



Sunshine Hill
FARM LLC

Sunshine Hill Farm, LLC

Wax and Wonky Comb | EAS 2026



Mid-Summer through Fall

Caring for colonies as summer turns to fall

Managing honeybees from the summer solstice to the winter cluster



15+ year hobbyist beekeeper – 15 to 20 hives

EAS Master Beekeeper

Past President – NWNJBA

Day Job > IT ADMINISTRATOR, Paper Strategies

Beekeeping Podcaster

Managed Mentoring Program for Getting Started in Beekeeping

INTRODUCTION
– Kevin Inglin

Our Home Yard

Note

- ❑ **This presentation is available for download**

<https://www.bkcorner.org>

- *Search for presentations, it will appear in the search results*



**THE FOUR
QUARTERS**

**SUMMER
SOLSTICE**

**MITE
MONITORING**

**TREATMENT
OPTIONS**

**SUMMER
STRETCH**

FALL EQUINOX
September 21



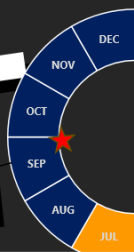
**SUMMER
REVIEW**

FALL EQUINOX
September 21



**FALL
REVERSAL**

FALL EQUINOX
September 21



**FINISHING
FALL**

**BONUS
ITEMS**

THE FOUR QUARTERS

QUICK **SHOW OF HANDS**... WHICH SIDE ARE YOU ON?

NEW BEEKEEPER

ARE YOU A NEW BEEKEEPER?

New Beekeepers, *ask questions*
If there are things you don't know
I will stop and elaborate!

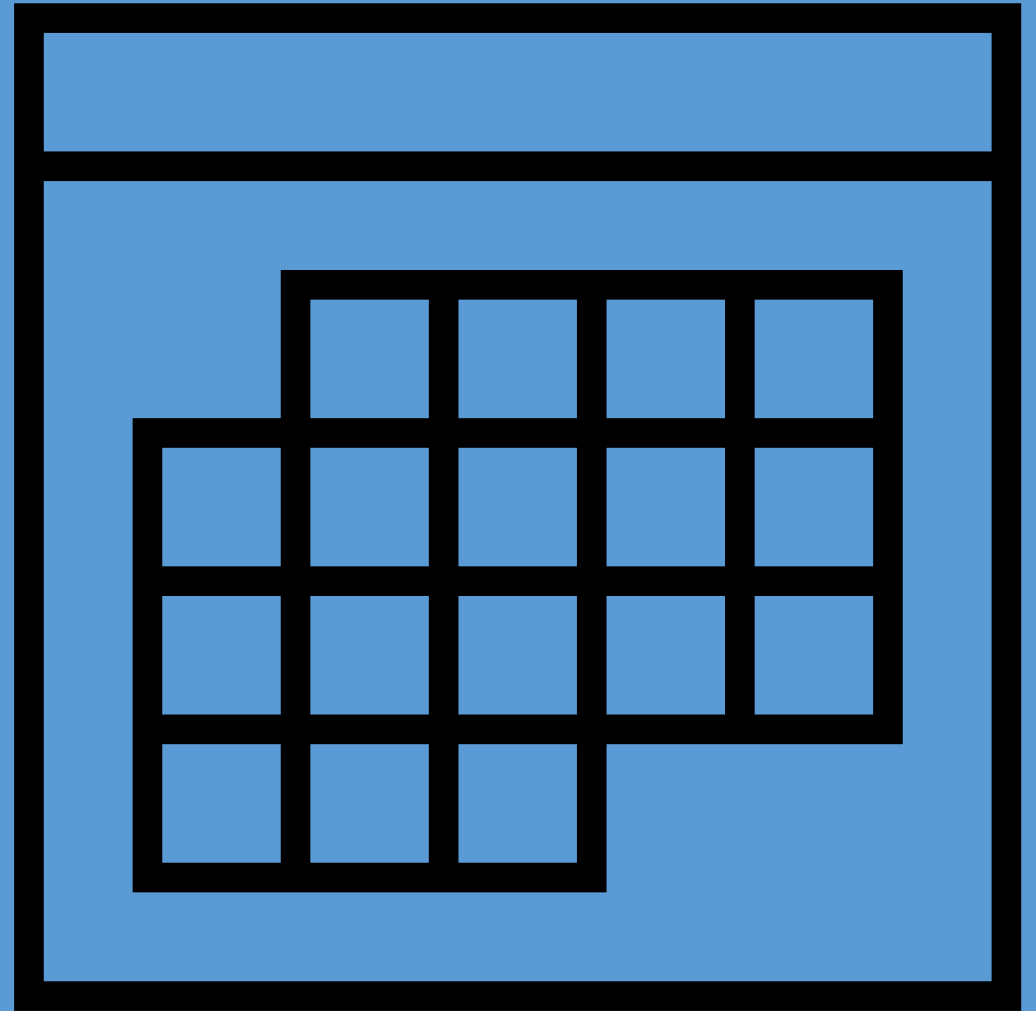
ARE YOU EXPERIENCED?

EXPERIENCED

FOLLOWING the calendar

As Beekeepers some of us practice our beekeeping management, **and think of bee activity**, by mapping what goes on to a calendar

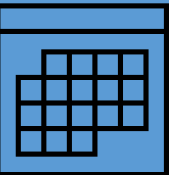
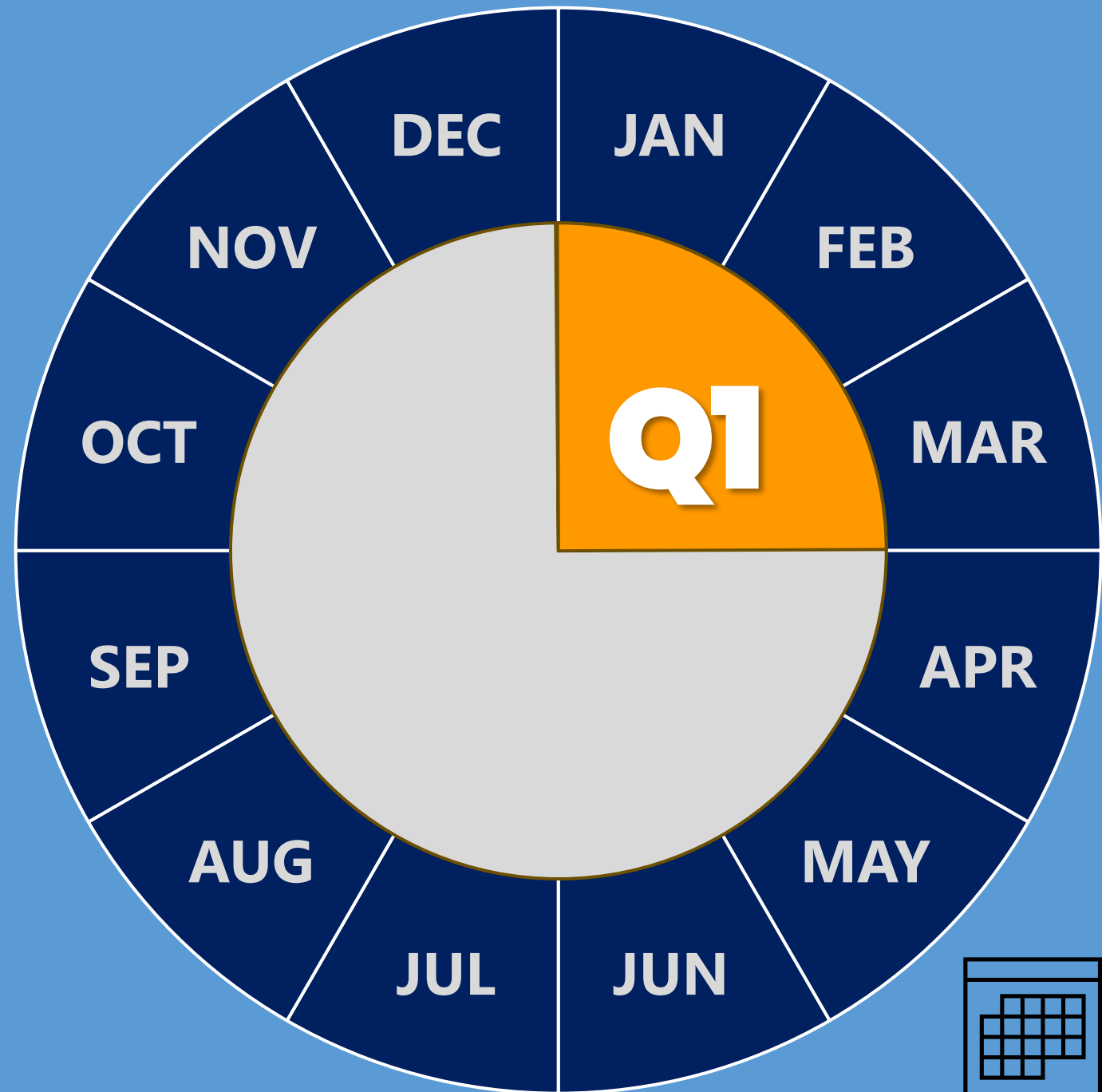
Beekeeping somewhat maps to the quarters of the year



QUARTERLY Progression

□ Quarter One

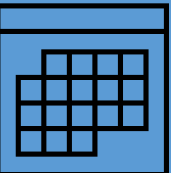
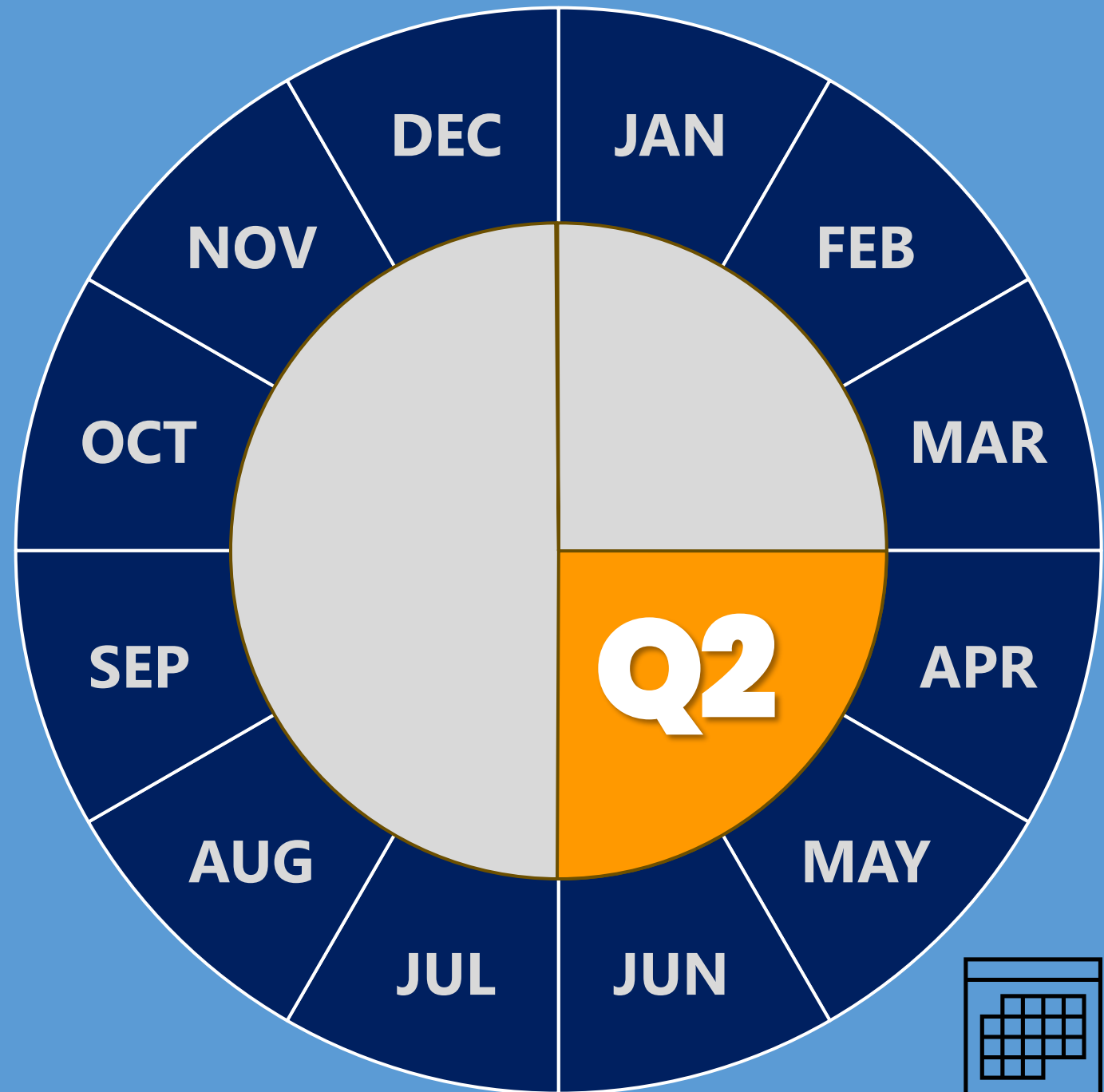
- Bees coming out of winter
- Brood rearing begins
- Drones are made
- Early plants bloom
- Nectar flow is ramping up
- Varroa mites are minimal



QUARTERLY Progression

□ Quarter Two

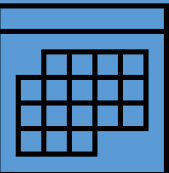
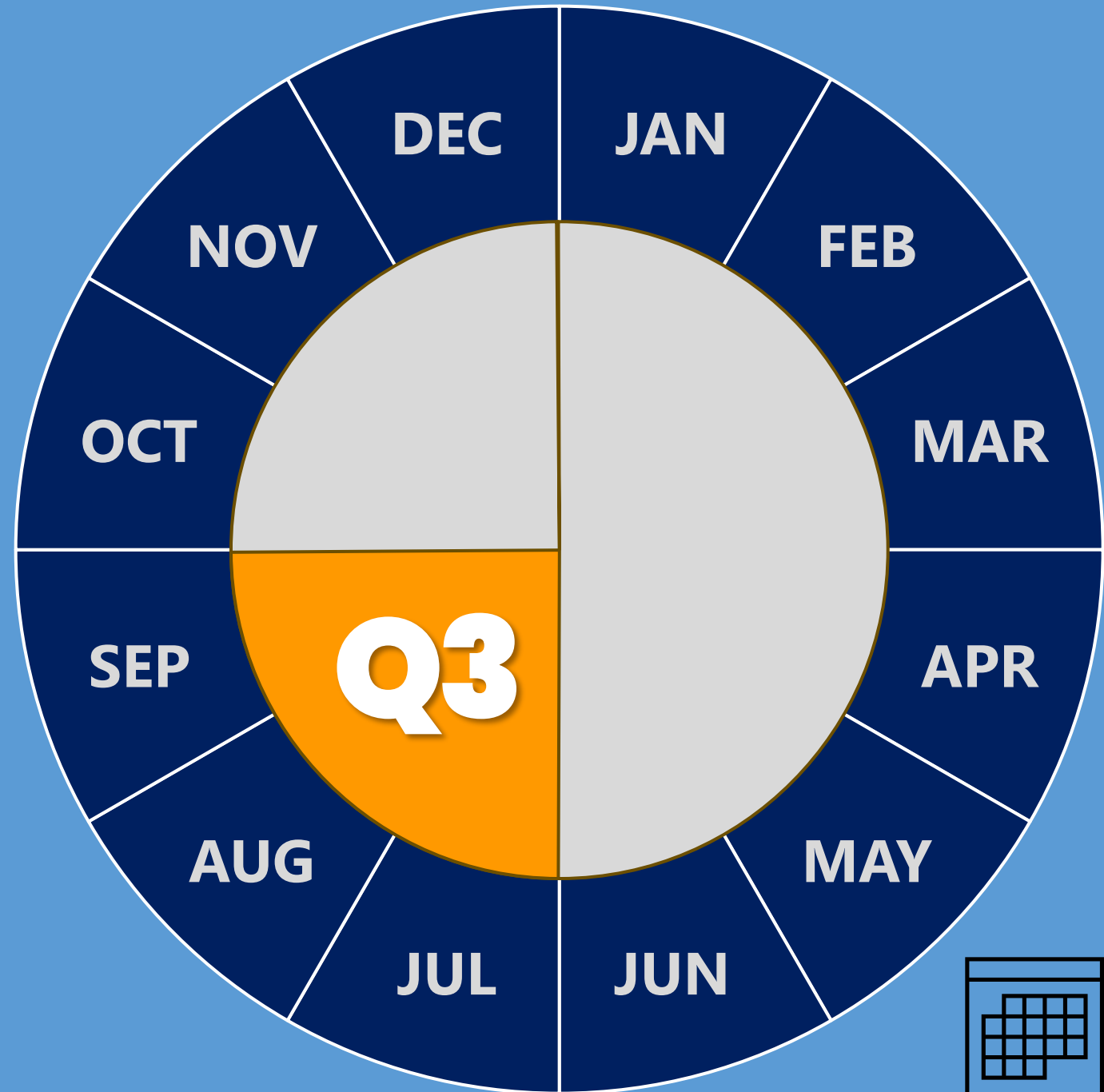
- New colonies started
- Established colonies grow
- Nectar flow in abundance
- Honey storage is in play
- Full colonies grow to full size
- Varroa factory in full swing



QUARTERLY Progression

□ Quarter Three

- Nectar flow abates; Dearth
- Queen slows down
- Drones ejected
- Honey matures; harvest
- Winter bees produced
- Varroa mite threat is real



QUARTERLY Progression

□ Quarter Four

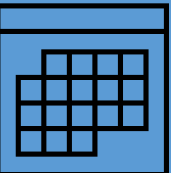
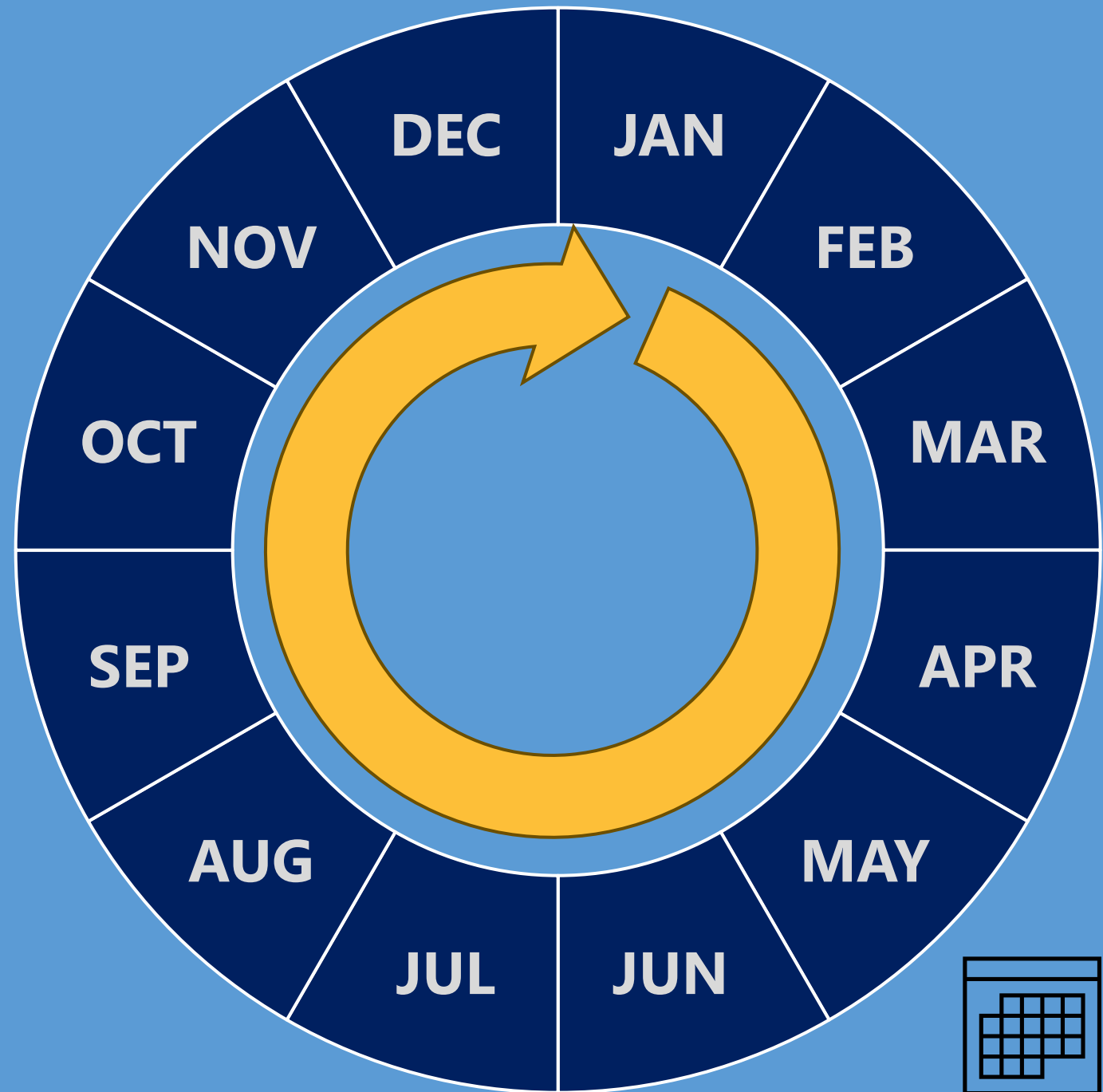
- Fall flow ends; harvest
- Bees prepare for winter
- Winterize hive equipment
- Feed for winter as required
- Winter cluster formation
- Mostly broodless until Q1



QUARTERLY Progression

❑ Winter Turns to Spring

- As Q4 completes, the cycle repeats
- Bees hold in torpor in winter awaiting the bounty of spring

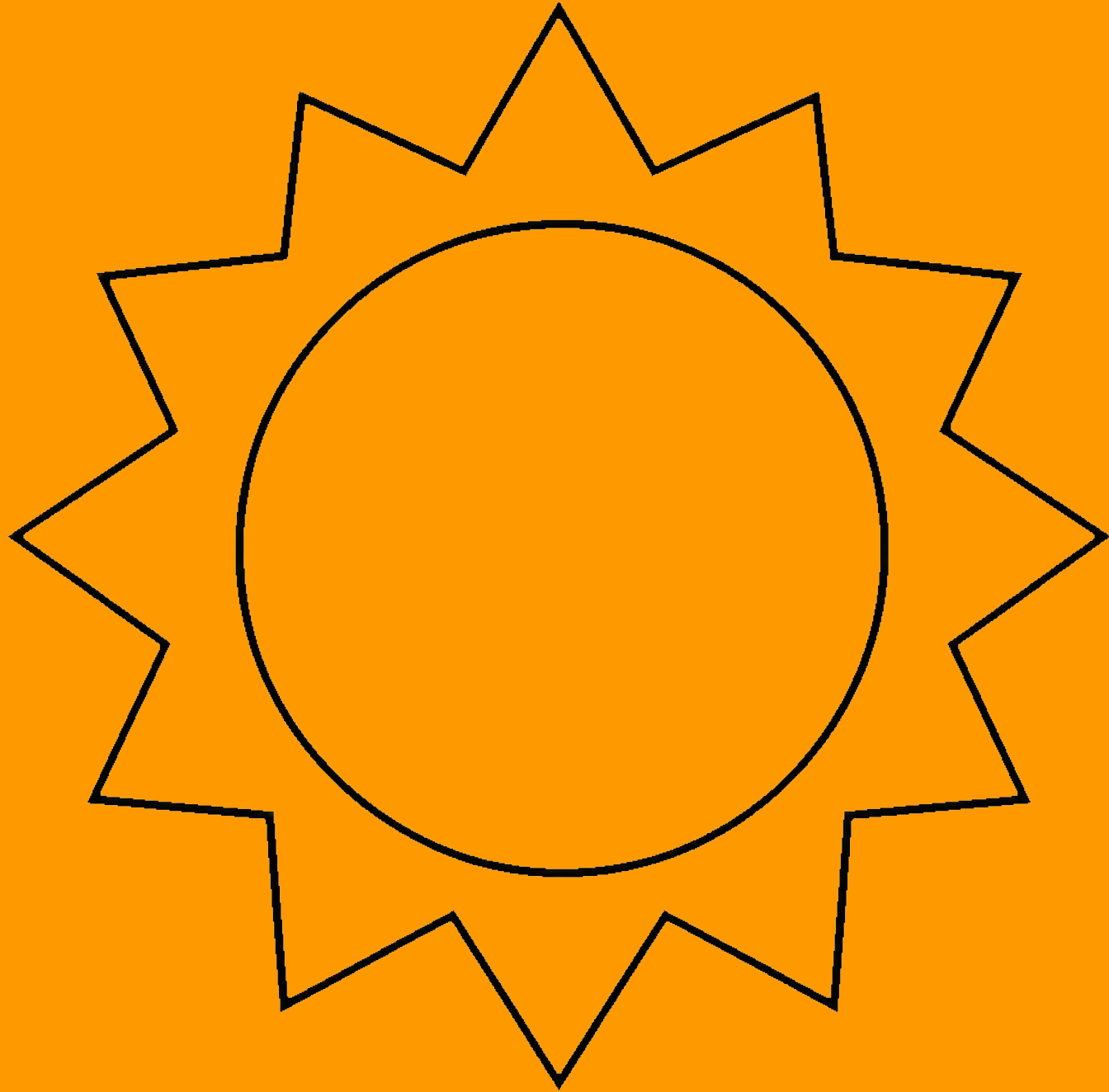


FOLLOWING **the SEASON**

**The bees are more attuned
to follow the sun.**

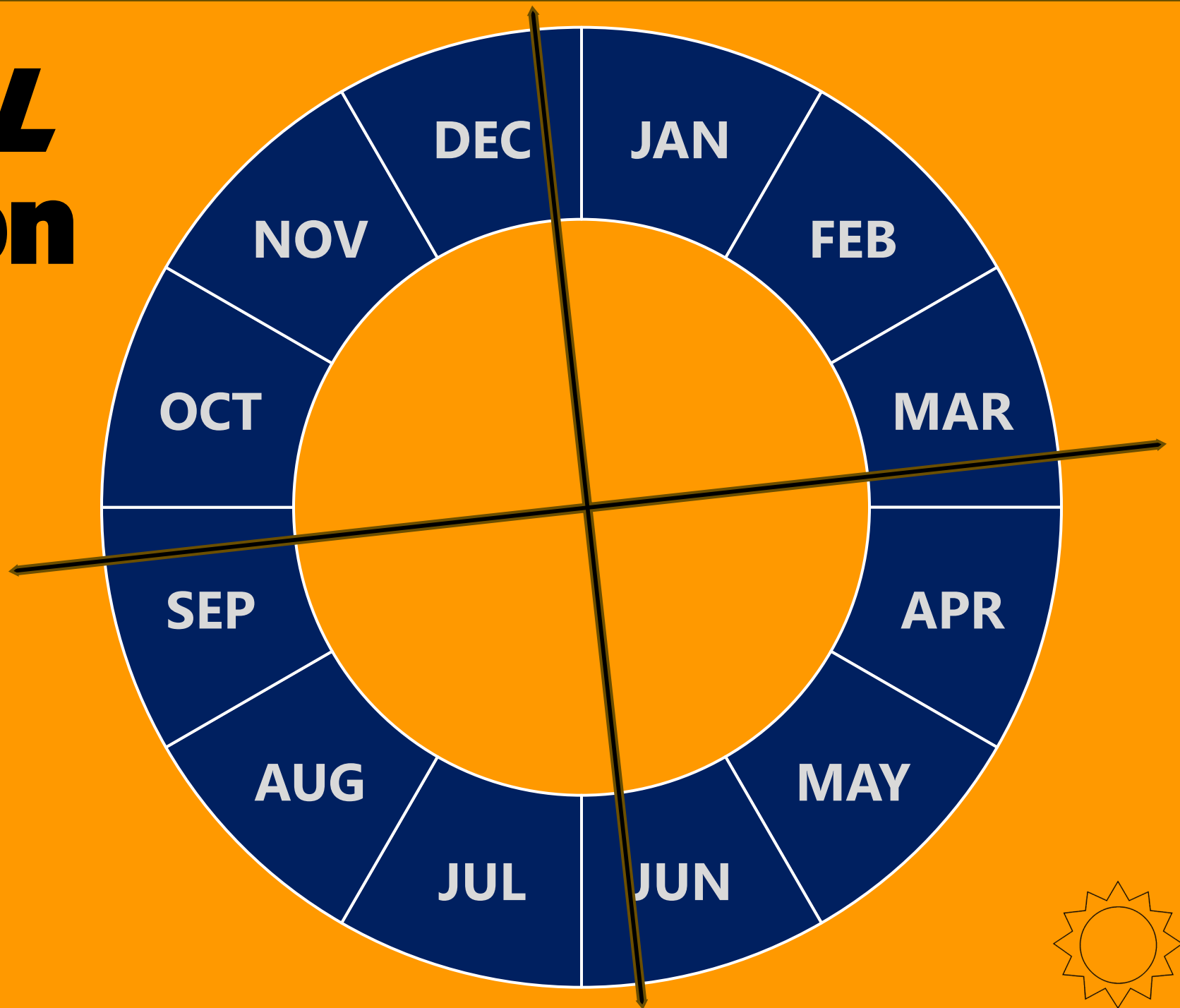
Making a minor change brings
us more in harmony with how
honeybees align with nature

The bees, and the plants they
survive with, are lock step with
the influences of the **SUN**.



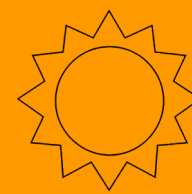
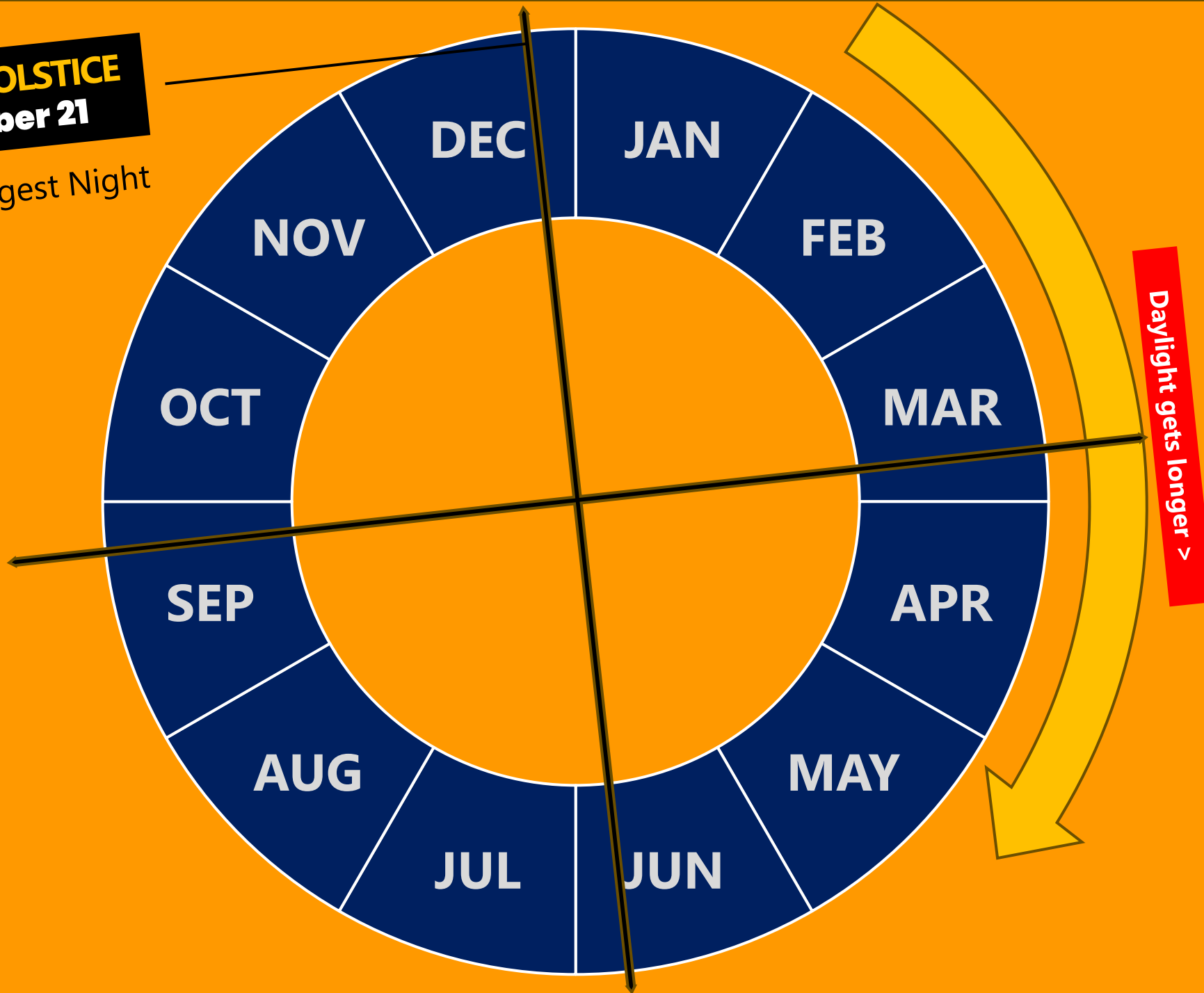
SEASONAL **Progression**

**Honeybees
see take their
cues from the
persistence of
sunlight**



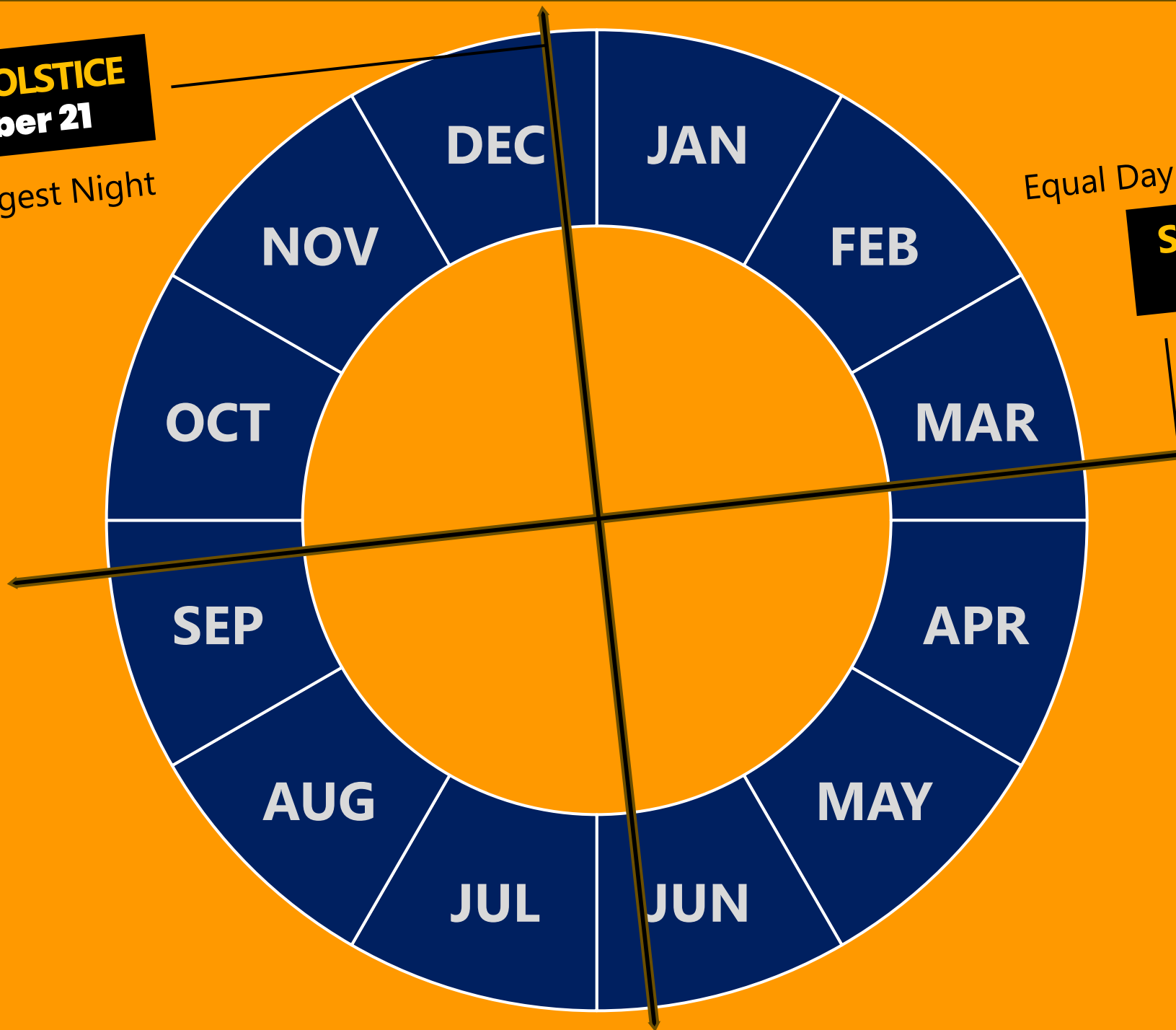
WINTER SOLSTICE
December 21

Shortest Day, Longest Night



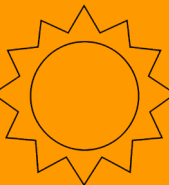
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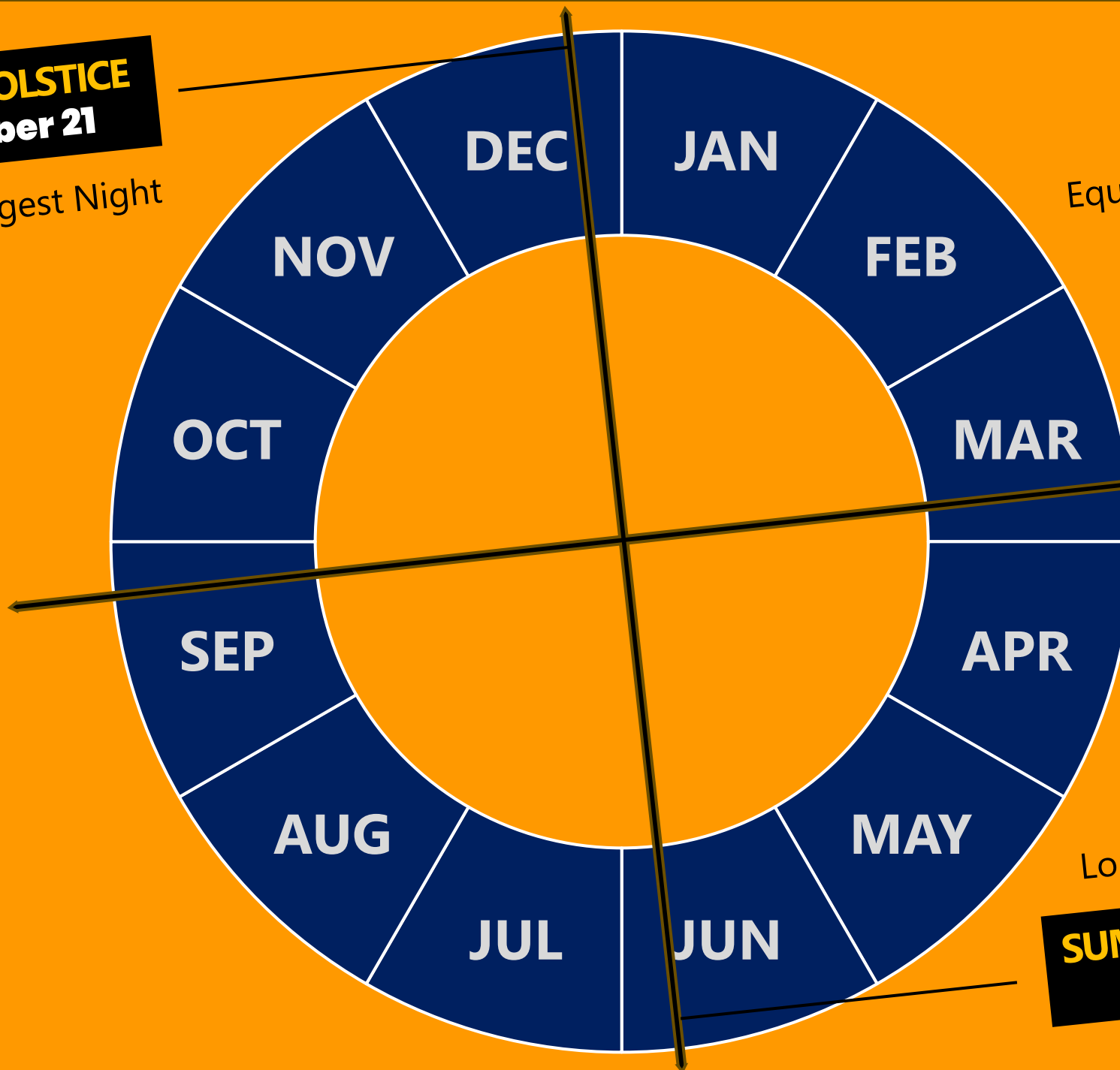
Equal Day and Night

SPRING EQUINOX
March 21



WINTER SOLSTICE
December 21

Shortest Day, Longest Night

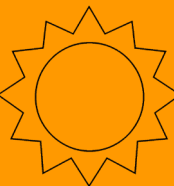


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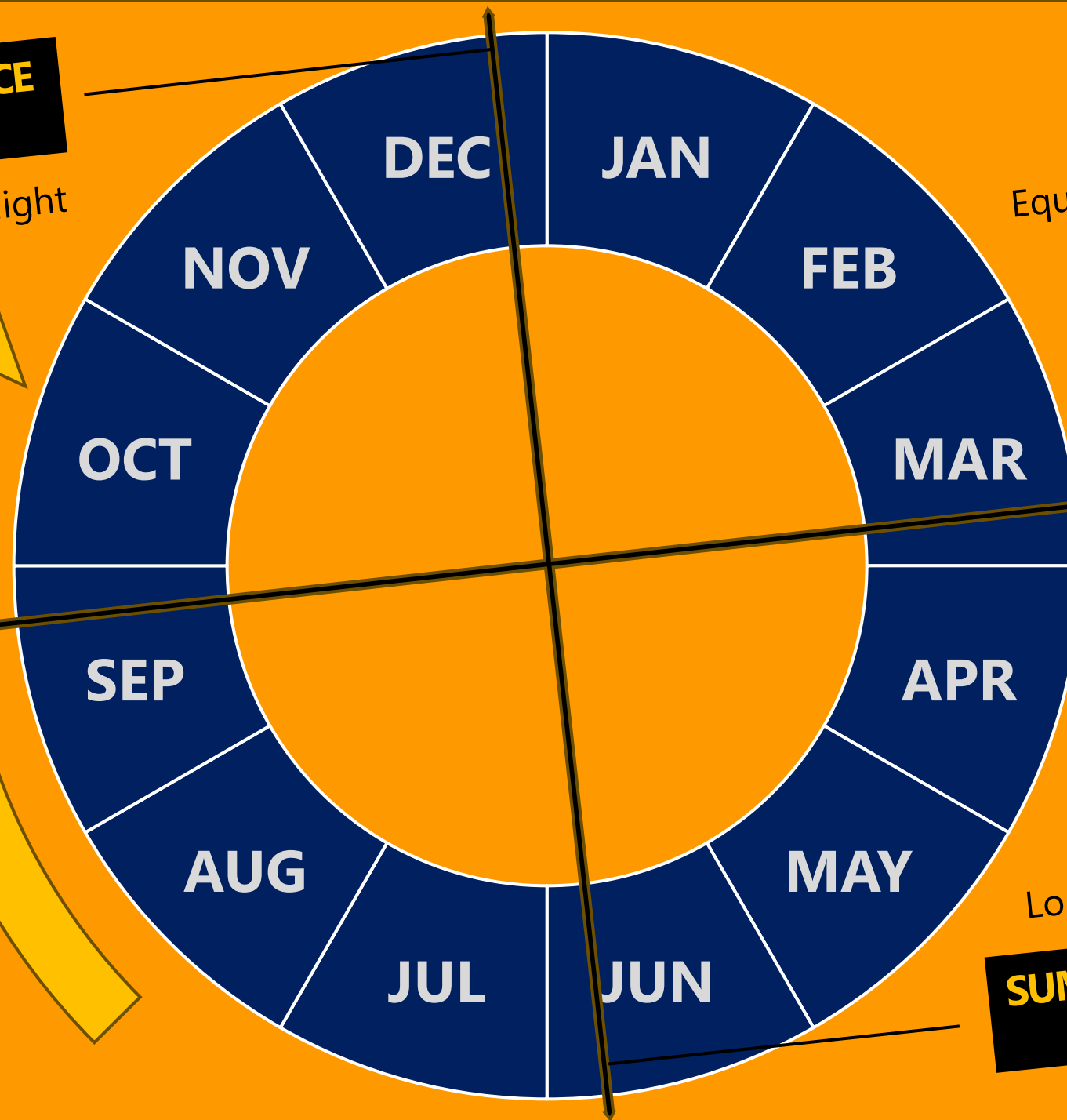
SUMMER SOLSTICE
June 21



WINTER SOLSTICE
December 21

Shortest Day, Longest Night

Daylight gets shorter >

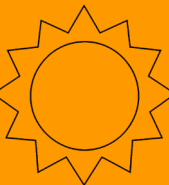


Equal Day and Night

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Longest Day, Shortest Night

SUMMER SOLSTICE
June 21



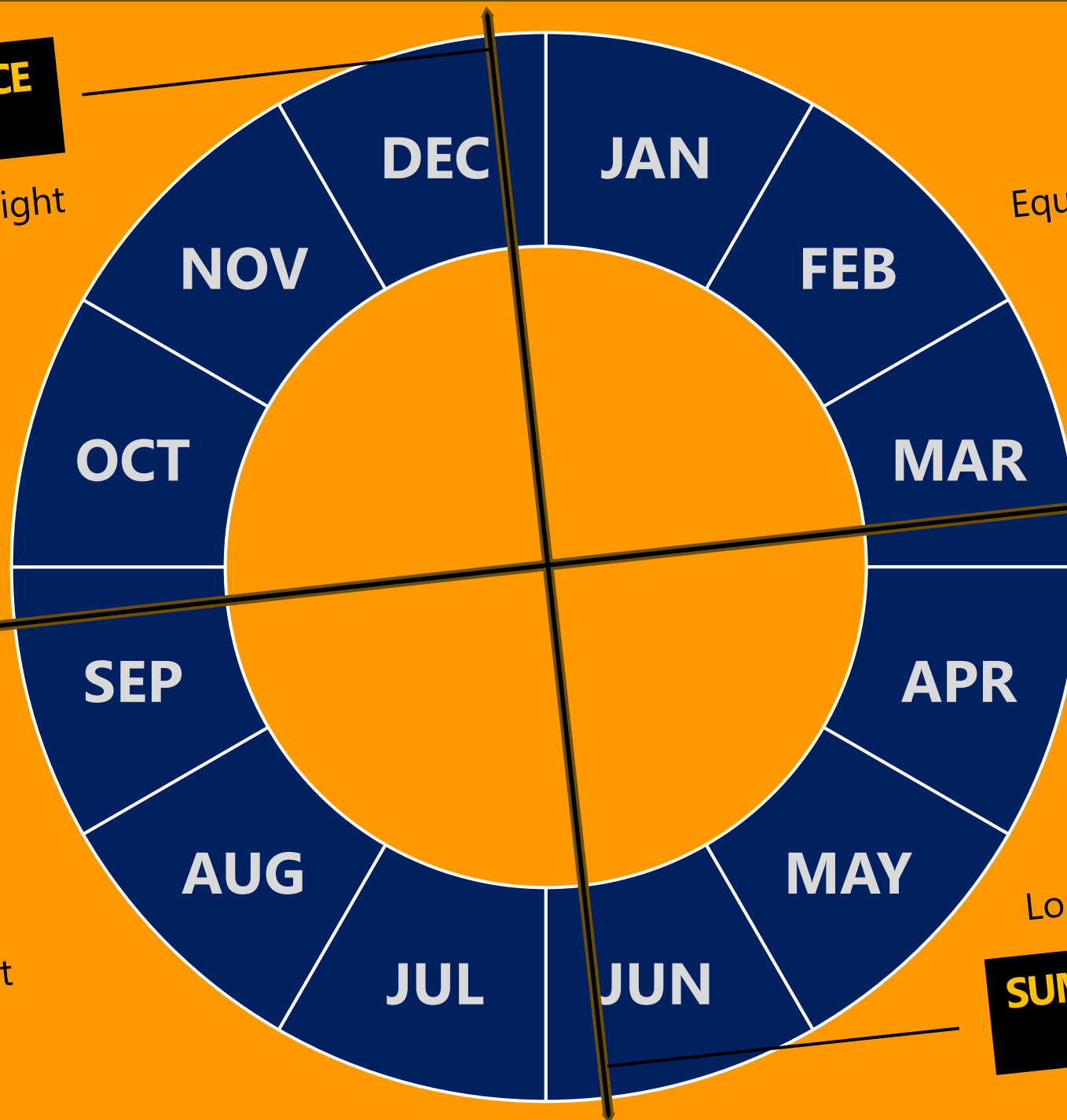
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FALL EQUINOX
September 21

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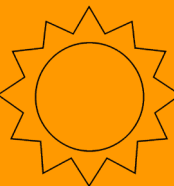


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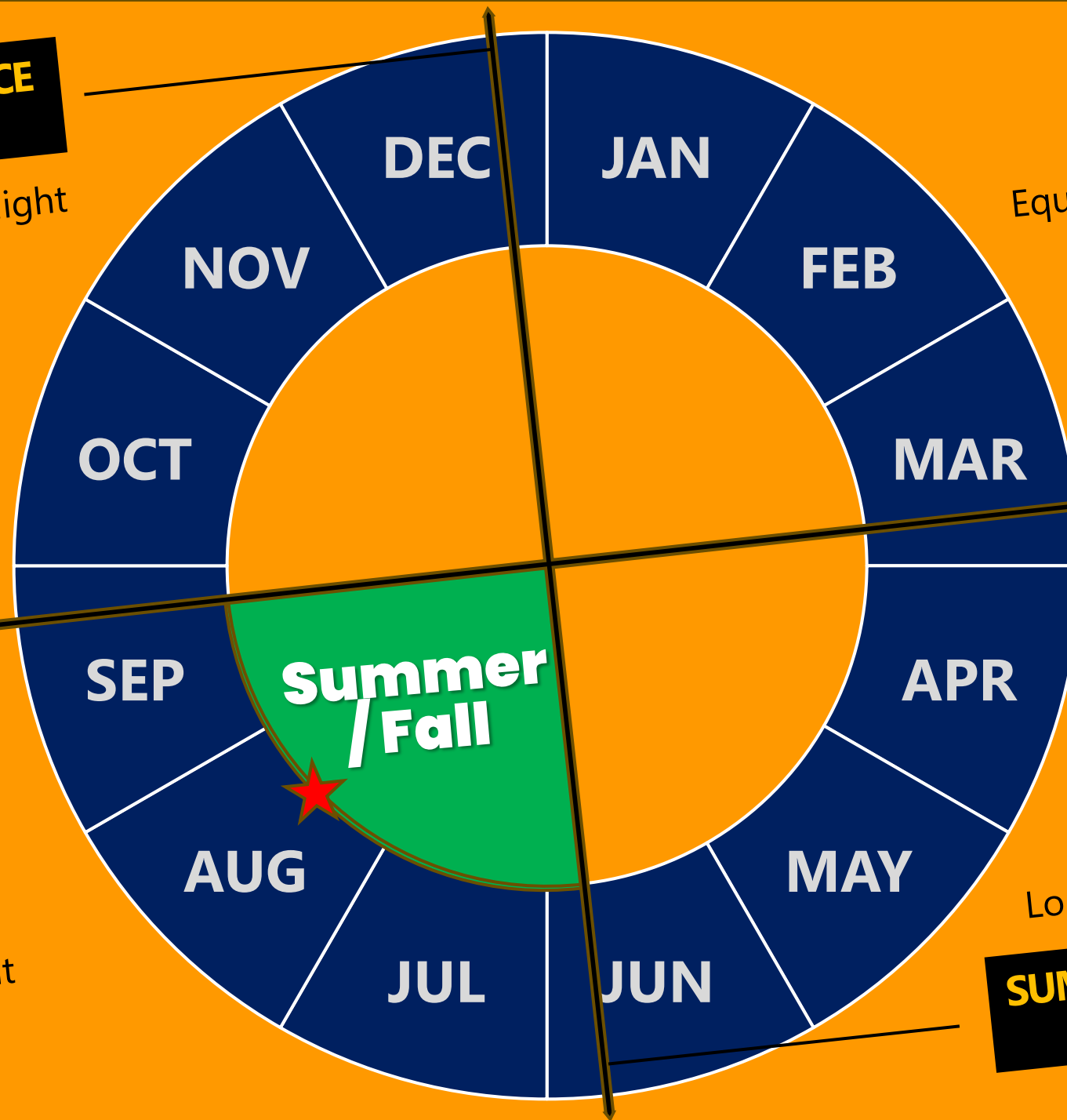
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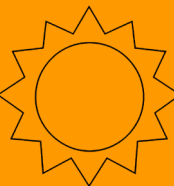


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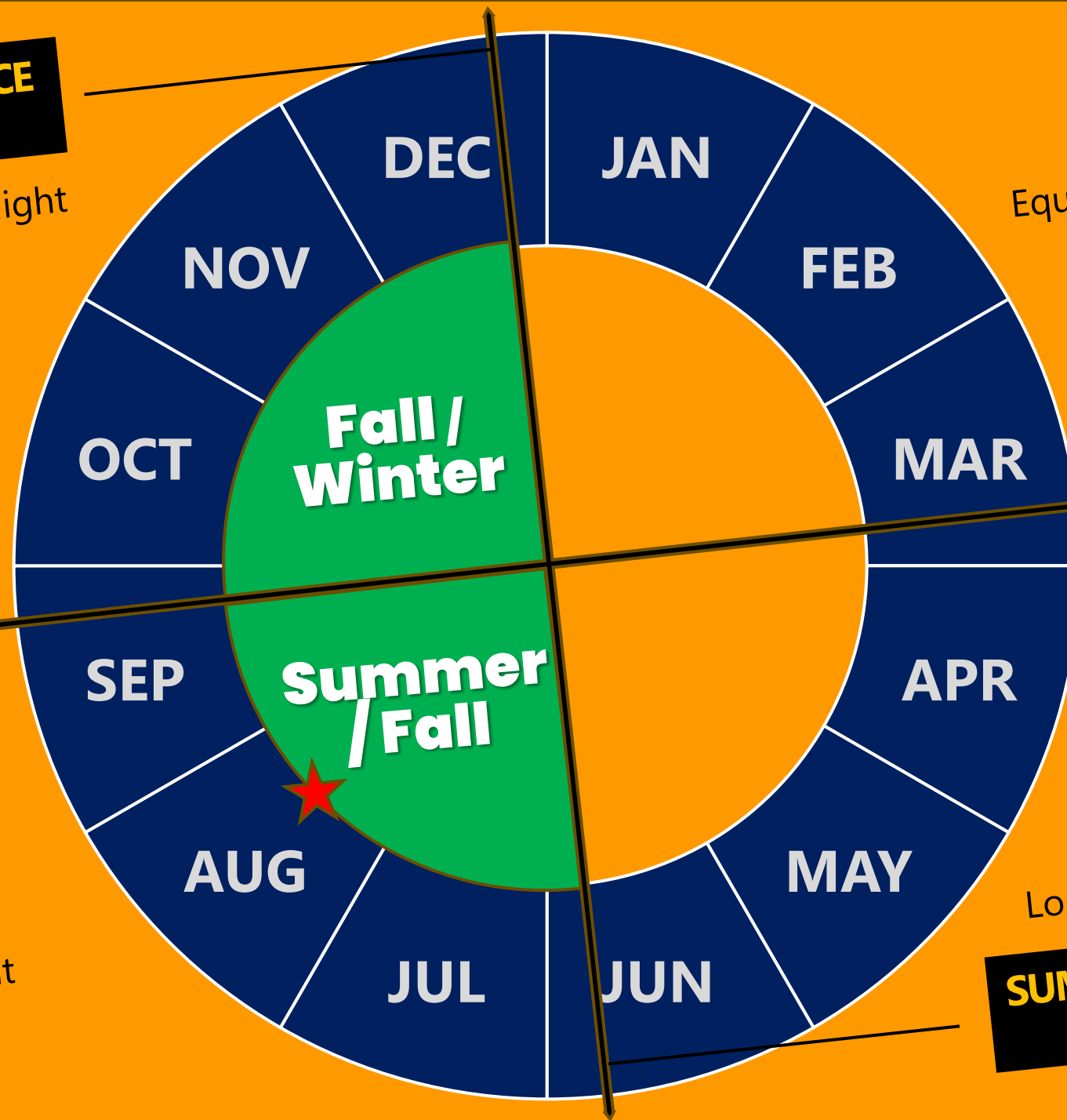
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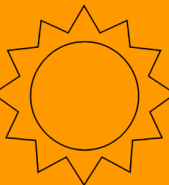


Equal Day and Night

SPRING EQUINOX
March 21

Longest Day, Shortest Night

SUMMER SOLSTICE
June 21



August

Along with sunlight, **THERE IS ALSO THE WEATHER TO CONSIDER**

83 / 62 °F | C

Average temperature

Record temps **99° / 45° F**

Avg rainfall **4.39 in**

Snow **0 days**



SEASONAL Progression

LET'S TALK ABOUT CARING FOR YOUR BEES FOR THE REST OF THE YEAR

August

83 / 62 °F | C

Average temperature



Record temps 99° / 45° F
Avg rainfall 4.39 in
Snow 0 days

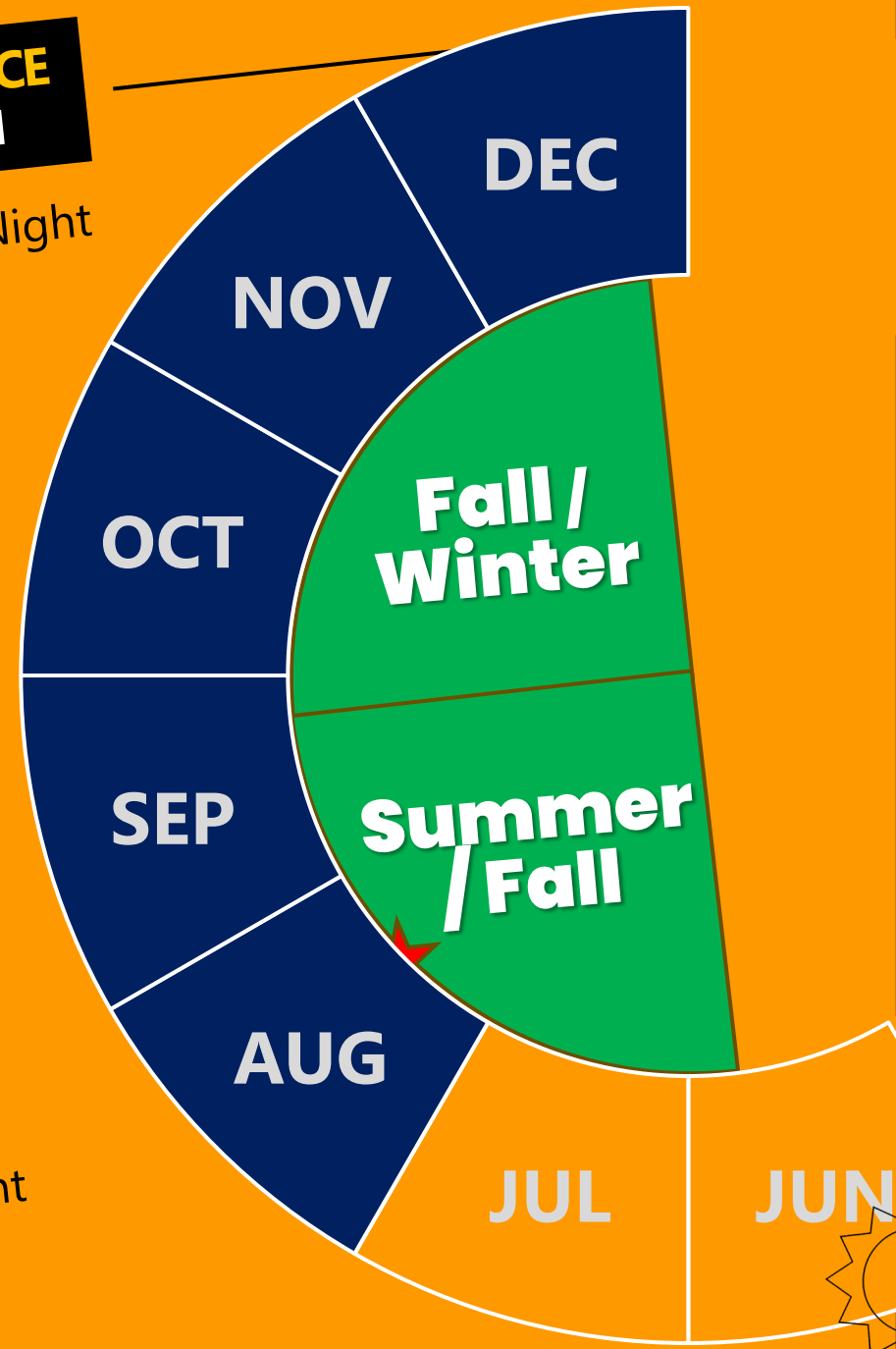
WINTER SOLSTICE
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Shortest Day, Longest Night

Daylight gets shorter >

FALL EQUINOX
September 21

Equal Day and Night



**SUMMER
SOLSTICE**



OUR GOAL

Take care of our colony of

HONEY BEES

VARROA

Eliminate/Suppress

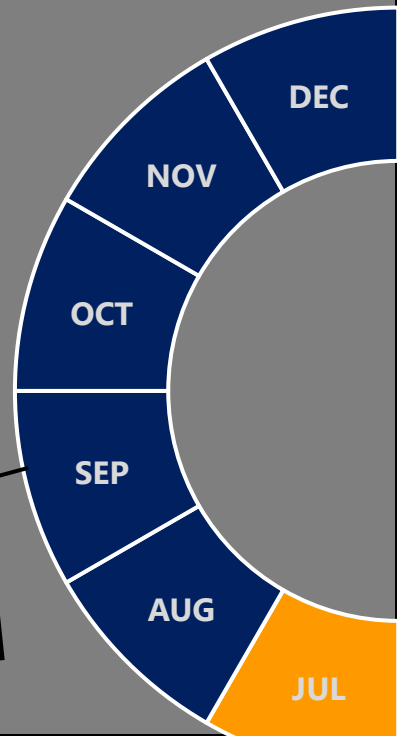
THE INSIDIOUS VARROA MITE

KNOWING THE BIOLOGY HELPS US THE CAMPAIGN

“Responsible management lies in *understanding when risks are the highest* and maintaining vigilance”

LET'S GET THE VARROA STUFF OUT OF THE WAY FIRST

FALL EQUINOX
September 21



Treatments Options are not just what treatment product to use

Varroa Mites Cause Damage

- Varroa Mites Wound Bees
- Varroa Vectors Viruses which harm larva and adults

Harm to the Superorganism

- Bees die prematurely
- Sick bees do not produce

Population Dynamics Matter

- Summer Impact
- Winter Impact

Treatments Options are not just what treatment product to use

Varroa Mites Cause Damage

- Varroa Mites Wound Bees
- Vectoring Viruses

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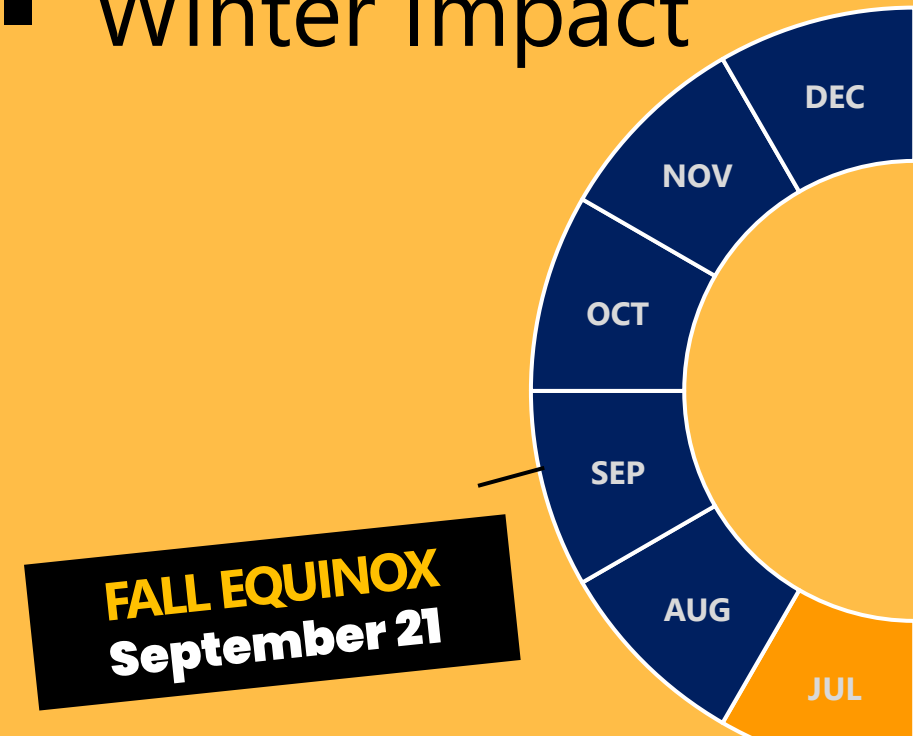
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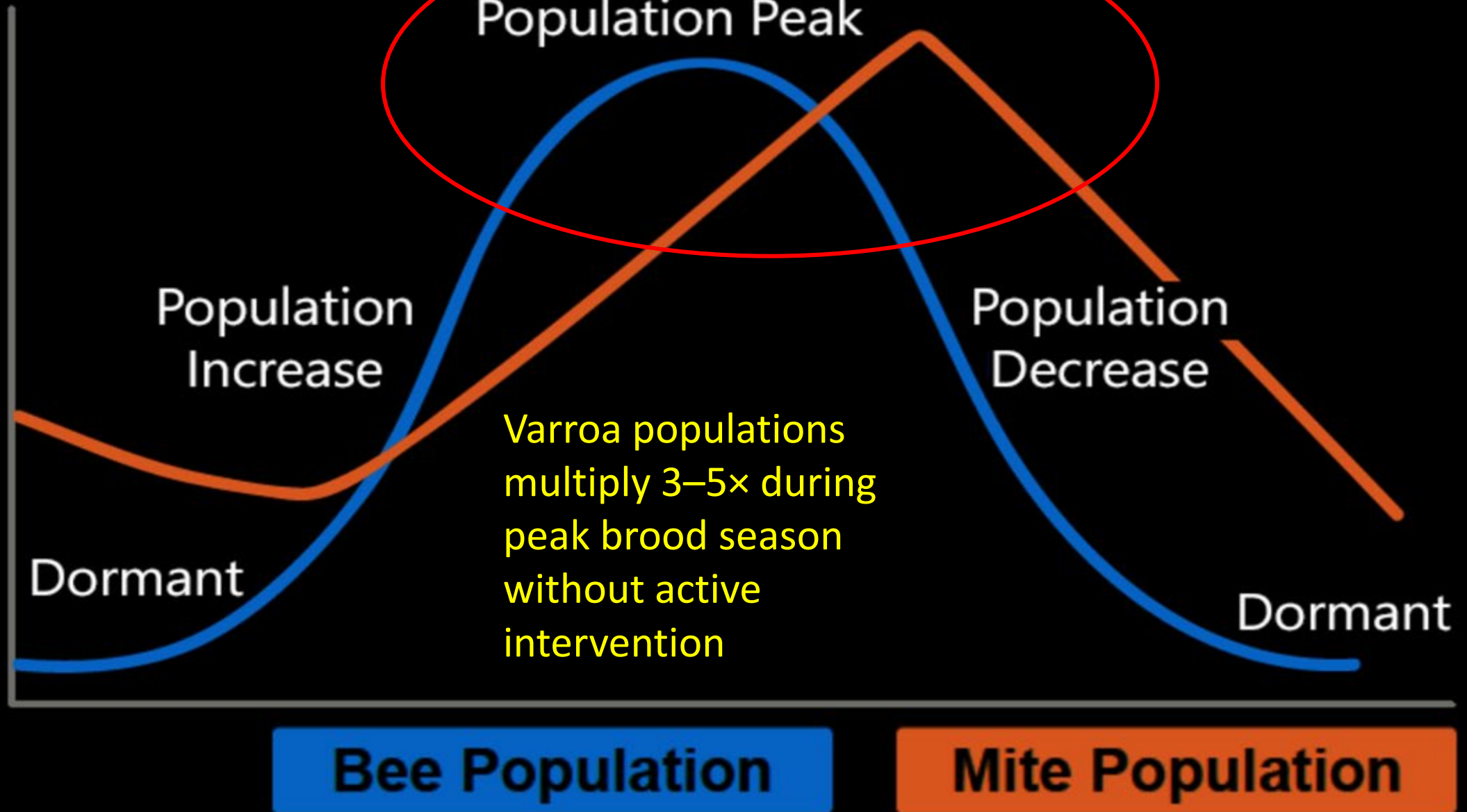
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- Summer Impact
- Winter Impact



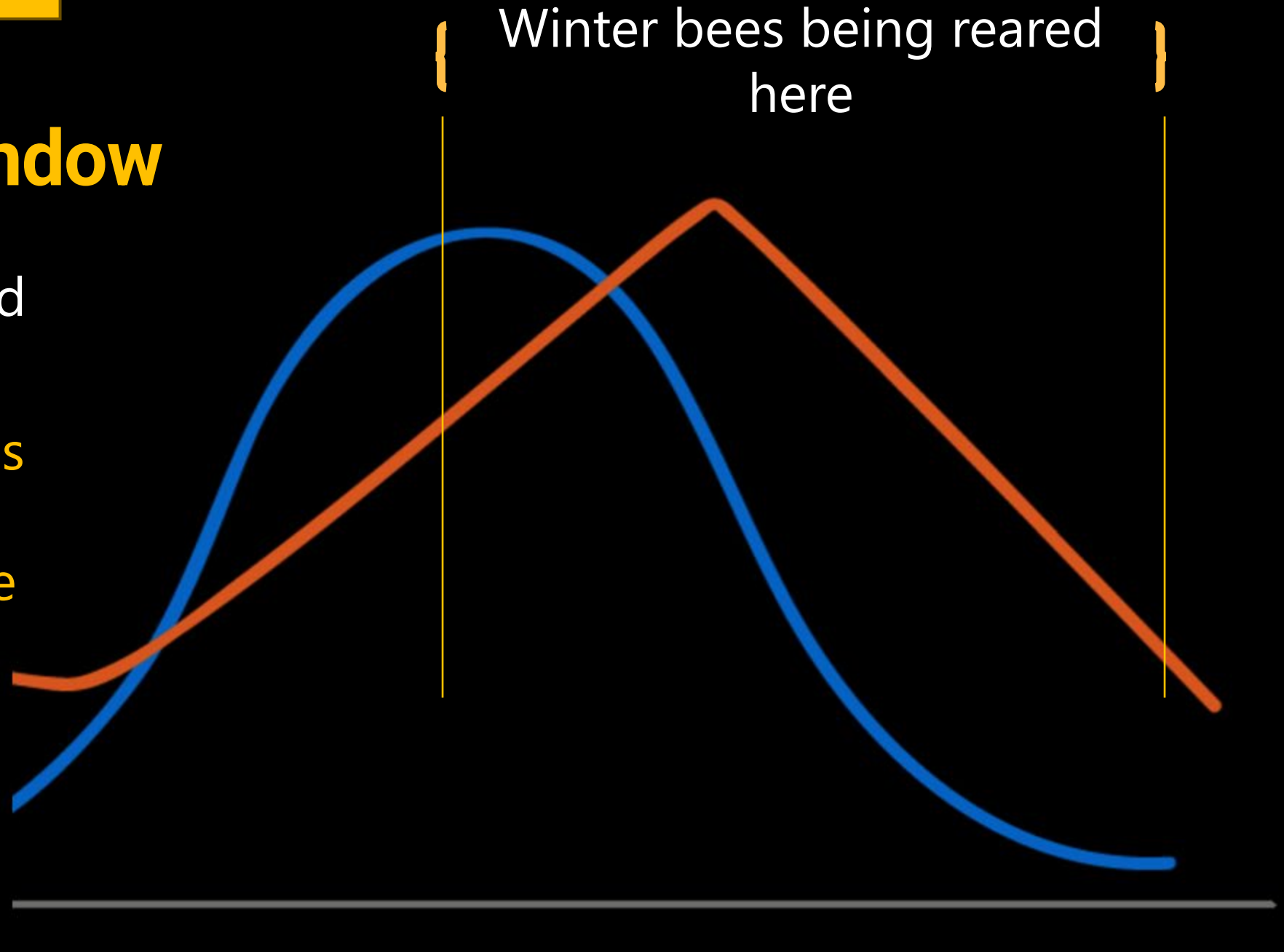
VISUALIZING THE RISK

- Make note of the lag



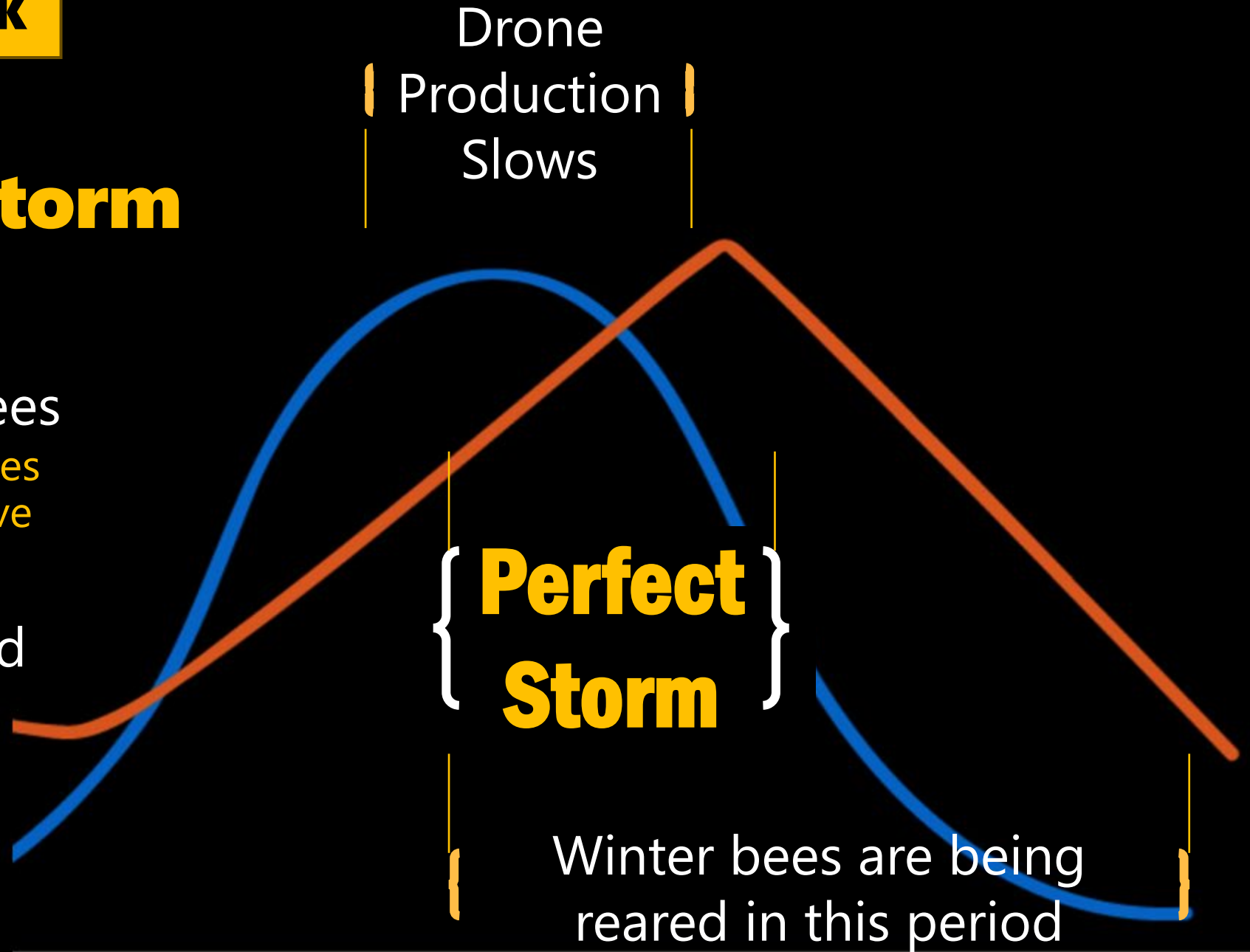
Winter Bee Window

- Winter Bees reared in this timeframe
- If mite populations are not addressed winter bees will be compromised



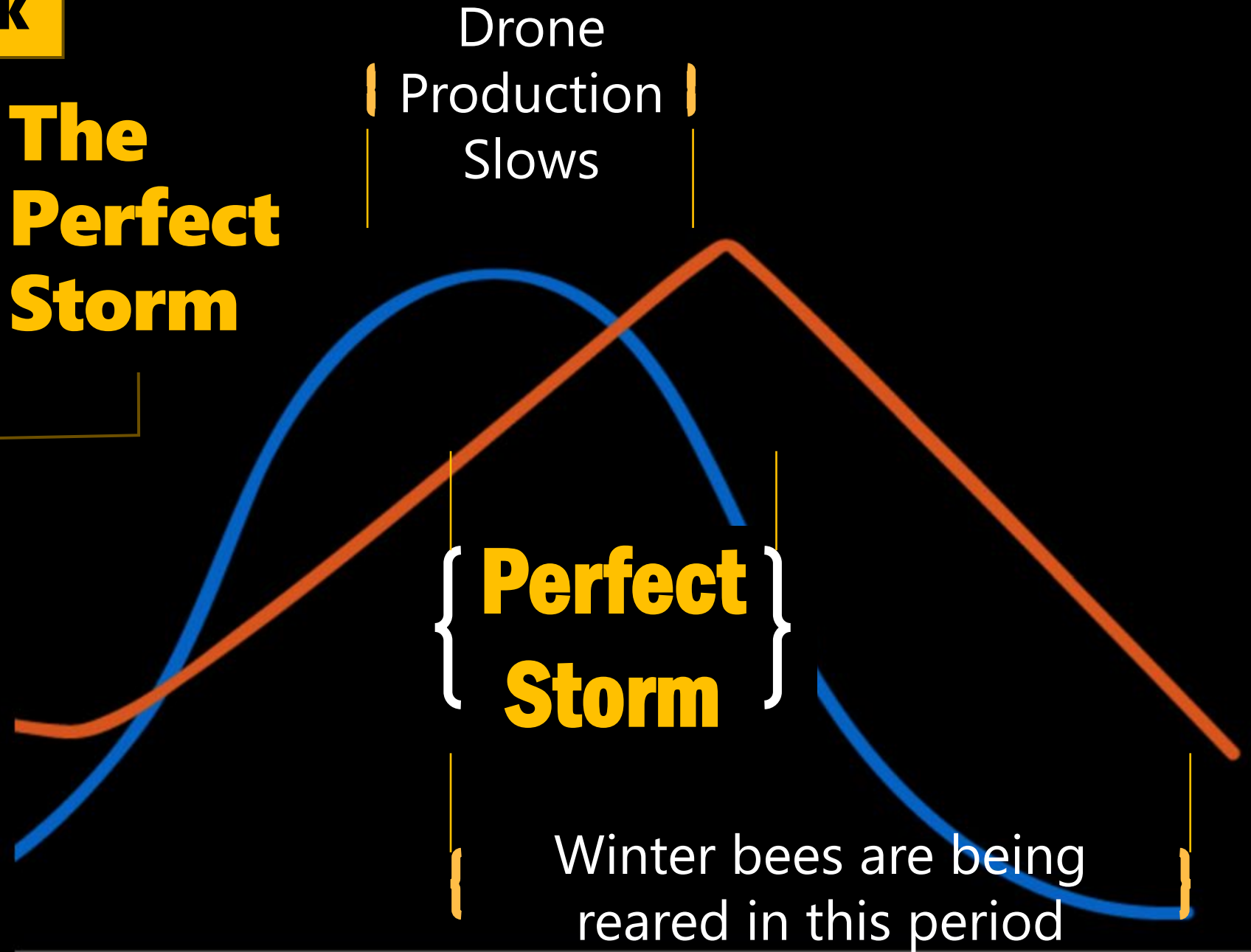
The Perfect Storm

- Mites on Drones switch to nurse bees
 - There are less drones present so they have no choice
- Winter Bees reared in this timeframe are compromised



The Perfect Storm emphasizes that we should always remain vigilant, but **we have a higher risk** when it comes to protecting our winter bees for overwinter survivability

The Perfect Storm



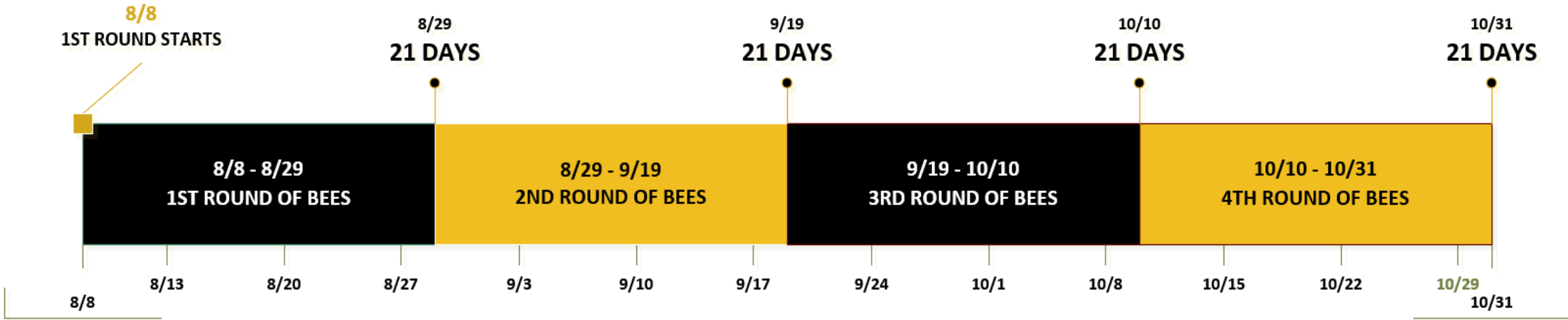
THE INSIDIOUS VARROA MITE

PROTECTING WINTER BEES (TIMING)

□ August through October

- If a bee takes 21 days to emerge.... Then there are about 4 to 5 generations of bees before winter bees go into a cluster during cold months
 - In this 84 days window bees change over from short term lifespans to ones that will live overwinter – they physically change in several way

**We need to
care for our
ADULT
WORKFORCE**

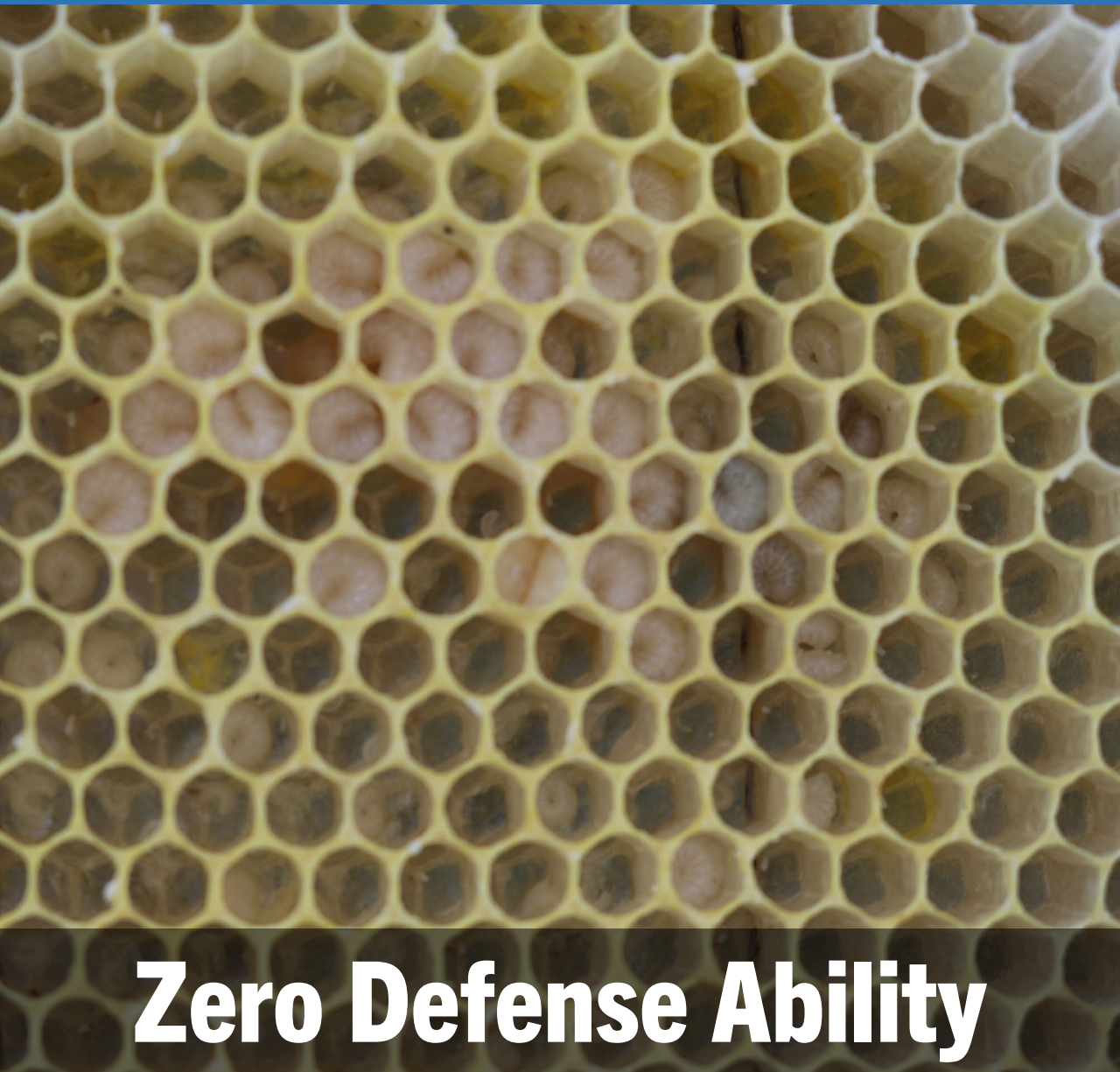


COLONY DEFENSE FORCE

ADULT WORKER BEES FIGHT VARROA MITES



Colony Defense Force



Zero Defense Ability

COLONY DEFENSE FORCE



70%

□ Reproductive Cycle Hidden

- 70% of varroa's reproductive cycle occurs inside sealed brood cells —shielded from adult bees
- Varroa population doubles every 3–4 weeks during peak brood

It is even worse for the developing bee after capping



A defense force is very compromised to do much with varroa mites under cappings

**MITTE
MONITORING**

CHOOSE THE SAMPLING FRAME

CHOOSING THE RIGHT FRAME TO SAMPLE IS IMPORTANT

- **Choosing the right frame to sample is important**
 - Smoke the hive
 - Work your way into the brood nest
 - Choose a frame that has developing larva, **on the cusp of being capped** (the more mature the larva, the better the sample will be)
 - Varroa mites want to enter cells just before the larva in development is capped
 - **Developing larva give off pheromones that induce capping**
 - **It is this pheromone that entices the mites to move into the cell for reproduction**
 - Varroa mites move off the nurse bees and into the cell just prior to capping

Picking the right frame to sample
INSPECTING FOR THE ONE



Picking the right frame to sample

Good one? **NO:**

EMERGED BROOD, NO VARROA HANGING ON THIS FRAME



Picking the right frame to sample

Good one? **NO:**

ALL CAPPED BROOD – VARROA PRESENCE MAY BE SPOTTY



Good one? **NO:**

GETTING THERE BUT NOT CLOSE ENOUGH TO CAPPING

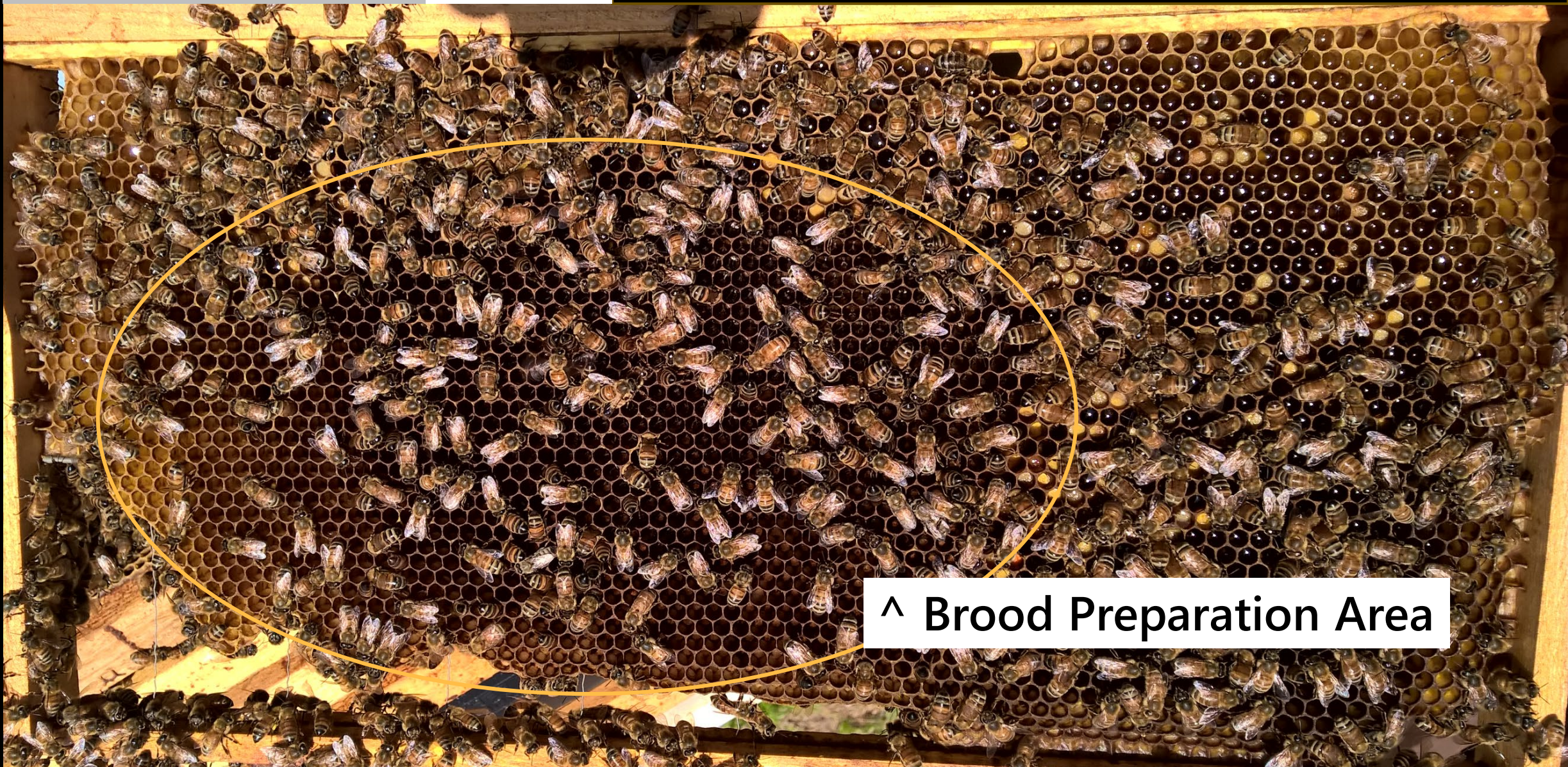


You would want to see some capping going on – not the worse frame, but there are better choices

Picking the right frame to sample

Good one? **YES:**

THIS FRAME HAD VERY OLD LARVA; CUSP OF CAPPING



^ Brood Preparation Area

This area was on the cusp of being capped and a candidate for mites to go into the cells

Varroa Monitoring Kit



Prep Your Kit

- A tub for collecting bees for sampling
- A measuring cup (1/2 Cup Size)
- Varroa Easy Check Device
- Rubbing Alcohol or some other suitable liquid
 - Blue Windshield washer fluid is another alternative...





Measure $\frac{1}{2}$ cup

300 bees = 1/2 cup



Cover and Momentarily Set Aside



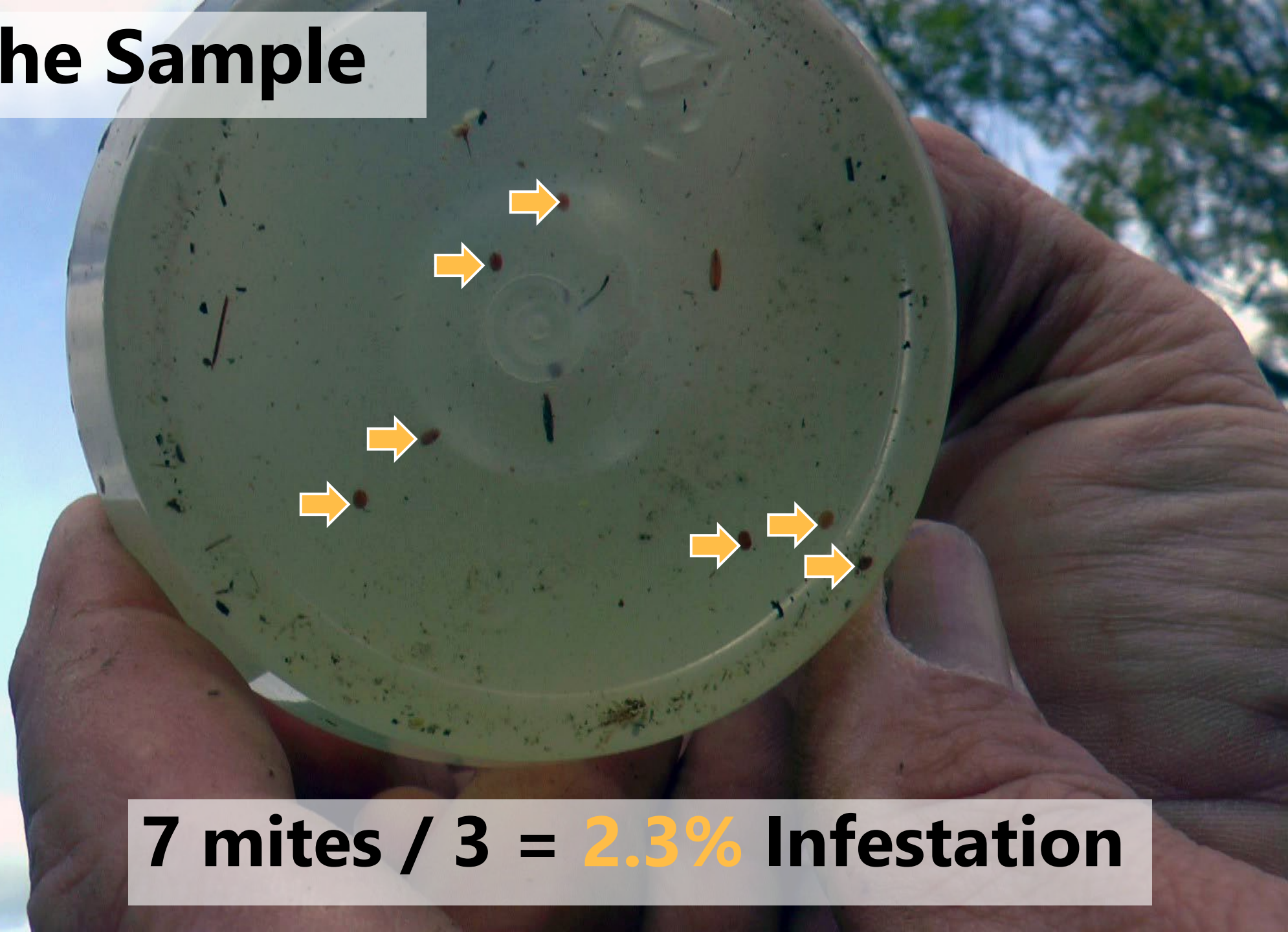
Return Extra Bees & Close the Hive





Shake VIGOROUSLY

Mites in the Sample



7 mites / 3 = 2.3% Infestation

**OH
BOY!**

LET'S TALK ABOUT TREATMENTS FOR THIS KIND OF FINDING



TREATMENT OPTIONS

Treatments viable for the second half of the year (and their use)

FORMIC ACID | OXALIC ACID | ESSENTIAL OILS | HOP BETA ACID | SYNTHETICS | dsRNA

**THE KEY IN
KNOWING
WHAT TO USE
IS GETTING
RESULTS FOR
THE SITUATION**

**YOU MUST KNOW WHAT
EACH PRODUCT DOES TO
GET THE BEST OUTCOME**

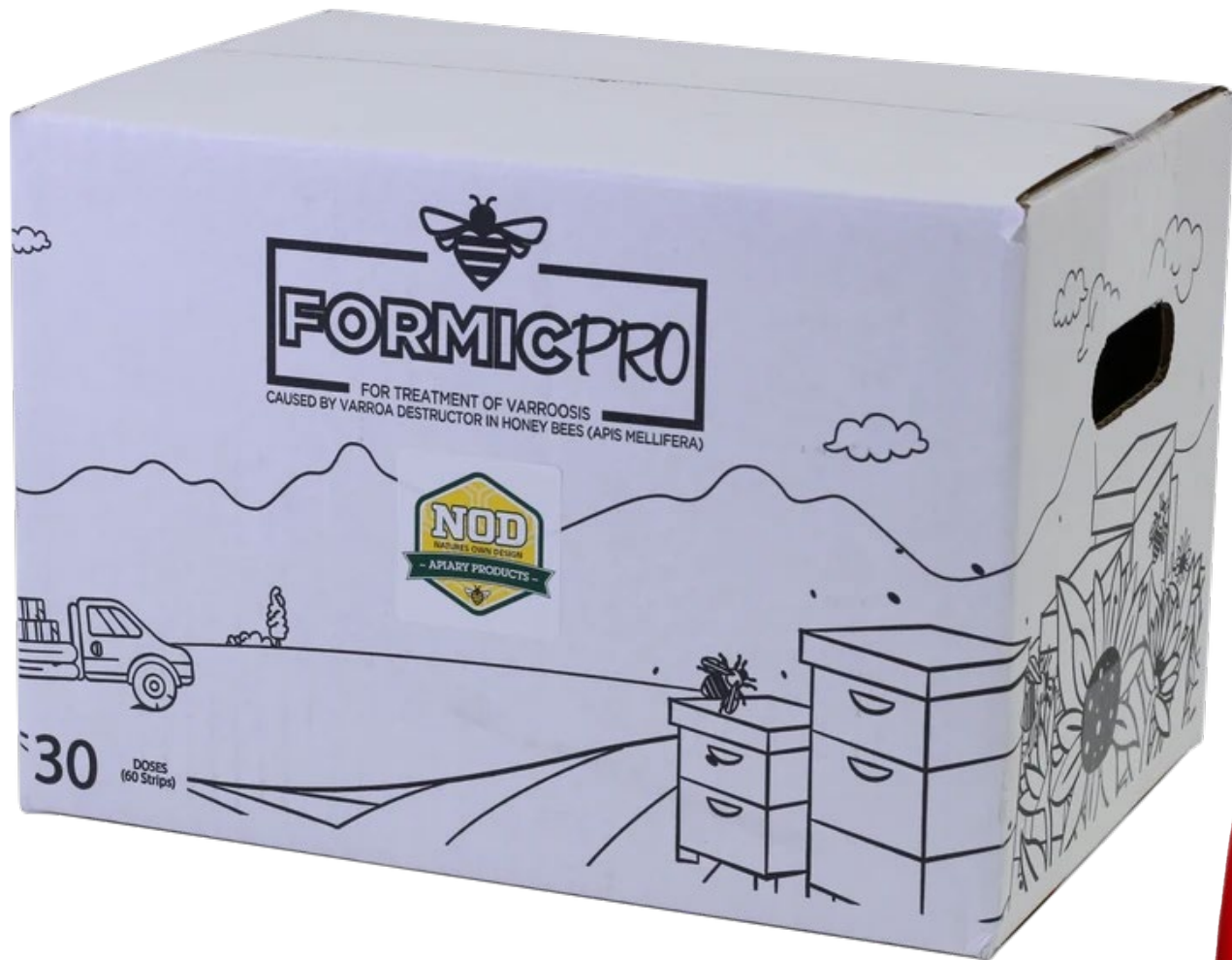
LET'S WALK THROUGH AVAILABLE PRODUCTS

HBHC >



**HONEY BEE
HEALTH
COALITION**

FORMIC ACID



KNOCK OUT PUNCH



FORMIC PRO for the Knockdown

□ The only product that kills developing mites under the cappings

- Natural Formic Acid
- Use under 85°F or risk colony damage
- In fall, daytime temps of 50° or higher
- Potent stuff, follow all safety protocols
- Use 2 pads combo to kill under the cappings (2-pads / 14 days)
 - The 1 pad application is generally not strong enough of a concentration to penetrate cappings

HBHC says 92° can cause brood mortality and absconding

Mode of Action: FUMIGANT



APIGUARD

□ Effective Knockdown

- Natural Thymol Gel
- Use between 60°F to 105°F
- Cannot have honey supers on while this is in use
- Two trays
 - First tray 14 days, then replace with second (28-day period)
- Good late season treatment if mites number increase in the fall

Mode of Action: FUMIGANT



APILIFE VAR

□ Effective Knockdown

- Natural Thymol, **plus** camphor, eucalyptus oil, *and* l-menthol
- Use between 64°F to 95°F
- No honey supers on when using this product
- Better than Apiguard?
 - Some say it is
 - And, if I'm not mistaken, it costs less

Mode of Action: FUMIGANT



APILIFE VAR



□ Effective Knockdown

- Natural Thymol, **plus** camphor, eucalyptus oil, *and* l-menthol
- Use between 64°F to 95°F
- No honey supers on when using this product
- Better than Apiguard?
 - Some say it is
- Three Tablets (1.5 bags)
 - Break a single tablet into 4 pieces and put the pieces in the corners over the top bars (7 to 10 days)
 - Repeat with a second tablet (7 to 10 days)
 - Repeat with a third tablet (12 days)
 - Total treatment window is 26 to 32 days
- Good late season treatment if mites creep up in number in the fall

Mode of Action: FUMIGANT



VARROXSAN

□ Oxalic Acid Impregnated Strips

- Oxalic Acid Dihydrate slow release fiber strips
 - 1 strip for every 2.5 brood frames (4 for a deep)
 - Fold in the middle and drape over frames
 - Avoid laying on frames; reduces effectiveness
 - Treatment window 42 to 56 days
- Can be used any time of the year
 - More effective in low to no brood periods
 - Not very capable as a knockdown
 - Designed to be used when mite levels are low – meant to hold them steady and prevent infestations
 - Safe to use with honey supers on
 - Available in 20 or 60 strip packs
 - Can be resealed and held until expiration



Mode of Action: CONTACT MITICIDE



OA DRIBBLE / APIBIOXAL RTU

□ Oxalic Acid LIQUID DRIBBLE Method

- Oxalic Acid Dihydrate mixed in solution
 - Mix in sugar syrup or premade commercial product
- Commercial: ApiBioxal RTU (ready to use)
 - 1 Litre is about 20 treatments | 500 ml is 10 treatments
 - Dribble 5ml of product directly on the bees in between the seems of the brood nest
- Home Version: 35 grams of OA powder in 1 litre of 1:1 sugar syrup
- Usage
 - Recommended when bees are broodless
 - Can be applied when brood is present
 - 4 applications, 7 to 10 days apart
 - Use at times when application of liquid will not detrimentally chill the bees

Mode of Action: CONTACT MITICIDE



OXALIC ACID POWDER

□ Oxalic Acid VAPORIZATION Method

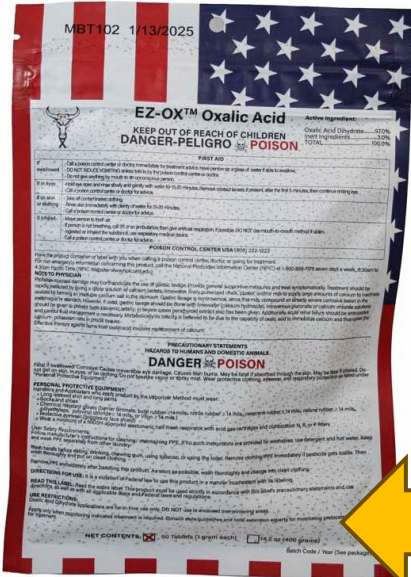
- Oxalic Acid Dihydrate heated to vapor
 - 2 grams of Oxalic Acid powder vaporized
 - Heated with a dedicated device (Vaporizer or Wand)
- Usage
 - Recommended when bees are broodless
 - Can be applied when brood is present
 - 4 applications, 7 to 10 days apart

HBHC warns... *use extreme care, as fumigation is extremely dangerous to applicator health*

Mode of Action: CONTACT MITICIDE

OXALIC ACID: VAPORIZATION

USE ONLY APPROVED POWDERS!



TABLET FORMAT

KEEP AT BAY: SOME TAKEDOWN



HOPGUARD 3

- Hops Beta Acid Cardboard Strips
 - One folded strip for each 5 frame of bees
 - 4-week treatment
 - Can be used up to 3 times per year
 - More effective with little to no brood
 - Can be used with honey supers in place
 - Discard when strips are no longer moist (after 5 days or so)
- The industry take and experience
 - **Super messy** to deal with
 - Corrosive to equipment, stains clothing and equipment – use thick rubber gloves
 - Reports of bees being **very agitated** with the product
 - Many questions about whether it truly works or not
 - Highly recommended to test after use to determine if it worked or not

Mode of Action: CONTACT MITICIDE



APIVAR 2.0

- AMITRAZ, plus other ingredients
 - Reformulated with less Amitraz and other add-ins
 - 1 strip per 5 frames of bees (42 to 56 days)
 - Synthetic ingredients impregnated in a plastic strip
- Important
 - **Amitraz resistance is documented**
 - Cannot be used with honey supers in place
 - Product is activated once the package is open
- Odds and ends
 - New hanging system with the 2.0 product
 - No temperature restrictions
 - Can add honey supers immediately after removal
 - With the 1.0 version there was a wait period

Note: Apivar 1.0 is still for sale. *Best not to use it*

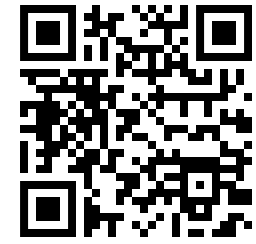


Norroa (Vadescana)

- **Norroa is a new and novel product**
 - Fed to bees when honey supers are not present
 - Best where there is open brood all around
 - Works by disrupting varroa's ability to form eggs during reproduction
 - The active ingredient is suspended in sugar water which is ingested by the bees and placed in the cells of developing larva
 - For the product to work it is moved by worker bees into the brood food for new larvae
 - Suppression product
 - Knock down with another product – suppress with this; it is ok to use in conjunction with other products

Mode of Action: SUPPRESSION "MITICIDE"

Varroa Management Resource Website

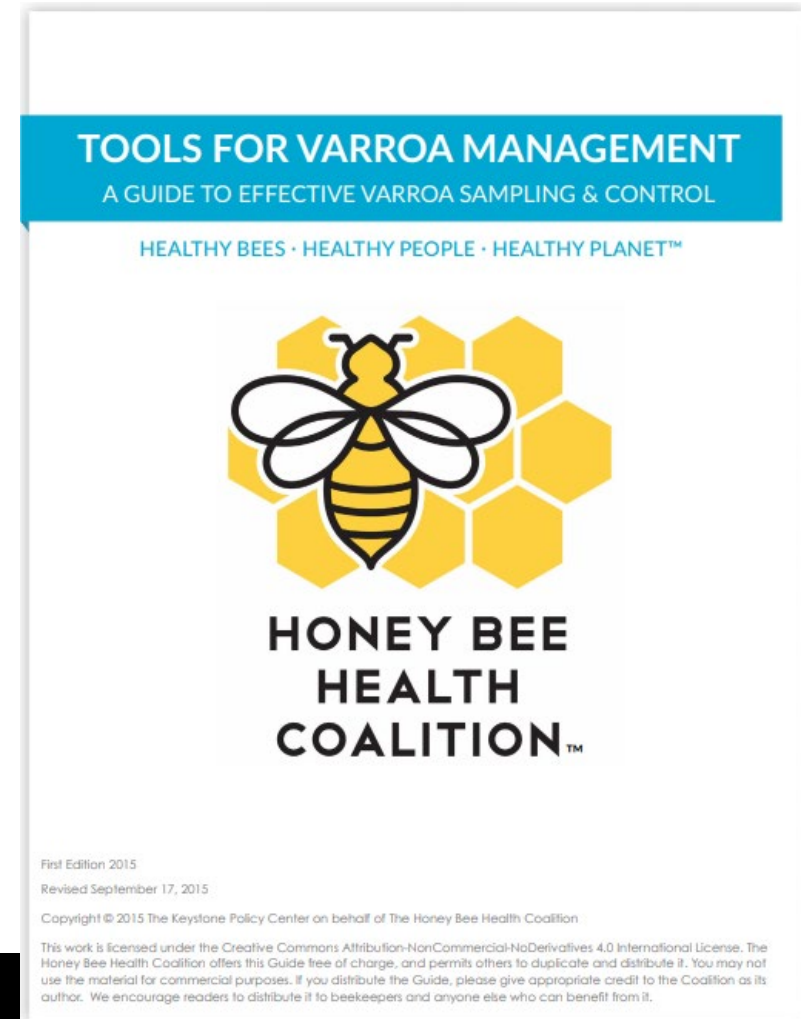


- **Honey Bee Health Coalition**
 - A free resource with an abundance of resources for understanding and managing varroa mites in beehives
 - Instructions, pest insights, how to videos, decision guide, and more
 - A key resource for varroa management and more

TREATMENT THRESHOLDS

- HBHC Guidance is the gold standard

<https://honeybeehealthcoalition.org> >



Product Impacts & Risks

- **You should know the potential impacts**
 - Both to the bees and to yourself during handling and application
 - Injury to self (acid burns, skin irritation, eye injuries, and other poison effects)
 - Injury and impacts to bees and the colony
 - Injury or Mortality to developing brood
 - Injury or Mortality to adult bees, including potentially the queen
 - Irritable bees – bees absconding
 - Tainted brood food and food stores – tainted wax
 - Injury to queen and drone reproductive health

Approved Treatments

□ Use Only Approved Treatments

- The products on the previous slide are the only ones to be used in beehives
 - These are registered as safe with bees, **and the honey you produce**, when applied by the label instructions
- There are many unsanctioned methods and products promoted that are not registered, not approved, and sometimes outright dangerous
 - This includes classes of essential oils and non-label uses of approved products

Preventing Resistance

- **Mites can become resistant to medicines**
 - Varroa mites can develop resistance to applied treatments
 - Case in Point: Beekeepers started with two products, Cumophos and Tau Fluvalinate, two medicines that were initially very effective
 - In time, and with repeated usage, both products became completely ineffective and are no longer recommended or useful
 - Rotation is imperative
 - In order to stem resistance, subsequent treatments should be altered so no one product is used in succession.
 - The premise is a second, competing product will kill off mites that survived the first

Treatment Regime

WE KNOW....IT CAN BE OVERWHELMING!!!!

Take your time, build a plan in the beginning of the season and then adjust as required

□ Product Choices

- It is not uncommon for beekeepers to administer several treatments of differing products across a single beekeeping year
 - With an array of products to choose from you must decide on what to use
 - Conditions present during application influence choices (temperature, honey present, state of the bees, etc.)
- Some beekeepers evaluate their goals and decide on a treatment regime
 - If you work through it logically, you can build a plan in advance

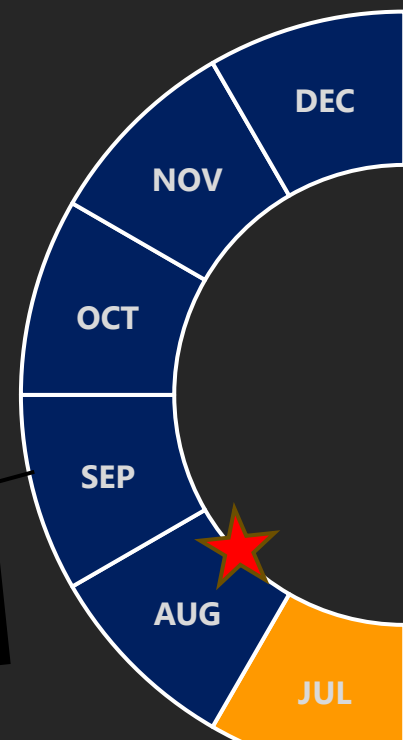
Example Timeline (with rationale elaborated)

FEB	VARROXSAN	<i>Strips deployed in early spring to keep mite populations in check... start with low mite population</i>
JUL	FORMIC PRO	<i>Ok to apply (temps not withstanding) when honey onboard</i>
SEP	APIGUARD	<i>Possible use if still mites present after summer knockdown treatment</i>
NOV	OXALIC ACID VAPORIZATION	<i>An option to have in case a late surge and to keep mites low through winter</i>

MIX AND MATCH WHATEVER SUITS YOU AND YOUR LOCAL SITUATION

SUMMER STRETCH

FALL EQUINOX
September 21



NO MORE VARROA MITE TALK!

LET'S TALK ABOUT THE REST OF THE STUFF WE CAN TAKE CARE OF



WHATS GOING ON INSIDE THE HIVE DURING SUMMER VACATION

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September 21

Behaviors and Activities that exist in Summer and Fall

- ❑ **BEARDING:** Still hot days through summer
- ❑ **DEARTH:** Reduction in resource availability
- ❑ **FALL FLOW:** Some manage a fall flow/harvesting
- ❑ **GUARDING:** Defensiveness increases (large colonies)
- ❑ **QUEEN STATE:** Colonies could go queenless
- ❑ **ROBBING:** Robbing becomes a real threat (yellowjackets too)
- ❑ **DRONE BROOD:** Production ceases, drone removal
- ❑ **PROPOLIS:** Bees start sealing up the cracks/crevices



RESOURCE GOALS FOR WINTER

RESOURCES IN AN IDEAL COLONY STATE

HONEY REQUIREMENT

60 to 80 POUNDS

8 Frames of Capped Honey

HONEYBEE

15 FRAMES

Or, equipment

POLLEN REQUIREMENT

2 to 4 frames

Centered alongside the nest

RESOURCE GOALS FOR WINTER

RESOURCES IN AN IDEAL COLONY STATE

IDS

HONEYBEE REQUIREMENT

15 FRAMES of BEES

Or, equipment size commensurate to colony size

nes

st

Equal to or greater than (15) Frames where bees cover the face of the frames.

Do factor that capped brood can be factored into the assessment

Like to see a "2" or "3" scale* (on the face of each side)

"2" = 2/3rds of face covered

"3" = fully covered

FEED BEES DURING THE SUMMER STRETCH | 1:1

INCOMING RESOURCES MAINTAIN POPULATION AND HEALTH

FEED FOR POPULATION

Continually Supply Food

- Feed during the dearth
 - Feeding also keeps queens laying – this keeps the workforce going a little bit longer
 - It also bolsters health in the bees. Well fed, well provisioned bees are healthier and have better immune systems
- One to one sugar solution – *keeps it going*



FEED BEES DURING FALL | 2:1

FEEDING 2:1 IN FALL PROMOTES STORAGE



FEED FOR STORAGE

2:1 RATIO PROMOTES STORAGE FOR WINTER

- Around the fall equinox consider switching your food from 1:1 to 2:1 to promote storage
 - Feed, keeping in mind that bees need to ripen and cap food

FEEDERS | TOP VS INTERNAL

FEEDING 2:1 IN FALL PROMOTES STORAGE

WHICH FEEDERS?

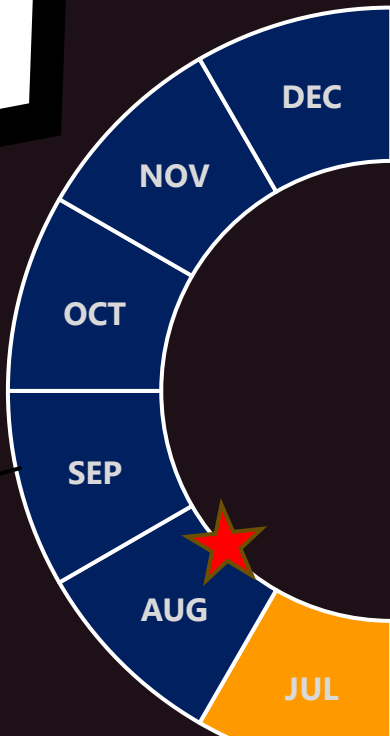
TEMPERATURE FACTOR

- Feed during the dearth
 - Top feeders deliver a lot of syrup without having to open the hive
 - Internal feeders facilitate feeding when temps are cooler as the brood nest helps keep the liquids warmer
 - Internal feeders may require opening hive on cool days however
- **USE WHAT SUITS YOU**
 - Everyone has a favorite
 - Do consider the circumstances



SUMMER REVIEW

FALL EQUINOX
September 21





**What
do you
see?**

QUEEN WATCH

MAINTAIN VIGILANCE ON QUEEN VIABILITY



ALL DRONES

COLONY HAS A BAD QUEEN

- Drones in Fall = Problems
 - Queens that are producing drones late in summer and into fall signal something is up
 - Make a mental note, if you are seeing drones as summer comes to a close, watch the queen

QUEEN WATCH

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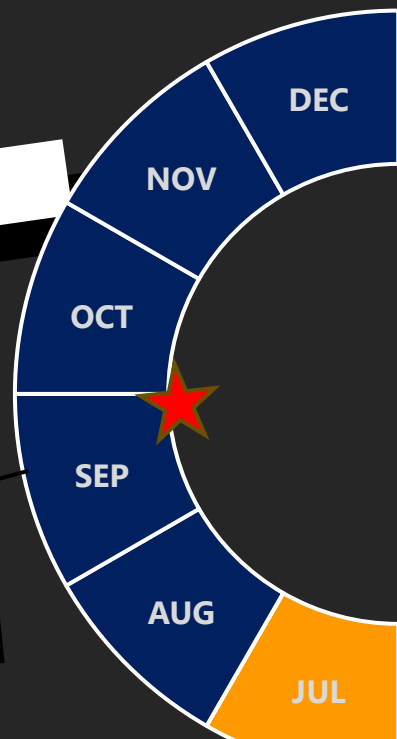
QUEEN REPLACEMENTS

- The further you get along in the year, the harder it is to find queens
- Late queens compromise winter viability due to the brood break



FALL REVERSAL

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WHAT IS A FALL REVERSAL?

LATE SUMMER/EARLY FALL

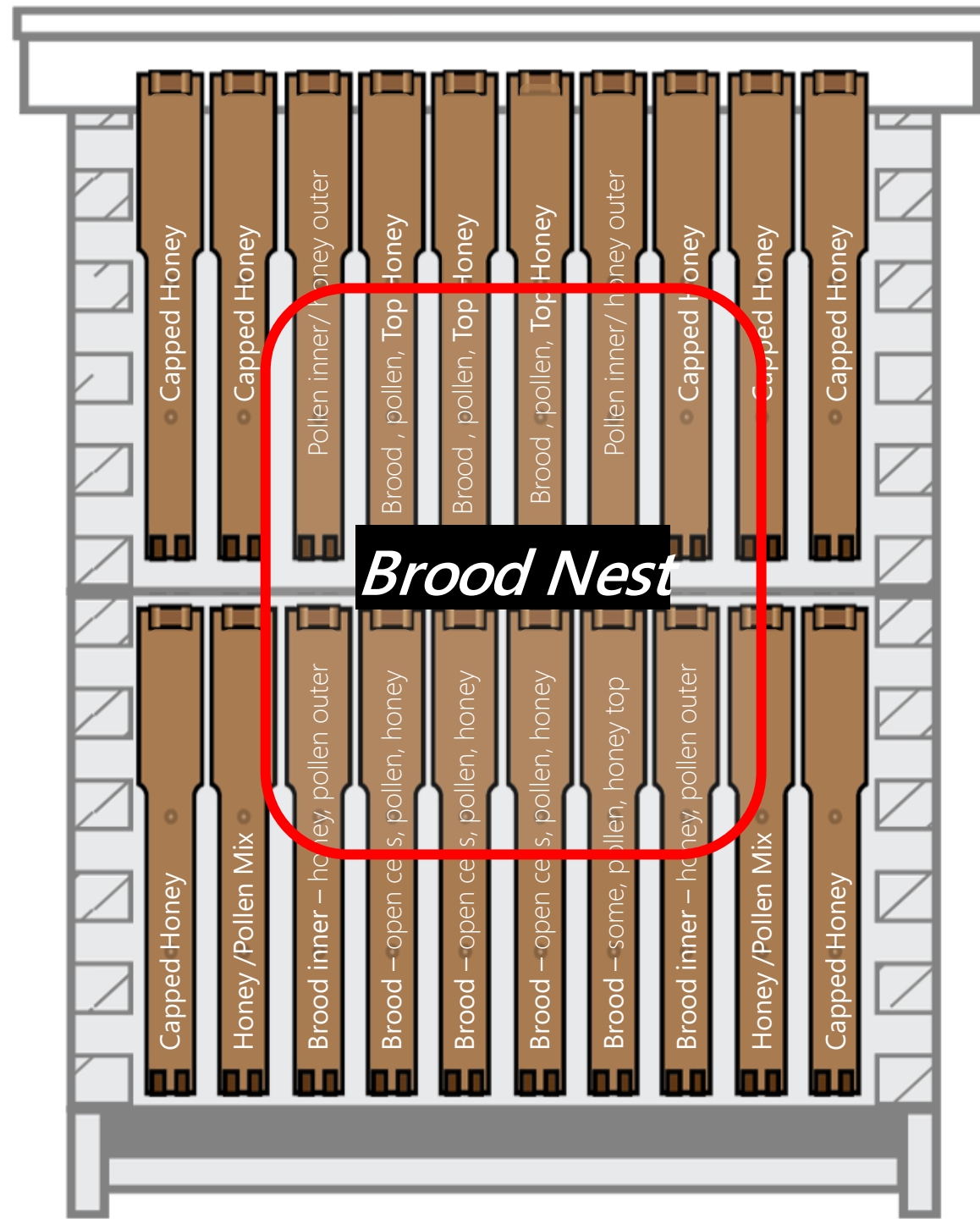
Move the bees to the bottom box and feed 2:1 Sugar

Let's talk about the premise of this



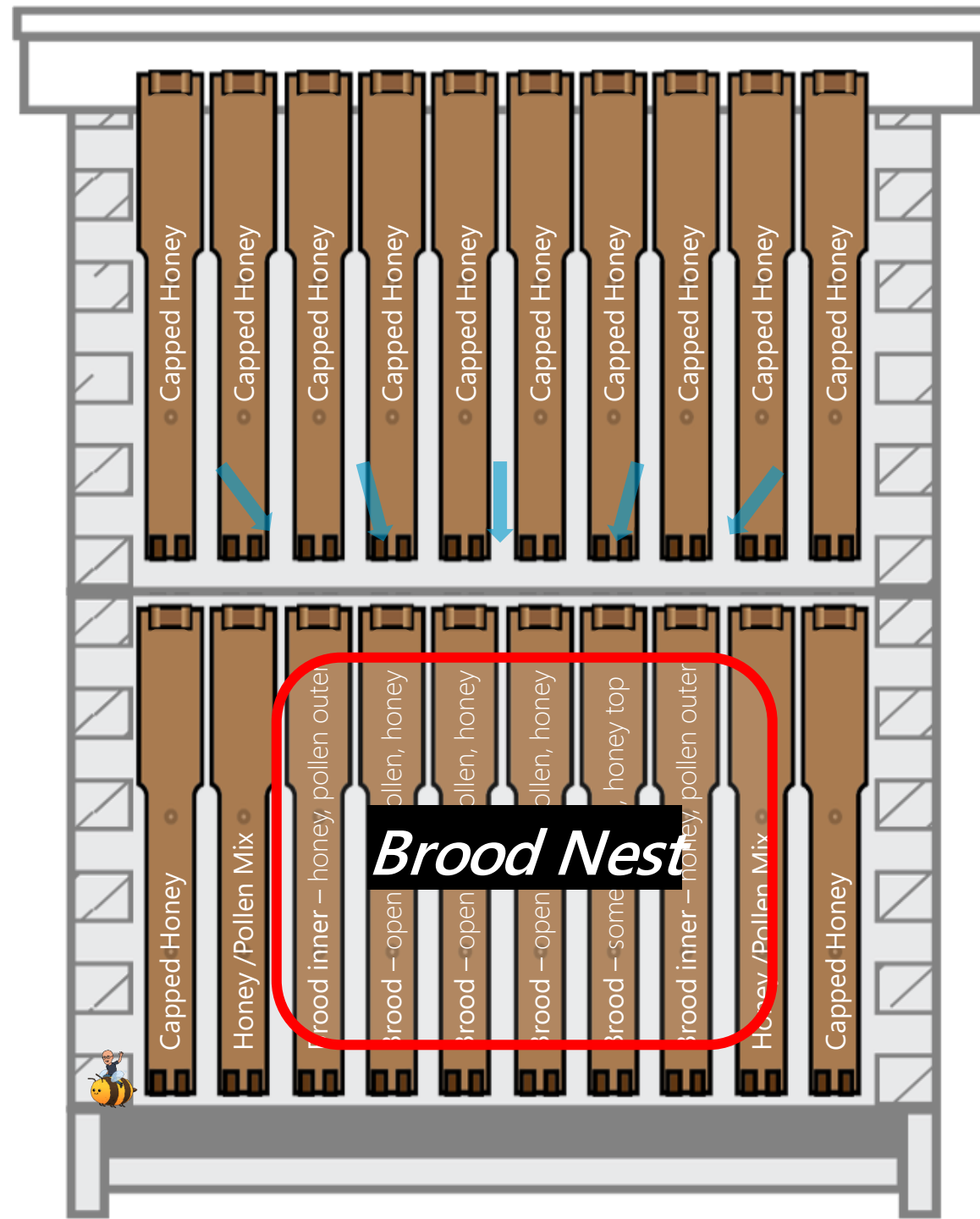
LATE SUMMER, EARLY FALL

- BEES throughout the stack
 - Each hive will be different
 - It could look like this with bees and food distributed between two boxes
- In fall the egg production from the queen will drop
 - Using the fall reversal concept, you would want to feed 2:1
 - This will result in food being stored above the brood nest
- You might take the steps as mentioned, to physically rearrange the bees into the bottom box



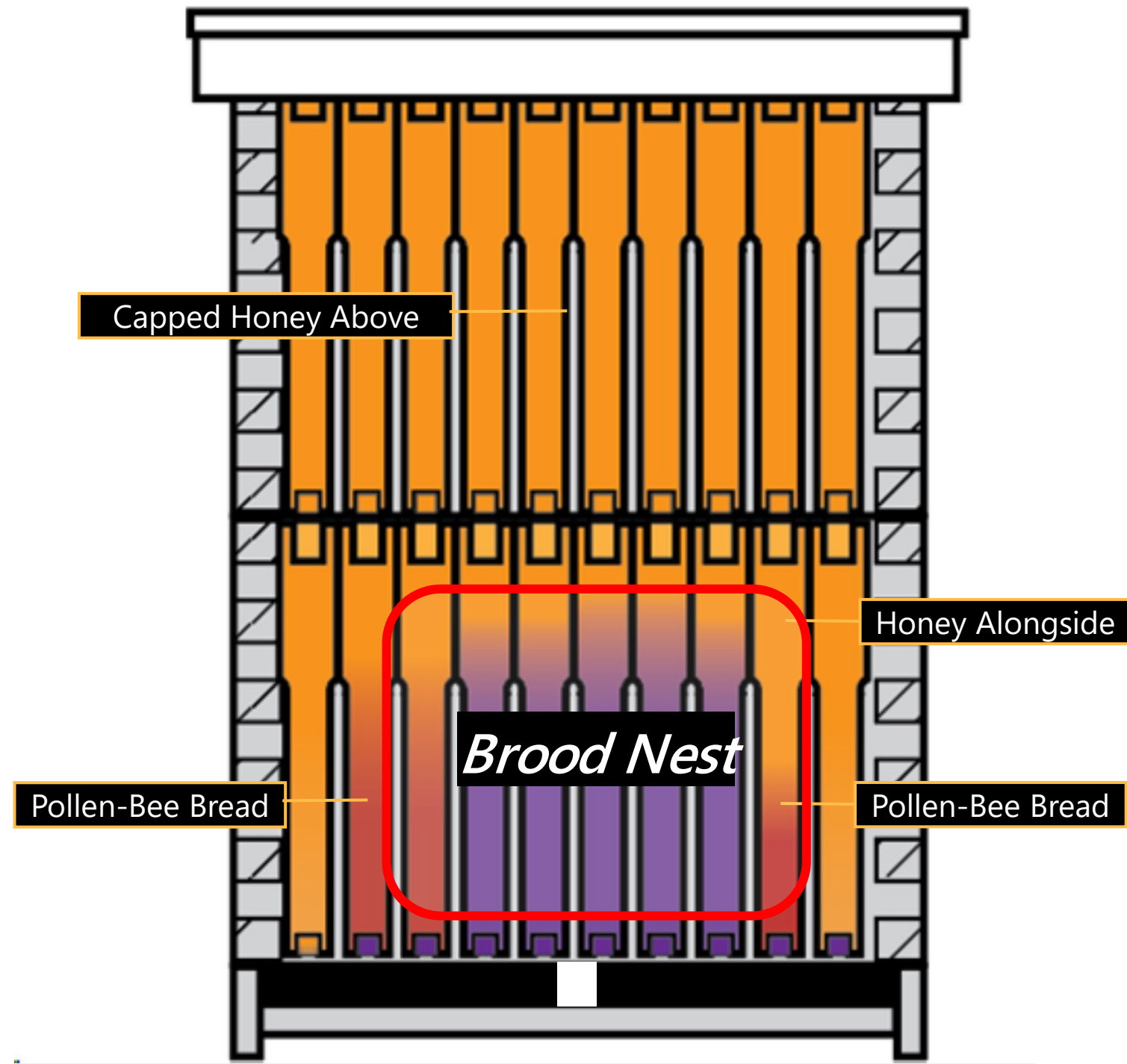
LATE SUMMER, EARLY FALL

- BROOD NEST in the bottom box
 - Feed to push them down naturally
 - Or perform the reversal
- Winter Playbook
 - They will make brood for as long as they can operate
 - They can move left or right to get food
 - Then eventually as winter moves on they will move into the storage area above them
- Set the stage through maintenance in late summer to early fall
- Supplement with feeding



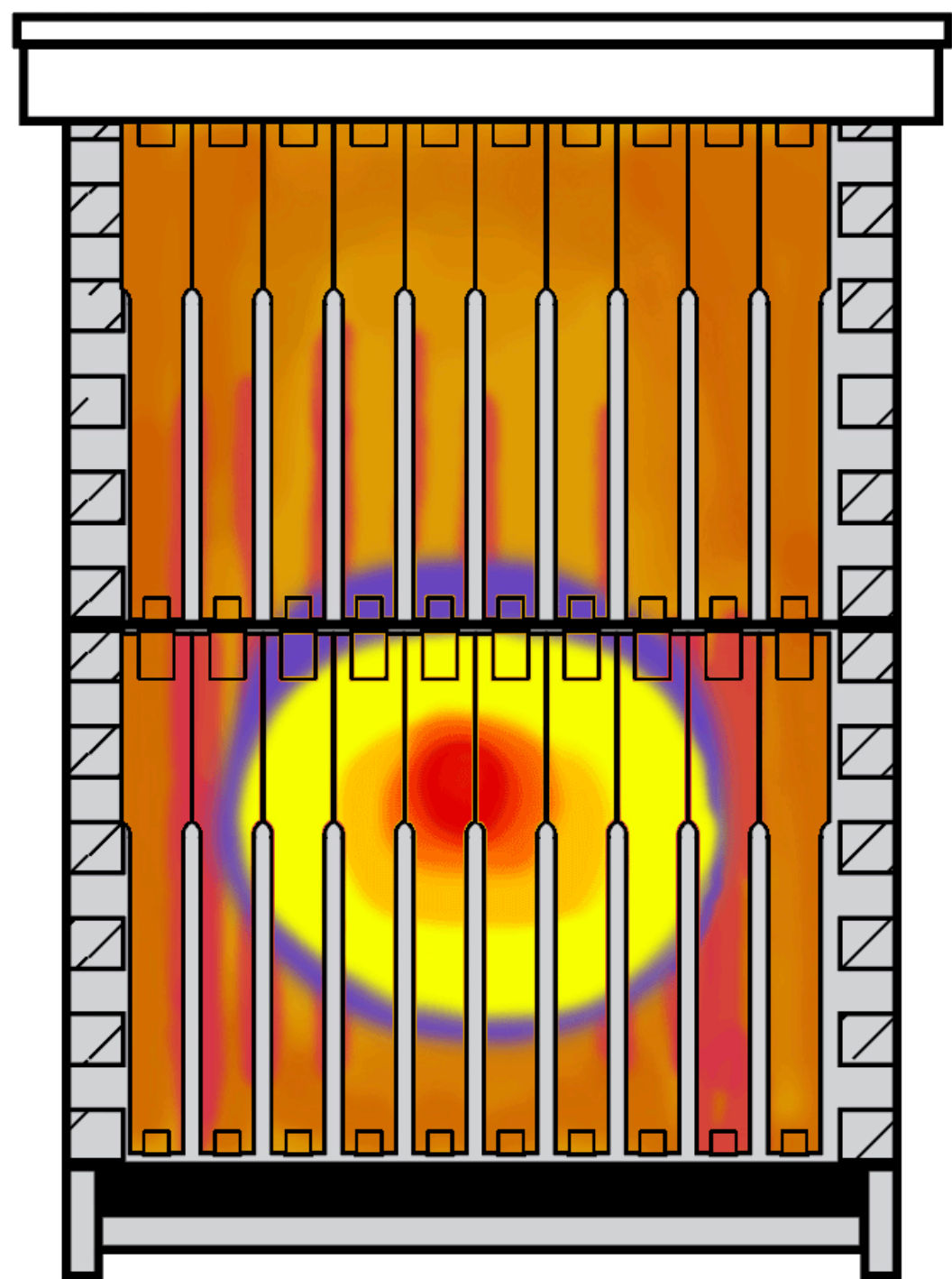
DIFFERENT VISUAL

- A different way to see how the bees are organized
- This is followed by how the bees will move in winter



DIFFERENT VISUAL

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COMB MANAGEMENT



POOR COMB

MOVE POOR COMB TO THE BOTTOM BOX

- Rotate bad comb to the bottom during reversals
 - Badly drawn comb
 - All drone comb
 - Old crusty comb
 - Shotgun brood comb
- Move it to **outer positions** in bottom box
 - Bees move up in winter, and the comb will be empty in spring
 - Cull it next spring when the bees move up

DO THIS *NOW*, WHILE THE WEATHER IS STILL HOT ENOUGH TO DO FULL STACK INSPECTIONS/MANIPULATIONS

**FINISHING
FALL**

**AFTER THE FLOW IS GONE
COMPACT THE STACK**

TO THE MELODY OF EARTH WIND & FIRE



Compact the Stack

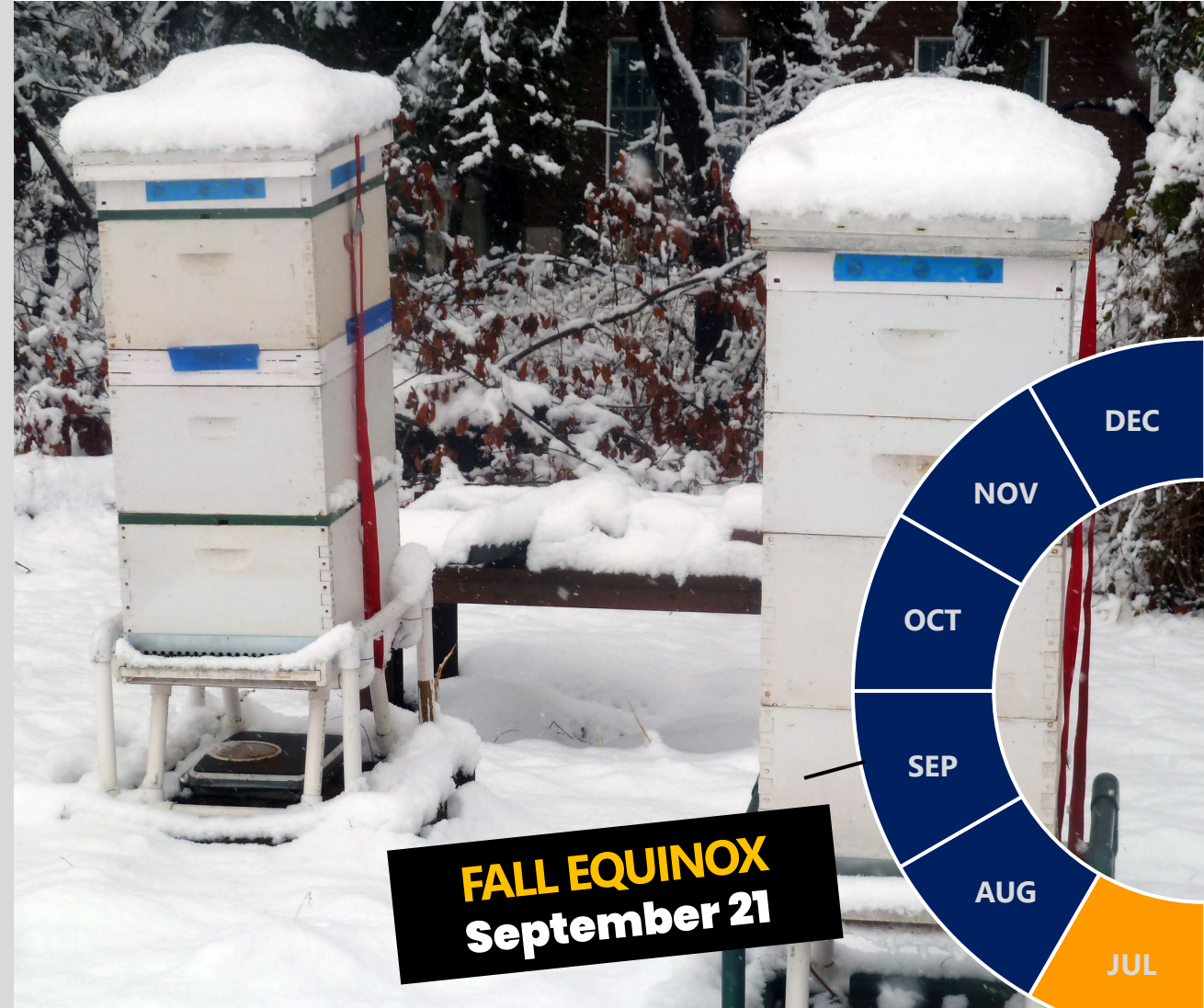
REMOVE HONEY SUPERS



PERSONAL OPINION SHARED HERE

I did several years of testing different configurations >>>>>>>

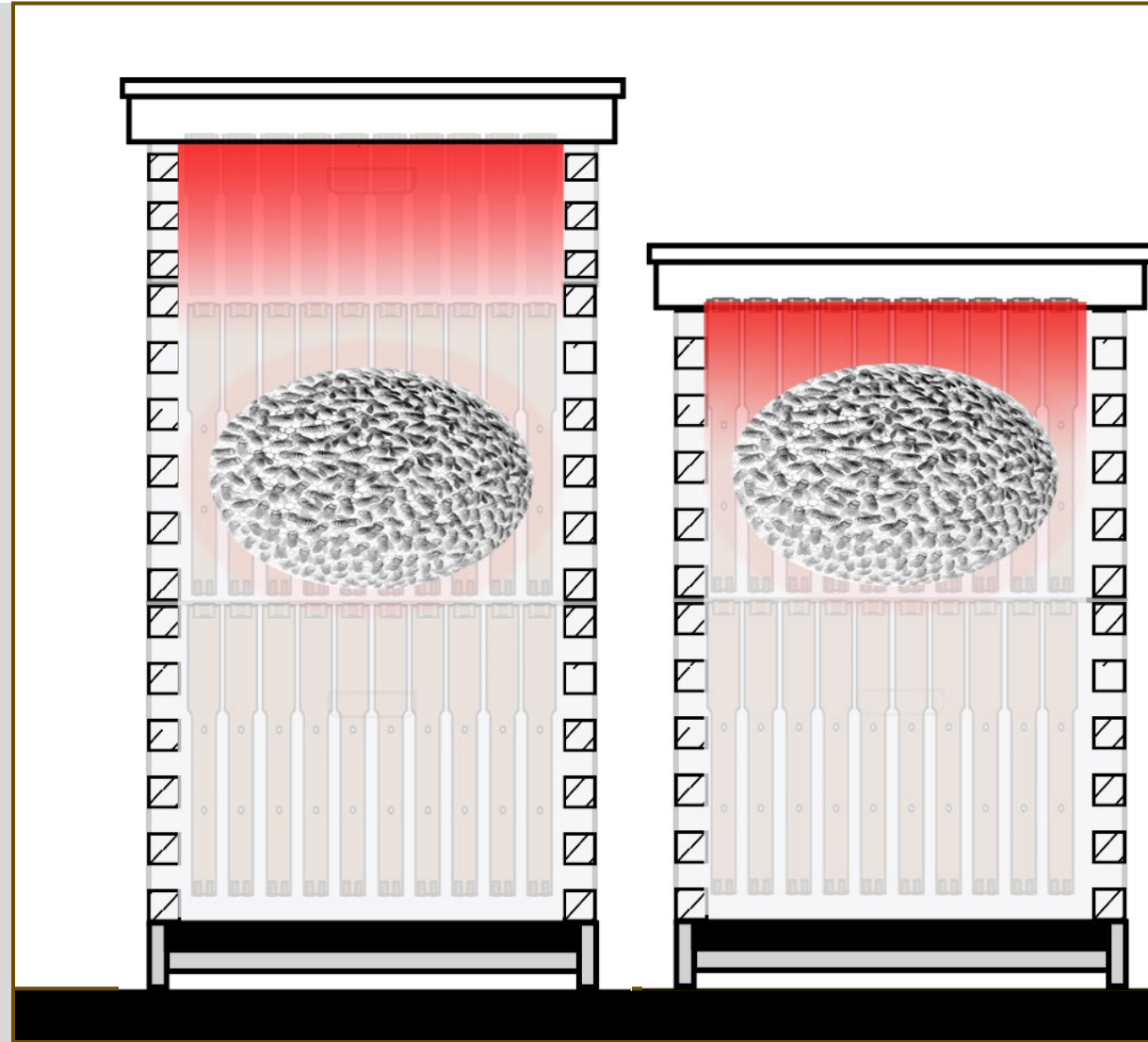
- Quilt boxes, extra honey, etc.
- **Bees did best when compacted to just the brood nest**
 - Bees did not overwinter well with excess space over the brood nest, even with an abundance of food



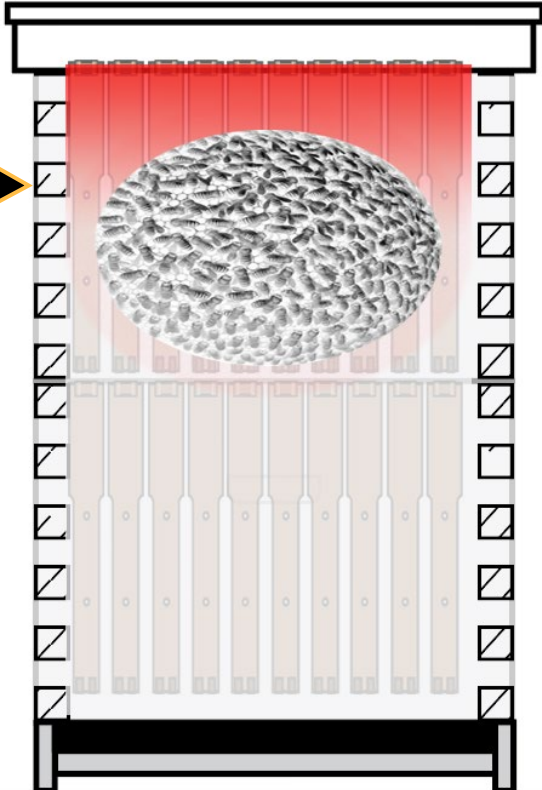
Compact the Stack

REMOVE HONEY SUPERS

- ❑ **Residual Heat is Preserved**
 - With supers on heat collects far above the brood nest
 - When supers are off, heat collects under the inner cover
 - The colony will come up into the upper box as winter progresses
 - They benefit from even small amounts of warmth that accumulates

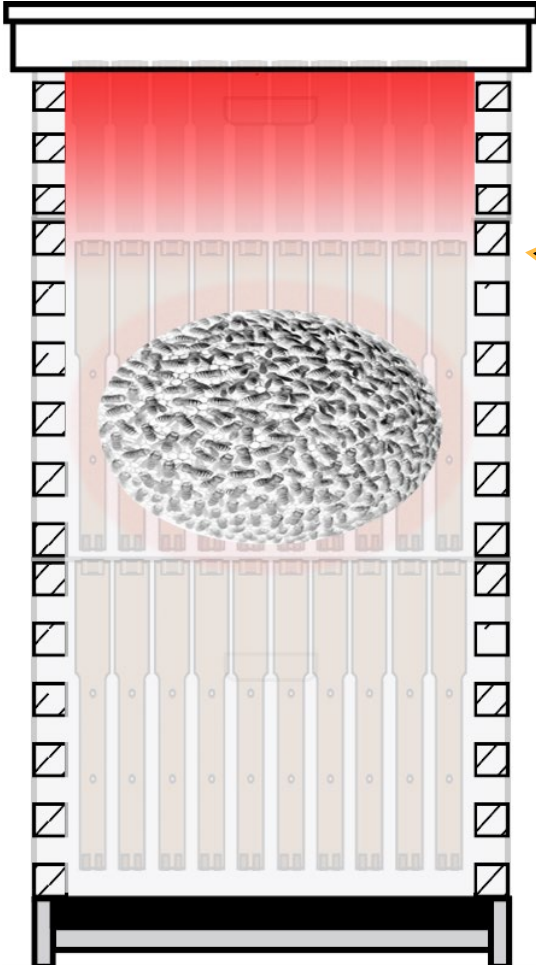


Compact the Stack



With honey super removed the cluster can get into any residual warmth

The diagram shows a cross-section of a beehive. The top section, which would normally be a honey super, is missing. A large, textured, grey cluster of bees is positioned in the center of the hive, directly under the top entrance. The bees are shown in a more compact arrangement compared to the second diagram. The hive body is divided into several horizontal sections, with the top section being red and the lower sections being light brown. The bees are shown in a more compact arrangement, filling the space more efficiently.



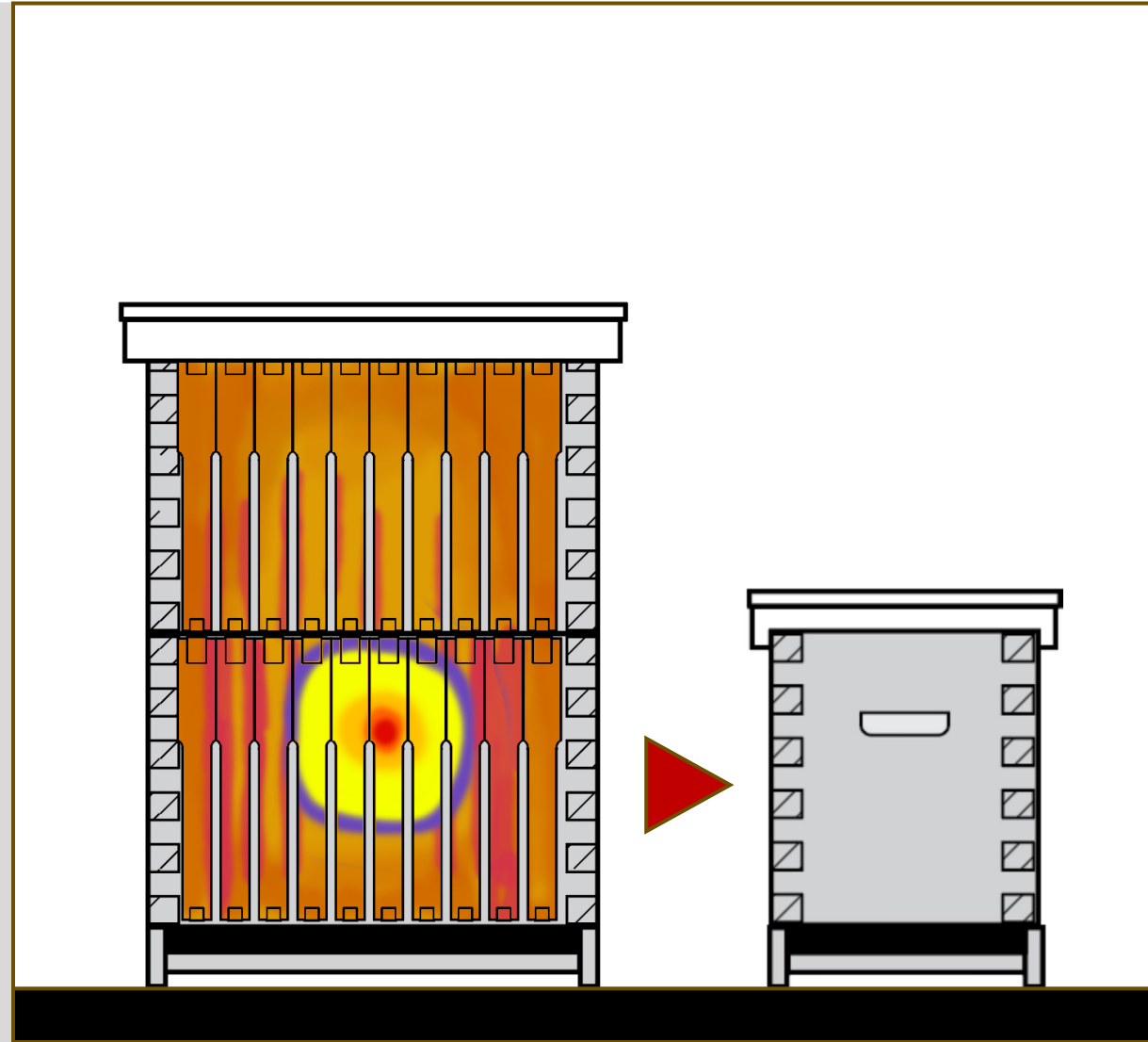
With honey super they cannot

The diagram shows a cross-section of a beehive. The top section, which would normally be a honey super, is present. A large, textured, grey cluster of bees is positioned in the center of the hive, directly under the top entrance. The bees are shown in a more spread-out arrangement compared to the first diagram. The hive body is divided into several horizontal sections, with the top section being red and the lower sections being light brown. The bees are shown in a more spread-out arrangement, filling the space less efficiently.

Compact the Stack

SMALL COLONIES

- **Move to the right size equipment**
 - If you have small colonies, move them into different equipment
 - You can overwinter in a single deep, or if need be a 5-frame Nuc
 - If it is a small colony, move them now into a 5-frame and put a 5-frame over
 - Stimulative feeding would fill 10 frames and give them a better chance



Clean & Close Bottom Boards

- **Clean bottom boards**
 - Winterize your bottom boards
 - Clean bottom boards of any accumulated debris before placing entrance reducers
 - Pull plastic inserts (if in service) and clean them of any debris
 - **Place insert into screened bottom boards - if they are out**



Colony Well Provisioned for Winter?

☐ Testing if the bees have enough food

■ A tried-and-true method of testing is to do a ‘heft test’

- Grab a hand-hold from the lower box and test the weight of the overall hive stack
- Gently, but steadily, pull up on the handle - in an effort to lift the box slightly – and determine how heavy it is
- If the box yields easily, it is too light and requires feeding
- If it gives a significant amount of resistance, meaning you can barely lift it, then it is considered heavy and is likely to have an adequate reserve

Colony Well Provisioned for Winter?

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**BONUS
ITEMS**



Image credit: Virginia and Vicki | Pemi-Baker Beekeepers Assoc.

The **DAVID WADE** APPROACH

Place foundation along the edges and let the bees repurpose the wax to build honeycomb – a great method to get frames drawn out for those times where bees are not drawing comb

4/14 R4

Visual Redistribution of the rolls, this works...



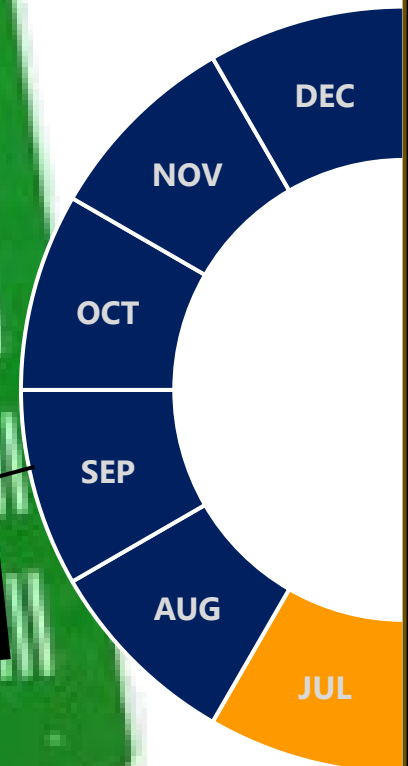


PROPOLIS TRAP EQUIPMENT

□ Deploy Propolis Traps

- A trap is affixed as the leaves change color
- Typically, propolis is harvested over a period of a single season
 - Spring Nectar Flow
 - Summer Dearth
 - Fall to Winter Period
- It is an equivalent of collecting it over a season of hive inspections

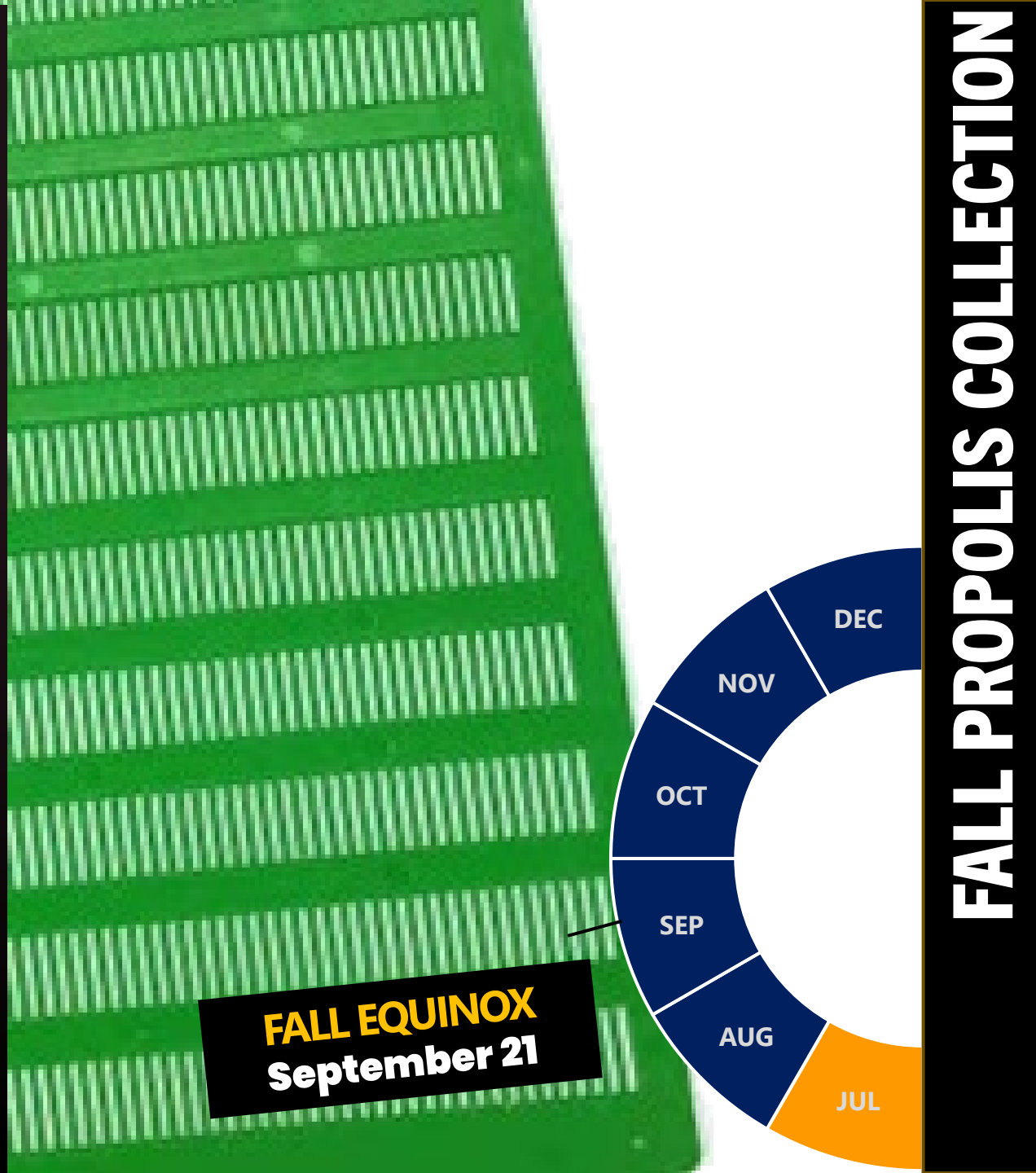
FALL EQUINOX
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Timing: Collect in Fall

❑ Some markers to consider

- *When the fall flow is underway with bees actively foraging; Winter Onset is in play*
 - It must be warm enough for the bees to work with it, yet cold at night so they will want to use it to apply it where they require in the hives normally
 - In and around the **start of active yellowjackets** is another marker
- *While fall is more traditional, spring forage is also viable*





Placed flat
side up
over the
top box

Placement

Traps are placed under the telescoping cover, in-lieu of an inner cover.

Prop up the outer cover to let light in

Light showing through will motivate the bees to seal off the gaps, preventing light and air from coming in.

- **Light and airflow play an important role in encouraging bees to deposit propolis.**
 - When you place traps on top of the hive, make sure they're positioned to let in some light and allow air to move underneath
 - Avoid laying the trap directly on the top bars, as bees will quickly glue it down with wax and propolis. Use stand-offs to create proper bee space between the trap and the bars
 - The use of propolis traps help keep wax contamination low
 - Bees do not blend much wax with the resin
 - Traps also make harvesting quicker and can increase overall yield

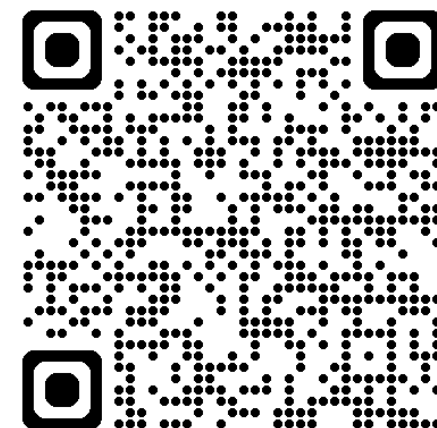
Weight on Roof

Note: This happens to be a polystyrene hive!

Strap keeps roof from blowing away

Propolis Trap sits flat over the box, sealing off the top of the hive

Shims let air and light in



Thank You

Kevin@bkcorner.org