



The Presidential Memorandum on Pollinator Health

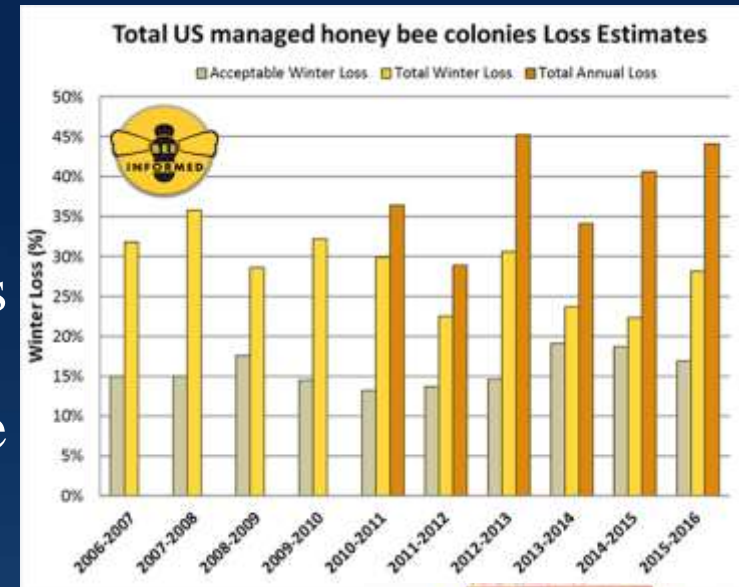
Dr. Bruce D. Rodan
Assistant Director for Environmental Health
June 23, 2016

“Bees are good!”



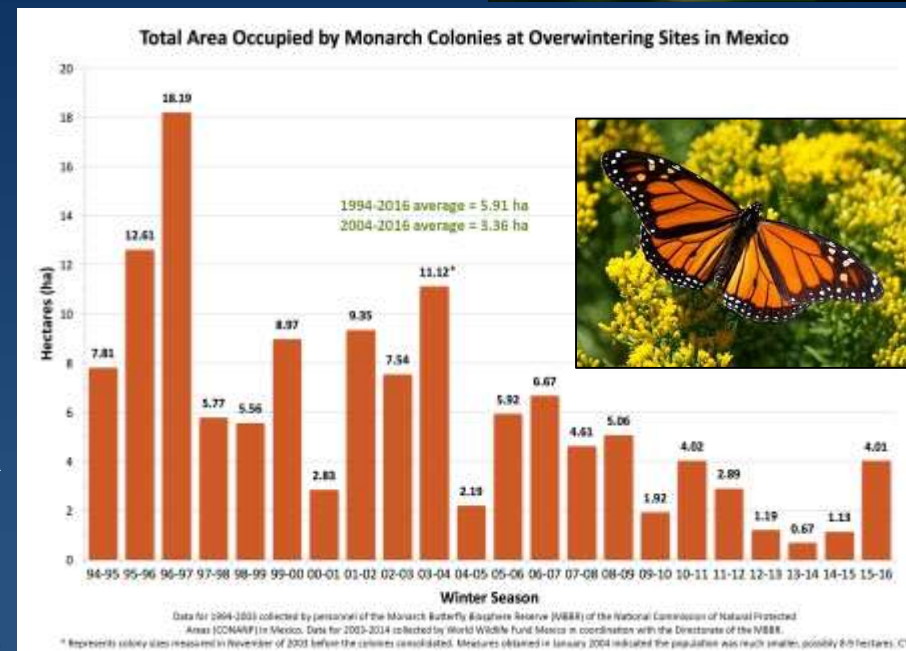
What's the Problem with the Bees?

- Increased honey bee colony mortality
- Colony collapse disorder ca. 2006, plus other hive pathologies
- Overwintering losses of ~30% of hives
- Confirmatory data now from the National Agricultural Statistics Service
- Threatens the economic viability of commercial beekeeping
- If you like affordable nuts, vegetables, and fruits, you should care!
 - 100% of the almond crop is honey bee pollinated
 - 1.4 million honey bee colonies shipped into California each February for the few weeks of almond bloom
- Other crops can be wind pollinated, e.g., corn



Other Pollinators and Monarch Butterflies

- A number of native bees and other pollinators are also in decline, for example:
- Bumble bees
 - Specific pollinators of some vegetables – buzz pollination
 - Cross infectivity with a number of honey bee viruses
- Monarch butterfly
 - Iconic migration from Mexico across North America, then back every year
 - 90% decline in Mexican forest overwintering in 2014
 - Obligatory need for *Asclepias spp* plants for caterpillars to absorb toxin
 - Loss of forests in Mexico, plus fewer “weeds” in the Midwest



Pollinator Habitat Challenges

- Agricultural economics has pushed us to high efficiency monoculture agricultural systems, such as corn and soybeans. This leads to virtually no weeds and a paucity of insects



- We urbanites mow, manicure, and apply chemicals to our lawns, roadsides, and right-of-ways creating a monoculture of non-native grass [or concrete and asphalt to be really neat]



The Presidential Memorandum (PM)

- Issued June 20, 2014, to galvanize responses to declines in honey bee colony survival, threats to the iconic monarch butterfly migration, and risks to other pollinator species such as native bees, moths, birds, bats
- The PM has four basic requirements
 1. Research to identify causes and responses
 2. Habitat enhancement and increased acreage
 3. Education and outreach
 4. Public-private partnerships
- Aiming at on the ground actions
- The President is looking to an all hands on deck approach



Presidential Memorandum -- Creating a Federal Strategy to Promote the Health of Honey Bees and Other Pollinators.

<http://www.whitehouse.gov/the-press-office/2014/06/20/presidential-memorandum-creating-federal-strategy-promote-health-honey-b>



Federal Pollinator Task Force

- The Federal Pollinator Task Force was created by the PM, and chaired by USDA Sec. Vilsack and EPA Admin. McCarthy
- The Task Force identified three overarching goals:
 1. Honey Bees: Reduce honey bee overwintering colony losses to no more than 15% within 10 years. ...
 2. Monarch Butterflies: Increase the Eastern population of the monarch butterfly to 225 million butterflies occupying an area of approximately 15 acres (6 hectares) in the overwintering grounds in Mexico ... by 2020.
 3. 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.
- The Task Force has prepared three implementation documents
 1. 2015 Federal Strategy to Protect the Health of Honey Bees and other Pollinators
 2. 2015 Pollinator Research Action Plan
 3. 2016 Pollinator Partnership Action Plan [released yesterday!]



Congressional Support

- Congressional Pollinator Protection Caucus
- Fixing America's Surface Transportation Act

SEC. 1415. ADMINISTRATIVE PROVISIONS TO ENCOURAGE POLLINATOR HABITAT AND FORAGE ON TRANSPORTATION RIGHTS-OF-WAY. Title 23, United States Code, is amended by:

- Inserting in S.319 “including the enhancement of habitat and forage for pollinators”;
- Adding “(c) ENCOURAGEMENT OF POLLINATOR HABITAT AND FORAGE DEVELOPMENT AND PROTECTION ON TRANSPORTATION RIGHTS-OF-WAY.—
- Inserting in S.329 “(b) PROVISION OF HABITAT, FORAGE, AND MIGRATORY WAY STATIONS FOR MONARCH BUTTERFLIES, OTHER NATIVE POLLINATORS, AND HONEY BEES”



Bringing the PM to the Field ...

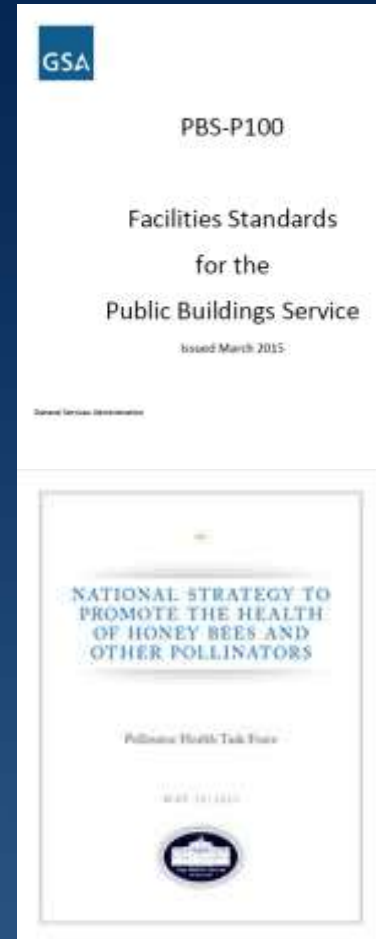
- Implement each of the agency commitments
- Use the Federal documents – as a mirror
 - Presidential Memorandum
 - CEQ Sustainable Landscape Guidance for Federal Facilities
 - GSA P100 Federal Facilities Standards for Buildings
 - Best Management Practices for Highways; Federal Lands
 - Pollinator Strategy commitments
- Advance Public-Private Partnerships

CEQ Guidance: <https://www.whitehouse.gov/administration/eop/ceq/sustainability/landscaping-guidance>

GSA P100: http://www.gsa.gov/portal/mediaId/225771/fileName/2015_P100_FacilitiesStandards.action

USDA/DOI BMPs: <http://www.fs.fed.us/wildflowers/pollinators/BMPs/>

USDOT: https://www.environment.fhwa.dot.gov/ecosystems/Pollinators_Roadsides/BMPs_pollinators_roadside.asp



Being Creative, Innovative, and Bold

- Big Problems, Big Solutions, Big Country
- We need to generate a new consciousness, a new norm

- Re-brand the critical plants?

- *Asclepias spp.*

- *Asclepias incarnata* – Rose Milkflower

- *Asclepias tuberosa* – Butterfly Plant

- A 1,500 mile long

- “Monarch Highway” sign



Actions – Plant a Garden!

- Become part of the Million Pollinator Garden Challenge (MPGC) and register your pollinator garden at the SHARE website
- Handy garden information at the Pollinator Partnership, Xerces, and the CEQ Addendum for Federal agency pollinator gardens



Actions – Educate our Citizens

- Gardening to help pollinators can add to traditional gardening practices
 - American native plants – big and bold!
 - Will love to share that direct sun space
 - A Zoo in Your Own Backyard
- Avoid hybrids – insects don't see colors as we do
- Aim for three season blooming, especially early Spring
- Use Integrated Pest and Integrated Vegetation Management (IPM/IVM)
- Don't forget the long sleeves and bug protection!



Actions: Work with Business, Governments

- Options abound
 - Local community plots, schools, buildings
 - State government facilities, roads, rest stops
 - Nudge Federal agencies
 - Monarch Waystations
 - Wildlife Habitats
- Start with small “asks” to overcome resistance; the plants and wildlife will be their own ambassadors



First Lady Announces the MPGC!



Contact

Dr. Bruce Rodan

Assistant Director for Environmental Health
White House Office of Science and Technology Policy
Executive Office of the President

202-456-6081
BRodan@ostp.eop.gov

