

Webinar 2: Maintaining the Buzz

Introduction Slide

Housekeeping Slide

Before we get started, I'd like to go over a few housekeeping items.

1. Within the application, you will be able to type your questions along the way. We will address these at the end of the webinar.
2. This presentation and the questions we received prior to the webinar will both be available in our "Handouts" section.
3. This webinar will be recorded and will be shared via email and our websites: thebeecause.org and wholekidsfoundation.org

What to Expect Today

"Bee Informed" is a webinar series created especially for our Honey Bee Grant recipients.

In this session, we will focus on tools you can use to gain momentum in your bee journey, introduce curriculum + program support materials, highlight key elements to program success, and provide a general overview of program best practices and lessons learned. This session is intended for all grant recipients who have questions about how to get the most out of their honey bee project.

Agenda

1. Your bee journey
2. Creating a Hive together
3. Resources
4. Beekeeper partnerships
5. Program best practices
6. Pitfalls (bees and program)
7. Observation Hive tips
8. Questions

We have also incorporated the questions we received from you over the last few weeks into the session.

Creating a Hive Together

We have a map on our website that is provided to help you find other honey bee grant recipients in your area. While we don't provide direct introductions between hive recipients, we do encourage you all to reach out to the school or organization in your area and learn from each other and share. Please let us know in the Survey at the end of this session as to whether you would be interested in our providing a platform for all Bee Hive recipients to collaborate and share resources.

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Resources

We are excited to share with you some of our favorite resources. All of these can be found on our website or in our curriculum provided on our website.

- Newsletter signup on BeeCause and WholeKidsFoundation websites
- Social Media signup
- Curriculum Guide
- Favorite Websites:
 - xerces.org
 - <https://kids.nationalgeographic.com/animals/>
- Favorite Documentaries:
 - Tales from the Hive - PBS Nova
 - Vanishing Bees - vanishingbees.com
 - More Than Honey - morethanhoneyfilm.com
 - Queen of the Sun, What the Bees Are Telling Us - queenofthesun.com
 - Life Cycle of the Honey Bee Video - <https://www.youtube.com/watch?v=f6mJ7e5YmnE>

Beekeeper Partnership

There are several ways to ensure a strong partnership with your beekeeper/bee mentor.

- Create an agreement and have all parties sign. (sample agreement is on our website).
- Discuss all work that will be donated vs. fee-based.
- Detail a routine for the hive maintenance.
- Keep a journal of your observations as Bee Advocate and share with your beekeeper.
- Make sure your beekeeper can be available off-cycle as well as on scheduled visits (monthly/quarterly).
 - Swarming, honey storage issues, condensation in the hive, sudden decline in population, visible signs of pests
- Learn from your beekeeper, join a beekeeping association, partner with 4H or your extension office.

Program Best Practices

1. Prepare your surroundings
 - Safety signs, flight path selection, proper ground covering or stakes to hold down hive in inclement weather, insulation panels when it is cold, tent or water source for bees when it is extremely hot.
2. Initial and Scheduled equipment checkup
 - Installed or assembled by professionals, all equipment in working order, water seal or paint outdoor equipment, know where to get your replacement parts.
3. Know your bees
 - Genetics (work with specific bee stock),

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- if your bees ever shows signs of distress or aggressive behavior, let your beekeeper know asap.
- 4. Prepare for bee installation and maintenance
 - Notify all parties
 - After hours or weekends if possible
 - Proper bee suits and other safety gear
 - Waivers for all involved (especially minors)
- 5. Manage your hive regularly
 - Don't want your bees to be overpopulated
 - Make sure your bees always have enough space and food for weekends and/or holidays
- 6. Involve Others to increase value
- 7. Integrate the bees into your everyday learning

Pitfalls with your bees

YOUR BEES DIE.

You can usually buy bees in early spring or buy a nucleus colony through the summer, so those are both options. Your beekeeper may also help you track down a few frames or be able to split a hive to give you a new colony. If you lose your bees, this can be a learning opportunity as well. Even if you do everything right, you may still lose your bees. That is one of the reasons we are doing what we do - to bring awareness to the plight of the honey bee. Discuss options for getting replacement bees off-season.

YOUR QUEEN DIES/SWARMS.

This is a great learning experience. You can also manage your hive to prevent or make it less likely that your bees will swarm. You can catch the swarm and re-home (a great "thank you" to your beekeeper). You can usually buy a new queen from early spring through the fall. You can also find a small colony through a beekeeper and add your bees to that colony. There are best practices for combining two colonies with one queen.

YOUR HIVE FAILS TO PESTS.

Usually if your hive is taken over by hive beetles or wax moths (or has excessive condensation) it is because the hive is stressed for another reason. Over the last few years, this reason is usually connected to mite overload, "foul brood" OR pesticide exposure. The best way to manage this is to connect with your beekeeper and possibly leverage another hive or medication. You can send a bee sample out to a lab to test for pesticide poisoning. You also can get on a "NO Spray" or "Spray Notification" list.

YOUR BEES RUN OUT OF FOOD.

All of our hive options provide a boardman feeder cap for entrance feeding. You can make a simple syrup (recipe is in our Honey Bee Lessons guide) to feed bees off-season or until you can find a few frames of honey to add into the hive. If you have a traditional hive, please make sure you don't take too much honey from the bees before going into winter.

SOMEONE GETS STUNG.

- Follow safety protocol.
- Make changes if there was any sort of issue with the protocol.
- Check to see if it is a honey bee vs another insect.

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- Track stinging incidents at the school level and determine if numbers are decreasing as education and exposure increases.

YOU LOSE YOUR BEEKEEPER.

- Reach out to the beekeeping community or your parent community to find a replacement.
- Documenting your procedures and observations along the way will help with transitions.

Pitfalls with your program.

YOU LOSE YOUR BEE ADVOCATE.

- Reach out to your administration for a replacement.
- Documenting your procedures and involving others in the daily task (students, other teachers, parents, etc.) will help get more folks interested and able to step in if the advocate leaves.

YOU RUN OUT OF MONEY FOR A BEE FUND.

- Leverage your starter funds for the first year. Put into place NOW a plan for a sustainable program moving forward.
- Ask your PTO, do a fundraiser, reach out to a local business for support. You should budget for \$300-\$500 annually. Your beekeeper may also donate his/her time and services.

THERE IS NO ADOPTED PLAN FOR INTEGRATING THE HIVE INTO CURRICULUM PLANS

THE KIDS AREN'T INVOLVED IN TAKING CARE OF THE BEES

Observation Hive specifics

INSTALLING THE HIVE.

If your observation hive needs more room, then your beekeeper will need to close the hive. There are two metal sliders: one closes the actual hive and the other closes the entrance to the outside. Your beekeeper can then remove the hive from the wall, and take it outside to remove the frames. This should be done after hours the first few times in order to ensure the process goes smoothly.

INSTALLING THE BEES.

The hive holds 8 deep frames. Natural beeswax foundation works best for the frames.

INITIAL CHECKS.

- The bee colony needs to be properly sized. One complete colony usually includes 4 frames of brood and eggs, 3 frames of pollen and honey, 1 frame being filled in. Don't let them run out of room if you don't want them to swarm.
- It's great to have access to a second hive that you can pull frames of resources or bees for your observation hive.

QUARTERLY CHECKS.

- An equipment check should be done quarterly to ensure the hives are all in proper working order and that everything is ready for the upcoming season. Contact your beehive provider if you have questions or concerns or think you may need a replacement part.

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- The bees may build honeycomb on the plexiglass panels. Clean with warm water and a flat scraper (wrapped in cloth). You can also heat the plexi in order to loosen the beeswax. Over time this plexi will get cloudy and should be replaced.
- The feeder top may become propolised. Make sure when you open the feeding screen that you do not make the holes in the screen too large.
- Always check the bolts and ensure the wood is sealed around all edges of the plexiglass doors.
- Ensure there is no condensation because an air vent or direct sunlight is involved.

LOSING YOUR BEES OFF-SEASON.

If your bees die off-season or you lose your queen and cannot replace, you could create a display poster to hang near or on your hive. BeeCause has recently added these as optional resources. Bees die at a 30-40% rate nationally, so even if you do everything correctly, you may still lose your bees. Have a plan for that.

Share the Buzz.

Just wanted to end with a few points that I feel are most important. You will figure out over time what works and what is most valuable for you and your students. If you can remember we have best practices in all of the areas noted here, then I think you'll have a very pleasant and productive experience with your honey bee hive.

Questions.

