



Save the Busy Bee



Our garden friends do so much for us, but, despite their hard work, they are meeting an ill fate. Let's find out what's going wrong and how we can right it.

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Is there anyone among us who does not love the sweet, yummy taste of honey on our toast? Perhaps, none. But how many of us ever think of the busy honeybee, who works so hard to collect our favourite honey from numerous flowers spread off in far-flung places?

Apart from providing us with the delicious and nutritious honey, honeybees also perform a vital role in our ecosystem — they act as pollinators and help in maintaining the food supply in our environment.

YOU JUST MENTIONED 'POLLINATORS'. WHAT DOES THAT MEAN?

If 'pollinators' are the agents, 'pollination' is the process. Most flowers have two parts in them — a male part and a female part. The male part consists of stamens, which produce a sticky, powdery substance called pollen. The female part of the flower is known as the pistil. Its upper end is the stigma, and the base is called the ovule, where seeds are made. When pollen is transferred from the anther (the part of the stamen that contains the pollen) to the stigma, pollination takes place. The pollination process ensures fertilisation,



resulting in seeds and fruits developing fully. So, when a bee moves from one flower to another to collect honey, it also pollinates the plants and thus enables them to bear fruits. In nature, while pollination is mostly done by honeybees, some other insects and the wind also contribute to it. Pollination can occur in the same flower (self-pollination) or between two different flowers (cross-pollination). Cross-pollination leads to stronger plants and more genetic diversity.



IMPORTANCE OF THE HONEYBEE

According to an estimate made by the Food and Agricultural Organization of the United Nations, out of some 100 species of plants and crops that provide 90 per cent of food the world over, 71 are pollinated by honeybees. Cherries, apricots, almonds, cucumbers, apples, alfalfa, watermelons and sunflowers are just some of the crops pollinated by honeybees. Hence, we can easily say that the little honeybees are of great help to us.



Crystal Quest



THE DWINDLING HONEYBEE

Unfortunately, today, the useful little bee is facing trouble. *The Guardian* (U.K.) recently reported that 31 per cent of honeybee colonies in the U.S. died out in 2012. This is a serious cause of concern because bees are the major pollinators in the environment and their disappearance would adversely affect our food supply and ecosystem.

Some of the reasons for the disappearing honeybees, also called the 'colony collapse disorder', are:

- 🐝 Rampant use of chemical pesticides, which can impair reproduction and other functional abilities of honeybees and thus prove toxic for them.
- 🐝 Environmental degradation, which has led to the destruction of the habitats of honeybees.
- 🐝 Parasites — either internal such as tracheal mites or external such as the varroa mites — that can kill honeybees.
- 🐝 Global warming and increased electromagnetic radiation due to the use of cellphones, which are also blamed for the disappearing bees.



THE ROLE YOU CAN PLAY



- 🐝 Try planting different varieties of local or wild flowers and vegetables in your garden, at home or at school. Sunflowers, mint, coriander, buttercups, cucumbers, gourds and pumpkins are known to attract bees. Ask an adult to help you. Apart from helping the bees, gardening can be a fun activity too!
- 🐝 Leave a small patch of the garden wild. Let wild flowers and weeds grow on it.
- 🐝 Use natural compost in your garden. Make your own compost in a hole dug in the backyard of your garden. Vegetable and fruit peelings, crushed egg shells, and used tea bags and tea leaves should be dumped into the hole periodically, which will turn into compost at a later date.
- 🐝 Encourage others and spread the word, promoting the use of fewer chemical pesticides for gardening. To be used in small quantities, they are best sprayed at night.
- 🐝 Talk to friends and family members about the importance of honeybees and the need to protect them. You can make and distribute pamphlets and posters to generate mass awareness.

