

How to Start Beekeeping

"A Quick-Start Guide"

by Eric Krouse, Manlius, New York

email: Eric@EricksHoneyFarm.com

website: www.EricksHoneyFarm.com

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Introduction

Welcome to the world of beekeeping! I have been keeping bees as a serious hobby for over 40 years and loved every minute of it. Whether you are just starting out, or looking for some pointers after having started, this article is designed to give you some very specific advice. Please keep in mind that it is not a how-to manual. That's why beginner's books are written and you will find them much more comprehensive. This article is designed to give you specific recommendations on what to read, what to buy and where to buy it in order to cut through all the confusion and plethora of choices you will encounter. My advice is not right nor wrong, it is what I have found works for Upstate New York's long cold winters and bountiful 5 months of flowers. Toward the end of the article you will find a **summary order list** for your convenience. This article and other topics can be found on my website: www.EricksHoneyFarm.com.



This article is written since most beginning beekeepers encounter the same issues:

- What book(s) to read (there are so many).
- Where to seek advice.
- What equipment to purchase.
- Whether or not to treat bees and hives with chemicals.

Last Things First

Let me start with the last item on the preceding list: Chemicals. I don't use them. I have been keeping bees chemical-free since I started in the mid 1970's. The bees I raise come from strains that have evolved over time to cope with many of the diseases and pests that are now all too common. In addition, they have been proven to do well at surviving the long northern winters. I regularly have a survival rate of more than 80%, far better than most beekeepers who do use chemicals. In addition, I have acquired queen bees from other Northern State beekeepers as well as collected local swarms of wild bees which obviously have been successful at surviving without human help.

Books

Unfortunately, I have not found the "perfect" book for beginners... you know, the one that has everything. I recently purchased and reviewed a number of beginner books in order to provide some guidance, but found them either too advanced or too

complicated. Mostly, what I found lacking was a simple step-by-step approach. Nevertheless, what follows are my recommendations:

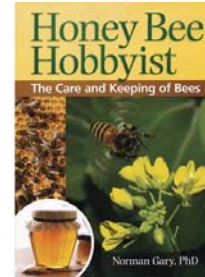
The Backyard Beekeeper (Revised and Updated) - Kim Flottum
(208 pages) (c) 2010 by Quarry Books

- Lots of detailed color photos
- Fairly good how-to-guide for new beekeepers
- Extremely small print making it difficult to read



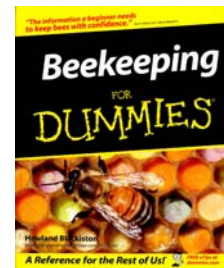
Honey Bee Hobbyist (the care and keeping of bees) -
Norman Gary, PhD (176 pages) (c) 2010 BowTie Press

- Beautiful large color photos
- Good information
- Well written
- Moderate how-to-guide for new beekeepers



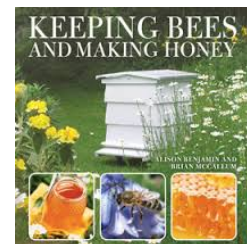
Beekeeping for Dummies (2nd Edition) - Howland Blackiston (358
pages) (c) 2009 Wiley Publishing

- Most photos in black & white.
- Lots of information but not well organized for a beginners
guide



Keeping Bees and Making Honey - Alison Benjamin and Brian
McCallum (c) 2010 David and Charles

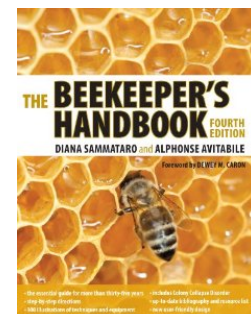
- Written in the United Kingdom giving it a European flavor
with regard to terminology
- Nice photos
- Too brief on steps to make it a useful beginners guide



The Beekeeper's Handbook (Fourth Edition) - Diana Sammataro
and Alphonse Avitabile (c) 2011

This is one of my favorite books. Not designed as a beginners
book, but a great read nonetheless and a terrific reference
guide.

- Not designed as a beginners guide
- Great reference guide
- Lots of information not found elsewhere



Advice

Beekeepers are a close-knit group and love to help each other out. If you are able, find a bee club in your area. They usually run courses for beginners every year and most

have experienced individuals willing to act as a mentor to someone just starting out. I did not have that benefit when I started out and thus had to learn everything the hard way... trial and error as well as a lot of reading (books & magazines). In recent years the internet has become a huge resource for individuals with uncommon hobbies like beekeeping. As a result I have learned much and made many changes to my approach based on information gleaned from the internet. By far the best online information can be found at www.beesource.com (in the forums section):

<http://www.beesource.com/forums/forum.php>

Over the years I have posted a lot of information on this website which you can find when searching for posts by "ekrouse".

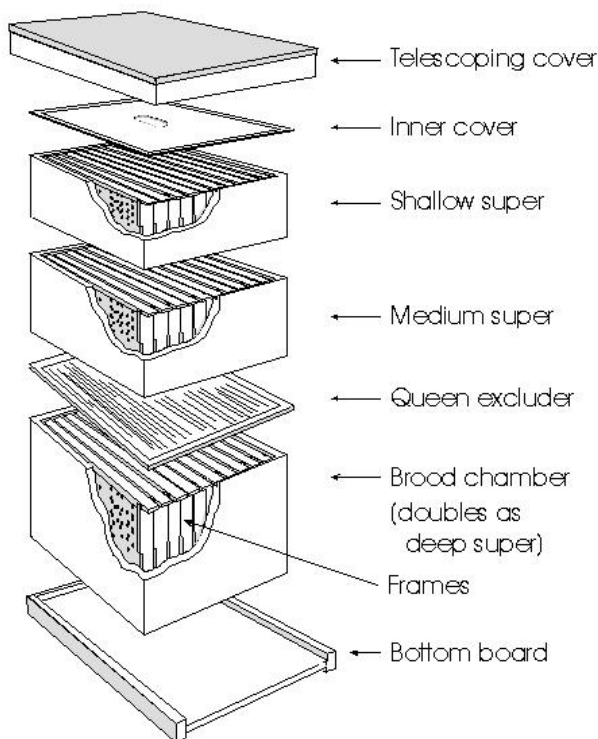
On the forums they have a section called **"How To Start Beekeeping"** and another called **"Beekeeping 101"**.

If you want to find a bee club in your area, the beesource.com website also has a section titled **"Associations & Societies"** which will help you connect with a local group of beekeepers.

(Note that links in this article worked at the time of publication. Naturally they change over time so you may have to do some searching on your own).

Equipment

This is where everyone has an opinion. I have tried most things, from traditional to theoretical, and my current recommendations are listed below. If you have never seen a beehive, the traditional hive is made of stacked boxes with frames hung inside much like hanging file folders in a file cabinet. Each box has 10 frames, although the 8-frame



box is becoming more popular. The traditional beehive has 2 deeper (taller) boxes on the bottom where the queen lays eggs (called a "brood chamber", "deep" or "hive body") which are 9 9/16" high. Stacked above these brood boxes are shallower boxes where the bees store the honeycomb. These shallower boxes are called honey supers or just "supers" for short. The medium honey super (or Illinois super) is 6 5/8" tall, while shallow supers, used primarily for comb honey production, are 5 3/4" tall. There is a floor under the hive called a "bottom board" and an inner and outer "telescoping" cover on the top. Some beekeepers make use of a queen excluder to keep queens from laying eggs in the honey supers

while others do not believing they reduce honey production. I use a queen excluder.

While I have purchased items from all the major suppliers, my two primary (and favorite) suppliers are the Walter T. Kelley Co (Clarkson KY) and Dadant (based in Hamilton, IL), but with a number of local distribution centers around the country including along the Upstate New York / Pennsylvania boarder. Be sure to request a mail order catalog from each. The photos and descriptions in the catalog will help with your understand of how all the equipment works. You can place your orders online but their websites are still very rudimentary, so having the catalog in hand will help you place your orders. At this point I still find it easier to order over the phone.

Walter T. Kelley <https://kelleybees.com>

Dadant Catalog: <https://www.dadant.com>

Hive Boxes

Buy all medium boxes (6 5/8" deep / high). Use the same size boxes for both the brood nest where the queen lays eggs as well as for the honey supers. Interchangeability is key. This will enable you to move frames of honey down to the brood area if they are short going into winter as well as using the same size frame throughout the hive. You will need 3 boxes for the brood area (equivalent to 2 deeps) and at least 2 more for use as honey supers. If you live up north, then you should overwinter in 4 boxes per hive to ensure they have enough honey to make it through the winter. I use 10-frame boxes which is the standard size. There is some evidence that bees may prefer the 8-frame box, so don't hesitate to get these if lifting weight is an issue as a full 10-frame super will weigh about 40 lbs when full of honey.

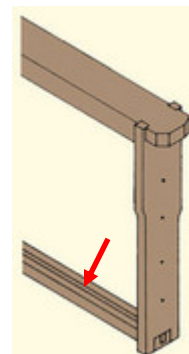
The frames, which hold the comb, hang inside the boxes on grooved notches called rabbets (its a woodworking term). Since there are far more bees in the brood nest than in the honey supers, I cut the rabbets deeper on my medium boxes using a special router bit and jig I created. Then I nail metal frame rests so that bees don't get squished when moving frames in the brood area of the hive. Kelley deep brood boxes come with the frame rests, while mediums generally do not since traditionally mediums are only as honey supers. This is not a required step, but I find it helpful. I purchase the metal frame rests from Kelley's or Dadant:

<https://www.kelleybees.com/Shop/13/Hives-Components/Accessories/4294/Steel-Frame-Rests>

http://www.dadant.com/catalog/product_info.php?products_id=202

Frames

Get **medium frames with wedge top bars and slotted/grooved bottom bars** for use in all boxes as they hold up better than split / divided bottom bars.



Foundation

Get **wired foundation** for brood boxes (don't mess with natural comb in the brood boxes).



Get **unwired wax foundation** for the honey supers so the honeycomb can be cut or crushed to extract the honey (since most beginners do not have a honey extracting machine). Due to all agricultural chemicals in the environment these days, I have gone

"foundationless" in the honey supers. Instead of installing a full sheet of unwired wax foundation into the frame, this "natural" comb approach involves cutting 1/2" strips which I attach to the top of the frame in order to give the bees a guide to get started. You may need to alternate frames with full sheets of foundation between the foundationless frames until they draw it out. After that you can alternate drawn natural comb between frames with starter strips.

Don't buy **plastic frames** or **plastic foundation**. I used them for years but have switched back to wood frames & wax foundation. The 1-piece plastic frames are hard to hold and have lots of small gaps where small hive beetles can hide. As far as foundation goes, bees love pure wax. Not so much the plastic!



Outer Covers

I exclusively use white plastic outer covers from Walter T. Kelley Co. Much stronger than wood covers. In addition, the metal flashing on the wooden covers can become home to ants between the flashing and the wood. At this time the plastic cover is only available for the 10-frame hive.

Inner covers

These are used to keep the bees from gluing down the outer cover and to limit the exposed areas of the hive that the



bees need to guard. I make my own out of wood and use a combination of traditional style and ventilated (screened). With that said, buying tradition wood inner covers (with the elongated hole in the middle) is perfectly acceptable as I often run out of screened inner covers. If you live in the south, a screened inner cover may be a necessity. While I love the plastic outer covers made by Walter T. Kelley Co., I

do not like their plastic inner covers (although I use the two I have in a pinch).

Screened bottom boards

I make my own. This may be a bit much for someone unfamiliar with woodworking so buying a pre-assembled one makes perfect sense. I place them on 18" high hive stands made out of pressure treated 4"x4"s and 2"x4"s, closed on all sides to create a dead air space below the bottom board. It is ideal to set the hive bottom board about 18" above the ground. You can use concrete blocks or something similar, however you should make sure that the screened bottom is somewhat protected from winds strong winds. As previously stated, I love the plastic outer covers made by Walter T. Kelley Co., but do not like their plastic bottom boards.



Entrance Reducer / Bottom Board Space

On a related topic, the height between the screen in the bottom board (or wood floor if you use a non-screened bottom board) and the top edge of the rim where the boxes sit is typically 3/4". You are then supplied with an entrance reducer with various openings. While workable, I much prefer a 3/8" space which came with a bottom board I bought years ago. As a result, I cut down all of my bottom boards to that height and subsequently started using that for all bottom boards I built. You still use an entrance reducer, but it is just a strip of wood 3/8" thick. The length depends on your needs. I use a length of 12 1/2". If you use an entrance feeder, I find a length of 8" about right.



Hive Tool

Basically a small pry bar, this tool is used to separate hive bodies and frames which the bees glue together. Get 2 "J-Hook" hive tool manufactured by Maxant Industries and available from many suppliers including W.T. Kelley and Dadant. You'll need two since one always seems to get misplaced.

Bee Brush

This soft bristled brush is used to brush bees off comb, frames and supers. Get two. An alternative is to use a big feather, like a goose or turkey feather. I saw this in



European beekeeping video and have been using this as a supplement to the bee brush as I find it is more delicate and bees don't get stuck the way they do in the brush bristles.

Frame Grip

This is an optional item. I use it occasionally to hold the top of the frame. This is not a required item, but it can help.



Queen Excluder

... yes I use them. This is used to keep the queen from moving up into the honey super and laying eggs in the honeycomb. Purchase the wood bound metal ones. I paint the outer edge red (or another bright color) so that I can easily see where it is stacked on the hive and so I don't accidentally leave one on in the winter. Doing so will doom the hive since the queen won't be able to remain with the rest of the bees once they pass through it.



Pullover jacket / veil or overalls.

Kelley has the best clothing in my opinion. Get the pullover jacket with folding attached veil. You will need a hat/helmet to go with it. I like the white mesh hat. More common is the jacket with the hatless veil. Personal preference I guess. I also use a full suit in the fall when harvesting honey due to the large number of hives I work and the fact that there are far more bees in the fall than during the rest of the year.



Gloves

Some beekeepers don't use them. Unfortunately I've never gotten to that point. I prefer gloves with ventilated sleeves.

Smoker

This is the beekeeper's most important too. As such get a large stainless steel unit. While smaller smokers may seem more appropriate for someone with one or two hives, the last thing you want is to run out of fuel while in the middle of manipulating the hive. Smoker fuel is one of the most debated issues and no two beekeepers do it the same way. I use hardwood (maple, apple, etc.). Stay away from pine or other softwoods since they will burn quickly and the pitch can be a nuisance to the bees and to your eyes. Never, ever burn manmade



materials like plastic, chemical treated burlap or wood from pallets which likewise may be saturated with chemicals. Most supply houses also sell smoker fuel so if you are in doubt, go that route.

Small Hive Beetles

I haven't had too much trouble with Small Hive Beetles. I find they mostly attack weak hives. I have used A.J.'s Beetle Eaters with some success, but they were discontinued by Dadant. They now sell "Cutts Beetle Blaster" which has a similar design, but at a lower cost.



Bees

Of course this entire list is irrelevant without bees. There are 4 ways to get bees:

1. Buy a **3-lb package with queen**. This does not come with comb, frames or young bees, so the colony is just starting out like a swarm of bees.
2. Capture a **swarm** of bees. This would be like buying a 3-lb package, but is difficult for a beginner. In addition, finding swarms is unpredictable.
3. Buy a **Nucleus Hive**, more commonly referred to as a "**Nuc**". This is really a young starter hive with 3 - 5 frames of comb containing worker bees, a laying queen, honey, pollen, eggs and developing brood. This is the best way to get started since your colony will be weeks ahead of the other methods. I sell a limited number of nucs each year for pickup in the Syracuse, New York area. Generally these are available starting in early June. See equipment list (last page) for more information. You can email me at Eric@EricHoneyFarm.com if you are interested or need additional information.
4. Buy a **hive**. This is the most expensive option since it will typically consist of 10 to 20 frames of bees, a laying queen, honey, pollen, eggs and developing brood. It is similar to a Nuc, just more fully developed.

Research

Finally, you can search my posts on beesource.com by searching for posts by ekrouse. Some of the more pertinent posts are:

Equipment Sources (for first time buyers):

<http://www.beesource.com/forums/showthread.php?221685-b%29-First-equipment-amp-supplies-to-obtain&highlight=ekrouse>

Storing Supers:

<http://www.beesource.com/forums/showthread.php?273897-Storing-supers-Please-help-this-newbee-stick-with-beekeeping!!!&highlight=ekrouse>

Sources for frames:

<http://www.beesource.com/forums/showthread.php?233143-Walter-T-Kelley-frames-and-foundation&highlight=ekrouse>

Equipment List per hive (for 10-frame size)

Description	Kelley Item #	Dadant Item #
5 or 6 medium supers (6 5/8" high) - 3 for the brood chamber and 2 or 3 for use as honey supers. 10 frames per box (unless you have 8-frame equipment).	38B (5 boxes)	B31205 (5 boxes)
Medium frames with wedge top bars and slotted/grooved bottom bars (enough for all boxes)	17-SG (50 frames)	B76150 (50 frames)
Wax foundation with Crimped wire (for brood nest)	134WH-B (100 sheets)	F35350 (50 sheets)
Wireless wax foundation (for honey supers)	P624-A (20 sheets)	F38650 (50 sheets)
Screened Bottom Board (with board to close in winter)	57	B92901W
Telescoping Outer Cover (I use Kelley's Plastic Outer Cover exclusively)	49A (Plastic) *Best or 49-MA (Wood)	81110 (cover w/ inner cover)
Wooden inner cover	15A	(included above)
Wood-bound Queen Excluder with metal grid	19-WA	B41101
Maxant J-Hook Hive Tool (get two)	163	M00856
Bee Brush (get two)	322	M00751
Frame Grip (optional) *I like Kelley's version better	107A	M00748
Pullover Jacket with folding veil	25PC	Other styles
Hat (white mesh)	145-F	Other styles
Gloves with ventilated sleeves (item number is size specific)	RF240-???	M011381, M011371, M011361, m011351
Large Smoker (stainless steel)	149-E	M009281
2 per hive - Cutts Beetle Blaster (optional)	n/a	M01945
Bees: either a 3-lb package or a Nucleus hive "Nuc"		

I will be posting updates to this list (in addition to this article and other advanced topics) on websites: www.Stuff4Bees.com and www.EricsHoneyFarm.com so please bookmark these sites and check them out.

[Eric's Honey Farm... Nucleus Hives \(Nucs\) with Northern Raised Queens](#)

Queens are all Northern Bred and trace back to Carniolan lineage. They have been developed from survivor strains adapted to Central New York's long cold winters with genetics for gentleness, surplus honey production and disease /parasite resistance due to being raised in a chemical-free environment. They are



generally not available until early June because all include Northern raised, locally adapted queens rather than nucs made up with queens shipped from the South.

Each nuc comes with five medium frames consisting of a queen, 2-3 frames of eggs/brood plus frames of pollen and honey. We supply the bees and frames. You supply the remaining equipment (hive body and bottom board). We'll also supply a screened cover for the trip home or a temporary nuc box. If you use traditional deep brood boxes, we will provide instructions on the simple process of migrating them from medium to deep frames. Email or phone us if you are interested or have questions. Nucs go fast early in the season so be sure to reserve your well ahead of time.

-Eric

Eric@EricHoneyFarm.com



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