

**Program:** Bees and Honey Production

**Speaker:** Dr. Jerry Zimmerman, Beekeeper, Sciencetech member

**Introduced by:** Russell Judd

**Attendance:** 88

**Guests:** Larry Sievers, Jim Stohler, Ecl Linn, Patricia Solenberg, Dick Hansell, Ruth Schmidt, Paul Schoon

**Scribe:** Bill Dick

**Editor:** Bonnie Carter

Dr. Zimmerman has been a Club member since 2007. He earned a Ph.D. in Physiology from Ohio State, and taught at the University of Indianapolis and the IU School of Medicine. Jerry has been a beekeeper for about 20 years. He is also a member of Toastmasters International.

Honey Bees have been domesticated for 3-4,000 years. They are seen on tomb paintings in Egypt. They came to the U.S. with the Pilgrims in the early 1600s. There are over 5,000 species with the genus *Apis* containing 20 species.

Jerry wanted us to know one point – honey bees are brown and black, mostly brown. Bees containing a yellow color are: bumblebees, carpenter bees, wasps, yellow jackets and hornets. The second big point is that honey bees are a superorganism. They are very cooperative and work together to gather food, water and raw materials. They move air, thermo-regulate and divide-reproduce. The hive in the summer is a constant 92°F. Each colony is a unique entity and can be feral or domestic.

Feral bees can live in a tree or part of house. Domestic bees are raised by commercial or hobby groups. Most hobbyists have only a few colonies, up to half a dozen. There are 20,000-80,000 bees in a colony; 25-30% die each winter. The bee types are: queen (one per colony, lays eggs from spring into fall), nurse bees (all female), worker bees and drones, which fertilize the queen. The queen is fertilized by about 20 drones, which promptly die. More colonies are made by swarming. The colony divides roughly in half.

The bees go through these stages: egg, larvae, pupae, hatch and adult. They hatch in about 21 days. The next thing to take away from the presentation (remember – the first one is that bees are brown) is that honey bee swarms are not harmful. They will not attack.

Products of the hive are: honey, pollen (protein and fatty acids), wax, propolis and bee stings for apitherapy. Raw honey is the same as natural honey. Local honey has a similar plant/pollen profile. Raw honey granulates naturally. Honey has antibacterial properties. Honey may attenuate pollen allergies.

You can help honey bees by educating yourself and others. One can plant pollinator flowers, especially for July, August and September. One can support pollinator-friendly environments and buy local honey.

Beekeeping organizations include: Central Indiana Beekeepers, Indy Southside Beekeepers, North Central Indiana Beekeepers and the Beekeepers of Indiana.

Remember: Honey bees are brown and swarms are not dangerous.

More at <http://www.indianabeekeeper.com/home>



Dr. Zimmerman



Checking bee hives