Farm Profile

Kori MacCara

My Beekeeping History

	2016	2017	2018	2019
Course	Modern Beekeeper (Dal)	Microscopy Workshop (Karen Thurlow)	Apprentice Beekeeper (UMT)	Master Beekeeper (UMT), Commercial Queen Bee Production (Dal)
Spring Colonies	2 (combined to 1 upon queen dying)	2	2	6 (1 with chalkbrood, 2 with high nosema load & weak)
Summer Colonies	Split into 3	8 (splits, plus 2 new nucs)	6 (splits, plus 2 new nucs)	12 (splits, plus 2 new nucs)
Fall Colonies	3	Reduced to 5	6	Reduced to 8
Winter Loss	1	3	0	?


2016


2017


2018


2019

Warré Hive Design

- Economical. Easy and cheap(er) to build - but more expensive to buy than commercial equipment.
- Top bars minimize hive body size. To accomodate frames, the hive body volume must be increased to keep the same comb surface area.
- Volume of the hive body matches the volume of a healthy winter cluster. Cluster has fewer degrees of freedom for movement in winter (up or down vs up, down, left, or right).
- Square box cross-section allows hive to be rotated on the base to orient the comb warm-ways (parallel to entrance) or cold-ways (perpendicular to entrance).
- The quilt box acts as attic space for the hive and helps control moisture.


Assembled Hive


Wedged Top Bars


Quilt

Warré Management Basics

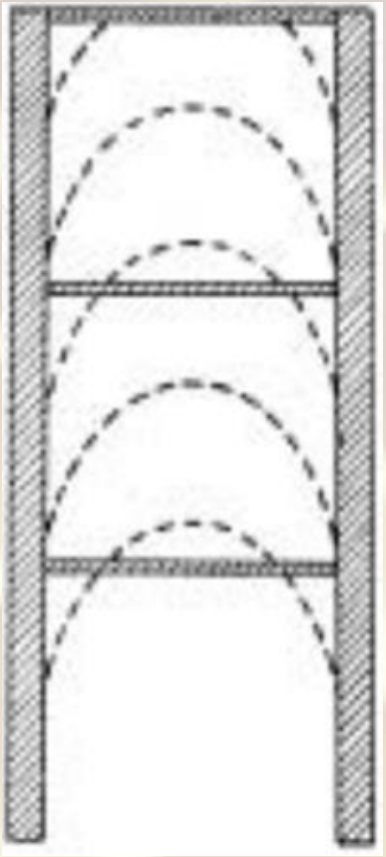
- Minimize hive openings to keep inner hive environment intact.
- Use frames or maintain comb to prevent cross-combing and ensure that comb remains inspectable.
- Hive expansion by nadiring (boxes added to the bottom) with 2 or 3 boxes according to strength before main flow.
- Bees can refuse to move down into an empty box (false-floor effect). A comb or two placed in the empty box can encourage the bees to move down.
- Honey is typically harvested by the box. Boxes with brood present are left.
- To clear honey boxes, Warré recommended driving the bees with smoke. I use an escape board or a fume board.

Comb Cycling

Brood nest moves down naturally as honey stores above the brood nest grow and new comb is drawn below.

Comb is cycled out when honey is harvested. Majority of the comb is naturally renewed every 2-3 years.

Because no box/comb is reserved for brood rearing, special consideration must be given when it comes to feeding and treatments to avoid honey contamination.



Harvesting and Feeding Considerations

- Feed only in the fall, if possible. When harvesting after main honey flow, leave 1 full box of honey so the bees can get through summer dearth.
- The fall flow is usually sufficient to top up winter stores.
- Ideally, the top box is entirely capped before supplemental fall feedings begin. This is because the bees often have some honey left in spring and we don’t want syrup in the comb that we intend to harvest later in the year.
- Any comb in the top box that has uncapped honey or open comb needs to be marked. In the spring, if all honey/syrup from that comb is eaten, remove the marking. If not, replace the comb with open comb, or leave it marked and don’t harvest that comb for saleable honey.

Treatment Considerations

Varroa Treatments: Formic Acid, Oxalic Acid Vapour (if honey boxes are removed during treatment). Only use treatments that do not contaminate the comb and honey stores. Brood comb becomes honey comb!

Medications: Any honey in the hive during treatment should be marked and removed prior to the next flow to ensure that any honey gathered can be harvested for human consumption. Any medicated honey that was removed can be stored and returned to the bees for winter.

Warré vs Langstroth Deep Hive Bodies

Hive Type	Length	Width	Height	Volume
Warré (Top Bar)	~11 ¾” (300mm)	~11 ¾” (300mm)	~8 ¼” (210mm)	~18L
Warré (with Frames)	~11 ¾” (300mm)	~11 ¾” (300mm)	~9 ½” (240mm)	~21L
Langstroth 5-Frame	~18 ½” (470mm)	~ 7 ⅞” (200mm)	~9 ½” (240mm)	~22L
Langstroth 10-Frame	~18 ½” (470mm)	~14 ½” (370mm)	~9 ½” (240mm)	~42L

- 1 Warré box = 1 Langstroth 5-frame deep box (nuc box)
- 2 Warré boxes = 1 Langstroth 10-frame deep box
- No additional equipment needed for creating nucleus colonies
- Hives are top heavy and get tall fast!

Anchors and Tie-Downs Highly Recommended!

Inspections

Keep comb perpendicular to the ground at all times. Newly drawn comb is very fragile! Broken comb can be repaired by hanging it from top bars.

Winterizing

- Combine weak colonies. A strong colony overwinters on 3 boxes with 55-65 lbs of honey. A nuc gets 2 boxes with 40-50 lbs of honey.
- Hives are wrapped individually with tar paper for solar gain and helps keep water out of the seams.
- Wind protection: Warré recommended turning the hives to be warm-ways. I use a snow fence to block wind from the NW, N, and NE.
- Sugar cakes or fondant can be given as emergency winter feed in a feeding shim.

Honey Stores

Hive Type	Honey / Box	Winter Stores Needed in NS
Langstroth Deep	60-70 lbs (27-31 kg)	60-80 lbs (27-36 kg)
Warré (Top Bar)	26-33 lbs (12-15 kg)	55-65 lbs (22-30 kg)

Warré observed higher winter consumption when frames were used: 27-34 lbs (12-15 kg) top bars vs. 34-41 lbs (15-18 kg) with frames. Warré overwintered in 2 boxes, in NS we use 3 boxes.

Honey can be harvested either by crush and strain or using an extractor.

- Crush and strain produces honey with more pollen in it and tends to be more cloudy in colour - it's very tasty! It's time consuming.
- Spinning the extractor too fast too soon can result in blow-outs. Is slower than extracting with frames/foundation. Clearer honey.


The Box


The Comb


The “Crush”


The “Strain”

Wax Processing

Comb can be sorted by colour for processing.

I use a dedicated crockpot with paper towel to clean wax. Two passes is sufficient to clean most wax. I melt the wax a 3rd time to pour into moulds.

Hive Tools

An L-shaped hive tool is used to cut away comb attachments from the box sides. This type of tool is made specifically for top bar hives.

Mainstream hive tools can be used. With a box on its side, comb attachments can be cut away by sliding the tool between the edge of the comb and the hive side from the underside of the box.

Nuc Transfer Boxes

Normally Warré hives are populated using packages. However, nucs can be placed into a transfer box which allows the colony to move down into the Warré equipment.

The transfer box can removed once it has been backfilled with honey. Alternatively, a queen excluder can be used and the transfer box removed once the brood in it has emerged.

Adapter Frames

A 19” bar with spacers can hold a Warré top bar to allow comb of the correct size to be drawn in Langstroth equipment. This is useful for drawing seed comb for a Warré or to replace frames in a transfer box as brood emerges.

A Warré comb in a foundationless Langstroth frame is useful when making splits from Warré hives into Langstroth hives.

Robber Screens

Screen allows robbers to be drawn to entrance but are blocked by the screen.

Screen entrance is at least 6” from the hive entrance.

Can be used with entrance reducer. Screen entrance can be reduced as well.

Screen is 5/16” (1 bee space) from the hive surface to make it difficult for robbers to bypass guards.

Microscopy