Unlike people, no other creature is capable of the critical, unselfish work that honey bees do. Honey bees are pollinators, industrial workers, and guardians of our environment. They provide nutrition for millions of people around the world and more people each year who want bee products.

Honey bees are a vital component of the agricultural process. They help crops to thrive by pollinating flowers and moving pollen, which fertilizes the plants. The honey bees also produce honey and bee products that are highly prized.

Pollinations are the result of pollinator bees that visit flowers to gather nectar and pollen. The nectar is used to make honey, while the pollen is used to make bee products. The bees also help to pollinate crops and plants, which is essential for the production of food.

Honey bees are also important for the health of the environment. They help to control pests, such as aphids, and they help to maintain the balance of ecosystems. Without honey bees, the world would be a much different place.
Unlike people in other countries of the world, consumers in the United States enjoy delicious, nutritious and affordable agricultural products year-round. America’s farmers feed more and more people each year while using less land to do so.

Honey bees are a critical component of this agricultural picture. As honey bees visit blossoms to gather the nectar and pollen necessary for their survival, they help agricultural crops, home gardens and wildlife habitats flourish.

Pollination is the transfer of pollen from the anthers of one flower to the stigma of that or another flower. Simply put, pollination is the first indispensable step in a process that results in the production of fruits, vegetables, nuts and seeds. Without the honey bees’ pollination work, the quantity and quality of many crops would be reduced and some would not yield at all. According to a 2000 Cornell University study, the increased yield and quality of agricultural crops as a result of honey bee pollination is valued at more than $14 billion per year. In fact, approximately one-third of the total human diet can trace its origins to insects pollinated by honey bees.
Crunchy almonds. Crisp apples. Colorful melons.

A healthy beekeeping industry is critical to both agriculture and the environment — without honey bees, our food supply would be significantly reduced.

— Gene Brandi, beekeeper

The Workers
Pollination depends on the work of honey bees and the migratory beekeepers who manage them.

Many farmers depend on the services of a migratory beekeeper. Pollen and nectar is collected by honey bees throughout the growing season, they pollinate the flowers of crops and they can be concentrated wherever and whenever they are needed.

Much honey bee pollination occurs naturally. A backyard beekeeper’s honey bees, for example, will pollinate a neighbor’s apple blossoms before or after their own during the springtime. Likewise, honey bees will pollinate the non-sweetened fruits and vegetables that are grown in the fields.

To meet the demands of agriculture, however, special efforts are required. About one-half of the full-time beekeepers in the United States move their colonies from state to state and from field to field during the year to provide pollination services to farmers as well as to reach abundant sources of nectar for honey production.

Thus, approximately 2 million colonies of bees are “on the road” each year to pollinate crops. Many of these bees are moved to California, where an estimated 700,000 colonies of honey bees are attracted to pollinate the almond crop. And, the demand for these amazing workers and their keepers continues to grow.

A healthy beekeeping industry is truly important to a healthy agricultural economy, to wildlife habitat, to a healthy environment — and to the plants in your own backyard!
Unlike people in other countries of the world, consumers in the United States enjoy delicious, nutritious and affordable agricultural products year-round. America’s farmers feed more and more people each year while using less land to do so.

Honey bees are a critical component of this agricultural picture. As honey bees visit blossoms to gather the nectar and pollen necessary for their survival, they help agricultural crops, home gardens and wildlife habitats flourish.

Pollination is the transfer of pollen from the anthers of one flower to the stigma of that or another flower. Simply put, pollination is the first indispensable step in a process that results in the production of fruits, vegetables, nuts and seeds.

Without the honey bees’ pollination work, the quantity and quality of many crops would be reduced and some would not yield at all. According to a 2000 Cornell University study, the increased yield and quality of agronomic crops as a result of honey bee pollination is valued at more than $14 billion per year. In fact, approximately one-third of the rice, beans and nuts grown in the United States depend on honey bees for pollination.

Honey bees are moved to orchards such as this cherry orchard by truck. The hives are then unloaded to the exact location specified by the grower.

Honey is one of the most versatile and nutritive products available. The National Honey Board encourages people to eat more honey and other honey foods.
A healthy beekeeping industry is critical to both agriculture and the environment — without honey bees, our food supply would be significantly reduced.

— Gene Brandi, beekeeper

Crunchy almonds. Crisp apples. Colorful melons.

Honey Production & Pollination by State

The USDA has estimated that 90 percent of fruits and crops in the world are pollinated by honey bees. While the benefits of honey bee pollination are obvious, they are usually not the first to come to mind when farmers, beekeepers, and consumers think about the importance of honey bees.

Many factors influence the success of a migratory beekeeper. Fuel, labor and equipment are required to manage and transport the bees from state to state. Migratory beekeepers may spend months away from their families and homes as they move their bees from one part of the country to another.

A healthy beekeeping industry is critical to a healthy agricultural economy, to wildlife habitat, to a healthy environment — and to the plants in your own backyard!

As they move their bees, beekeepers must closely monitor pesticide and herbicide treatments used on nearby crops — treatments that may harm or kill beneficial insects, including bees.

To meet the demands of agriculture, however, special efforts are required. About one-half of the fall state beekeepers in the U.S. move their colonies from one state to another. More than half of the nation’s full-time beekeepers in the United States are migratory beekeepers, providing pollination services to farmers across the country.

“Honey is produced in every state.”

— Nicholas Calderone, Ph.D.

Cornell University

The value of honey bees cannot be measured by their ability to produce honey alone — rather, it must include the work bees do for agricultural crops, home gardens and wildlife habitat.

— Nicholas Calderone, Ph.D.

Cornell University

Honey bee populations are on the brink of becoming endangered in the U.S. In recent years, beekeepers have had to battle mites — small parasites that attack bees. Left unchecked and untreated, mites can rapidly kill a bee colony. In the past 15 years, many losses attributed to mites have been documented. Without honey bees, many crops and gardens would be unable to reproduce.

Honey bees pollinate more than 100 crops, supplying $15 billion worth of food to U.S. consumers. A honey bee pollinates a flower or crop, and the pollen or nectar is carried back to the hive. The beekeeper then harvests the honey, and the flowers are rejuvenated.

Honey bees are used to pollinate many crops, including alfalfa, apples, cantaloupe, cherry, cranberry, cucumbers, honeydew, kiwi fruit, pears, plums, sunflowers, vegetable seeds and watermelons. Honey bees are also used to pollinate many fruits and vegetables that are grown in the wild. A honey bee visits a squash blossom, for example, and pollinates the flower. The pollen is transferred to the stigma of the flower, and the flower begins to develop into a seed. The beekeeper then harvests the squash, and the resulting squash is used for food.

The value of honey bees cannot be measured by their ability to produce honey alone — rather, it must include the work bees do for agricultural crops, home gardens and wildlife habitat.

— Nicholas Calderone, Ph.D.

Cornell University
almonds. Crisp apples. Colorful melons.

to provide pollination services

on colonies

ch year to
ese bees are
almond

those tiny, keepers

try is vitally important to a healthy

dle habitat, to a healthy environ-

your own backyard!

“A healthy beekeeping industry is critical
to both agriculture and the environment—
without honey bees, our food supply
would be significantly reduced.”
— Gene Brandi, beekeeper

The Workers
Pollination depends on the work of honey bees and the migratory beekeepers who manage them.

Many factors influence the success of a migratory beekeeper. Fuel, labor and equipment are required to manage and transport bees from location to location — often great distances apart. Migratory beekeepers may spend months away from their families and homes as they move their bees.

Beekeepers maintain the health of their colonies by ensuring that they have access to adequate supplies of pollen, nectar and water. As agricultural land, wildlife and natural areas are reduced, so is the foraging area for bees.

As they move their bees, beekeepers must closely monitor pesticide and herbicide treatments used on nearby crops — treatments that may harm or kill beneficial insects, including bees.

In recent years, beekeepers have also had to battle mites — small parasites that attack bees. Left unchecked and untreated, mites can rapidly kill a colony. Because mites have killed most wild bee colonies, dependence on managed honey bees for pollination of crops and wildlife habitat has grown.

“A healthy beekeeping industry is critical to both agriculture and the environment — without honey bees, our food supply would be significantly reduced.” — Gene Brandi, beekeeper

The value of honey bees cannot be measured by their ability to produce honey alone — rather, it must include the work bees do for agricultural crops, home gardens and wildlife habitats.” — Nicholas Calderone, Ph.D. Cornell University

Honey Production & Pollination by State

Honey is produced in every state. Leading honey-producing states are California, Florida, Minnesota, Montana, North Dakota and South Dakota.

About half of the nation’s full-time beekeepers migrate with their beehives, providing pollination services to farmers across the country.

Honeydew production by state:

Major crops that depend on honey bees for pollination:
alalfa seed, almond, apple, avocado, blueberry, cantaloupe, cherry, cranberry, cucumber, honeydew, kiwi fruit, pear, plum, sunflower, vegetable seed, watermelon

“Clovers is the most common floral source of honey produced in the United States.”

— Nicholas Calderone, Ph.D., Cornell University

A honey bee visits a peach blossom. Pollination must occur for the blossom to produce a healthy fruit.

(Photograph - California Tree Fruit Agreement)

As the worker bee visits the avocado blossom, the pollen clings to her hairy body and is thereby transferred from blossom to blossom.

(Photograph - Mary Lu Arpaia, University of California)

An estimated 300,000 colonies of honey bees are rented each year to pollinate melons.

(Photograph - ARS/USDA)
Honey Production & Pollination by State

Crunchy almonds. Crisp apples. Colorful melons. Honey is produced in every state. Leading honey-producing states are California, Florida, Minnesota, Montana, North Dakota and South Dakota.

A honey bee visits a peach blossom. Pollination must occur for the blossom to produce a healthy fruit. (Photo - California Tree Fruit Agreement)

As the worker bee visits the avocado blossom, the pollen clings to her hairy body and is thereby transferred from blossom to blossom. (Photo - Mary Lu Arpaia, University of California)

A healthy beekeeping industry is critical to both agriculture and the environment — without honey bees, our food supply would be significantly reduced.

— Gene Brandi, beekeeper

The Workers
Pollination depends on the work of honey bees and the migratory beekeepers who manage them.

Many factors influence the success of a migratory beekeeper. Fuel, labor and equipment are required to manage and transport bees from location to location— often great distances apart. Migratory beekeepers may spend months away from their families and homes as they move their bees.

Beekeepers maintain the health of their colonies by ensuring that they have access to adequate supplies of pollen, nectar and water. As agricultural land, wildlife and natural areas are reduced, so is the foraging area for bees.

Without honey bee pollination, the almond crop would be extremely limited. About half of the nation’s full-time beekeepers in the United States move their colonies from state to state and half of the world’s almonds are grown in California. (Photo - ARS/USDA)

The USDA has estimated that 80 percent of insect crop pollination is accomplished by honey bees. While other insects can pollinate a wide range of crops and they can be concentrated elsewhere and whenever they are needed,

Much honey bee pollination occurs naturally. A backyard beekeeper’s honey bees, for example, will pollinate a neighbor’s squash blossoms, herbs or trees during the summer. Likewise, honey bees will pollinate the non-cultivated fruits, nuts and seeds that animals depend on for food in the wild.

To meet the demands of agriculture, however, special efforts are required. About one-half of the full-time beekeepers in the United States move their colonies from state to state and field-to-field during the year to provide pollination services to farmers as well as to stock hives whose colonies have been lost due to disease or parasitism.

Thus, approximately 2 million colonies of bees are “on the road” each year to pollinate crops. Many of these bees are moved to California, where an estimated 120,000 colonies of honey bees are essential to pollinate the annual crop. And, the demand for these small, efficient workers and their keepers continues to grow.

“A healthy beekeeping industry is critical to both agriculture and the environment — without honey bees, our food supply would be significantly reduced.” — Gene Brandi, beekeeper

The value of honey bees cannot be measured by their ability to produce honey alone — rather, it must include the work bees do for agricultural crops, home gardens and wildlife habitat.” — Nicholas Calderone, Ph.D., Cornell University
Unlike people in other countries of the world, consumers in
the United States enjoy delicious, nutritious and affordableagricultural products year-round. America’s farmers feed more
and more people each year while using less land to do so.

Honey bees are a critical component of this agricultural pic-
ture. As honey bees visit blossoms to gather the nectar and
pollen necessary for their survival, they help agricultural crops,
home gardens and wildlife habitats flourish.

Pollination is the transfer of pollen from the anthers of one
flower to the stigma of that or another flower. Simply put,
pollination is the first indispensable step in a process that
results in the production of fruits, vegetables, nuts and seeds.

Without the honey bees’ pollination work, the quantity and
quality of many crops would be reduced and some would not
yield at all. According to a 2000 Cornell University study, the
increased yield and quality of agricultural crops as a result of
honey bee pollination is valued at more than $14 billion per
year. In fact, approximately one-third of the total human diet
comes from honey-pollinated plants (fruits, legumes and vegetables).