



About the Honey Bee

Honey bees (*Apis mellifera* L.) are among the most well known, popular and economically beneficial insects. Throughout the course of history, this insect has provided mankind with products such as honey, beeswax, pollen, venom and other products commonly used as dietary supplements. They also pollinate a wide variety of agricultural crops. In fact, the most important pollinator for agricultural purposes is the honey bee.

Almost all fruit and grain crops require pollination. Pollinators play a significant role in the production of more than 150 food crops in the United States – from almonds, apples and alfalfa, to melons, plums and squash. In New Jersey, many crops benefit from bee pollination, such as apples, cranberries, blueberries, cantaloupes, cucumbers and watermelons. Honey bees pollinate about a third of the food Americans eat. Besides pollinating agricultural crops, honey bees also pollinate a wide variety of annual and perennial flowers, along with all tree species.



Jerry A. Payne, USDA ARS, www.insectimages.org

The honey bee is a social insect that lives in large colonies made up of 20,000 to 80,000 individuals. This insect is found worldwide and includes a number of races or subspecies. These races vary in their nature. Italian bees are generally gentle creatures, while German bees are more aggressive. Not native to the United States, these insects were brought over from Europe by the early settlers. Their numbers quickly grew, and native colonies ranged from coast to coast.

Honey bees have been plagued by a variety of introduced insect and bacterial parasites, so today it is extremely rare to find natural colonies. This makes managed beekeeping an essential activity, not only for agriculture but also for anyone who has a backyard vegetable garden, flowering beds or trees in their residential landscape.

Declines in honey bee populations can cause serious economic repercussions throughout New Jersey agriculture. Because of the devastating impact of parasites on bee populations, the beekeeping industry has developed various management strategies to maintain the vigor of honey bee populations.

The general public often misidentifies many stinging insects as bees. Members of the Vespidea family of wasps, not bees, account for the vast majority of bee sting cases reported by the medical community.



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Yellow jackets, *Vespula spp.*, account for the vast majority of phone calls from people complaining about bees. They are about ½ inch in length and are colored with conspicuous yellow and black stripes. They construct paper-like nests in the ground or under eaves and sheltered areas around houses, and are highly aggressive. They feed on pollen, nectar and small insects. They belong to the Vespidae family of wasps.



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Another stinging insect frequently misidentified as a honey bee is the Hornet, *Dolichovespula spp.* Vast numbers of this large insect live in large, gray, paper-like colonies, frequently in trees, shrubs or under the eaves of houses.



Whitney Cranshaw, Colorado State University, www.insectimages.org

Paper wasps, *Polistes spp.*, are familiar to many homeowners. These wasps attack soft-bodied insects and use them up to feed larvae being raised in their nests. They frequently build paper nests or combs under the eaves of buildings, under decks and in dense vegetation.