



HCBC Monthly Meetings Summary

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March 1, 2016

Bill Skelton discussed the Statewide Hive Referendum. NC will get \$2 billion - \$85 million for plant sciences - "plant sciences initiative", \$75 million to state parks, \$25 million to zoos, \$2.8 million for Haywood Community College, and NC State University will receive funds if the "Connect NC" bond passes on March 15.

Allan Blanton reported that there were 31 participants in the Bee School. March 16 there is a plant sale at the Extension Office. April 16, 10am, the Master Beekeepers Practical Class will be held at KT's Orchards and Apiary. Our Beekeepers Library has a selection of books and videos for our members. See Diane. You can also get information from the state if you are a member.

A good source for pollinator flowers are at Eden Brothers on Brevard Road - the second building next to the Tractor Supply.

Alan reported from the State Meeting: Jack Hanel, our ex-bee inspector, was the speaker. 1) He talked about treating for mites safely with Thymol and Formic acid. Treat with Formic in the fall, and in the spring if there is no capped brood. 2) Mites can lay up to 5 times meaning they can have 5 'families' of mites. Beekeepers can control starvation through mite control and nutrition. Purina is hiring an entomologist to help with creating a protein food for bees. 3) Hive beetles go into hives that have no queen. They will disregard hives with queens. There does not seem to be a problem with hive beetles in the mountains.

Speaker: Gregory Hannon on RNAi (ribonucleic acid (RNA) molecules interference (i)

Beeologies is a company from Israel now in the US, Florida. Beeologies created Remember - RNAi for the CDC (FYI - Monsanto bought Beeologies in 2012) RNAi has been around for 19 years. There has been a new treatment for Varroa mites using RNAi.

RNA builds life with ribosomes which turn to protein.

(Extra info: Adenine, guanine, cytosine, or thymine are in DNA, the double helix. The double helix of DNA(deoxyribonucleic acid) is the cellular storehouse of genetic information. DNA performs two important functions. It contains the genetic code that provides directions for replication (synthesis of new DNA), and thus serves as a storehouse of genetic information, allowing the physical characteristics of parent organisms to be passed on to offspring. DNA also acts as a storehouse of synthetic information. The individual genes can be turned on or off, allowing the information of each codon within a gene to be converted into information contained in messenger RNA (a process known as transcription). This information can then be transcribed into protein having catalytic or

structural properties.)

In 1986 Richard Jorgenson, from the University of Arizona, was trying to create a very purple petunia and got a pure white flower. He put a virus in the cell that produced proteins. In 1998 he found that they found that the cells in the flower has a defense system that will destroy all versions of a virus or that viral shape. Thus, all the purple pigment was destroyed by the viral RNA or RNAi.

Recently RNAi therapy was used by volunteers with Macular Degeneration. They wanted fewer blood cells in the eye causing the problems. They injected the RNAi into the eyes and the eyesight improved. RNAi can turn off genes. There is extraordinary research in the medical industry currently using RNAi.

Pesticides that replaced neonicotinoids are worse now. Apply insecticides at night after the sun goes down.

Wikipedia: An October 2015 study demonstrates significant effects on the survival and reproductive capacities of honey bee queens exposed to neonicotinoids. Those exposed to neonicotinoids had 60% survival rates, as compared to 80% for control groups. Lower worker egg production and alterations to surviving queens' reproductive anatomy "likely corresponded to reduced queen success (alive and producing worker offspring)." The authors further claim "our study suggests that these substances [i.e., neonicotinoids] are, at least partially, responsible for harming queens and causing population declines of social bee species. Failure of queens exposed to neonicotinoids during development to successfully lay fertilized eggs that subsequently develop into workers or queens is worrisome; both castes are vital to colony survival..."

Equalize hives to help prevent swarms by taking from the parent hive 1-2 frames of capped brood and put in another hive that is lacking brood. Put in the center of the cluster. Do not transfer the queen!

Do not isolate a frame of brood from the cluster. You have to have at least 4 frames of bees. This will help decrease the population of a large hive. Always keep 2 frames of brood together.

Hive inspections will begin April 4-8. Complete forms if you want your hives inspected. There are raffle tickets for a package of bees which will be drawn in April. Check the website for mentors and field days. Mentors need to sign up to be on the website. Members only will be able to view the list.

Note: I added extra information I thought useful and pertinent found on the internet. It is regular format, not bold.

Next beekeepers meeting is April 5.

Vicki Morrison
Haywood County Beekeepers Secretary