



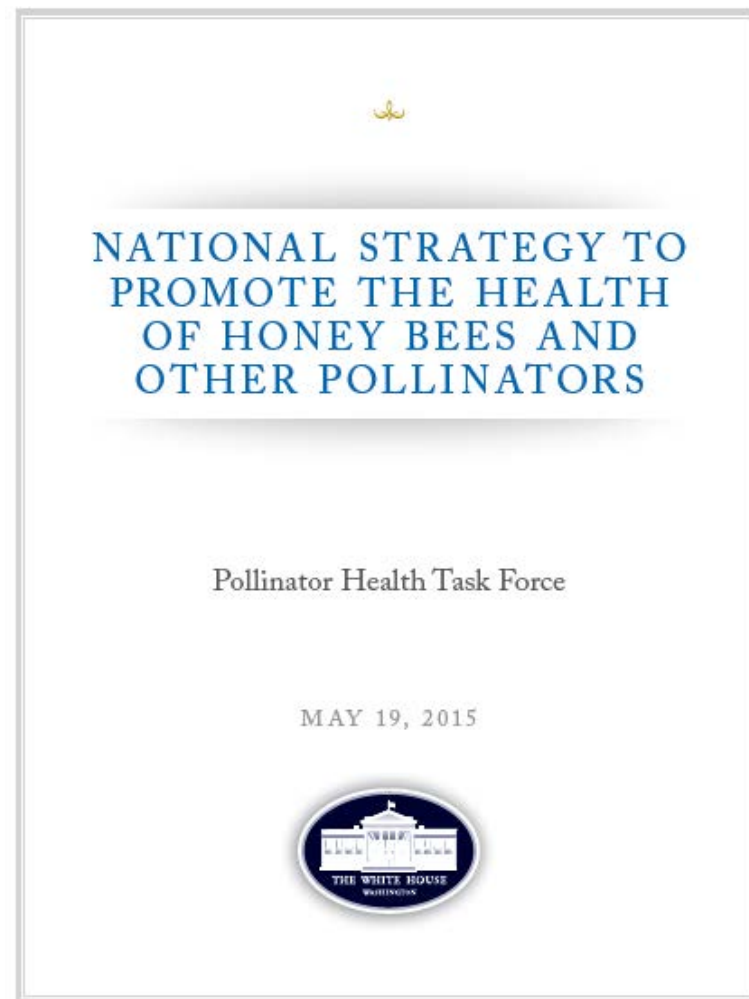
Promoting Pollinator Health Through Stewardship & Habitat Enhancement

Caydee Savinelli, Pollinator & IPM Stewardship Lead, Syngenta Crop Protection, LLC

RI Pollinator Health Committee, January 5, 2017

U.S. Government – Pollinator Initiatives

- **Presidential Memorandum**
June 20, 2014
 - Creating a Federal Strategy to Promote the Health of Honey Bees and Other Pollinators
- **Pollinator Health Task Force Reports**
 - May, 2015 & June 2016
 - Stressed importance of public & private partnerships



Pollinator Health Task Force Report Overarching Goals



- **Honey Bees**

- Reduce honey bee colony losses during winter (overwintering mortality) to no more than 15% within 10 years



- **Monarch Butterflies**

- Increase the Eastern population of the monarch butterfly to 225 million butterflies on 15 acres of overwintering grounds in Mexico



- **Pollinator Habitat Acreage**

- Restore or enhance 7 million acres of land for pollinators over the next 5 years through Federal actions and public-private partnerships

Syngenta Pollinator Strategy

- Product Stewardship
- Operation Pollinator



Syngenta - Commitment to Pollinator Health







- Syngenta is concerned about bee health and is making sure that the use of our pesticides does not harm bees.
- Farming and our business depend on biodiversity.
- We conduct extensive safety research in order to help beekeepers and farmers find solutions.



Operation Pollinator
Multifunctional Landscapes

The Good Growth Plan

We've made six commitments to help grow more food using fewer resources, while protecting nature, and at the same time helping people in rural communities live better lives.

More food Less waste	More biodiversity Less degradation		More health Less poverty		
					
Make crops more efficient	Rescue more farmland	Help biodiversity flourish	Empower smallholders	Help people stay safe	Look after every worker
Increase average productivity of the world's major crops by 20% without using more land, water or inputs	Improve the fertility of 10 million hectares of farmland on the brink of degradation	Enhance biodiversity on 5 million hectares of farmland	Reach 20 million smallholders and enable them to increase productivity by 50%	Train 20 million farm workers on labor safety, especially in developing countries	Strive for fair labor conditions throughout our entire supply chain network

One planet. Six commitments.

Pollinator and Product Stewardship

Pollinators and Pesticide Stewardship Brochure

Guide to Seed Treatment Stewardship

- Proper pesticide use starts with reading and following pesticide label directions and precautions.
- Reduce potential harm to pollinators
 - Communication & Outreach
 - Use Integrated Pest Management (IPM)
 - Utilize good pesticide stewardship – proper rates, timing, application methods.
 - Seed Handling, Storage, Disposal





Classification: PUBLIC – FOR PRESENTATION ONLY

Operation Pollinator – Global Overview

An industry-leading program

Started in 2000



21
countries
implemented
worldwide



>400,000
acres
of farmland
provided with
ecosystem
services
in 2014

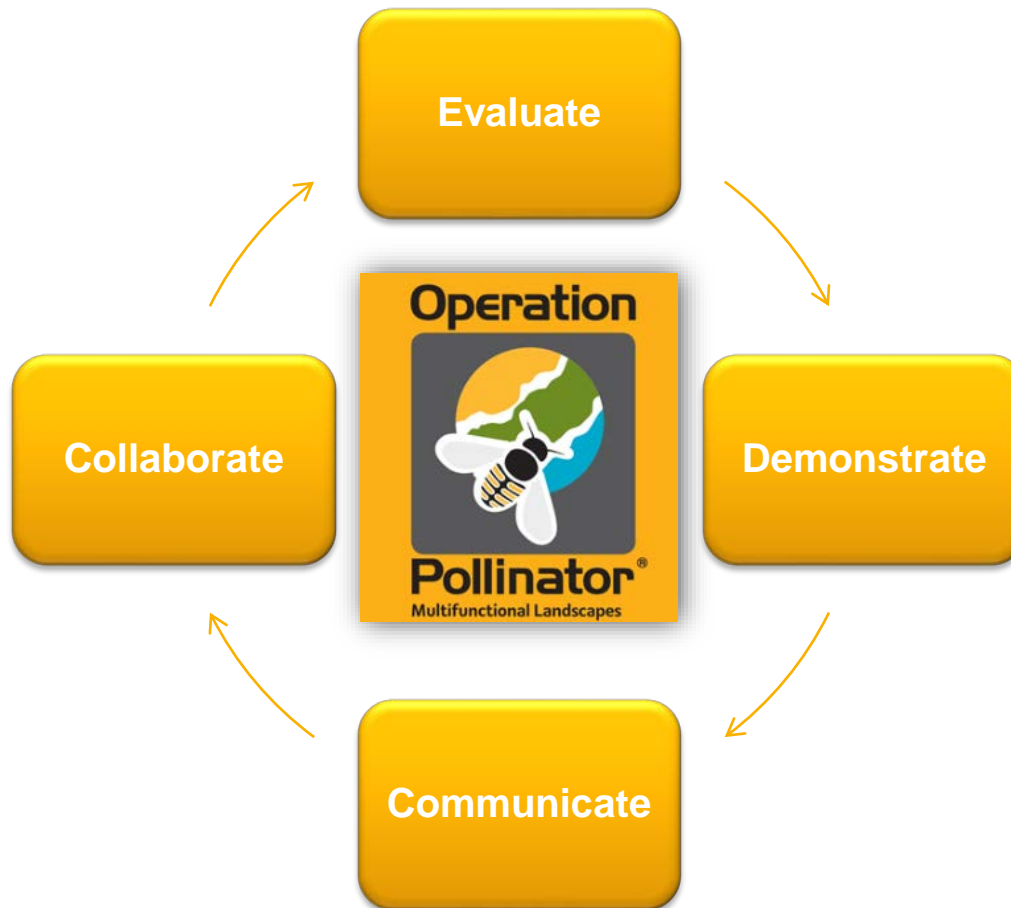


Part of our
Good Growth
Plan biodiversity
commitment

Proves that commercial
farming and positive
environmental management
can co-exist

Operation Pollinator Strategy

Advancing sustainable agricultural landscapes while improving & enhancing the natural habitat for pollinators



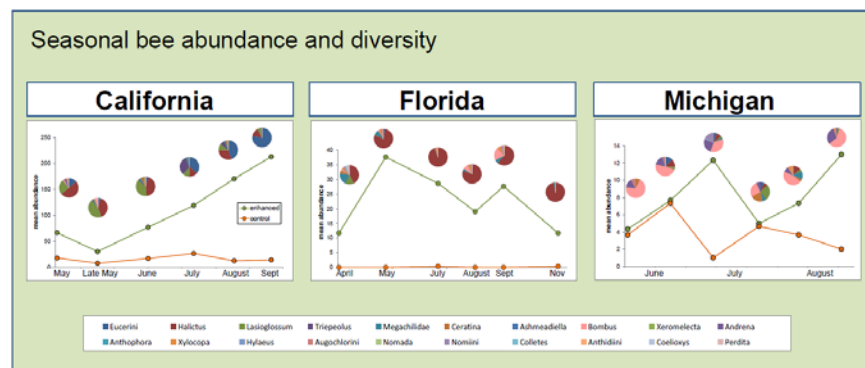
Operation Pollinator – Evaluate – U.S.

- **Objectives**

- Evaluate the response of bee abundance and diversity to tailored pollinator habitats at multiple farms.
- Evaluate pollinator plantings in turf settings.
- Best practices for monarch butterflies.

- **University Cooperators**

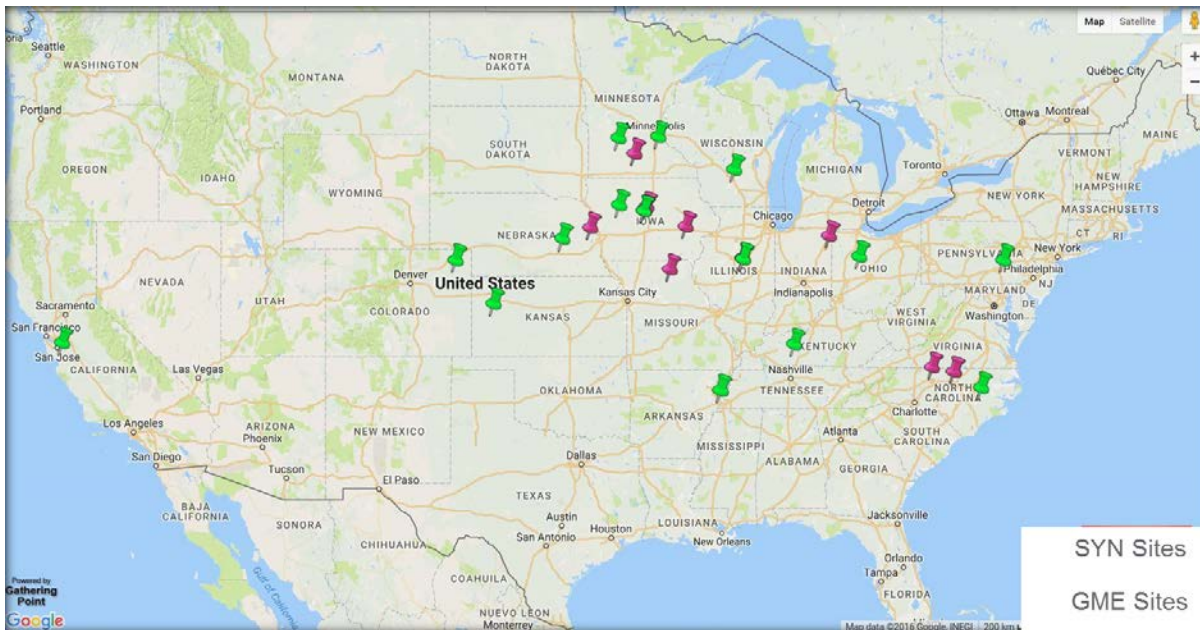
- University of California, Davis
- University of Florida
- University of Kentucky
- Iowa State University
- Michigan State University
- N.C. State University



Operation Pollinator – Demonstrate – U.S.

- Objectives

- Create awareness of OP
 - Syngenta customers and employees
- Showcase flowers for different regions of the U.S.



Operation Pollinator – Syngenta U.S. Headquarters Greensboro, NC



Operation Pollinator – Communicate – U.S.

- **Key Messages**
 - Multifunctional landscapes
 - Advancing sustainable landscapes while improving & enhancing the natural habitat for pollinators.
- **Syngenta U.S. Bee Health**
 - www.syngenta-us.com/beehealth



A healthy and vibrant level of biodiversity is essential for agriculture. Most crops depend on various pollinators, beneficial insects to control pests and fertile healthy soil structure. Syngenta is committed to promoting and protecting bee health.

Multifunctional Landscape Benefits

- Proactive management of field margins and low productive land can create multifunctional benefits

Buffer Strip



Field Margin



Operation Pollinator Website – Golf Courses

www.greencastonline.com/OperationPollinator



Operation Pollinator – Partnerships – U.S.

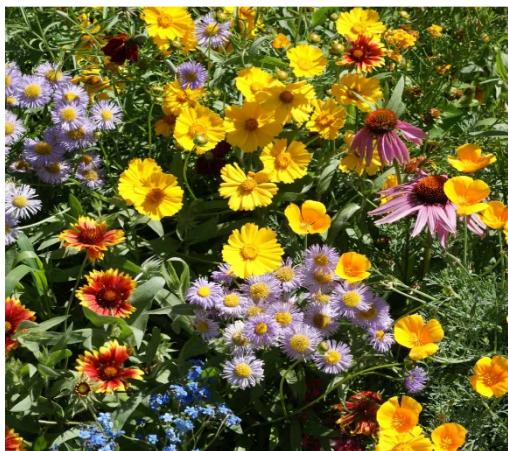
- Collaboration among multiple stakeholders is key for creating opportunities for more pollinator habitat and food sources.
- Best Management Practices
 - Work with groups that have mutual interests in pollinator forage and habitat projects.
 - Rely on partners to establish field network & sites.
 - Opportunity to work with farmers, landowners and golf courses who are interested in biodiversity and conservation.



Operation Pollinator – Golf Courses



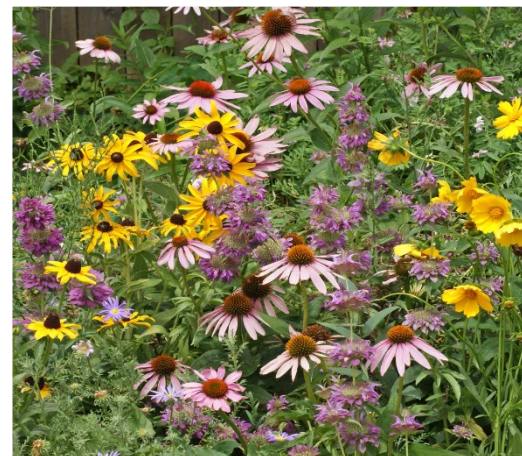
Regional Flower Mixtures – Applewood Seed Co.



Bee Feed Mix



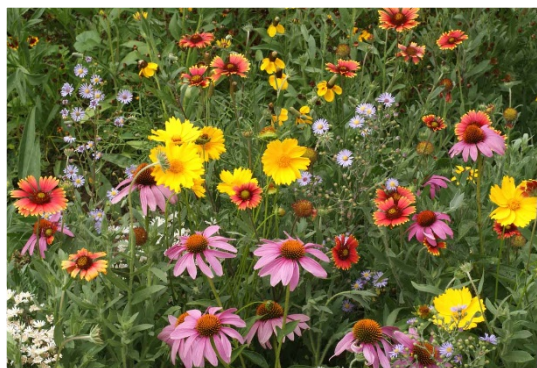
Butterfly on Dwarf Godetia



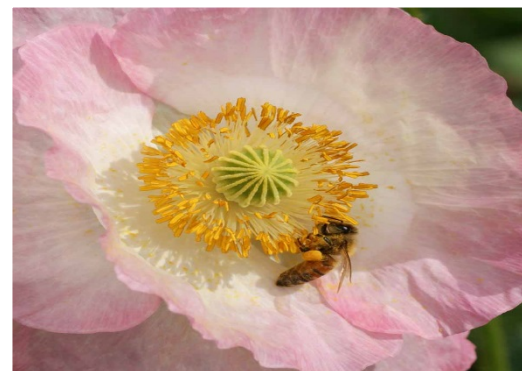
Eastern Pollinator Mix



Western Pollinator Mix



Honey Bee Mix

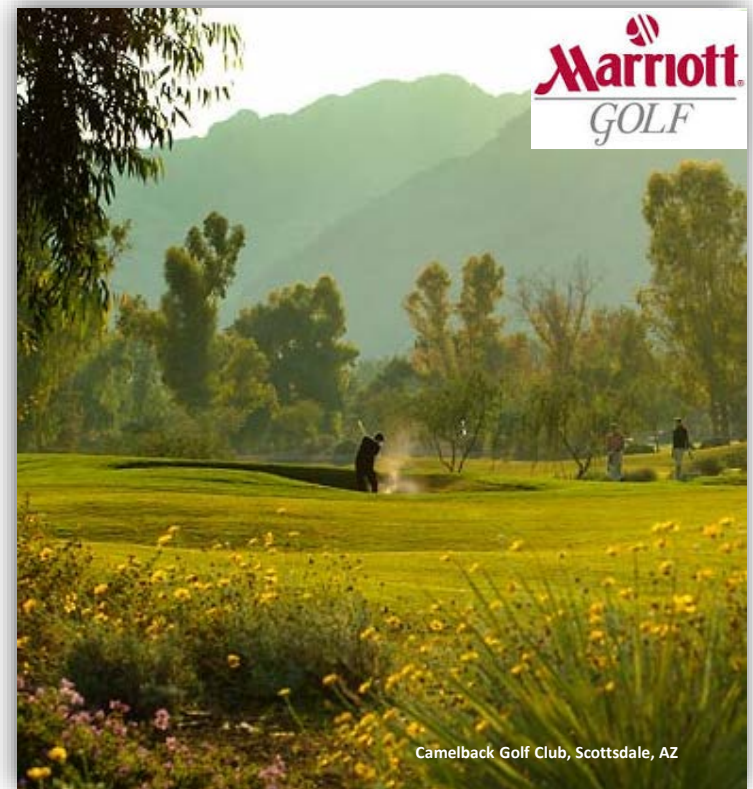


Honey Bee on Corn Poppy

Native seed from Applewood Seed Co., Arvada, Colo.

Marriott Golf – Commitment to Pollinators

- Marriott Golf has established and continues to maintain Operation Pollinator sites.
- Syngenta provides guidance on establishment and maintenance and supplies the signage.
- Opportunities for community projects.
- Share the pollinator story and introduce the next generation to the game of golf.



Ritz-Carlton Members Golf Club – Lakewood Ranch, FL

- Sean O'Brien - Director of Golf Grounds & Beekeeper
- Award
 - Certified Audubon Cooperative Sanctuary - Audubon International
- Community Engagement
 - School children – education & benefits of pollinators
- Beehives - Honey
 - Honey collected is used in the spa and restaurant



The Bear Trace at Harrison Bay, TN

- Awards
 - TN Governor's Environmental Stewardship Award for Excellence in Parks and Recreation
 - Certified Audubon Cooperative Sanctuary - Audubon International
- Two Operation Pollinator sites
 - Beside #1 tee complex
 - Between #10 green and #11 tee complex
- The project has been a great success and the areas are teeming with bees and butterflies.



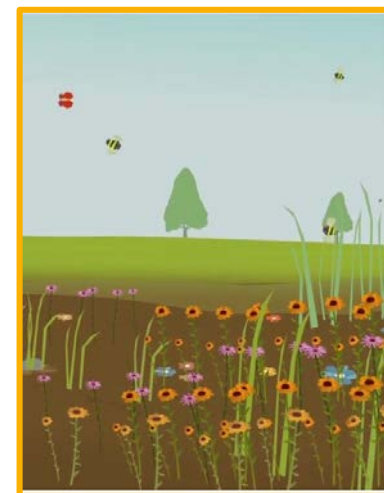
The Bear Trace at Harrison Bay, TN

Operation Pollinator Preparation



Operation Pollinator - R.D. Offutt Company

- Operation Pollinator Partnership
 - 2015/2016 - 950 acres
- Positive Outcomes
 - Increase in local awareness of pollinator habitats in agriculture landscapes
 - University of MN – conducting studies on pollinators and beneficial insects
 - EPA visit to learn about the plantings and seed mixtures
 - Featured in Syngenta 2015 annual report
- Video
 - <https://youtu.be/OqgSmq2f-I4>



Collaborations & Partnerships



Bee & Butterfly Habitat Fund

- Seed Mixtures
 - Custom seed mixtures that deliver maximum benefits for pollinators.
 - Cost-effective plantings, designed to maximize habitat quality and quantity.
 - Superior ability to manage early weed competition.
- Program Benefits
 - Streamlined non-government enrollment and adaptability for landowners
 - Maximum value per acre, optimizing bloom diversity and abundance throughout the growing season
 - Opportunity for beekeepers to work with landowners to improve forage.

Collaborations & Partnerships

Delta F.A.R.M. – Mississippi

- Farmers Advocating Resource Management
 - Association of growers and landowners
 - Conserve, restore and enhance the environment of the Northwest Mississippi
 - Strive to implement sustainable agricultural practices.
- Pollinator habitat in agricultural landscapes
- www.deltafarm.org



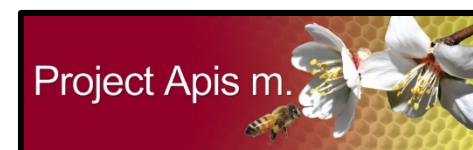
Collaborations & Partnerships

Trees Forever – Illinois & Iowa



- Advocate for trees and the natural environment
- Create ecosystems that help preserve biodiversity & pollinator habitat
- Voluntary conservation efforts of farmers and landowners
 - www.treesforever.org

Project Apis m. – California



- Provide seed mixes to almond growers for food for honey bees.
- www.projectapism.org

Additional Pollinator Resources



**POLLINATOR
PARTNERSHIP**

<http://pollinator.org>

Monarch Collaborative



[www.keystone.org/our-work/
agriculture/monarch-collaborative](http://www.keystone.org/our-work/agriculture/monarch-collaborative)



<http://honeybeehealthcoalition.org>



<http://growwise.org>

Discussion

- Other suggestions or questions?



Bringing plant potential to life

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