Beekeepers try to stop the pollinator's decline

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Andrew Westrich lifted the top from a waist-high wood box in his suburban backyard.

He pried apart one of several frames lodged inside, exposing thousands of honey bees that, despite the dismantling of their home, reacted with indifference.

Westrich set the frame aside and pulled another from the box. It had few bees and no honey but something caught the beekeeper's eye.

"Look here," he said drawing two visitors closer. "Look at the honeycomb. You see the white dots in the center? Those are larvae. The queen is making bees."

Excitement tinged his voice - the propagation comes as honey bees in Virginia and nationwide are disappearing at alarming rates. Victims of pests and a mysterious disease called colony collapse disorder, beekeepers have reported losing up to 90 percent of their hives.

The trend worries agricultural officials, who say that bees are essential to grow nuts, fruits, berries and vegetables. The U.S. Department of Agriculture estimates that bee pollination contributes $15 billion annually to the nation's crop value.

Having healthy honey bee levels in Virginia, where apples, peaches, strawberries and other crops are grown, is paramount, officials say. But the state has roughly 35,000 hives, down from nearly 100,000 in the

1970s.

"We've lost basically two-thirds of the hives in Virginia," said Keith Tignor, who, as the state Department of Agriculture and Consumer Services' chief apiarist, directs bee restoration efforts in Virginia.

Honey bees started to decline in the 1980s as non-native pests - most commonly tracheal and varroa mites - infiltrated hives. While there are pesticides and other methods to control them, the mites typically wipe out 30 percent of Virginia's honey bees every winter, Tignor said.

The problem has been exacerbated by colony collapse disorder, a term coined in late 2006 amid large scale disappearances of hives in North America. The phenomenon, which has spread to Europe, has affected honey bees in Virginia, Tignor said. Last winter's hive loss in Virginia jumped to 37 percent, he said.

Some blame pesticides while others think electromagnetic waves - from cellular phones, satellites and other devices - are the culprit. There is also a theory that the industrialization of commercial beekeeping - breeding and transporting of large amounts of bees across long distances - is affecting hives.

Scientists have not been able to figure out why bees are disappearing.

There is, however, an upside, Tignor said: news of the loss of honey bees sparked a renewed interest in beekeeping. In 2000, there were a dozen beekeeper groups in Virginia; today there are more than 40 with memberships on the rise, he said.

People join for various reasons: to help bees rebound, to spend more time outside, to produce their own honey. The popularity of making honey follows the trend of eating locally grown food, said Tony Banks, a

commodity specialist with Virginia Farm Bureau.

A Navy contractor, Westrich began beekeeping six years ago after volunteering to help a friend remove a hive from someone's yard. He has been hooked ever since.

"It's a neat thing to do," he said. "In a way, it's kind of comforting."

Westrich dons a beekeeper jacket and rubber gloves before tending to the hive. The grass he burns in a handheld smoker keeps the bees from getting fiesty.

His calm demeanor has a direct affect on the bees, which he says can sense fear and an uncomfortable beekeeper. He said he is seldom stung and his neighbors don't mind the hive.

In addition to his backyard hive, Westrich tends to eight others in the area. Many are kept in the backyards of home gardeners eager for bees to pollinate their plants and flowers, he said.

He makes his own honey - each hive is capable of producing 55 pounds per year - but his specialty is breeding queen bees. The queen bee is essential because she is the only one that reproduces, Westrich said.

Many beginner beekeepers buy queens from out-of-state apiarists. A problem with the arrangement is that out-of-state bees sometimes struggle to adjust to different climates, Tignor said.

That's why he encourages beekeepers to start hives with local bees.

A bigger reason to start beekeeping, Banks said, is to help with states' agricultural industry. The U.S. Department of Agriculture estimates that honey bees are responsible for 80 percent of the nation's insect crop

pollination.

"The value honey bees bring to (state) crops far outweighs the honey they produce," he said.

In Virginia, state officials estimate honey bee pollination contributes $110 million annually to the state's economy. Bees are most important to the state's apple growers in the western part of the state, but they aid the development of 80 other crops, Tignor said.

There is no immediate danger of crop failures but less honey bees means less fruits and vegetables, Banks said. As yields drop, so does the farmer's profit - and if enough farmers lose money, more will be forced into other occupations, he said.

The proliferation of backyard beekeepers, such as Westrich, won't necessarily aid farmers - bees seldom travel more than two miles from their hive when pollinating. But as more people tend to bees, the insects should eventually spread throughout the state, Tignor said.

"We're moving in the right direction, but it may take some years to get there," he said.