



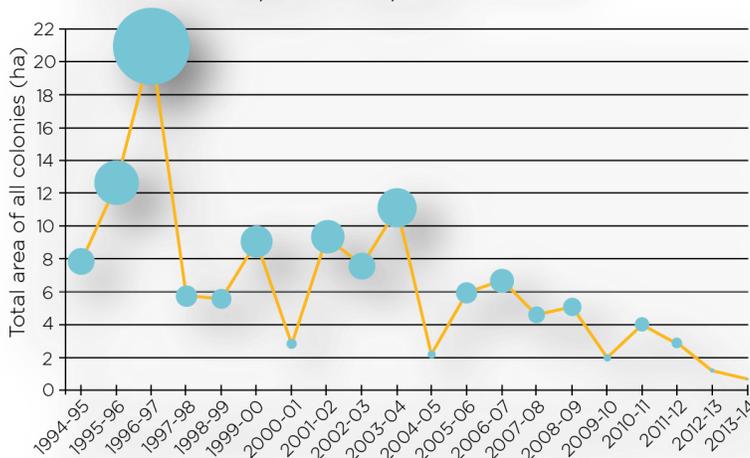
February 2014

## MONARCHS IN PERIL: Quick Facts

THE MONARCH BUTTERFLY IS IN SERIOUS TROUBLE—their numbers have plummeted over the past two decades. The butterfly’s decline tracks the virtual eradication of its caterpillar’s chief food source—common milkweed—from Midwestern cropland. The demise of milkweed is due to intensive spraying of glyphosate herbicide on Monsanto’s Roundup Ready corn and soybeans that have been genetically engineered to withstand it. Monarchs are in imminent danger unless milkweed is restored to Midwestern crop fields. Milkweed cannot recover with continued heavy use of glyphosate on Roundup Ready crops. We face a historic choice: do we want to protect Monsanto or monarchs?

- Monarch population numbers have fallen by **90%** in less than 20 years, and entomologists fear that the spectacular migration of these iconic butterflies is coming to an abrupt end.

Area of monarch overwintering habitat in Mexico: 1994/95 - 2013/14.

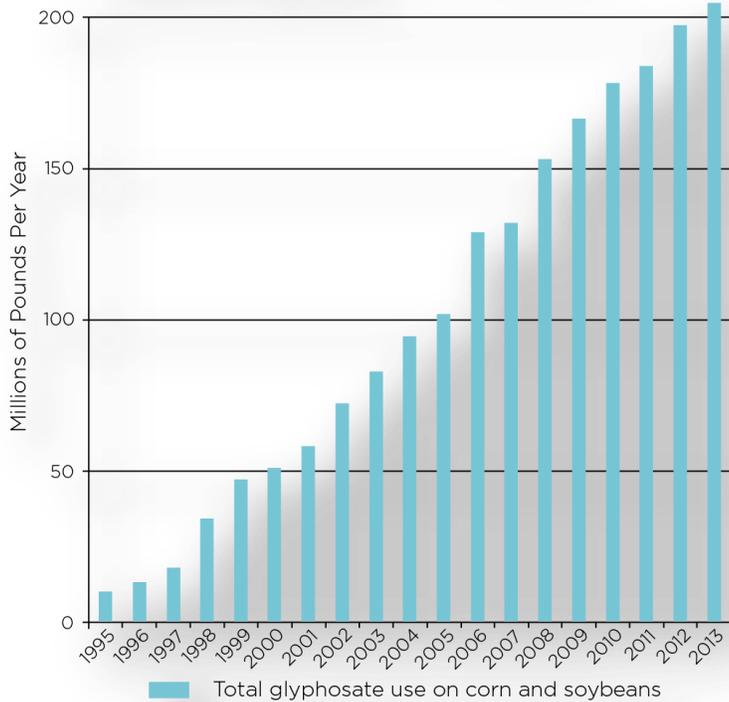


- A critical driver of monarch decline is loss of larval host plants in their main breeding habitat, the Midwestern Corn Belt. Monarchs lay eggs exclusively on plants in the milkweed family, the only food their caterpillars will eat.
- Monarch butterflies have long coexisted with agriculture, but the proliferation of Monsanto’s genetically engineered (GE) glyphosate-resistant Roundup Ready corn and soybeans has radically altered farming practices.

- Glyphosate –one of the very few herbicides that kills common milkweed – was little used two decades ago, but has become by far the most heavily used herbicide in America thanks to GE Roundup Ready crops.

- The monarch is further threatened by a host of “**next-generation**” **GE crops** resistant to multiple herbicides. If introduced, these new crops will increase herbicide spraying still more, thereby reducing populations of wildflowers and depriving monarch adults of the nectar they require for breeding and their spectacular migration.

Glyphosate use on corn and soybeans in the U.S.: 1995-2013.



- Since 1995, total glyphosate use on corn and soybeans has risen 20-fold, **from 10 million to 205 million lbs/year**.

- As a result, corn and soybean fields in the Corn Belt have **lost 99%** of their milkweed since just 1999.

- Milkweed does grow outside of cropland, but there is too little habitat to support a viable monarch population. First, corn and soybeans dominate the Midwest landscape, leaving too little area in roadsides, pastures, and other land where milkweed grows. Second, monarchs produce almost four times more eggs per plant on milkweed in corn and soybean fields than on milkweed growing elsewhere.

- As their population declines, other threats have greater impacts, and the

butterflies are less likely to bounce back from adversity. For example, a winter storm in 2002 killed an estimated 468–500 million monarchs. A similar storm today **could eliminate** today's much reduced monarch population.

Center for Food Safety and partners at the Center for Biological Diversity, the Xerces Society for Invertebrate Conservation, and renowned monarch scientist Dr. Lincoln Brower, filed a legal petition with the U.S. Fish and Wildlife Service to protect monarchs as threatened under the Endangered Species Act (ESA). In December 2014, the Service responded to this petition request and announced that ESA listing may be warranted for monarch butterflies, an important first step towards securing stronger protections for monarch butterflies.

For more information and citations, read the full report:

### **MONARCHS IN PERIL: HERBICIDE-RESISTANT CROPS AND THE DECLINE OF MONARCH BUTTERFLIES IN NORTH AMERICA**

Report and Executive Summary available at: [www.centerforfoodsafety.org/reports](http://www.centerforfoodsafety.org/reports)

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