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# Pollinator Protection in EPA's Office of Pesticide Programs

International Conference on Pollinator  
Biology, Health and Policy  
Pennsylvania State University  
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# Pollinator Protection in EPA's Office of Pesticide Programs

- Background
- Efforts to Develop the Science
- Efforts to Develop Risk Management
- Communication Outreach



# Background

- National Academy of Science 2006 report on the status of pollinators in North America
- USDA, National Agricultural Statistics Survey Data:
  - Over last 60 years, number of managed bee colonies in the U.S. has shown a steady decline
  - Over the past 3 years national U.S. losses of commercially managed honeybees have ranged between 31 – 36 %
  - Not all losses are characterized with CCD-like symptoms
- CCD identified in late 2006
  - USDA Leads the Congressionally-mandated CCD Steering Committee of which EPA is a member.
    - No definitive cause, and multiple factors may play a role
    - Working hypothesis identifies the interaction between primary and secondary stressors, including pesticides as a possible primary stressor.



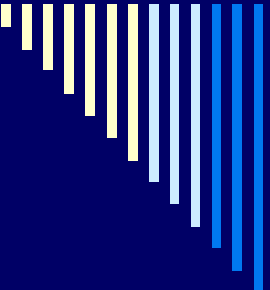
# Background

- OPP Pollinator Protection Team established in 2007.
  - Agency-wide response to pollinator-related issues.
    - Charged with advancing the Agency's scientific knowledge and assessment of pesticide risks to pollinators.
    - Improve risk management tools for mitigating potential risks to pollinators.
    - Increase and broaden collaboration and communication with governmental and non-governmental organizations and the public in addressing pollinator issues.



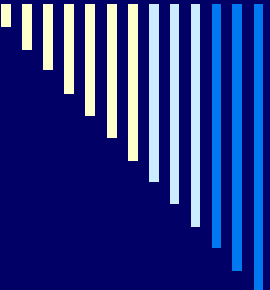
# Advancing the Science – OPP's Ecological Risk Assessment

- OPP's current approach for pollinators is a qualitative analysis based on hazard.
- Current set of study requirements for terrestrial insects includes
  - Acute contact toxicity
  - Honeybee toxicity of residues on foliage
  - Field testing for pollinators, in certain cases
- USEPA is working to refine its risk assessment paradigm for pollinators to include characterization of exposure and refine its measurement and characterization of hazard



# Advancing the Science – EPA's Ecological Risk Assessment

- EPA hosted a USDA-sponsored meeting on pesticide toxicity study design for pollinators.
- Global SETAC Pellston Conference
  - Steering committee composed of representatives of government, academia and industry from Australia, Europe, North America. Pellston will explore
    - Tiered process to assess exposure to systemic and non-systemic pesticides
    - Tiered standardized test methods to assess hazard to honey bee larvae, pupae, adults (workers, drones, queen).
    - A risk assessment process that can serve as both a screen-level and as a basis for more refined assessments where needed
    - Evaluate information on risk of plant protection products to non-Apis pollinators, which is overlooked under current regulatory testing protocols



# Advancing the Science – EPA's Ecological Risk Assessment

- EPA is coordinating with its state partners, California Dept. of Pesticide Regulation and Canada's Pest Management Regulatory Agency, on toxicity and exposure study protocol reviews in support of respective re-evaluations.
  
- EPA has expanded mechanisms through which beekeepers can report bee kill incidents
  - Direct reporting to OPP
  - National Pesticide Information Center (NPIC) Eco-Portal.



# Advancing the Science - Supporting Research Efforts

- EPA is a member of the USDA-led CCD Steering Committee
  - EPA participates as a reviewer of proposals related to pesticides and pollinators.
- EPA has visited research facilities that are conducting studies on the potential effects of pesticides on pollinators.
- EPA's labs are conducting residue analyses in support of research studies, several of which have been published.
- Tracking both domestic and international research on the effects of pesticides on pollinators.





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# Advancing Risk Management

- EPA is aware of concerns regarding label language to reduce potential risk to pollinators.
- Protective labeling and risk management rely upon sound science.
- Risk management challenges to protect pollinators



# Advancing Risk Management – Current Actions

- EPA is talking to and working with pesticide manufacturers to reduce risk such as:
  - Label language to insure proper sticking agents are incorporated on seed treatment labels.
  - EPA has also met with equipment manufacturers to discuss voluntary actions around pneumatic planter venting systems.
- EPA is coordinating the registration review schedule of the neonicotinoid compounds.



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# Advancing Risk Management – Current Actions

- EPA plans to revise the competency standards for pesticide applicators (CFR part 171) to include requirements for the protection of pollinator species.
  - Update Core Training Manual



# Advancing Risk Management – Looking Ahead

- Cooperation and communication are KEY to protecting bees
  - Applicators, growers, extension agents, beekeepers, industry, and state and government officials need to communicate effectively with each other to solve a complex problem.
- EPA will engage its Federal and State partners, as well as stake holders to help explore risk management options that are protective for pollinators, protective of grower interests, and cost effective.



# Communication and Outreach

- Working with international partners, such as the OECD, to coordinate and advance science and policy to protect pollinators.
  - EPA conducted a survey of 17 OECD member countries to explore the needs for regulating and managing risks to pollinators. Key conclusions:
    - advance and harmonize the science of risk assessment;
    - share risk management approaches and develop performance measures for management actions, and;
    - develop tools to better share information on incidents.
    - develop an inventory of research focused on pollinator health and protection



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# Communication and Outreach

- Presentations to organizations such as PPDC, SETAC, and others, upcoming presentation to American Association of Pest Control Operators.
  
- EPA's Pollinator Protection Website  
[www.epa.gov/pesticides/ecosystem/pollinator - protection.html](http://www.epa.gov/pesticides/ecosystem/pollinator-protection.html)