

ALL ABOUT HONEYBEES

More than just honey



Honeybee pollinating cantaloupe

Photographer Meredith O'Reilly

Honeybees and WHAT? When I was a child, Sesame Street had a great segment on their program which was a teaching song that went something like this...

“One of these things is not like the other things, one of these things doesn’t belong, can you guess which of these things is different before I finish my song.”

During First Graders Day at the Grayson County Fair, I recreated this game by setting up a table of seemingly random items and asked the first graders to match up the honeybee with the things it belonged with. The items included a stuffed cow sitting on a bale of hay, a tray full of vegetables, a large jar of honey, and a mummy. Believe it or not, ALL of those things go together!

Cows LOVE bees! It may seem strange, but cows do love bees. It isn’t because they love to eat the yummy honey bees make. Cows love bees because they do a great job pollinating plants that cows like to eat. Pollinating, and helping plants grow, are the most important jobs that a bee can do.

On a warm, sunny day a bee will go from flower to flower, gathering nectar to make into wax and honey. Even more importantly, it will pick up pollen on its little hairy body and spread it to each flower it visits. This is exactly what those flowers need to make seeds and grow new plants.

Some of those plants, such as alfalfa and clover, grow in pastures and make hay for cows to eat. That is why cows loves bees, and if you like ice cream and hamburgers - you should love bees too!

Eat your fruits and veggies. Guess what? If it wasn’t for the honeybee, there wouldn’t be very many fruits and vegetables for us to eat. Clap if you like watermelon... cheer if you like strawberries, how about pumpkins, or tomatoes, or almonds!

All those foods come from plants that depend on honeybees to pollinate them. In California, the almond growers depend on honeybees to pollinate the almond trees. They will pay beekeepers in Texas and other states to load up huge semi-trucks full of beehives to bring to the California almond orchards.

RESOURCES

BOOKS :

- **The Life and Times of the Honeybee** by Charles Micucci
- **The Magic School Bus: Inside a Beehive** by Joanna Cole
- **The Beekeepers Handbook** by D. Sammataro and A. Avitabile
- **Beekeeping for Dummies** by Howland Blackiston

WEBSITES:

- www.42explore.com/bees.htm
Great site for educators and kids
- www.pbs.org/wgbh/nova/bees/
NOVA: Tales from the Hive

PLACES TO GO:

- **The Collin County Hobby Beekeepers Association**
For more info visit www.cchba.org
- **Grayson County Office of Texas AgriLife Extension**
Contact Chuck Jones at (903)813-4202
- **Grayson County Junior Master Gardeners Program**
Contact Kevin Simmons at (903)813-4218
- **Grayson County 4-H program**
Contact Chrissy Daniel at (903)813-4201

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Photo courtesy of
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Fun Honeybee Facts:

The honeybee is the only insect that dies after stinging you, thus it can only sting one time.

The stinger of the Queen bee is not barbed like the worker bees. That is so she can repeatedly sting and kill any other queens that hatch the same time as she does.

Boy bees are called drones and there are not very many of them in the hive. The drones are bigger than the workers, have bigger eyes, and have no stinger at all.

Honeybees have five eyes, 3 small ones on top of the head and two big ones in front. They also have hair on their eyes.

A honeybee will flap its wings about 11,400 times per minute creating the "buzz" that you hear.

Worker bees must visit over 4,000 flowers to make one tablespoon of honey.

In the course of its lifetime, one worker bee will produce 1/12th of a teaspoon of honey.



Bees Are Important

The bees are so important that the almond growers will hire guards to watch them 24 hours a day so that they will not be stolen. Many watermelon growers will also rent honeybees to ensure that the watermelons will get pollinated and make fruit.

The U.S. Department of Agriculture estimates that about one-third of the human diet is derived from insect-pollinated plants and that the honey bee is responsible for 80 percent of this pollination. That means for every third to fourth bite of food you take, you need to write a thank you note to your local honeybee!

Honey... sweet, sticky and delicious!

Honeybees use nectar from flowers to make honey. Nectar is mostly made up of water, and one of the hardest jobs the bees have is to evaporate the extra water and turn the nectar into thick honey. They do this by fanning their wings. When the bees decide the honey is done, they will cap it with wax in the honeycomb and that will seal the honey and keep it clean and healthy.

Honeybees are the only insects to produce food for humans. They don't know that though! They think they are making honey to eat for themselves. Bees need to eat honey to fuel their flights and to feed the hive over the winter. However, a good beekeeper is able to get the bees to make more honey than they need and that is why we humans get to share some of it too.

I want my MUMMY!

Not only does honey taste great, but do you know that it is sometimes used as medicine? Have you ever had a sore throat or cough, and your mother made you a cup of hot tea with honey in it to soothe your throat? Honey is also an old time remedy for wounds, and in the past people would slather it on a hurt area just like ointment because honey has antibacterial qualities. On top of that, people would sometimes add spider webs as a bandage to stop the bleeding.

I do not think we are ready to switch out our ointment and band aids for honey and spider webs, but it is interesting to learn what people used before we had such things. Honey has been around for a LONG time, and humans have been using it for a long time too.

In Valencia, Spain a 15,000 year old cave painting was found that showed two women taking honey from a wild hive. In Egypt, sealed jars of honey were found in King Tut's tomb and the honey was still good - even after 2,000 years! Besides having jars of honey for the pharaohs to eat in their next life, Egyptian priests would also soak linen strips in honey to embalm the dead and preserve the mummies.

Who knew?

Honeybees are important! In addition to the food we get from bee pollination, and the honey that they make, we also get beeswax and a few other things from bees. Can you name some of the things we use that are made out of honey, or beeswax?



Honey

A sweet treat that can be eaten straight out of the bottle or used in cooking.

Beeswax

Makes beautiful, sweet-smelling candles. Used in lotions, lip balms, hair products. Found in chewing gum and candy. Polish for furniture and woodworking. Lubricant for ship building, fly fishing, archery, sewing and quilting.

Pollen

Used in pharmaceuticals because of high trace minerals and vitamins. Also found in health food stores, and you can add it to your protein shake or smoothie!

Royal Jelly

This is queen honey bee food, but it is also used in the pharmaceutical industry.

Propolis

This is glue that bees make to seal up their hive. Used in natural supplements and herbal medicine.