

# THE IMPORTANCE OF POLLINATORS



--BIRDS, BUTTERFLIES, MOTHS, BATS, AND ESPECIALLY BEES

# FACTS ABOUT POLLINATORS

**Plants use animals or the wind to help them with pollination.**

**Pollinators include birds, bats, butterflies, moths, and bees**



[You Tube--The Beauty of Pollination by Louie Schwartzberg 4:09 minutes](#)



# FACTS ABOUT POLLINATORS



Almond tree in bloom

**Pollinators are responsible for the survival of 30% of the human food supply and 90% of our wild plants**

**Their purpose is to get food but accidentally they are pollinating the plants at the same time.**

# FOCUS ON BEES.....

**Bees pollinate about 1/6 of the flowering plants worldwide and approximately 400 different types of agricultural plants.**

**Some of the plants that need bees to pollinate: alfalfa, apple, apricot, blackberry, blueberry, cherry, clovers, cucumbers, muskmelon, cantaloupe, nectarine, peach, pear, persimmon, plum, pumpkin, raspberry, squash, sunflower, trefoil, watermelon, etc...**

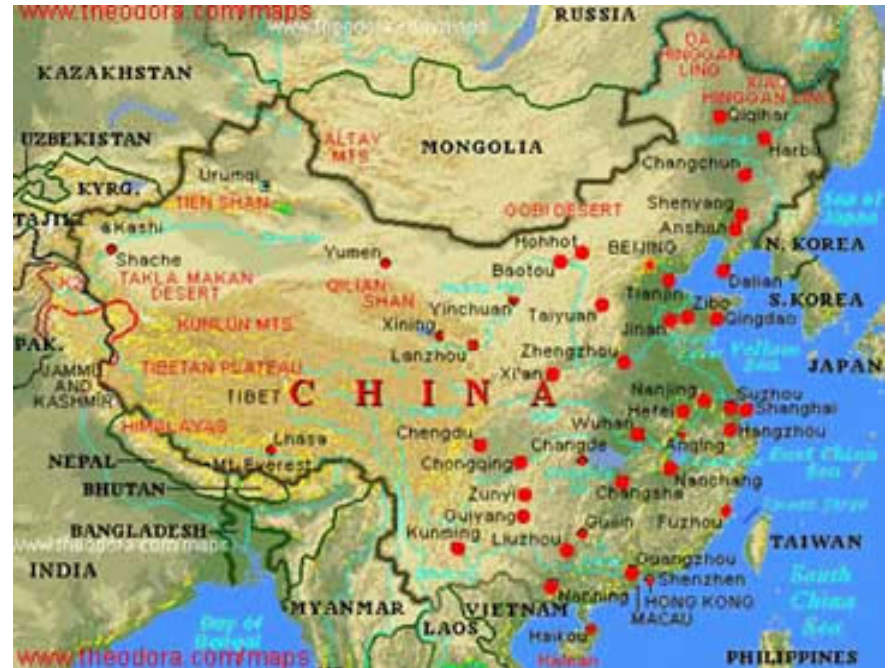


# A STORY FROM CHINA...PART 1

In the 1990's farmers in China realized they could grow apples as a cash crop.

They cleared forests and planted apple trees and things were good but then something happened. The trees quit producing apples. 1999 was an especially bad year.

**Problem:** There were no bees around to pollinate the apple trees. Clearing the forests had eliminated the habitat the bees needed to survive



<https://membracid.wordpress.com/2013/06/19/will-we-have-fruit-in-a-future-without-bees/>

# A STORY FROM CHINA....PART 2

**Short-term solution: They had humans act as pollinators. A person can pollinate 5-10 trees a day. The humans were good pollinators but cost more than bees.**

**Long-term solution: Provide habitat for bees by planting native host trees. In 2011, bees are an important part of the population and hand pollination is rare.**

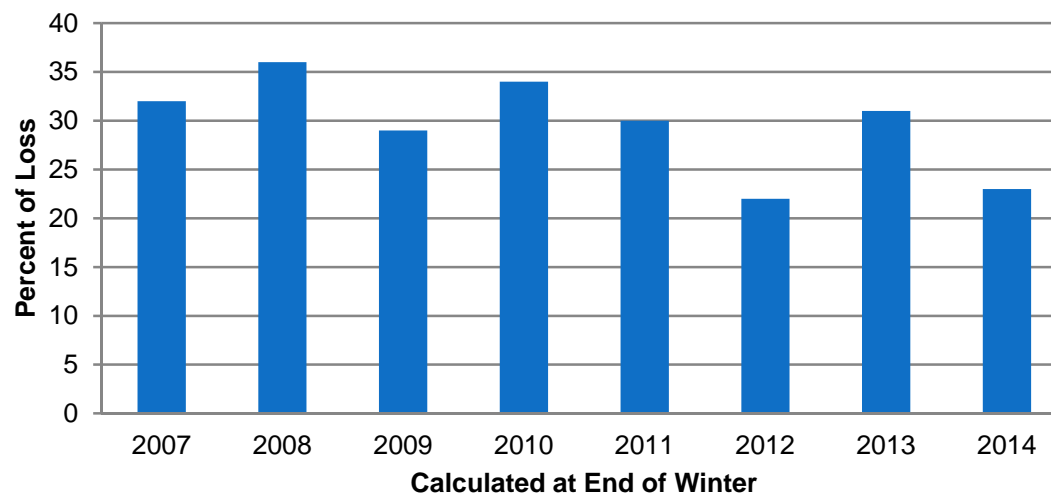




# PROBLEMS IN THE UNITED STATES WITH BEES...

**In 2006, beekeepers were the first to notice that bees were dying off and alerted scientists. Bees were leaving the colonies and not returning. It was called Colony Collapse Disorder (CCD).**

**Total Losses of Managed Honeybee Colonies**



# WHY?? WE ARE STILL NOT SURE

**Many theories or ideas:**

**Global Warming:**  
flowers are blooming at  
a different time

**Pesticides:** pesticides  
are still being used that  
we know can harm bees

**Habitat Loss:** land  
development destroying  
wildlife habitat

**Parasites:** harmful mites

**Or a combination  
of these ideas...**





# WHAT WE DO KNOW....

**In nature, everything is connected. When one part of the food web is affected—it affects everything in the food web.**

**“According to the USDA, about one-third of the human diet comes from insect-pollinated plants, and the honey bee is responsible for 80 percent of that pollination.”**

**We must take action to help pollinators survive or else our food supply will be threatened**

# REMEMBER

**“Every third bite of food you take, thank a bee or other pollinator”.**

**Adapted from E. O. Wilson,  
Forgotten Pollinators, 1996**

