

Grant Overview

Bee Equipment Grants Which Hive is Best for You?



The Bee Cause Project is excited to offer several grant options to choose from.

Indoor Observation Hive

- Most popular hive
- Indoor hive option
- Classroom or office installation
- Requires less maintenance
- Can thrive in any climate
- Usually no extra stores of honey to be harvested
- Ideal for teaching
- Most readily engages students

Outdoor Observation Hive

- May require a small outdoor structure to be built
- Best in climates with a milder winter
- Schools that have or want outdoor programming
- Schools that are not able to accommodate an indoor hive
- Usually no extra stores of honey to be harvested

Traditional Outdoor Hives - Top Bar Hive or Langstroth Hive

- Requires the most maintenance
- Must be set up outside in a safe zone for bees and students
- Honey may be harvested
- Requires an experienced beekeeper
- These outdoor hive options do provide observation panels or windows for viewing; however, the observation opportunities are limited without opening the hive.

Monetary Grant: Advanced Beekeeping

1. **Start Up** - This grant recipient has skills and resources for implementing a bee program on your own. This grant recipient may be interested in installing a new bee hive on his own, building a pollinator habitat or bee sanctuary, etc. The monetary grant is meant to provide flexibility for schools and organizations that are interested in creating an educational bee program from scratch and do not need specific equipment from BeeCause to be successful.
2. **Enhancement** - This grant recipient has a bee program already established. This recipient may want to improve their bee program by enhancing the landscaping around an outdoor hive or hive entrance, by developing a pollinator garden on campus, by expanding supplies of beekeeping equipment and educational materials, or by engaging in community outreach programs.

Bee Hive - Getting Your Bees Approved



The Getting Your Bees Approved guide is a resource to help applicants get approval in their district for housing a Bee Program at their school.

Introduction

Students learn and perform better when schools, families, communities, and districts work together to support common goals. The Bee Cause Project was founded by a parent of four young beekeepers; is the recipient of donations from small and large businesses and foundations; and is partnered with multiple educational organizations across the country. The Bee Cause has donated and supported bee programs in over 350 schools and other educational organizations across the United States, Canada, Haiti and the Bahamas. The Bee Cause has been a key to connecting families, students, and staff within those schools as well, thus categorizing our project by many principals as “one of the most successful partnerships and initiatives during the school year.”

The Bee Cause program offers opportunities for hands-on, project-based activities and special events to enhance creativity, self-expression, group and independent learning. The Bee Cause is committed to working with curriculum development staff and individual teachers to assist in efforts to meet each school’s needs in these areas and to assist each school’s specific needs for gaining support and approval for partnership with The Bee Cause.

Steps for Approval

Each school district may have a different path for approval. Independent Schools usually have an easier time getting approval than Public School systems. The following is an outline of what to expect.

1. **Initiation by a single school** - A teacher or parent usually initiates contact with The Bee Cause and expresses interest. There are online resources that these Bee Advocates should read to understand the commitment at the school level, the commitment from the beekeeping community, the ongoing costs, and the timeline to receive a grant from The Bee Cause. Once interest is present for a given school, the Bee Advocate needs to follow internal protocol for partnering with outside organizations and/or getting approval to introduce new programs/services.
2. **Petition for support of hive** - After the Bee Advocate is well briefed on how the program works and the benefits for partnership with The Bee Cause, a petition of support is a great next step. The PTA, STEAM (Science, Technology, Engineering, Art, and Math) Curriculum developer, Science Department Head, Principal, etc. should all be briefed on the program. Each of these school leaders can be ambassadors for your program and can provide insight and guidance for gaining approval at the highest level (Superintendent’s office and/or Leadership Team in the Public School System).
3. **Proposal to Superintendent and/or School Board** - Depending on the school district, one or both of these parties must approve an Observation or Traditional Hive to be installed on the school’s campus. Approval is usually required to begin any sort of bee inspired programming on campus - regardless of whether an active bee hive will be installed. The efforts described under number 2 will help the Bee Advocate better understand this

process and tailor the request appropriately. A decision should be made at this point if the request to the Superintendent is for approval District wide or for one single school. Typically, it is easier to gain approval for a “pilot” of the program and work towards getting approval for others based on the pilot school’s success.

4. **Plan for the County Building and Maintenance crew** - This step can be done concurrently with Number 3 above. It is important to address any perceived risks or concerns early on in the process. This step is required for all Equipment Grant recipients, as you will need to determine a safe location for your indoor observation bee hive OR your outdoor traditional bee hive. Monetary Grant applicants also need to select the location for their bee programming and request approval for installation or roll out.

For Indoor Observation Hives ONLY: The “Installation of Hive Base” is a great video to circulate to your building maintenance crew, so they will understand what needs to happen in order to hang the hive on the wall (a 2 inch hole needs to be created through a wall to allow the bees to fly in and out of the Observation Hive). Most public school districts require all building modifications to be done by internal staff. Gaining approval for your proposed location for the hive to be installed is as important as getting approval for the bee hive to be installed. There are safety considerations as well.

Steps for Implementing

Once the District or school partners with The Bee Cause, a standard internal Project Plan should be finalized based on the district’s feedback. A typical task list is below:

1. Application, School Board/District Approval, and Honey Bee Hive Agreement guide are completed.
2. School assigns its Bee Advocate.
3. School assigns its Bee Mentor. The Bee Cause will assist in locating a beekeeper if your school is having difficulty.
4. Hive location is determined, and The Bee Cause

approves the proposed hive placement.

5. The Bee Cause ships the equipment grant and other support materials.
6. Building Maintenance request is submitted by school to the appropriate Install Team (for Observation Hive only). See the Installation Videos for Observation Hives www.thebeecause.org.
7. Hive Base is installed in the school (for Observation Hive only).
8. Pre-lessons are delivered to students prior to installation.
9. The Bee Mentor installs a honey bee colony into the hive.
10. Schedule is created for Bee Advocate’s daily and weekly hive checks.
11. School implements a Bee Journal process.
12. Schedule created for Bee Mentor to visit the hive monthly or seasonally.
13. Students, faculty, and others start their bee journey!

Talking Points

1. Safety

One of the first hurdles encountered is that schools do not want their students to get stung. The Bee Cause Safety Guide will be distributed to all parties involved. A risk assessment must be incorporated at the District level, however, it is still recommended to have a protocol at the school level for principals and/or teachers to make any adjustments to meet any particular local circumstances.

2. **A Case for the Honey Bee- They really do need our help!**

The Bee Cause Grant seeks to stimulate curiosity in young people about the natural world by giving them an intimate experience with one of the world’s greatest pollinators. The honey bee is an important part of American history, and ever since the first colonists brought them over from Europe, their population has steadily increased. So too, has our dependence on the honey bee for pollinating our crops.

Today, our relationship with the honey bee is not sustainable. The number of honey bee colonies has decreased drastically in recent years. With awareness about the probable causes of the population decrease, The Bee Cause wants to curb this trend through education and through physically helping colonies of honey bees thrive. The Bee Cause Hive Equipment Grant is the perfect vehicle to accomplish this.

3. Teaching/Learning Opportunities

- A colony of bees can be an excellent tool for engaging even the most reluctant student:
 - Observing bees can inspire writing, poetry and art.
 - It builds empathy and compassion as the students see the full life cycle unfolding in front of them.
 - As living creatures they are a natural provocation for all kinds of science and nature inquiry.
- Critical Thinking Skills can be put to work as students try to uncover and solve real-world problems. The honey bee population is in danger, but this has implications for our entire ecosystem. With your own hive, the plight of the honey bee is not just a hypothetical problem or science book lesson. It is a reality and much easier for the students to appreciate.
- Project Based Learning, Inquiry, Common Core, STEM – all of these approaches to learning help build the 21st century skills students need in a complex world and ever-changing job market. Because a school hive is a permanent feature, students have the opportunity to engage in long-term observation and study. Younger students may hypothesize and document changes over time. While older students may get involved with more complex research and data collection. They may take on the environment around campus like planting flowers and checking for water supplies. Students may get engaged with advocating and educating others. The

possibilities are endless.

4. Program Effectiveness

A program is only as effective as those who are using it. If an Observation Hive is installed like an aquarium and left as a piece of living art, it will be enjoyed. But with any type of hive, it takes some active engagement to reach the full potential intended by The Bee Cause Project. It may begin slowly and grow over time. Your Bee Advocate will be the first to educate and inspire others. From there your program can go in many directions as suggested above.

Case Study – Ashley Hall School, Charleston, South Carolina

Ashley Hall was one of the first schools to receive an Observation Hive in Charleston. They have a dedicated Science Lab teacher in their Lower School. The science teacher applied for the grant and the hive was installed in the science lab. All of the students have class in the lab weekly so they are able to observe the hive at least once a week. The science teacher has been able to observe the bees day to day and became fascinated with them over the first year. She saw the children's interest and knew there was potential for more.

The second grade class studied insects as part of their science curriculum. Now they had their own bee colony to study. With this, classroom teachers started to learn about the Observation Hive and used the honey bee as a focus of their insect study. They also take the lead each year in the Pay It Forward honey sale. Students love designing their own special tags to add to the jars and sharing their knowledge with their customers!

Building on the students' enthusiasm, the science teacher then asked another teacher to join her in creating a "bee club." With the support of The Bee Cause Project, Ashley Hall installed a Traditional Langstroth Hive. It has been a learning process for the teachers, but the bee club has been so successful that it has gone from one session per year to two sessions and even spurred a butterfly club and a special summer camp week! There are now two Langstroth Hives on campus, which allow the students to don bee suits to do hive

inspections, care for the bees, and even harvest honey. An Upper School biology teacher became interested and was able to get a Top Bar Hive with another grant from The Bee Cause Project. The ability to access two different types of traditional working hives opens up a vast array of possibilities for investigations and experiences.

Ashley Hall's pre-school program is based on a student centered, experiential philosophy. An Observation Hive was installed in their building next. It has proven to be an inspiration and an excellent provocation for all kinds of learning and constructive play. The students across campus now connect the bees with the plants and the plants with the food chain. They don't fear honey bees and know not to swat! In fact, students can often be seen trying to care for bees at recess.

Ashley Hall is an example of a school that has leveraged a single Observation Hive in one classroom into a campus-wide program. From The Bee Cause Project to The Bee Club to The Apis Mellifera Society and more, the honey bee is a highlight of their school program.

5. Need for Program

- Declining bee populations have been documented by scientists around the world. The Bee Cause Project identified a need for education to help combat the problem. The Bee Cause Project addresses this need by providing honey bee hives, curriculum and other support to individual schools and organizations. With each hive, Bee Advocate, and Bee Mentor, hundreds upon hundreds of children (and related constituents) are educated about the issue and most develop a sense of compassion and responsibility for the honey bee and other pollinators.
- Current research and literature also address the loss of connection between children and nature. The honey bee is an excellent stepping-off point for learning about how interconnected we are through life cycles, food chains, and our impact and dependence on the environment.

6. Several Outreach Opportunities:

- Share honey bee and Observation Hive curriculum with other schools to get them interested.
- Facilitate relationships with community beekeepers and other The Bee Cause volunteers for classroom visits and opportunities for project selection.
- Provide greater exposure to extended environmental projects by offering add-on learning in local honey bee sanctuaries/nature centers.
- Invite parents in to learn about the honey bees and to see what the children have learned.
- Lobby your neighbors to go pesticide free!
- Work closely with District and community partners to leverage already successful programs (for example, 4H and FFA).

"Bees live as people should live: naturally, symbiotically, and in a manner that only contributes positively to the world around them...I can't imagine doing anything else."

-Ted Dennard, The Bee Cause co-founder
& Savannah Bee Company owner

Bee Advocate

The Bee Advocate is the program leader, the first in line for caring for the bees. Bee Advocate is a critical role serving as beekeeper, school leader, and liaison with neighbors, the Bee Mentor and Bee Cause. It is recommended that a teacher be the Bee Advocate. A pair of teachers can be successful as a team, supporting each other in this learning process too. The advocates may be novices. Each will share their knowledge with their peer groups as they learn.



ROLES AND RESPONSIBILITIES

1) Identify a Bee Mentor

- You will need an experienced beekeeper to serve as your Bee Mentor.
- Mentors should be a member of the local beekeepers' association.
- A Mentor can help you select the best hive type for your school, find a location for the hive, source the honey bees and finally install them into the hive.
- Your Mentor will be your main contact for support in caring for the honey bees so they must be willing to make a long-term commitment.
- Your Mentor should help you with inspecting the hive on a regular basis but will expect you to take responsibility for your hive.
- The Bee Cause will assist the school in selecting/finding a Bee Mentor if needed.

2) Select Hive Type

Your school's location, type of school, type of programming and level of desired beekeeping involvement all play a role in deciding which type of hive is right for you. See Which Hive is Best for You for more information. We have several different hives from which to select:

- Indoor Observation Hive
**May also be installed outdoors with a structure covering the hive.*
- Traditional Top Bar or Langstroth Hive

3) Select Hive Location

Best Location for Indoor Observation Hive

- Consult with your Bee Mentor and School Officials.
- Hive entrance on the exterior wall should be facing south to southeast.
- A second story placement is ideal.
- Choose a classroom or space that is accessible to all for observation of the honey bees.
- Location needs to be a climate controlled area. Temperatures in the room should not reach extremes.
- Observation Hive case should not be in direct sunlight, as a greenhouse effect could occur. Ambient light is fine. Window blinds or shades are effective.
- If on first floor, the bee entrance should be in an inconspicuous place to avoid temptation for young, curious students to tamper with the bees and should not be on any pathway commonly traveled by students or adults.
- A location that is protected by a small fence or natural border is ideal, as long as direct sunlight can reach the entrance.
- Consider grass or foliage below the outside of the entrance to help camouflage the dead bees from curious children.

Best Location for Outdoor Observation Hive

- Consult with Bee Mentor and School Officials.
- A small shelter may be needed to protect the hive from wind and rain.
- Hive needs to be mounted at least a few feet above the ground.
- Hive should be in a somewhat remote area that

can be easily accessed by students.

- Hive should not be in a high traffic area for people or cars.

Best Location for Top Bar/Langstroth Hive

- Consult with Bee Mentor and School Officials.
- Hive should be in a somewhat remote area that can be easily accessed by students.
- Hive should not be in a high traffic area for people or cars.
- See Traditional Hive Guide for more information.

4) Install the Hive Base

Upon receiving the shipment with your hive and hive base, please do a thorough inspection to ensure that there are no broken or missing parts. This is very important before you install the base or the bees.

For Indoor Observation Hive

- Hive base installation should be completed by the school's maintenance staff or certified, independent contractor.
- See Installation of Hive Base Guide and supporting video for best results.

For Outdoor Observation Hive

- *Note: This option is a special order only. Please contact info@thebeecause.org to discuss details.*
- Hive base installation should be completed by the school's maintenance staff or certified, independent contractor.
- An outdoor structure will serve as protection for the hive and hive base.

For Traditional Top Bar or Langstroth Hive

- The Top Bar Hive comes with a hive stand to hold the hive several feet off the ground.
- The Langstroth Hive does not come with a hive stand, therefore, it is recommended that you stack several cinder blocks underneath the hive in order to keep it off the wet ground.
-

5) Install the Honey bee Colony

For All Hives

- Schedule and oversee the installation of the honey bee colony with the Bee Mentor.
- See supporting videos on Bee Installation at www.thebeecause.org for best results.

6) Teach Hive Safety

- Create Hive Safety Rules and post Safety Rules.
- Follow the recommendations in these documents for greatest success in programming and safety.
- For reinforcement, have students make signs or posters with safety rules and tips.

7) Perform Daily and Weekly Hive Checks

- Review the Hive Checklist document.
- Establish a schedule/routine for hive checks and for communication with your Bee Mentor.
- Log observations and know when to call your Bee Mentor. Photographs of the hive can also help your Mentor determine what action to take and if a site visit is needed.

8) Oversee the Pay it Forward program

- All recipients of a Bee Cause hive grant are asked to host a fundraiser to pay it forward. For details and suggestions, see the Pay It Forward section.

9) Notify the Neighbors/Outside Contractors

- Notify surrounding neighbors that there is/will be a beehive at the school, and ask them to make their landscapers and exterminators aware so that the use of chemicals that are harmful to the bees may be kept at minimum if not completely stopped! This is the best insurance that your hive will survive and thrive!
- Make sure that any outside contractors are aware

of the hive location so that any painting, pressure washing, etc does not disturb the honey bees.

- Should significant renovations or construction be planned for your building, contact your Bee Mentor to discuss potential need to relocate hive during the process.

10) Incorporate Bee Friendly Initiatives

- Lobby and/or educate neighbors within a 3-mile radius to go pesticide free. This will help insure longevity of your colony.
- Have a "Name the Queen" contest.
- Start Bee Club or Adopt a Honey Bee Initiative.
- Adopt another Bee Cause school as a pen pal to share observations
- Celebrate Pollinator Month by planting bee friendly plants.
- Leverage "Pay it Forward" program as fundraiser.
- Track activity in beehive and compare by seasons.
- Encourage students to do a research project on honey bees.
- Create a Pollinator Habitat
- Restore a Pollinator Habitat
- Build a Bee Sanctuary
- Post Fun Bee Facts around campus
- Donate books to the library on Native and Wild Bees

11) Complete Annual Progress Report

A submitted Progress Report will be required within one year of your grant's award date.

12) Share Your Success

If permitted, share photographs and stories about your hive in your school publications and social media. Send photographs, news of special events and successes, and new ideas to The Bee Cause to promote your own program and to encourage others.

Bee Mentor

The Bee Mentor is an experienced, local beekeeper who is engaged by the school to help care for the bees. This is a very important piece to the overall hive health and to the success of having a Honey Bee Hive as an educational tool. The Bee Cause will assist the school in selecting/finding a Bee Mentor if needed. Bee Culture magazine is a good place to start. They manage a nationwide beekeeper list online that may be helpful in finding the right Bee Mentor for your school. Please visit the website: www.beeulture.com/find-local-beekeeper



ROLES AND RESPONSIBILITIES

1) Who is the Bee Mentor?

- Supports the Bee Advocate with getting their program started.
- Has an interest in bee education.
- Currently practices beekeeping.
- Is involved with a local beekeeping group.
- Encourages and educates the Bee Advocate in his/her bee journey.

2) Locate the Best Hive Site

Best Location for Indoor Observation Hive

- Consult with Bee Advocate and School Officials. Take into consideration all points listed in Bee Advocate section, safety, and the health of the bee colony when selecting a space.

Best Location for Outdoor Observation Hive

- Consult with Bee Advocate and School Officials. Take into consideration all points listed in Bee Advocate section, safety, and the health of the bee colony when selecting a space.

Top Bar Hive or Lanstroth Hive

- Consult with Bee Advocate and School Officials. Take into consideration all points listed in Bee Advocate section, safety, and the health of the bee colony when selecting a space.

3) Practice Hive Safety

- Thoroughly examine the hive and troubleshoot any concerns before the hive is installed.
- Establish and follow a routine for checking the hive is functioning properly, the seals are not compromised, the bolts are tightened, etc.
- Ensure your indoor and outdoor signage are posted in a visible locations.
- Review the Installation of Honey Bees video before installing the bee colony.

4) Source and Install the Bees

- Source the honey bees for the hive.
 - Observation Hive: The honey bee colony should be carefully selected to include a small nucleus of honey bees (with a gentle disposition) and a hygienic, marked queen.
 - Top Bar or Traditional Hive: The honey bee package should be carefully selected for gentle disposition and include a hygienic, marked queen. See Top Bar Hive Guide for more information.
- Ensure you have the correct number of frames and foundation for your hive.
- Ensure hive and all equipment is in good order before installing the bees.
- A package of honey bees can be used instead of a starter colony when implementing the Top Bar or Langstroth Hive grants.
- Install the honey bees into the selected hive. See Installation of Honey Bees video for more information.

5) Inspect the Hive Periodically

- Perform seasonal hive checks for pest management, food stores, activity levels, queen health, population health, etc. (similar to traditional beekeeping, but less maintenance with Observation Hives).
- Work together with the school's Bee Advocate to create a schedule to ensure the honey bees are well cared for throughout the year.
- Be available as needed for questions and concerns of the Bee Advocate.

6) Remove the Hive as Needed

**For Observation Hives only*

- Schedule maintenance during off hours; after school or on weekends.
- Check hive for defects before removal.
- Make sure metal plates are in place to block hive entrance on both ends. Remember to remove after reinstalling the hive.
- Make sure there are 2 people to manage the weight of the hive.

7) Budget for the Bees

- While grant funds are provided to assist with incidental costs and an initial honey bee colony purchase, it is suggested that the Bee Mentor attempt to find a honey bee colony/package to be donated to the school (perhaps the local bee club would sponsor a colony, someone would donate a swarm, or someone would split his/her hive to share).
- Regardless of the source of the bees, a hygienic queen should be chosen for the hive.
- Coordinate with the Bee Advocate to create a budget for future costs of hive management. The Bee Cause provides a honey fundraiser (Pay It Forward) that can provide assistance in this area if necessary.

Pay It Forward - The School Fundraiser

Each school has the option to fundraise in the way that best suits their school community. Outlined here is the traditional Honey Sale along with some other suggestions of how you might choose to Pay It Forward.



Fundraisers are a perfect opportunity to engage and educate your community about honey bees. As you raise awareness, you will find increasing support for your program. The Savannah Bee Company offers an opportunity for a fairly easy and profitable fundraiser by donating jars of specialty Bee Cause honey for schools to sell.

With this option, your school will use the proceeds to pay it forward for another school and also get to keep a portion of the proceeds for your own bee fund. For each \$15 jar of honey sold, The Bee Cause Project receives \$10 and the home school or organization keeps \$5. The school profit can be used to create a honey bee savings fund! You may decide to further develop the education program through guest speakers, educational posters to use in the classroom or around school, or honey books for the library. Or you may want to add a pollinator garden or water source for your honey bees, growing a lasting connection with the honey bees! Funds should also be saved to continue supplying the necessary care, maintenance, and needs of the hive such as replacing a queen or a honey bee colony. You might also petition your parent organization or board to be included in the annual budget each year.

The link below will take you to the order form. Please be conservative on your first order. Honey will be delivered to your school on consignment.

There is a link to the honey order form at www.thebeecause.org/index.php/resources

The School Process:

What format will your sale take and what school approvals might you need?

Plan your campaign

- Determine date(s) for sale and order honey.
- How will you market your honey? Will there be a theme? Involve the students in making posters or fliers.
- Will order forms be needed or will your sale be like a bake sale?
- Who will actually sell or distribute the honey?
- Identify person who will be responsible for collecting and turning in the funds to school and to Bee Cause. (Bee Advocate)

Following are a few additional ways you might involve students and adults while paying it forward:

- Consider having student tour guides give visitors tours of your hive, showing off their knowledge of the honey bee. Maybe even sell tickets for the tour!
- Have a honey bee themed reading or poetry slam and sell admission tickets. Or host a nature art show with works for sale.
- Create a recipe and garden book with honey recipes and bee friendly garden ideas. Sell copies of your book.
- Farmers Market: There are many lip balm, soap and candle recipes using honey and beeswax. You can sell flowers grown in the school garden, artwork, etc.
- School Fair: Have a honey tasting booth with different local honeys and jars of honey for sale.



The Bee Cause Project Pay It Forward Fundraiser

*"Bees live as people should live: naturally, symbiotically,
and in a manner that only contributes positively to the
world around them...I can't imagine doing anything else."*

-Ted Dennard, The Bee Cause founder
& Savannah Bee Company owner

Every year, we receive more applications than we have the funds to support. The Bee Cause would love if your school would help "pay-it-forward" to help other schools that did not receive a grant to join our program. In order to do this, we will provide you beautifully packaged 100% pure wildflower honey bottled by Savannah Bee Company that retails at \$15 a bottle. For each bottle sold, \$5 will go towards your school's funds and \$10 will go towards helping another school pay for the installation of an observation beehive in their own school! Buying The Bee Cause honey is about so much more than just handing over money for a jar of honey. It's about engaging the students in an environmental and wellness project that has real meaning for them. Offering folks an opportunity to be creative and raise more money for the honey bees is an easy "sell" when your school has already begun reaping the benefits of the The Bee Cause grant. Students love the The Bee Cause and want to share it with others. They enjoy engaging in the activity because they are passionate about the subject.



Schools interested in hosting a fundraiser can place an order using the online form and will be provided honey on consignment. Please be conservative when estimating your first order. The Savannah Bee Company will ship the requested quantity of 12 oz honey bottles to the school in time for their fundraiser. The Bee Cause is happy to provide graphics and sample materials upon request. We encourage you to take photos of your event and share them with us!

Complete the online form to place your order:

<https://docs.google.com/forms/d/e/1FAIpQLSf0IW6r7AdHeg4TTBB9a9piNrY46ViCLVC H3ppd1heEn968Hg/viewform>

Thank you for supporting The Bee Cause Project!