# NRCS Pollinator Conservation

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# Adoption of Pollinator Conservation

- Why do farmers adopt new conservation practices
- How has USDA-NRCS been encouraging adoption
- How often have farmers and ranchers requested assistance
- What are potential hurdles facing farmers and ranchers here in California

# Factors That Increase Chances Farmers Adopt Practices

- Practices that increase profits
- Practices that have farm benefit that is easy to observe
- Practices that serve more than just conservation
- Trusted agribusiness develop a new technology or machinery, and the product provides superior results, or both occur
- Farmers that have a strong stewardship or conservation ethic
- Where there is a strong network of support
- When the practice solutions involve flexibility and inclusion

# Collaborative Planning Through Conservation Innovation Grants (CIG)

- Xerces Society – Mace Vaughn
- UC Berkeley – Dr. Claire Kremen
- UC Berkeley – Dr. Gordon Frankie
- UC Davis – Dr. Neal Williams
- California Resource Conservation Districts
- Gold Ridge Resource Conservation District
- Pollinator Partnership

# NRCS Plant Materials Center (PMC): Demonstration Plantings

# NRCS Planning Materials

## TECHNICAL NOTES

U.S. Department of Agriculture — Natural Resources Conservation Service

TN – BIOLOGY – CA-19 — April 2009

### Pollinator Biology and Habitat in California

This Pollinator Habitat Technical Note was written by Mace Vaughan and Eric Mader, of the Xerces Society for Invertebrate Conservation and Thomas Moore, USDA NRCS California state office.

Bumble bee on California poppy (Photo by Mace Vaughn)

Sweat bees on Gumplant (Photo by John Anderson)

USDA United States Department of Agriculture

NRCS Natural Resources Conservation Service

National Plant Data Center

The Xerces Society for Invertebrate Conservation

San Francisco State University

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## Using Farm Bill Programs for Pollinator Conservation

# 2008 Farm Bill:
# Technical & Financial Assistance

- CA NRCS Conservation Programs
  - Conservation Cover
  - Cover Crop
  - Hedgerow Planting
  - Range Planting
  - Tree and Shrub Establishment
  - Field Borders
  - Conservation Stewardship Program (CSP) Enhancement Practices
- Farm Service Agency (FSA)
  - Conservation Reserve Program
    - CP42 Pollinator Habitat

# Practices Implemented Through NRCS Assistance

- Hedgerow Planting
  - Most widely implemented practice
  - Planned on field borders to address multiple resource concerns
- Conservation Cover
  - Less frequently planned for pollinator benefits
  - Great potential for increased application
- Cover Crop
  - Currently planned for other resource issues
  - Greatest potential for adoption when planting low cost clovers
  - Currently being promoted as part of NRCS Soil Health Initiative

# 2012 Farm Bill: Midwest

USDA United States Department of Agriculture
Natural Resources Conservation Service

## *Honey Bee Pollinator Effort*

### Honey Bees and Beekeeping.

The Honey Bee (Apis mellifera) is widely used in North America for its pollinating services. Although humans have had a long association with honey bees, humans have not "domesticated" the honey bee like typical livestock. Beekeeping requires skill and knowledge of bee and colony biology.

## *Apply by March 21, 2014*

### Where am I most likely to see Honey Bees?

The Honey Bee is closely associated with "bee pastures." A bee pasture is any grassy cover that contains suitable flowering plants for honey bee forage (nectar or pollen). Beekeepers typically place bee hives (stacks of boxes the honey bee uses for a home) in grassy areas within 3 miles of high quality "bee pasture"or conservation areas such as Conservation Reserve Program (CRP) lands.

### What are the threats?

- Loss of foraging habitat (bee pastures) to cultivated crops.
- Loss of foraging plants within bee pastures – indiscriminate use of broadleaf herbicides.
- Loss of foraging plants within bee pastures due to poor management (grasses take over and wildflowers cannot compete).
- Honey Bee mortality due to indiscriminate use of insecticides or lack of Integrated Pest Management.

# Hurdles Affecting Practice Adoption

- Overall costs to implement and maintain plantings
- Uncertainty that practices will successfully provide expected operational benefits
- Incorporation into farming operation when perceived or actual benefits are not realized
- **Profit, flexibility and convenience**

# Overcoming Hurdles:

- Gain trust of farmers and ranchers
- Outreach education conducted one-on-one
- By a trusted, local individual who is experienced with local farming practices and respected by ag community
- Finding local early adopters with the interest and time to outreach to other producers