

The Pollinators

WORLD BEE DAY

The Pollinators joins the **World Bee Day** celebration of bees and their critical role in sustaining food security, livelihoods, and biodiversity all around the world.

"Bees are just one of those things that benefit all the way around. . . We know bees are the right thing to have on the landscape."

BRET ADEE

Adee Honey Farms, *The Pollinators*

The Pollinators is a cinematic journey around the US, following migratory beekeepers and their truckloads of honey bees as they pollinate the crops we all eat. The challenges the beekeepers and their bees face en route reveal flaws to our simplified chemically dependent agriculture system. Farmers, scientists, chefs and academics along the way give broad perspectives about the threats to honey bees, what it means to our food security and how we can improve it.

UN(BEE)LIEVABLE FACTS

- 1 IN 3** 1 of every 3 bites of food we eat depends on honey bees and other pollinators
- \$15 B** Honey bees increase our nation's crop values by more than \$15 billion each year with pollinators contributing more than \$20 billion to the US economy
- 10 M** The US supports the largest migratory honey bee population in the world > billions of honey bees get trucked around the US pollinating our food. Each semi-truck carries over 10 million honey bees
- 4,000** There are approximately 4,000 species of native bees in North America and 20,000 around the world.
- 1600's** The European honey bee *Apis mellifera* are not native to North America but came with European settlers in the 1600's

FOOD & BEES

"The general public should know our food system is threatened by the fact that the bees are in trouble. And they should care about that because they eat food."

SUSAN KEGLEY

CEO and Founder of the Pesticide Research Institute, *The Pollinators*

Pollination: The honey bee is the most important insect pollinator of cultivated crops.

Pol-li-na-tion / pä-lə-'nā-shən/: The transfer of pollen from a male part of a plant to a female part of a plant, later enabling fertilization and the production of seeds and fruit most often by an animal or by wind.

Our food system is dependent upon commercial migratory beekeepers to move honey bee populations and maintain our food security.

Honey bees pollinate more than 130 fruits, vegetables and nuts, some of the most nutritious food in our diet, such favorites as almonds, apples, avocados, blueberries, cherries and cranberries.



NOW AVAILABLE DIGITALLY

Visit *The Pollinators* website to learn more: thepollinators.net/take-action

Some 84% of the crops grown for human consumption need bees or other insects to pollinate them. Bee pollination not only results in a higher number of fruits, berries or seeds, it may also give a better quality of produce.

The almond bloom in California's Central Valley is the largest managed pollination event in the world. The annual two billion pound harvest is dependent on honey bee pollination.



The Staggering Rate of Honey Bee Colony Losses. We are utilizing almost 100% of our managed commercial bee supply. At the current rate of honey bee colony decline, the USDA is no longer confident that we can meet the pollination demands of US agricultural crops.



RETHINK HOW WE PRODUCE OUR FOOD

Support Regenerative Agriculture, a holistic approach to farming and grazing practices that improves soil health, crop resilience and nutrient density. Soil is not dirt but a living, thriving thing that is necessary to bee and human health.

It's main principles include:

-  **MINIMIZE** or eliminate tillage
-  **REBUILD SOIL** organic matter
-  **ALWAYS HAVE A LIVING ROOT** in the soil
-  **INCREASE THE DIVERSITY** of crops grown
-  **COMBINE** crops and livestock production

UNDERSTANDING THE PROBLEMS

"Farmers need to realize that the bees are like one of the first lines of defense. If the bees are disappearing, what else has disappeared already?... That's kind of the canary in the mine shaft."

LUCAS CRISWELL
Farmer, Criswell Acres,
The Pollinators

The large decline in honey bee population is complex and not due to one single factor.

This "triangle of decline" includes:

Parasites: Varroa mites weaken honey bees and transmit diseases

Pesticides: Chemical pesticide exposure in the environment can weaken and kill bees

Poor Nutrition: Due to lack of diverse forage

Monoculture Farming, the cultivation of one crop on a landscape, provides limited food resources and becomes a food desert for pollinators once flowers are gone. Corn is one of the largest monoculture crops in the US - Five percent of the land in the lower 48 states is planted with corn.

Neonicotinoids: A common class of systemic pesticide, neonicotinoids, are the most widely used insecticide in the world and studies have linked them to bee decline. Neonics are very toxic to bees, take years to degrade in the environment, and are water soluble so they can disperse and contaminate surrounding areas and vegetation.

Habitat Loss from monoculture farming and development. Maintaining a sequence and rotation of diverse flowering plants over the seasons is key to a healthy habitat for pollinators.

Honey bees are a 'sentinel' or indicator species - they signal the health of the environment, the wildlife, and all the ecology along the food chain.

HOW TO (BEE) THE CHANGE

Support Pollinator Health and the Pollinator Protection Movement:



Think locally - Plant a Pollinator Garden.

Incorporate native species of flowering plants suitable for local climate and region to attract and benefit local pollinators.



Stop using chemicals, pesticides, and herbicides in your home garden and lawns.



Cut down on cutting. Reduce mowing and allow flowering groundcover to remain in the lawn as forage for pollinators.



Leave it for the bees. Leave plant stalks and other organic materials in place during fall garden maintenance for hives; wait to conduct outdoor spring cleanup until after native pollinators appear.



Buy local honey and support your local beekeepers.



Keep bees. Join the community of beekeepers across the country and around the world.



Support local economies and buy your food from farmer's markets and community supported agriculture (CSA's) in order to sustain local farms.



Act globally & locally. Support legislation and policy changes on the federal, state, and local level that encourage pollinator protection. Think beyond farming to include municipalities, communities, and universities.

