



Getting Started in Beekeeping

Course Outline

- **Honey Bee basics?**
- **State & Local laws about bees**
- **Getting Started**
 - **What Do I need to buy (or build)?**
 - **How much time / work is involved?**
- **What did I NOT cover?**

Things you still need to learn

Why should YOU be a beekeeper?

- ❖ **Honey (everyone thinks of this first)**
 - ❖ The only food that will never spoil
 - ❖ Sweeter than sugar
 - ❖ Raw honey is useful for reducing allergy symptoms.
- ❖ **Wax is used in 100's of products (candles, treatment for leather, lubricant, cosmetics, etc)**
- ❖ **To pollinate crops (at a minimum, your own garden)...**
- ❖ **“Sting Therapy” in a treatment for arthritis & other joint ailments.**

Why do we need bees?

- ❖ **Bees pollinate between 35%-65% of the world's food supply**
- ❖ **The population of bees has dropped dramatically over the past few years – there may not be enough “wild bees” to pollinate your garden/crops**
- ❖ **New bee pests & diseases causing drop in population. The cause is not exactly known, but research indicates that there are multiple contributing factors including:**
 - ❖ **Pesticide residue**
 - ❖ **Invasive pests (varroa mites) which weaken immune system**
 - ❖ **Use of Genetically Modified Organisms (GMO) in farming.**
- ❖ **Africanized bees (hybrids) seem to be resistant to CCD....**

“The way to save bees is not to have 1 beekeeper have a million hives, but to have 1 million beekeepers with 1 hive each.”

What is a “Bee”?



Honey Bee



Bumble Bee






Yellow Jacket



Carpenter Bee

The inhabitants of the hive

Type of adult bee	What they do	How many in a honey bee colony	What they look like in a honey bee colony
Queen	Lay eggs	1	
Worker	Take care of larvae, build and clean nest, forage	10,000-50,000	
Male	Leave nest to mate, then die	100-500	

Honey Bee Factoids

- ❖ Honey bees are NOT native to the US
- ❖ A Queen
 - ❖ Can live 3-5 years and can lay as many as 1,500 eggs / day
 - ❖ Usually only flies a couple of times in her life
- ❖ Worker bees
 - ❖ Typically live only ~90 days in the spring/summer up to 120 days in the winter
 - ❖ Will routinely travel 3 miles to find pollen & nectar (and as much as 6 miles)
- ❖ Drone bees
 - ❖ Only purpose is to mate w/ queen. They die soon after mating. If they don't mate, they will get kicked out of the colony in the fall.
 - ❖ Do not have a stinger

What “Killer Bees”?

- ❖ **Beekeepers don’t use the term “killer bees”.**
That is a term made up by Hollywood and TV reporters who don’t know any better.
- ❖ **Africanized Bees ARE “honey bees”**
They are the same animal. You cannot tell them apart from an Italian honey bee (or German or Russian or...) without a genetic test.
- ❖ **The fear & hype is MUCH higher than the reality.**
- ❖ **There are some “good traits” that AHB have over bees of European origins.**
Seem to be better at fighting off diseases and pests such as varroa mites

State & Local Laws

- You **can** keep bees inside the city limits – both Bryan & College Station.
 - ❖ There are no city ordinances against – and no plans to implement them
 - ❖ You DO need to be a ‘good neighbor’ and be mindful of how the bees will fly in/out of the hive around your neighbor’s property
 - ❖ HOA’s might still prohibit beehives
- Texas Apiary Inspection Service
 - <http://txbeeinspection.tamu.edu/>
- Ag exemption on property taxes for keeping bees
 - ❖ Exemption is for 5-20 acres of property (not counting 1 acre for your house)
 - ❖ Like all property taxes, varies from county to county
- Beekeeping qualifies for a Sales Tax Exemption

What do I need to get started?

- ❖ **The Bees**
- ❖ **Protective clothing**
- ❖ **Various “tools” (smoker, hive tool, honey extractor, etc)**
- ❖ **Some place for the bees to live (aka “a hive box”)**
- ❖ **A location to put your hive**
- ❖ **Your time & labor**

Getting Honey Bees

There are four general ways to begin a colony of bees.

- **Start with a package of bees.**
- **Start with a “nuc” hive.**
- **Start with an established hive.**
- **Start with a wild swarm**
- ~~**Do an extraction – not recommended...**~~

Getting Honey Bees

Start with a package of bees.

- There are beekeepers who sell honey bees (R.Weaver & BeeWeaver in Navasota).



- Generally cost ~\$100-\$120 ***
- The package of bees includes a queen & ~3lbs of worker bees (~2500 bees per pound)
- Bees “start from scratch” (no comb, no brood, no food)

Getting Honey Bees

**Start with a “nuc” hive.
(short for “nucleus”)**

- Cost is ~\$200-\$250
- ~5-6 lbs of bees
- It will contain two or three frames of capped brood (means the queen is definitely already laying eggs)
- The nuc will have drawn comb rather than just foundation.
- **IMHO, this is the best “bang for your buck”**



Getting Honey Bees

Starting with an established hive.

- This is a fully developed colony of up to 50,000 bees
- The hive will contain drawn comb, some honey reserves, and a several frames of brood & larvae.
- The hive will be most expensive if it is housed in “like new”
- Prices vary according to condition of equipment.
Generally price will be \$300 - \$500



Getting Honey Bees

Start with a swarm.

- What is a “swarm”?
It is a collection of bees (queen & workers) that have left their previous colony and are searching for a new home.
No honey comb!
- It is natural for a hive of bees to swarm. This normally occurs in the months of April, May, June, but can happen anytime.
- Swarms are generally MUCH “nicer” than bees in a colony. After all, they don’t have honey or eggs to defend.
- Like a package, the bees have no comb, no brood, & no food
- But they are **free**...



Hive Boxes

where the bees live

Many different kinds of hive boxes – I'm only going to talk about 2 types:

➤ Top Bar Hives

➤ Langstroth Hives

Come in a variety of sizes

Important notes:

- ❖ the bees do not care.
- ❖ Pick the one that is easiest for **you** based on size, cost, & advice of YOUR beekeeper mentor.
- ❖ There is no “right” or “wrong” type....
Except for....

Hive Boxes

“the bad one”

Over the past year a “new type” of hive has gotten a lot of press. It’s called a “Flow Hive”.



Don't!!! It's a scam.

- ❖ They cost \$650 **per box**
- ❖ They are unproven (not in real production)
- ❖ Even if they work as advertised (they won't), they promote **BAD BEEKEEPING** practices.

Top Bar Hives

A hive which is a single box, usually made in a “trapezoid” shape. Very popular in underdeveloped countries because they can be built cheaply.

Key feature

- ❖ Does not use “frames” – there are “bars” on the top (hence the name) which the bees use to build their comb.



Langstroth Hives

The “square box” hive which is in wide use here in the U.S. The distinguishing characteristic is that it uses “frames” onto which the bees build honeycomb. The frames can be moved around and manipulated with ease. The frames can also be pulled out and put into an “extractor” for easy honey collection.



The boxes come in 2 primary heights:

- ❖ 9 9/16 inch “**deep**” (most often used on the bottom for brood comb)
- ❖ 6 5/8 inch “**medium**” (most often used as a “honey super”)

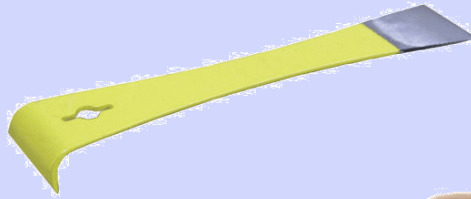
Protective Clothing

- A hat & veil
- “sting resistant” clothes
- ... including gloves
- good shoes are nice



Tools you **should** have:

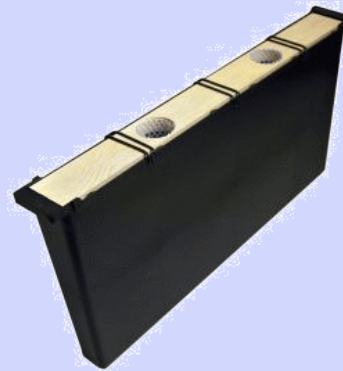
- **A “hive tool”**



- **“bee brush”**
(I like a big turkey feather or a soft paint brush)



- **A feeder**
(for new hives or winter time)



- **Smoker** (to calm the bees)



Nice to have tools

- A “frame grabber”
- An epi-pen set
(just in case someone has an allergic reaction)



Tools you do **NOT** need

- Smoker “fuel”
(pine needles & burlap sacks work great)

Where do you get Tools?

- **Producers Co-op**
- **Mail order place such as:**
 - Mann Lake
 - Brushy Mountain
 - Dadant
- **Make your own!**
 - Many plans are available online

How much time / work is involved?

- **Before you get your bees** - it can take a bit of time to build & paint hive boxes, stands, frames, etc. There is some work required to get started.
- **Maintaining your bees**
 - You need to check your bees – called performing a “hive inspection” on a routine basis. How often depends on:
Is this a new hive?
Time of the year
Avoid the temptation to check them TOO often
 - Feeding your bees – especially new colonies mixing up a 1:1 sugar water solution

Things I did not cover?

(I don't know what I don't know)

- **Honey bee biology** - Queen vs drone vs worker, lifecycle, pheromone communication, etc.
- **Diseases that affect honey bees** - How to identify and how to treat.
- **How to do a “hive inspection”** – What am I looking for?
- **Things to do during different parts of the year** – when to add honey supers? How to prepare for winter?
- **Botany** – what kinds of plants produce pollen & nectar. And **WHEN** they produce it.
- **How do I collect / process honey? or beeswax?**
- **Other hive (optional) hive components** – queen excluders, foundation types, etc.

Other Resources

Where do I go from here?

- **Club Memberships, such as Brazos Valley Beekeepers Association (<http://www.bvbeeks.org/>)**
Best place to find a beekeeping mentor...
- **Beekeeper “schools”**
<http://www.centraltexasbeekeepers.org/>
Sat, April 16 (all day)
Brenham – Wash. Co. Fairgrounds
- **Facebook groups** such as BVBK and Central Texas Beekeeper Assoc.
(online beekeeping mentors)
- **Youtube videos** (especially those from “The Fat Bee Man”)

Other Resources

Top 5 Books

1. *First Lessons in Beekeeping*
by Keith Delaplane
2. *Backyard Beekeeper*
by Kim Flottum
3. *Beekeeping for Dummies*
by Howland Blackiston
4. *The Beekeeper's Handbook*
by Diana Sammataro & Alphonse Avitabile
5. *Beekeeping Basics* (formerly *Fundamentals of Beekeeping*)
by Penn State University (free download)

Last Words:

Advice from “JPtheBeeMan”

My advice – jump in. Beekeeping is a “learn as you go” process. Do NOT try to learn everything first.

BVBeeks has a Youth Beekeeping Program

- Year-long mentorship program (beginning August 2016)**
- Affiliated with Brazos County 4H**
- Designed for kids in Junior High & High School (12-17 years old)**
- Kids sticking with the program are awarded a hive of bees and all of the equipment (free). Total Value is \$600+**
- Qualify for scholarship program**



Brazos Valley Beekeepers Association

<http://www.bvbeeks.org/>

Next Meeting is

Tues, April 19

**Pot-luck meal / social time @ 6:00pm
educational program @ 7:00pm**

**First Christian Church of BCS
900 S. Ennis Street, Bryan**

(behind Stephen F. Austin middle school)