

Research By: [Department of Entomology](#)

Beekeepers in the US have been grappling with a puzzling question in recent years: where has all the honey gone? In response, scientists have conducted research to shed light on the decline in honey production. They attribute the decrease in yields to various factors, primarily environmental degradation affecting bees and other insects.

Government data in the US reveals that **the average honey production per colony has dropped** by approximately half a pound over the past decade, despite a slight increase in the number of managed colonies. This trend is consistent across different states, as reported by Gabriela Quinlan, a research fellow at Penn State's department of entomology and center for pollinator research.

To investigate the issue further, Quinlan led **a study that analyzed the factors influencing flower growth in different regions.** The availability of flowers is crucial for honeybees, as they rely on nectar, pollen, and water from their surroundings to produce honey. The research identified several factors impeding honey production, including **the excessive use of herbicides,** the conversion of flower-rich land into monocultural farmland, and a decline in soil productivity.

Climate change has also played a significant role in the decline of honey production since the early 1990s. **Rising temperatures, altered rainfall patterns, and extreme weather events have disrupted beekeeping practices and impacted bee populations.** Christina Grozinger, a co-author of the study and entomologist at Penn State, emphasized the unpredictable nature of weather events, making it challenging for beekeepers to manage their colonies effectively. She stressed the need to consider the types of plants that can thrive under changing climatic conditions.

The repercussions of declining honeybee populations extend beyond beekeepers. The loss of habitats, the climate crisis, pesticide use, and disease pose a broader threat to bees and other insects. Researchers warn that unless these issues are urgently addressed, there will be adverse effects on food production and a decline in ecosystems. Additionally, the economic viability of beekeeping is expected to become more challenging, and the availability of floral resources for other pollinators will also be affected.

Source: theguardian.com