



# Maine's School Integrated Pest Management (IPM) Program --updates and resources

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# Pesticide Risks

- 20,116 people treated in health care facilities/yr.
- US pesticide exposures cost nearly \$200 mill/yr (emergency department visits, hospitalizations, and deaths\*)
  - Langley & Mort 2012 J of Agromedicine
- Childhood exposure to insecticides and herbicides associated with significant increase in risk of leukemia and lymphoma (Chen et al. 2015, J of Pediatrics)



\*Excluding costs from lost work time, hospital physician fees, and pesticide-induced cancers

# Unmanaged Pests are Risky Too



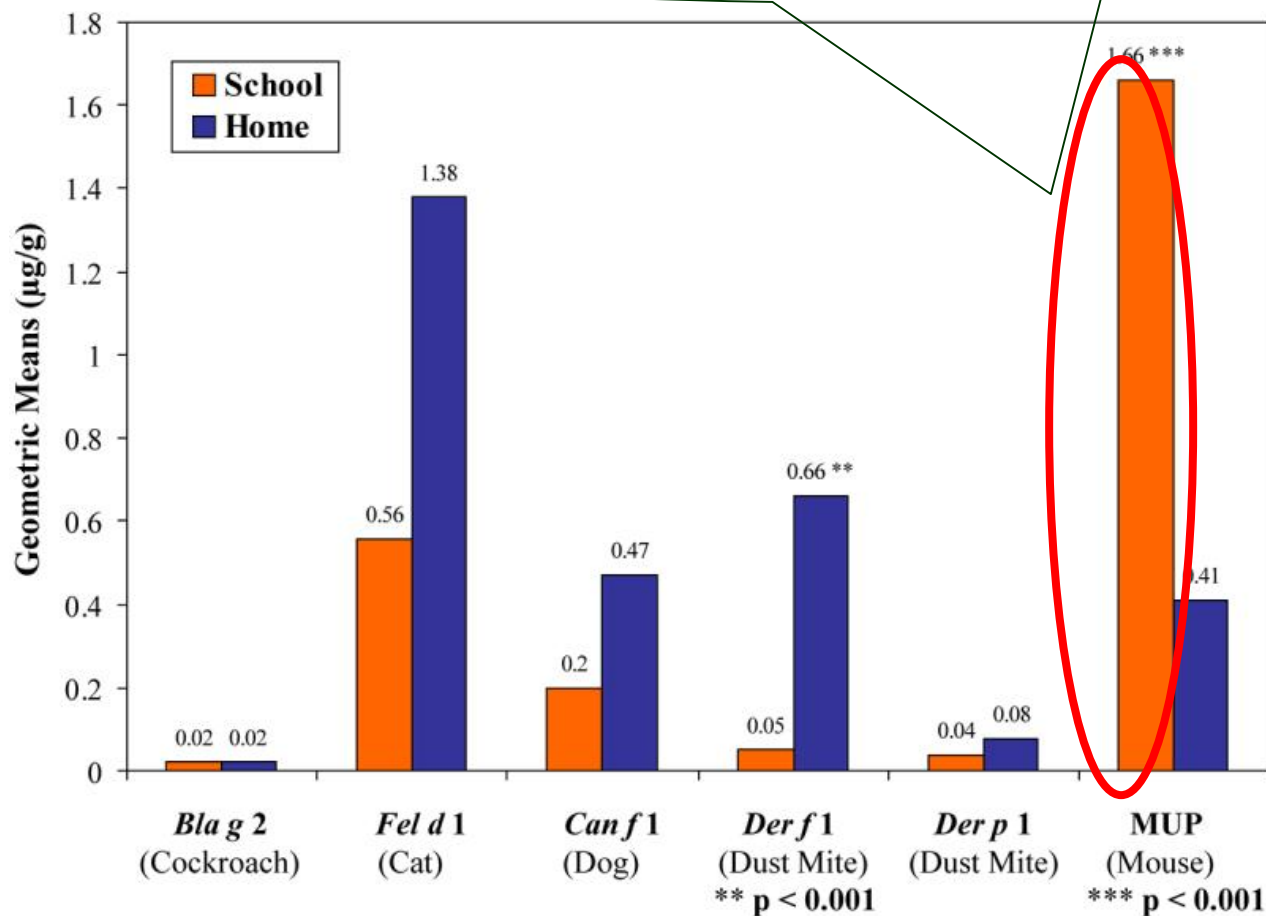
## Some Common Pests:

- Asthma triggers (mice, cockroaches, mold)
- Lice & bed bugs
- Ticks, mosquitoes, wasps, bees,
- Wildlife (bats, birds, snakes)
- Weeds & poisonous plants
- Turf & ornamental pests



# Pests and Asthma in Schools

Average concentrations of mouse allergens are 4-5x higher in schools than in homes of children with asthma\*\*



\*\* Permaul, et al. 2012. Pediatr Allergy Immunol. 2012. Allergens in Urban Schools and Homes of Children with Asthma.

# Integrated Pest Management (IPM) is **Risk Management**

- Reduce health risks
- Reduce energy costs
- Save time
- Protect property and the environment
- Solve pest problems sensibly, permanently, affordably



# Maine Requires all K-12 Schools to Use Integrated Pest Management (IPM)

- Must Adopt IPM Policy
- Appoint IPM Coordinator
- Notify Parents and Staff of IPM Policy and Before Pesticide Use
- Keep Pest Monitoring and Management Records 2 yrs
- Pesticides used only by licensed applicator (except for bees & wasps)

**Pests, Pesticides and  
Maine Schools—  
What You Need to  
Know**



**Integrated Pest  
Management  
Best Practices for Healthy,  
Well-Managed School  
Buildings and Grounds**

**MAINE DEPARTMENT OF AGRICULTURE,  
CONSERVATION AND FORESTRY  
SCHOOL IPM PROGRAM**

# IPM is.....

- **Prevent:** Seal pest entryways eliminate pest-friendly conditions
- **Monitor and Identify** pests
- **Give Pests the 1-2 Punch:** Use and coordinate combos of anti-pest tactics
- **Keep Records and Evaluate outcomes regularly**



**IPM**

# IPM Relies on Prevention

- Inspect regularly
- Maintain and Repair Bldgs and Grounds
- Seal Pest Entryways
- Deep Clean





# IPM Relies on Training, Documentation Communication and Accountability

**Health &  
Wellness  
Coordinator**

**Business Manager:**  
contracts, budgeting

**School  
Nurse**

*Contracted  
pest  
professional  
if have one*

**Students  
&  
Teachers:**  
education,  
sanitation,  
monitoring



**Custodians:**  
Sanitation,  
monitoring,  
pest  
reporting

**Maintenance Staff:**  
pest exclusion &  
monitoring

**Sports Staff:**  
scheduling, turf  
protection

**Office Staff:**  
communication,  
records, scheduling

**Kitchen Staff:**  
pest prevention  
& monitoring



# Write an **IPM Service Contract** not a Pest Control Service Agreement

- **Monitoring Plan:** to detect Pest Activity and Pest Conducive Conditions. Specifying
  - Sites to be inspected,
  - Type and number of traps, how often cleaned and serviced, a floor map showing their location, unique identification codes for each.
- **Pest Management Action Plan**
  - Non-chemical methods to be used first
  - Product labels for pesticides that may be used if needed
- **Communication** protocol clearly established between IPM Coordinator and contractor.



# Specify Detailed Service Record Requirements

- Detailed records provided at each service visit
- Pest-conducive conditions documented and clearly communicated to school staff.
- Does contractor use pest sighting log to record actions taken for documented pest sightings at each visit?

# Review Your Service Records

- Pesticides used often?

Why? Root problem hasn't been resolved!

- Pesticides applied only with prior written authorization by IPM Coordinator?

- Does contractor provide written recommendations for non-pesticide solutions?



Seal building envelope instead of using poison bait stations!

# How Cost Effective is your IPM Program?

- **Review Your District's IPM policy and procedures** with IPM Coordinator. Review pest sighting logs and pest management records.
  - *Frequency and kinds of pesticide use?*
  - *Are non-pesticide methods also used?*
  - *Pests effectively managed? Or recurring problems?*
- **Review budget** (bldgs. & grounds maintenance, custodial, pest management contracts, landscape/turf contracts).
  - *Is it adequate for staff and contractors to address pest prevention and management tasks in timely manner?*

# IPM Budget/Risk Calculator

- [www.ipmcalculator.com](http://www.ipmcalculator.com)





# Do a Building and Grounds Walkthrough with Your Facilities Director Yearly

## Maine School IPM Checklists

([maine.gov/schoolipm](http://maine.gov/schoolipm)):

- Maine School IPM Compliance Checklist
- School IPM Inspection Checklist
- Job-Specific Checklists (School IPM Toolkit)

## EPA Tools for Schools ([epa.gov/iaq/schools](http://epa.gov/iaq/schools)):

- Walkthrough Checklist, Problem-Solvers, Guidance, More





# New Resource! [www.ischoolpestmanager.org](http://www.ischoolpestmanager.org)

## *iSchool* PEST MANAGER

<a href="#">About</a>	<a href="#">What's New?</a>	<a href="#">File Types</a>	<a href="#">Regulations</a>	<a href="#">Training Modules</a>	<a href="#">Document Toolbox</a>	<a href="#">Pests</a>	<a href="#">Help</a>	<a href="#">Contact Us</a>	<a href="#">Show Me Everything</a>	AA
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Go Local	Just For You	What's Bugging You?	Document Toolbox
			
State resources	IPM Coordinators	Ants	Templates
State IPM Programs	Facility Managers	Bees & Wasps	Fact Sheets
Laws in each state	Custodial Staff	Cockroaches	Action Plans
State regulators	Grounds/Landscape	Pantry Pests/Stored Products	Presentations
University Extension	School Nurses	Public Health	Training
	Kitchen Staff	Wood-Destroying Organisms	Guidelines
	Teachers	Flies	Checklists
	Administrators	Occasional Invaders	Regulations
	Pest Mgmt. Professionals	Spiders	Posters/Signs
	All Hands	Rodents	Log/Forms
		Weeds	Award/Certificate
		Wildlife	

- Training Modules
- Pest How-To Factsheets
- And more





# New Resources

- **StopSchoolPests.org**: certificate program for IPM training
- **IPM Service Contract Guidance (EPA)**
- **Maine School IPM e-Newsletter** (sign up at [maine.gov/schoolipm](http://maine.gov/schoolipm))
- **School Nurse IPM Training Project** (send me your school nurses!)

# Maine School IPM Program

ME Department of Agriculture, Conservation and Forestry

- Templates
- Training
- Tools
- Guidelines
- Newsletter
- Consultation
- Pest Identification

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The screenshot shows a Windows Internet Explorer browser window displaying the website <http://www.maine.gov/agriculture/pesticides/schoolipm/index.htm>. The address bar shows the URL. The page title is "Maine School IPM Program - Windows Internet Explorer provided by IEB Policy Ver.8 - State of Maine". The website header includes the URL [www.maine.gov/schoolipm](http://www.maine.gov/schoolipm) and the Maine School IPM Program logo. The main content area features a large image of a school building with a clock tower. Below the image, the text reads: "School IPM: Dedicated to reducing risks of pests and pesticides in Maine Schools". A sidebar on the left contains a "SCHOOL IPM" menu with the following items: "What is School IPM?", "Tools, Templates and Tips", "Maine School IPM Manuals", "Got Pests?", "Workshops", "Newsletters", "Web Resources", and "Contact Us". The browser's status bar at the bottom indicates "Done" and "Trusted sites".