



"What's the Buzz"

BEE HIVE

EDUCATIONAL NEWS

A year long educational series.

From the Hive, by Katryn Taylor

Session I

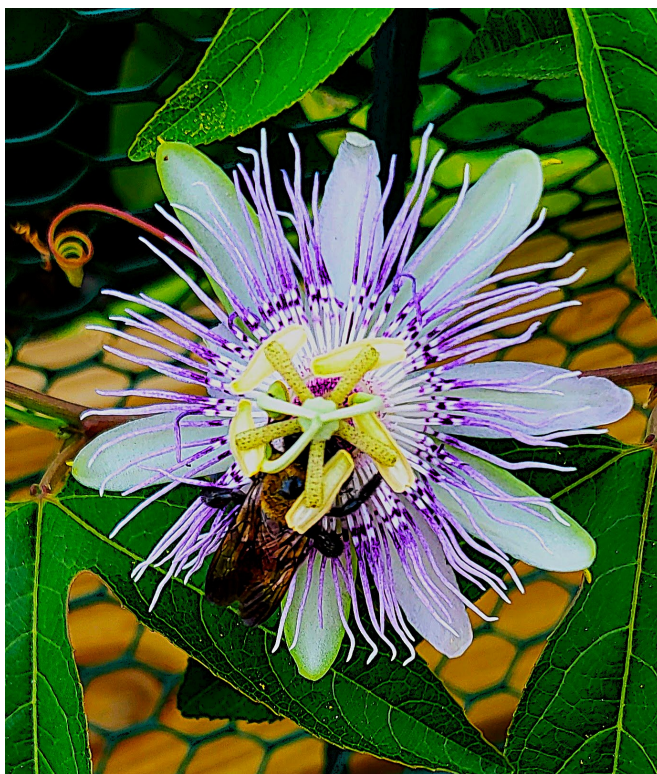
- **Diverse Landscapes:** From the North Georgia mountains to the coast, Georgia's varied ecosystems provide the necessary flowers and foliage for strong bee populations and honey production.
- **Commercial Importance:** Georgia is a leading state in the production and sale of honey bees and queen bees.
- **Research and Education:**
 - The [University of Georgia \(UGA\) Bee Program](#) focuses on sustainable bee health, pollination, and foraging ecology, offering resources and master beekeeper programs.
 - The Georgia Tech Urban Honey Bee Project explores the integration of bees into urban environments and uses data to map good habitats in cities like Atlanta.
- **Industry Support:**
 - The Georgia Beekeepers Association (GBA) provides connections, education, and promotes Georgia beekeeping products.
 - The Georgia Department of Agriculture regulates commercial beekeepers and requires licenses for bee removal services.

- **Challenges and Management:**
 - Beekeepers face challenges from pests such as [varroa mites](#) and [small hive beetles](#).
 - Environmental factors like hot, dry summers can be stressful for bees, requiring beekeepers to provide water sources.
 - Bees in walls can be problematic, and sealing entry points can help prevent swarms from nesting in structures.

Session 2

What to know about bees in North Georgia in the Fall

- **Increased activity:** Honeybee and bumblebee populations reach their peak in the fall, leading to more frequent sightings.
- **Behavioral changes:** Both honey and wasps can become more aggressive as their food sources diminish and winter approaches.
- **Foraging on fall flowers:** Look for bees on late-season blooms like dahlias and sedum. Fall flowers that benefit bees, plant asters, goldenrod, sunflowers, coneflowers, and sedum (stonecrop). These late-blooming plants provide vital nectar and pollen for pollinators in preparation for winter, helping them survive and thrive.
- **Preparing for winter:** In a honeybee colony, this is a crucial time for raising "winter bees" that will survive the cold, requiring adequate food resources.
- **Native bee overwintering:** Many native bees, such as leafcutter and orchard bees, nest in hollow plant stems. Leaving these stems in your garden provides essential winter habitat.



<https://bees.caes.uga.edu/bees-beekeeping-pollination/pollination/pollination-plants-for-year-round-bee-forage.html>

Session 3

Honey bee winter survival in North Georgia

Do honeybees die in the winter?

Yes, unfortunately, some colonies inevitably die in the winter. This can happen if the population is not large enough, the food stores are insufficient, or the colony enters the winter with a disease or virus.

Clustering: As temperatures fall, bees form a tight cluster around the queen and the brood. The center of the cluster can be maintained at approximately 95°F. F95 raised to the composed with power cap F 95°F to keep the queen and developing brood warm.

Heat generation: Bees generate heat by shivering their wing muscles. They rotate within the cluster so that all bees get a chance to be in the warmer center, using honey for energy to fuel this process.

Movement and food: The cluster slowly moves up through the hive as they consume the stored honey and pollen. It's crucial to have food stores available both above and around the cluster, especially during late winter when brood production increases, notes CAES Field Report.

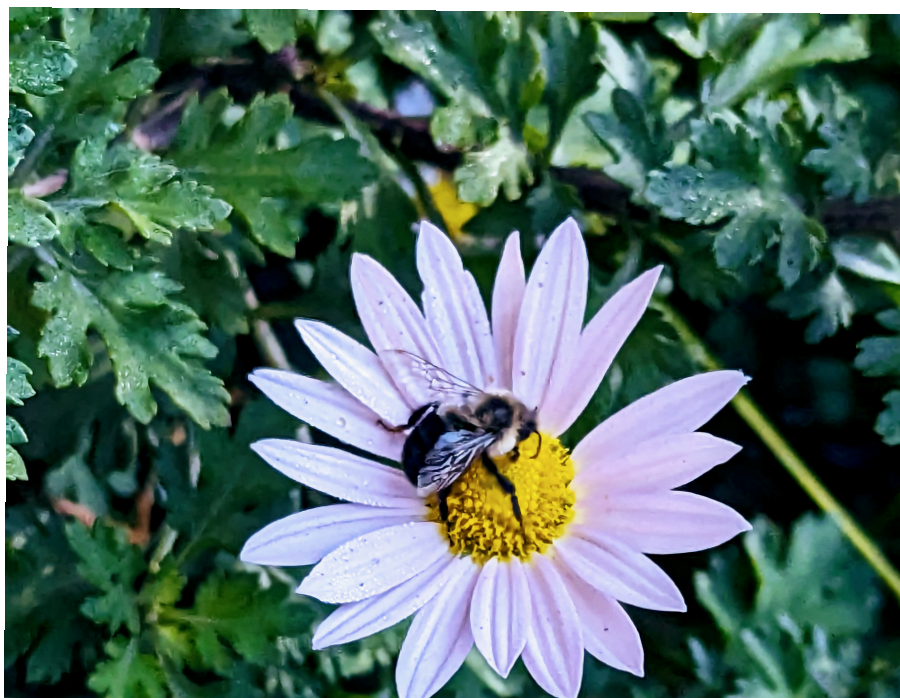
Hive preparation:

1. Food: Ensure the hive has sufficient honey and pollen stores, which is critical for survival.
2. Moisture: Make sure lids are watertight and consider adding a rain shelter. Ventilation holes should be angled to let water drip outside, not in.
3. Wind and insulation: Wrap the hive to protect it from harsh winds. A piece of foam can provide insulation on top of the frames, says [Honey Bee Suite](#).
4. Entrance reducer: A small entrance is important to protect the cluster from cold and predators. Beekeepers often use a reducer to make the entrance smaller during winter.
5. Queen excluder: Remove any queen excluders before winter. As the cluster moves up, the queen can become trapped below and be unable to migrate with the cluster, according to [Ask IFAS](#).

<https://www.buddhabeeapiary.com/blog/honeybees-in-the-winter>

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<https://gardenclubofgeorgia.org/wp-content/uploads/2024/10/Winter-Habitat-for-Pollinators.pdf>



Session 4

Bee news for winter 2026 in Georgia focuses on the impact of unpredictable weather on hive management and the behavioral responses of local bee populations. Beekeepers are advised to monitor hive conditions closely due to the potential for late-winter starvation and variable temperatures.

Bee Behavior in Georgia's Winter

- **Honey Bees:** Honey bees do not hibernate. Instead, they form a tight cluster inside the hive to keep the queen and the colony warm, shivering their wing muscles to generate heat. The center of the cluster stays around 95 degrees Fahrenheit. They survive by consuming stored honey.
- **Other Bees:** How other species, such as carpenter bees and yellow jackets, spend the winter depends on the species. Many wild bees may burrow or hide in leaf piles or hollow stems. Yellow jacket queens are typically the only survivors of the winter and will emerge in spring to start new nests, while the rest of the colony dies off.

Beekeeping Management & Concerns

- **Hive Monitoring:** Beekeepers need to regularly check the weight of their hives, a technique called "hefting," to ensure the bees have enough food stores.
- **Emergency Feeding:** If hives are light on honey, emergency feeding (using fondant or a candy board, not liquid syrup in freezing weather) may be necessary, particularly in late winter when many hives starve.
- **Weather Variability:** Georgia's winter is influenced by a lingering La Niña pattern, which suggests "equal chances" of above- or below-normal temperatures and a risk for "rain-to-ice" transitions. This unpredictability requires beekeepers to be adaptable, as warmer days (above 50°F) might allow for brief inspections, while sudden cold snaps demand secure, well-ventilated hives to prevent condensation buildup.
- **Pests and Maintenance:** Winter is an ideal time to conduct hive maintenance, build new equipment, and check for pests like ants around hive stands, as overall bee activity is lower.

Conferences and Resources

- Beekeepers can utilize resources like the 2026 month-by-month beekeeping calendar provided by [uskeepers](#) for task planning.
- A "**Bee - 2026 Virtual Winter Conference**" is scheduled for **March 7th, 2026**, offering educational opportunities to interact with speakers.

For more local and timely advice, beekeepers should consult resources from the University of Georgia College of Agricultural and Environmental Sciences or the Georgia Department of Natural Resources' Wildlife Resources Division.

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<https://georgiawildlife.com/search/nodeEx?keys=BEES+>

Session 5

1) Beekeeping is the second oldest profession.

People have been gathering honey from bees in the wild for at least 8,000-10,000 years.

Based on Egyptian art, beekeeping has likely been happening for at least 4,500 years.

Archeologists have found inscriptions in Egyptian tombs that depict pouring honey in jars and removing honey.

Evidence of pottery used as hives found in orderly rows dating from about 900 BCE was discovered at Rehov, a Bronze and Iron Age archaeological site in the Jordan Valley, Israel. In ancient Greece beekeeping was considered a highly valued industry and an 'agricultural art'. Aspects of the lives of bees and beekeeping were discussed at length by Aristotle. Evidence has also been unearthed in China describing the art of beekeeping.

Bonus fact: Honey was found in King Tut's tomb and it was still good!

2) The Queen is not the ruler of the hive.

Sorry, but her title is mostly ceremonial. She's unique because she's the largest female and the only bee capable of laying fertilized eggs which means the health of the queen can determine the health and survival of the hive. And, it's true that she does receive special treatment from the worker bees who feed and clean her.

But she does not order the other worker bees around like you think a monarch might. The majority of the hive's tasks are controlled by pheromones and other chemical signals that occur instinctively.

When the queen is in the hive and doing her job she emits a pheromone that lets the bees know she's present and accounted for which keeps the hive calm. However, if there's a problem with her performance the worker bees will swiftly decide that it's time to replace her.

3) Drones don't survive the winter.

The male bee has a very important job and a very sealed fate. A drone's purpose in life is to assure the survival of the species by mating with queen bees. And after performing this valiant and essential task, they die.

When the males are hanging out in the hive before flying out to mate with a queen a male bee doesn't harvest nectar or pollen, doesn't help feed eggs or larvae, doesn't build anything, doesn't clean, and doesn't even have a stinger so can't defend anything either.

They eat and take up space.

So, a drone who is still in the hive at the end of the season is going to meet a tragic fate in the fall.

The worker bees, who are programmed for efficiency, are not going to waste any extra space, honey or energy on drones. So, once the temperature starts to drop; out they go in the name of efficiency.

The workers banish the remaining drones from the hive out into the elements never to survive.

4) Queens Can Quack and Toot

Ok, it isn't exactly quacking like a duck, but it's kind of similar. When queens are ready to hatch out of their cells they begin making vibrations that resemble a sort of quacking sound. Then she chews her way out of the cell and her vibrations change and she starts making a 'toot' sound.

Researchers believe that this 'tooting' is a sort of battle cry letting the rest of the bees know that she

has hatched, she is the first, and that it would be best to not let the other queens hatch to avoid having a sting-battle to the death.

As we know, there can be only one queen!

If you're curious about how these toot and quack vibrations sound, here is a link to some audio recordings and more details.

<https://www.snexplores.org/article/honeybee-queens-quack-toot-sounds-hatching-new-queen-duel>

<https://www.beekeepingforveterans.com/post/9-pretty-cool-facts-about-bees?>

[Beekeeping](#)

[Bees](#)

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Session 6

The pollen and nectar flow is increasing as temperatures warm - quickly! Therefore, we have some 'busy bees' out and about. If you'd like to attract bees (and butterflies) add a base layer of rocks in your bird bath so they have a landing spot from which to drink. We are also in swarm season so be on the lookout for clusters of bees hanging in trees.

In March, bees in Georgia become highly active as warmer weather, typically with temperatures rising above 50-60°F, triggers the beginning of spring, encouraging foraging on blooming plants. This period marks the start of the primary bee season, where honey bees begin to increase their brood production and may start swarming to establish new colonies.

Bee Behavior and Activity in March

- **Foraging and Activity:** As temperatures rise, bees leave their hives to gather nectar and pollen from early spring blooms.
- **Swarming:** March is the beginning of the swarming season in Georgia. Honey bees may swarm when the colony outgrows its hive to reproduce.
- **Carpenter Bees:** These bees emerge in March and April to create nesting sites by boring holes into wood.
- **Colony Growth:** The queen increases egg production, rapidly expanding the hive population.

Bee Keeping Tips for March

- **Feeding:** March is a critical time for potential starvation. If food stores are low, bees may need to be fed a 1:1 sugar syrup.
- **Inspections:** Only open hives on warm, dry days when temperatures are at least 50°F and keep checks brief.
- **Swarm Management:** To prevent swarms, ensure the hive has enough space for the queen to lay eggs.
- **Protection:** Keep hive entrances restricted to prevent robbing and help bees manage hive temperature.

Handling Bee Swarms

If a swarm is spotted, do not try to remove it yourself. These swarms are usually docile but can be alarming. It is best to call a professional bee removal service in Georgia to safely relocate them.

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Beekeeping

Bees

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Session 7

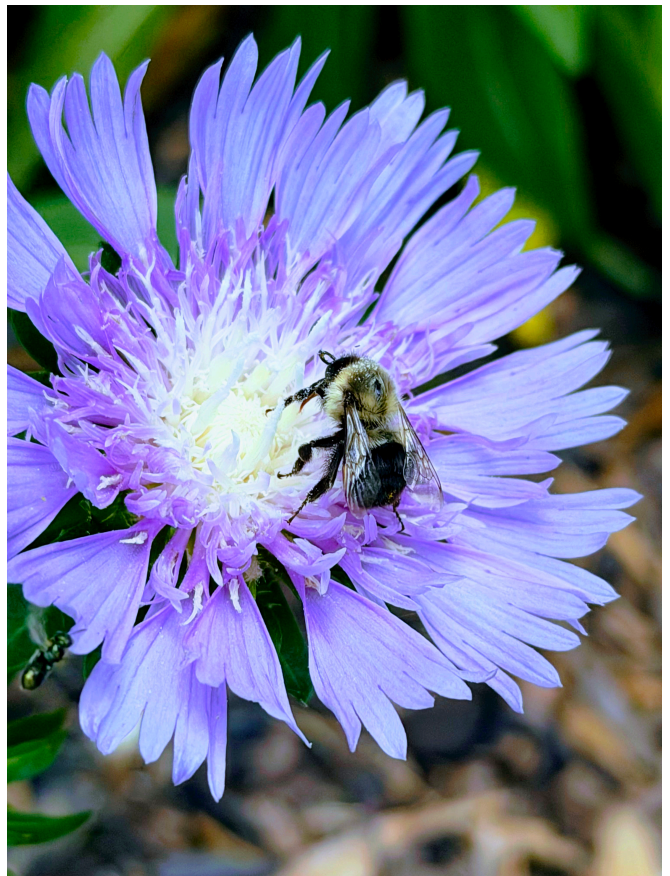
April and May, the busiest time of the year. Swarm prevention and colony buildup are the goals.

Continue equalizing colonies and cutting queen cells. Sell or trade frames of brood if necessary to knock back extra strong colonies. Another use of surplus brood is the production of splits, or new colonies. Take 3-5 frames of bees, honey, and brood (minus the queen), place them in a new hive body, give them a new caged queen, and move the new colony to a new apiary site. Package bees are also now available for making colony increase.

With the availability of mail-order queens the beekeeper can now replace failing queens. Find and remove the old queen from the colony, insert the new caged queen between two center brood frames, but do not remove the cork from the cage opening. Return after 2-3 days and observe the behavior of the bees on the outside of the cage. Do not release the queen if workers are biting the wires of the cage. But if the hive bees are trying to feed the caged queen (reaching through the wires with their tongues), then this is a good sign that they are ready to accept her. At that point you can remove the cork. Check a week later to make sure the new queen is accepted.

You will know this if there is an abundance of newly-laid eggs and young brood in the cells.

By mid-April most of Georgia is in prime honey production. Hive manipulations should cease and the beekeeper should be supering up for the various flows which are clover, tupelo, blackberry and other brambles, tulip poplar, and gallberry.



<https://bees.caes.uga.edu/beekeeping-resources/getting-started-topics/getting-started-a-synopsis-of-bee-management-in-georgia.html#April>

Session 8

June - July

The main activity honey-wise in Georgia at this time is sourwood in the mountain regions and cotton in the areas of Georgia south of Perry. In some years these flows are significant. Sourwood begins within the first two weeks of June and may last through July. Cotton runs about mid-July to mid-August. Most beekeepers remove all spring honey before moving hives to the mountains or supering them up for sourwood. Pollination may draw some revenue, especially with cucurbit crops such as pumpkin.

Hot, dry summers can be stressful on bees. The beekeeper can help by providing water in entrance feeders. If robbing gets started in an apiary it is important to tape shut all gaps and cracks that permit foreign bees to harass a colony.

Fire ants may get aggressive in drought conditions, and the beekeeper can respond with mound treatments of Amdro™ or similar fire ant baits. In areas with small hive beetles now is a good time to treat soil surrounding hives with the nematodes, *Steinernema riobrave* and *Heterorhabditis indica*, available from organic gardening catalogs.

August - October

Things are winding down in Georgia apiculture, but there are some important tasks remaining.

Foremost is varroa mite management.

The beekeeper can discourage varroa mite population growth by using screen hive floors, regularly dusting bees with powdered sugar, keeping hives in sunny locations, and using queen stocks selected for varroa resistance. If in spite of these practices mite levels reach 60-180 mites on an overnight sticky sheet, it may be time to intercede with an acutely toxic miticide like Api-Life VAR™ or Api-Guard™.

Other late **summer/early autumn tasks** are feeding (with 2 : 1 syrup) if necessary and rectifying any queen problems present in the apiary. Weak colonies should be combined by killing the weaker of the two queens and stacking hives on each other with a slit newspaper between.

Stored equipment can be protected against wax moths by freezing combs and storing in moth-tight enclosures or stacking honey supers in a criss-cross fashion in open sheds. The penetrating air and daylight discourage colonization by moths. Some beekeepers store supers in enclosed barns with a lighted bug-zapper running constantly to kill emerging adult moths. This practice can eventually eradicate moths from the room.

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