

2008 Farm Bill

Benefits to Crop Pollinators

Pollinators are an essential part of agriculture. They are declining in many regions.

The 2008 Farm Bill makes bees a central concern of conservation programs and provides support for habitat creation and research.

Farm Bill programs are an important way to create habitat for bees and to support crop harvests.



USDA-ARSEdward McCain

Pollinators are key to healthy harvests: The 2008 Farm Bill provides new support for conservation programs and research.

In June 2008, Congress took a major step in supporting pollinator conservation in the United States by voting on H.R. 6124, the *Food, Conservation, and Energy Act of 2008*, commonly known as the Farm Bill. Although the Farm Bill covers a wide range of agricultural and nutrition programs, the passage of this bill means that over the next five years more than \$100 million could be made available to support research and habitat conservation for pollinators. More importantly, the bill makes pollinators a central concern of Farm Bill conservation programs and makes pollinators and their habitat a priority for every USDA land manager and conservationist.

Importance of Pollinators

Pollinators are essential to our environment. The ecological service they provide is necessary for the reproduction of nearly 75 percent of the world's flowering plants. This includes more than two-thirds of the world's crop species, whose fruits and seeds together provide over 30 percent of the foods and beverages that we consume. The United States alone grows more than one hundred crops that either need or benefit from pollinators. The economic value of insect-pollinated crops in the United States was estimated to be \$20 billion in 2000, with native insects responsible for pollinating at least \$3 billion in crops.

Honey bees usually receive all of the credit for crop pollination, yet the number of managed honey bee hives is half of what it was in the 1950s, and this number continues to decline due to diseases, pests, the low price of honey, and, most recently, Colony Collapse Disorder (CCD). Recent research on crop pollination, however, has demonstrated that native bees make a significant contribution to crop pollination—in some cases providing one hundred percent of the pollination required when enough habitat is available. Today, these native pollinators are more important than ever as hives of European honey bees become more expensive and difficult to acquire.

Beyond agriculture, pollinators are keystone species in most terrestrial ecosystems. Fruits and seeds derived from insect pollination are a major part of the diet of many birds, and of mammals ranging from red-backed voles to grizzly bears.

On October 18, 2006, the National Research Council (NRC) of the National Academy of Sciences released the report *Status of Pollinators in North America*, which called attention to the decline of pollinators. In many places the essential service of pollination is at risk. Habitat loss, alteration, and fragmentation, as well as pesticide use, all contribute to pollinator declines.



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The new Farm Bill recognizes the vital role that pollinators play in the United States' agricultural landscape. This new legislation seeks to improve the security of managed and wild pollinator populations across the country by proposing significant increases in research funding for honey bees and native bees, and by mandating that conservation programs support habitat restoration and management for pollinators.

Legislative Action

This is the first time pollinators have been specifically mentioned in the Farm Bill, and their inclusion is an important step toward understanding and protecting bees and pollinators of all sorts. The language supporting pollinator conservation and research is the result of the hard work of a growing number of pollinator advocates within nonprofits and industry groups and that of several legislators and their staff. Four bills that aimed to help our beleaguered pollinators were introduced during the 2007 legislative session.

In March 2007, Rep. Hastings (D-FL) introduced the Pollinator Protection Act (H.R.1709) into the House of Representatives to provide funding for research into honey bees and CCD and expand funding for the Animal and Plant Health Inspection Service, as well as the USDA Agricultural Research Service.

In June 2007, the Senate companion bill (S.1694) was introduced by Senator Boxer (D-CA). This bill not only supported research into CCD in honey bees, but also into the decline of native bees and their role in crop pollination.

A second thrust of legislation was to provide protection for pollinator habitat. In May 2007, S.1496, the Pollinator Habitat Protection Act of 2007, was introduced into the Senate by Sens. Baucus (D-MT) and Chambliss (R-GA). This bill addressed the continued loss of pollinator habitat due to development and added pollinators as a specific conservation target to three conservation programs under the existing Farm Bill.

In late June, the House companion (H.R.2913) was introduced by Rep. Blumenauer (D-OR). This bill went further to make pollinator conservation a "national priority resource concern" in conservation programs administered through the United States Department of Agriculture.

2008 Farm Bill

The provisions of these four bills were wrapped up into the 2008 Farm Bill, representing a massive success for pollinator conservation and crop security. Congress recognized that pollinators are a vital component of our agricultural landscapes. Specifically, the 2008 Farm Bill:

- makes pollinators and their habitat a priority for every USDA land manager and conservationist;
- identifies pollinator habitat as a priority when determining payments under the Environmental Quality Incentives Program;
- requires that pollinators are considered during the review or development of Conservation Practice Standards;
- encourages the inclusion of pollinator habitat in all USDA-administered conservation programs;
- provides \$10 million per year for the next five years for grants to support research into honey bee and native bee biology, causes/solutions for CCD, and bee ecology, toxicology, pathology, and physiology;
- provides \$7.25 million per year for the next five years to build research capacity within the USDA Agriculture Research Service to study CCD and other threats to pollinator health;
- provides \$2.75 million per year for the next five years for honey bee inspections and surveillance; and
- amends the Federal Crop Insurance Act and the Trade Act of 1974 to ensure insurance and disaster assistance for beekeepers.

(Note: None of the research funding language in the Farm Bill is mandatory. Therefore, as of July 2008, all funding provisions still need to go through the appropriations process.)

Creating Change on the Ground

The provisions in the 2008 Farm Bill have the potential to make a real difference for pollinators. However, translating legislative language into change for pollinators on agricultural land and in research labs will not happen over night.

The Xerces Society has been working closely with growers, land managers, and agency staff for several years, partnering on the creation of new habitat and in the implementation of support programs benefiting pollinators. We have also been collaborating with scientists at University of California in Berkeley and Davis to study how best to design and create pollinator habitat on farms.

The Society has produced a variety of information materials (available from www.xerces.org) that provide practical advice on how to plan and implement habitat improvements and how Farm Bill programs can be used to help pollinators:

Farming for Pollinators

Farming for Bees

Native Pollinators on Farms. What's in it for Growers?

Using Farm Bill Programs for Pollinator Conservation



Pollinator Language from 2008 Farm Bill (The Food, Conservation, and Energy Act of 2008)

The following excerpts were taken from the text of the 2008 Farm Bill downloaded as a PDF file from <http://www.usda.gov/wps/portal/farmbill2008?navid=FARMBILL2008> (accessed 7/8/08).

Habitat Conservation

TITLE II—CONSERVATION

Subtitle F—Environmental Quality Incentives Program

SEC. 2503. ESTABLISHMENT AND ADMINISTRATION OF ENVIRONMENTAL QUALITY INCENTIVES PROGRAM.

Section 1240B of the Food Security Act of 1985 (16 U.S.C. 3839aa-2) is amended to read as follows:

“SEC. 1240B. ESTABLISHMENT AND ADMINISTRATION.

“(3) SPECIAL RULE INVOLVING PAYMENTS FOR FOREGONE INCOME.—In determining the amount and rate of payments under paragraph (2)(B), the Secretary may accord great significance to a practice that, as determined by the Secretary, promotes—

- “(A) residue management;
- “(B) nutrient management;
- “(C) air quality management;
- “(D) invasive species management;
- “(E) **pollinator habitat**;
- “(F) animal carcass management technology; or
- “(G) pest management.”

Subtitle H—Funding and Administration of Conservation Programs

SEC. 2706. DELIVERY OF CONSERVATION TECHNICAL ASSISTANCE.

Section 1242 of the Food Security Act of 1985 (16 U.S.C. 3842) is amended to read as follows:

“(h) REVIEW OF CONSERVATION PRACTICE STANDARDS.—

“(1) REVIEW REQUIRED.—The Secretary shall—

- “(A) review conservation practice standards, including engineering design specifications, in effect on the date of the enactment of the Food, Conservation, and Energy Act of 2008;
- “(B) ensure, to the maximum extent practicable, the completeness and relevance of the standards to local agricultural, forestry, and natural resource needs, including specialty crops, **native and managed pollinators**, bio-energy crop production, forestry, and such other needs as are determined by the Secretary; and
- “(C) ensure that the standards provide for the optimal balance between meeting site-specific conservation needs and minimizing risks of design failure and associated costs of construction and installation.

“(2) CONSULTATION.—In conducting the review under paragraph (1), the Secretary shall consult with eligible participants, crop consultants, cooperative extension and land grant universities, nongovernmental organizations, and other qualified entities.

SEC. 2708. ADMINISTRATIVE REQUIREMENTS FOR CONSERVATION PROGRAMS.

Section 1244 of the Food Security Act of 1985 (16 U.S.C. 3844), as amended by section 2707, is further amended—

(2) by adding at the end the following new subsections:

“(h) **ENCOURAGEMENT OF POLLINATOR HABITAT DEVELOPMENT AND PROTECTION.**—In carrying out any conservation program administered by the Secretary, the Secretary may, as appropriate, encourage—

- “(1) **the development of habitat for native and managed pollinators; and**
- “(2) **the use of conservation practices that benefit native and managed pollinators.**

Research

TITLE VII—RESEARCH AND RELATED MATTERS

Subtitle B—Food, Agriculture, Conservation, and Trade Act of 1990

SEC. 7204. HIGH-PRIORITY RESEARCH AND EXTENSION AREAS.

(a) IN GENERAL.—Section 1672 of the Food, Agriculture, Conservation, and Trade Act of 1990 (7 U.S.C. 5925) is amended—

(3) by inserting after subsection (g) the following:

“(h) **POLLINATOR PROTECTION.**—

“(1) RESEARCH AND EXTENSION.—

“(A) GRANTS.—Research and extension grants may be made under this section—

- “(i) to **survey and collect data on bee colony production and health;**

“(ii) to investigate pollinator biology, immunology, ecology, genomics, and bioinformatics;

“(iii) to conduct research on various factors that may be contributing to or associated with colony collapse disorder, and other serious threats to the health of honey bees and other pollinators, including—

“(I) parasites and pathogens of pollinators; and

“(I) the sublethal effects of insecticides, herbicides, and fungicides on honey bees and native and managed pollinators;

“(iv) to develop mitigative and preventative measures to improve native and managed pollinator health; and

“(v) to promote the health of honey bees and native pollinators through habitat conservation and best management practices.

“(B) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this paragraph \$10,000,000 for each of fiscal years 2008 through 2012.

“(2) DEPARTMENT OF AGRICULTURE CAPACITY AND INFRASTRUCTURE.—

“(A) IN GENERAL.—The Secretary shall, to the maximum extent practicable, increase the capacity and infrastructure of the Department—

“(i) to address colony collapse disorder and other long-term threats to pollinator health, including the hiring of additional personnel; and

“(ii) to conduct research on colony collapse disorder and other pollinator issues at the facilities of the Department.

“(B) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this paragraph \$7,250,000 for each of fiscal years 2008 through 2012.

“(3) HONEY BEE PEST AND PATHOGEN SURVEILLANCE.—There is authorized to be appropriated to conduct a nationwide honey bee pest and pathogen surveillance program \$2,750,000 for each of fiscal years 2008 through 2012.

“(4) ANNUAL REPORT ON RESPONSE TO HONEY BEE COLONY COLLAPSE DISORDER.—The Secretary shall submit to the Committee on Agriculture of the House of Representatives and the Committee on Agriculture, Nutrition, and Forestry of the Senate an annual report describing the progress made by the Department of Agriculture in—

“(A) investigating the cause or causes of honey bee colony collapse; and

“(B) finding appropriate strategies to reduce colony loss.

Subtitle C—Agricultural Research, Extension, and Education Reform Act of 1998

SEC. 7311. SPECIALTY CROP RESEARCH INITIATIVE.

(a) IN GENERAL.—Title IV of the Agricultural Research, Extension, and Education Reform Act of 1998 (7 U.S.C. 7621 et seq.) is amended by adding at the end the following:

“SEC. 412. SPECIALTY CROP RESEARCH INITIATIVE.

“(b) ESTABLISHMENT.—There is established within the Department a specialty crop research and extension initiative to address the critical needs of the specialty crop industry by developing and disseminating science-based tools to address needs of specific crops and their regions, including—

“(2) efforts to identify and address threats from pests and diseases, including threats to specialty crop pollinators;

Crop Insurance and Disaster Assistance

TITLE XII—CROP INSURANCE AND DISASTER ASSISTANCE PROGRAMS

Subtitle A—Crop Insurance and Disaster Assistance

SEC. 12023. CONTRACTS FOR ADDITIONAL POLICIES AND STUDIES.

Section 522(c) of the Federal Crop Insurance Act (7 U.S.C. 1522) is amended—

(2) by inserting after paragraph (9) the following:

“(14) APIARY POLICIES.—The Corporation shall offer to enter into a contract with a qualified entity to carry out research and development regarding insurance policies that cover loss of bees.

SEC. 12033. SUPPLEMENTAL AGRICULTURAL DISASTER ASSISTANCE.

(a) IN GENERAL.—The Federal Crop Insurance Act (7 U.S.C. 1501 et seq.) is amended by adding at the end the following:

“Subtitle B—Supplemental Agricultural Disaster Assistance

“SEC. 531. SUPPLEMENTAL AGRICULTURAL DISASTER ASSISTANCE.

“(a) DEFINITIONS.—In this section:

“(7) FARM.—

“(C) HONEY.—In the case of honey, the term ‘farm’ means, in relation to an eligible producer on a farm, all bees and beehives in all counties that are intended to be harvested for a honey crop by the eligible producer.

TITLE XV—TRADE AND TAX PROVISIONS

Subtitle A—Supplemental Agricultural Disaster Assistance From the Agricultural Disaster Relief Trust Fund

SEC. 15101. SUPPLEMENTAL AGRICULTURAL DISASTER ASSISTANCE.

(a) IN GENERAL.—The Trade Act of 1974 (19 U.S.C. 2101 et seq.) is amended by adding at the end the following:

“TITLE IX—SUPPLEMENTAL AGRICULTURAL DISASTER ASSISTANCE

“SEC. 901. SUPPLEMENTAL AGRICULTURAL DISASTER ASSISTANCE.

“(e) EMERGENCY ASSISTANCE FOR LIVESTOCK, HONEY BEES, AND FARM-RAISED FISH.—

“(1) IN GENERAL.—The Secretary shall use up to \$50,000,000 per year from the Trust Fund to provide emergency relief to eligible producers of livestock, honey bees, and farm-raised fish to aid in the reduction of losses due to disease, adverse weather, or other conditions, such as blizzards and wildfires, as determined by the Secretary, that are not covered under subsection (b), (c), or (d).