

SEVEN (7) HIVE COMPONENTS:

5) ONE OR MORE HONEY SUPERS OF MEDIUM 6-5/8"
OR WESTERN-SIZE (NOT IN THE CATALOGS) OF 7-5/8"
OR DEEP OF 9-5/8" -

WITH 10, 9, OR 8 FRAMES & FOUNDATION



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Honey supers can come in varying sizes and are used for collecting and storing your honey that should be removed. This is the beekeeper's harvest! It's pay-back on your investment of time and money. Bees can collect and store up to 5 times more than they need. You are actually doing a dis-service to your bees by not harvesting the excess food reserves, so I hope you got into beekeeping for the honey as well as the fun. Foundation is definitely recommended. Good practice and storage of the supers can give many years of use. The most commonly used size is called an "Illinois" or medium 6-5/8" size super. A word of caution with using deeps (9-5/8") as honey supers is that eventually, they will get too heavy to handle. Several supers are used to give the colony room to store nectar and honey during the spring and summer season. They are eventually removed along with the queen excluder and stored until the following spring. Where does the term 'super' come from? I learned many years ago that 'super' came from the fact that these honey storage boxes were 'superior' to the brood nest, and that is how they got their descriptive name. A shallow super is 5-11/16" high and smaller than a medium. 10-frame boxes are 20" x 16-1/4".

SEVEN (7) HIVE COMPONENTS:

5) ONE OR MORE HONEY SUPERS WITH 10, 9, OR 8 FRAMES



Optional: Frame Spacer



Supers are the beekeeper's harvest! Optional frame spacers can be added to keep the frames held evenly spaced apart. This ensures that bees are not crushed if being transported and that frames are guaranteed to be held in place and at the correct spacing. This is extra equipment but well worth the effort.

SEVEN (7) HIVE COMPONENTS:

5) HONEY SUPERS OF 9-5/8" DEEP HIVE BODY & FRAMES



Deep supers on my personal hives. Photos of me and my mother in 1979.
Take photos of your bee adventures and experiences to cherish later.

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A photo of my mother when I ran mostly all deeps on a few hives. A photo of me and a capped frame. I believe this was 1979. A reminder to take pictures of your experiences as you go along. We don't keep photo albums like we used to anymore but family pictures and your bees can make fond memories and experiences for you to look back on. Deep honey supers can ultimately weigh up to 75-80 lbs when full (60 lbs {10 x 6 lb frames}).

SEVEN (7) HIVE COMPONENTS:

6) INNER COVER (S)



Provide the correct bee space at the top of the colony.

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As stated previously, if you use a telescoping top you will need an inner cover as well; otherwise, the bees will glue the top to the hive with propolis making it difficult to remove. Inner covers are important as they provide the correct bee space at the top of the hive and allow for good air ventilation. The center hole can be used to peak into the top box or for a bee escape device or to allow feeding. You want an inner cover that is reversible, so one with a deep and a shallow side, if possible, although some manufacturers do not make them that way. I prefer not to have notches in mine as I do not want an upper entrance that they sometimes may or may not use. Bees can bring in pollen to the honey supers, and I don't want pollen in my honey supers. You may not think that inner covers are always necessary but they help provide extra protection and dead air space. I also prefer a hard wood over the masonite material as the masonite can warp - but that's my personal preference. Reverse the inner cover for the seasons of spring/summer (shallow-side down) and fall/winter (deep-side down), if yours has a shallow and a deep depth to it. If you leave the deep-side down during the honey flow, the bees will fill it with burr comb and honey, if they are short on room.



Not all inner covers are the same. Here's a model that I got from somewhere that I dis-like. I believe it was from a colony that was given to me by someone who moved out of town. This is a good example of equipment that violates the bee space. The inner cover has a flat bottom. The bees have barely enough room to want to load it with propolis and glue it down to the tops of the frames as they do not have enough comfortable crawl space-evidently. Would this provide good ventilation at the top? Why not? What does this violate? (It violates 'the bee space'). Inner cover from Kelley Beekeeping?

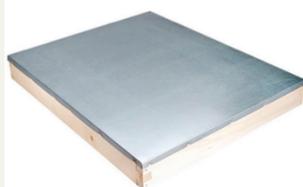


Here's a reversible inner cover. Time got a way from me and I nearly didn't get it reversed in time before they began building excess beeswax (burr comb). (I violated 'the bee space').

SEVEN (7) HIVE COMPONENTS:

7) TOP CAP - TELESCOPING OR COMMERCIAL OR GARDEN

Telescoping Lid (standard)



Commercial Lid



Garden Lids
(ornate)

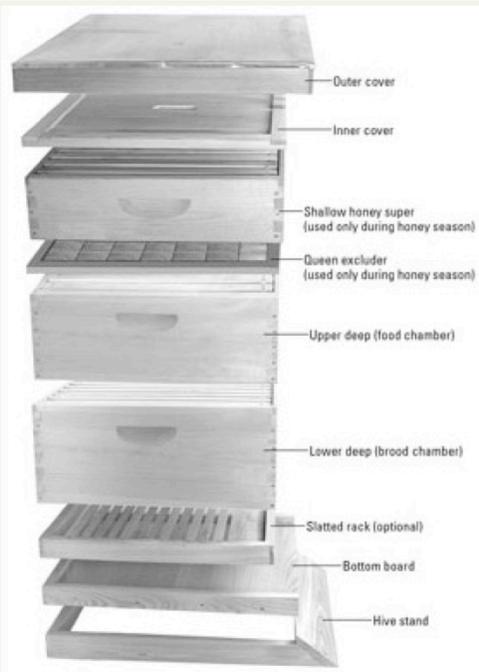


The most commonly known and used style of hive used by US beekeepers is the Langstroth hive. The most common lid for hobbyist and non-commercial beekeepers is the flat, telescoping cover. It is sturdy, and will last a long time if the wooden edges are primed and painted, protecting your colony for years to come. The commercial or migratory top is the least costly and used mostly by commercial beekeepers. It is used without an inner-cover and sturdy enough to withstand stacking colonies for trucking and placement for pollination services. More elaborate and expensive is the Garden Hive-style lid. It's a decorative telescoping cover, and allows rain water to run off to the sides. It is not flat and not exactly safe for setting things like a smoker on top. The problem with the Garden Lid is that you're not able to lay it flat on the ground. The flat lids come in handy when making inspections and needing a place to temporarily set supers or a brood box.

IN REVIEW SEVEN (7) HIVE COMPONENTS

- 1) HIVE STAND**
- 2) BOTTOM BOARD WITH ENTRANCE REDUCER
OPTIONAL: SLATTED RACK**
- 3) BROOD BOX (2) 9-5/8" WITH FRAMES & FOUNDATION**
- 4) QUEEN EXCLUDER –*WOOD BOUND/METAL/PLASTIC**
- 5) ONE OR MORE HONEY SUPERS 6-5/8"
OR WESTERN-SIZE OF 7-5/8" WITH FRAMES & FOUNDATION**
- 6) INNER COVER**
- 7) TOP CAP - TELESCOPING OR COMMERCIAL OR GARDEN**

This was a review of the 7 components of the modern Langstroth-style hive most commonly used by beekeepers in the US and Australia.



The Langstroth hive:

Vertically modular beehive that has the key features of

- 1) vertically hung frames,
- 2) a bottom board entrance,
- 3) boxes of frames for
 - a) brood and
 - b) honey, an
- 4) inner cover and
- 5) 'top cap' for weather protection.



https://en.wikipedia.org/wiki/Langstroth_hive

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Review of the components of “The improved hive, based on the Langstroth system.”
 The large majority of beekeeping books are based on Langstroth beekeeping.
 Langstroth equipment is the easiest for the beginner to manipulate and maneuver.
 Therefore, it’s highly recommended to start with a Langstroth hive. These are the components again.

SEVEN (7) HIVE COMPONENTS

January 2021
 Northeastern Kansas Beekeepers
 Beginning Beekeeper Program
 Robert Burns

2020 Equipment list for 2 Deep Hive Bodies, 2 Med. Honey Super for 10-Frame Hive						
2020 Suggested Item List (updated February 28, 2020)	Find on Page Number	Catalog Item #	Quantity Needed	Price ea*	Total	
Hive Stand (Supports the hive off the ground)	33	M00695	1	\$16.95	\$16.95	
Beginner's Kit #1 for 10 frame hive - Unassembled. Everything needed for 1st hive except honey bees! --Includes Standard Bee Hive, frames, foundation, entrance feeder, hive tool, bee smoker, hat & veil pullover combo, gloves, book, and assembly instructions.	11	M58101	1	\$189.47	\$189.47	
Slatted Rack-10 frame hive (gives the bees a place to cluster & ventilation) - recommended	35	B91401	1	\$19.52	\$19.52	
9 5/8" Deep Hive Body - unassembled, LRabbits & Nails included (Brood Chamber)	19	B51201	1	\$22.60	\$22.60	
9 1/8" Grooved Top Bar Frame for Deep Hive Body (Carton of 10/unassembled)	19	B75210	1	\$14.37	\$14.37	
9 1/8" Sheets Plastic Based Comb Foundation (yellow & wax coated)	19	F37000	10	\$1.53	\$15.30	
Wood Bound Excluder (assembled)	38	B41101	1	\$16.43	\$16.43	
6 5/8" Medium Honey Super-unassembled & nails included (honey storage)	20	B31201	2	\$17.97	\$35.94	
6 1/4" Grooved Top Bar Frame (carton of 10/unassembled)	20	B76210	2	\$14.37	\$28.74	
6 1/4" Sheets Plastic Based Comb Foundation (yellow & wax coated)	20	F37200	20	\$1.33	\$26.60	
7d galvanized nails (for hive bodies and honey supers)	23	M00731	1 lb	\$4.50	\$4.50	
4d galvanized nails (for hive bodies and honey supers)	23	M00730	1 lb	\$6.50	\$6.50	
3/4" by 18 guage nails (for frames)	23	M00726	1 lb	\$8.50	\$8.50	
1 1/4" x 17 guage nails (for frames)	23	M00727	1 lb	\$8.50	\$8.50	
Metal 9-Frame Spacer (for honey super after combs have been built-out)	31	M00874	4	\$0.74	\$2.96	
Frame Holder	31	M00319	1	\$23.65	\$23.65	
Total without Optional Equipment					\$397.36	
Total with Optional Equipment					\$423.58	
Also						
Paint-Latex Exterior primer (buy locally)						
Franklin Titebond II Wood Glue (buy locally)						
Membership to KS local association (Northeastern KS Beekeepers) (buy locally @nekba.org)		annual	1	\$15.00	\$15.00	

www.NEKBA.org Items from Dadant's 2020 Bee Catalog found on the website.

Here's a sample list for beginners available on the nekba.org website to give you an idea of suggested equipment and prices and location in the Dadant catalog. These prices were current for 2020.

TIPS :

- 1) WOOD GLUE FOR ALL JOINTS**
- 2) METAL FRAME SPACERS FOR HONEY SUPERS 9 OR 8-FRAMES**
- 3) USE EXTERIOR PRIMER & PAINT –LATEX**
- 4) NAILS USUALLY COME WITH WOODENWARE -BUT ASK**
- 5) ORDER WELL IN ADVANCE TO GET MATERIALS ON TIME**
- 6) BE READY**

Let's go over some handy tips that to help you get a good start in your beekeeping.

PAINTING TIPS:



Protect your investment. Choose a color that will help blend your bee hive in the surroundings. Muted colors help to give it a slight camouflage.

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Coat the hive in an exterior primer first before putting on the final coat of paint. You may also choose to use a good deck stain. Do not prime or paint the interior- only parts that need weather protecting. White is the classic color but avoid black and dark colors to keep the hive from getting too hot in summer. Avoid red as this color is not in the bees sight spectrum. Choose a color that will help blend your beehive in the surroundings. Muted colors will help to give it a slight camouflage. You can make a fun project out of designs. HOWEVER, there is the old Latin adage: "Taste is not disputable." or "De gustibus est non disputandum".

Contents

- Objective
- Founding Fathers of Modern Beekeeping
- The Langstroth Hive
- Seven (7) Hive Components
- **Equipment for Safe Practices**

Next, let's go over other equipment for safe practices with your bees.

EQUIPMENT FOR SAFE PRACTICES:

- 1) HIVE TOOLS**
- 2) BEE SUIT, BEE VEIL, OR BEE JACKET**
- 4) BEE SMOKER**
- 5) BEE GLOVES**
- 6) BEE FEEDERS**
- 7) HONEY EXTRACTORS**
- 8) BEE FRAME HOLDER (OPTIONAL)**

Suppliers commonly sell “beginner kits” that contain a veil, smoker, hive tool, and other equipment in addition to hive components. Before ordering or purchasing one of these, talk to an experienced beekeeper to make sure it would be appropriate for you. It will likely take longer than you think to select, order, and receive hive components and to get them assembled and hive boxes painted. Plan accordingly to avoid not being ready when your bees are due to arrive.

• EQUIPMENT FOR SAFE PRACTICES

HIVE TOOL(S)



Some leverage is going to be needed to make hive inspections to remove the inner cover, frames, supers, etc.

Honey bees collect a miscellaneous product called propolis from tree gums, saps, and resins. Bees use this propolis to seal cracks and crevices within the hive. Because of the sticky nature of this product a special tool is used for those times when a little leverage is necessary to remove frames, supers, etc. from the hive. You may want to have an extra hive tool in case you misplace or lose one.

• EQUIPMENT FOR SAFE PRACTICES

BEE SUITS, BEE VEILS, BEE JACKETS



Protection is especially important for the new beekeeper. You may want to consider head-to-toe or just basic protection. Avoid being distracted by bee stings, especially to the face. Besides the swelling, stings to the eyes, nose, and ears can be painful.

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Protection is especially important for the new beekeeper. Some may wish to be covered from head-to-toe while others may just want head and arms. The bee veil protects the face and neck. Many times it is made from wire mesh to help the veil stand away from the face. Protective clothing of some sort is always recommended. From full suits with hat and veil to jackets or just a hat and veil. Taking stings and getting used to them is a long process. Don't take unnecessary risks as a beginner. The pain of stings is nearly always the same but sting reactions can change and will differ among individuals.

• EQUIPMENT FOR SAFE PRACTICES

BEE SMOKER



Use a bee smoker to calm your bees before any activity with the colony. Best are the smokers with a heat shield to avoid getting burned. To avoid stressing the bees and YOU, use a smoker, doing yourself and the bees a favor. Smoke helps to mask alarm pheromones.

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Smokers – smoke your bees but don't smoke them out! Protection is especially important for the new beekeeper. You should let yourself move calmly when inspecting your bees. Calm your bees using a smoker, and avoid stressing the bees and YOUrself. The purpose of this tool is to disrupt the bees' defensive behavior. The smoker is a metal container with air pumping bellows attached. A smoldering fire is built in the metal fire chamber and the bellows are used to blow the smoke produced out through a nozzle at the top of the smoker. When lightly puffed into a colony of bees, the smoke causes temporary confusion and dis-organization within the colony. You don't need to smoke the entire colony but generally just the guard bees at the entrance and perhaps the top as you work the hive.

• EQUIPMENT FOR SAFE PRACTICES:

GLOVES



Ventilated Leather, Ventilated, Canvas, Plastic-coated Canvas, Nitrile disposable.
Choose the best type for you to be comfortable with even though you may not always want or need to use them. Beekeepers tend to handle their bees much more delicately and carefully when not using gloves.

There are a many types and styles of gloves. With proper use of the smoker, gloves may only occasionally be needed. Nitrile gloves have become popular with a few of my beekeeper friends. They can be used for honey processing, janitorial, painting, maintenance, and light shop work as well. Try to get to a point where you are comfortable working your bees without gloves. Beekeepers tend to be more careless while wearing gloves as they are less afraid of getting stung and crushing bees. Crushing bees is one of my pet peeves.

ADDITIONAL EQUIPMENT:

FEEDERS



Bee Feeding Equipment.

Feeding equipment comes in a variety of styles and categories. All beekeepers are different and have differing ideas on what is the perfect way to take care of their bees.

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There are many styles or types of feeding equipment. No matter how you are feeding, avoid open feeding and spilling syrup to prevent robbing and waste. Avoid feeding honey unless it's your own, disease-free supply. Shown above are 1) Plastic Pail or Bucket feeder 2) In-hive Frame feeder 3) Wooden Hive Top-feeder 4) In-hive Plastic feeder, and my favorite is using a jar – inverted and used over the hole of the inner cover. I like using the inverted jar method, my personal favorite feeder type, as it's measurable and I can use this year-round in all types of weather – warm or cold. You will need an empty brood box to use as a shell for the bucket, in-hive plastic, and jar feeders. Entrance feeders can be problematic. Some beekeepers in our group like to use a freezer baggie as another option as they can be effective and simple.

ADDITIONAL EQUIPMENT:

EXTRACTORS



Honey extracting equipment.

Start a budget now for a honey extracting equipment. Budgeting is a fun way to create a buying plan with family members. It's a good way to teach how to save and buy.

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Start a budget right now for a nice honey extractor and additional equipment. It's a good and fun way to create a buying plan with your family members. There are many options or sizes and price ranges. This economy extractor (in the middle) is available for \$140 (2020). If you intend to keep bees for a long time, which we know you probably do, consider investing in a top-tier model like electric and radial. For example, this Ranger Hand Honey extractor (left) and accessories for \$895 (2020) NEW MODEL EXTRACTOR – is s 6 frame radial extractor that comes complete with stand, 1 bottling bucket kit, 1 speed king electric knife, plastic uncapping tub and 1 capping scratcher. This model features the hand crank to spin the extractor. It is capable of extracting 6 - 6 1/4" frames or shallow frames radially or three deep (9 1/8) frames tangentially by using the optional baskets. Bigger models that are electric can be had for significantly more money. This type of equipment only seems to increase in value, so if you decide to sell, you'll get your moneys worth.

ADDITIONAL EQUIPMENT:

FRAME HOLDER (OPTIONAL)



A Frame Holder: the most efficient and convenient way to hold a few of those valuable comb-filled frames removed from the colony during inspections.

A frame holder or frame perch is the most efficient and convenient way to hold valuable comb-filled frames removed from the colony during inspections. A holder gives you a place to put your frames other than on the ground. I also like to number my frames, so I know exactly how to put them back – unless I intentionally want to move them around. It's ok if you get the frames out of order intentionally sometimes when making manipulations in the colony.

Contents - reviewed

- **Objective** - (history & confidence)
- **Founding Fathers of Modern Beekeeping**
- **The Langstroth Hive**
- **Seven (7) Hive Components**
- **Equipment for Safe Practices**

For review, the contents we just went over are: 1) the objective of today's presentation was to give you some history (three fathers of modern beekeeping) and give you some confidence re the modern hive-Langstroth 2) a little history with some very important people that you should know about 3) a description of the Langstroth hive, and 4) the seven hive components of the modern Langstroth bee hive, and 5) Equipment for safe practices.

More information through your associations:

Northeastern Kansas Beekeepers since 1948 (KS local)

website: <http://www.nekba.org>

Kansas Honey Producers since 1903 (KS State Beekeepers)

website: <http://kansashoneyproducers.org>

Midwestern Beekeepers since 1947 (MO local)

website: <http://www.midwesternbeekeepers.org>

Your associations for local and state membership and information. Bee clubs or associations are a good support to help struggling beginners. You also already have taken the step of taking a bee class like this one. Consider furthering education opportunities like the NEKBA Bee FunDay event and a day-long event such as with the state beekeeping group.

January 2021
Northeastern Kansas Beekeepers
Beginning Beekeeper Program
Robert Burns

EQUIPMENT FOR BEGINNING BEEKEEPERS

PRESENTATION RESOURCES:

<https://www.findagrave.com>

<https://www.dadant.com>

"Beekeeping in the United States. The
Beekeeping Revolution", Peter Borst
American Bee Journal, Aug. 2020

<https://www.wikipedia.org>

<http://www.nekba.org>

<https://www.mannlakeltd.com>



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This presentation was "Equipment for Beginning Beekeepers". These were the resources I used for this presentation.



Final TIP :

Make it a personal habit to scrape the propolis from the inner cover with your hive tool each and every time when closing up your hive after an inspection.

Reverse the inner cover for the seasons of spring/summer (shallow-side down) and fall/winter (deep-side down), if it has a shallow and a deep depth to it.

05

One final tip. Make this a habit. Learn to scrape the propolis from the inner cover with your hive tool each and every time when closing up your hive after an inspection as it gives your bees an opportunity to re-seal the cracks. And remember, if it's reversible, the shallow side goes down for the spring/summer season, and the deep side goes down for fall/winter season. Otherwise, if the deep-side is left down for the spring/summer season, it violates the 'bee space', and you'll get extra wax or burr comb built that will make a real mess when you open the hive. In addition, the deep-side-down in fall and winter provides needed extra air space for ventilation.



Thanks for your attention today! My hope is you'll find this information helpful and enlightening. Good luck with your new adventure with the bees. If we have run out of time, I apologize for making this program so lengthy. I'll be available later for questions. Hope to see you at our monthly events like our meetings and Q&A sessions. Thanks again.