

We hope you are enjoying the SC 4-H Honey Bee Project!

South Carolina 4-H Honey Bee Project



SC 4-H Honey Bee Project

By now, you should have received your record books and your goody bag of items from The Bee Cause. The books in your bag will be used during the 'Book of the Month Challenge,' on Padlet!



Record Book Check

- By now, you should have completed your Goals and Safety Sections!
- Your bees should have been installed by May 1st!

Setting SMART Goals

- **Specific** – Be clear about exactly what the goal is and what will be done to achieve it. Try to give about what, when, where, why, and how.
- **Measurable** – Make sure you have a way to assess whether you have achieved your goal.
- **Attainable** – State how you believe reaching the goal is within your power.
- **Relevant** – State how the goal will help you to meet your overall goals (as you participate in the Honey Bee Project).
- **Time-Based** – You need to set a time by which you will complete your goal!

Vol. 01. 2 Newsletter

Feed the Bees



Tulip Tree/Yellow Poplar
Yellow Poplar is one of the most important trees for pollinators, especially honey bees! It is also the host plant for the eastern tiger swallowtail, which is our state butterfly!

Blazing Star
Blazing Star or Iatris is an amazing native pollinator plant and is a pollinator magnet that is drought tolerant and easy to grow!

Do you have food to feed your bees?

Learn the native species around your hive to understand where your bees are feeding!

Lupine

Lupine: Lupine comes in blue, purple, white, and yellow! In the eastern United States, perennial lupine is the most common! lupine attracts bumblebees, mason bees, honey bees, and is a host plant for many butterfly species!

Coreopsis spp.

Coreopsis are drought tolerant and easy to establish, making them important additions to wildflower meadows!



Tech To-Go

The free phone app **Seek** by iNaturalist enables users to identify plants and more using photo recognition technology of photos they take!

Know Your Audience: How Flowers Attract Bees

Dressing to Please

Flowers attracting bees often use their favorite colors

Check out the ultraviolet spectrum below!

Nectar Guides

Petal patterns show the pollinating visitor a "beeline" path to the sweet reward. These silent maps are called nectar guides.

Step Right Up

Bee-seeking flowers have simple designs. Flat petals act as landing platforms while small tubes make provide an easy-access route

The Way I See It: Bee Vision

Light hits our eyes as waves, described in nanometers (nm). The human eye can perceive from approximately 400nm (violets) to 700 nm (reds).

"Invisible" Colors

Wavelengths from 10-400 nm are called ultraviolet light (UV). When we wear sunscreen, we are protecting our skin from the sun's UV rays.

Wavelengths from the 700s to 1000nm are known as infrared light. Infrared has uses in night-vision technology and the healthcare field.

Some animals including bees can see ultraviolet light! In response, flowers are often visible in the ultraviolet spectrum, guiding them to the tasty nectar.

Using filters, we can mimic what they see! Browse this Ultraviolet Flower Catalogue to explore the hidden world of UV!

"Bee" in Action: Exploring UV

Sunscreen Painting

By Space Place of NASA

Materials:

- red or green construction paper
- 30+ SPF (best without metal oxide)
- 2-4 small objects to weigh down the paper edges
- paint brush (optional)

Instructions:

- Use sunscreen to paint a silhouette onto the paper
- **handprints work well too!
- Put the paper outside in direct sunlight with weights
- Leave the paper for 3-4 hours
- Retrieve your art, observing how the sunscreen protected the underlying paper while fading the background

Homemade UV Filter

By McAuliffe-Shepard Discovery Center

Materials:

- smartphone with flashlight capability
- write-on/matte transparent adhesive tape
- blue and purple markers

Instructions:

- Test the tape for compatibility with marker ink (should not be droplets)
- Place tape over the phone's camera and light
- Color the tape with the blue marker to cover the camera and light
- Let the marker dry and add another piece of tape over the original
- Color the tape with the purple marker to cover the camera/light
- Repeat adding tape and coloring with blue and purple until a dark purple filter is created when in the camera app
- Turn on the phone flashlight
- Explore the view with your camera app that mimics how a bee sees

NOTE: this is a demonstration and does not replicate accurate wavelengths of UV light and is not an exact replica of bee vision

The Bee Cause Project: Book Club Challenge

Cloverbud Challenge #2

Check out the pages entitled The Honey Bee's Biggest Enemies in your book. Read about the animals around the world that want to eat honey...and bees too!

Which predator surprised you when you read about how it gets the honey out of the hive or eats bees? Have you had predators in your hive? Share your answers and include a drawing if you like on the Cloverbud Group Padlet.

Use the Camera app on an iPhone or iPad to scan this QR Code for a quick link to your Padlet.

Also, feel free to share positive and kind comments or other participants' answers and pictures.

Junior Challenge #2

Hope you've enjoyed spotting the queen in this book and in your own hive!

Read through the sections about Foraging and Turning Nectar into Honey. What types of flowers have you observed the bees in your area foraging? Have you seen how the different nectar flow has affected the color of honey in the hive? Tell us about it or show us some pictures!

Have any of the Queen Spotting Challenges stumped you? If so, tell us what pages so we can see if we are stumped too! Share your answers and pictures on the Junior's group Padlet.

Use the Camera app on an iPhone or iPad to scan this QR Code for a quick link to your Padlet.

Also, feel free to share positive and kind comments or other participants' answers and pictures.

The Bee Cause Project: Book Club Challenge

Senior Challenge #2

We would love to hear more from you, seniors! Good luck with your exams and finishing up the school year!

Chapter 2 is based on equipment and the hive bodies. What are some of your favorite tools or tricks that you have learned as a beekeeper? What kind of hive are you working with? We would love to see pictures of your hives!!

Use the Camera app on an iPhone or iPad to scan this QR Code for a quick link to your Padlet.

Also, feel free to share positive and kind comments or other participants' answers and pictures.

Problem accessing your Padlet Group?
Email the Director of Educational Programs at The Bee Cause
educator@thebeecause.org

- [Junior Padlet](#)
- [Cloverbud Padlet](#)
- [Senior Padlet](#)

4-H Pollinator Habitat Ambassadors

Ambassador Expectations:

- OPEN TO SENIOR 4-H MEMBERS, AGES 14-18
- PROGRAM RUNS APRIL - NOVEMBER
- PARTICIPATE IN VIRTUAL TRAININGS
- ATTEND IN-PERSON WORKSHOP IN CLEMSON
- INSTALL POLLINATOR GARDENS
- WORK WITH COMMUNITY PARTNERS
- TEACH OTHERS

Special opportunity for SENIORS! We are looking for 4-H Pollinator Habitat Ambassadors! If interested, send an email to Mallory at mallord@clemson.edu

Remember to pay your 4-H membership fee by visiting <https://s2.4honline.com>

[View this email in your browser](#)

