

Journeyman Level Master Beekeeping Course

April 7, 2014

Lesson # 1

HISTORY OF BEES AND MAN

Three (3) Periods

Prior to 1600

1601-1850

1851-Present

1. Prior to 1600
 - a. 6000 BC-Rock Painting
 - b. 1450 BC-Upper Egypt (Use of smoke)
 - c. 300 BC-Greece-Hive in use in 1973
 - d. 1535-Hive in Switzerland
 - e. 1682-Hive in Greece-has sticks for frame removal
 - f. 1933-Vietnamese (removable comb hive)
 - g. 1960-Two made with planks in NC

2. 1601 to 1850
 - a. Honey bees evolved in the old world-Europe, Africa, and Asia. Prior to 1600, there were no bees in the New world.
 - b. 1622 Bees brought to the New World-James River area of VA.
 - c. 1850 Bees arrive in California

3. 1851 to Present
 - a. Lorenzo Lorraine Langstroth (1810-1895)
 1. a member of his church had a bee hive and acquired one
 2. Langstroth DID NOT discover bee space.
 3. known for his design of the removable frame
 4. MOST NOTED FOR HIS TIERING OF FRAMES
 5. In 1851 Langstroth was the first author of the *Hive & The Honey Bee*.
 5. The smoker, extractor, foundations, pheromone, kinetics

 - b. Since 1900
 1. We made bee keeping mobile.
 2. world transportation
 3. artificial insemination
 4. pollen substitute
 5. synthetic pheromones
 6. molecular genetics
 7. bartering-trade for other products

CLASSIFICATION OF HONEY BEES & HONEY BEE RACES

Phylum:	Arthropoda
Class:	Insecta
Order:	Hymenoptera
Family:	Apidae
Genus:	Apis
Species:	Mellifera
Subspecies or Race	Ligustica

Note: Species will not breed with another species.

Apis Mellifera-	Western Honey Bee
Apis Cerana-	Eastern Honey Bee- Asian
Apis Dorsata-	Giant Honey Bee-tropical-nest in one cone in open
Apis Florea-	small Honey Bee- nest in one cone in open

Note: In 1822 there was a law which prevented bringing in new honey bees (species)

GEOGRAPHIC RACES OR SUB-SPECIES OF THE APIS MELLIFERA

Note: The geographical races of bees are the results of natural selection in their homeland. That is, the bees became adjusted to their original environment.

1. Apis Mellifera Mellifera- German Bee
2. Apis Mellifera Ligustica- Italian Bee
3. Apis Mellifera Carniolan- Carniolan Bee
4. Apis Millefera Caucasicca- Causasion
5. Apis MilleferaScutellata- African Bee
6. Many Varieties of Hybrids: Buckfast

BEES AND THEIR RELATIVES

1. Bumble Bee
 - a. black abdomen or yellow abdomen (hairy)
 - b. all nest in ground
 - c. queen resides in wood pile in winter
 - d. they do not over winter as a colony
 - e. forage at lower temp than honey bee
 - f. 200 foragers in a colony
 - g. We need to protect bumble bee
 - h. Nest in ground only

2. Carpenter Bee

- a. nests in wooden siding
- b. carpenter bee ALWAYS has a black shiny abdomen
- c. control method-pesticide for bees
- d. big problem in march –July
- e. female has stinger, male (white head) does not

Note: All bees have two (2) pair of Wings

3. Yellow Jackets

- a. can sting multiple times
- b. nest in the ground
- c. yellow jackets eat other insects
- d. considered to be beneficial
- e. they do not over winter as a colony
- f. control method-yellow jacket spray, eradicate at night, yellow jacket traps

4. Hornets

- a. Bald face hornet
- b. Only queen over winters, colony does not
- c. Call pesticide applicator to eradicate

5. Wasps

- a. sting multiple times
- b. nests made of paper

6. Cicada Killer

- a. lives in ground
- b. not dangerous
- c. white (3) markings on abdomen
- d. female has a stinger
- e. active for 6 to 8 weeks
- f. one reproductive cycle

Note: HYMENOPTERA – Have two (2) pair of wings.

7. European Hornet

- a. Nests above ground
- b. Problem for beekeepers
- c. Gold abdomen
- d. Does not over winter

Note: Most Hymenoptera collect nectar

AFRICANIZED HONEY BEE

1. 1956- all died
2. 1957-Brazil-brought min African queens (20 or so were accidently released)
3. Wallrick Kerr-He tried to make a Hybrid between the African bee and the European bee.

USDA Website-For African Bee

Why they have not moved East-two theories:

1. Rain fall-+ 55 inches annually-too much for the varroa
2. African bee swarms year round.

AFRICANIZED HONEY BEE

1. produces 7 to 8 swarms per year
2. swarms are gentle
3. all AHB's are not as defensive
4. 150 feet-real danger area
5. 150 yards-danger area
6. cannot place colonies on a table
7. vegetation around colonies helps to calm the AHB
8. Hives can nest in the ground

At Risk Groups

1. outside workers
2. military personnel
3. small children
4. handicapped
5. elderly
6. caged animals