

US EPA ARCHIVE DOCUMENT



# **Bed Bugs and IPM in Schools: Challenges and Opportunities**

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**2009, 2008, 2005, 2004 US EPA Pesticide Environmental Stewardship National Champion**  
**2005 US EPA Children's Health Recognition Award Winner**  
**2003 US EPA Region V Recognition Award Winner**



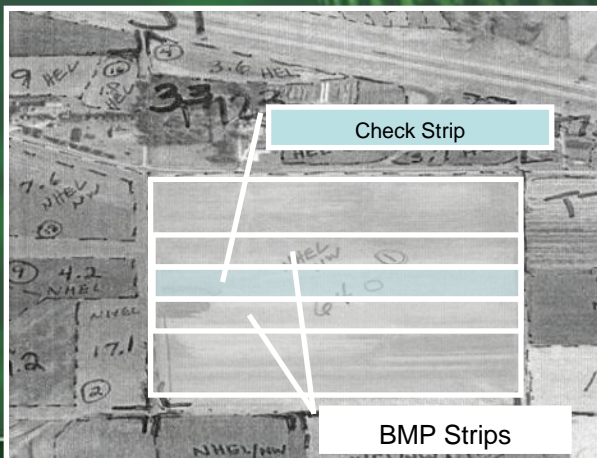
The IPM Institute  
of North America, Inc.

Harnessing marketplace  
power to improve health,  
environment and economics

Agriculture



Communities



Seventh International IPM Symposium  
March 2012







**IPM is a continuum!**

# Basic IPM



# I'm the real IPM baby!

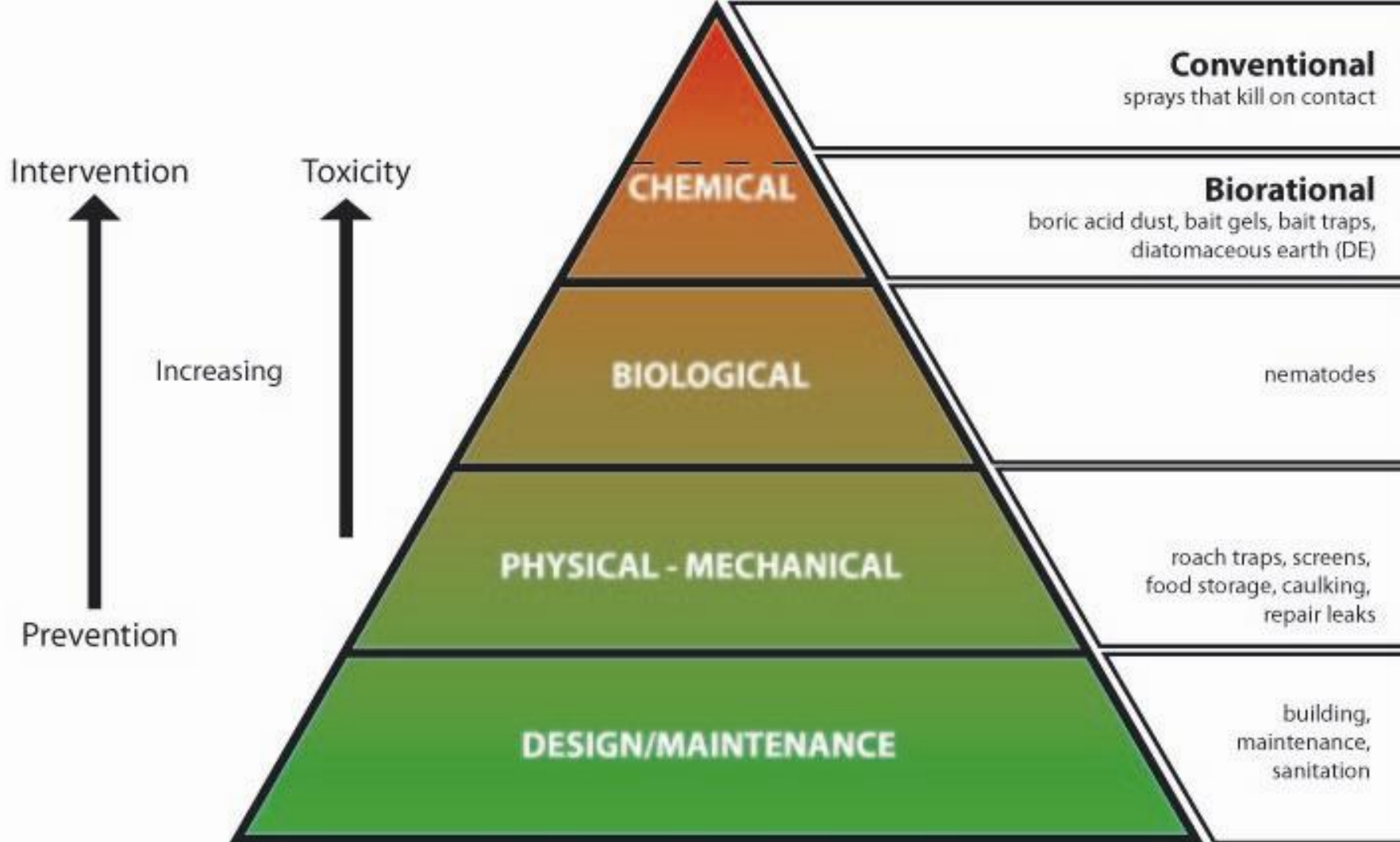


## Ultimate IPM





**Not “Do you do IPM?” but  
“How much IPM do you do?”**



# Pyramid of IPM Tactics for Roaches

PENNSTATE



College of  
Agricultural  
Sciences



Pennsylvania Department of  
AGRICULTURE



# Bed bugs in schools: Challenges

- **“Ky. school bans backpacks, lunchboxes after bedbugs appear”** (“an exterminator visited the school and no more have been reported”)  
- Sept. 7, 2010
- **“Bedbugs invading classrooms at alarming rate”** (“I was, like, 'OMG, there's bedbugs in the school,'“)  
- NYC, Nov. 5, 2010
- **“Bedbugs are sighted at Jersey City School 23 but officials can't fully exterminate”** - Dec. 20, 2010



Photos courtesy of Ron Harrison,  
Orkin Commercial Services

# Schools: detections, not infestations

- Schools lack food source at night.
- No known established, breeding populations in schools, except boarding schools or schools used as/adjacent to shelters.
- Backpacks, books, clothing, wheelchairs going from home to school provide harborage and transport, staff and students, just like any workplace.



# Effective practices/policies?

- Accurately identify all suspected specimens.
- Notify all parents of children using the room. Provide with basic info: detection in schools, resolve infestations in homes.
- Inspect room, careful follow up cleaning/vacuuming of room if necessary. Reduce clutter.
- Isolate student belongings in clear plastic bags?
- No need for residual insecticide use in schools.



# Bed bugs in schools: Opportunities

- Bed bug-proof desks, book shelves, etc. No cracks, crevices. Improves detection, facilitates removal with regular cleaning.
- Improved monitors. Current options do not work at population levels found in schools.
- Effective attracticide for low population levels.
- Effective management of bed bugs in homes: early detection and resolution.

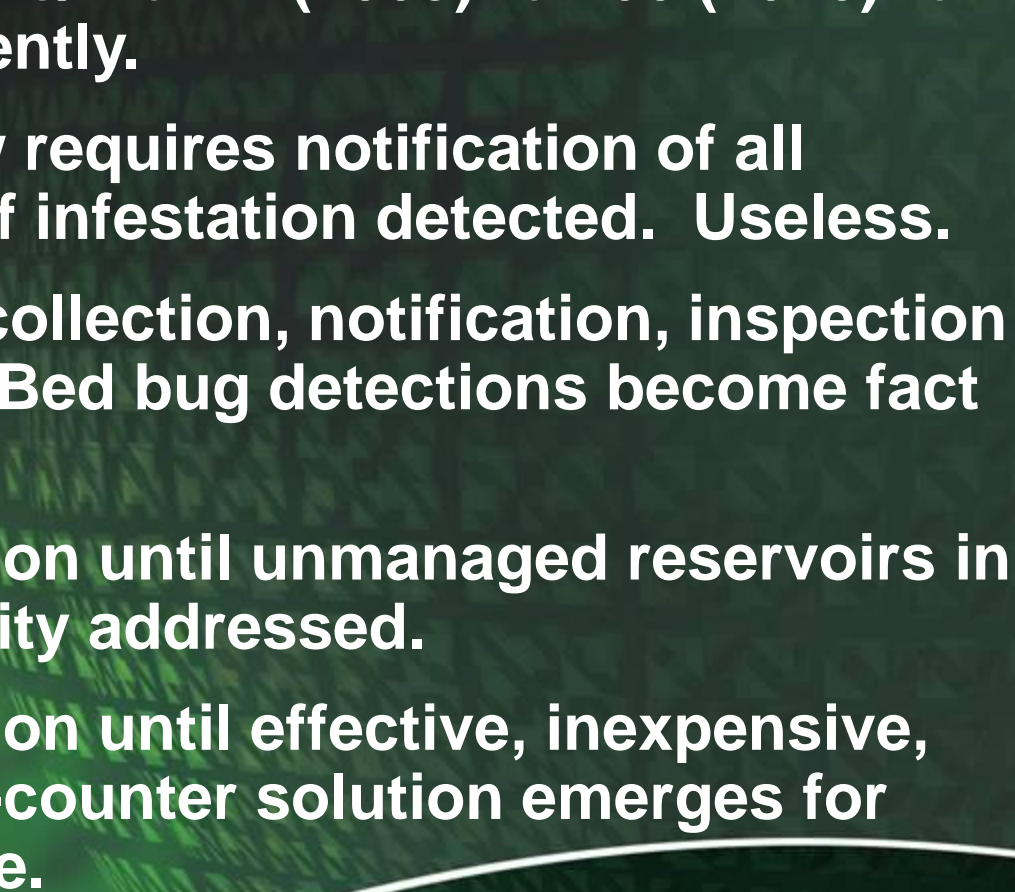


# Bed bugs in schools: Opportunities

- Follow the source. Just like head lice, without effective communication, reintroduction will occur.
- Students bringing bed bugs to schools are monitoring devices for infestations at home.
- How many new infestations can we prevent with effective interventions? Is eliminating these reservoirs an effective use of public funds?



# If not, is this the future?

- NYC schools: 50 confirmed specimens/month (2009) to 100 (2010) to 400 currently.
  - State law requires notification of all parents if infestation detected. Useless.
  - Sample collection, notification, inspection to stop. Bed bug detections become fact of life.
  - No solution until unmanaged reservoirs in community addressed.
  - No solution until effective, inexpensive, over-the-counter solution emerges for home use.
- 



# ***Resources for bed bugs in schools***

Gouge, D.H. 2007. Bed Bugs Go to School. *Pest Press*, Arizona Cooperative Extension.

<http://schoolipm.ifas.ufl.edu/Florida/Pest%20Press/Arizona/Jan-Feb%20Bed%20Bugs.pdf>

Merchant, M. 2010. Bed bugs go to school. *Insects in the City*. Texas AgriLife Extension. <http://insectsinthecity.blogspot.com/2010/12/bed-bugs-go-to-school.html>

Michigan Bed Bug Working Group. 2009. Bed Bugs: What Schools Need to Know.

[www.michigan.gov/documents/emergingdiseases/Bed\\_bugs\\_schools\\_293498\\_7.pdf](http://www.michigan.gov/documents/emergingdiseases/Bed_bugs_schools_293498_7.pdf)

New York City Dept. of Education. Siciliano, M.A., ed. 2007. Bed Bug Kit. Specimen Collection and Mailing Procedure; Bed Bug Protocol for Schools; Parental Notification Letter; Specimen Data Submission Form; NYC Dept. of Health and Mental Hygiene Fact Sheet in English and Spanish. 9 pp.

[schools.nyc.gov/NR/rdonlyres/8E645CFF-37CF-481E-82C3-63A3EEDD9007/0/BedBugKit.pdf](http://schools.nyc.gov/NR/rdonlyres/8E645CFF-37CF-481E-82C3-63A3EEDD9007/0/BedBugKit.pdf)

# JOIN US!

Pilot schools use proven approaches, such as assessments, workshops, targeted newsletters and pest monitoring to successfully demonstrate IPM in their region and state. Each year, our goal is to initiate demonstrations in at least five new states that have not previously completed a demonstration project.

## **Established seven school IPM demonstration projects throughout four regions:**

- Ascension Parish, Louisiana
- Brookings, South Dakota
- Flandreau, South Dakota
- Champaign, Illinois
- Chariho, Rhode Island
- Exeter, New Hampshire
- Salem Keizer, Oregon



## **Demonstrations planned for 2010:**

- Arkansas
- Idaho
- New Mexico
- Vermont
- Montana
- Wyoming

# JOIN THE EFFORT TOWARDS HIGH-PERFORMANCE IPM IN ALL OF OUR SCHOOLS BY 2015!

**We can make IPM the way pest management is done in school!**

**Just as security, food safety have been transformed in recent years, so can pest management.**

**IPM is not rocket science. We know how to make it happen, reducing pest complaints and pesticide use by 70 to 90%!**

**We need to integrate IPM into the education/training for facility managers, maintenance, custodial, food service, school health...**

## **Number impacted by school demonstrations in 2009:**

School staff: 19,365 Students: 139,398  
**Total: 158,763**

## **Number impacted by coalitions 2009**

School staff: 13,287 Students: 244,745  
**Total: 258,032**





# School IPM National Working Group Members To Date: 180



## North Central Region

### EPA

Donald Baumgartner, US Environmental Protection Agency, Region 5  
Jaslyn Dobrahner, US Environmental Protection Agency, Region 8  
Heather Duncan, US Environmental Protection Agency, Region 7  
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Chuck Eckermann, Iowa Department of Agriculture and Land Stewardship

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### Indiana

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Rick Johnson, Penn State University

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### *Vermont*

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### *West Virginia*

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### *Industry*

Matt Remmon, Western Pest Services

### *Other Non-Profit Organizations*

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## Southern Region

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Sherry Glick, US Environmental Protection Agency

Elizabeth Ley, US Department of Agriculture/Cooperative State Research, Extension and Education Service

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Dennis Ring, Louisiana State University

### *Mississippi*

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Chris Mills, Union County Public Schools

Godfrey Nalyanya, North Carolina State University

Steve Toth, North Carolina State University

Jim VanKirk, Southern Region IPM Center

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Tom Royer, Oklahoma State University

### *South Carolina*

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Leslie Godfrey, Department of Pesticide Regulation

### *Tennessee*

Karen Vail, University of Tennessee

# School IPM National Working Group Members

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 Michael Merchant, Texas AgriLife  
 Extension Service  
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Have fun, do good work  
and write often!



*Thank you for all that you do!*

