**Rowan County Beekeepers Association**

**Meeting Minutes**

**8/9/2021**

**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 28 participants in person and 4 on Zoom. (Master Gardeners were also invited to participate.)

**Program: Madison Ohmen (NC Wildlife Federation) – Butterfly Highway Program and Pollinator Habitat** – Conservation Coordinator for NCWF

1. NCWF Programs (quick overview) – Butterfly Highway, Schoolyard habitats, certified wildlife habitats, wildlife friendly habitats, and other programs.
2. Butterfly Highway Program (deeper overview and examples) – Statewide initiative to plant native plants that support native pollinators. Ranges from backyards (very small habitats) to school and farm areas (much larger habitats).

Issues include: 40 million acres of US consists of lawn. 5.5% of all US land is impervious parking lots. 36 million trees are lost every year in the US. Impacts: Habitat loss and fragmentation. Contributes to pollinator and wildlife decline. Reduces biodiversity which keeps our ecosystems healthy.

A good reference article is “Farewell to Lawns” – lawns can be necessary for kids and pets but are often heavily water dependent and not sustainable. [A Farewell to Lawns (nwf.org)](https://www.nwf.org/Magazines/National-Wildlife/2019/April-May/Gardening/Turf-Lawns)

Most common butterfly highway pit stops are residential yards.

1. Supporting Wildlife- main wildlife needs: Food – native plants, bird feeders. Water – butterfly puddler, bird bath. Cover – brush piles, evergreen shrubs. Places to raise young – mature trees, nesting boxes. Sustainable practices – less pesticides, composting.
2. Supporting Pollinators- best practices for supporting healthy populations:

Reduce use of pesticides which: suppress immune system; compromise learning and foraging capabilities; reduce reproductive output. Study has shown 90% of pollen samples from hives on agricultural land had pesticide contamination. If you must spray: Don’t spray when pollinators are active which is during daylight hours; Don’t spray flowers; Read label and follow directions; Don’t spray before it rains (wastes pesticides and causes pesticides to enter soil and water systems; Spray only where needed (target problem plants/spots vs. blanket spraying).

Reduce spread of disease. Bees can be infected by a diversity of pathogens which: Reduces foraging efficiency. Reduces colony growth. Increases mortality. Pollen quality or quantity can improve disease tolerance.

Improve foraging efficiency. Designate foraging habitat close to nesting areas. Plant where there is good sun exposure. Connected habitat is much better than isolated habitat. Plant pollinator plants in groupings.

Provide diversity of floral resources. – vary flower shapes and sizes to cater to multiple species of pollinators. This also improves nutrition for pollinators. Better nutrition = less pathogens and diseases.

Plant a variety to ensure floral resources are available year-round.

1. Host Plants - Examples:
	* Trees include: Oaks – hosts 488 species, Cherries – hosts 362 species, Willows – hosts 279 species.
	* Grasses include: Little bluestem – hosts 9 species, Bluestem - hosts 19 species, Switchgrass – hosts 31 species. These are all clumping grasses.
2. Nectar Plants:
	* Spring and early summer - Eastern Columbine (partial to full shade);
	* Summer - Golden Alexander (full sun to partial shade) Has a deep taproot so plant where you want it to stay.
	* Summer – Milkweed (Common milkweed, butterfly weed) (full sun).
	* Summer – Beebalm (full sun). Spreads easily via seeds and rhizomes.
	* Summer – Purple Coneflower. Good nectar source.
	* Summer – Blazing Star (full sun). Good nectar source, seeds attract birds.
	* Late summer – Joe Pye Weed – very tall plant (full sun to partial shade). Very good nectar source. Seeds eaten by songbirds.
	* Summer – Mountain Mint (full sun to partial shade). Very good nectar source.
	* Fall – Sweet Pepperbush. Very tall plant. Salt and sand tolerant. Very good nectar source. Mammals and birds eat fruit in fall.
	* Black Eyed Susan (full sun to partial shade). Drought tolerant. Good nectar and seed source.
	* Fall – Goldenrod. (full sun to partial shade). Nectar and seed source.

Native Seed Packet is available from Butterfly Highway with a variety of different native plants.

Native plant nurseries: Campbell Family Nursery (Iredell). Additional native plant nurseries can be found on NCFW website.

1. Signage – signage promotes interest, education, replication. Signs are available from the NCWF website.

Butterfly Highway Ambassador – virtual opportunity to spread awareness on the importance of native plants. Must have a passion for pollinators and have a butterfly highway pitstop.

1. Questions – Q - Who can qualify as a butterfly highway pitstop? A - Anyone can qualify as a butterfly highway pitstop as long as you have native plants. Q - Who works with the folks who plant interstate medians. A - NCWF doesn’t work with them; it’s NCDOT. NCWF does not recommend pollinator plants on highway medians mainly because they don’t want to attract pollinators to high mortality areas. Q - Has anyone worked with Duke Energy to plant power line right of ways? A - They are working toward that, but don’t currently.

For additional questions contact: Madison Ohmen Conservation Coordinator – madison@ncwf.org. [WWW.ncwf.org/butter-highway](http://WWW.ncwf.org/butter-highway), info@ncwf.org

Additional links for more information:

[Become a Butterfly Highway Ambassador](https://ncwf.org/habitat/butterfly-highway/)

[Two excellent contacts as well as guidelines for solar farms and pollinator habitat](http://ncpollinatoralliance.org/energy/)

[A recent Butterfly Highway ambassador newsletter I wrote discussing this topic/resources](https://conta.cc/2V6cmgq)

**Secretary Report:** No additional comments were received. Last month’s minutes were approved.

**Treasurer Report:** Debbie Lucas provided the Treasurer’s report. Beginning balance as of 7/1/21: $2455.40. Ending balance as of 7/31/21: $2471.40. Debbie also announced that she will collect dues from any newcomers that are interested in joining the association at the end of the meeting.

**Old Business**:

July 17, 2021, 9:00 – 4:00 was the China Grove Farmers Day. RCBA provided a booth there with live bees, demonstration equipment, and hive products for sale. The booth was very well attended and sales of honey, lotion, and candles were over $1580.00. Volunteers included: Lee and Mike Williams, Randy Elium, Randall Faggart, Richard Lampe, Mark Heuser, Paul Eudy.

The Rowan County Fair will be Sept.24 – Oct. 1. There will be no exhibits; however, RCBA has been asked to set up a booth along with the Master Gardeners and the Ag Center. Livestock shows will only be held on first Saturday and the Junior Dairy show will be last weekend of the fair.

The Autumn Jubilee festival at Dan-Nicholas Park will be held on October 1-3 and we have been invited to participate again in the Heritage Village.

Additional discussion will be held at the next meeting and plans finalized for both the fair and the Autumn Jubilee. Lee and Mike Williams will not be available to staff the fair and asked to have someone else coordinate the set-up and staffing for both the fair and the Autumn Jubilee.

Marcel has been contacted to help staff the State Fair bee/pollinator booth for any morning or afternoon shift. Dates are Oct. 14-24. If anyone is interested and willing to help, contact Marcel Renn at 704-637-8931 by 8/16/21.

**New Business**:

The Cabarrus Beekeepers Association event on August 21 has been cancelled due to Covid.

Mark Heuser brought 3 specimens of cicada killer wasps. The population has grown on his property and he’s trying to decide what to do about them. He has seen them go after bees. They are solitary nesters, but there may be many nests in close proximity. According to Amy-Lynn Albertson, the best way to get rid of them is to thicken the vegetation. Amy-Lynn said that the Ag office doesn’t recommend any treatment for them.

Cody Craddock is the new Ag Center liaison for the Rowan County Beekeepers.

Q&A:

Bryan Fisher stated that the NCSBA is planning to have an in-person meeting on November 19-20 in Hickory at the Convention Center.

Marcel stated that Lowes Hardware has quarts and pints jars for $9.88 per case. They are going fast.

Randy Elium said that Walgreens has a product for heat treatment that is much better for you than Gatorade.

Marcel asked about sourwood harvest this year. Bryan said his crop was not nearly what it was last year.

Some folks have started putting in treatments for mites. Many beekeepers have already done summer treatments.

Bryan said that he’s seen some robbing and that there is some honey flow coming in. Marcel has reduced all of his hive openings to 1.5”. Marcel has not seen the bearding that he’s seen in previous years.

Randy Elium stated that Duke Energy normally plants pollinator plants in right of ways. Someone else stated that they had seen Duke Energy spraying herbicide multiple times in power line right of ways.

Marcel asked if anyone had counted for mites. Bryan stated that you need to count again toward the end of August because mite populations will begin to rise again very soon.

There were no additional questions.

Amy-Lynn Alberston was thanked for working with the RCBA this year with a jar of honey from Marcel.

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.