

Queen Management

for the Hobbyist & Sideliner

Building a sustainable apiary — from evaluation
to raising your own queens

Presenter: Jonathan Parsons | Northern Door Honey Co.



Tonight's Program

01 Introduction

5 min



02 Queen Biology & Lifecycle

10 min



03 Queen Management & Evaluation

15 min



04 Queen Rearing — Practical Methods

25 min



05 Q&A and Discussion

5 min



01



Introduction

Why queen management matters — and where we're going tonight

The Goal: A Sustainable Apiary

Understanding and manipulating the queen is how you solve almost every problem in the apiary.



It's Okay to Buy Bees

Most beekeepers buy queens and packages — and that's fine. But you don't have to.



You Already Have What You Need

With a little knowledge, your own colonies can produce the queens you need all season.



Sustainability is the Goal

Stop depending on shipped bees. Grow your apiary from the colonies you already have.

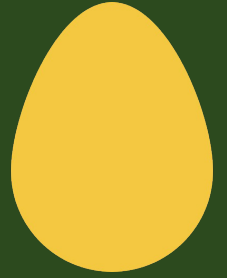
LET'S TAKE A POLL

Who has had a colony
requeen itself —
intentionally or not?

(Raise your hand)

The bees already know how to do this — tonight we learn how to work with them.

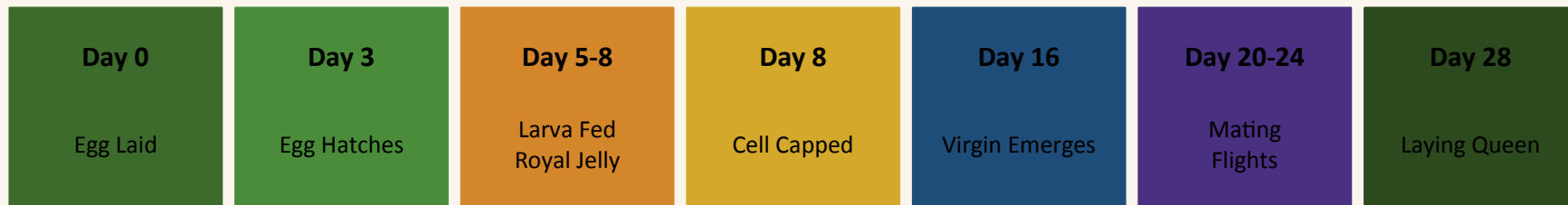
02



Queen Biology & Lifecycle

From egg to mated queen, and back to decline

From Egg to Queen



Key Points:

A queen starts as the same egg as a worker — the difference is diet and cell shape

Royal jelly is the trigger: continuous feeding through development makes her a queen

Younger larvae grafts make better queens — use larvae under 24 hours old

Timing matters — miss Day 13-14 for cell distribution and you lose the batch

Mating — And Why It Matters

THE MATING PROCESS

- Virgin queen matures for 5-7 days after emerging
- Flies to Drone Congregation Areas (DCAs)
- Mates with 12-20 drones mid-air
- Stores sperm in her spermatheca for life
- Returns to hive, begins laying in ~5-7 days

BEE BREEDS & OPEN MATING

- She mates with whatever drones are flying in your area
- Buying an "Italian queen" doesn't give you Italian bees after one generation
- For the small apiary, chasing breeds is largely futile
- Focus on local, survivor genetics instead
- Your drones matter too — strong local colonies improve everyone's queens

Laying, Reproduction & Decline



The Laying Queen

- Fertilized egg → worker (or future queen)
- Unfertilized egg → drone
- Queen decides cell-by-cell based on cell size
- Peak: 1,000-2,000 eggs per day



Colony Reproduction

- The swarm impulse — colonies naturally split
- Swarm cells: bottom of frame, many cells
- Supersedure cells: mid-frame, 1-3 cells
- Emergency cells: wherever young larvae exist



Decline & Replacement

- Queens typically decline after 1-2 seasons
- Spermatheca runs low → more drone brood
- Bees supersede her quietly
- Or they emergency replace if she dies suddenly

03



Queen Management & Evaluation

Finding her, reading the frame, and knowing when to act

Finding the Queen



1 [Click to play video](#)

TIPS FOR FINDING HER

- Queens tend to be on open brood frames
- Look for the retinue — a circle of attending workers
- She moves differently — slow, deliberate
- Usually found in the brood nest core
- Check dark frames first (she stands out)
- A core skill — gets easier with practice

Judge Her by Performance

Queens look different — that's normal. Judge her by what she does, not how she looks.



#1 — OVERWINTERING ABILITY

"The hive is alive in the spring. Choose that queen!"

- Conservative with resources
- Good buildup & shutdown timing
- Quiet cluster through winter
- Goes in strong, comes out strong

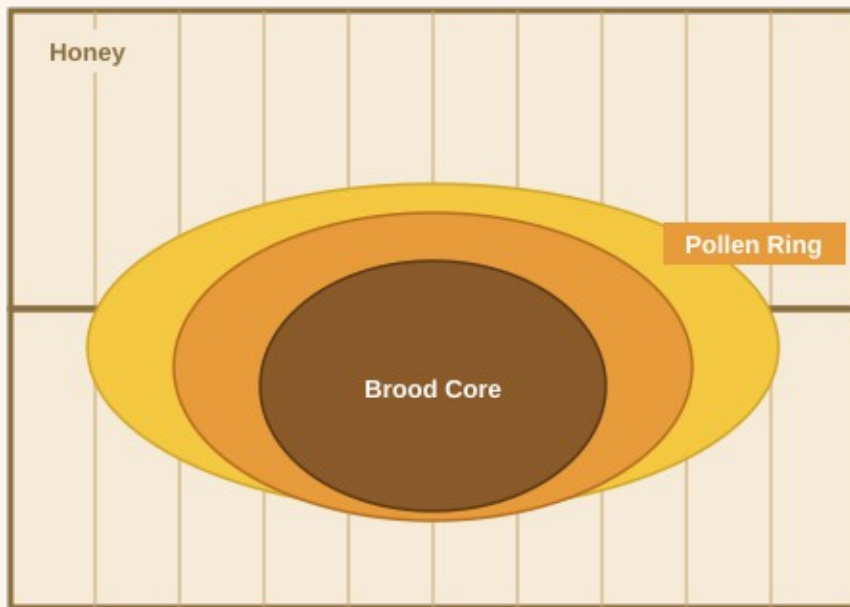


#2 — TEMPERAMENT

"Mean bees make beekeeping no fun."

- Seasonal chippiness is normal
- Consistently jerks? — they have to go
- Affects both defense & inspections
- Work with a mentor to calibrate

The Soccer Ball Brood Nest



20 frames (double deep)

Know Where You Are Before You Look

The brood nest is roughly soccer-ball shaped
Brood in the core, pollen ring around it, honey on top
It spans multiple frames across both deeps

When you pull a frame, ask:

- Where am I in the nest?
- What should be on this frame?
- What's on the frames next to it?

Normal Conditions — Your Baseline



WHAT HEALTHY LOOKS LIKE

- Eggs in the center of cells
- Young larvae in C-shape, sitting in royal jelly
- Capped brood — solid, consistent pattern
- Worker brood (flat caps) in worker cells
- Some drone brood (raised caps) near edges — normal
- Mixed brood: eggs → larvae → capped in a clear progression

Red Flags — Time to Act

! Spotty Brood Pattern

Empty cells scattered throughout capped brood area.

! No Eggs

No sign of recent laying activity in the colony.

! Laying Workers

Multiple eggs per cell, eggs on cell walls.

! Drone Layer

Raised drone caps in worker cells — queen failing or poorly mated.

! Swarm Cells

Many queen cells on the bottom edges of frames.

! Supersedure Cells

1-3 queen cells mid-frame — bees replacing her quietly.

Swarm Cells vs. Supersedure Cells

SWARM CELLS

Location:	Bottom of frames, edges
Number:	Many (often 5-15+)
What it means:	Colony is preparing to leave
Your response:	Split the colony or manage swarm impulse
Opportunity:	Great source of queen cells for splits

SUPERSEDURE CELLS

Location:	Middle of frame, on the face
Number:	Few (usually 1-3)
What it means:	Bees replacing a failing queen
Your response:	Let it happen — trust the bees
Opportunity:	The colony already identified the problem for you

04



Queen Rearing Practical Methods

Three paths forward — from accessible to aspirational

Why Rear Your Own Queens?



Local Genetics

Queens from survivor stock, adapted to your local forage and climate.



Sustainability

Stop buying packages and queens. Grow your apiary from what you already have.



Emergency Backup

A queenless colony can be saved in days if you have a ripe cell on hand.



Scaling Up

Go from hobbyist to sideliner without ordering a single queen.

The Walk-Away Split

First rule: FIND THE QUEEN. This is non-negotiable.

1 Find the Queen

You decide where she goes — always. Never do a blind split.

2 Divide the Colony

Into nucs, two larger colonies — whatever fits your situation.

3 Every Split Needs a Path to a Queen

Eggs, a swarm cell, a purchased queen, or one you already have.

4 Place Her Intentionally

Original queen goes somewhere on purpose — new colony, nuc, or caged.

When to do it: before nectar flow, swarm season, when you see swarm cells — all season long.



A split in progress — colony divided intentionally

Using Swarm Cells

The bees did the hard part — capitalize on what they've already built.

FINDING & MANAGING CELLS

- Bottom of frames during swarm season
- Inspect carefully — don't crush cells
- Identify the most mature, well-formed cells
- Note which day cells were capped (~8 days to emergence)

USING CELLS IN SPLITS

- Cut out or leave cells on frame for distribution
- One cell per split — let her emerge and mate
- Set up mating nucs: small box with bees, stores & cell
- Check for laying queen ~3-4 weeks after capping

The Clemens / Reynolds Method

ASPIRATIONAL — for beekeepers with 5+ colonies, ideal for clubs pooling resources



Grafted queen cells in a 5-frame cell builder

THE WORKFLOW — A 5-FRAME CELL BUILDER

Day 1

Set up a very strong 5-frame nuc: 1 emerging brood, 1 mixed brood with eggs, 1 honey, 1 pollen, 1 foundation in the middle. Shake in 2-4 frames of nurse bees. Add pollen/syrup.

Day 4

Remove any queen cells the bees built. Pull the middle foundation frame and drop in your grafted frame with fresh larvae.

Day 10

Pull ripe queen cells, distribute to mating nucs. Restart by adding a mixed brood frame and shaking in more nurse bees — runs all season.

Where to Start — And Where to Go

START HERE

Walk-Away Split

Anyone can do this

- 1+ colonies
- No special gear
- Find the queen, divide
- Learn by doing

LEVEL UP

Swarm Cells

Work with the bees

- Use what bees provide
- Set up mating nucs
- Learn cell handling
- Timing awareness

ASPIRE

Clemens/Reynolds

Club-level rearing

- 5+ colonies recommended
- Grafting required
- Cell builder nuc
- Localized genetics

Key Takeaways



Sustainability is the goal — understand the queen and you solve most problems in the apiary.



Evaluate by performance, not looks — overwintering ability and temperament tell you everything.



Learn to read the frame — the soccer ball model gives you a mental map of the hive.



Know the difference between normal conditions and red flags that need action.



Start with walk-away splits. Move to swarm cells. Aspire to Clemens/Reynolds with your club.



Questions & Discussion

Thanks for coming out tonight — let's talk queens.

Presenter: Jon

Queen Management for the Hobbyist & Sidelineer