Spring Hive Preparation

Beekeeping Basics with Double B Apiary & Farm

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About Us

Double B Apiary & Farm

What started as a couple of Honey Bee Hives and a small garden six years ago has expanded into thriving apiary of over 200 Hives at Double B Apiary & Farm. Over this time, the 2 sisters, Parker & Kennedy have learned to love the art of beekeeping through experience and continuing education.

Parker is currently a sophomore at Wake Forest High School. She is on both, the varsity golf team and varsity swim team, as well as in her high school's spring musical, *Footloose*. She is on her FFA chapters competition team and is president of BETA Club, a community based club.

Kennedy is in 7th grade at Heritage Middle School. When not working at the farm, you can find her on the soccer field or basketball court. Being one of the only 7th graders on her school's soccer team has taught her the importance of hard work, as well as maintaining high grades.

Without support from their community, the girls could never accomplish what they have in such a short period of time. We thank each and every one of you from the bottom of our hearts.

Double B Gives Back

Provide FREE Classes on Honey Bees and Farming

Donates tens of thousands of dollars worth of produce to various food pantries, nonprofits and deserving individuals

Upcoming Classes

March 28 - Saturday 10:30am Cedar Grove Acres -
Spring Hive Splits and Raising Queens

April 4 - Saturday TBD Dirt Day Downtown Wake Forest -
Beginning Beeping - Getting Started

April 25 - Saturday 10:00am Wake Forest Garden Club -
Beekeeping Basics - The First Year

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Nucs and Queens For Sale

Contact Double B Apiary & Farm to Reserve

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Getting Started

How to Prepare Your Hives for Spring

February

- Noticeable pollen flow under way. Brood Build-up intensifying
- Minimal (if any) nectar available. Most hives need feeding
- Sample for Varroa Mites and treat with Apivar Strips (must have strips removed before honey supers go on)
- Combine weak / failing hives or move very small hives to nuc boxes
- Sign-up for State Inspection if planning on selling bees or queens

February

- Consider adding blank frames with foundation to allow bees to draw out more comb for the spring. Do not break brood frames. Do not add blank supers for bees to draw if temperatures remain low.
- Replace old comb
- Treat for Nosema if hives show signs. Feeding and building hive numbers will help reduce the negative side-effects caused by Nosema.

Feeding

Never Feed When Honey Supers Are On!

Hives should be fed sugar water & pollen substitute

This stimulates the honey bees to build comb and the queen to lay eggs

Frame Feeder

Goes into the hive replacing a frame

Hive Top Feeder

Placed on top of the hive

Entrance Feeder

Mason jar or bottle set in front of the hive

Sugar Water Mixing

1:1 Sugar: Water - Promotes Comb Building & Brood Rearing

2:1 Sugar: Water - Promotes Building Food Stores

- 10 lbs sugar : 1 Gallon Water - Makes about 2 gallons
- Add Apple Cider Vinegar (1 Tablespoon) to slow fermentation
- Add “Honey Bee Healthy” or a drop of each Tea Tree, Lemongrass & Spearmint if wanted

March

- Swarming Under Way - Implement prevention techniques (make splits, add space, remove queen cells, checkboard).
- Reverse “brood” boxes if running more than 1 box. DO NOT SPLIT BROOD CLUSTER
- Asses and treat for disease and pest issues
- Nectar flow starts to begin around mid-march but feed 1:1 sugar water before nectar flow to build colony numbers
- Replace old or failing queens
- Honey supers will go on near the end of the month
- Equalize hives and remove/open entrance reducers

Inspections

Beehive Inspection Checklist

DATE/TIME OF DAY:	HIVE 1	HIVE 2	HIVE 3	HIVE 4	HIVE 5	HIVE 6
GENERAL HIVE APPEARANCE						
Are the bee actively entering/exiting the hive?						
Are the bees bringing in pollen?						
Are there signs of robbing?						
Are there signs an animal has been disturbing the hive? *(Chew or scratch marks from skunks, raccoons, etc.)*						
Are the bees calm when you open the hive? *(An agitated or disorganized colony can indicate: queenlessness, poor weather/inspection timing, or a recent intruder.)*						
REPRODUCTION						
Is the brood pattern good? *(A quick look can indicate the presence of disease or an unwell queen.)*						
Are larvae healthy, white, and shiny?						
Is royal jelly present in cells with larva?						
Is there brood in capped and uncapped cells?						
Is there one egg or larva per cell?						
SIGNS OF PESTS						
Mites test results *(A visual inspection is insufficient — proper testing is the only way to get an accurate estimate of the mite population.)*						
Are ants present?						
Are wax moths present?						
Is there an unusual number of dead bees?						
Is there an odor? *(Could be foulbrood.)*						
CAPACITY						
How many frames are "covered" in bees? *(Some say counting "seams of bees." Look down into a box and see how many seams between frames are full of bees.)*						
How many frames are being fully or almost fully used for brood?						
If in a nectar flow, do my bees have space to store nectar? *(Do the bees have empty comb and/or new frames to build comb where they can store nectar OR do I need to add a super?)*						
WEATHER CONDITIONS						
Temperature/Precipitation						
Has there been a substantial change in total population since the last inspection?						

Presence of the Queen

Hive Pests & Disease

Swarm Prevention

Bees

there are 3 types of bees you will find in your hive:

Drone

The only males in the hive. Unlike the queen and the workers, drones don't have stingers

Worker

All worker bees are female. Their role is to collect food and water, care for the larvae and guard the hive

Queen

There is only one queen in the hive. Her job is to lay eggs and preside over the hive

Queen Bees

Marking colors for the next 5 years

2020

2021

2022

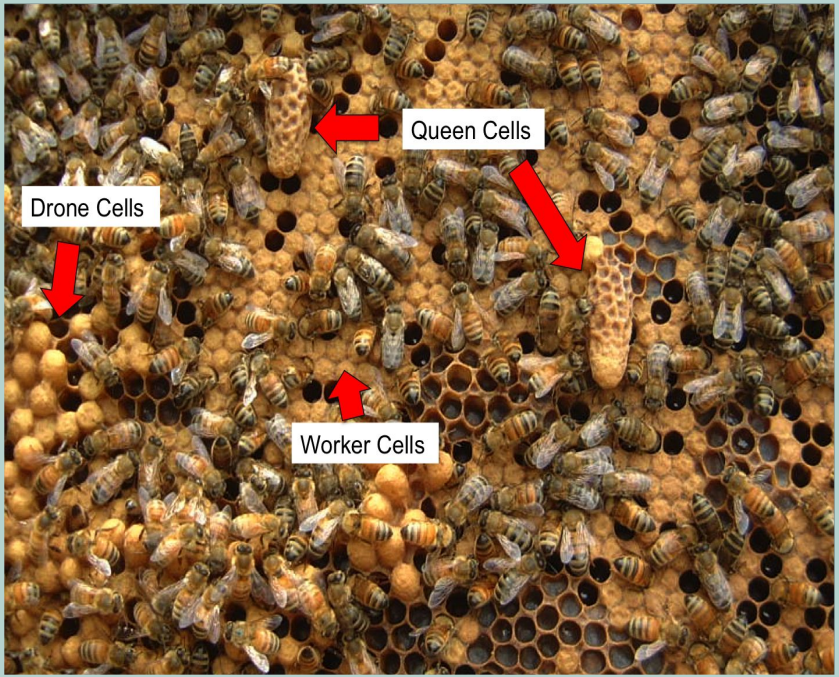
2023

2024

Worker Bees

1-2 Days	*Clean the cells & keep the brood warm*
3-5 Days	*Feed older larvae*
6-11 Days	*Feed the youngest larvae*
12-17 Days	*Producing wax, carrying food, building comb and having undertaker duties*
18-21 Days	*Protecting the hive entrance and have guard duty*
22-End of life	*Fly from the hive and collect pollen, nectar, water, etc*

Frame Inspection



April

- Swarming Usually Heaviest - Continue prevention techniques
- Nectar Flow is Usually Heaviest - Be prepared to add new honey supers every 7-10 days
- Remove feeders from all except new or weak hives
- Replace old or failing queens
- Add queen excluders if used
- Bees should be VERY busy. Examine hives that are not and determine issue.

PRO TIP - Fill feeders with water to increase your honey production

Hive Issues

During inspections we sometimes run into problems in the hive that need to be addressed

Varroa Mite

(*Varroa destructor*)

The varroa mite is considered by many to be the most serious issue currently affecting honey bees. It now occurs nearly worldwide. This external parasite feeds on the hemolymph (blood) of adult bees, larvae, and pupae.

Varroa Mite Management is one the the most critical issues to address as a beekeeper. Your goal is to keep mite populations below 1% at all times. Testing and treatments are critical to maintain a healthy hive throughout the year. Treatments can include Oxalic Acid (Organic Compound), Apivar, Mite Away Quick Strips, Hop Guard among others

Small Hive Beetle (*Aethina tumida*)

The small hive beetle, North America's newest beekeeping pest. The adult beetle is small (about one-third the size of a bee), black or brown, and covered with fine hair. The larvae are small, cream-colored grubs without prolegs.

Larval Greater Wax Moth (*Galleria mellonella*)

Larvae of the greater wax moth cause considerable damage to beeswax combs left unattended by bees. Beeswax combs in weak or dead colonies and those placed in storage are subject to attack. Wax moths pose a continuous threat except when temperatures drop below 40oF.

American Foulbrood

(*Paenibacillus larvae* = *Bacillus larvae*)

American foulbrood (AFB) is an infectious brood disease. It is the most widespread and destructive of the brood diseases, afflicting queen, drone, and worker larvae alike. Adult bees, however, are not affected by AFB. This disease occurs in two forms: vegetative (rod-shaped bacterial cells) and spores.

Chalkbrood

(*Ascosphaera apis*)

Chalkbrood, a fungal brood disease of honey bees, is caused by a spore-forming fungus. Worker, drone, and queen larvae are susceptible. Spores of the fungus are ingested with the larval food.

Deformed Wings

Adult bees with deformed wings and bodies are common in honey bee colonies with varroa mite infestations. These deformities most likely are caused by varroa mites feeding on the bees as they develop, a virus (deformed wing virus), or perhaps a combination of both.

Nosema

Nosema apis

Nosema disease is caused by a spore-forming protozoan that invades the digestive tracts of honey bee workers, queens, and drones. Nosema spores are ingested with food or water by the adult bee. The spores germinate and multiply within the lining of the bee's midgut. Millions of spores are shed into the digestive tract and are eliminated in the feces.

May

- Swarming Continues - Continue prevention techniques
- Nectar Flow Continues - Keep Adding Supers
- Start to plan for honey extraction
- Replace old or failing queens
- Great time to plant future pollen / nectar providing annuals (buckwheat, sunflowers, hairy vetch, etc). Plants should flower and produce during the main dearth in July & August.
- Hive Beetle pressure increases - Take mitigating steps

Questions?

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