

Montgomery County Beekeepers Association

Minutes for September Meeting

September 18, 2023

Apprentice Beekeeper Meeting – began at 6:16 pm

Led by Apprentice Beekeeper Director Ed Erwin with 22 in attendance.

Presentation Topic by Ed Erwin of BeeHarmony.org – Becoming a Beekeeper

- Colony Collapse Disorder (CCD) - identified in 2006
- The Perfect Storm
 - Human Induced Stress
 - Pests
 - Pesticides, Fungicides, and Herbicides
- Pollination - over 90 different fruit, nut, and vegetable crops
- First Bee Insect (*Melittosphex burmensis*) - 150 million years ago
- Plants attract bees -
 - Ultraviolet view
 - Nectar
 - 1/3 of human food supply depends on insect pollination
- Evolution of Honey Bee
 - First appeared 20,000 years ago in Asia
 - 20,000 species now exist
 - Brought to North America in 1622 (not native to the Americas)
- Queen Bee
 - Hives can be expanded through splits/swarms
 - Queen stores lifetime supply of sperm after mating flight
 - Queen never again leaves hive after mating flight
 - Lays up to 1500 eggs/day
- Drones
 - Do no work and are fed by worker bees
 - Only purpose is to mate virgin queens
 - If they don't mate, they are kicked out of hive and starve
 - They die after mating
- Worker Bees
 - Only insect that produces food eaten by man
 - Life span is 42 days
 - 21 days as hive bee, 21 days as forager
- Honeybee colony or hive
 - Can contain 60,000 bees
 - Maintain constant hive temperature of 95F through clustering or fanning
 - They never deposit waste inside hive
 - Takes approx. 6-10 lbs of honey to produce 1 lb wax

- Honey
 - Produced from nectar of flowers
 - Bee visits up to 2000 flowers/day
 - Contains all required substances necessary to sustain life
- Keeping Bees
 - Cost \$600-1,000 to begin beekeeping (tools, hive, protective clothing, etc.)

Apprentice meeting adjourned at 6:53 pm

Monthly meeting – began at 7:01 pm

Led by President Matt Thomas

- In attendance were 61 members and 8 guests
- Pledge of Allegiance led by Matt Thomas
- Officer's Report
 - Members should contact Secretary Keri Warren if they are not receiving association emails so that their information can be updated on the email distribution list
 - Membership payments can be made by PayPal on the association website at any time or to Treasurer Nadia Clark during monthly meetings.
 - TBA state meeting to be held in Temple, Texas in November, and registration is now being accepted.

Youth Program Announcements

- Service hours opportunities are available to youth members by assisting a Splendora area beekeeper. Contact Youth Director Nanette Davis for more information.

Meeting Speaker – Dr. Bob Rogers on How to Reduce Bee Poisoning by Pesticides & Herbicides

- Most common causes of hive losses
 - Varroa mites
 - Starvation
 - Pesticides
- How do we know loss is from pesticides?
 - Dead bees in front of hive
 - Bees die with tongue out
 - CCD don't show dead bees
 - Paralytic Mite syndrome show dead bees on bottom board
 - Neurologic signs
 - Excitable
 - Tremble
 - Can't fly
 - Flipped over
 - Spinning
 - Abnormal behavior
- Cornell University and USDA test bees for evidence of poisoning

- High levels of Fipronil
 - 2,4 D
 - Combined effect is worse - synergism
- Avoid mixing herbicides and pesticides
- The dose makes the poison - amount determines type of reaction
- Pesticides are all neurologic toxins
- Properties of Pesticides determines effect
 - Water soluble
 - Wax soluble
 - Lipid soluble
 - Systemics
 - Dust and Powders
- Sub lethal doses can show chronic exposure and last several generation
- How do Bees get exposure?
 - On pollen - highest concentration is in bee bread
 - In nectar
 - Direct exposure
 - Water
 - Nursery plants and seeds (coated with pesticides)
 - Waste disposal
 - Foraging
 - Bees typically forage ½ mile or up to 3 miles during dearth
- Which bees are affected?
 - Nurse bees
 - Effect on queen bee - affects fertility
 - Hive unable to requeen
- Effect on honey?
 - Little effect on honey
- Imidacloprids - common in rose food, flea prevention meds
 - Gets into water supply, soil, pollen, nectar
- Malathion - county mosquito control spraying/fogging
 - If in standing water, toxic to fish and birds
- Bifenthrin - Permethrin
 - Most common
 - Wax soluble (not water soluble)
 - Stays in soil 8 months
- Fipronil
 - Affects chickens
 - Kills fish and frogs
- Fungicides
 - Stops fermentation of bee bread
 - Disturbs gut microbes
 - Synergistic
- Copper Sulfate

- Lethal to bees in 72 hours
 - synergistic
- Herbicides 2,4,D, & Glyphosate
 - Affects bee temperature regulation
 - Affects heart contraction
 - Toxic to dogs
 - Affects microflora
- What can we do?
 - Communicate and educate
 - Don't treat when windy/ on dew
 - Treat at night
 - Don't spray flowers
 - Use safer alternatives
- Are pesticides really needed?
- Safer Alternatives
 - Boric Acid
 - Insect repellent Plants - onions, marigolds, garlic, radishes, carrots
 - Wasp traps
 - Dawn soaps
 - Mosquito dunks - bacterial treatment
 - Herbicides - vinegar, salt, dawn soap
- Beekeeper Prevention at Home
 - Store pesticides safely
 - Maintain strong hives
 - Keep bees well fed
 - Frequent inspections
 - Strong Microbials to restore GI tract microflora
 - Cull old wax - every 3-5 years
 - During dearth or drought is when bees are at most risk
- Can exposed hives be saved?
- What to Do?
 - Dispose of bee bread
 - Dispose of new nectar
 - Dispose of newly made wax
 - Requeen
 - Equalize hive with brood and larvae
 - Put probiotics in hive
- Reference - Univ. of Oregon Extension Publication 591

Door prizes – Matt Thomas

- PRIZE - Decorative gift provided by Dr. Bob Rogers

Small Group Breakout Sessions –

Monthly meeting adjourned at 8:52 pm
(Submitted by Keri Warren)