### CALENDAR FOR BEEKEEPING IN CENTRAL NORTH CAROLINA

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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 honey bees 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: honey bees often follow a different calendar than humans do, and you need not waste time trying to change the bees' instincts!!

#### **January**

Check honey stores (amount *and location*); feed if <40 lbs remaining. Solid sugar works well. Most of NC has very limited pollen and essentially no nectar available this month. Consider adding protein supplements—pollen substitute powder or patties, etc.—to enhance early brood-building.

During early January, consider single dose of oxalic acid vapor or dribble *per package instructions* as measure to clean up residual varroa mites.

Order nucleus hives and/or packages—the best quality options sometimes sell out by spring.

Check/repair/replace stored equipment. Order wax and woodenware long before you need it.

Combine or insulate smaller (<4 deep frames of bees) colonies.

Move colonies that need to be relocated, while they are still relatively small in size.

Step up your learning—books, journals, many classes being held around NC (contact local beekeepers and <a href="https://www.ncbeekeepers.org">https://www.ncbeekeepers.org</a> for class listings)—while indoors this month.

Bees may need help moving dead bodies or heavy snow from hive entrances.

Colonies having absent or non-productive queens at end-January *despite adequate accessible food* should be combined with queen-right colonies when weather allows.

# **February**

Noticeable pollen flow, especially red maple, henbit and dead nettle; still not much nectar. Feeding carbohydrates should be considered; many NC colonies are growing fast during this month and *might starve to death* without a beekeeper's help.

Combine colonies if needed (see January entries above).

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

Replace a few (<4) frames that have old/damaged wax. Use foundation—save drawn comb for a nectar flow—but be careful not to break up the brood nest. Another option, especially in late February: add a super or hive body, as most colonies will have new adults needing room.

Order packages/nucs/queens if needed; be planning equipment/placement for them.

It is <u>not</u> too early for varroa mite assessment (and action if needed).

Colonies that have no brood or poor brood patterns by late February may need re-queening.

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

In some areas, **swarming** may have already begun by late February, so have traps ready and check colonies for swarm cells. Get your name on the local swarm-catcher list.

## March

Pollen should be plentiful, and thin nectar (maple, redbud) available in most areas. *However*, many colonies will be outgrowing their honey/nectar supply and should still be fed carbs.

Attend NCSBA Spring Meeting, early March (dates/locations vary; see <a href="www.ncbeekeepers.org">www.ncbeekeepers.org</a>), for exceptional learning, networking and good deals on beekeeping supplies.

Consider reversing hive boxes (Langstroth) if bottom box *completely* empty of brood; be careful not to break up brood nest.

Drone production increasing; start queen-rearing process when weather allows.

Hive splits can be successfully done in most areas this month.

Add at least one super and/or hive body if Langstroth; add bars/frames if top bar/horizontal. Wax building is usually vigorous, so give bees opportunities to build comb.

Swarming is underway in most areas; see February entry above.

Closely assess brood nest for disease (viruses, foulbroods) and act quickly if sickness found.

Varroa mite management should now be active, via assessment and other Integrated Pest Management efforts; most in-hive chemical treatments, if needed, should be *completed by early April. Follow label directions*. (See <a href="https://honeybeehealthcoalition.org">https://honeybeehealthcoalition.org</a>.)

# <u>April</u>

This is the busiest month for most NC beekeepers, and procrastinators will suffer!!

Nectar flow getting heavy in most areas; sugar water feeding should only be done for new colonies (splits, packages, new nucs) or those dangerously low on honey stores/foraging activity. Pollen flow should still be heavy.

Wax building is vigorous in healthy colonies, so have plenty of equipment *ready*. Some colonies will fill three or more supers with honey in April alone! Consider adding queen excluder(s) to keep brood out of honey supers.

Heavy swarming continues.

One of the best months in NC for raising healthy queens and making successful colony splits.

Look closely at brood pattern; promptly address issues of disease or queen failure. Colonies should be very busy; closely examine those that are not.

Continue varroa IPM.

# May

Honey production is heavy in most areas, so continue to have plenty of equipment ready.

Still prime time to make splits and raise or buy productive queens.

Heavy swarming continues.

Ensure steady water supply (birdbath, dish, etc.) for your bees so they don't bother neighbors.

Start/continue to plant warm-season annuals for nectar/pollen forage. (See <a href="https://www.ncbeekeepers.org/resources/flowering-plants">https://www.ncbeekeepers.org/resources/flowering-plants</a> and <a href="mailto:2023-Top-25-Pollinator-Plants.pdf">2023-Top-25-Pollinator-Plants.pdf</a> (ncsu.edu).)

Procure supplies to bottle honey, if not already done—late orders may not get filled in time!

Continue brood assessments for disease and queen failure; act quickly if problems.

Continue varroa IPM. Be watchful for Small Hive Beetles (SHBs); insert traps if >20 SHBs seen.

#### June

Nectar flow and wax-building noticeably decline during June in most of eastern NC. Pollen still widely available.

Sourwood and basswood nectar available in many northern/western areas during last half of June; *consider* removing or marking frames of *non*-sourwood honey in advance, if you plan to bottle and sell or gift *real* sourwood honey after the sourwood flow ends in July.

Queen-rearing and splits can still be done successfully, but may need sugar water feeding.

If harvesting honey, plan ahead regarding equipment/time requirements. If putting "wet" supers back on the hive(s) after extraction, do so late in the day to limit robbing. Work ahead to secure sales opportunities (honey/other hive products) at markets/festivals.

Continue diligent monitoring for hive beetles (every 7-10 days) and varroa mites (every 3-4wks).

Keep water consistently available for your bees.

Make plans to attend the NCSBA Summer Meeting in mid-July.

# <u>July</u>

End of spring/summer nectar flow, including sourwood, by mid-July in most areas. Some areas may have nectar-producing cotton in bloom this month. Otherwise, nectar dearth well-established by end of month in most of eastern/central NC, so *robbing precautions* should be considered, especially for smaller/weaker colonies.

Pollen remains regularly available except if prolonged hot/dry weather.

Wax-building slowing down; feeding sugar water may be necessary for any additional drawn comb.

Honey extraction continues; robbing prevention measures needed if "wet" supers put back on colonies.

Attend the *NCSBA Summer Meeting* for excellent learning/networking opportunities. Dates/locations vary; see <a href="https://www.ncbeekeepers.org">https://www.ncbeekeepers.org</a>.

Keep water consistently accessible for bees: bees aren't welcome at a neighbor's pool party.

Splits and queen-rearing can still be done successfully, but robbing prevention measures and feeding are advised.

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

Hot weather can cause dehydration or overheating; beekeepers should have plentiful fluids/electrolytes ready and may need to take breaks to cool down.

Pest & parasites (hive beetles, wax moths, varroa mites) are very active, so beeKEEPers must be vigilant! Follow reliable sources of information, and follow label instructions for treatments.

#### **August**

Hot weather, nectar dearth and pest pressure can make bees more defensive. Robbing precautions needed. Beekeepers should also protect themselves against overheating and dehydration.

Can make successful late-season splits if using mated queens and feeding.

If colonies not in an area of significant cotton, buckwheat or clover nectar, harvest any surplus honey desired by mid-month. (Bees may start eating special varietal that you wanted.)

Most colonies would benefit from feeding (1:1 or even thinner solution of sugar water/honey water), to limit risk of starvation and also to keep the queen's egg-laying rate at optimal levels.

Look closely at egg-laying performance of queens, and replace those who are failing: good queens may not again be available until next spring.

Wax-building is over in most areas by late August, and colony populations may be starting to naturally decline; remove extra frames and store securely to prevent pest damage.

Keep water consistently accessible for your bees.

Keep up vigilant pest and parasite management.

Can plant cool-weather crops (broccoli, collards, etc.) to later feed yourself and your bees.

#### September

Hot weather, nectar dearth, robbing risks continue early in the month. Feeding can be helpful, 1:1 ratio of sugar/honey to water initially, then *last half of month change to 2:1* mixture—thicker solutions are easier for bees to store in preparation for the upcoming winter. Bees may also be moving honey up from bottom box of hive to enable room for egg-laying, as queens are winding down on production.

Pollen still widely available.

Brood pattern shrinking but should still be fairly solid. Later in the month, combine colonies that are weak (but not diseased) or have failing queens.

Continue vigilant pest/parasite management.

Winter bees developing in most areas by late September; to be hardy through the upcoming winter, they *must* have an atmosphere of plentiful adults, plentiful nutrition and minimal pest/parasite pressure.

## October

Continue downsizing hive structure as population declines; store frames securely. Drones being expelled. Remove all queen excluders from hives by mid-October.

Consider feeding/continuing to feed thickened carbs early in the month. Fall *nectar flow* likely during the last three weeks of the month, in variable amounts. Fall nectar may produce a slightly sour (but not putrid) smell in the hive.

Last chance to take action, if needed, toward ensuring maximum colony populations and healthy nutrition—pollen still plentiful—as well as minimizing pest/parasite pressure. Procrastination on this can be *fatal* to even a robust colony.

Apply entrance reducers or mouse guards by end of October: mice are looking for shelter, and if they move into a beehive, the bees will likely move out, even during late fall/winter.

Combine with queenright colonies those colonies that have absent or failing queens.

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

# November

Bees should be "tucked in" for overwintering, with plentiful food (60 lbs or more of stored honey, and maybe sugar bricks or candy boards for extra insurance/moisture absorption), minimal pests, and plenty of adult bees. Many queens start winter vacation from egg-laying this month. Pollen supply decreasing, but protein supplements *not* advised for most colonies.

Minimize inspections, to allow maintenance of colony warmth as well as propolis seals between boxes. Ensure adequate *moisture control* via quilt box, candy board or ventilation. Apply weights to tops of hives to limit wind-blown toplessness.

Continue to plant trees/shrubs for future forage.

Consider closing off screened bottom board to improve heat insulation.

Combine weak (but not diseased) or queenless hives, if weather allows.

# December

Solid carbs (sugar bricks, candy boards, fondant, stored honey frames) are helpful on hives.

Not much natural pollen available, but protein supplement not advised until late December, when brood-building can be boosted by "pollen patties" or similar protein-rich nutrients.

Combine or insulate colonies with <4 deep frames of bees.

Have hive products available, if possible, for holiday sales/gifts.

Consider single dose of oxalic acid—vapor or dribble—late in month for varroa clean-up.

Minimize inspections; hive "lift" should give indication of food stores. Let the bees (and beekeeper) get some much-needed rest.

Be looking for upcoming beekeeping classes, at <a href="https://www.ncbeekeepers.org">https://www.ncbeekeepers.org</a> and through local beekeeping suppliers.

Year-end assessment, with review of apiary records, to summarize successes/challenges in preparation for the coming year.