

Starting out with bees



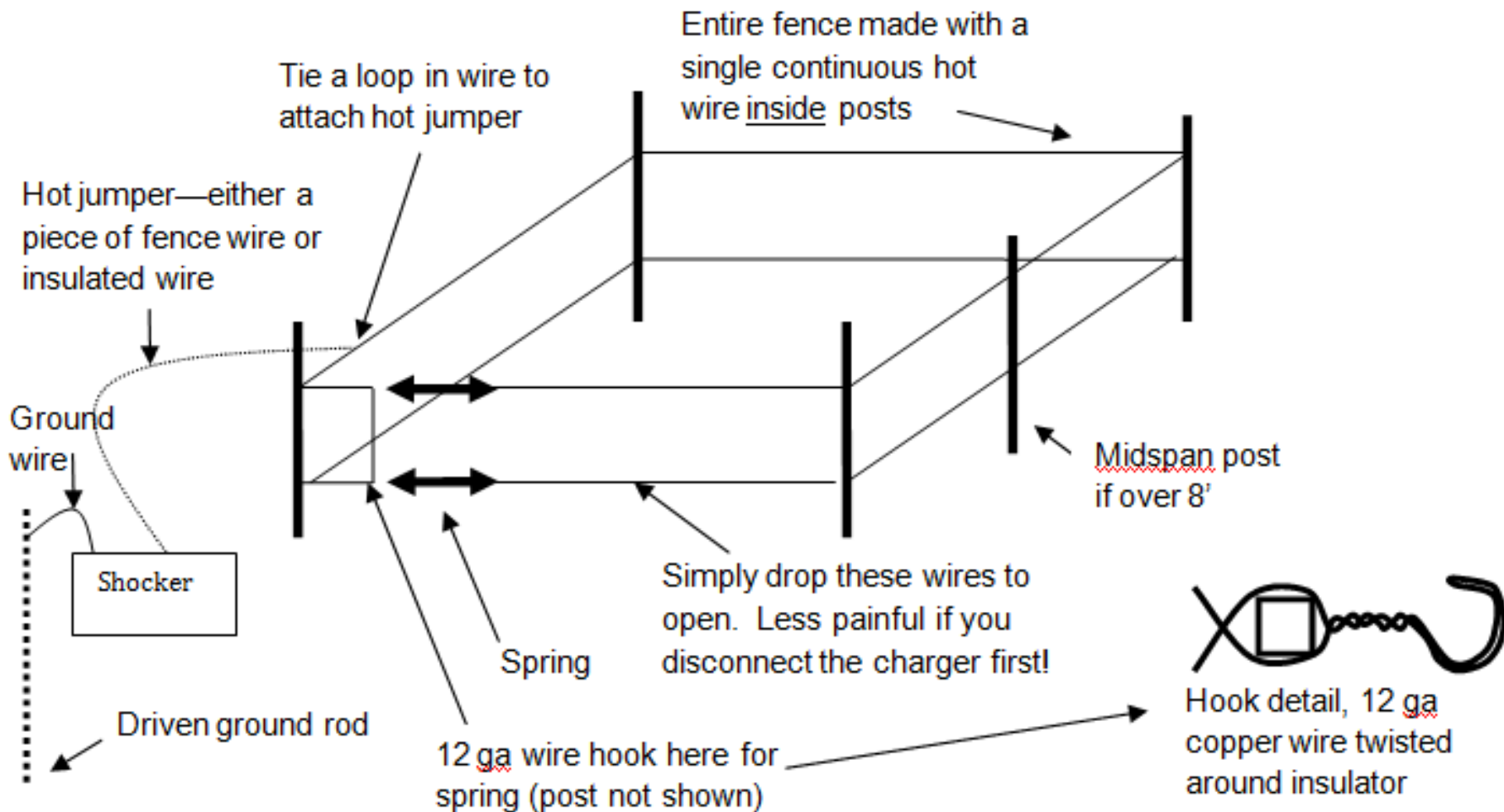


Apiary location

**Morning sun
Not in cold pocket
Access to road
Screened from walkers
Fenced from livestock
Water source**

**Bear fences
required**





**Plans at ScientificBeekeeping.com
Search "Bear Fence"**



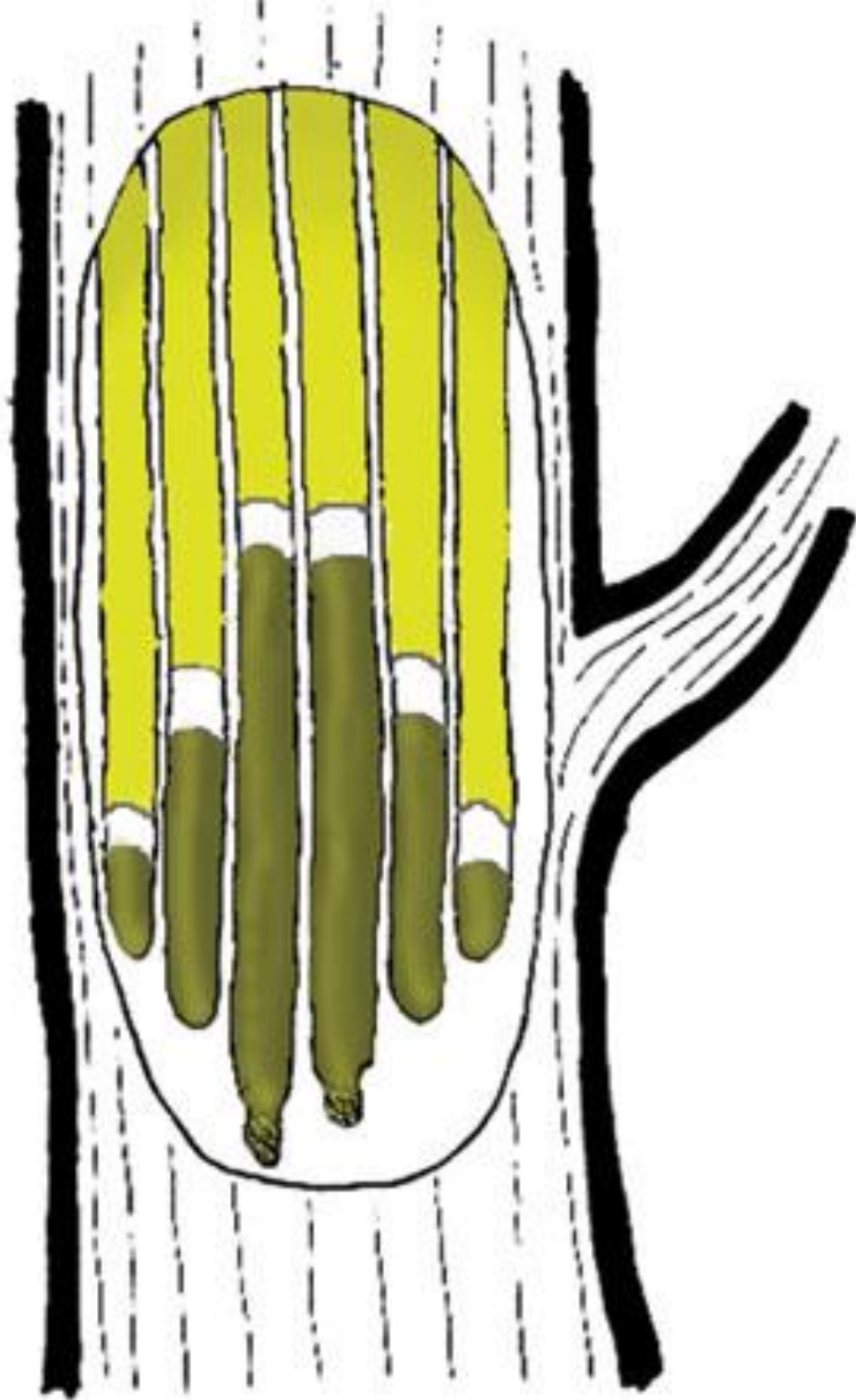
Sweet Mountain Honey

No to hive stands



Yes to cinder blocks

Use individual stands that allow you to work the hive from the side. Two hives side-by-side OK, but leave



There's no
"best way" to
keep bees.

Protective Gear

Working with Bees





**Honey bees sting!
Get used to it and build up an immunity.
People pay for bee venom therapy!**

Full gear
for most
beginners,
but skip the
leather
gloves!





Helayne Seidman

Wear a veil until you no longer react to venom.



**Learn good technique by working bare handed.
The bees will remind you every time you screw up.**



Wear nitrile gloves as an option

White, 12" cuffs 👍



Dress
appropriately for
the situation.



**Avoid tight
clothing**



Full gear at night or
in poor conditions



**Learning to work your bees
without initiating stinging**



**Get
comfortable
with
bees!**

Attitude and technique make a difference!



Adversarial approach



Respectful approach



Non-adversarial "normal protection"

Relax and work
smoothly and
deliberately



Use minimal white smoke.



**Move
smoothly**



**Learn what bees
will tolerate**



Always watch the bees...



**to monitor whether they're
watching you.**



Use all your
senses to "read"
the bees



**Learn from experienced
beekeepers**

Involve the kids!



**Be an ambassador for pollinators and
habitat protection**

NEVADA COUNTY
Beekeepers

Fur & Feathers



Get over your own fear of bees as an example to others



Kids are fascinated by bees!



Honey bees don't
"want" to sting
you.



Never
demonstrate
beekeeping
to an
unveiled
neighbor or
guest!



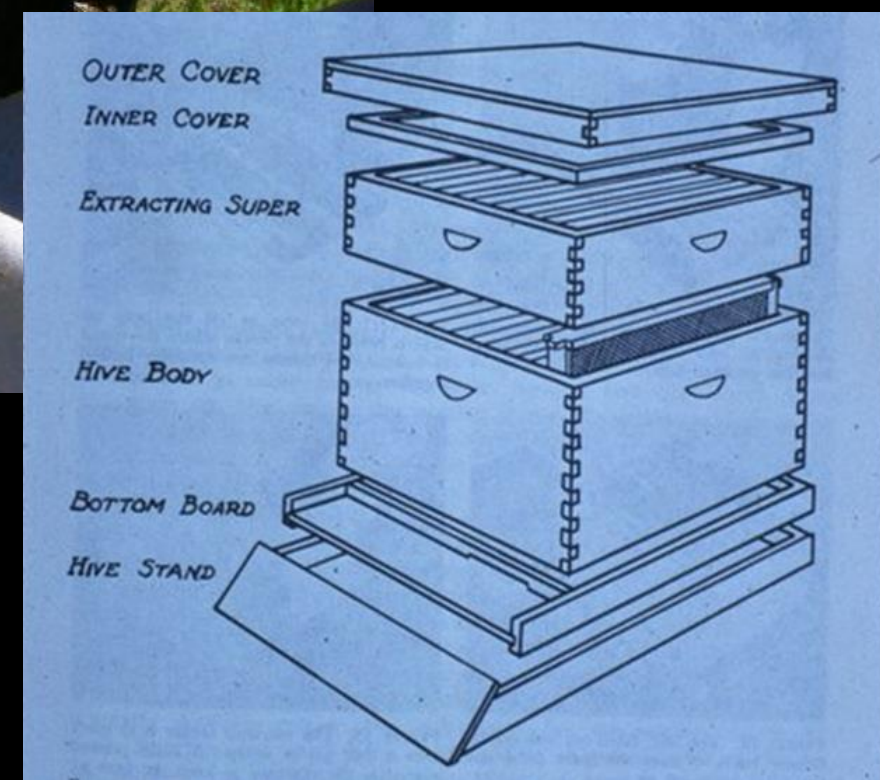
Adversarial approach



Cooperative approach

Hive Equipment. The bees don't care!





Advantages to standard



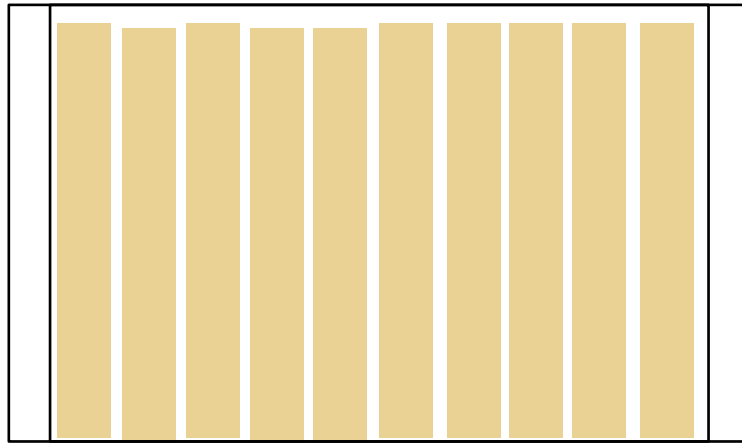
**Langstroth
has stood
the test of
time**

Box size choices

10 - frame
"Standard"

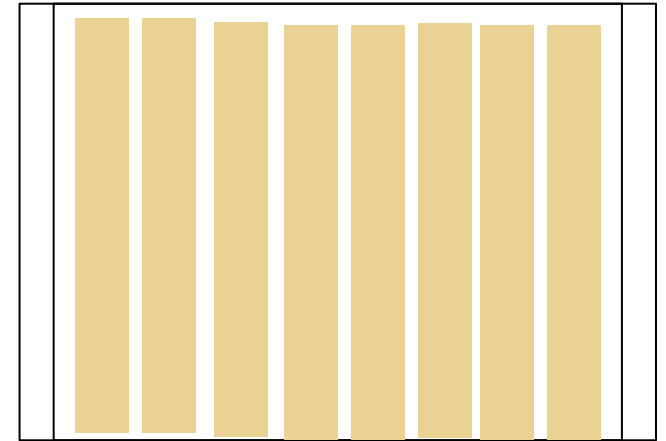
8 - frame
Easier to lift

Deeps
handiest
for brood
chambers



Deep
boxes

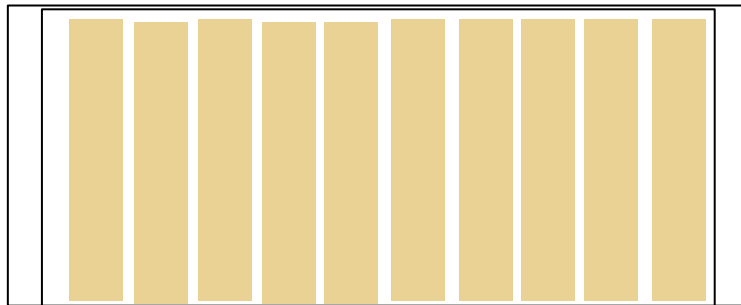
↑
9-5/8
tall
↓



← 16 1/4" wide →

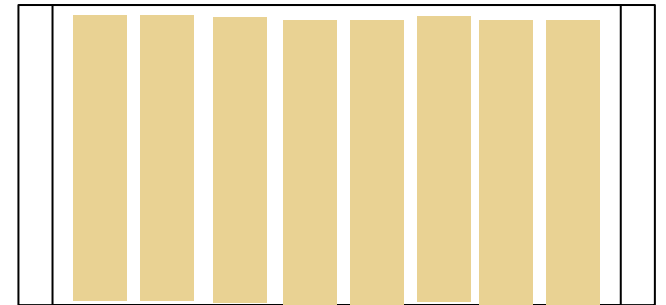
← 14" wide →

Mediums
(optional)
for honey
supers



Medium
boxes

↑
6-5/8
tall
↓





“Keeping” Your Bees

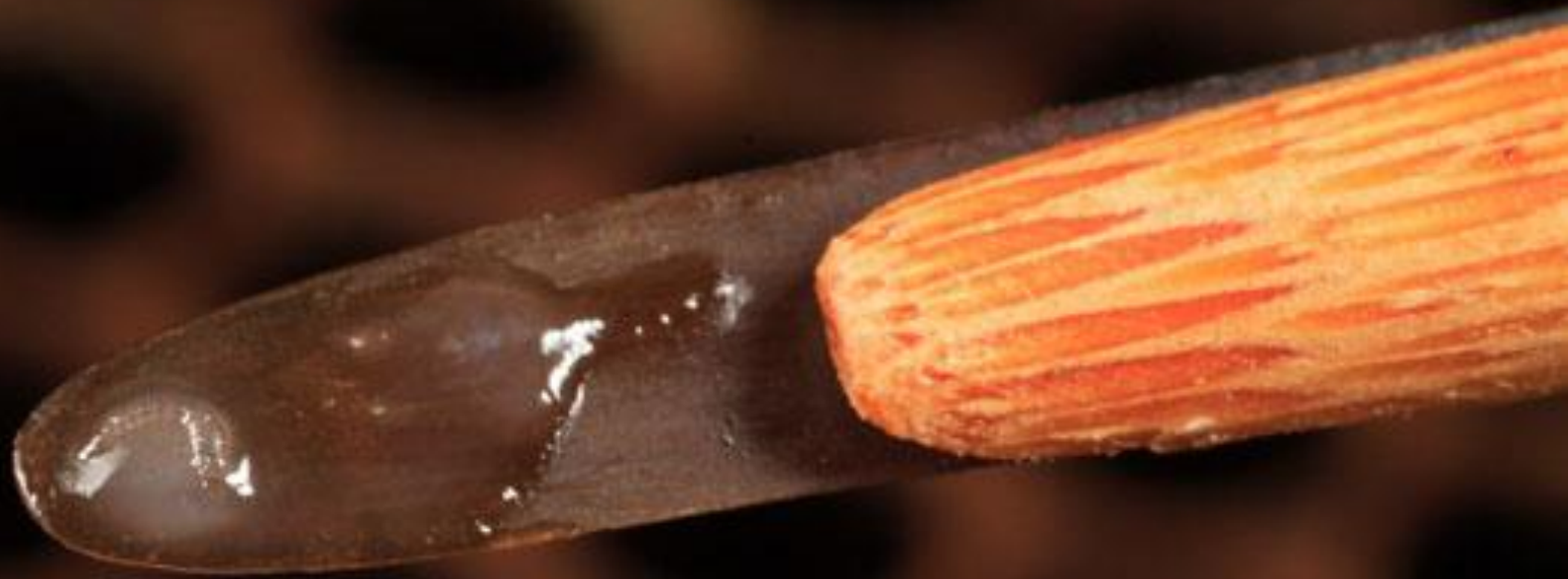
What I hear, I forget.
What I see, I remember.
What I do, I understand.
--Confucius



Buying Queens

Let's take it
from the beginning...

Queen production



Eric Touranet

Grafting tool with 1st-instar larva



24 hrs after grafting



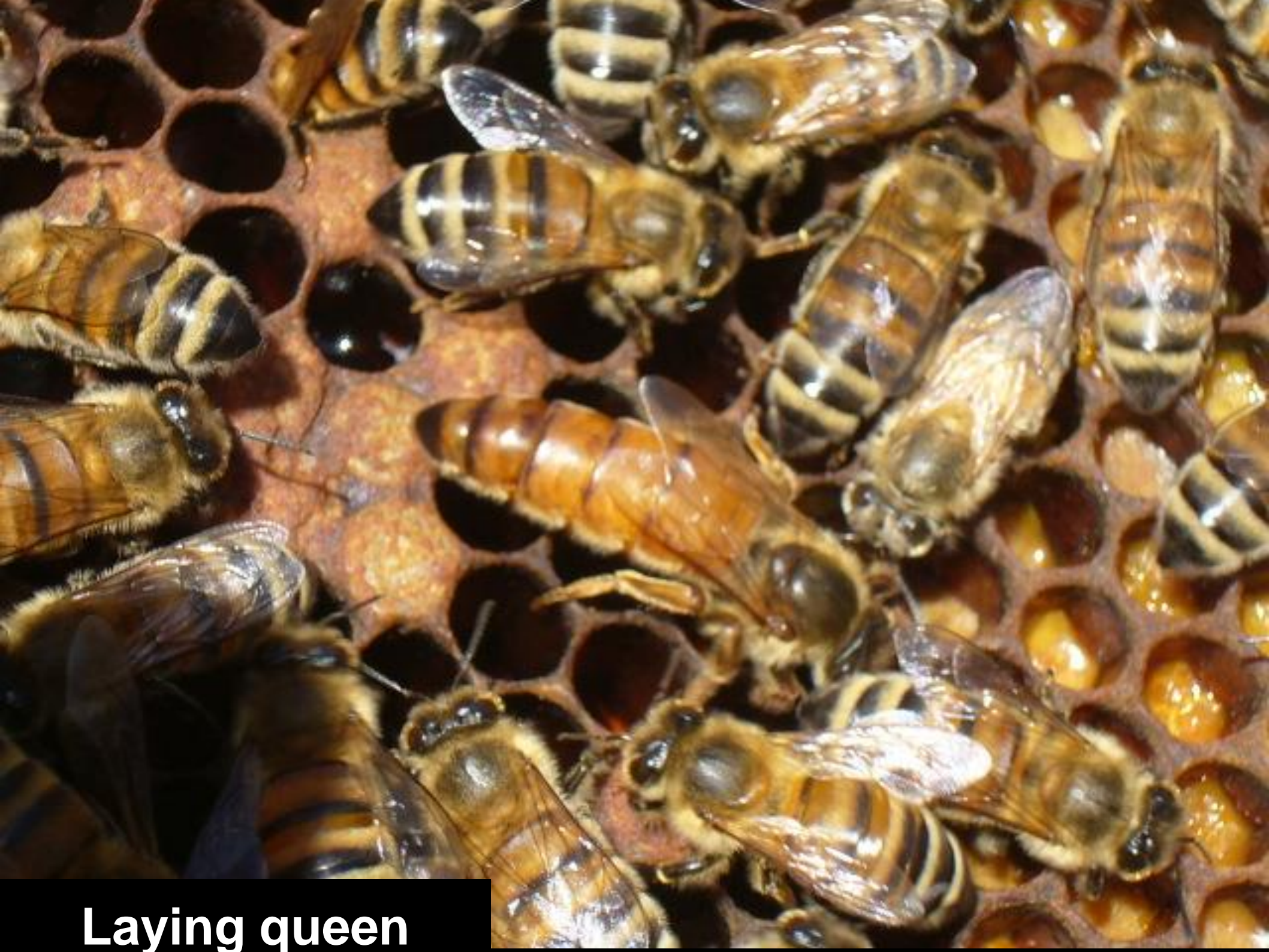
Nearly ripe



Virgin queen



Mating flight



Laying queen



Greg Fullerton

Caged queens

**Finding and
handling
queens**



Look quickly





“Sieve box”





Virgin queens







Tip: virgins move differently



**Queen
introduction**



**Screen facing the bees.
Don't remove the cork yet**



After 24 hours.

Accepted 👍



Not accepted!



Push-in cage

Package Bees



Shaking bulk bees



Package bees



**Remove
syrup can**



Install queen



**Dump in the
bees**



Play (k)

0:02 / 4:37

▶ ⏪ 🔊 CC ⚙️ 📺 📱 📶 🔍

How to Install a Package of Bees

11,941 views

👍 75 💬 1 ➦ SHARE ⌵ SAVE ⋮



Olivarez Honey Bees
Published on Jan 11, 2017

SUBSCRIBE 336

Checking your new colony



Get comfortable with
inspecting your
colony while it is still
small!

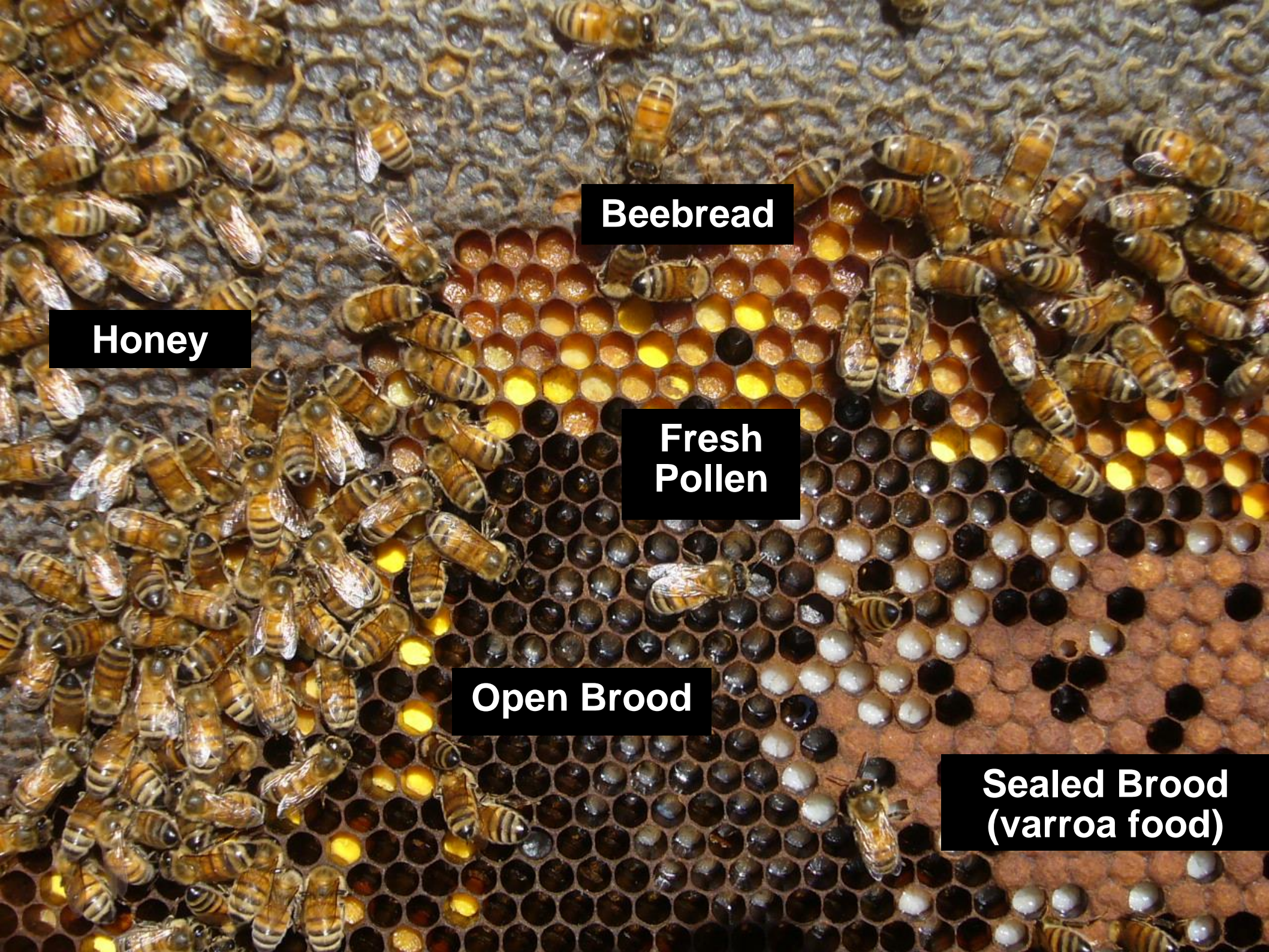
Do gentle inspections
as it grows.

A quick inspection of a center frame or two from the upper brood chamber is often adequate.





A perfect brood pattern



Beebread

Honey

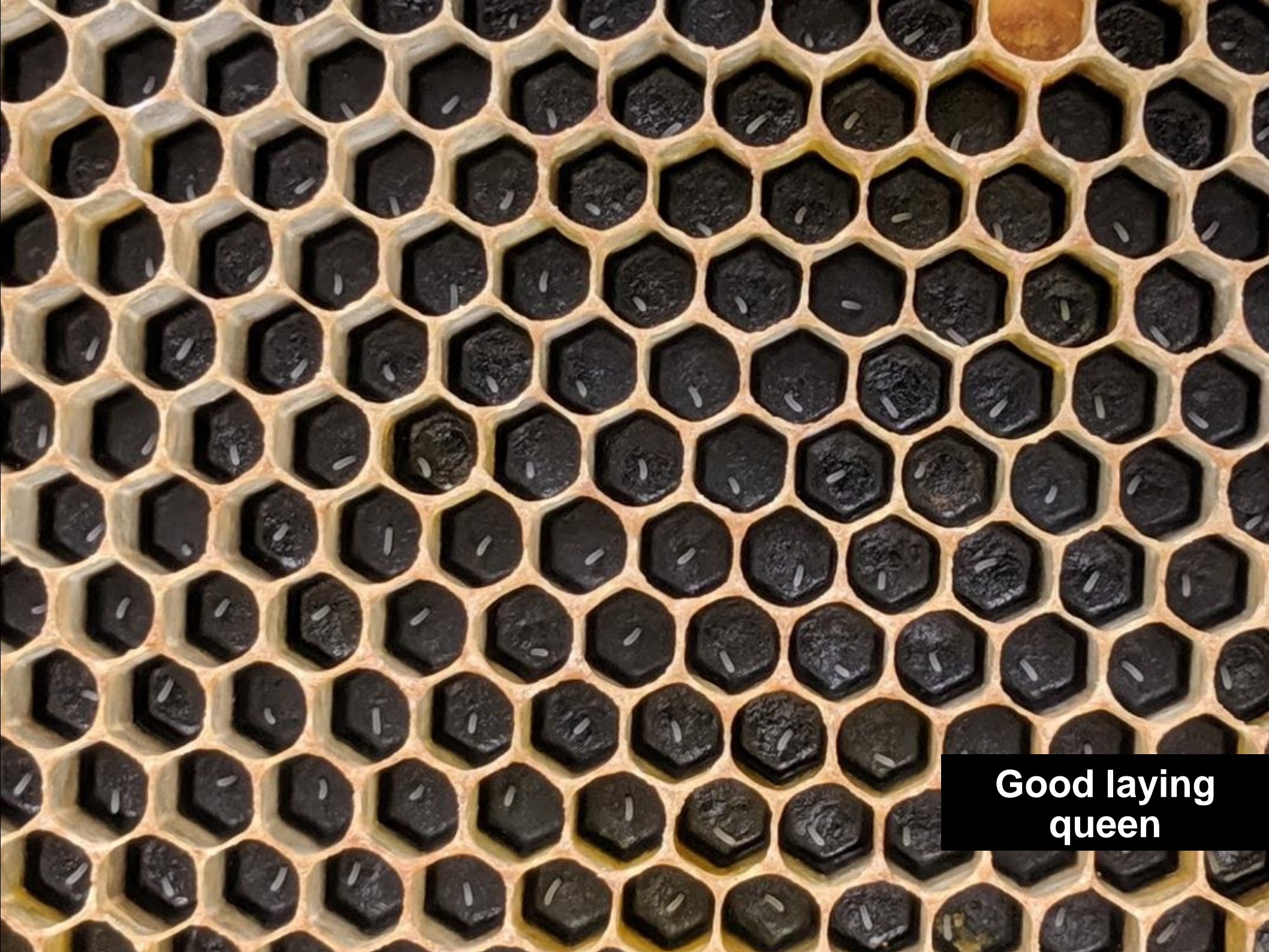
**Fresh
Pollen**

Open Brood

**Sealed Brood
(varroa food)**

**Shadow in front =
Sun to your back**





**Good laying
queen**



Lots of jelly indicates good nutrition



**The bees may want
to supersede their
queen – let 'em**

Nucs



Making nucs



**Don't buy someone
else's junk!**

**A good nuc should have
nice clean frames of
healthy brood.**



Solid brood pattern

**A nuc can grow
much more
quickly than a
package**





Adults

3x

Brood

A nuc about to explode!

Transfer to singles






Nucs into singles



Use drawn comb in lower box if possible.



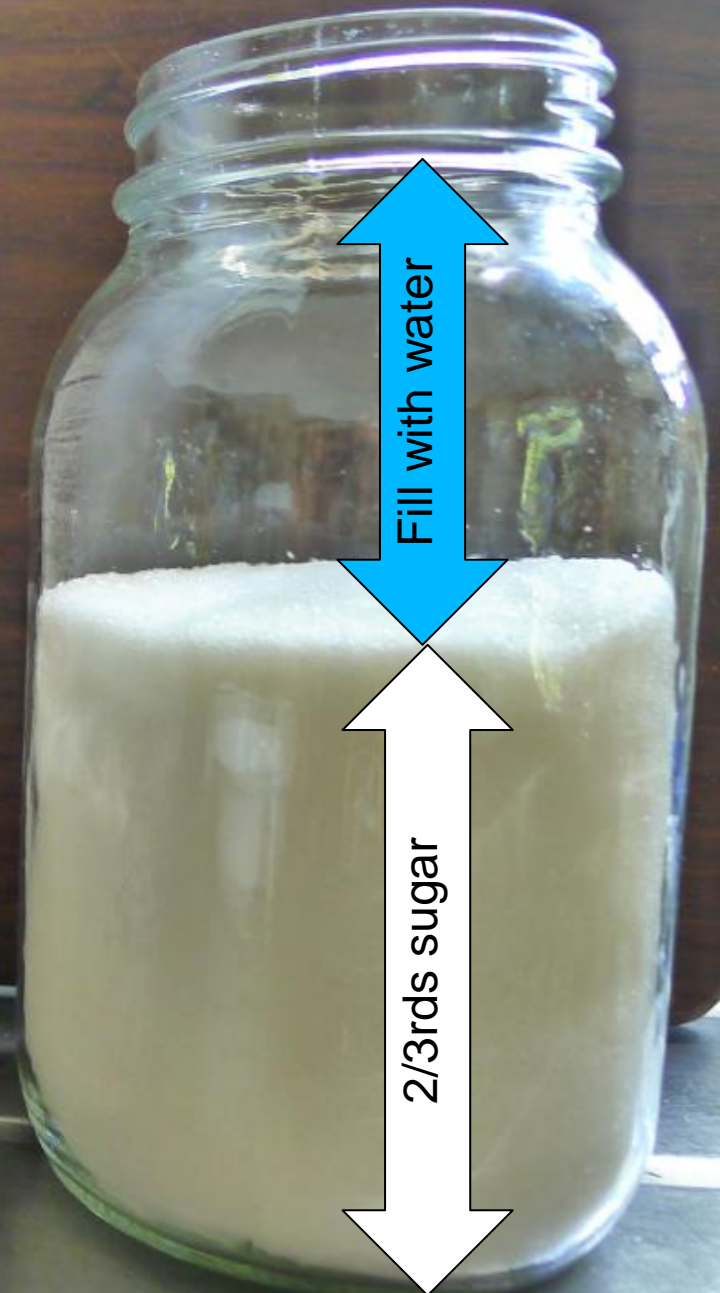
Foundation being "drawn"



**Bees won't
touch
foundation
unless they are
producing white
wax.**



1:1 syrup is stimulatory, and allows the production of beeswax



1:1 (50:50) sugar syrup. White granulated only.



Boardman
entrance
feeder – lots
of problems.



The simplest hive-top feeder.



Can be used over the inner cover



A colony may consume
a gallon in a day



Cool-weather feeding with styrofoam inner cover



When nature doesn't provide, you feed your livestock

**Feed if no
nectar flow.**



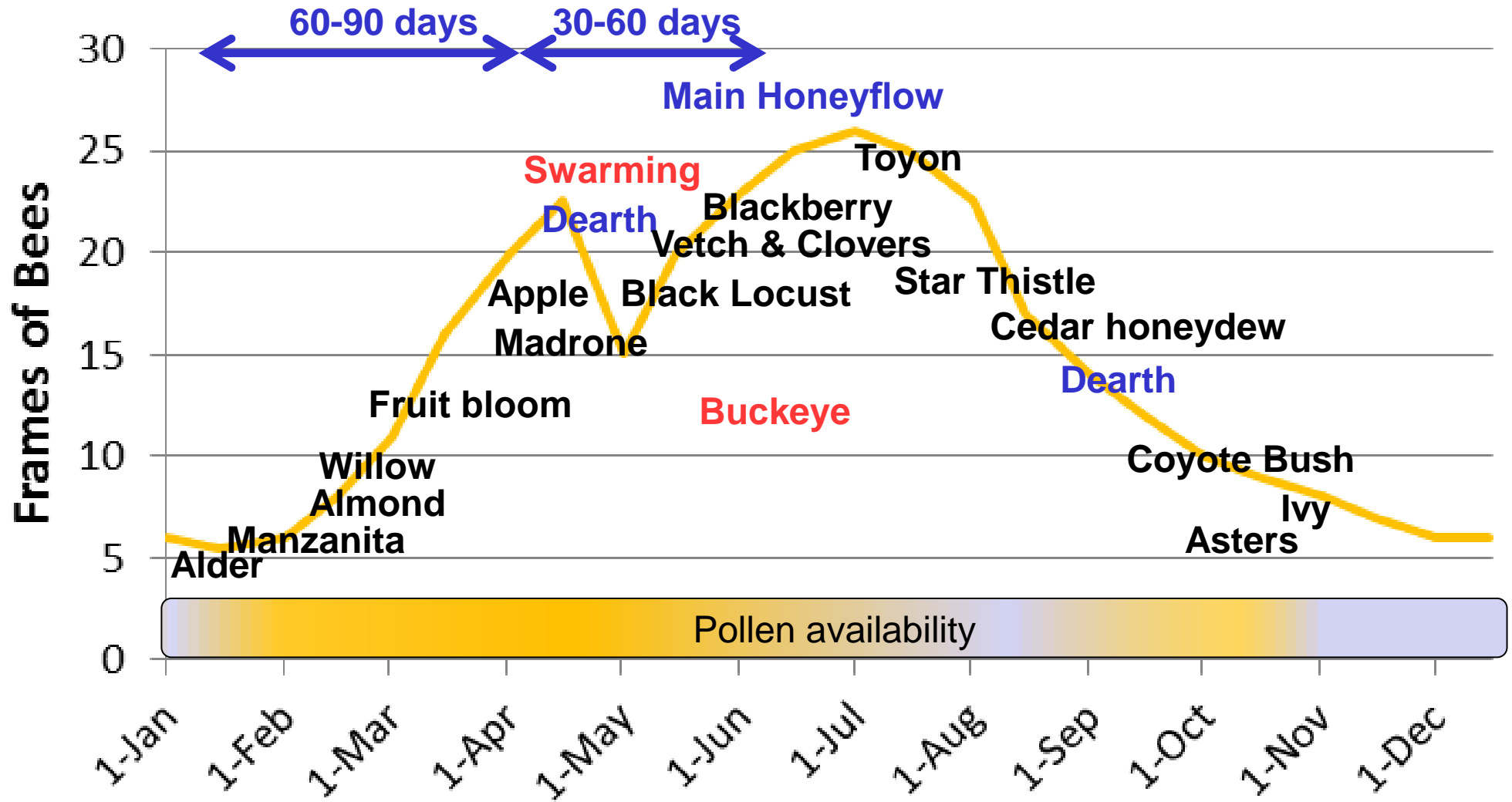


Sugar syrup can really help



**Feed pollen sub if natural
pollen is inadequate**

Bloom and colony progression in the foothills

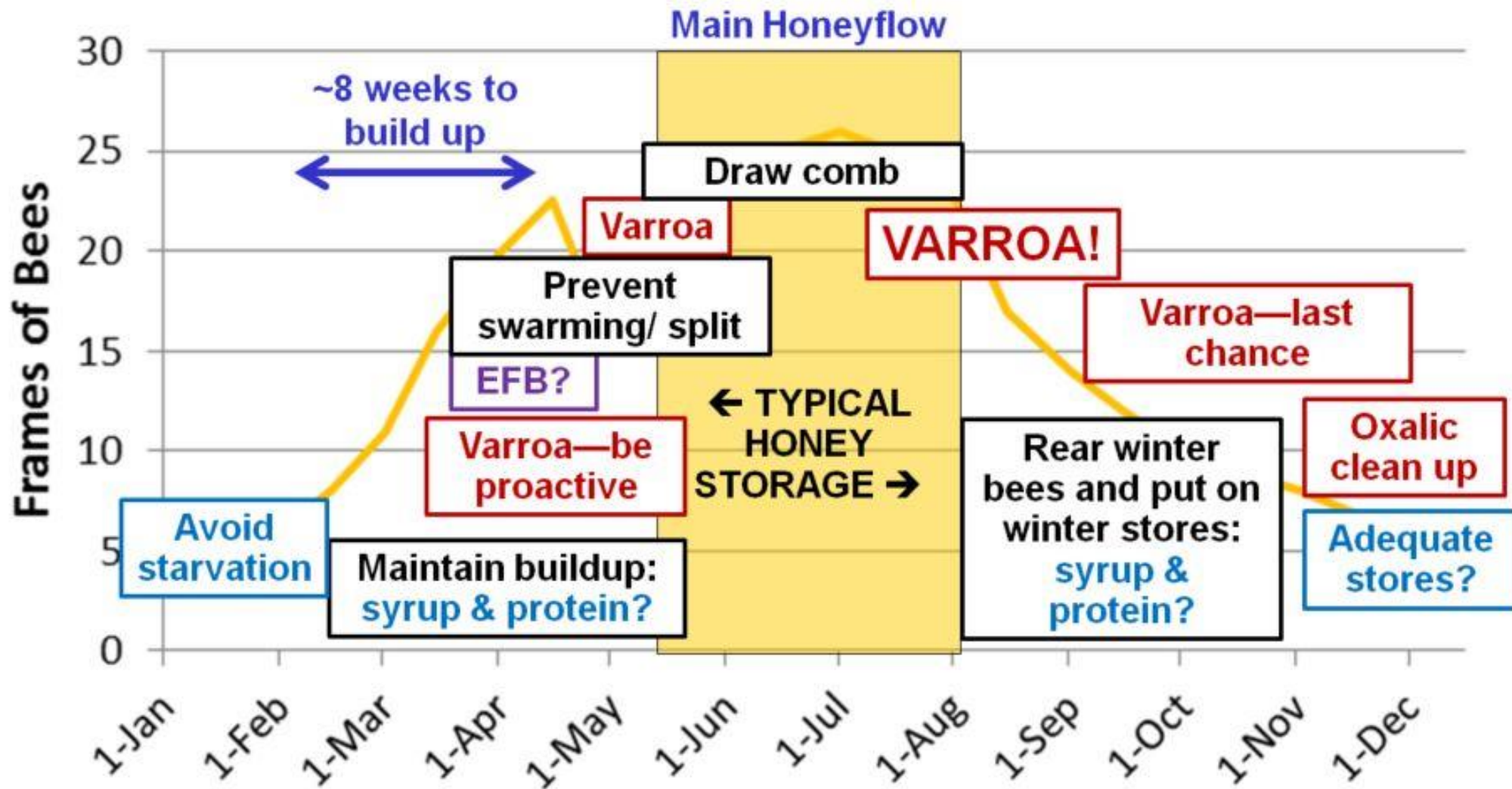


Ask experienced locals as to the local progression of bloom.



Calif. Buckeye can
cause brood kill

Colony Progression in the Foothills



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Lay out your management plan in advance.

The best beekeepers are proactive rather than reactive.



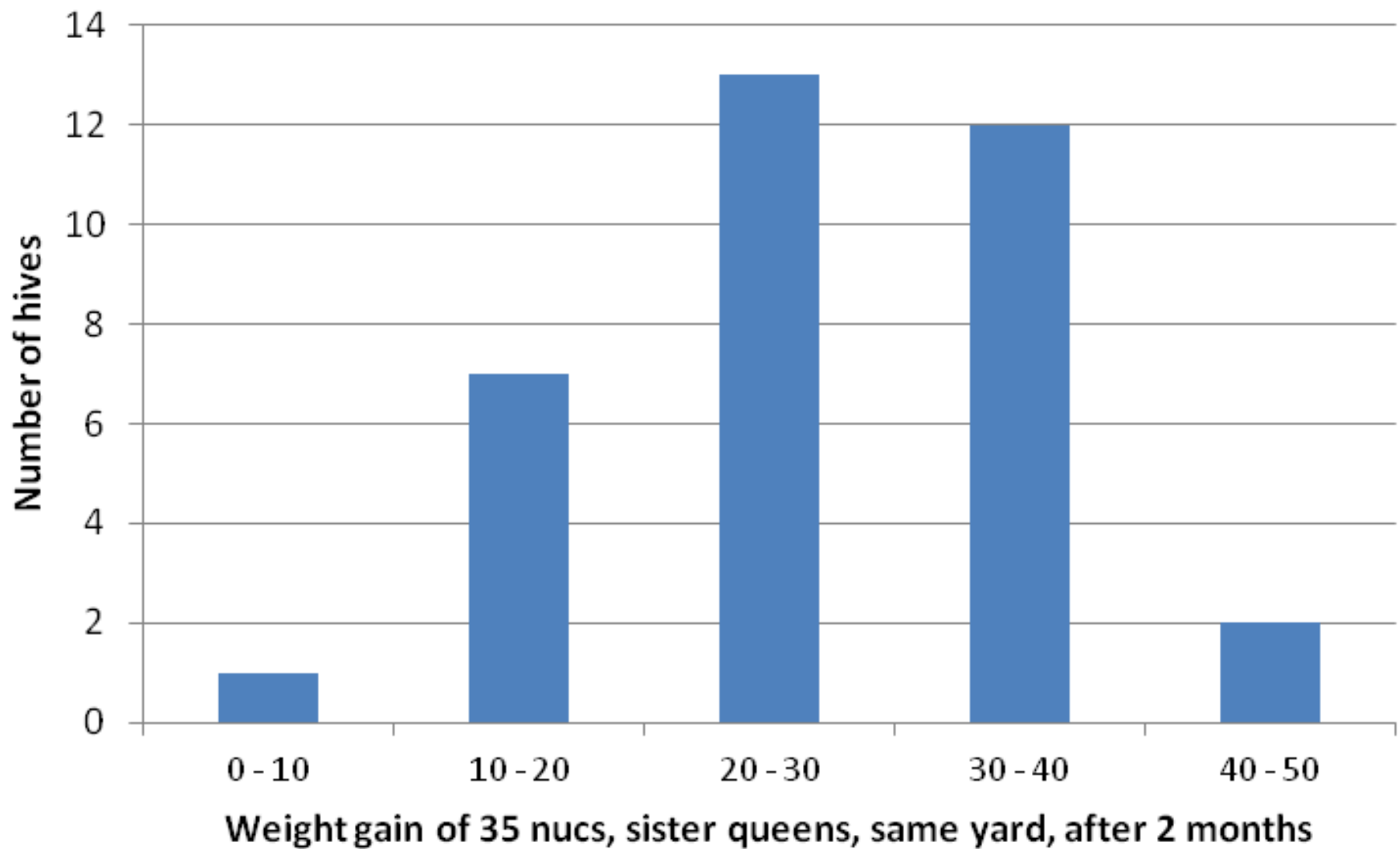
**Start the season with
twice the number of hives
you intend to overwinter**



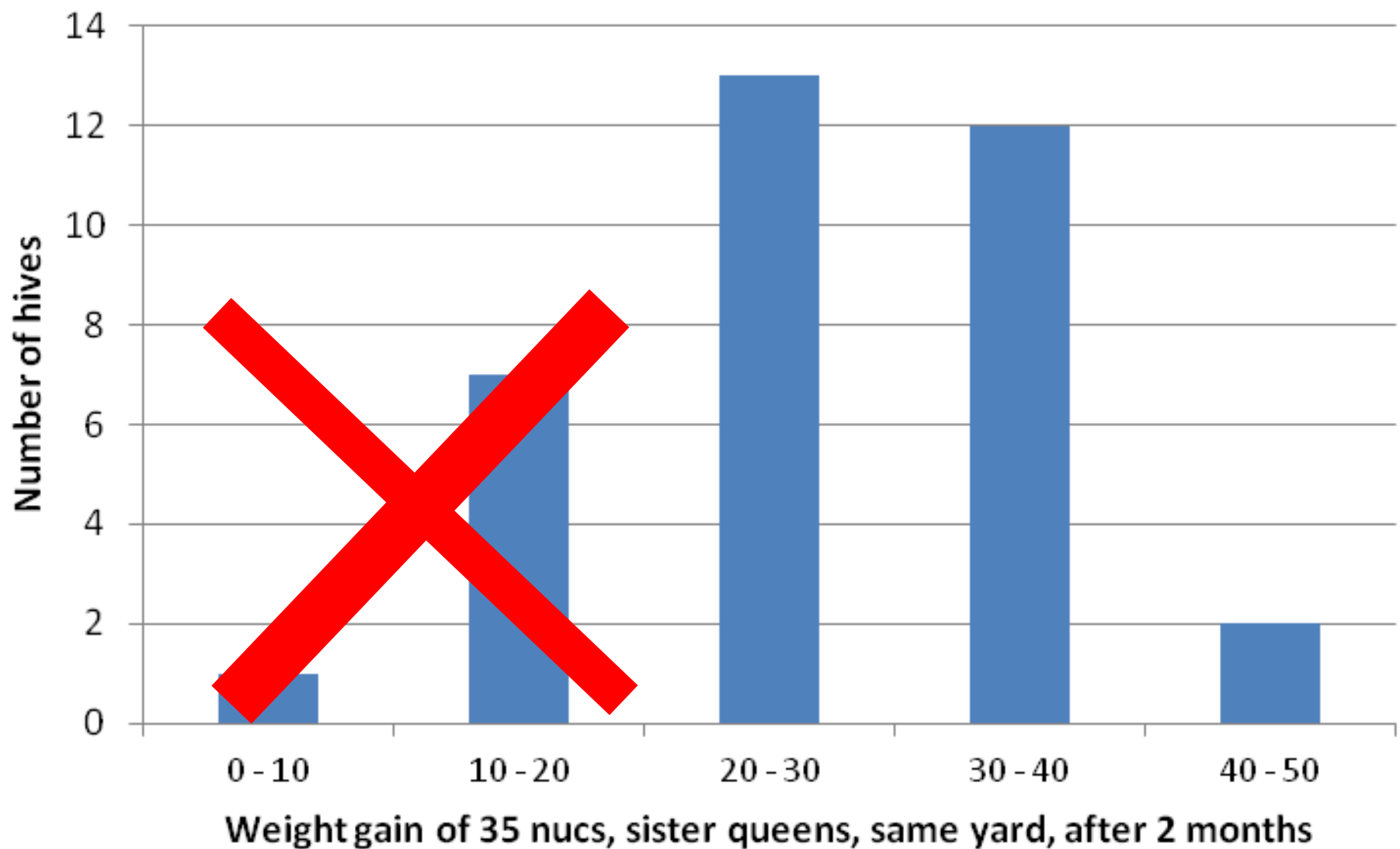
**Add the second
brood chamber
when bees fill the
first.**

**Stronger colonies make
proportionally more
honey!**





Not all colonies turn out to be winners...



...combine the losers at the start of the honey flow.



Lack of room may result in swarming



**Honey crop
awaiting.**



**Foragers gather
nectar and pollen**



**Foragers transfer
to mid-age nectar
processors**



Honey is capped once cured.



The Honey Harvest



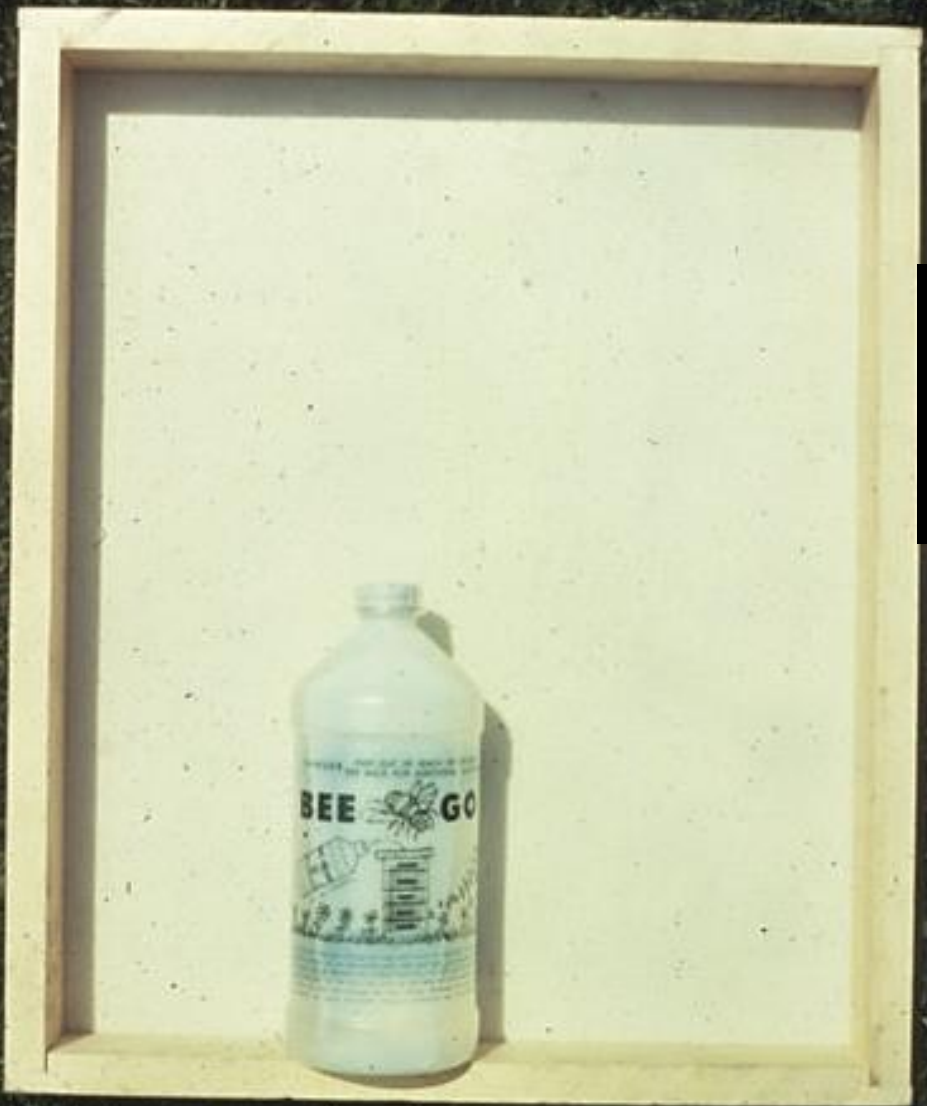
**Blackberry
honey**



**Ready to
extract**



**Shake and brush
off the bees**



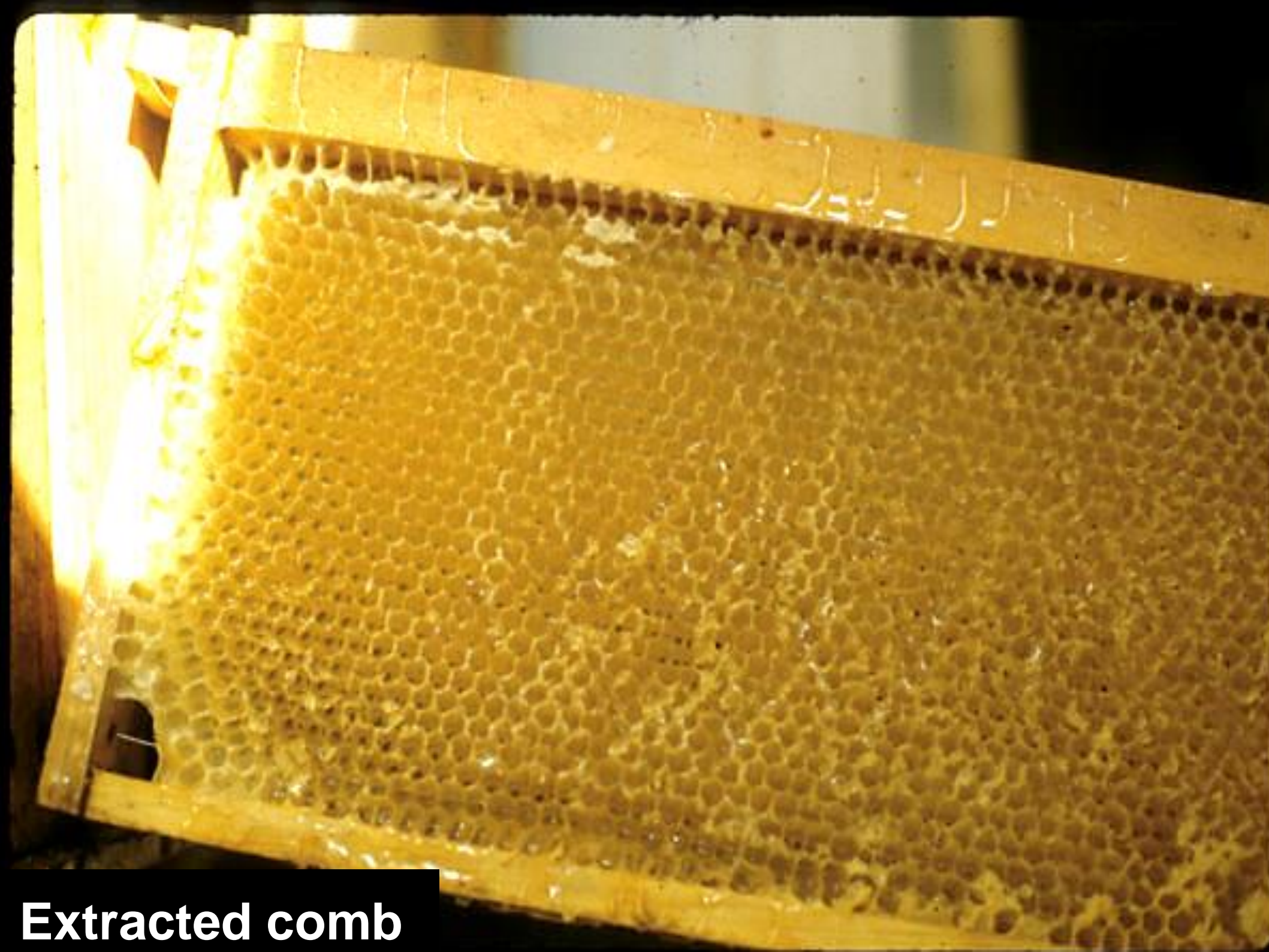
**Fume boards.
Benzaldehyde or
butyric acid**



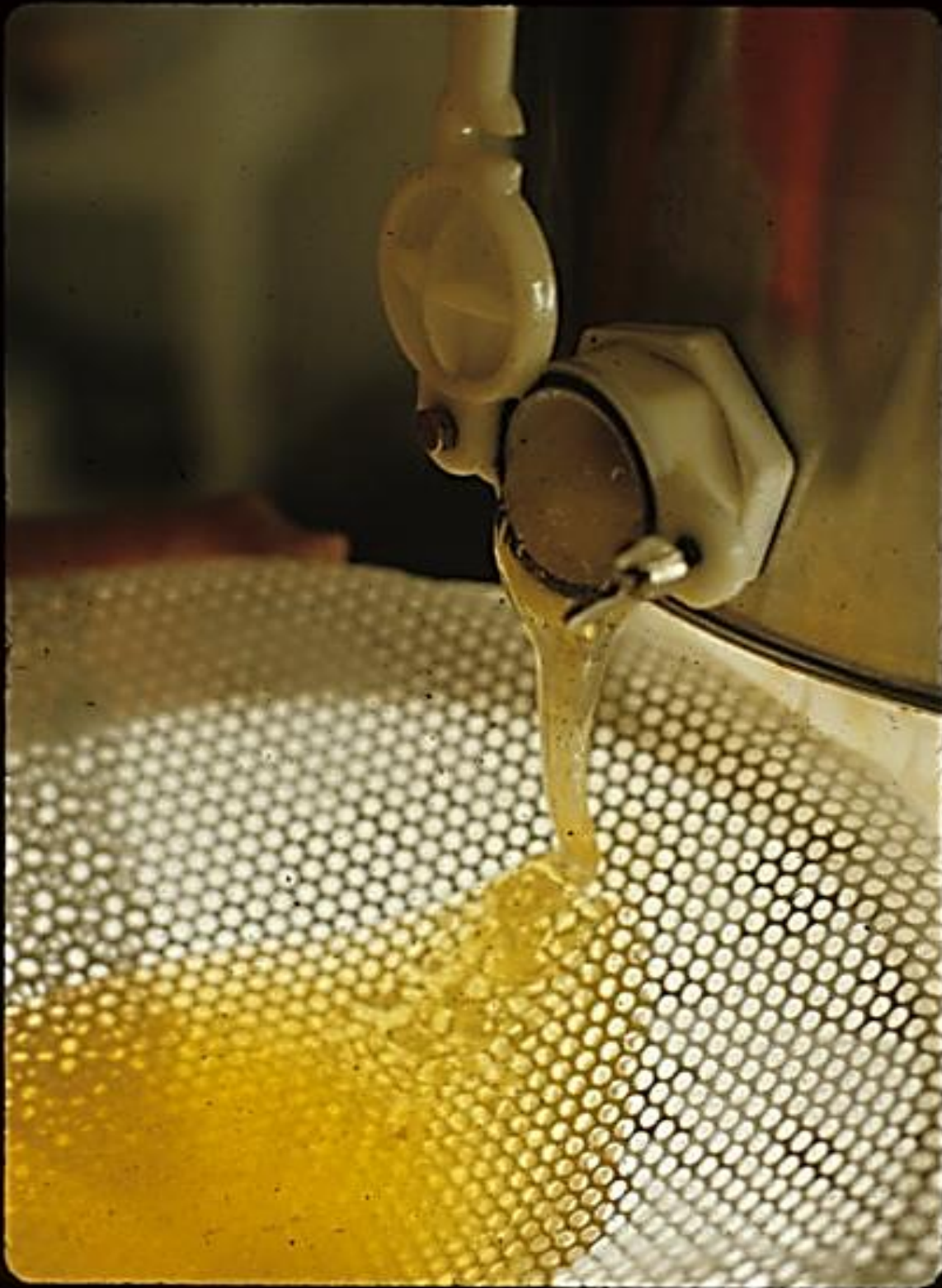
Uncapping



**Centrifugal
extractor**



Extracted comb



**Pour through
strainer**



And bottle!



Pure gold!



**Beeswax
candles**

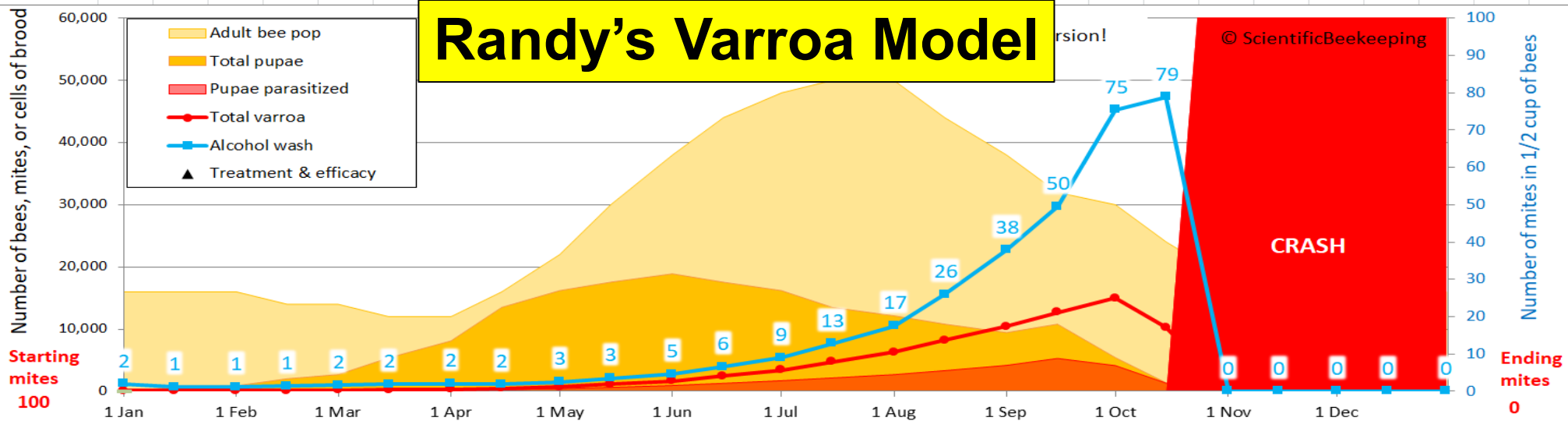
Wide variety of local honeys



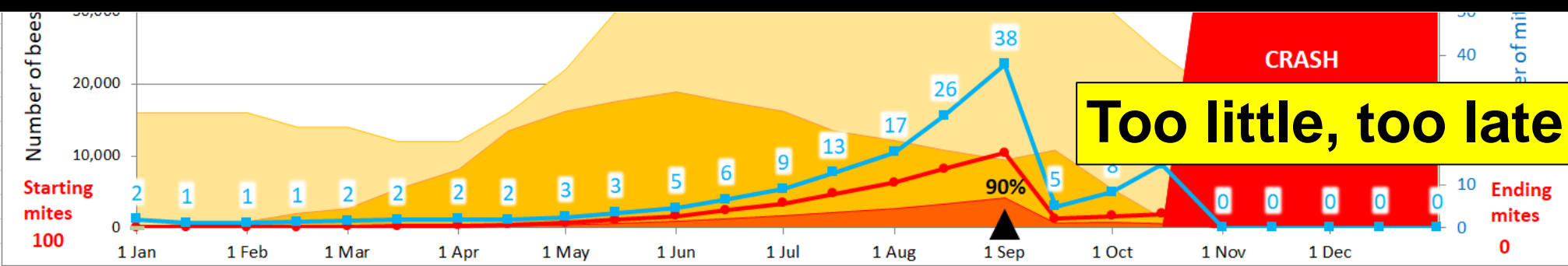
Honey Bee Enemy #1



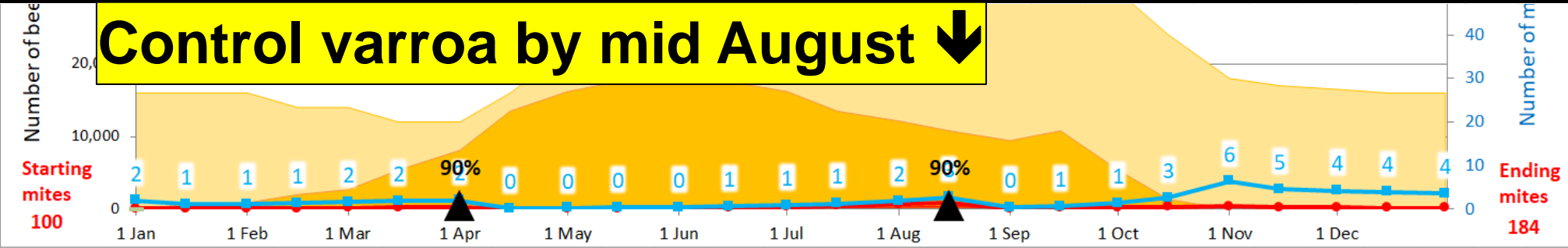
Randy's Varroa Model



Mite reductions	Colony type*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total
→	d	D: Default colony in temperate climate, managed to prevent swarming (slight fall brood buildup)																														Type "x" above for Southern	
Mite population	100	93	100	124	159	207	291	453	713	1,111	1,675	2,452	3,447	4,732	6,273	8,205	10,382	12,709	15,001	10,292						195	Total						
Mite immigration**	1	0	0	0	0	0	0	0	0	0	2	3	5	10	15	30	40	50	30	10						195	Total						



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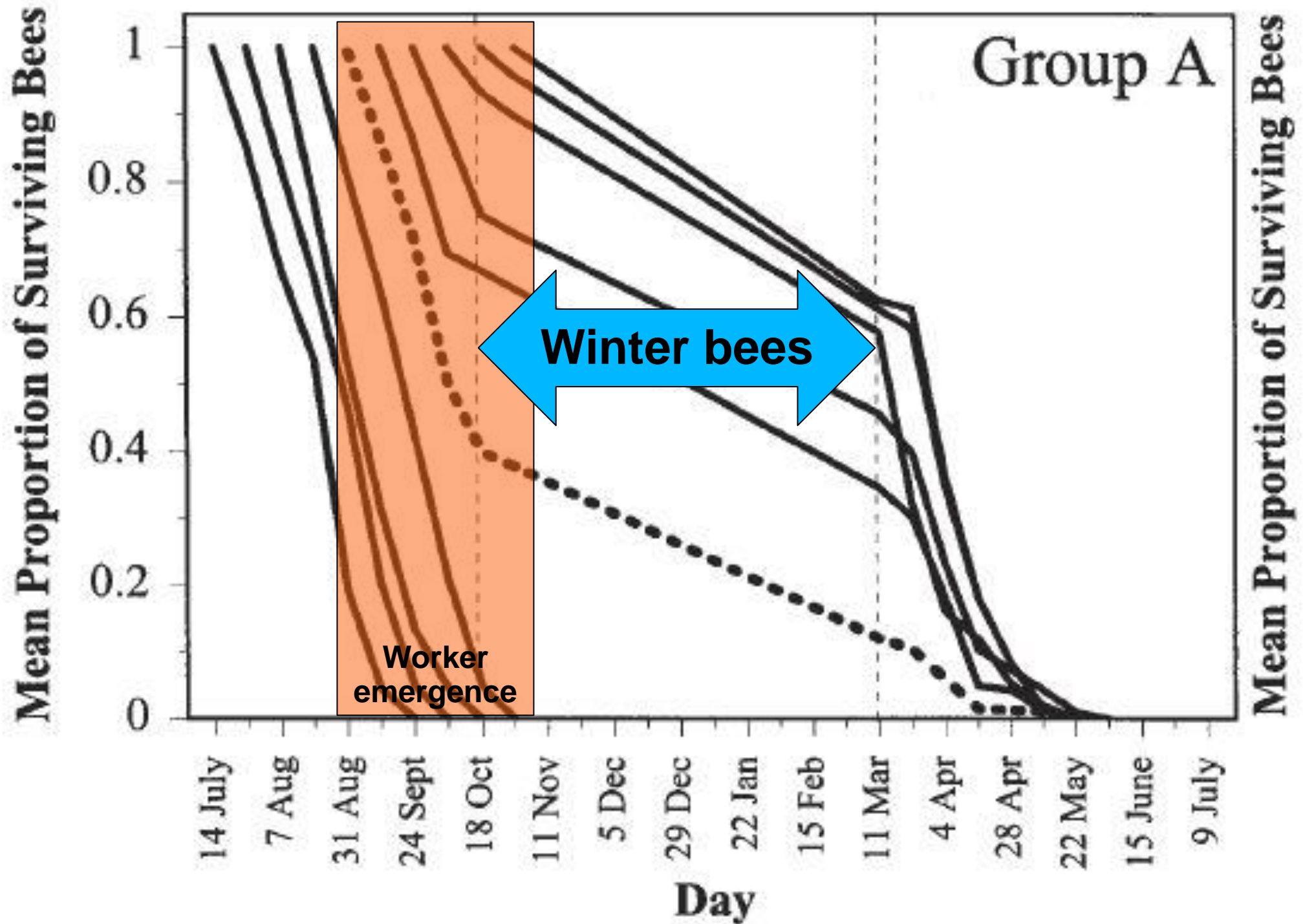


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Mite immigration**	1	0	0	0	0	0	0	0	0	0	2	3	5	10	15	30	40	50	30	10						184							



**Winter survival
is dependent upon
preparation in late
summer**

Mean survivorship curves for cohorts of bees introduced at 12-day intervals





**If no pollen, feed pollen sub to
produce winter bees.**



Watch for rust spores



Autumn management
(take your winter losses in the fall)



**Starvation
is avoidable**



**Check in October at
the latest for
winter stores.**

**Feed heavy syrup if
necessary.**

Winter break





The glory of spring awaits you and your bees!

**Enjoy this
fascinating
hobby!**

