

I'm A Prospective Beekeeper What Will I Need?



Presented by
Fred Putnam Jr. Vermont Beekeepers Association
and
Robin Foldesy, Vermont Beekeepers Association

Theme for today



- We will talk about what you'll need to get started in small scale beekeeping.
- We will cover “How tos” in upcoming “AMA workshops (Ask Me Anything About Beekeeping) and other VBA workshops.

Consider this to be a **Beginning “Buying Guide”**



Things to acquire

- Legal
- Education
- Electric fence system
- Bees
- Beekeeping equipment and supplies
- Honey harvesting equipment
- Fall & winter colony management
- Miscellaneous



Start-up vs. Ongoing Expenses

Some of the expenses we'll cover are one-time start-up items.

Lower cost 2nd and subsequent years.



Definitions

- Hive = house
- Colony – honey bees (superorganism)
living in the house

But first... Tips for locating your apiary



- South facing - Hives receive sun during the winter.
- Near A.C. power OR;
- Sunny area for solar energizer solar panel.
- Protected from strong winds or add windbreaks.
- 20 feet from woods lines (bears).
- Apiary large enough to allow 6 feet between fence and hive (prevent bear “reach-in”.)
- Hive entrances face away from people routes.

And, reactions to bee and wasp stings



- Stings are inevitable.
- Stings hurt no matter how little or often you are stung.
- Swelling and itchiness at the sting site is normal especially for new beekeepers.
- Always protect your face, neck and head (wear a veil.)
- **If there's any question about how you will react to bee stings, see an allergist first!! Do not rely on Facebook for medical advice!**



Legal Requirements

Expense item

Approx. Cost

- Acquire health certificate for purchased colonies

<https://legislature.vermont.gov/statutes/fullchapter/06/172>

- Register apiary with State of VT

- \$0 – seller’s responsibility to provide to you

- \$10 per apiary

Total

\$10



Learning how to tend bees

Education item	Approx. Cost
<ul style="list-style-type: none">• Beginning beekeeping class (preferred)• Select texts• Organization membership (access to local workshops)• Mentor• Beekeeper Helpline (after taking class or working w/mentor)	<ul style="list-style-type: none">• \$50-\$100• \$0 Available from ILL• \$15-\$30• \$0• \$0
Total	\$65 - \$130

Education/learning doesn't end here - long term commitment

NH 4-H Beekeeping Manual



Free manual

Excellent introduction

https://extension.unh.edu/sites/default/files/migrated_unmanaged_files/Resource002759_Rep4060.pdf

Why bother educating myself?



- ❖ The learning curve is steep during the first couple of years.
- ❖ **Without knowledge and action, your bees will die;** that can be wrenching. This sentiment comes from a very experienced beekeeper, Sheri Englert, Vermont Beekeeping Supply, in her recent seasonal message to beekeepers:

'Days are too soggy to clean out the die outs [*dead colonies now, March*]. Sad enough job to do & I don't need to be wet & cold on top of a broken heart. I hate it when my bees die.'

“But I never give up and will keep bees as long as I am able!”



Electric fence system

Expense item	Approx. Cost
<ul style="list-style-type: none">• Energizer (AC or solar/battery not less than 1.0 output joule)• Grounding kit• Insulators, wire, t-posts, clamps• T post driver (optional but very helpful)• Voltage tester (digital inductive or probe)	<ul style="list-style-type: none">• \$110-\$288• \$34• \$100• \$55• \$35-50
Total	\$333 - 525

One hive and colony can be worth more than \$1,500.



Colonies

Expense item

Approx. Cost

- Nucleus colony - spring or overwintered (each) or;
- 3 lb. package (only if you already have drawn comb)

- \$185-\$230 or;
- \$150

Total

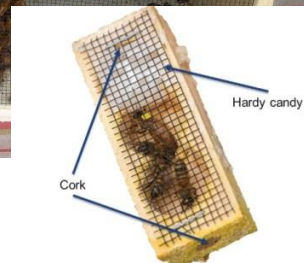
\$150 - \$230 (per colony)



**5 Frame
nucleus colony
(established colony
w/ laying queen)**



**3 lb. package
(no frames, population
distribution unknown,
queen in cage not
laying)**



Colonies

Where to get bees









































VBA website

Honeybee Providers

Below are providers of nucs, package bees and queens available in our area. Listing does not indicate endorsement by VBA and is provided as a courtesy to our members and site visitors.

To use the list, select the name you'd like to learn about and select the icons on the right. There are two - one expands the listing detail and the other allows you to download a pdf of the listing. You may also download any portion of the list as a CSV file. (VBA Members: You can be listed by updating [your profile](#) online. Login required.)

Download selected as CSV

<input type="checkbox"/> Contact Name	Business Name	City	State	Nucs	Packages	Queens	
<input type="checkbox"/> Joshua White	Northwoods Apiaries	Westfield	VT	Yes	Yes	Yes	 
<input type="checkbox"/> Sheri Englert	Vermont Bee Supply	Williamstown	VT	No	Yes	Yes	 
<input type="checkbox"/> Joshua Newcity	NEK BEE	East Charleston	VT	No	Yes	Yes	 
<input type="checkbox"/> Joshua Davis	Birdseye Bee's & Poultry, LLC	Brandon	VT	Yes	No	Yes	 
<input type="checkbox"/> Fred Putnam, Jr.	Country Blossoms Honey	Brandon	VT	Yes	No	No	 
<input type="checkbox"/> Glenn Card	Merrimack Valley Apiaries, Inc.	Williston	VT	Yes	No	Yes	 
<input type="checkbox"/> Fred Merriam	West Meadow Apiary	Braintree	VT	Yes	Yes	Yes	 
<input type="checkbox"/> Fisher's Farm	Fisher's Farm LLC	Barton	VT	No	Yes	No	 
<input type="checkbox"/> Ashley Howe	However Wild Apiary	Shaftsbury	VT	Yes	No	Yes	 
<input type="checkbox"/> Zachary Suddaby	Suddabee's Honey	Morrisville	VT	Yes	Yes	Yes	 
<input type="checkbox"/> Troy Hall	Hall Apiaries	Plainfield	NH	Yes	Yes	Yes	 
<input type="checkbox"/> Richard Crocker		Putney	VT	Yes	No	Yes	 
<input type="checkbox"/> Bob Haven	Safe Haven Honey	Charlotte	VT	Yes	No	No	 
<input type="checkbox"/> Paul Yanus	Ml.Creek Apiary	Underhill	VT	Yes	No	Yes	 
<input type="checkbox"/> Andrew Munkres	Lemon Fair Honeyworks	Cornwall	VT	Yes	No	Yes	 
<input type="checkbox"/> Jeff T. Cunningham	HoneyHunter Apiary and Farm	Putney	VT	No	Yes	Yes	 
<input type="checkbox"/> Michael Palmer	French Hill Apiaries	St. Albans	VT	Yes	No	Yes	 
<input type="checkbox"/> Ken Brown	Coyote Ridge Apiary	Hinesburg	VT	Yes	No	No	 
<input type="checkbox"/> Ross Conrad	Dancing Bee Gardens	Middlebury	VT	Yes	No	No	 
<input type="checkbox"/> Betterbee	Betterbee	Greenwich	NY	Yes	Yes	Yes	 

<https://www.vermontbeekeepers.org/services/northern-honeybee-providers>



Hive parts (Langstroth 8 frame)

Expense item (for 8 frame hive boxes)

Approx. Cost

- **Stand/base** (simple or complicated)
- **Complete hive** (2 deeps & 2 mediums w/covers, reducer, base, queen excluder, waxed frames.
- **Add 1 extra empty deep** per colony)
- **Feeder** (per colony, internal only) and sugar

- \$5-\$160
- \$325 (each)
- \$20
- \$5-35

Total

\$355 - \$540 (per colony)

Frames with foundation

Wax foundation or waxed plastic foundation both good.



Hive boxes, covers,
bottom board



Hive parts



Hive Bases

simple & complicated

CAUTION!!!



Be extremely cautious about accepting or buying used hive parts.

Do so **ONLY** if you can 100% verify that the used equipment did not hold brood infected with American Foulbrood!

Buy new frames and hive boxes.

Start with Langstroth

Experiment with other types of hives once you gain experience.

Langstroth:

- Parts widely available.
- More Mentors and Advisors.
- Certain kinds of management easier.





Personal Protective Gear

Expense item

Approx. Cost

- Veil, jacket w/ veil, or full suit
- Gloves - nitrile 15 mil, rubber dishwashing 20 mil, or leather
- Mini-gators (optional) (protect feet & ankles from stings)

- \$25, \$90, \$190+
- \$15 (box of 50, 25 pairs 15 mil 50¢/pr), \$35 (9 pairs 20 mil \$1.40/pr), \$30 (leather 1 pair)
- \$35

Total

\$75, \$160, \$255



Hive Tools

Expense item	Approx. Cost
• Hive tool (a decent one)	•\$15
• Smoker - standard, premium	•\$35 to \$70
• Smoker fuel	•0
• Frame grip (optional)	•\$15
• 7 Frame spacing tool	•\$16
• Bee brush	•\$8
Total	\$84 - \$124



Hive Tools

Varroa Management (Organic)

Expense item

Approx. Cost

- **Varroa Easy Check** (one time purchase)
- **Alcohol** (70% or 91% isopropyl 1 quart)
- **Formic Pro** (~ for a year)
- **Oxalic acid (ApiBioxal)** (assumes dribble method)



Total

- \$24
- \$5
- \$20-30
- \$15



\$74-84



Honey Harvesting

Small Scale - Optional

Expense item (many options) (not incl jars)

Approx. Cost

<ul style="list-style-type: none">• Extractor - 2 frame, 4 frame, 3/6/9 frame (make sure extractor will handle deep frames! Helpful to get a model that will accept a motor drive in the future)• Uncapping fork (deluxe for push & lift, or pull type) Or;• Uncapping knife (serrated bread knife to uncapping plane)• Uncapping tank (you might be able to substitute)• Refractometer (for honey) (check water content $\leq 18.5\%$)• Fume board & Bee Quick and/or• Escape Board	<ul style="list-style-type: none">• \$515 (decent 4 frame manual w/ motor option), \$1,250 (motorized 3/6/9)• \$10-\$30 (often cheaper on eBay)• \$15-\$200• \$95• \$25 (Amazon)• \$40• \$25
Total	\$700-\$1,640

Do NOT crush/destroy comb to extract honey!!

Uncapping tool options

Deluxe fork (push & lift), pull uncapper, serrated bread knife, electric knife, uncapping plane



**Honey
Harvesting
Optional**

Uncapping
tank

Refractometer



Small
extractors





Fall and Winter Prep & Feeding

Expense item

Approx. Cost

- | | |
|--|---------------------------------------|
| • Bathroom scales to weigh hive(s) (2 analog type) | •\$30 |
| • Mouse guard (1 per hive) | •\$5 |
| • Feeder shim (can make your own) | •\$7 |
| • Foam board insulation | •\$5 |
| • Wrap or insulating material | •\$10-45 |
| • Feeders (internal only) | •\$10-45 |
| • Bee food (sugar, winter patties) | Highly variable, \$0-\$20 per colony. |

Total

\$67-157

Fall/Winter Items



Miscellaneous

Expense item

Approx. Cost

- Windbreaks (if needed)
- Banding strap or heavy-duty ratchet strap (1 per hive)

- Variable \$0 to a lot
- \$8-\$15 per hive





Sum total costs

Startup - first colony

- Education \$50 - \$100
- Legal \$10
- Electric Fence \$333 - \$525
- Bees \$150 - \$230
- Hive parts \$355 - \$540
- PPE \$75 - \$255
- Tools \$84 - \$124
- Varroa Mgt \$74 - \$84
- Honey harvesting (optional) \$700 - \$1,640
- Fall Prep & Winter Mgt \$67 - \$157
- Misc. \$8 - \$15

Total first year: \$1,551 - \$3,680

\$851 - \$2,040 no honey harvest equip

Ongoing


- \$15-\$30
- \$10
- \$50 (+/-)
- \$150-\$230 (lose bees)(maybe \$0)
- \$0
- \$10 (replace gloves)
- \$0
- \$50-\$60
- \$0
- \$0-\$45
- 0

Total ongoing: Lose bees \$285--\$435

Don't lose bees \$135-\$205

One last but very important need

Time

- 
- Time to learn
 - Time to manage colonies and apiary spring, summer, fall, and winter
 - Able to respond to time-sensitive actions (swarm prevention, pest control, etc.)
 - Time to harvest

I'm A Prospective Beekeeper...

Questions?



Fred Putnam Jr. Vermont Beekeepers Association
and
Robin Foldesy, Vermont Beekeepers Association