

Beekeeping with Youth

A brief introduction

Why keep bees?

Honey bees present an incredible opportunity learning opportunity for students. Whether they are exploring insect lifecycles and behavior, learning about pollination, or studying the interconnected relationships between different parts of an ecosystem – or food system – bees allow students to interact with their learning in a way that many have never experienced. In a world that so often introduces bees as “dangerous,” allowing kids to discover – and appreciate – bees up close can help many students overcome long-held fears. A beehive near your garden is sure to pique the curiosity of many visitors, and offer opportunities to involve new people in your learning community. If your garden is in an area without a large number of natural pollinators, keeping bees can boost your pollination rates and benefit a large number of fruiting crops. And last but not least - students are fascinated to see and taste fresh honey from the hive!

Before you begin

Before purchasing equipment and setting up your hive, ask yourself a few critical questions to make sure that bees are a good fit for your site. Consider:

- Do I need to gain permission to maintain a beehive in this location? Who should I ask, and in what order? Consider: school boards and administrators, facilities staff, other educators, parents, etc.
- Does my city or township allow beehives? Do I need a permit?
- Will vandalism be an issue? Could the beehive be secured in a closed-off area if it is?
- Where would the beehive be located?
- What plants or flowering trees are within half a mile of the hive to provide food for the bees?
- Who will be responsible for maintenance of the hive?

If bees are a good fit for your site, take some time to put together a “Bee Team” within your organization. This team will be responsible for deciding who will care for the hive, when to purchase equipment, and what to do should problems arise. Consider including facilities staff, parents, administrators, teachers, and students on your team.

If bees are not a good fit for your site at this time, consider taking a field trip to a local apiary or farm that hosts bee hives, or work with your students to create habitats in the garden that will attract natural pollinators.

Addressing safety concerns

No matter how much support you have for beekeeping at your school, you will still have a number of safety concerns to address before you begin taking students over to the hive. Consider having a meeting where you can answer questions and address concerns.

- **Stings:** Stings are a reality of working with bees. You will be able to greatly reduce the chance of stings by using proper protective equipment, and facilitating an environment around the hive that is quiet and calm. Many students enjoy seeing how the bees seem to “reflect” their positive behavior by being calm as well.
- **Allergies:** Students with a known severe bee allergy should not be allowed to work directly with or near the hive. Make sure you will have access to all allergy information from students. Also address allergy concerns with the location of your hive – place it in an area that is at a distance from common use space

such as sidewalks or playgrounds. Honey bees are not aggressive like some wasps or ground-nesting bees, tend to be concentrated around the hive, and normally only sting if provoked.

- **Maintenance and troubleshooting:** Consider partnering with a local beekeeper to assist with hive set-up and management, especially your first year. You may wish to invite this person to help address any concerns in your community as well.

Building background knowledge

Think you're interested in beekeeping, but don't know a worker bee from a drone? Explore your interest by reading a beginner's beekeeping book, taking a class – many local beekeepers associations offer classes for a reasonable fee – or assisting a local beekeeper with their weekly hive inspections. Learning beekeeping is a hands-on experience for anyone, so the more you can tag along with other beekeepers at first, the faster you will learn!

Hive management

Bees are certainly not a set-it-and-forget-it affair. To effectively manage a hive, you will need a lead beekeeper to conduct weekly hive inspections, test for mites and other pests, maintain equipment, collect honey, and winterize your hive. No beekeeper knows it all, and it is totally acceptable to have a novice at the helm. However, make sure you always have a place to turn to when you need advice. Many beekeepers associations have active online forums, and many beekeepers are open to helping newcomers get started. If your site is suited to bees, but you do not have a future beekeeper on your staff, try creating a partnership with a local beekeeper who is interested in additional space to put hives. If they are willing to open the hive up for student learning opportunities in exchange for a home for their bees, you may have a win-win relationship!

Involving students

Students can be involved in an on-site beehive on multiple levels. Even observing the beehive from a distance can open up conversations about pollination and bee behavior that can connect with lessons in the classroom. Whole classes can also watch demonstrations at the hive, or talk with the lead beekeeper about his/her job. In smaller numbers, students can also become involved in hands-on hive activities with the lead beekeeper. This type of involvement is best suited for middle and high school students who have a keen interest in learning more about bees. Students – usually in a group of five or less – wear protective equipment and learn to handle frames and boxes, or sometimes just gain confidence standing next to the hive. This type of learning is full to bursting with teachable moments, and is an unforgettable experience for students. Finally, students can be involved in creating value-added products from your hive. Honey can be bottled and sold as a fundraiser for your bee program, and wax from your hive can become products such as lip balm or candles. Value-added products are a great way to involve additional students in bee-related activities, even if they don't want to be right next to the hive.

Resources

- WSGI's "Pollinators in the School Garden" webpage:
<http://www.communitygroundworks.org/content/pollinators-school-garden>
- *Natural Beekeeping: Organic Approaches to Modern Apiculture* by Ross Conrad
- *Honeybee Democracy* by Thomas D. Seeley
- University of Minnesota Bee Lab: <http://www.beelab.umn.edu/>
- List of Wisconsin Bee Clubs: <http://www.bees-on-the-net.com/wisconsin-bee-clubs/>
- List of honey bee forage plants throughout the US:
<http://honeybeenet.gsfc.nasa.gov/Honeybees/Forage.htm>