**Rowan County Beekeepers Association**

**Meeting Minutes**

**5/9/2022**

**Location: In Person and ZOOM Facilitated by Rowan County Extension Agency**

Marcel Renn called the meeting to order at 7:00 pm and welcomed all the members there. There were 38 participants in person and 0 on Zoom.

**Program: Burton Beasley (Gaston County Beekeepers) – Honey Harvesting, Extraction, and Packaging, Etc.**

Burton is a past president and past vice president in Gaston County, and is currently NCSBA 2ND Vice President Burton briefly previewed the summer NCSBA meeting speakers – July 28-30.

How to harvest honey from the hive:

Honey flow this year looks to be exceptional for Piedmont and Foothills of NC.

Make sure you take sugar honey supers off before adding honey flow supers!!! When you’re ready to harvest make sure you can remove honey supers and extract quickly. If stored without freezing, small hive beetles (SHB) will ruin it.

You can take surplus honey above double deep or equivalent volume. If you don’t use queen excluders and there is brood in the honey super, you can move frames with brood down into brood boxes. If you want to sell comb honey, there are frames that are sold with wax foundation (unwired) or you have to cut between the wires.

Uncapped and capped – If a frame has uncapped cells, you can do a shake test to determine if it is low enough in moisture. If the liquid rains out of the frame, it was not dry enough to harvest. Most capped frames have low enough moisture (<18.5%).

Most of honey flow is over by late June and honey supers can be harvested. Treatments should be completed by early April to ensure/limit contamination of honey. There are a few treatments that can be used with honey supers on (Formic acid, oxalic acid, Hopguard). Always read labels to make sure treatments are used properly.

To harvest, morning is best to get the fewest bees in the hive. You’ll need smoker (limit amount of smoke used to keep from flavoring honey and keep bees from uncapping honey and consuming it.)

You can use escape board to remove bees from super. This takes about 24 to 48 hours to clear a super. A fume board can be used if there is sun. Lightly spray with Bee Gone or equivalent. Place it on honey super and it takes only about 5-10 minutes to run the bees out. Careful not to use too much if you use this process so as to not contaminate the honey, especially if you have open cells of honey (uncapped). A leaf blower on lowest setting can also be used to get the rest of the bees out of the super.

Honey supers can be heavy. You can move full honey frames one at a time into empty box (put extra top on bottom and top to keep the bees out once you move frames).

You also need to ensure your honey is 14.5% - 18.5% moisture content. Calibrate it with prism and fluid as instructions direct. Keep it at the same temperature as the honey. Honey that’s over 18.5% moisture can ferment. If the water content is high, you can dehumidify the frames and even whole supers. Can use a dehumidifier or heater with fan blowing across the frames. (Make sure you store honey in airtight containers to prevent the honey from absorbing water from the air.)

Put plastic down to keep floors and surfaces clean. Can use disposable booties to keep shoes clean.

Can buy extraction kit from most bee suppliers. Tools include: cap scratcher, manual uncapping knife or heated uncapping knife, cappings tank, extractor, filters (optimum 400 microns), buckets for honey,

Many people put 9 frames in a 10 frame honey super so the bees pull the cells out and it makes it easier to cut the caps off. Burton stated that this may cause excess wax vs honey.

After extraction, let buckets sit for several days to allow air bubbles to come to the top. You can lay plastic wrap on top of the honey to remove those air bubbles.

Tips:

* Warm honey flows faster
* Make sure honey gate is open
* Save up frames for one large batch
* Prevent hair and sweat contaminants (use sanitary process – gloves, hats)
* Strain cappings too
* Fill your containers (bottles, jars) from the bottom of the bucket.

Normal extraction processes result in the following:

65% is spun out of the frames into the extractor.

14% is left in frames

16% is left in cappings – be sure to allow cappings to drain to collect this honey. Or they can be placed in a painters filter bag (available at Lowes or Home Depot or on-line) and spun out in the extractor.)

If you have top bar hives and want to extract honey, you have to use crush and strain method.

Packaging: Must be labeled. There are no state or federal standards of identity for honey that can be enforced. There are state guidelines for honey labeling.

Recommend including caution about persons under 1 year of age should not eat raw honey. Include common names of the honey; floral source (ex. wildflower or sourwood). (Testing locations in US are very limited so unless you know your honey is from a specific type of flower, you should label as wildflower.) Name and address and zip code of manufacturer, packer or distributor. Declaration of net contents must appear in lower 30% of the label; express as weight (not volume).

Honey is sold by weight not volume. Honey weighs about 1/3 more than the same volume of water because of its greater density. Average weight - 12 lb / gal or 3 lb / qt. Darker honeys weigh more than lighter honey. You can use a food scale to ensure your weights are accurate.

Cottage laws allow the sale of lesser quantities at Farmer’s markets or from home without labeling requirements. Unprocessed fresh fruits, vegetables, nuts, mushrooms, etc. and honey are sold without regulatory intervention.

There are guidelines for the state Certified Honey Producer Program: <https://www.ncbeekeepers.org/honey/certified-honey-producer-program>

Cleaning up: clean with cold water to prevent wax from melting and sticking to equipment, wipe down extractor, counters, floors, doorknobs. Release any bees that made it inside. Put “wet” supers can be cleaned up by putting them back on hives late in day to limit robbing. You can also set them out a good distance away from the hives to prevent robbing.

Handling cappings:

* 15% - 16% honey in cappings
* Spin them in a bag
* Feed them back to the bees
* Slow strain them
* Rinse for melter or mead bucket

Can also let bees clean up your equipment.

**Secretary Report:** No comments were received on the April minutes. Last month’s minutes were approved.

**Treasurer Report:** Mark Heuser provided the Treasurer’s report. If you paid for state membership and have not received a yellow membership card from the state, email the state treasurer (Todd Walker) and ask for one.

**Old Business**:

No other old business.

Randy Elium discussed the Transportation Museum Day which had a large number of children (~500) present. This was a potential opportunity for introducing kids to bees and is held annually. The membership agreed to keep this event on our calendar for participation next year.

**New Business**:

Marcel proposed the association have a field day in September in lieu of our regular meeting. Proposed Sept. 10. Randy Elium asked if we wanted to have hamburgers and hotdogs and include family members. General consensus was yes. Field Day committee will consist of: Randy Elium, Cody Craddock, Holly, and Stan McConnell. Marcel will contact Bridget Gross to attend and potentially provide a presentation or demonstration.

Marcel asked for volunteer for June refreshments – Kim Keene volunteered.

Cody proposed that he provide an intro class, “Get Excited About Beekeeping” in the fall of this year. Will be an intro to attract more people. If he does this before the Field Day, they would be invited to the Field Day.

The club was asked to provide an information booth at the Sacred Heart Catholic School. Mark Heuser and Marcel Renn supported this event which was a big community event for Earth Day on Saturday, April 30th from 10-11:30 AM.

Dr. David Tarpy sent an email to NCABA chapters to encourage them working with local high schools about FFA grants for beekeeping for $1500.

China Grove Farmers Day is coming up July 16, 2022.

Bryan Fisher stated that he has queens for sale for $35 each – will be catching every Sunday.

If you don’t use a queen excluder, when you pull your honey supers, you will need to make very sure that your queen is not in the honey super.

There were no additional Q&A.

Door prizes were handed out and the meeting was adjourned at 9:15.

Respectfully submitted,

Lee Williams, Secretary

**CALENDAR FOR BEEKEEPING IN CENTRAL NORTH CAROLINA**

Nancy Ruppert, Apiary Inspector, NCDA & CS nancy.ruppert@ncagr.gov Updated December 2019

This calendar was designed for general beekeeping use in most of central North Carolina. Recommendations are based on average climate/weather conditions, and may vary with significant temperature changes. Those who manage hives for commercial operations may have different needs than those listed below. Details regarding bloom types/dates and pest/disease management are not included here due to space limitations; consult reliable and current resources for this information. This calendar is subject to being updated as new information becomes available. Remember: bees often follow a different calendar than humans do!

January: Add pollen supplements, if needed; check amount and location of honey stores, and feed (2:1 syrup, candy board or fondant) if <3/4 super of stored honey left.

Check/repair/replace stored equipment; order wax/woodenware.

Consider single dose of oxalic acid vapor or drizzle early in Jan. to clean up residual varroa in hives.

Order nucs/packages.

Keep learning---beekeeping class, read books/journals, etc.

Combine or insulate smaller (less than 4 frames of bees) hives.

Combine hives where queen has failed, if they’re still alive and haven’t absconded.

Move hives if they’ll need to be relocated this year.

Bees may need help removing dead bodies and/or heavy snow from entrance area.

February: Noticeable pollen flow under way, especially red maple-; brood build-up intensifying.

Minimal if any nectar available---most hives need feeding (1:1 syrup in most cases, unless honey stores very low [i.e., <1/2 super left], or continue candy board/fondant).

Combine hives if needed (see January entries above).

Repair/replace equipment if needed; move hives if needed; keep learning.

During last half of February, consider adding super/hive body of wax foundation to allow bees to draw out more comb for spring. (Feeding or nectar is required for this.)

Replace a few (<4) frames where comb is old or damaged.

Some hives may need testing for Nosema disease, especially if too cold for cleansing flights. Also, late February is not too early to begin/continue varroa mite assessments, especially in southeastern NC.

Call your local cooperative extension office if you want your name on a “swarm-catcher” list.

Make plans to attend the annual NCSBA Spring Meeting in March.

March: NCSBA annual Spring Meeting (usually first weekend in March)---great learning opportunity!

Swarming under way-; implement prevention measures (make splits, remove queen cells, “checker board”, temporarily or permanently remove current mother queen); set up “bait” hives.

Reverse bottom two or three boxes on hive to give queen more room to lay: most hives have moved up above the bottom hive body, leaving it virtually empty. This measure also helps reduce swarming. Caution: be careful not to split up clusters of brood when you do this. Two to three weeks after this reversal, it’s likely that you’ll need to reverse them again. (An alternative to reversal: simply add another hive body or super.)

Assess for pest and/or disease problems (especially varroa mites, American foulbrood, and European foulbrood) and treat if needed. Treatments should be completed by early April to limit risk of contaminating honey.

Check honey stores; feed (1:1 or thinner syrup) if needed.

Look closely at the brood pattern; order new queen if current one failing.

Continue to replace few frames of old/undesirable comb, if needed.

Near end of the month, add at least one honey super; remove entrance reducers; equalize hives.

April: Nectar flow is often heaviest this month: make sure that all medications are out of hive unless required for bees’ survival, be prepared to add new supers every 7-10 days, and remove feeders from all except new or weak hives.

Bees should be very busy; closely examine hives that are not, and trim weeds that may be hindering flight.

Swarming usually heavy---continue prevention/capture measures.

Look closely at brood pattern; replace queen if needed.

Have everything ready to install nucs/packages that you’ve ordered; feed upon installation.

Consider adding queen excluder to prevent brood in honey supers.

May: Nectar flow continues---keep adding supers; get extraction/bottling equipment ready. Consider adding an additional hive entrance (via 5/8” hole or shim) above brood area, for foragers.

Swarming continues---keep up prevention/capture measures.

Replace failing queens.

Start/continue planting warm season annuals for ongoing nectar/pollen supplementation.

Install traps for small hive beetles if needed (i.e., if more than 20 adult beetles seen in hive).

Place two or more bee “watering holes” in apiary, if not already present.

June: Main nectar flow starts to dwindle---fewer supers needed, unless sourwood nearby: if in area of sourwood, consider harvesting available honey before mid-June sourwood flow to ensure more “pure” sourwood crop.

If honey being harvested, put “wet” supers back on hives late in day to limit robbing.

Can start late-season splits during last half of June; feed splits initially, even if there is nectar available

Continue measures to control small hive beetle population.

Check varroa mite levels if not done since February. (www.honeybeehealthcoalition.org)

Keep water for bees constantly available.

Make plans for attending NCSBA Summer Meeting in mid-July.

July: May harvest some (or all) of honey; may continue late-season splits; continue beetle controls; keep water available for bees (see June activities).

Attend NCSBA annual Summer Meeting, if possible (usually mid-July)---great learning opportunity!

Get supers on for cotton honey, if hives near cotton fields.

Replace failing queens; consider replacing any queen that is two years old or older.

Continue varroa mite assessments, and treat if needed/practical.

August: If not in area of significant cotton bloom, harvest remaining desired honey by mid-month to keep bees from eating it.

Nectar dearth in most areas; may need to feed carbohydrates (1:2 sugar:water, or honey water)

Pest control is critical this month: hive beetle populations are peaking, varroa mites are nearing their peak populations, some factors increase risk of damage from wax moth larvae, and yellow jackets/ hornets tend to be plentiful.

Careful assessment of queen performance---this month is usually last chance to replace queens until the following spring.

Can still make late-season splits early in August if using mated queens.

Keep water available for bees constantly.

Be prepared for ”badly behaving bees”: because nectar flow is so scarce, bees may become more defensive and more likely to rob other hives; install robbing screens or entrance reducers (but be aware of need for ventilation), and keep hive inspections as brief as possible.

Completing honey harvest + decrease in queen’s egg-laying = extra empty supers of drawn comb; store them using method that prevents damage from wax moth larvae (freezing, keeping open to light/ventilation, using paradichlorobenzene [PDB] crystals).

September: Continue measures for pest control. Varroa control should be completed by end of month!!

May feed thin (1:1 or more diluted) sugar syrup for 2-3 weeks to stimulate queen laying---builds up winter population---but by last week of September, begin feeding thicker (2:1) syrup for winter stores, although thicker syrup may not be necessary if >3 supers of honey left on hive and/or heavy fall nectar flow.

Consider assessment for Nosema parasites.

Combine colonies later in the month if weak and/or have failing queens.

Should have brood in bottom box; if not, may need to rearrange things.

October: Assess for varroa mites via sugar roll or alcohol wash. Varroa levels need to be below threshold by mid-October, as winter bees are developing and can be permanently damaged by varroa.

Remove all queen excluders, if present.

Combine hives that are weak/have failing queens.

Feed thick syrup, if needed, for winter food stores.

Limit frequency of inspections after mid-October: bees are sealing cracks with propolis, and waste lots of time/energy if they have to keep replacing it.

Add entrance reducers near end of month to keep mice out.

Drones being expelled in most hives.

Plant (October through December) herbaceous perennials, shrubs and trees for future nectar/pollen sources.

November: Combine hives that are weak/have failing queens.

Ensure adequate ventilation near top of hive.

Feed thick syrup, candy boards or fondant if needed, for winter stores.

Provide weights (brick, rock, concrete block, etc.) for tops of hives to limit wind-induced toplessness.

Plant trees for future nectar/pollen sources (tulip poplar, maple, sourwood, etc.).

Consider closing off screened bottom board to improve heat insulation.

Bee caught up before Thanksgiving, so you can enjoy food, family, football, Black Friday, etc.!

December: Combine hives that are weak/have failing queens.

Feed thick syrup, candy board or fondant if needed (i.e., if not more than one super of honey stored up).

Consider insulating smaller hives (those with 4 or fewer frames of bees).

Consider single dose of oxalic acid late in Dec. (while hive is likely broodless) to clean up residual varroa.

Sell honey to Christmas gift shoppers.

Year-end review/assessment of apiary success/challenges.

Leave bees alone, if possible. (Take a break---you probably need it by now!)

As of APRIL 2021

EXTRACTOR EQUIPMENT LIST FOR USE BY RCBA MEMBERS

(YOU MUST BE A CURRENT MEMBER OF RCBA TO USE THE EXTRACTOR.)

Please fill out the Sign-Out sheet with date, your name, and phone number.

1. Randy Elium is managing the extractor and accessories
	1. Phone: 704-213-2661
	2. Address: 2085 Lake Rd, Salisbury, NC 28146
2. The list of extracting equipment includes the following (15 items):
	1. Maxant 9-frame Electric Extractor s/n VO851A0015
	2. Extractor wood floor bracket (keeps it from vibrating)
	3. Hot knife
	4. 2 Capping scratchers
	5. Stainless steel strainers (sieves)—2 parts. Smaller sieve has straight sides and fits inside the larger bowl-shaped sieve. The larger sieve has side arms that adjust to hold sieve over top of a bucket
	6. Collection Bucket (5 gallon bucket with honey gate)
	7. Capping bar (yellow rectangular device to fit over top of bucket and support frame as caps cut off)
	8. bracket for supporting a tipped bucket to drain into another bucket or container
	9. lubricant for the extractor axel—needs to be food-grade
	10. Refractometer
	11. Capping vault (5 parts):
		1. Bottom box with honey gate
		2. Top box with separate metal grid to catch cappings
		3. Wooden support with nail to balance frames on while uncapping
		4. lid

All small accessories are inside the gray capping vault box labelled “RCBA”

Extractor Instructions and diagram are included, in a small plastic bag.

1. Please thoroughly clean all equipment when finished extracting and return all equipment to Randy Elium.