## The Beekeeper's Year

A Month by Month Field Guide

## January & February

•The winter solstice has passed

•The days start slowly lengthening

•This increase in daylight hours signals wildlife such as honeybees to start spring preparations

# January & February

#### What the bees are doing:

What the beekeeper is doing:

- Clustering for warmth
- Short cleansing flights to evacuate their bowels on sunny days
- Little to no brood in the hive at this time.
- Early pollen sources may be available but most of the time, the weather prevents the bees from foraging
- On the few warm days, bees may bringing in pollen.

- •Put your ear to the side of the hive and listen for the buzz of live bees
- Pop the lid and add a sugar cake if needed
- •Review your records:
- •Which genetic lines did best?
- Which lines consistently do well year after year?
- Make a plan to breed those lines
- •Plan which lines to cull
- •Set goals and make a plan for how to achieve it
- •How many hives do you want?
- •Build/prep equipment: frames, foundation, boxes: deeps-mediums-comb, bottoms, lids, hive stands

#### March

•We start seeing a lot more variability in the weather in March.

•There are lots of very cold nights (5-20 degrees), and some warm days over 60 degrees.

•Become a weather watcher and plan to peek in on warm days

•The first maples and elms bloom. Bees bring in lots of pollen. Crocuses & daffodils may bloom





# March

#### March

#### What the bees are doing:

- The bees are responding to the lengthening daylight hours and warmer temperatures by increasing brood production.
- Increase in the amount of honey and pollen they are eating.
- The bees may bringing in pollen on warm days when the trees bloom
- This stimulates them into further increase in activity
- A word about pollen substitutes
- The bees cluster during the cold days and nights but quickly become active on those days when the temperatures rise above 45 degrees or so.

#### What the beekeeper is doing:

- Feed hives as necessary
- Clean out dead outs and prep them for receiving splits in April
- Continue to build and repair equipment
- Prepare nuc boxes for splits and swarms.
- Preparing queen rearing frames
- Contact land owners for permission to put up bait hives
- Securing permission for new bee yard and pollination contracts







By Mid April the bee season can begin to move quickly, so it is good to be prepared

Although there are still cold snaps, the days and night are warmer on average











## April's Work

# April

#### What the bees are doing:

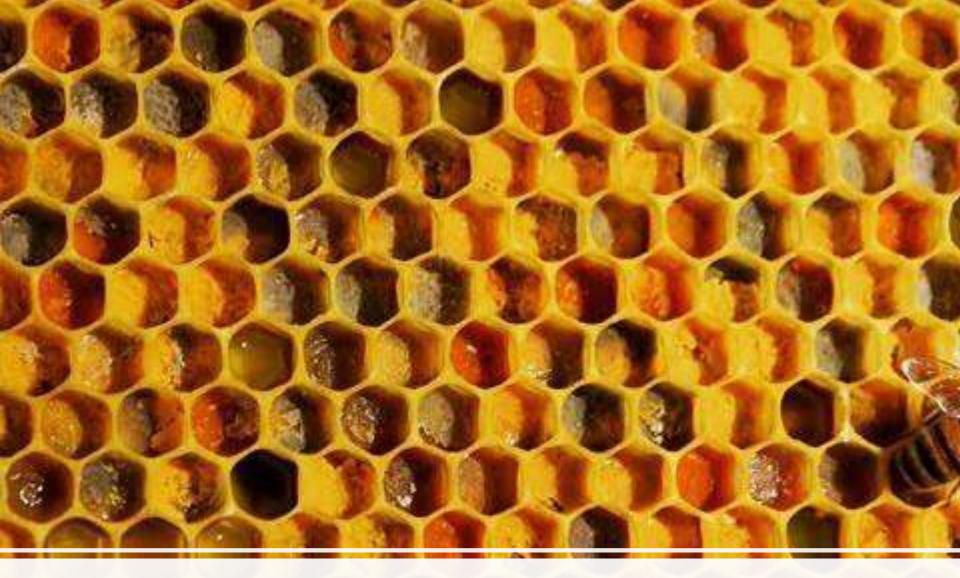
What the beekeeper is doing:

•Ramp up their activities and food consumption

- •Strong hives often starve in April, just when the winter seems over
- •May want to feed pollen substitute patties if there are extended cold snaps
- Bees working early nectar sourcesStart to rear big population
- •They need to start working 6 weeks ahead to achieve the maximum population numbers.
- Hives can quickly become cramped and the queen can run out of room to lay

#### Add feed

- If producing brood is a goal, you might add a pollen substitute patty
- •Remove the winter rim by mid-April
- •There is enough pollen and some nectar flowing that the bees don't need sugar blocks
- •Open the hive entrance at least half way, more if it is warmer
- Some hives may need to be reversed
- •Better to have enough frames and boxes prepped to handle the explosion of activity in April & May
- Have boxes/hives ready to receive splits and swarms in April if necessary, this will change year to year



#### A Word About Pollen

# May

•May is one of the busiest months for the bees and their beekeepers

•The weather gets consistently warm, but there are short cold snaps

•May and June are the biggest nectar flows of the year

•These two months represent about 80% of the bee's harvest for the year

# May Flowers





# May

# What the bees are doing:

# What the beekeeper is doing:

The bees will be working at full speed nowThey have been building their population steadily

- for the last 6 weeks in preparation for this time •They need to have the maximum workforce to take advantage of the main nectar flow in May and lune.
- •The queen is competing with the workers for empty cells
- •She wants to lay more eggs, they want to fill the cells with nectar so they can dehydrate it as honey
- •When they are using all available cells, they will want to swarm
- •They are raising brood, gathering nectar, building comb, and producing honey

- Rotate out old frames and replace with new foundation or starter strips
- Placement of these new frames is critical
- •Now is the time to get new comb drawn!
- •Use frame replacement to re-arrange the hive
- •Put Brood to the bottom, empty space above brood and to the edges. Create room for wax drawing and nectar storage
- •Expand the brood nest to reduce swarming tendencies.
- •Queen replacement as necessary , poor performers get requeened
- •Add comb honey boxes/frames on strong hives
- •Be prepared for rapid population expansion of Carniolans and Russians.
- •Start splitting and create a queen rearing schedule
- •Start queen rearing

#### June

- Biggest nectar gathering month of the year
- Everything seems to be in bloom
- Usually no more frost
- Day are getting very warm and long
- The bees are working so fast it is hard to keep up
- Peak swarm season, important time to check hives every 14 days



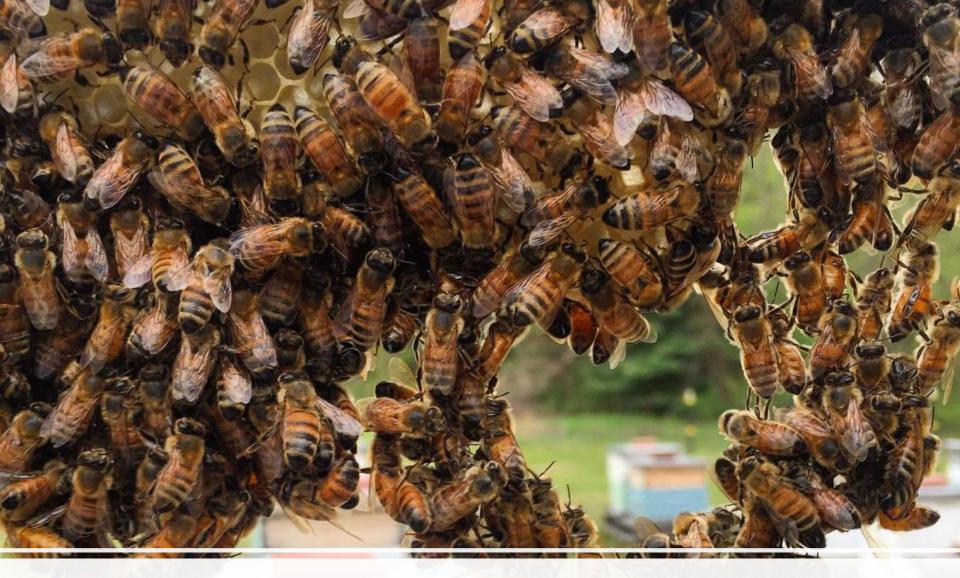
# A Word About Swarms

- <u>https://www.youtube.com/wat</u>
  <u>ch?v=ki-M0xtCZt4</u>
- <u>https://www.youtube.com/wat</u>
  <u>ch?v=DrsLKINhfll</u>
- <u>https://www.youtube.com/wat</u>
  <u>ch?v=X7UFQQ4ie2o</u>

# June

#### • What the bees are doing:

- Gathering nectar like mad
- Dehydrating the nectar, they need twice the space to spread it out and fan air over it
- Their populations peak by the end of the month
  - (part of why they swarm).
- The colony is at it's largest by the end of June
- Building comb, May and June are the peak of comb drawing
- Starts to taper off in late June and be done by July.
- Swarming: our swarm season lasts through June
- What the beekeeper is doing:
  - Add boxes
  - Add them early!
  - Make sure there is a lot of empty space in the hive
    - Lots of foundation/starter strips. Lots of empty comb.
  - Raising new queens and starting new colonies by splitting
  - Be careful not to split too much and hinder the colony's ability to harvest honey.
  - Replace poor performing queens to protect the genetic quality of the operation
  - Harvest the comb honey supers and early spring varietals.



#### May & June are optimal time for comb building



## Spot the Queen

July





## July

- Usually a dearth period
- Hives will beard to keep inside of hive coolevaporate moisture from nectar to produce honey

## Mites and Mite Counts

#### Sticky board mite count:

 https://www.youtube.com/wa tch?v=G6-480fMDVQ

#### **Alcohol Wash Mite Count:**

 https://www.youtube.com/wa tch?v=36oHVUl3INA



#### Treatment Options for the Fall & Winter Seasons

Oxalic Acid Dribble

Oxalic Acid Vapor

Formic Acid





- Wrap up queen rearing
- Ensure hives have plenty of room to store fall honey crop
- Prepare a plan for honey harvest
- Conduct mite counts
- Treat as necessary
- Assess hive health and make a fall management plan

# September

- Combine hives
- Feed sugar syrup 2:1 as necessary
- Take action on mite counts and health assessment
- Harvest honey from fall flow







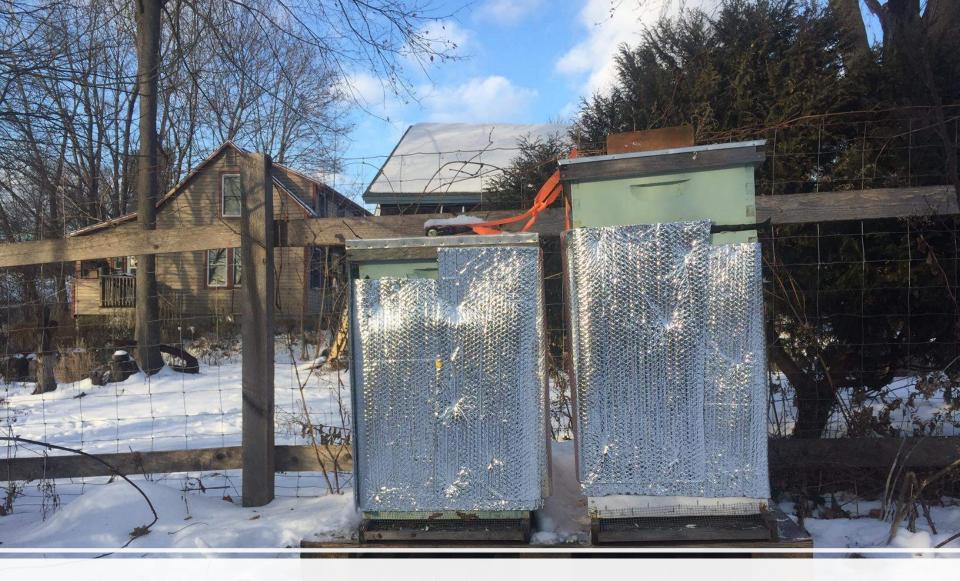






### October

- Bees are preparing for winter, slow brood production
- It is best to disturb them as little as possible
- Do not conduct full inspections
- Install winter rims and quilts
- FEED
- Finish honey extraction
- A word on Oxalic Acid and it's applications



## November

# December

## Rest Relax Reflect & Prepare





Winter is a great time to create or change systems, and learn new skills



# Resources



WicWac Press, Lawrence John Connor



Nucleus Hive Orders 2019 https://angelaroell.com/nucleus-hive-order-form-2018-19/



Online Course at UMass Amherst https://onlinesustfoodfarm.com/beekeeping/



Instagram @yardbirdsbees



Yard Birds Farm Website http://yardbirdsfarm.com/

### Upcoming Class with NOFA MA

#### **Register Here**

https://www.nofamass.org /events/natural-beekeepin g-angela-r%C3%B6ell

### NATURAL BEEKEEPING



#### April 28, 9am-5pm

#### Springfield, MA, TBD

In this full-day seminar you will gain a strong foundation in organic beekeeping practices. Participants will learn bee anatomy, social structure, and nutritional needs. The afternoon will include time for exploring equipment needs and planning all you need to integrate beekeeping into your practice.

Angela Röell is an experiential educator and beekeeper who owns Yard Birds Farm & Apiary a beekeeping business and small farm based in Montague, MA

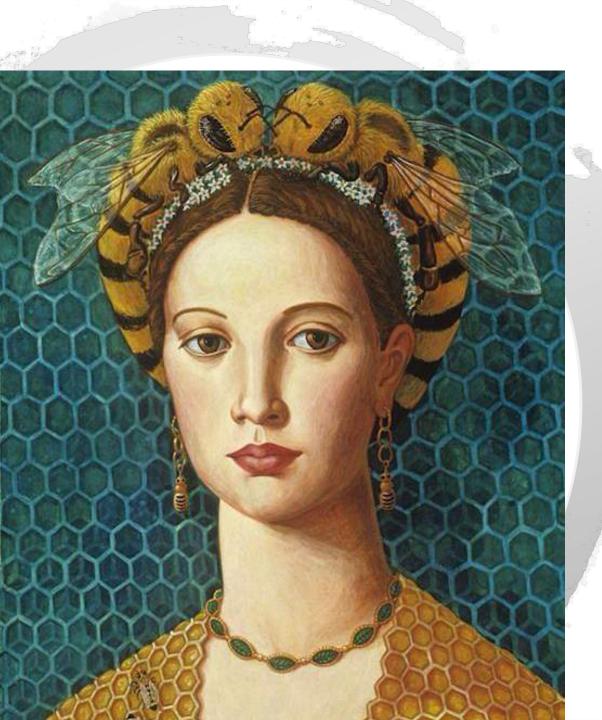




MORE INFORMATION & REGISTRATION: NOFAMASS.ORG/EVENTS

QUESTIONS: DOUG@NOFAMASS.ORG





# Questions?

