



IS THE BEE PROBLEM

SOLVED?

Setting the Record Straight on Pollinators and Pesticides

Recent headlines suggest that the "Bee Problem" may be improving, with the number of managed honey bees appearing to stabilize or even increase. However, this does not tell the full story. Honey bees contribute \$30 billion in pollination services to U.S. agriculture, so understanding the true state of their health is critical.

Nearly 20 years ago, beekeeper David Hackenberg first raised the alarm about the mysterious disappearance of bees from his hives, introducing the term "Colony Collapse Disorder" (CCD) into public awareness. As a migratory beekeeper who pollinates a variety of crops, Hackenberg reached out to farmers asking if they had made any changes to their pest control practices. The response was clear: a new class of insecticide, neonicotinoids, had recently come into widespread use. Hackenberg quickly recognized the connection, though it took the rest of the community, including researchers, more time to catch up.

What French beekeepers called "Mad Bee Disease" became known as CCD in the U.S., but both terms pointed to the same cause: poisoning from neonicotinoid insecticides. Although some statistics suggest that honeybee populations have stabilized recently, the reality on the ground for many beekeepers is far more complicated and concerning. These numbers are often misleading because they fail to account for the unprecedented rate at which beekeepers now have to replace bees, queens, and comb just to maintain their operations.

Pesticide-related bee deaths are understood to occur in two ways:

Type 1 poisoning (acute exposure), where bees are quickly killed upon direct contact in the field, and Type 2 poisoning (sublethal exposure), where bees bring toxins back to the hive, causing slow, widespread colony collapse. One lasting consequence of Type 2 poisoning is that the toxins remain in the beeswax combs, posing a continuous risk to future bee generations when this equipment is reused.

Before CCD, annual hive losses averaged 5-15%. Today, losses range from 5-90%, with an average of 48%! It's crucial to understand that the "live" bee numbers reported often include 30-40% of what we call "zombie bees," which are alive but weakened and not functioning normally. Native pollinators face even greater losses, as they do not receive the same level of intervention and support, leading to the endangerment of species like the Monarch Butterfly. The Pollinator Stewardship Council warns that honeybees are the canary in the coal mine, signaling the need for change. USDA payments have softened the financial blow, but pollinators will not recover until farmers, beekeepers, and consumers demand reform in the flawed U.S. pesticide regulatory system that created this crisis.

FAILED PESTICIDE POLICIES:

Disregarding Safety and Efficacy Harms More Than Just Bees

BEES SERVE AS THE CANARY IN THE COAL MINE, WARNING OF PESTICIDE DAMAGE

Soil Health:
Pesticides don't just impact bees—they seep into the soil, poisoning essential organisms that contribute to soil fertility and crop resilience. As these vital organisms decline, soil health deteriorates, jeopardizing long-term agricultural productivity and ecosystem stability.

Farmers:
Countless farmers are sold pesticides they don't truly need, only to watch their crop yields suffer as essential pollinators decline. These chemicals don't just cut into their profits—they threaten the very sustainability of their farms and the future of our food supply.

Water Health:
Pesticides contaminate surface and groundwater, seeping deep into ecosystems and poisoning entire natural systems. Systemic pesticides, in particular, persist in water supplies and travel through runoff, impacting everything that water nourishes—from soil organisms to plants and aquatic life.

Human Health:
Research increasingly links pesticide exposure to serious health risks, including including cancer, neurological disorders like Parkinson's, and developmental conditions such as ADHD and autism, underscoring the urgent need for safer policies that prioritize public health over chemical reliance.

Nature Enthusiasts and Conservationists:
Pesticides strip the natural world of its biodiversity and splendor, harming birds, butterflies, and countless other wildlife. Bird watchers, hunters, and those who cherish nature face loss as these chemicals disrupt ecosystems and threaten opportunities to experience the beauty of the outdoors.



Learn more and join the movement to protect pollinators!

www.pollinatorstewardship.org

