

Midwest School IPM Workshop Notes: March 23, 2004

Challenges to Development & Implementation of School IPM

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EPA's Mission:

To protect children's health from unnecessary exposure to pesticides that are used in their schools to control pests.

EPA encourages schools to adopt Integrated Pest Management (IPM) practices to reduce children's exposure to pesticides.

1. Common school pests: head lice, bees/wasps, rodents, flies, cockroaches, ants, termites, weeds

2. Pests & Pesticides

- a. 70-93% of schools use pesticides
- b. indoors or outdoor use
- c. in-house or contractual spraying
- d. routine, calendar applications OR as-needed applications

3. Health Risks: Pesticide Exposure

a. 2,300 school pesticide exposures reported between 1993-1996 (US GAO, 1999)

note: reported cases vs. actual exposures – numbers vary...everyone does not report an incidence.

b. difficult to diagnose, unlikely to make association between symptoms and pesticide exposure

c. Acute – symptoms include:

headache, dizziness, nausea, diarrhea, asthma, allergies

d. **Chronic** toxicity concerns include
cancer, reproductive damage

4. School Pesticide Incidents have driven responses, have regulations

a. Broad Ripple High School, Indianapolis

(1). Janitor mixed insecticide and diesel fuel (instead of water) and sprayed weeds next to storm drain, air intake, cafeteria windows

(2). School was evacuated, 6 people in the hospital

b. Acme Elementary School

(1). Teacher sprayed malathion on plants outside school near air intake

(2). School was evacuated, several went to emergency room

5. EPA Recommends That Schools Should...

a. Implement a Pest Management Plan that includes IPM

b. Reduce the pesticide risks for all children and staff

6. What is IPM?

- a. Integrated Pest Management (IPM) is an effective and environmentally sensitive approach to pest management in the school community.
- b. A school IPM program employs commonsense strategies to reduce sources of food, water and shelter for pests in your school buildings and grounds.

7. Definition of Integrated Pest Management:

- a. "...a pest management strategy that focuses on long-term prevention or suppression of pest problems through a combination of techniques such as monitoring for pest presence and establishing treatment threshold levels, using non-chemical practices to make the habitat less conducive to pest development, improving sanitation, and employing mechanical and physical controls.
- b. "...Pesticides that pose the least possible hazard and are effective in a manner that minimizes risks to people, property, and the environment, are used only after careful monitoring indicates they are needed according to pre-established guidelines and treatment thresholds." Healthy Schools Act of 2000 (Assembly Bill 2260)

8. Why IPM? Pesticides Pose Potential Risks in Schools

- a. A school community may be exposed to pests, as well as pesticides used to control these pests.
- b. Pesticides can help control pests but they need to be used carefully.
- c. Children may be more sensitive to pesticides than adults, due to their size and the more frequent hand-to-mouth

9. Pesticides Pose Potential Risks in Schools

-Since children spend so much of their day at school, you have an opportunity to create a safer learning environment for them - - to reduce their exposure to potentially harmful pests and to the pesticides used to control these pests.

10. Benefits of School IPM

- a. Potentially reduces pesticide exposure
- b. Potentially reduces environmental risks
- c. Proactive (before a problem develops) vs. reactive approach (dealing with a problem)
- d. Long-term pest management
- e. Saves money in long term

11. Drawbacks of School IPM

- a. More expensive to start program
- b. Requires good communication & record keeping
- c. Additional training may be necessary
- d. Group effort
- e. May require some ingenuity and elbow grease

12. IPM in Schools: a National Trend (based on data from Harrington National Pest Management Association)

- a. 12 States currently Mandate IPM
- b. 6 States have a Voluntary IPM Rule
- c. 20 States have pre-Notification Requirements
- d. **NATIONAL IPM LEGISLATION** has been introduced several times, most recent versions passing the Senate

13. CORNERSTONE FACTORS: for School IPM Adoption

- a. Funding - #1 thing to get started
- b. Partnerships – are essential. No one agency can start or do it alone.

14. School IPM: Federal Funding

- a. Federal Funding essential to Initiate any Level of Effort in any state
- b. Federal Funding Starts “Ball Rolling”
 - (1). Schools have few other funds to change
 - (2). States have little funding or staff time

15. External Pressures on Schools to Initiate School IPM Programs

- a. Recent Exposure Incident [Mark Burns to cover]
- b. State Law [Mike Merchant to cover]
- c. Top-Down School Dist or State School Board...pressure on schools, esp. small or individual schools.
- d. Continuous Outreach of Need from State (SLA, State EPA, State Health)
- e. Advocacy Concern for Children Health & pesticide data used for school embarrassment (use survey data)
- f. Dedicated Individual Staff is the key to successful IPM programs
- g. Strong Individual Parent Involvement

16. External Pressure on States to Initiate School IPM Programs (ranked in order of importance)

- a. State Legislation
- b. Governor/State Legislator Priority
- c. Specific Federal Focus & Federal Funding Opportunities (EPA plays vital role to focus states, make priority, direct funding)
- d. “Me Too” Contagious Political Interest (state gov meeting, neighboring states... all methods to “spread the news”)
- e. Strong Advocacy Pressure

17. Partnerships are Absolutely Necessary

- a. EPA Regions
- b. SLA
- c. University (CES)
- d. Pest Management Professionals
- e. Advocacy Organizations
- f. School Administrator & Sanitarian
- g. School Teachers & other staff
- h. Traditionally opposing parties MUST “smoke the peace pipe”, recognize & accept each other’s roles, interests & differences, and work together in consensus building.

- i. Compromise & Cooperation is necessary.
- j. No one entity can do it alone.

18. School IPM Steps to Success

- a. Federal Funding
- b. Partnerships (meet on a regular basis)
- c. Federal Leadership (Commitment)
 - (1). Regional priority (Mgt Buy-in) get acceptance and buy-in
 - (2). Designated staff leader
 - (3). Funding priority
 - (4). Targeted grant solicitations
 - (5). Inter- & intra-State communications – work on fostering the relationships
 - (6). Continual forefront of States- get on agenda
Everyone has to be involved in the effort. Has been difficult because the players have never sat at the same table before. Recognize everyone's role and interests. Accept differences. Have to work together.
- d. State Leadership (Commitment)
 - (1). Focused Federal funds start the "Ball rolling"
 - (2). Alternatively, high level (Governor or State Legislator) may start Ball Rolling
 - (3). Key State leader (SLA, CES, Advocacy, other State) keeps the Ball Rolling
 - (4). SLA designated key State specialist w/IPM workload to oversee & coordinate State efforts [Pat Kandziora to cover]
- e. State Achievements to Foster Schl IPM Adoption & Implementation
 - (1). Create State-wide Workgroup of all players – meet quarterly
 - (2). State-wide Survey of school pesticide use (pre- & post-adoption) [Carol Pilcher to cover] – mandatory, critical to start somewhere, to demonstrate it will work, get urban, rural and in between, then move on... for political interest as well
 - (4). State IPM manual – good for management
 - (5.) Web Site [Matt Westgate to cover]
 - (6). School IPM pilots
 - (7). Resource Tool Kit [Jean Ciborowski to cover] - use from other successful programs.
 - (8). Other Outreach Tools (newsletters, fact sheets, news releases, classroom projects)
 - (9). State-wide School Sanitarian Workshop – do one for administrators
 - (10). State-wide PMP Workshops
 - (11). Indoor IPM Workshops [Bobby Corrigan]
 - (12). Outdoor IPM Workshops [Mark Shour]
 - (12). Regional Resource Center to provide assistance at all levels – sharing between states...there is already so much out there.
- f. Inter-State Communications to share Experiences, Successes & Failures
 - (1). EPA Region creates Schl IPM Web Site with State links – each state should have one

- (2). EPA Region maintains school IPM as pre-SFIREG agenda topic – keep on forefront, agenda at all times
- (3). EPA Region creates Email List & shares with all State partners local, State, & national IPM information – PMP, advocacy groups, state leaders
- (4). Creation of Regional Resource Center for further inter-State sharing – newsletters
- g. School Leaders
 - (1). Key individuals at pilot schools may help lead State-wide promotion and adoption of IPM - use them
- h. Pest Management Professional Leaders
 - (1). Involve State Pest Control Assoc & Progressive PMPs from the start – continue to involve
 - (2). Work with PMPs & not against them [Brad Smith to cover]
- i. Rewards and Recognition
 - (1). Critical for individual & agencies to sustain effort
 - (2). Reward/recognize at all levels of all key implementers – certificates, plaques, ceremony
 - (3). Recognitions attract attention of Management, which continues to support IPM work of staff. Management buy-in when brought to their attention.

19. Continual Challenges to School IPM Implementation: Schools

- a. More Important Issues (budgets & operating funds, grade standards, drugs, violence, employee disputes, etc.)
- b. Limited Resources for IPM/low bid policy – “what can I get out of this?”
- c. Resist Change – WHY do it different? You must **sell** them on IPM
- d. Acceptance of IPM over Traditional Quick-Kill Spray Mentality – hard to overcome vs. longer term management.
- e. Staff time for IPM – takes more time, resources, more record keeping, work
- f. Maintain Sanitation (messy students & teachers) resembles a war zone some days!
- g. Communication, Communication – challenging, include students in communication.
- h. Continual School-wide Education – due to staff, student turnover
- i. Uncooperative Staff (teachers, cooks, sanitarians) – messy teachers, cooks, high turnover
- j. Pest Pressures from Outside (kids bringing pests to school in their backpacks)
- k. Staff Resistance to No Pesticides (teachers use own pesticides)
- l. Competing Sanitation/Health Codes – no bugs or no rodent droppings allowed attitude conflicts with IPM

20. CONTINUAL CHALLENGES TO SCHOOL IPM IMPLEMENTATION: STATES (SLA & CES)

- a. Limited Resources (for projects & travel)
- b. Competing Duties & Responsibilities
- c. Staff Time for IPM coordination, workshops, trainings, pilots, etc.

- d. Communications with other States agencies and within own organization (Mgt buy-in)
- e. Adversarial Responses from Advocates or State Politicians

21. CONTINUAL CHALLENGES TO SCHOOL IPM IMPLEMENTATION: PEST MGT PROFESSIONALS

- a. Competing Contract Bids – low bid mentality
- b. More Recordkeeping & Labor
- c. “Business Edge” for increased service & Cost (NPMA Quality Pro IPM Recognition)
- d. Specific Technical Training of PMPs
- e. Customer Education of IPM vs Quick-Kill – school looking for cheapest method, now to charge for not spraying , charge for monitoring
- f. Customer Cooperation (teachers, sanitarians, students, etc)
- g. Change of Public Perception of “spray jockey” to “professional” (to address by NPMA, improve standards of business, increase Service Tech pay)
- h. Learn to Work Cooperatively w/EPA, States & advocates rather than as enemies – state PMPO Association may not be willing to work with EPA, state agencies
- i. high turnover in companies – some are not training new technicians as well.

22. CONTINUAL CHALLENGES TO SCHOOL IPM IMPLEMENTATION : ADVOCATES

- a. Limited Financial Resources (dependent on outside funding and donations)
- b. Low Pay for Young & Inexperienced Personnel - staff turn-over a problem
- c. Limited Number of Staff
- d. Accept Reality for need of judicial use of some pesticides
- e. Change Industry & Public Perception from a “tree lover” to “practical solutionist”
- f. Learn to Work Cooperatively w/EPA, States & PMPs rather than as enemies

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- b. Questions?

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Key Contributors to a Successful IPM Program

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1. Overview

- a. Since 2000 – lots of funding from EPA Region 5 & Headquarters
- b. Pilot IPM programs (Schools and daycares)
- c. Workshops
- d. IPM hotline number
- e. Website: www.entm.purdue.edu/schoolipm/
- f. Ph.D. research project

2. IPM: How do we define success? Factors that affect IPM success

- a. Administrative support
- b. Pest management professional
- c. Education of Staff
- d. Cooperation of staff
- e. Evaluation
- f. Communication – what are the school's views?

3. IPM in Schools

A system that combines non-chemical and chemical methods to manage pests in a way that reduces risks to people...sanitation, exclusion, maintenance, monitoring and selection of non-chemicals ...a cooperative effort between schools and professionals

4. Administrator's Goals

- a. No pests, no pesticides – efficient, “invisible”
- b. Few demands on staff, takes little time
- c. Program is invisible (no complaints)
- d. Program is routine (“we don't have to think about it”)
- e. “Let the pest management contractor handle everything” is the problem.
- f. schools are re-inventors of technology

5. IPM is a Partnership Against Pests! Open lines of communication between the three entities (administrators, school staff and PM service) is the key to success.

- a. School Staff
 - (1). Repairs and maintenance
 - (2). Improve sanitation
 - (3). Reduce clutter
- b. Pest Management Service
 - (1). Monthly inspections
 - (2). Pest monitoring
 - (3). Recommendations
 - (4). Pesticide treatments

- (5). Record keeping
- c. Administrators
 - (1). IPM Policy Adoption
 - (2). Delegation of tasks
 - (3). Follow-up –just because a school has a policy, does not mean IPM will be practiced
 - (4). Evaluation

6. Factors that Affect IPM Success

- a. Administrative support
- b. Pest management provider
- c. Education of staff
- d. Cooperation of staff
- e. Evaluation
- f. COMMUNICATION!

7. Adoption of an IPM policy

- a. Guidelines for transition from “spray” program
- b. Law of the school
- c. Clarifies pesticide practices to parents and pest management contractors
- d. Gives administrators leverage to deal with staff
- e. Supercedes personnel changes

8. Motivation for Policy Adoption

What factors affect administrator’s decisions to adopt new pest management policies?

Factors Affecting Policy Adoption	n	Not Important	Somewhat Important	Quite Important	Very Important	Median
Concern about pesticide exposure	154	0.0	3.9	19.5	76.6	4
Concern about chemical sensitivity	153	1.3	9.2	26.8	62.7	4
It was the right thing to do	128	1.6	7.8	32.0	58.6	4
Liability issues	145	3.4	13.8	33.8	49.0	3
Possibility of legislation	154	3.2	26.6	32.5	37.7	3
School associations’ endorsement	151	1.3	21.9	39.7	37.1	3
Parent complaints about pesticides	151	12.6	25.2	25.8	36.4	3
School board support of policy	148	23.6	23.0	25.7	27.7	3
Staff complaints about pesticides	148	14.9	25.0	33.1	27.0	3

Advice of school corporation attorney	149	29.5	18.8	28.2	23.5	3
Advice of pest management contractor	151	27.2	19.2	31.1	22.5	3
Community support of policy	147	27.9	30.6	21.1	20.4	2
Attending a Purdue workshop	147	32.0	27.9	25.9	14.3	2
Concerns about previous practices	144	29.9	27.1	29.9	13.2	2
Recommendation from peers	149	40.3	38.9	12.8	8.1	2
Dissatisfaction with pest control	143	54.5	22.4	16.8	6.3	1

9. Indiana IPM in Schools

- a. IPM is not mandated by state law
- b. Dec 1999: Model policy drafted (IPRB)
- c. June 2000: Endorsement of school associations (revised draft)
 - (1). Model Policy mailed to schools
- d. June 2000: IPM Resource Center founded
- e. Oct-Dec 2003: Survey conducted
 - (1). 85% adoption of policy

10. Factors affecting voluntary policy adoption

*Highest rated factors (% “very important”):

- a. Concern about pesticide exposure (76.6%)
- b. Concern about chemical sensitivity (62.7%)
- c. It was the right thing to do (58.6%)
- d. Liability issues (49.0%)
- e. Possibility of legislation (37.7%)
- f. School association’s endorsement (37.1%)

11. Policy Adoption

- a. 85.3% adopted new policies
- b. Another 10.9% were considering or in the process of adopting
- c. Only 3.8% “no”

Policy adoption doesn’t ensure IPM practice! - to be effective, an IPM policy must be communicated to staff and pest control provider!

- a. Administrative Support
 - (1). Adopt an IPM policy
 - (2). Communicate policy to staff, PMP, parents
 - (3). Assign staff roles in the IPM program
 - (4). Communicate with PMP (2-way)

- (5). Follow-up
- (6). Program evaluation
- b. Pest Management Provider
 - (1). Must know IPM
 - (2). Be aware of school policy
 - (3). Develop an IPM contract (\$)
 - (4). Have support of administration
 - (5). Be a good communicator (educators not applicators)
- c. Education of Staff – rationale for change, principles of IPM, description of staff roles, emphasize “it is not more on your plate”, promote staff ownership of program, ongoing support (IPM Resource Center) is very critical, inservice training

13. Factors Facilitating IPM Implementation

Table A. Factors Facilitating IPM Implementation

Factors Facilitating IPM Implementation (n = 41)	Yes	Percent
Pest management contractor	12	29.3
Purdue IPM workshop	10	24.4
Advice from Purdue Extension	7	17.1
Educating staff	5	12.2
Staff support	5	12.2
Administrative support	5	12.2
Other	20	48.8

14. Factors Inhibiting IPM Implementation

Table B. Factors Inhibiting IPM Implementation

Factors Inhibiting IPM Implementation (n=36)	Yes	Percent
Time constraints	9	25.0
Lack adequate staff	5	13.9
Scheduling pesticide applications	5	13.9
Challenge of educating staff	4	11.1
Lack of staff cooperation	4	11.1
Cost/budget issues	4	11.1
Lack of understanding	3	8.3
Record keeping demands	3	8.3
Other	18	50.2

15. IPM: Policy versus Practice

- a. How does adoption of IPM affect school pest management practices?
- b. IPM Levels: full IPM, some IPM, no IPM
- c. “Essential” IPM practices (Green 2000):
 - (1). Monitoring
 - (2). No routine preventative applications
 - (3). Non-chemical methods
 - (4). Pest identification

Table A. IPM: Policy vs. Practice

IPM Practice	Chi2	Prob. (df=2)	Comments
Pest Sighting Log	21.016	0.000	Higher than expected in full IPM schools
Monitoring Traps	11.474	0.003	Higher than expected in full IPM schools
Routine Preventative Applications	4.371	0.112	Yes = 60.5% overall Full IPM = 50.8% No IPM = 64.1%
Non-chemical methods first	22.423	0.000	Higher than expected in full IPM schools
Pest Identification	2.168	0.338	Yes = 43.7% overall Full IPM = 50.8% No IPM = 38.5%

16. IPM: Policy vs. Practice

- a. Monitoring practices were strongly associated with IPM
- b. IPM schools more likely to resolve pest problems using non-chemical means first
- c. Pest I.D. before applications not different between IPM and non-IPM schools
- d. A high percentage of IPM and non-IPM schools still using routine preventative pesticide applications indoors

17. “IPM won’t work if we don’t work together.” - Group effort to make IPM work. Communicate and repeat.

- a. School Administrators
- b. School Staff
- c. Pest Control Professionals
- d. Pest management professionals do not do enough talking – more accountability on PMP’s part.
- e. Parents
- f. Students
- g. IPM Specialists
- h. Policy Experts
- i. Program Support

Mandatory vs. Voluntary IPM in Schools
Michael Merchant, Ph.D., BCE
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1. Overview

- a. Trends toward IPM
- b. IPM in schools in Texas
- c. Should it be a federal law?
- d. Will it cost schools more?
- e. Effects of mandated IPM in Texas
- f. Challenges of working in a voluntary state

2. The trend toward IPM

- a. 1993 Pest control in the school environment: Adopting integrated pest management U.S. EPA
- b. 1999 Pesticides: Use, affects and alternatives to pesticides in schools GAO report
- c. Illinois, Louisiana, Maryland, Michigan, Texas, West Virginia were first states to mandate IPM
- d. Federal law to mandate IPM in schools being considered

3. The Texas law is the most comprehensive state law in Nation – was passed in 1991; put into effect in 1995

- a. IPM policy approved by school board
- b. IPM coordinator
- c. Notification - parents notified 48 hrs by signs
- d. Record keeping (all applications, labels, MSDS sheets, non-chemical methods)
- e. Licensed applicators (no teachers, janitors, no “cans” in closet)
- f. Pesticide approval process (pesticides classified into green, yellow and red lists)

4. History of IPM in Schools in Texas

- a. pesticide misapplication in a rural school district prompted legislation Texas
- b. an organochlorine (Toxaphene) sprayed in locker rooms and buses – this product is for agriculture use only).

5. Second largest public school system in nation is found in Texas

- a. 4 million enrolled students – 2001
- b. 1,040 school districts/ 180 Charter schools
 - (1). Average size campus 544 students
 - (2). 7621 campuses
 - (3). 60% of districts have less than 1,000 students

6. Consumer’s Union Report Card September, 1999 (Advocate group graded how schools were doing with IPM)

- a. Pampa ISD - D

- b. Paris ISD - F
- c. Fort Stockton ISD - D
- d. Conroe ISD - C
- e. McAllen ISD - B
- f. Austin ISD - A
- g. Dallas ISD – C

7. Stakeholders in School IPM: children, school administration, teachers, regulatory agencies, public health officials, extension, voters, politicians, school board, lawyers, maintenance, parents, advocacy groups

8. Role of Cooperative Extension

- a. Position/strength of CES will vary from state to state
- b. Ability of CES to respond dependent on funding
- c. Sufficient funding for manpower
- d. Stability of funding
- e. Potential for multi-state cooperative programs

9. Should IPM in Schools be mandatory? Needs vary from state to state.
Assumption: that pesticides are always used as a last resort.

10. Children’s Environmental Protection Act

- a. S.1112 Sen. Boxer, D-CA; H.R. 199, Rep. Moran, D-VA
- b. Each school and day care center that receives Federal funding shall take steps to reduce the exposure of children to pesticides on school grounds, both indoors and outdoors; and provide parents with advance notification of any pesticide application on school grounds

11. School Environment Protection Act of 1999

- a. H.R. 3275, Rep. Holt, S.1716 introduced 10/99 by Sen. Torrecelli
- b. to amend FIFRA to require local educational agencies and schools to implement integrated pest management systems to minimize the use of pesticides in schools and to provide parents, guardians, and employees with notice of the use of pesticides in schools, and for other purposes.
- c. House bill 21 Co-sponsors, Senate bill 4 Co-sponsors

12. Integrated pest management system means a managed pest control system that uses integrated methods, site or pest inspections, pest population monitoring, an evaluation of the need for pest control [e.g., thresholds], and one or more pest control methods; [IPM] minimizes the use of pesticides and the risk to human health and the environment...
(condensed from Senate bill 1716)

13. Potential Problems:

- a. Current legislation does not acknowledge the integral part that pesticides play in IPM systems. Assumption is that pesticides are last resort, after all other methods are tried and fail

b. "...[if] a pest in the school or on school grounds cannot be controlled after having used the integrated pest management system ... and least toxic pesticides, the school may use a pesticide (other than space spraying of the pesticide) to control the pest ..." SEPA subsection (f) USE OF PESTICIDES

Potential Problems:

- c. Approved pesticides list
- d. Large number of registered pesticide products
- e. Continually changing

14. What do informed decision makers think? Should IPM practices be mandated for schools?

- a. Majority of people said NO
- b. Even those who said NO, felt that IPM was an important thing for schools to do
- c. Not an easy question for many to answer
- d. Need would be different from state to state

15. Would mandatory IPM legislation be more effective on a federal or state level?

- a. Several respondents pointed out that severity of pest problems, and pesticide use, varied significantly by region
- b. "Federal government would just screw it up!"

16. Are children regularly being exposed to [unsafe] levels of pesticides... as a result of pest control activities in schools?

- a. 85% said NO
- b. Many felt that unsafe exposures do occur, but rarely
- c. Chemically sensitive were mentioned, but respondents tended to view them as a special needs group
- d. Several noted that health benefits of reduced pest presence ought to be weighed
- e. Motivation for wanting to see IPM practiced was "better pest control" rather than protecting children from pesticides

17. IPM in Schools: Economics 101 - Focus group feedback from schools and PCO's

*Does IPM cost more than conventional (pesticide intensive) pest control?

- a. NO, over the long-run IPM is comparable or cheaper than conventional approaches
- b. YES, you don't get something for nothing. It takes more time to provide increased service and monitoring.
- c. Both sides have valid points, but...There's no right answer...
- d. Schools with poor service will pay more
- e. Inefficient, pesticide-based programs can save money with IPM

18. IPM Budget Calculator

- a. "IPM Tool for schools" being developed by Texas A&M University
- b. Spreadsheet-based calculator

- c. Includes default costs of budget items related to IPM
- d. Estimate the cost of different levels of IPM

19. Phase 1: Focus groups

- a. Pest Control Operator Group (5)
 - (1). Experienced servicing schools
 - (2). Large and small companies
- b. School facilities Managers (9)
 - (1). IPM Coordinators
 - (2). Large and medium districts

20. Most common pest problems - identified by schools and PCO's

- a. Monthly: Ants (esp. fire ants, 'sugar' ants), Spiders, Rodents, Cockroaches
- b. Seasonal: Swarming ants, Termites, Crickets, Bees and wasps, Grasshoppers
- c. Occasional: Crickets, boxelder bugs, millipedes, Fleas, Venomous spiders, Carpenter ants, Scorpions, Cicada killer wasps, Birds, Skunks/other wildlife, Head lice, Indoor flies

21. Products/Practices avoided

- a. RED list products (Warning or Danger signal words)
- b. Products with odor
- c. Preventive treatments (routine sprays)
- d. Pyrethroids used, but less often
- e. Baits (in open areas, kids have access to all areas)
- f. Glue boards (objectionable)

22. Green List Pesticides

- a. Baits
 - (1). Fire ant baits (MaxForce Granular preferred because of dark color)
 - (2). Gel baits
 - (3). Termite baits
- b. Botanical products (e.g., Citrus oil, pyrethrum, EcoPCO®), Granular, aerosols, liquids
- c. Insect growth regulators
- d. Bacterial drain cleaners
- e. Boric acid products

23. Non-chemical controls used

- a. Pre-baited glue traps
- b. Other traps
- c. Laser lights (for starlings, grackles, sparrows) – disrupts roosting
- d. Caulking/pest proofing (small jobs only)
- e. Expanding foam
- f. Stuff-it, vent screening
- g. Air curtains
- h. Door sweeps
- i. Dumpster design, placement, cleaning
- j. Bird barriers, tape, netting, wires
- k. Steam cleaning

- l. Wire brush drain cleaners
- m. Fly traps (expensive)
- n. Rat zappers

24. School IPM Budgets

District	No. Campuses	Annual Maintenance Budget (Millions)	Annual IPM Budget (Thousands)
A	14	\$1.3	\$1
B	19	\$9.5	\$14
C	25	\$0.9	\$37
D	37	\$19	\$115
E	74	\$17	\$71

25. PCO comments

- a. Mandatory IPM improving schools’ response to sanitation recommendations
- b. “Set expectations, do what you say, it’ll be OK”
- c. Response times very important to schools
- d. “We don’t kill a lot of bugs. It’s all about communication.”
- e. Less profit with schools. Typically bid Schools at 2/3 rate of a commercial account
- f. “You don’t make money servicing schools. You build your business.”
- g. Schools don’t necessarily relate time spent to good service, but we base bids on estimated service times.
- h. “A small operator might make money, but a large company rarely does.”

26. Issues with contracting out:

- a. Perceived Pros of contracting
 - (1). no overtime, weekends
 - (2). Promptness of service
 - (3). Lower cost per hour
 - (4). no chemical storage issues
- (5). Eliminates growing hassles with personnel law
- b. Perceived Cons of Contracting
 - (1). Loss of control
 - (2). Poor record of paperwork completion
 - (3). Scheduling a problem
 - (4). Don’t know the people (high turnover a concern)

27. School comments

- a. Can’t get good service for termite control (rural districts, esp.)
- b. Industry trend is to hire large maintenance contractors for 3-5 year contracts (“We’re family, they’re profit”)
- c. “We would like to get to the point where we’re absolutely toxin-free”
- d. Contracting out for pest control is an easier sell for administrators
- e. “To us, hours spent is not as important as the bottom line.”

- f. "Response time is the most important thing."
- g. Proven experience with IPM, references, an entomologist on staff, listed as important things to see in bidders.
- h. IPM coordinators "swing a small bat"

28. Reality Check: Will schools do IPM if they are not forced to? What is the relationship between enforcement level and interest in school IPM programs?

- a. Level of interest in IPM training depends on amount of enforcement activity
- b. Enforcement activity depends on accountability at state government level
- c. Budget issues directly affect level of enforcement activity

29. Southwestern Technical Resource Center for IPM

- a. EPA funded project to promote school IPM in Texas, Oklahoma and New Mexico
- b. Full-time coordinator: Janet Hurley
- c. Board of directors
- d. Accomplishments
 - (1). Trained 191 school personnel from 130 school districts, 9 pest control and 3 municipalities
 - (2). Compliance assistance for 303 school districts (Texas)
 - (3). Newsletter subscribers: 340 IPM Coordinator recipients (3 states)
 - (4). Database of 1042 schools and pest control professionals with interest in IPM info
- e. General information
 - (1). Free, interactive assistance for schools
 - (2). Resources, free e-newsletter
 - (3). Training courses for PCOs and schools
 - (4). Toll-free hotline (877) 747-6872
 - (5). Website <http://schoolipm.tamu.edu>

30. School IPM Education on large scale will not succeed unless:

- a. Clear mandate on part of state or federal government
- b. Funding and enforcement will
- c. Funding for compliance assistance. Trained personnel willing to make site visits and conduct face-to-face training
- d. Support and cooperation of stakeholder agencies
- e. Be available to hold hands, explain law, teach IPM, help schools understand
- f. Texas is fining schools from approx. \$200 to \$7,000

“Hands-on” IPM Considerations for the Common Pests of Schools

Bobby Corrigan
RMC Pest Management Consulting
Richmond, IN

1. Clients of the RMC Pest Management Company include sensitive accounts such as hospitals, zoological gardens, pharmaceutical research and food plants where no pesticides or residue is acceptable.
2. Many times we created the problem for the pest presence. Pest problems in fact are people problems.
3. Whatever the pest, accurately identify or collect the pest for identification. Use pests found on monitors. “Ants” is not enough! “Gnats in kitchen” is not enough!
4. Bottom rule: Pest populations rise to meet resources (food, shelter, water...)
 - a. harborage is the limiting factor for the German cockroach, not food.
 - b. Noticing cockroach behavior resistance to baiting programs.
 - c. If you see something during an inspection that makes you say “I don’t want to go there”, you must go there to investigate pest presence.
5. ANTS:
 - a. main species - pavement ants, odorous house ants (really have come on in past 5 years as dominant pest sps.), pharaoh ants, carpenter ants
 - a. ID the species...the lay person should not ID the species...unless, like pavement ant, very easy to ID.
 - c. Some ants are merely foraging while others may establish nest indoors or beneath the structure. e.g. pharaoh ant – millions of workers and satellite colonies feeding on dead insects or on food in an area difficult to find. If well established, use “war strategy”.
 - d. For actual infestations, each ant IPM program requires situation analysis and perhaps customized program. For example, responding ants vs. non-responders. Match program to right species.
 - e. Be proactive! Be aware! Noted a slide with landscape tree touching bldg. Key zone for many arthropods is tunneled turf next to foundation. Specifically bait that area.
6. FLIES:
 - a. Filth flies – “outdoor” flies: house fly, blow fly...regurgitates digestive fluid on solid food, then laps up liquified food.
 - b. Small flies – “indoor” flies: fruit fly, drain fly, Phorid Fly (humpback fly). Note each one different and often referred to as “gnats” by lay person.

c. Flies in schools are directly associated with trash dumpsters. Schools need mini-course in “dumpsterology”: how to correctly use a dumpster to prevent pest problems:

- (1). Location: as far way from doors as possible...the further the better. Note McDonald’s policy – dumpsters located back edge corner of lot, several hundred yards and no where close to door.
- (2). Do not put raw food in dumpster. Empty does not equal clean!
- (3). Do not fill trash bags to the maximum. Liquids drip on the way to the dumpster. Low flying house flies pick up trail and follow to trash cans in kitchen areas.
- (4). “Stop fruit and drain flies here.” The drain is a critical component of the school IPM program. Problem often within drain structure...tiny cracks are a microhabitat issue.
- (5). Fruit flies lay 500 eggs at once.
- (6). Define “clean”- people clean, bug clean, fruit fly clean.
- (7). Use insect growth regulators
- (8). Use a \$3 frosting spreader/spatula to check cracks & crevices...is as important as a flashlight.
- (9). Vending machines – who is cleaning? Use machines on lock and wheels to move for cleaning or at least leave space behind for cleaning.

d. Additional fly Points

- (1). Sanitation is fly control. Exterior areas for filth flies.
- (2). If you see big flies inside during the winter flies are breeding inside – which means filthy!
- (3). Exclusion is essential. Note older schools without central air conditioning
- (4). Exterior judicious use of fly baits (new liquid Maxforce for flies, major IPM breakthrough for fly control), spot treatments with residuals.

7. Rodents:

- a. House Mice –most significant health concern is food poisoning, proteins in mouse urine cause allergic response.
- b. Deer Mice (Hanta Virus) & White Footed Mice (Lyme disease)
- c. Voles – outdoor pests. Chipmunks will damage structure.
- d. Lymphocytic choriomeningitis: the most overlooked urban disease, in mouse droppings, viable in old mouse droppings, is a virus that mimics the flu
- e. Mouse Droppings –rodents are not able to hold their urine and everywhere they go they are constantly urinating, defecating or both.

f. Mouse Proofing

- (1). realistically tough to mouse proof
- (2). mouse only needs ¼” to enter
- (3). use screen/brushes, such as Sealeze, on doors (mouse perceives brush as solid door)
- (4). Use foams as fillers then properly seal; foams not to be used as pest deterrent
- (5). “Epiblock” – rodent birth control pill; not effective

- (6). Glue boards – mostly juvenile not breeding adults will be caught. He likes for monitoring not control
- (7). Facia board along roofline is another place to look for rodent entry.
- (8). For low rodent infestation, don't use bait. For higher infestations, need to use bait.
- (9). Use extremely safe baits, do not use pellet baits in schools.
- (10). Mice are driven into a building when an adjacent field is harvested.

8. COCKROACHES: American, German, oriental and brown-banded.

- a. American cockroaches require specific baiting.
- b. Utility lines usually where some roaches follow, live.
- c. Ants & cockroaches will travel on pipes , an unmaintained and fitted escutcheon plate is as significant as a hole in the wall!
- d. Watch for clutter. Slide of suggested shelving unit with metal racks – gravity pulls dirt to floor for easy cleaning.
- e. Monitors are critical to locate pockets of cockroaches. Whole new ball game with some really good pesticides available.
- f. Should never see cockroach bait; if you do , it was a terrible application.

9. SPIDERS:

- a. Mostly annoying and frightening to public.
- b. Brown recluse, black widow and yellow sac are the poisonous species.
- c. Concentrate on the exterior cleaning of windows & overheads, soffits, fascia, eaves, nooks, crannies, clutter.
- d. Train custodians to clean for spiders.
- e. Have the right tools available: extended vacuums, spider brushes
- f. Not worthwhile to discuss using chemicals to control spiders.

10. BEES, YELLOWJACKETS & WASPS

- a. Trash cans placed at entry ways without lids is not recommended.
- b. Poor landscaping: low lying, dense vegetation collects trash and attracts rodents.
- c. Yellow jackets occupy burrows.

Developing a Pesticide Use Survey

Carol Pilcher
Department of Entomology
Iowa State University

1. Why a Pesticide Use Survey?

“Comprehensive nationwide information on the amount of pesticides used in the nation’s 110,000 public schools is NOT available” (GAO 1999, EPA 2003)

2. States Taking the Lead

- a. EPA has recommended that schools undertake School IPM
- b. States have developed their own School IPM programs
- c. States are collecting much needed baseline data on pesticide use in schools

3. Pesticide Use Survey

- a. Importance of baseline data
 - (1). Provide description of current status, trends
 - (2). Provide means of detecting change once program is implemented.
Use to determine program impact and program outcomes
- b. Assess current knowledge (of participants surveyed)
- c. Assess current practices (what is going on, how are they applying, indoors and outdoors are two different questions)
- d. Develop baseline for impacts (environmental, health, economic)
- e. Determine information delivery avenues (workshops, newsletters)
- f. Demographic information (determine who to send to: administrators vs. janitorial staff or send to district with request to send to person responsible for pest control)

4. Assess Current Knowledge

- a. General pesticide knowledge
 - (1). Label information
 - “The label on a pesticide product is...”
 - a. A general guideline
 - b. A detailed advertisement
 - c. A legal binding document
 - d. Extra information
 - e. Don’t know
 - (2). Toxicity
 - “Are you aware of the relative toxicity of various pesticides to humans?”
 - a. Yes
 - b. No
 - c. Don’t Know (note specific questions indicated they did not know)
 - (3). General use/restricted use products
 - “Federal law states that all pesticides must be classified. Which of the following classifications do you think satisfies the law?”

- a. Safe vs toxic
 - b. General use vs restricted use
 - c. (Others)
 - d. Don't know
- b. General knowledge of IPM
- “Have you heard the term Integrated Pest Management (IPM)?”
- a. Yes
 - b. No
 - c. Don't Know
- (MN asked is they used specific components of IPM)

5. Assess Current Practices

- a. Written policy for pesticide use
- “Does your school have a written policy for pesticide use?”
- a. Yes
 - b. No
 - c. Don't Know
- (number one questioning all surveys...easy to access behavior change...help schools develop policy)
- b. Notification policies (AL, IA)
- “What type of ‘notification of pesticide use’ is provided by the school district for pesticide applications? Please circle all that apply.”
- a. None
 - b. Written notices to teachers, staff, students
 - c. Signs posted at entrances
 - d. Signs posted on rooms treated
 - e. Pre-treatment notice in school newsletter
 - f. Post-treatment notice in school newsletter
 - g. Maintain list of pesticide sensitive individuals
 - h. Don't know
 - i. Other (web site)
- (divide into indoor vs. outdoor control survey section)
- c. Written records for pesticide use
- “Does your school maintain written records of pesticide applications?”
- a. Yes
 - b. No
 - c. Don't know
- d. Pesticide use decisions (AL, PA)
- “Who decides which pesticides to use, and when and where they are to be used?”
- a. Local School Maintenance Supervisor
 - b. Local School Maintenance Staff
 - c. County/District Maintenance Office
 - d. Pest Control Company
 - e. Other
- (use twice for indoors and outdoors)

- e. Pesticide use decisions (AL, PA)
 - “Are principals, teachers, or other employees authorized to purchase or bring their own pesticides for use in the school systems?”
 - a. Yes
 - b. No
 - c. Don't know
 - (Iowa did not ask – good question to follow up – what is reported compared to what is the reality)
- f. Pesticide use practices (IA, MN)
 - “Who applies pesticides in your school?”
 - a. District facilities director
 - b. Custodial staff
 - c. Maintenance
 - d. Teacher
 - e. Pest control company
 - f. Parent
 - g. Other (please specify)
- g. Pesticide use practices (AL, MN)
 - “When are pesticides applied in your school?”
 - a. Before school hours
 - b. After school hours
 - c. During school hours
 - d. Weekends
 - e. Other (please specify)
 - (check reality, check actual records; for example, if applied in entry way at 8 am in winter monthly it is not IPM)
- h. Pesticide use practices (MN)
 - “How often are pesticides applied in your school?”
 - a. Not sprayed
 - b. As needed
 - c. Once per month
 - d. Four times per year
 - e. Annually
 - f. Other (please specify)
 - (on a routine basis??, results can show that positive changes can be made)
- i. Pesticide use practices (IA, MN)
 - “How long do you keep children and adults out of treated areas after an application?”
 - a. Less than an hour
 - b. 1-4 hours
 - c. 5-8 hours
 - d. 9-12 hours
 - e. 12-24 hours
 - f. Other (please specify)
 - g. Don't know
- j. Pesticide storage practices (AL, IA)

“Where are pesticides stored in your school district?”

- a. District storage facility
 - b. Locked school storage facility
 - c. Unlocked school storage facility
 - d. Other (please specify)
- (different when visited school, check reality)

6. Program Impacts (critical to show beneficial to school, easy to measure)

- a. Economic Impacts
- b. Environmental Impacts
- c. Health Impacts

7. Economic Impacts

- a. “How much did your district spend on structural pest control last year, including both pesticides and labor costs?” (Use figures to validate yes, more money the first several years, but overall long term will be cheaper)
- b. “How much did your district spend on outdoor pest control last year, including both pesticide and labor costs?”
- c. “In the Vista de las Cruces School in California, pest management costs went from \$1,740 a year to \$270 (plus labor) for two years.” Phil Boise, IPM/Agronomy Programs Manager, Santa Barbara, California

8. Environmental Impacts

- a. Pesticide use practices

“How often are pesticides applied in your school?”

- a. Not sprayed
- b. As needed
- c. Once per month
- d. Four times per year
- e. Annually
- f. Other (please specify)

(how often, when, when kids are back in facility? Use questions to give a true picture, Do you have MSDS sheets? Where are they?)

- b. “Monroe County Indiana achieved a 92% reduction in pesticide use...”
(can you document increasing monitoring, reducing pesticides)
John Carter, Director of Planning, Monroe County Community Schools Corporation, Indiana

9. Health Impacts

- a. “Have there been any reported illnesses that could be associated with pesticide applications in the past three years?”
- b. “If yes, what is the total number of illnesses reported in the past three years?”
- c. “Monroe County Indiana achieved a 92% reduction in pesticide use...”
John Carter, Director of Planning, Monroe County Community Schools Corporation, Indiana
- d. Documentation of increase in non pesticide management practices
- e. Documentation of least toxic pesticide use

- f. Documentation of reduction of pesticide use
- g. Documentation of established reentry intervals

10. Information Delivery Needs

a. "How can information about IPM be made available to you..."

- IPM newsletter (paper, Web)
- Training workshops
- Extension publications
- Case studies

(ask at every end cause this information is not very critical)

11. Demographic Information

- a. How many students are enrolled in your school district?
- b. How many schools are in your district?
- c. What is the total number of square feet of the buildings you care for?
- d. Note: Demographic Information should be collected at the end of the survey

12. Writing Good Survey Instruments

- a. Make survey look professional
- b. Try to make sections consistent
- c. Make survey short and concise

13. Success with Surveys (total design method resource)

Sallant and Dillman (1994)

- a. Personalized, advance notice letter (optional)
- b. Personalized cover letter, survey instrument, return envelope
- c. Handwritten signature
- d. Illustration on cover of survey instrument, color illustration
- e. Self addressed stamped return envelope
- f. Follow-up postcard
- g. Personalized cover letter, survey instrument, return envelope

Developing an IPM Web Site
Matt Westgate
Iowa State University
pulgar@iastate.edu

1. New ISU school IPM Web site: <http://school.ipm.iastate.edu/> . Software used for the site is called “drupal”.
2. Why should your program maintain a Web site?
 - a. Reduce printing and publishing costs
 - b. Worldwide access
 - c. Customer convenience
 - d. Breaking news
 - e. Upcoming events; can have users register on-line
 - f. Pest and pesticide knowledge repository; storage of a lot of technical content
 - g. Contact information for persons in your program
3. Goals of an IPM Web Site
 - a. Easy to use: consistent use & feel, clear visual hierarchy, conventions are your friend. Don't make users think to access your information.
 - b. Accessible – section 508 compliance
 - c. Easy to maintain
 - d. Cost-effective
4. Ease of Use
 - Consistent look and feel
 - Clear visual hierarchy
 - Conventions are your friend
5. Accessibility: Section 508
 - a. Federal agencies' Web sites must be accessible to persons with disabilities
 - b. <http://www.section508.gov/>
 - c. Good idea for state and local agencies to have their Web sites compliant
 - d. <http://cast.org/bobby>
 - e. <http://www.cynthiasays.com/>
 - f. Accessibility: backwards compatible – users are not shut out because a text browser can read all of the information.

6. Easy to Maintain

- a. Site management
 - (1) How does your site accommodate change?
 - (2) Staff photos
- b. New design
- c. Content management
 - (1) Instant update
 - (2) Workflow
 - (3) Revision control
 - (4) Metadata management

7. Metadata is the Key

- a. Information about a resource
 - (1) Article
 - (2) Author(s)
 - (3) Title
 - (4) Publication date
 - (5) Categories
 - (6) Summary
- b. Metadata in use at Iowa School IPM site

8. Advanced Uses of Metadata

- a. Content syndication -- 'RSS feed'
- b. Off-site summary of newly added content
- c. Aggregates the web sites you visit into a single view

9. RSS Software

- a. Can we show other site's RSS feeds on our site?
- b. Sharp Reader (PC) or Net News Wire (Mac).
- c. Syndic8.com collects RSS feeds on the Internet.

10. Summary

- a. An IPM web site is a cost-effective means of information delivery.
- b. Web standards save time and money.
- c. Metadata makes the site easy to organize and navigate.

School Integrated Pest Management Resources

Jean Ciborowski
MN Dept. of Agriculture

1. Formed working group in 1998 (Dep't of Ag, MN Dep't of Health, advocates, EPA Region 5, advocates, educators, school personnel). Cannot do it alone... need buy-in from agencies, schools, etc...

Note: all information is readily available. NO need to reinvent the wheel.

2. Types of Resources:

- a. Books
- b. Web Sites
- c. School IPM Manuals (hard copy & web)
- d. Newsletters
- e. Fact Sheets
- f. Videos
- g. School Bugs List Serve - to subscribe:
<http://schoolipm.ifas.ufl.edu/listsrvr.htm>

3. Types of Information: regulatory and educational

- a. <http://schoolipm.ifas.ufl.edu/index.html>
http://schoolipm.ifas.ufl.edu/school_ipm.pdf
"School IPM - Readin', Writin' & Riddin' of Bugs": pdf catalog IPM for Schools, 219 pages, defines school IPM, great nfo for school administrators, educational technical information
- b. <http://www.ipminstitute.org/school.htm>
The IPM Institute of North America, Dr. Tom Green, Wisconsin, levels of PM within schools, school districts are scored.
- c. <http://www.epa.gov/pesticides/ipm/>
<http://www.epa.gov/pesticides/ipm/brochure>
in a nutshell, pest control in the school environment, easy to use, concise, lots of schools request
- d. <http://www.entm.purdue.edu/entomology/outreach/schoolipm/>
IPM Technical Resource Center, link to childcare IPM
- e. <http://paipm.cas.psu.edu/schools/schoolIPM.html>
School IPM Pennsylvania site, Volkswagon bug sent out to schools
- f. <http://tcebookstore.org/about.cfm>
Texas Cooperative Extension, 6 part video series, wonderful introduction, good overview, succinct, literature accompanies video, entire series is

wonderful, administrator video is good, target audience is the school, does fit other institutions
Nebraska manual is another valuable resource, concise, can be downloaded, PDF format

- g. <http://ipcm.wisc.edu/programs/school/>
another good manual, how to choose a PCO
- h. <http://www.idph.state.il.us/envhealth/pdf/schoolpests.pdf>
Practical Guide to Management of Common Pests in Schools, short and sweet, to the point
- i. <http://www.cdpr.ca.gov/cfdocs/apps/schoolipm/main.cfm>
CA school IPM
- j. <http://www.umass.edu/umext/schoolipm/>
- k. Texas: <http://www.spcb.state.tx.us/ipm/ipminindex.htm>
Educational (non-regulatory)
Required by Law (regulatory)

Texas Cooperative Extension
<http://tcebookstore.org/about.cfm>

4. Minnesota Department of Agriculture - IPM In Schools PowerPoint Presentations is available on the web
<http://www.mda.state.mn.us/ipm/ipminschoools.html>

IPM in Schools Overview	43 slides
What Are Pesticides?	21 slides
Troublesome Pests in School Buildings	35 slides
IPM In the Landscape	35 slides

5. SCHOOL IPM NOTEBOOK INDEX

- a. Legislation:
Legislation, Model Notice for Pesticide Application with Memorandum
- b. Pesticides:
 - (1). How to Read a Pesticide Label (EPA)
 - (2). How to Read a Pesticide Label (MDA)
 - (3). Classifying Toxicity of Pesticides
 - (4). Sample Label with a Material Safety data Sheet (=MSDS)
- c. IPM Related Polices/Procedures:
 - (1). Developing an IPM Policy Statement for Your District
 - (2). Action Thresholds in School IPM Programs / Examples of Action Thresholds
 - (3). Hiring a Pest Control Operator (=PCO)
- d. Record Keeping/Check Lists:
 - (1). Sample Record Keeping Forms
 - (a). Pest Sighting Table

- (b). Application Record
- (2). Check lists -
 - (a).For Interior Areas
 - (b). For Exterior Areas
- e. Misc:
 - (1). Summary of Videos
 - (2). Definitions
 - (3). School IPM References/Resources Sheet
 - (4). Pest Fact Sheets -
 - (5). EPA IPM Booklet

Integrated Pest Management in Chicago Public Schools

Rachel Rosenberg, Executive Director
Safer Pest Control Project

(non-profit, non-state agency that works with public housing, organic lawn care, daycare)

1. Chicago Public Schools (CPS): What is in the district? (one of the largest in the country, 85% poverty rate)

- a. 602 Schools
- b. 438,589 students
- c. 45,077 employees
- d. The Condition of Chicago's Public Schools – over half of the structures are over 50 years old.

2. Who's in Charge?

- a. Chief Operations Officer in charge of pest management
- b. Environmental Services Manager – implementation of IPM, lead, asbestos
- c. School Building Engineers – unionized, in charge of physical plant, electricity, AC
- d. custodial staff is outsourced.

3. How Pest Control Worked Before the District Adopted IPM

- a. No coordinated focus on maintenance or sanitation
- b. Schools contracted for who they wanted on a school by school basis
- c. Some building engineers applied pesticides themselves

4. 1999 IPM Law for Schools

- a. Schools are required to adopt an integrated pest management program.
- b. A school may be exempt from the requirement if it demonstrates to the
- c. Department of Public Health that IPM will cost more than it is paying for pest control.

5. 1999 Parents Right-to-Know Law

Schools are required to provide notification prior to the application of pesticides on school grounds and inside school buildings. Written notification must be given two business days prior to broadcast pesticide applications.

6. SPCP's History With CPS

- a. 1996 Pilot Projects
- b. 1999 IL Legislature Passes IPM Law for Schools
- c. CPS Immediately Exempts Themselves from the Law (claimed it would cost \$2 million to implement IPM)

History

d. CPS gets negative press attention for spraying pesticides after seeking exemption from the law – a coordinated effort with our partner organizations

7. Establishing a Relationship

- a. SPCP went in as the good guy, offering our support
- b. We offered training – we found grant money to provide staff training to engineers
- c. Provided materials, i.e. IPM materials for engineers manual
- d. Blue Ribbon Committee on Indoor Air Quality

8. A Solution for the Asthma Problem

- a. Blue Ribbon Committee on Indoor Air Quality (SPCP joined committee along with inside and outside staff)
- b. Asthma a huge concern for CPS
- c. IPM was a logical first step towards addressing the concern

9. CPS Adopts an IPM Policy as a result of:

- a. Blue Ribbon Committee on Indoor Air Quality – asthma concern
- b. Our ability to provide free resources
- c. Meeting with the Chief Operations Officer (helped by writing IPM plan and responding to negative press)

10. The IPM Policy

CPS will strive to achieve the goal of effective pest control while minimizing pesticide applications and pesticide exposure by:

- a. Providing training and resources to staff on IPM;
- b. Amending pest control contracts to require IPM;
- c. Limiting scheduled pesticide applications; and
- d. Providing notification and two business days prior to applications of pesticide

11. Implementation of the Policy

- a. Providing training and resource to staff on IPM – Received grants (Chicago Community Trust, EPA, CDC, etc...), provided hands-on training for 200 engineers, 375 school nurses, IPM manual for building engineers on-line, question if is read and followed,
- b. Amending pest control contracts to require IPM
- c. CPS set up a Request for Proposals (RFP).
- d. From bids on the RFP it established a list of pre-approved IPM practitioners schools could contract with.
- e. Limit scheduled pesticide applications
- f. Providing notification and information to parents and staff regarding pesticide applications, in writing, two business days prior to applications of pesticide, excluding anti-microbial agents and insecticide and rodenticide baits.
- g. This is required by State law.

12. Committees

Blue Ribbon Committee had disbanded, but a new committee on Coordinated School Health had formed through which we pushed forward the new contracts and other aspects of the IPM policy.

13. The Big Contract Change

- a. The contract change finally came in July and November 2003 (in 2 parts).
- b. City Politics, Negative Press and Bad Timing for IPM
- c. changes in district administrators – new Chief Operations Officer
- d. Coordinated School Health vanished
- e. Turf battle for health inspections
- f. All PCO's to use IPM
- g. Bad Press
 - (1). Rodent crackdown ; School cafeterias to close in move to end infestation: [RedEye Edition]Chicago Tribune. Chicago Tribune. Chicago, Ill.: Jan 23, 2004. pg. 5
 - (2). 8 in 10 city schools may have mice, January 30, 2004 , by Rosalind Rossi, Education Reporter
 - (a). About 80 percent of Chicago public schools inspected in the beginning days of a \$4 million rodent crackdown have evidence of mice in them, officials said Thursday.
 - (b). The cafeteria closings and bad press has won us some support.
 - (c). Easier to get school staff to take pest control seriously. Cooperation and motivation to get school staff trained.
 - (d). 6 training sessions for building engineers planned.
 - (e). Increased willingness to cooperate to manage pest control problems.

