipment to have on hand

MANAGING BOXES

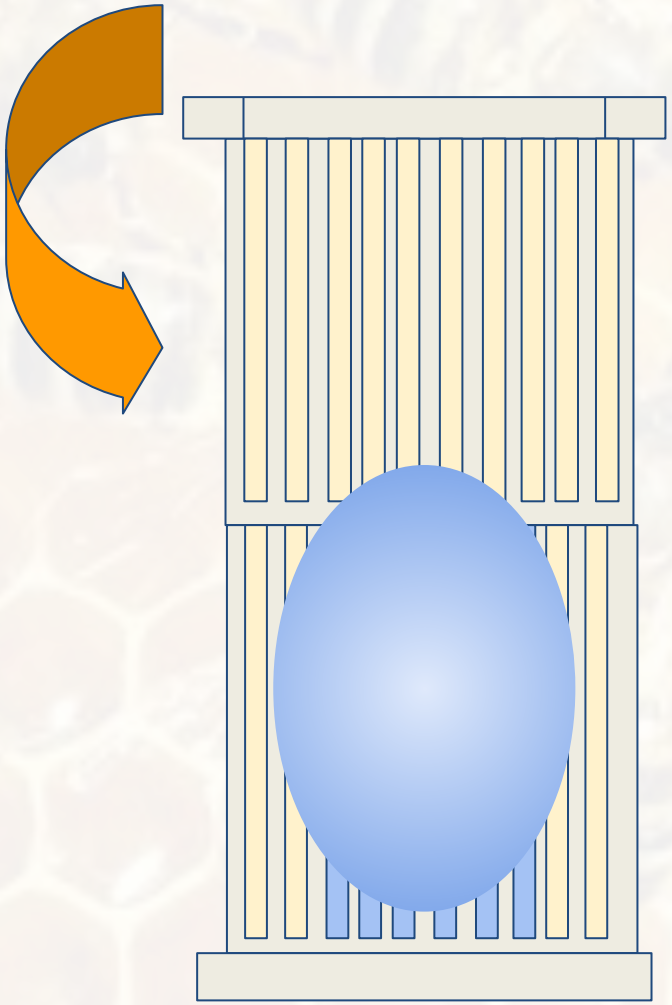
Small cluster of bees-
4 to 5 frames no issues

Large cluster of bees-
7 to 8 frames **time to add a box to give more space**



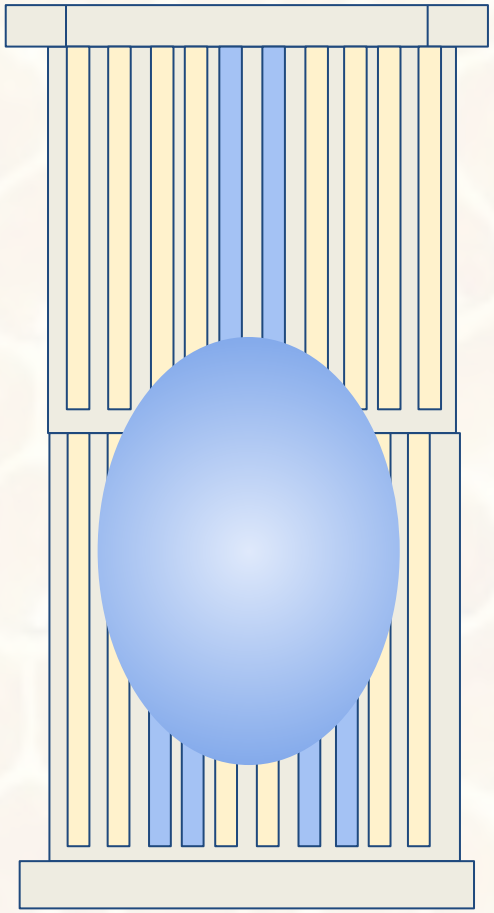
MANAGING BOXES

ADD ANOTHER brood chamber /deep



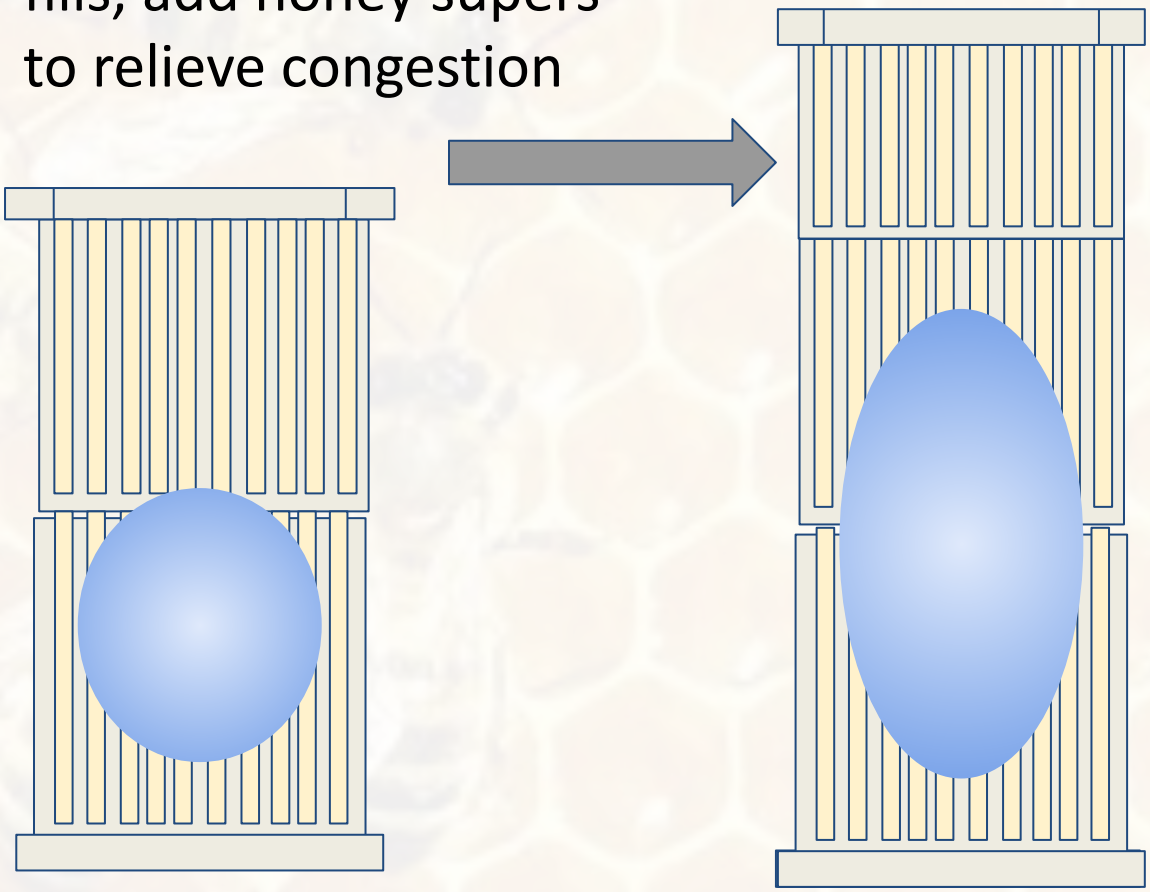
OR

ADD ANOTHER brood chamber AND pull a few brood frames up to encourage bees to move up for more space below and above



MANAGING BOXES

as brood chambers
fills, add honey supers
to relieve congestion



CONTINUING THE INSPECTION:

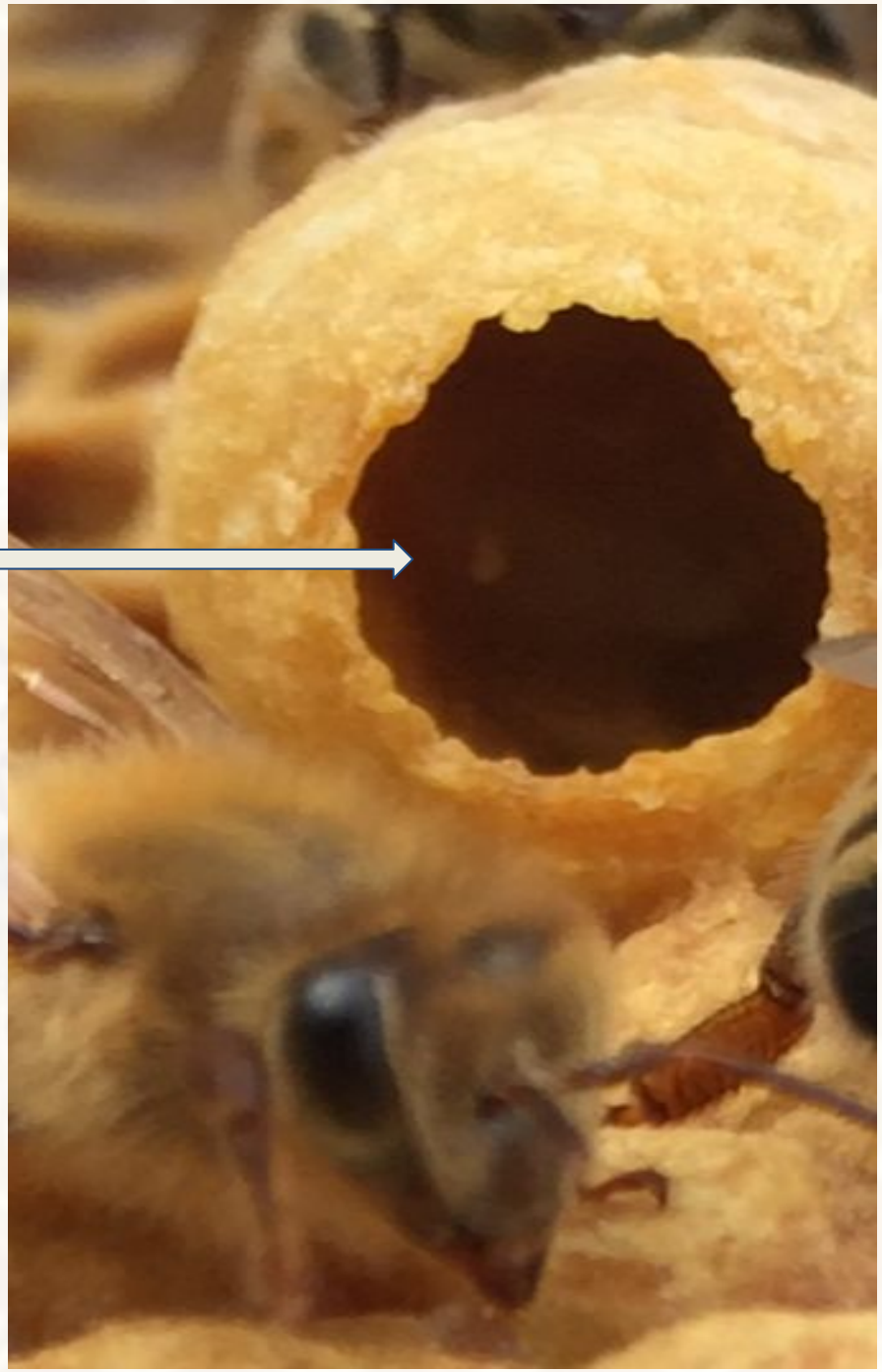
- Are there QUEEN CELLS
  a sign they are preparing to swarm - also called "SWARM CELLS"
- Are there SUPERSEDURE cells (queen cells)? a sign of an ill, aging or missing queen

quick NOTE: Queen CUPS vs Queen CELLS

QUEEN CUPS are normal - peek in to check to see if there is are eggs or royal jelly, but don't be alarmed.

EGG

NEW QUEEN Cell



Stings Happen

Honey bees:

- Do not want to sting
- In general, are not aggressive
- Sting as a form of defense
- Die after stinging

Prevention:

- Be gentle and respectful
- Be methodical and avoid crushing bees
- Know why you are going into the hive
- Wear protective veil and clothing
- Use a smoker – disguises emergency pheromones and causes the bees to go into the hive and gorge on honey

When Stings Happen:

- Remove stinger
- Have Benadryl available

If your bees are happily going about their business, they are less likely to be concerned with you.

Fall and Winter

Wayne Steigelman

Fall Feeding

***Next year's beekeeping season starts in August**

Begin after removing honey supers (mid-August)

Feed 1 x 1 (sugar/water) to stimulate queen to lay

Feed 2 x 1 (sugar/water) until mid-September

Feeding later may result in uncapped honey

- Potential moisture issue

Note : Bees will not take sugar water after temp in hive is below 52 degrees

Get Ready for Winter

- Healthy Bees
  - Active Mite Management

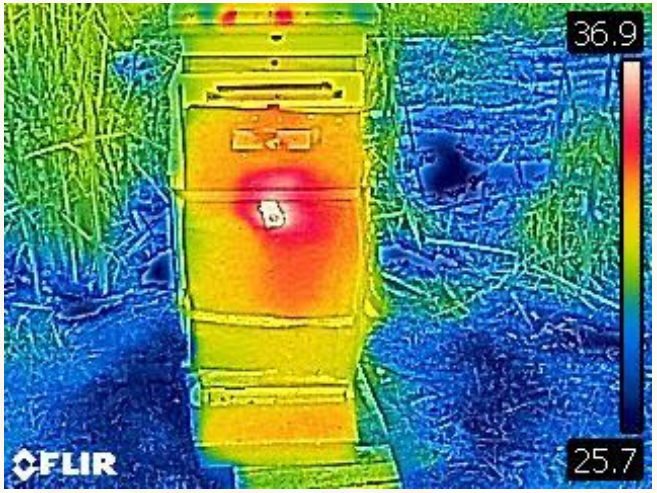
    Pgm to Reduce mite load
- Resources
  - Honey (100-120#s)
  - Pollen
- Young Queen
  - 3 year old queen, might not make it
- Take Your Losses in the Fall. Combine weak hives!
- Install Mouse Guards
- Remove Queen Excluder

Get Ready for Winter

- Keep Hive Dry / Tilt Forward
- Add Insulated Top Cover and Optionally Insulate or Wrap Hive
- Create a Wind Block
- Add an Upper Entrance?

Winter

- Periodically Check Hive and Monitor Resources
- Keep entrance free from snow
- Winter Feeding



Education

Jamie Ellis was asked about upper entrances for overwintering bees in ABJ. With his limited experience in cold weather beekeeping he referred readers to his Two Bees In A Podcast S1 E50 Insulating Honey Bee Colonies. In this episode, released on March 18th, 2021, Bill Hesbach, discusses over-wintering and insulating honey bee colonies. Take away point, if you don't insulate, ventilate but if you insulate, don't ventilate.

Lunch

60 minutes

Mite Management

Julie Mazzoleni

Varroa Destructor

Varroa Mites

Most significant single driver of colony losses world wide.

- Parasite that feed off of Honey Bee fat bodies
  - *"fat bodies": nutrient rich organ in all insects that contain lipids and protein. Summer bees have few fat bodies, winter bees are heavy in fat bodies, it's what will sustain them for 6 or more months.*
- Transfer viruses
- Diminish the immune system
- Reduces tolerance to pesticides
- Impair pupal lifespan

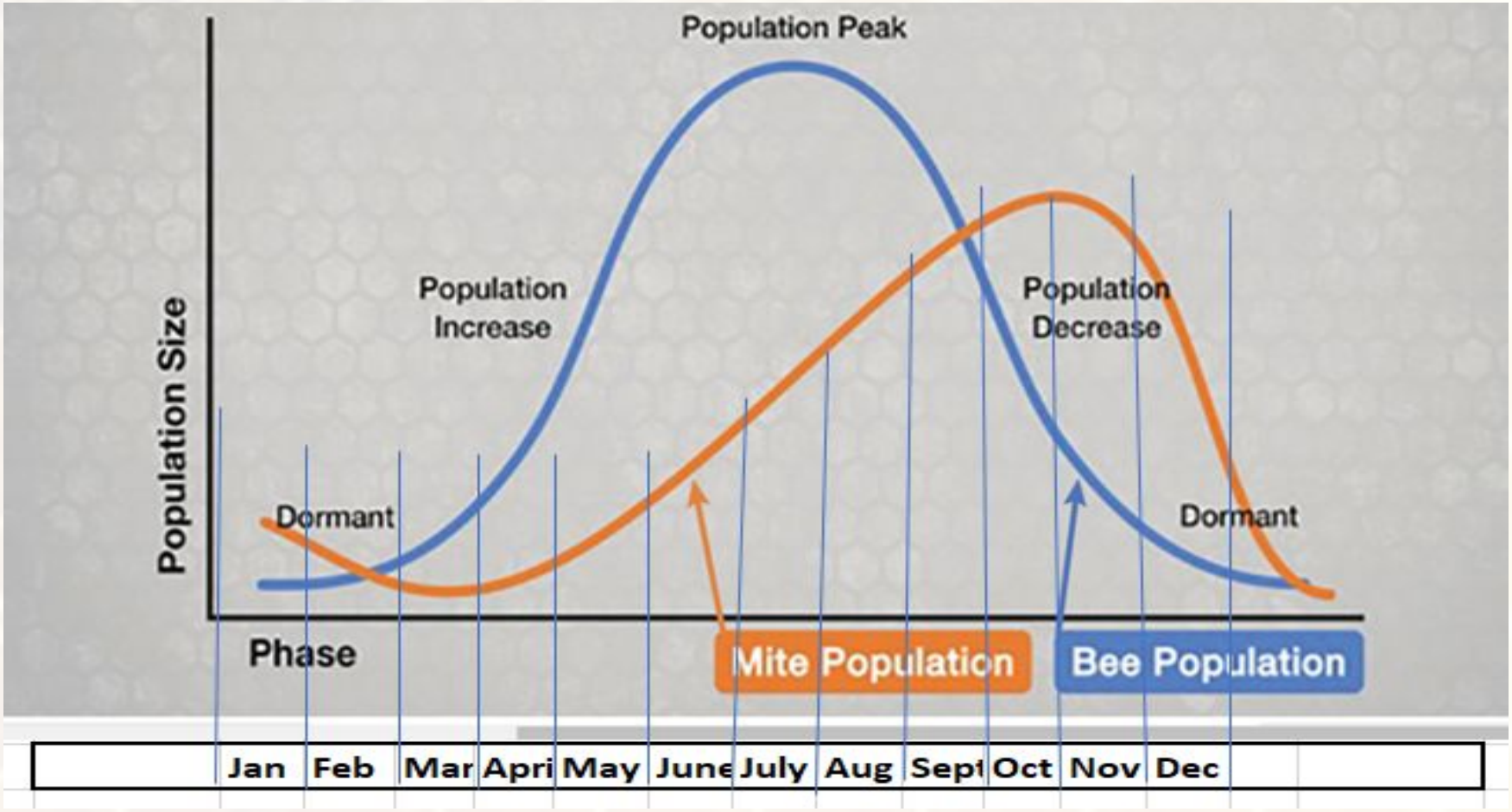
SICK BEES

When to check:

- EARLY spring in overwintered hives until late fall

Randy Oliver

Honeybee population phases



Approximate timing - depends on weather, queen, bee heath, nutrition etc

ITS CRITICAL TO HAVE A MITE MANAGEMENT PROGRAM

Effective mite control will reduce your colony loss and reduce the spread of infectious diseases.

Effective mite control will give you healthy bees that have a fighting chance to make it through the winter

Mite Check

Watch Sugar Roll Video - Minnesota Bee Lab

What's in the Mite Check Kit?

- White plastic tub.
- Powdered sugar. 3-4 tablespoons/jar.
- Mason Jar with 8 mesh on lid. (#8 mesh screen)
- ½ cup measuring cup.
- White paper plate.
- Spray bottle/water

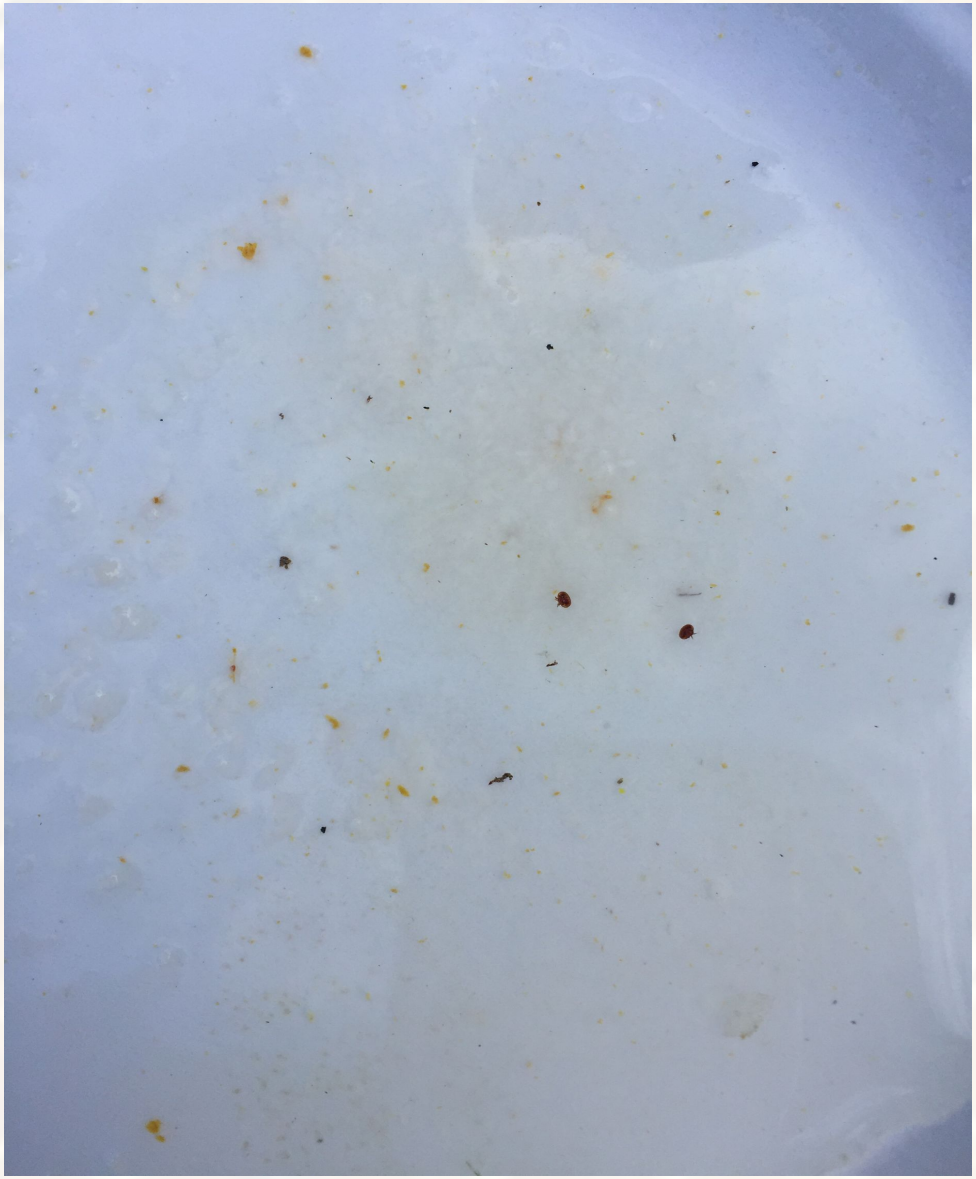
MITE CHECK

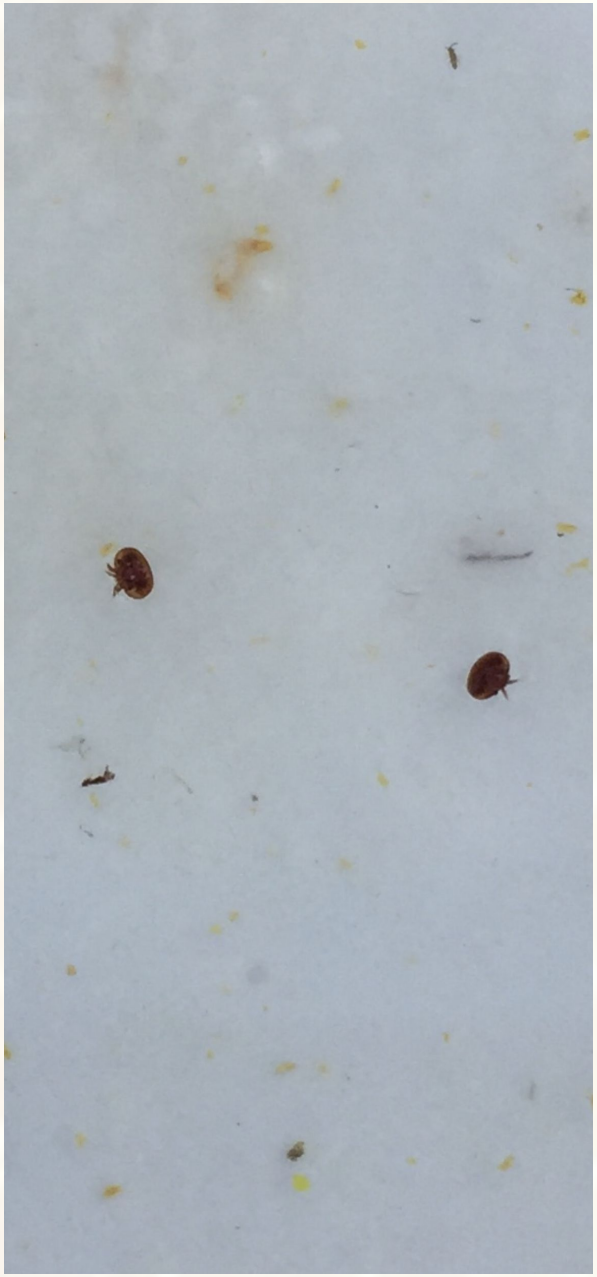
½ cup of bees is approximately 300 bees

2-3 mites per 100 bees is “acceptable”

IMPORTANT NOTE: time of year and amount of brood frames matter !

Mites reproduce under brood caps, more brood equals possibility of more mites.



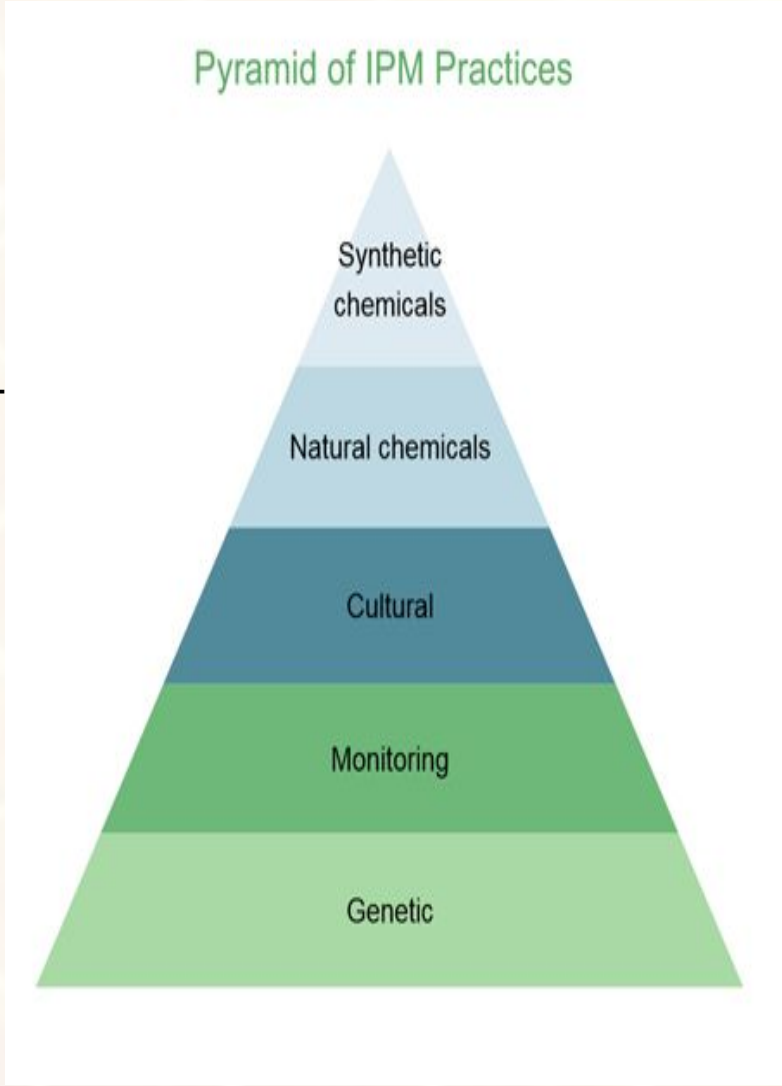


Managing mites

Apivar – amitraz
Others

Apiguard -Thymol – essential oil
Api Life Va -Thymol, eucalyptus oil, menthol –
MAQS – Formic Acid – organic acid
Formic Pro – Formic acid -65%
Hopeguard – Hopes Beta acid – Organic acid
Oxalic Acid -Oxalic acid dehydrate

Drone removal
Screen bottom board
Requeening/brood breaks
Swarming



ALWAYS READ LABELS and FOLLOW INSTRUCTIONS

Some treatments can not be used with honey supers on

Some treatments will not penetrate brood cell caps

Some treatments should only used within specific temperature zones

Wisconsin treatment & disease guide

https://datcp.wi.gov/Documents/TreatmentOptions.pdf

2022 Wisconsin Honey Bee Pest Management Options

The application instructions listed below are only short summaries. **Read the product label thoroughly before applying any treatments and follow label instructions precisely.** The pesticide label is the law. Any listed medications require a Veterinary Feed Directive (VFD) Order or a prescription from a veterinarian. This list may not be complete, and is subject to change. Information in this document does not imply endorsement by the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP), and is provided strictly as an additional resource for honey bee pest management.

Name of Pest	Registered Treatment (Active Ingredient)	Registration Number	Applications	App. Season & Temps.
Varroa mite *Varroa* — Synthetic chemicals	***Apistan** (Tau-fluvalinate)	*EPA Reg. No. 2724-406-79671*	*6-8 weeks, apply in spring and fall. No more than 2 strips per brood box. Do NOT use when honey supers are in place, see label.*	*spring, fall; temps >50°F*
	***CheckMite+** (Coumaphos)	*EPA Reg. No. 11556-138*	*6 week – 45 days, max., apply in spring and fall. Do NOT leave the strips in hive for more than 45 days. Do NOT treat more 2 times per year. Only 2 strips per brood box. Treat all infested colonies within the yard. Can be used during honey flow, see label.*	*spring, fall*
	***Widespread resistance of Varroa mites to above products. NOT recommended for Varroa mite control in Wisconsin.**			
	Apivar Strips (Amitraz)	*EPA Reg. No. 87243-1*	Use 2 strips per brood box (or 1 strip per 5 frames of bees), hang each in bee cluster with 2 frames between strips. Leave strips inside hive for 42-56 days, max., then remove. 2 treatments per year, max. Can be used as part of an Integrated Pest Management (IPM) program. **Remove strips 2 weeks before honey flow. Do NOT use when honey supers are in place, see label.**	spring, fall
Organic acids	**HopGuard III** (Hop Beta Acids Resin)	*EPA Reg. No. 83623-2*	Use 2 strips per brood box (or 1 strip per 5 frames covered with bees). Unfold strips and hang over a center brood frame with 1/2 of the strip on each side of the frame. Leave the strips in the hive for 14 - 30 days, max. Use up to 4 times per year. *Can also be used in packages, see label.* Can be used as part of an IPM program. **Can be used during honey flow, see label.**	spring, summer, fall; temps >50°F
	Formic Pro (Formic Acid)	*EPA Reg. No. 75710-3*	Use 2 strips (staggered) for 14 days *(allow a minimum of 1 month between applications)*; –**OR**– 1st strip for 10 days, remove and replace with 2nd strip for additional 10 days. Lay flat across the top of lower brood box. Do NOT disturb hive. Close screen bottom board, open entrance fully. Can be used as part of an IPM program. **Can be used during honey flow, see label**.	spring, summer, fall; temps 50°F-85°F
	Mite Away Quick Strip (MAQS) (Formic Acid)	*EPA Reg. No. 75710-2*	Place 2 strips (staggered) on top of the bottom brood box for 7 days (*allow a min. of 1 month between applications)*; –**OR**– Apply 1st strip on day 1, then apply 2nd strip on day 14, for a total of 21 days. Do NOT disturb hive. Close screen bottom board, open entrance fully. Can be used as part of an IPM program. **Can be used during honey flow, see label.**	spring, summer, fall; temps 50°F-85°F

Additional Resources

https://pollinators.msu.edu/keep-bees-alive/

Meghan Milbrath – 3 videos on monitoring
Several links about Integrated Pest Management

https://honeybeehealthcoalition.org/

Best management practices for bee health

www.scientificbeekeeping.com

Randy Oliver - First year beekeeper section

Swarms

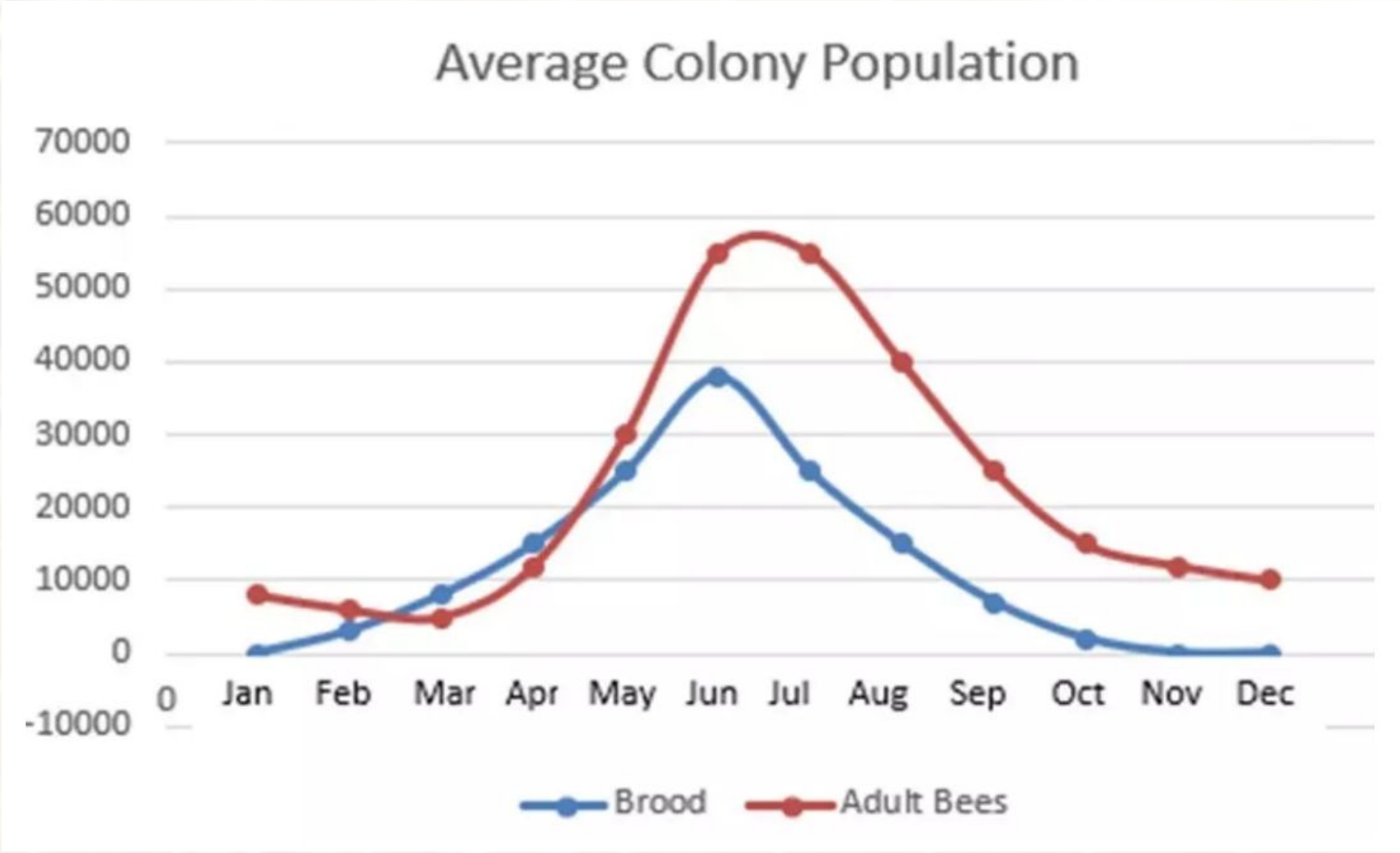
Julie Mazzoleni

SWARMS

Normal, natural and healthy reproduction of a honey bee hive. Colony-level reproduction vs individual honey bee. It’s an important part of the colony life cycle. It's how bees procreate.

One colony splits into two colonies (or more).

“The number of honey bee colonies in the environment grows as new queens in parent colonies mate with drones in the area”. Dr. Jamie Ellis


Average Colony Population
70000
60000
50000
40000
30000
20000
10000
0
-10000
0
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Brood
Adult Bees

SWARMS

Part of any proper HIVE MANAGEMENT PRACTICE - a responsible beekeeper will monitor and control swarming the best they can. The way to control it, is to understand it.

Three reasons a colony will decide to SWARM

1. Reproductive swarm
2. Overcrowding
3. Absconding (technically not a swarm)

OVERCROWDING

BIOLOGY

- Number of bees in a colony can build quickly. Monitoring is critical to avoid congestion in the hive.
- Workers run out of space to place nectar and pollen and the queen competes for space to lay her eggs.
- When the queen lays an egg in a queen cup and the QUEEN CELL grows, the process of swarming begins throughout the entire hive.
- ***Once the process has begun, it is very difficult to stop.***

What to do

- Monitor frequently
- Watch for backfilling
- Watch for full frames of brood
- Add boxes to expand the nest and create the space needed.

REPRODUCTIVE SWARM

BIOLOGY

-Strong colonies, especially overwintered colonies, will want to swarm in the early spring - just before the principle nectar flow (watch for dandelion blooms).

-Tendency to swarm:

-Hives with old queens

-Hives with large cluster size

-Hive experiencing rapid growth due to feeding very early spring (pollen)

What to do

- Monitor hives closely, overwintered colonies especially 2-3 weeks before the major nectar flow.
- Watch for full frames of brood and activity around queen cups (frosting)
- Move full frames of brood to weaker hives.
- Manually split the hive - (the bees will believe they've swarmed and you've controlled the process).

Swarm Biology

1. The colony decides to swarm – collectively

2. Queen Lays an egg in a specifically designed elongated cell called a queen CUP. Once there is an egg in a queen cup, it's considered a QUEEN CELL. These cells are vertical vs horizontal

3. Larvae is fed a special food called royal jelly and the cell(s) is capped after about 8 days.

4. The queen begins to lose weight so she will be able to fly. Egg laying also slows down considerably.

Swarm Biology

5. Worker bees begin to gorge themselves in preparation to leave the hive. Foraging slows.

6. Just before the new queens emerge, *the existing queen and about half of the bees in the colony leave the hive* in search of a new home. **THEY SWARM**.

7. The first queen to hatch the parent hive, will kill all other queens also emerging or still in queen cells.

We now have **NEW VIRGIN QUEEN** in the parent hive! And two colonies, each approximately half the size of the original one, living in different locations

Why do we care if our bees swarm?

1. Everything slows down as they prepare to swarm, and then you lose ½ of your most productive bees.

   (16 days to hatch, mature, mating flt, mature, begin laying about 37 days…)
2. The queen may not survive the mating flight - its a risk.
3. There is only a short window in WI for bees to prepare for winter. You want to give them the best shot at survival.
4. Nucs cost about $150.00+ - why let them leave?
5. Your neighbors will not appreciate swarms in their yard or bees finding their way into house cavities.
6. UNMANAGED hives will spread varroa to your MANAGED hives. You spread mite bombs to your own hives and neighboring hives.

New Queen -just returned from mating flight
May 1

Same queen
8 days later
“she is laying”

Meghan Milbrath - Michigan State University

“ Honey bees are animals, and they deserve to be well fed, healthy, and free to live their life as a bee. When we keep honey bees in the United States, not only are we keeping them outside of their native range, but we are often asking them to live in places with a lot of environmental stress - not enough nutritious flowers, too much chemical exposures, and pressure from disease that are new to them.

As beekeepers, our job is to make sure that our bees are not to stressed, so our colonies can live healthy lives, and go about their business of being bees!”

Wrap up / Questions

Thank You For Attending
and
Investing in Bee Education

Next Session:
May 20, 2023
At-The-Hive
Green Bay Botanical Gardens

Sponsors - Thank You!