

Why Are There Fewer & Fewer Honey Bees?

Beekeepers and scientists agree that the health of honey bees has been in decline for years, and the rate of decline appears to be accelerating. A 2007 survey estimated a loss of about 1/4 to 1/3 of US honey bee colonies during the winter of 2006-7. A survey in NJ showed a similar loss in the winter of 2008-9.

In the 1980's, two parasitic mites were introduced into the United States. They spread throughout North America and have eliminated almost all wild or feral honey bee colonies. Plus, the increasing use of pesticides has greatly affected the health of bees. Pesticides are major killers of bees.

Loss of suitable habitat affects honey bees also. What many humans consider the perfect yard – low maintenance evergreens dotting perfectly mulched islands in a sea of lawn – is a desert for the bee.

Bees prefer meadows of weedy wildflowers, and nectar-bearing trees and shrubs such as black locust, linden or basswood, tulip poplar, Russian and autumn olive, sumac, and others. If you are interested in planting for honey bees, consult your state and local agriculture extension service, bee associations and the many available internet web resources for bee-friendly plant suppliers.

Because of these and other factors, the natural ability of honey bees to fight off disease organisms has been greatly diminished, allowing new diseases to take their toll.

It is therefore becoming rare that one sees honey bees in the garden or in the field unless there is a beekeeper within a couple of miles.

By most accounts, 70% of U.S. commercial crops - including a great variety of fruits, vegetables and even nuts - depend on pollination by honey bees. In fact, the only major food group that is not insect-pollinated is grains such as corn, wheat and rice. In recent years, beekeepers have been hard pressed to keep up with the task.

Properly and conscientiously dealing with swarms is but one method of helping save the honey bee.

**This Brochure was Written
For the Education & Enjoyment
Of the Public and
Honey Bee Lovers Everywhere
by**

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HONEY BEE SWARMS

What they Are What to Do

Nature's Way of
Propagating and Multiplying
One of Our Most Precious
Environmental Resources

"There was an old woman who lived in a shoe.
She had so many children she didn't know what to do..."

A queen honey bee certainly has many children.
There may be as many as 40,000 bees in a managed
bee colony (hive) and often there are more.

What to do when things get crowded?
Simple... raise a princess (future queen),
and get tens of thousands of volunteers
to move to a new home.

And so, a **honey bee swarm** is formed...



What Is a Honey Bee Colony?

A honey bee colony typically contains 40,000 or more bees: a queen, workers and drones. There is one active queen bee, the only fertile female, whose sole job is to lay eggs. No one else has that role. Worker bees, the vast majority of the population, are sterile female bees. Their jobs include: caring for the queen and new young, defending the hive, controlling the hive's temperature, building new comb (nurseries for new babies, food storage), collecting pollen and nectar, and making honey. Drones, which can number in the hundreds, are males whose only role is to mate with a queen once – after which they die. During the spring and summer months, worker bees live 4 to 6 weeks, never sleep, and literally work themselves to death. The queen bee may live 2 or 3 years.

Why Do Honey Bees Swarm?

“Swarm” is a term used when a fraction of a hive - worker bees, a queen and possibly a few drones leave and look for a new home. Overcrowding and congestion in the hive are the main reasons for honey bee colonies swarm. An old queen, a mild winter, a cool and rainy spring may also trigger swarming. A swarm may contain from a few thousand to 30,000 bees. This instinctive process is nature's mechanism for colony reproduction. It's a good thing.



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Why Do Swarms Hang Around?

Swarming bees leave their hive, fly around briefly, and then cluster on a tree limb, shrub or other object. Usually football shaped, clusters have been spotted in many unusual places – from playground equipment to lawn chairs. The queen is in the center of the cluster, protected by the other bees from both predators and the weather. Clusters usually remain stationary for an hour to a few days, depending on the weather and the time needed to find a new nest site by scouting bees. When a suitable location (such as a hollow tree) is found for the new colony, the cluster breaks up and flies to it.

Will a Swarm Attack Me or My Family?

No. However, if the swarm is physically disturbed, individual bees may sting.

Not knowing how long their trip is going to be, or, how long before they find a new food source, honey bees feed themselves prior to swarming. Gorging themselves as they do stiffens their bodies and greatly reduces their ability to sting. And... bees away from their hive with no offspring or food stores to protect are much less defensive and are unlikely to sting unless directly provoked.

Most people get scared at the sight and the loud buzzing sound made by a swarm... but the sound is simply a manifestation of well fed bees – therefore more gentle, docile honey bees.

When do Honey Bees Swarm?

The tendency to swarm is usually greatest when honey bees increase their population rapidly in late spring and very early summer. A queen bee can lay tens of thousands of fertile eggs each season – each giving birth to a new bee in the colony.

What Should a Homeowner Do?

If a swarm lands on your property, do not disturb it.

Call a beekeeper to see if they would like to collect the swarm. The State or County Extension Service and/or the local police, fire, and health departments may have a listing of beekeepers that collect swarms.

You can also search for “swarm removal” on the internet or check directly with beekeeper and/or state agricultural department web sites. As of this printing, the following web sites are available in the Mid-Atlantic States region:

DE: www.delawarebeekeepers.com/services_swarm_nc.html
NJ: www.cjba.njbeekeepers.org/swarms.htm
MD: www.msbeea.org (see Bee Links & Resources)
PA: www.pastatebeekeepers.org
VA: www.virginiabeekeepers.org (see Local Groups)
WV: www.wvbeekeepers.org (see Local Associations)
US: www.ebeehoney.com/swarmremovalmap.html

Or, you can choose to do nothing! The swarm will most likely move to its new home in a day or so.

In any case, you are advised to keep children and pets away. Although swarms are usually very gentle, a curious child or animal could accidentally injure the bees and be stung. Let caution always be your guide.

What if a Swarm Establishes Itself in an Undesirable Place?

Honey bees are beneficial pollinators and should be left alone unless their hive is in conflict with human activity. If honey bees nest in the walls of a home, they can be removed. *They should be killed only as a last resort. Except for colonies residing within buildings or other indoor structures, it is illegal in some states (e.g. NJ) to kill honey bee colonies without approval from appropriate agencies.* After removal, it is advisable to remove honey and combs or they will attract rodents and insects. And, the cavity should be filled with expandable foam insulation as the nest odor will be attractive to future swarms. The assistance of a professional beekeeper or exterminator is essential.

Honey bees will not make an entrance to a hive. They look for an existing entrance, so periodic inspection and caulking of any hole that is 3/8” or larger is all that is necessary to prevent honey bees from occupying spaces in walls.

How Does a Beekeeper Capture a Swarm?

A beekeeper can capture a swarm by placing a suitable container, such as an empty beehive, on the ground below the swarm and shaking or dislodging the bees into the container or close to its entrance. The bees will begin to move into the empty beehive which can then be removed after dark when they are least active and not foraging for food. An empty hive is exactly the kind of home the bees were looking for.

Undeserved Reputation

Honey bees get undeserved bad press. Just about everyone has used the term “bee sting”. And yet a honey bee sting is rare. Pictures of beekeepers with bare hands handling a hive are common. If a honey bee stings, it's usually because it is physically threatened or defending the hive that contains its young and its food supply. The honey bee dies as its stinger is ripped from its body. Most stings that humans experience are from yellow jackets and wasps which are very aggressive and can sting multiple times. Yellow jackets and wasps are similarly colored to honey bees but depending upon the type, can have very bold yellow, orange, black and even reddish colors. Unlike honey bees, they usually have very thin waists.

