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Sweet Side
of Summer*



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Busy Bees

They've thrived ever since arriving with the first settlers, but now honeybees are under siege.

TEXT BY TOM CHRISTOPHER

FOR NEARLY TWO YEARS, the news has been full of reports of a disturbing vanishing act. All over the United States, whole megalopolises of honeybees have been flying out of their hives, never to return. Some beekeepers have lost thousands of hives in a matter of weeks—meaning that bee populations in the tens of millions have been rapidly disappearing.

Beekeepers are panicked by what has come to be known as colony collapse disorder, and so are many American farmers. As advocates are fond of pointing out, every third bite of food produced in the United States depends on the pollination of fruits and vegetables by honeybees. Gardeners, of course, owe thanks to this insect for most flower seeds. These services are enormously impressive, but they're not an unmixed benefit.

The truth is that the honeybee is an invasive species. Although some 4,000 species of native bees—as well as other pollinators including flies, moths, and bats—have evolved in North America, the honeybee (*Apis mellifera*) arrived relatively recently, with the initial European colonists. The settlers brought hives with them almost on their first ships, introducing bees to Virginia by



1622 and to Massachusetts by 1639. The honeybees soon escaped into the wild, however, spreading so quickly that westward-heading pioneers typically found bees already established in the areas they settled.

Early beekeepers valued their hives as a source of honey and wax. The first record of a beekeeper renting his hives to a farmer, a New Jersey apple grower, to ensure enhanced pollination dates only to 1909. What began as insurance,

HARD WORKERS When bees forage among lavender flowers, the result is not only lavender honey, but also crucial pollination. However, a recent mysterious syndrome, dubbed colony collapse disorder, has decimated thousands of hives here and abroad.



FIELDS AND FLOWERS Clockwise from left: Boxes containing hives are collected at day's end by professional beekeepers after the bees have spent the day in the fields; for many crops, farmers have become dependent upon pollination by bees brought in from outside. Wild mustard, one of the many weeds and wildflowers to which bees are attracted, is becoming increasingly scarce in the landscape. A healthy hive.

however, rapidly became a necessity as industrial agriculture had an adverse effect on wild pollinators. Chemical pesticides played their part in this, as did the widespread use of herbicides, which kill the weeds that pollinators depend on for nectar and pollen when crop plants are not in bloom. The consolidation of small farms into bigger spreads has meant the plowing under of hedgerows and woodlots that used to provide pollinators with nesting locations. Nowadays, even native American crops, such as Kansas sunflowers, Wisconsin cranberries, and Maine wild blueberries, plants that

evolved in partnership with our native pollinators, need hives of honeybees placed in their fields or they won't bear enough to make a harvest commercially viable.

This increasing dependence has coincided with a decline in beekeeping as a profession. In the 1940s, there were 5 million hives of domesticated honeybees in North America. Today, thanks in large part to competition from cheaper imported honey, there are 2.5 million. So the remaining bees have to work even harder. Their hives are artificially roused from dormancy and trucked to California's almond-growing district

AMERICAN TREASURE

in February. From there they move on, perhaps to Texas to service an early crop of melons or to a Georgia peach orchard, and then to New York for the apple crop or to Michigan for strawberries. This unnaturally prolonged season and constant travel stresses bees. By intermingling hives, migratory beekeeping also promotes the spread of diseases and parasites. It doesn't take an apiologist to understand that this is a recipe for disaster.

Nonprofit conservation groups such as the Xerces Society and the North American Pollinator Protection Campaign have been working with state and federal authorities to develop agricultural practices that promote wild pollinator populations. But the contribution of gardeners is also crucial. Having a hive of unstressed honeybees in your own backyard not only adds a new dimension to your gardening, but it also contributes 40,000 or more pollinators to your neighborhood. Adjusting your planting just slightly to include more bee-attractive flowers and showing more tolerance for weeds (the Xerces Society offers a variety of helpful guides) can turn your garden, backyard, or town park into a pollinator oasis. The effect of even incremental changes can be considerable: A small experimental planting of flowers on the University of California campus in Berkeley was soon host to about 40 species of bees, native and nonnative. In other words, if you plant it, they will come. And your personal harvest of zucchini, melons, or apples—or almost any fruit or vegetable—will be that much greater.

SEE GUIDE FOR INFORMATION AND SOURCES



NATURAL ATTRACTION From top: An orange tree, a powerful attractor of bees, in bloom. Nasturtium is an easy-to-grow flower that home gardeners can plant to feed and encourage wild bees, thus promoting diversity of species and healthy hives.