Without honeybees, many farmers and gardeners would not have a harvest. Bees transfer pollen from flower to flower, or pollinate, which helps fruits and vegetables to form.

Honeybees are found in nature, but they are also kept and nurtured by beekeepers. Some beekeepers raise bees for their honey and other products. Some breed honeybees for sale. Others drive truckloads of hives across the country to rent their bees to farmers as crops such as almonds and apples come into flower.

A colony is a community of honeybees. In summer, a colony contains one queen, a few thousand drones (males), and tens of thousands of worker bees (females). In winter, populations are much smaller and usually lack drones. The queen’s sole purpose is to lay eggs. The drones’ only job is to mate with the queen. Worker bees work: They provide the food; build, repair, and clean the hive; guard against intruders; and raise the young.
Beekeepers house bees in hives, consisting of one or more stackable boxes, or hive bodies. Inside each hive body hang nine or ten frames with a sheet of beeswax in the center. Worker bees build honeycomb on the beeswax and store food in many of its cells. The queen lays her eggs in separate honeycomb cells. Bees enter the hive through an opening in the bottom.

When a hive becomes overcrowded, bees swarm. The old queen, a few drones, and thousands of worker bees—about half of the colony—leave the hive and settle on a tree branch or other object until bee scouts can find a suitable nesting site, such as a tree cavity.

In swarms and alone, honeybees are normally gentle. They usually do not attack people unless they are threatened. Strong odors and dark or fuzzy clothing that resembles an animal can be threatening. If a beekeeper thinks that his hive bees feel threatened, he will use a smoker, which burns wood, burlap, straw, cotton waste, pine needles, or other fuel to create a
cloud that disperses the bees, dulls their senses, and makes them hungry for a short while. (Some bees eat so much honey when they are smoked that it’s difficult for them to sting.)

To be safe, beekeepers wear special, light-color clothing when handling a hive. A hat and veil protect the head and neck, and gloves or gauntlets protect the hands and lower arms. Many cover their ankles and close their pant legs with a string or have elastic-band cuffs so that bees don’t climb up their legs. Angry bees often attack ankles first because they are closest to the hive’s entrance.

A healthy beehive can produce 45 to 100 pounds of honey per year—often more than the bees need to survive. Keepers harvest the excess by removing the frames, scraping off the beeswax caps on the honeycomb cells, and then spinning the frames in an extractor (this removes the honey from the comb). The honey is strained to remove any bits of wax or debris and then bottled. The color and flavor of the honey is influenced by the flowers that the honeybees visit. There are more than 300 kinds of honey in the United States, including these two: pale, mild-tasting, alfalfa honey and dark, malty, buckwheat honey.
Bee Wary

- Bears love honey, and they also love to eat honeybees. Other honeybee predators include skunks, raccoons, opossums, birds, and spiders.

- Mites can cripple or kill honeybees.
- Pesticides, pollution, and shrinking natural habitat threaten bees.

Why do bees have sticky hair?

Because they have honeycombs.

Bee-Lieve It or Not...

- In the 1920s, to say “it’s the bee’s knees” meant that something was really terrific.
- In 1998, Mark Biancaniello from California, below, set a world record as the person covered with the most bees: 87½ pounds of them (estimated to be 350,000 bees). He was aided by bee experts, who knew how to attract the bees and safely handle them.
- On June 14, 2004, a tractor-trailer overturned on a highway in Bear Trap Canyon, Montana, spilling its load of hundreds of beehives and unleashing some 9 million angry honeybees.