Putting Federal Pollinator Conservation Policies into Practice

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What is the Xerces Society?

The Xerces Society: A Nationwide Pollinator Extension Service

Collaborating with scientists, government agencies, cooperative extension, conservation groups and farmers

• Training and outreach
• Technical publications
• Technical support to the USDA-NRCS and partners
• Applied research
• Direct technical support to growers
• Develop new conservation tools
• Information for policymakers and media
• Document at-risk pollinators
2008 Farm Bill: Brief Timeline

• December 2006: National Academy of Sciences Report

• December 2006: First cases of CCD discovered

• Spring 2007: Initial pollinator conservation legislation introduced
New research programs

- Provides $10 million per year for the next 5 years (honey bee & native bee biology, CCD, bee ecology, toxicology, pathology)
- $7.25 million/year for the next 5 years to USDA-ARS (CCD, other pollinator threats)
- $2.75 million/year for the next 5 years to increase honey bee inspections
Existing research programs

- USDA Specialty Crop Research Initiative
- USDA Agriculture and Food Research Initiative
Habitat conservation:

- Encourages the inclusion of pollinator habitat in all USDA-administered conservation programs
- Makes pollinators and their habitat a priority for every USDA land manager and conservationist
- Identifies pollinator habitat as a priority when determining payments under EQIP
- Requires that pollinators are considered during the review or development of Conservation Practice Standards
Farm Bill conservation programs: EQIP, WHIP, CSP, CRP, GRP…

Many NRCS Conservation Practices can create or manage habitat for pollinators:
- Conservation Cover
- Hedgerow Planting
- Field Border
- Restoration and Management of Rare or Declining Habitats
- Tree/Shrub Establishment
- Range Planting
- Upland Wildlife Habitat Management
- Pest Management
- Early Successional Habitat Development and Management
Plant lists that meet specific goals and criteria:
- Commercially available
- Ecologically appropriate
- Excellent forage for bees if targeting farm productivity
- Continuous bloom times
- Not alternative hosts for pests or disease
Establishment protocols that are not too expensive, but which work.

- Full growing season of site preparation and weed abatement
- Planting techniques that don’t bring more weed seed to surface
- Follow up weed control during establishment
Practice payment scenarios that reflect the higher costs of:
- Site preparation
- Native plant materials
- Weed control during establishment
Challenges: Clear instructions for the field

Technical information to the field:
• Technical notes
• Plant lists
• JOB SHEETS
Challenges: Getting Know-How to the Field

Field trainings on how to:

• Design and implement pollinator projects
• Assess habitat and conduct farm planning to minimize impacts to pollinators
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We collaborate closely with the NRCS and other partners to build capacity across the country to take full advantage of the potential in the farm bill.
**Xerces’ technical support to NRCS**

- Promote NRCS and Conservation Programs
- National Technology Support Centers (Contribution Agreement)
  - Webinars and national on-line training development
  - Ongoing support to states: plant list review, habitat evaluation guides, demonstrations, trainings
  - Conservation practice review
  - Ongoing support to national Pest Management team
- National Plant Material Program and PLANTS Database
  - Plant list review
  - Demonstrations and research
Regional Partnerships: New England

New England

• Creation of an NRCS/Xerces Society workgroup
Regional Partnerships: New England

New Hampshire
• Pilot projects with NRCS & UNH Extension
• Extensive restoration with major wild blueberry & apple farms

Maine
• Developing multiple bee pastures adjacent to apples and cranberries

Massachusetts
• Bumble bee habitat creation with Cape Cod Cranberry Growers Association and Plymouth SWCD
• Wildflower restoration with land trusts and farms

Photo: Don Keirstead, NRCS
Regional Partnerships: Upper Midwest

Joint Staff Positions
• University of Minnesota Extension
• UW Center for Integrated Ag Systems

Demonstration Projects
• NRCS Plant Materials Center, Rose Lake, MI
• University of Wisconsin Arboretum

Habitat Restoration
• Apple, cranberry, vegetable farms across Wisconsin and Minnesota

Minnesota and Wisconsin Pollinator Conservation Workgroup
• USDA-NRCS, State departments of agriculture and natural resources, Midwest Organic and Sustainable Education Service, Organic Tree Fruit Association, Minnesota Fruit and Vegetable Growers Association
• MN DNR Roadsides for Wildlife Initiative
• UW native bee research in apple orchards

Photos: Jennifer Hopwood
Regional Partnerships: Pacific Northwest

Plant Establishment Research
• Testing hedgerow and meadow planting methods at NRCS Plant Materials Center, Corvallis, OR

Habitat Restoration
• Native shrub and wildflower plantings at farms across the region

Training to Conservation Agencies
• Oregon State University’s Integrated Plant Protection Center’s Farmscaping Initiative
Regional Partnerships: California

NRCS Pollinator WHIP Initiative
- One-third of 2009 WHIP budget ($300,000) dedicated to pollinators
- 57 miles of native shrub hedgerows established
- Over 1000 acres of native plant restoration

Research and Demonstration Projects
- Flowering hedgerows and rangeland plantings in 6 regions of the state
- Effectiveness monitoring with UC Berkeley and UC Davis

Monarch Butterfly Conservation
- Overwintering sites
- Native milkweed restoration
Regional Partnerships: California

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Research and Demonstration Projects
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Photos: John Anderson
Regional Partnerships: Pennsylvania

Technical Support to USDA-NRCS
- Refining wildflower planting guidelines
- 100 acres of Conservation Stewardship Program land contracted for 2010 (100+ acres of already established)

Penn State Partnership
- Demonstration sites
- Testing planting technology
- Monitoring bee visitation to restoration sites
- Developing pesticide reduction strategies
- Master Gardener citizen-scientist monitoring protocol
Regional Partnerships: Pennsylvania

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What’s old is what’s new?

Eric Mader (Xerces Society)
GROW MORE LEGUME SEED
With Pollinating Insects

Those busy bees you see in legume fields on warm summer days are doing much more than making honey. They are making money for the farmer who harvests legume seed.

Legume seed yields generally have been reduced to about one-fourth of what they once were. Lack of pollinating insects is the main reason. Tests show that you can increase seed yields 3 to 15 times if you have enough bees.

Legume seeds are badly needed for meadow seedings in soil-conserving crop rotations and pasture improvement. All of the following legumes are greatly benefited by insect pollination:

Alfalfa
Ladino clover
Sweetclover
Birdsfoot trefoil
Alsike clover
Red clover
White clover
Hairy vetch

WILD BEES ARE GOOD POLLINATORS

Years ago wild bees did most of the pollinating. But intensive cropping, cleaning up of fence rows, and uncontrolled burning have destroyed their homes and greatly reduced their number. Wild bees are the most efficient pollinators, especially for alfalfa.

You can increase the number of wild bees on your farm by protecting the following kinds of land from grazing and burning:

Drainage ditch banks
Fence rows
Field borders
Odd areas

Pond areas
Shelterbelts and windbreaks
Streambanks
Wood lots

UNITED STATES DEPARTMENT OF AGRICULTURE
Soil Conservation Service, Upper Mississippi Region, Milwaukee, Wis.

Issued June 1950
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FARMER HARVESTS SEED | PLANTS | LIVING FENCE

RED CLOVER | POLLINATE | HABITAT FOR BUMBLEBEES

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New Pollinator Conservation Resource Center

Region-specific information from Extension, NRCS, NGO, and other sources, including:

- Plant Lists
- Nest Construction Guidelines
- Conservation Guidelines
- Pesticide Guidelines
- Sources of Plant Materials

www.xerces.org/pollinator-resource-center

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Thank you

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