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Besides the wellknown benefits, honeybees provide manure



Growing food is not the job of just farmers.

“The earthworms and millions of small microscopic creatures under the soil lend a helping hand in making the soil fertile. Above the ground, the climate, birds, and bees play their part of collecting and transferring pollen from one flower to another.

“Especially for vegetable and fruit crops, pollination is very essential. An experienced farmer knows the value of pollination, and that growing fruits and vegetables are all about reproduction — bees being an essential part of the food chain, says Mr. N. Swaminathan, an avid apiculturist from Chennai.

Two varieties

Mr. Swaminathan's passion for rearing honey bees started early from childhood. Today he rears two different bee species - the Indian and Italian ones in different boxes specifically

bought from different parts of the country.

“Getting the boxes made is a daunting task as many of the local carpenters refuse to make it. For them, it is commercially not viable and the Government supplied boxes are so sub standard. They don't last for even one season. Especially after a heavy rain, the boxes become somewhat brittle and start breaking,” he says.

Many bee keepers face this problem, according to him, and he also underwent the same. So he worked on an alternative.

“I built a box using cuddapah stones (the ones used in the kitchen). The boxes are heavy and cannot be moved from one place to another but they last a lifetime,” he says.

Is it practical and commercially feasible to rear bees in metros?

“The few trees and plant species inside the cities don't contain pesticides or toxic residues unlike crops in the fields. The atmosphere might be polluted, but this does not affect the insects unlike the toxic residues from chemical sprayed crops.

Not for personal income

“On the personal front I don't rear bees for money — only to study them. I find that the insects thrive well in cities, especially in the second floor of any multi-storeyed building. Usually people fear the sting of the bees. But the insects after some years become very friendly, like any other pet,” he says.

“They crawl on the hands but seldom sting. In fact some western studies also suggest that bees can be very good in reciprocating certain feelings,” he adds.

In India, many people think of the bees as just insects producing honey. “But without them decline in food supply is certain in the near future. Not just humans, farm animals will also suffer as some of the feed like alfa alfa grass they feed on is pollinated by the bees,” seems to be his conviction.

Global ranking

India ranks second to China in the global map in vegetable production and researchers say that abundance of pollinators and good productivity are interlinked. A decline in the pollinators results in reduced yields.

Apart from some birds and animals, bees are the nature's way of increasing crop productivity and acreage.

The loss of natural service can create a long term impact on the farming sector, according to Mr. Swaminathan.

“If you go through the website of the United Nations Food and Agricultural organisation (FAO) you can read a report that mentions that in more than 100 crops that provide 90 per cent of food supplies for 140 countries, 71 are bee pollinated (others being pollinated by different sources),” he adds.. Honeybees can fly 3-5 kilometres from their hives in the morning and return in the evening at the same time. The insects visit flowers and collect pollen and nectar. This pollen and nectar is then processed in the hive into food.

Excretion

The digested pollen needs to be excreted. Bee excretion means releasing a few drops of pale yellow coloured fluid resembling a water drop. It is referred to as bee dung

“The bees normally use an area within a radius of 10-30 meters of the beehive as a toilet zone. It is estimated that an average beehive produces as much as 45-50 kg of bee dung a year, neatly deposited around the beehive as high nitrogenous manure.

“When it rains, this pollen dung gets washed into the soil, breaks down and provides an excellent natural fertilizer.

“Hence, to a farmer rearing bees in a field to pollinate the crop, he gets an additional bonus in the form of manure,” he explains.

Renting out the hives

“Already I am getting calls from several farmers to rent out my beehives to them. In fact, across the country hiring beehives is fast becoming a practice for those desirous of increasing their yield.

“My suggestion to farmers is they must come forward and set up at least 3-4 boxes in their fields and backyard, and personally experience the gain the insects deliver to them,” he adds.

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