

Natural Beekeeping the 3H Way

A treatment-free field guide for beekeepers who want to read a colony before they reach for a fix.

HAPPY · HEALTHY · HEAVY

Mark Vanderende | Master Beekeeper
Princeton-Similkameen & North Delta, BC

THE QUESTION

What if the first tool was attention?

Before opening a hive, ask: what will this visit tell me, and will the answer change what I do? The 3H Way starts at the entrance, not inside the brood nest. It measures a colony by its behaviour, biological resilience and winter stores — not by how often we inspect it.

THE STANDARD

Three questions. Every colony.

Treatment-free is not hands-off. It is observation, selection and timely physical management instead of routine chemical rescue.

01 HAPPY

Is the colony behaving like itself?

Read flight, forage, temperament and space. Work quietly, use minimal smoke and open only when an answer will change your plan. Protect the brood nest from unnecessary disturbance.

Field cue: steady entrance traffic and pollen coming in.

02 HEALTHY

Does resilience come from the bees?

Breed from local winter survivors. Let bees draw natural comb and keep the propolis envelope intact. Monitor mite pressure; use splits, brood breaks and drone management rather than synthetic miticides or antibiotics.

Field cue: record mite counts and brood pattern over time.

03 HEAVY

Will they enter winter on their own honey?

Heft the hive as autumn approaches. Harvest only what remains after the colony is provisioned. Make honest decisions about light or weak colonies; do not substitute syrup for a viable winter plan.

Field cue: compare weight and stores before the first hard frost.

THE DECISION TEST

Will this action make the colony happier, healthier or heavier?

THE PRACTICE

LISTEN before you lift the lid.

A short discipline for keeping intervention purposeful. Use it on every visit, whether you have two hives or two hundred.

L **Leave the brood nest uninterrupted**
Read the entrance, weight and outer frames first.

I **Integrate natural comb**
Foundationless frames let the colony set its own architecture.

S **Select for local survivor genetics**
Breed from bees that come through a real local winter.

T **Trust the propolis envelope**
Do not scrape away the hive's protective lining.

E **Embrace mechanical management**
Time splits and brood breaks to interrupt mite reproduction.

N **Notice, observe — and wait when in doubt**
Close the lid, record what you saw and return with a question.

TRY THIS AT YOUR NEXT HIVE VISIT

Watch the entrance for five minutes. Note pollen, flight rhythm and behaviour. Heft the back of the hive. Write down the one question you still cannot answer. Only then decide whether to open it.

RESEARCH-BACKED PRACTICE

What the evidence supports.

The strongest direct link is the propolis envelope. These findings guide observation; they are not promises of survival or disease control.

STRONG FIELD EVIDENCE**Shanahan et al. (2024), PLOS ONE**

Rough-sawn interiors increased wall propolis. Some pathogen detections were lower; survival did not improve, and first-year honey was lower in one setting.

doi.org/10.1371/journal.pone.0291744

MODERATE FIELD EVIDENCE**Borba et al. (2015), J. Experimental Biology**

Envelope colonies showed seasonally lower immune-gene activity and some pathogen levels. These are health markers, not proof that winter loss is prevented.

doi.org/10.1242/jeb.127324

MIXED / ESSENTIAL LIMIT**Drescher et al. (2017), Insects**

A direct field test found no significant Varroa or associated-virus reduction. Propolis must not be presented as mite control.

doi.org/10.3390/insects8010015

PROMISING MECHANISM**Pusceddu et al. (2021), Proc. Royal Society B**

Laboratory and behavioural work suggests resin around brood cells may affect mites. That mechanism is not proof of apiary-level control.

doi.org/10.1098/rspb.2021.2101

THE BOUNDARY

Propolis supports social immunity. It does not replace standardized mite counts, brood-disease diagnosis, biosecurity, nutrition or responsible colony decisions.

THE NEXT STEP

Learn it with living colonies.

A guide can change the question. Field practice changes the beekeeper.

FOR THE KEEPER

Workshops in the Princeton yards

Learn the four-part 3H curriculum: the standard, LISTEN, natural comb and biological mite management, and cold-climate wintering. Work beside Mark in real colonies and carry the lessons into your own yard.

EXPLORE WORKSHOPS

foragingbee.com/workshops

FOR THE CLUB, CONFERENCE OR TEAM

Bring the conversation to your room

Invite Mark to speak about treatment-free practice, survivor genetics, reading a colony or building a more resilient yard. Practical stories and clear ideas for beginners and experienced keepers alike.

INVITE MARK TO SPEAK

foragingbee.com/speaking

KEEP ASKING BETTER QUESTIONS

Read the full 3H philosophy and join other beekeepers in the Circle. Share this guide with someone who would rather understand a colony than just manage it.

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