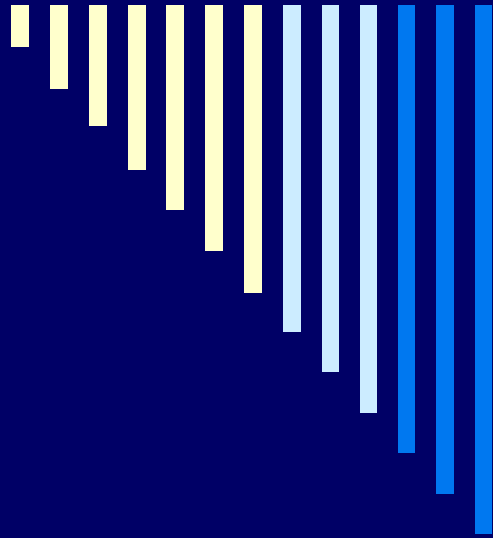


US EPA ARCHIVE DOCUMENT



# Pollinator Protection in EPA's Office of Pesticide Programs

**Pesticide Program Dialogue  
Committee**

**October 7-8, 2008**



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# Pollinator Protection in EPA's Office of Pesticide Programs

- Regulatory Programs
- Research Programs
- Voluntary Programs
- Communication and Outreach



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# Regulatory Programs – Testing for Potential Effects

## □ Tiered Testing Approach

### Tier 1 Honey Bee Acute Contact Toxicity

- Required for all outdoor uses
  - Results expressed as 48-hr LD50, with extensions to 96 hr
  - Mortality and signs of abnormal behavior reported



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# Tiered Testing Approach

## Tier 2 – Honey Bee Toxicity of Residues on Foliage

- Triggered if Tier 1 48-hr  $LD_{50} < 11$  ug a.i./bee  
or  
use pattern or other data indicate that bees are exposed
- $LC_{50}$  determined after 24 h exposure to treated foliage with 24-h extensions
- Measures time in which residues remain toxic to bees.



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# Tiered Testing Approach

## Tier 3 - Field Testing for Pollinators

- ▣ Required on a case-by-case basis
  - Prolonged foliar residue toxicity
  - Open literature indicates effects to pollinators
- Test conditions resemble those encountered in the field under actual use conditions
- Mortality and behavior of pollinators are recorded



# Improved Study Designs

## Tier 3 Field Pollinator Studies

- EPA is working with industry, USDA, and academia to develop more refined field pollinator study protocols capable of detecting a range of potential chronic and sub-lethal effects on adult and brood bees.
  - Traditional endpoints (growth, survival, reproduction)
  - Brood survival and development
  - Incidence of disease
  - Over-wintering success
  - Behavior
  - Sub-lethal effects



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# Regulatory Programs - Risk Assessment

- Last week, Crop Life America met with representatives of OPP to discuss their proposed process for conducting ecological risk assessment for pollinators.
  - Tiered approach
  - Use of existing data
  - Additional data may be required to address potential uncertainties.
  - Recommended 3-day workshop (Pellston) involving Agency science staff and stakeholders.





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# Regulatory Programs – Bee Precautionary Labeling

- Prohibits application under conditions that may kill bees
  - Based on toxicity and fate of product
  - Includes use restrictions for foraging bees and blooming crops
- Working with stakeholders to improve labeling (NAPPC labeling group)



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# Research Programs

- CCD Steering Committee and Working Group
  - USDA is the lead federal agency
  - OPP participates in Steering Committee and Working Group meetings.
  - OPP provides advice to Steering Committee and Working Group on pesticide-specific research related to CCD.
  - OPP is reviewing research protocols for studies funded by USDA examining potential role of pesticides in CCD.



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# Research Programs

- OPP has conducted site visits to leading research facilities conducting studies on the potential effects of pesticides on pollinators.
- OPP's BEAD labs are conducting residue analyses in support of several research studies.



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# Research Programs

- Increasing staff awareness of pollinator issues and research
  - Over the past year, OPP has offered two seminars on the status of research related to CCD.
  - This week roughly 40 OPP staff members participated in a day-long workshop on bee biology/ecology conducted by USDA and Pennsylvania State University.



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# Voluntary Programs

- Pesticide Environmental Stewardship Program (PESP) - voluntary partnership program established in 1994 to reduce pesticide risk to human health and the environment
  - PESP includes over 150 members who are committed to environmental stewardship
  - Many PESP members have adopted the use of biological pesticides and IPM practices



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# Voluntary Programs - NAPPC

North American Pollinator Protection Campaign (NAPPC) is a PESP supporter

- Developed action plan for pollinator protection
- Promotes annual conferences
  - EPA will host annual NAPPC meeting in October 2009.



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# Voluntary Programs - NAPPC

- Developed educational products and special partnership initiatives for reducing pesticide risks to pollinators
  - <http://www.napcc.org/PesticidesMain.html>
  - <http://www.epa.gov/oppbppd1/pesp/about.htm>



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# Communication and Outreach

- Cooperation and communication is KEY to protecting bees
  - Applicators, growers, extension agents, beekeepers, industry, and state and government officials need to communicate effectively with each other
  - Factors that improve bee safety need to be considered in decisions to apply pesticides





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# Communication and Outreach

- The Agency is working with stakeholders to encourage greater communication among growers, applicators, and beekeepers.
  - Pesticide selection
  - Integrated pest management
  - Pest management practices
  - Restrictive label language



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# Communication and Outreach

## □ OPP Pollinator Workgroup

- Cross-divisional response to pollinator-related issues.
- Enhance opportunities for communication and research toward limiting the potential effects of pesticides on pollinators.
- Direct communication with beekeeping industry leaders
- Direct communication with regulated industry



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# Questions for the PPDC

- Given the various activities in which the Agency is engaged, does the PPDC believe that additional effort should be expended in a particular area? If so, where should additional resources be brought to bear and why?



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# Questions for the PPDC

- Current data suggest that pesticides may not be a direct cause of CCD; however, they may play an indirect role through immunosuppression
  - To what extent does the PPDC believe that the Agency should invest in research that examines the potential sub-lethal and/or indirect effects of pesticides on pollinators?