

Ashe County Beekeeping Association
August 13, 2015
Regular Meeting Minutes

1. Randy Baldwin opened the meeting at 7:00 PM
2. Officers present: Randy Baldwin, Helen Baldwin, Fowler Bush, Les Jacobs, Mike Haworth, James Wilkes and Doug Ehrhardt.
3. Business:
 - a. Welcome, good crowd for a great speaker. 28 attendees
 - b. Request for any new 1st time attendees? None.
 - c. Jefferson Post had a reporter present for pictures and story
 - d. Anyone wanting to pay dues...always want to collect whenever.
 - e. Honey flow? Everyone's bees doing well. Concern for rain and also a lack of nectar
 - f. State association – anyone who has attended any level of master beekeeper (Certified, Journeyman, Masters, etc.) before Nov. 2014, send info to Helen to enable an update to be sent to NCSBA...want name, mbr #, level of certification and date you received.
 - g. Interested in Journeyman's certification - Randy teaching a course. Must be a state member to attend class. \$15. Class is \$71.25 payable to Wilkes CC; class will be at Wilkes campus...more information, contact Jeff Shore at Cont. Ed. or Helen. The dates are T-Th starting 9/8 to 10/1
 - h. Upcoming meetings:
 - September - panel on how to survive winter
 - October - bazaar held at the money and members can bring anything with which they are doing, not just beekeeping...
 - i. Update on avian influenza from Micah Orfield. This is a serious subject which she wanted to share.
 - This is a disease in migratory bird populations and as they head south, excrement from birds flying over can infect your chickens which will cause them to die.
 - Register your chickens with Co. Agric...Address and # of birds...this helps the extension people to contact those with chicken flocks and if necessary, quarantine.
 - If you have flocks, keep them up off the ground for the next 2-3 months. If you have a sick bird, report it. Contact NCDA
4. Tonight's Speaker - Greg Fariss, Aviary Inspector North Carolina Department of Agriculture and Consumer Services Plant Industry Division

216 West Jones Street
Raleigh, NC 27603
www.ncagr.gov/plantindustry
gregory.fariss@ncagr.gov

Greg will talk about varroa mites, winter preparations, etc.

- a. Business cards - one of 4 master beekeepers in NC...wife, Susan is editor of the NCSBA newsletter
- b. Best contact is with e-mail
- c. Handouts (see Resources/Education Material on the website).
 - 1. varroa mites
 - 2. Oxalic acid dihydrate product sheet
- d. Helping bees to survive winter
 - 1. Now is the beginning to get them ready
 - 2. Keep in mind from now thru November
 - Starvation, dampness, short life
 - Winter bees physically are different...laying queen now will be producing winter bees. Important to go into winter with a big cluster of brood
 - Diseases/viruses shorten lives
 - control mites - control viruses
 - Keep mice out (entrance reducers) - other pests minor. When temp. fall below 55 degrees, mice will try to enter.
 - 3. Last year, goldenrod and aster were very showy but little nectar...as a result, small clusters didn't allow the hive to survive. To rely on goldenrod and aster is not very good.
 - 4. Feed a 1:1 syrup at this time of year.
 - 5. If climate is too cool, begin 2:1 syrup the end of September. This will enable the bees to store up for the winter.
- e. Lift/look to check for adequate stores
 - 1. Honey: 45-60 lbs (feed 2:1 if needed)
 - 2. Pollen? Too much or too little? If too much in brood chamber, not enough room for queen to lay...
 - 3. Queen young and good performer? Good time to buy queens, if needed
 - 4. Enough winter bees?
- f. Main points
 - 1. Remove queen excluder so queen isn't left behind to get to honey
 - 2. Windbreak, southeast orientation
 - 3. Muddy? Car and truck access?
 - 4. Break propolis seal to vent moisture...breaking seal is enough to let out the moist air.
- g. Apiary inspectors - see slide pix. Sampling is free
- h. Varroa destructor
 - 1. world's most devastating ectoparasite of *A. mellifera*
 - 2. feeds on the hemolymph of immature and adult bees
 - 3. reproduces in the colony, weakening it to the point of collapse and death
 - 4. EVERYBODY has varroa...no getting them out of your hive 100%
 - 5. Large mite that can be seen with the naked eye
 - 6. If you see on the backs of adult bees, the colony will soon collapse

insects

7. Can only reproduce on honey bees even though it can be found on other insects
8. Live in high density colonies, so produce a high density of mites
9. Spread quickly between colonies by drifting drones and workers
10. Passed around by beekeeping practices
 - Take bees/brood from strong colonies and give them to weak colonies
 - transport colonies between locations
 - swarms spread mites to other locations
 - strong colonies rob weaker ones during nectar dearth or when weaker colony is dying...mites readily jump from one adult to another
- i. mites hide in membrane between abdominal segments...hard to see. Piercing mouthparts and feed on hemolymph
- j. Mites most vulnerable at some stages of bee development...varroa mites prefer drone brood. When drones have added days of development, more time for offspring to survive.
- k. Virus - small infectious agent that lives in another organism.
 1. Honey bee viruses
 - 24 different ones
 - Most bee viruses don't show overt symptoms but still shorten a bee's life
 - Most bees are infected with multiple viruses
 - Many of the viruses produce chemicals that suppress the immune system of the bee
 - Research speculates that some pesticides trigger viruses
 2. Bee parasitic mite syndrome (BPMS)
 - spotty brood pattern
 - Mites found in open brood cells
 - lack of adult population
- l. Ways to sample
 1. sticky board under colony with pam...wait for mites to fall and count.
 - Poor method for sampling
 - mite fall due to mites/bee is unreliable with a big colony vs. a small colony
 2. Ether roll - used back in the 90's
 - Shake bees with a funnel into a jar
 - pour off until only 1" in bottom of jar
 - Spray ether into jar
 - Roll jar, mites stick to sides
 - Kills the bees
 3. Alcohol wash
 - very exact sample method
 - Kills the bees
 4. Sampling colonies for varroa - see handout
 - Always uses 300 adult bees

- very precise for comparison
- m. varroa control options
1. no medications
 - genetics
 - drone trapping - frame with drone cells (bigger) the queen will lay unfertilized drones...measures the width of the cell and knows to only lay drones. More mites/drones so get the frame out before emerging and you eliminate large #'s of mites
 - break the brood cycle
 - hives in full sun
 - screen bottom board
 - powdered sugar
 - 2. hard chemicals (synthetics, fat soluble) - gets into wax
 - Apistan (fluvalinate) - no longer effective
 - CheckMite (coumophos)
 - Apivar (amitraz) - breaks down into two components and these go into the wax.
 3. soft chemicals (water soluble) - fumes end up as a vapor in the hive
 - formic acid: Mite-Away Quick Strips
 - Thymol: ApiLife VAR, Apiguard
 - Oxalic acid

n. Schedule:

1. sugar shake at first early spring inspection. If you find 6 mites or more, treat. (use the 300 bee sample method)
2. Remove treatment (hard or soft chem.) as directed by label.
3. Put on honey supers
4. Remove honey supers and do sugar shake in same visit. Find 5 or more mites, use a control method on whole apiary. (rotate chemical treatments)
5. 1st week in August, do sugar shake. Find 5 or more mites, use a control method (rotate) on whole apiary.

NOTE: When treating with miticides, don't have honey supers on the apiary!

o. Oxalis (wood sorrel)

1. Oxalic acid found in a variety of vegetables
2. Not fat soluble - won't build up in the wax combs
3. a natural component of honey
4. mite control doesn't increase the oxalic acid level in honey
5. use common sense precautions - safe and easy to use
6. buy at Home Depot in small containers - white powder
7. Use about 2 gm/hive
8. Oxalic acid is not a weak acid, but acts more like a mineral acid
9. Apply:
 - Vapor (fumigant). Follow manufacturer's directions. Close screened bottom board; seal entrances and then hook the dish with a gram of acid to a car battery.

- Use caution...BREATHING VAPOR WILL DAMAGE YOUR RESPIRATORY TRACT! Use a respirator or stay far away from the treated colony while fumigation is in action.
- Liquid trickle or dribble; 1:1 oxalic acid in sugar syrup. 5 ml per seam of bees; 50 ml maximum per colony. Dribble in the brood chamber.
- Most effective when there is no capped brood. Can use in the dead of winter. If capped brood, need to make 3 treatments, 1 week apart to ensure you getting all the mites.

acid

10. scientificbeekeeping.com (Randy Oliver) - lots of good info on oxalic

11. measure solid crystals exactly (by weight)

"acid into water, like you otter (ought to)."

12. Federal and a NC state label...must buy from a registered distributor, e.g., Brushy Mountain Bee Farm, but Brushy Mtn can sell to other bee supply services