

# BEES, BATS, AND STINKBUGS

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A truck loaded with honeybees crashed on Highway 220 in Wyoming Monday, bouncing 150-200 bee hives down the road. The bees made a nuisance of themselves until protectively-suited workers eliminated the problem. Aside from the rare bee-hauling semitrailer accident, the problem with honey bees are not their numbers, but in their lack thereof. Healthy honey bee colonies are tremendously important to farmers everywhere, but Colony Collapse Disorder has been threatening these valuable pollinators since 2006. Bees are not alone. Bats face the spread of a devastating disease in 16 states, to the concern of farmers. And while bees and bats, the farmer's friends, struggle to stay healthy, the despised stinkbug returns from its winter hibernation and is expected to destroy crops throughout the East.

## **Bees:**

Colony Collapse Disorder has troubled bee keepers and farmers for a solid five years, worrying the agricultural industry that depends on the bees to pollinate crops. Honey bees have been dying in record numbers, and it has been difficult to nail down a specific culprit. In 2007, mites and insect diseases were blamed. Pesticides, environmental change, genetically modified crops with pest control modifications, and cell phone radiation have all been accused of causing the bee deaths. Regardless, farmers know that crops won't grow unless they get pollinated. Without bees, we all starve to death.

"Farmers say they have scores of bees fly out, land on their plants and drop to the ground, dead - or they can't even fly," said Mark Schlueter, associate professor of biology at Georgia Gwinnett College. "This could jeopardize the food supply of the whole planet."

According to the USDA, colonies lost 29 percent of their bees in 2009 and 34 percent in 2010. One major problem causing a weakness in some bee populations is the lack of food diversity. When single species crops grow as far as the eye can see with no break, bees have a hard time getting the food they need.

"So many of the problems come down to one thing, and that is monoculture. The bees can't even live there, they'll starve to death. From the point of view of nature, it's insane," says Maureen Maxwell of the New Zealand Beekeepers' Association. The problem isn't just in America; bee populations are dying around the world.

There has been some hope. Colony Collapse Disorder has been a well-known problem for the past five years, and plenty of bee businesses have started up during that time. Despite the losses, honey production rose 20 percent from 2009 to 2010 for a total of 176 million pounds last year, according to the US Department of Agriculture. The number of honey producing colonies rose seven percent to 2.68 million colonies in 2010. While Colony Collapse Disorder continues to be a scourge to beekeepers and farmers alike, some progress is being made in raising more colonies. Good thing.

## **Bats:**

While most people recognize the value of a honey bee, many fewer appreciate the significance of bat populations. Forget vampires. A bat can eat well over half its body weight in insects every night and studies have shown that a colony of 150 big brown bats can eat 1.3 million insects in a year.

Unfortunately, white-nose syndrome has been wiping out bat populations from Texas to New York since its discovery in 2006. In white-nose syndrome, a fungus grows on the bats' noses and ears and wing membranes while they hibernate during the winter. The fungus itself apparently does not kill the bats, but scientists believe it wakes them from hibernation early so that they waste their fat reserves and starve to death before the explosion of insects in the spring.

Many east coast caves that are tourist attractions have been closed to the public as wildlife experts work to stop the spread of the fungus. While humans are not susceptible to white-nose-syndrome, the spores could be transported on their clothes and shoes.

Bats eat a wide variety of insects, and farmers are dependent on their voracious appetites. Among the pests they eat are cucumber beetles, leafhoppers, and stink bugs. They eat the moths of crop-damaging worms, interrupting the pests' reproductive cycles.

Researchers in the April edition of *Science* estimate that wiping out the US bat populations would cost farmers more than \$3.7 billion - potentially up to \$50 billion. People who hate pesticides should love their local bats.

### **Stinkbugs:**

Speaking of annoying insects, the stinkbugs are rubbing their eyes and yawning and hopping out of their winter hibernation. The brown marmorated stink bug beetle appeared in America first in Allentown, Pennsylvania in the late 1990s and has multiplied into swarms that coat houses and windows every summer. The bugs have spread to 33 states, where they promise to destroy crops like sweet corn, apples, pears, grapes, berries, peaches, tomatoes, peppers and beans. *Trissolcus* wasps keep the stinkbugs under control in their native Japan by eating the stinkbug eggs. However, importing these tiny wasps to fight the stinkbugs may not be the best idea if the wasps also eat the eggs of other, beneficial varieties of stinkbugs.

While the price of gold and silver rise and investors scrutinize the stock markets, the very basic food needs of the United States - and the rest of the world - are under attack. Farmers face losing large numbers of their friends the bees and bats, while pests like stinkbugs reproduce in plague-like numbers. We have a constant reminder that sin - like a disease, like a pestilence - has infected the world, and all our striving will not make it go away. We also have a constant reminder that we were created in the image of God, and in our creative power we are able to find answers to many of our physical problems. Yet, with as many advances as we make, the sin remains. The blights and bugs keep coming. Thank God, we have a Savior in the heavens who has died to heal all our diseases - even the diseases faced by entire nations.

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- [GGC Team Researches Replacement For Honeybees »](#)  
- *Gwinnett Daily Post*
- [UF Scientists Continue To Study Colony Collapse Disorder »](#)  
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- *3News.co.nz*

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- *USA Today*