What Is the Children's Pesticide Right-to-Know Act?

The Children's Pesticide Right to Know Act establishes your right to know about pesticides used in Washington's public schools and in day care facilities.

Why was the Children's Pesticide Right-to-Know Act necessary?

- **School pesticide use is widespread:** Districts throughout Washington state routinely use pesticides linked to cancer, nervous system damage, reproductive harm, and hormone disruption called high-hazard pesticides. In a 1998 survey by the Washington Toxics Coalition, 88% of 33 school districts surveyed reported using at least one high-hazard pesticide. School districts surveyed represented a range of rural, urban, small and large districts, so the hazards of school pesticide use appear to be widespread.

- **No restrictions on school pesticide use:** Use of pesticides that can cause serious health effects faces no special restrictions in Washington schools—unless an individual school district takes action to protect its students and staff.

- **No system of notification or reporting about school pesticide use:** School districts were not required to automatically notify all parents or compile yearly reports of pesticide use. A request for information about pesticide use might yield no response or a huge stack of application records.

The Children's Pesticide Right-to-Know Act becomes law

After activists waged a five-year campaign to highlight the widespread threat to our children's health, Governor Gary Locke signed the Children's Pesticide Right-to-Know Act into law in May of 2001.

The law requires school districts to:

- Notify parents annually about their pest management policies and methods, including posting and notification requirements;
- Maintain records of all pesticide applications to school facilities and make records readily accessible to all interested persons;
- Provide an annual summary of all pesticide use in the disitrict during the previous year;
- Notify <u>at least</u> interested parents or all parents 48 hours in advance of all pesticide applications, for example via a registry; notification must also be posted 48 hours in advance in a prominent place in the main office of the school.
- For outdoor pesticide applications, post notices at all primary points of entry to the school grounds, and at sites of application; notices must be left in place for 24 hours afterwards and be in colors contrasting to the background;
- For indoor applications to school facilities, post notices at the location of the application; notices must be left in place for 24 hours afterwards and be in colors contrasting to the background.

Frequently asked questions about the Children's Pesticide Right-to-Know Act

- **Who is responsible for implementation of the Children's Pesticide Right-to-Know Act?**

  All public school districts must provide notification, posting, and record-keeping (see above).

  Washington's state Department of Agriculture must ensure that districts comply with the law, and provide information to help them to so.

- **When will the Act take effect?** The Children's Pesticide Right-to-Know Act is effective July 1, 2002. The Washington State Department of Agriculture will oversee implementation of the Act.

- **How do parents learn about pesticide health effects?** Parents and school staff who would like to learn more about how to exercise their right to know about school pesticide use, or who would like to learn how to work for pesticide reduction in their school district can use the materials in this Pesticide Action Kit, or contact the Washington Toxics Coalition at (206) 632-1545 or info@watoxics.org.

For more information on school pest control that protects children's health,
contact the Washington Toxics Coalition at (206) 632-1545 or info@watoxics.org

Kids at Risk: Pesticides & Children's Health

Children are especially vulnerable to the health impacts of pesticides. Health professionals, educators, and public health advocates agree that school pesticide use can seriously affect children's immediate and long-term health. The National Parent Teacher Association, the National Education Association, and many other organizations have joined in calling for reduced school pesticide use.

As a result of health concerns raised by health professionals across the country that led to changes in the national pesticide law, the U.S. EPA has begun assessing pesticides for their health effects on children. The agency recently ordered the phaseout of two popular home and school use pesticides—chlorpyrifos (Dursban) and diazinon—in part because of their effects on children's nervous systems.

Pesticides harm human health

Pesticides are linked to a variety of acute and chronic health effects. Acute symptoms of overexposure include headache, nausea, diarrhea, dizziness, skin rash, asthma attack, and respiratory irritation. These symptoms often appear similar or identical to illnesses from other causes such as "the flu," resulting in frequent misdiagnosis of pesticide-related illness. Chronic effects of pesticides may remain undetected for weeks, months, or even years after exposure. Multiple scientific studies, however, link pesticides to cancer, birth defects, nervous system disorders, and immune deficiency.

Children are especially susceptible to pesticide exposure

Children are not "little adults." Children's vulnerability to pesticide exposure is increased by their greater cell division rates and early stage of organ, nervous, reproductive, and immune system development.[1] Pesticide concentrations in their fatty tissues may be greater because their fat as a percentage of total body weight is lower.[2]

A 1993 National Research Council of the National Academy of Sciences report shows that children are more susceptible than adults to the health effects from low-level exposures to some pesticides over the long-term.[3] Animal studies also suggest that the young are more vulnerable to the effects of some toxic chemicals. A review of 269 drugs and toxic substances, including a number of pesticides, reveals that new-born rodents die from pesticde exposure more often than adults in 86% of cases.[4]

Children are likely to receive relatively greater pesticide exposure than adults

In addition to being more vulnerable to pesticide toxicity, children's behavior and physiology make them more likely than adults to encounter pesticides. For example, most pesticide exposure is through the skin—the largest organ—and children have much more skin surface area for their size than adults.[5] Similarly, their higher respiratory rate means they inhale airborne pesticides at a faster rate.[6]

Children's characteristic contact with floors, lawns, and playgrounds also increases exposure. Very young children frequently put fingers and other objects in their mouths, risking even greater exposure. The breathing zone for children is closer to the floor, where pesticides re-enter the air after floor surfaces are disturbed. Finally, children may bring home more than their homework—they may track school pesticides into their homes, presenting additional opportunity for exposure.

Childhood exposures can come from pesticide residues in dust and carpets

Although pesticides contaminate air, soil, food, water, and surfaces, studies that examine children's pesticide exposure indicate that the largest number and highest concentrations of chemicals often accumulate in household dust.[7] Because children's breathing zones are closer to the ground, they incur greater exposure to pesticides in carpets and dust than adults.

Carpets are long-term reservoirs for pesticides sprayed indoors.[8] Research assessing pesticide exposure from home carpet dust found an average of 12 pesticides in carpet dust samples, compared with 7.5 in air samples from the same residences. Moreover, 13 pesticides found in the carpet dust were not detected in the air. Diazinon appeared in nine of 11 carpets tested.[9] Carpet cleaning may release pesticides into the air, providing another opportunity for inhalation.[10]

Residues often refuse to go away

School districts frequently attempt to reduce exposure risk by applying pesticides after-hours, while students are not present. However, numerous studies indicate that pesticides may remain potent indoors for days, weeks, even months after application. Sunlight, rain, and soil microbes are not present to break down or carry away indoor pesticides, which thus persist much longer than in the outdoor environment.[11] Some pesticides can linger indoors for months and years. Indoor air concentrations of several kinds of pesticides may be more than 10 to 100 times higher than outdoor concentrations.[12] Even non-persistent pesticides last much longer indoors because they are not exposed to sunlight and water.[13] For example, one study detected air levels of diazinon 21 days after application at 20% of levels immediately after application.[14]

Not all indoor dust residues stem from indoor use. One study showed residues of 2,4-D and dicamba—herbicides used by some Washington school districts—could be tracked inside on shoes. Untreated areas, including lawn area and carpets, showed levels of 2,4-D, most likely due to spray-drift or track-in from nearby applications. Researchers estimated that residues of 2,4-D can persist in household carpet dust as long as one year.[15] Another study showed that after a single spray application in an apartment, chlorpyrifos continued to accumulate on both plush and hard-plastic children's toys, as well as on surfaces, for two weeks.[16]

When our children's health is at stake, we had better be safe than sorry. Given the serious health risks of childhood pesticide exposure, many school districts in Washington and nationwide are adopting least-toxic pest control practices.

1. National Research Council, *Pesticides in the Diets of Infants and Children* (Washington, DC: National Research Council, National Academy Press, 1993); Watanabe et al., Placental and blood-brain barrier transfer following prenatal and postnatal exposures to neuroactive drugs: Relationship with partition coefficient and behavioral teratogensis, *Toxicol. Appl. Pharmacol.* 105 ([1990]1): 66–77; Repetto and Baliga, *Pesticides and the Immune System* (Washington, DC: World Resources Institute, 1996).

2. J. Wargo, *Our Children's Toxic Legacy: How Science and Law Fail to Protect Us from Pesticides* (New Haven, CT: Yale University Press, 1996).

3. National Research Council, *Pesticides.*

4. R. Wyatt, Intolerable risk: The physiological susceptibility of children to pesticides, *J. Pesticide Reform* Fall (1989).

5. Mott, *Our Children at Risk: The Five Worst Environmental Threats to Their Health* (Natural Resources Defense Council, November 1997), 5, citing *Principles for Evaluating Health Risks from Chemicals during Infancy and Early Childhood* (no author or date provided), 56; see also T. Schettler, *Generations at Risk: How Environmental Toxins May Affect Reproductive Health in Massachusetts* (Boston, MA: Greater Boston Physicians for Social Responsibility and MASSPIRG, 1996), 50.

6. Mott, *Our Children at Risk,* 5.

7. Schettler, *Generations at Risk,* 51, citing R. Whitmore et al., Non-occupational exposures to pesticides for residents of two U.S. cities, *Arch. of Env. Contam. and Toxicol.* 26: 1–13. See also, J.R. Roberts et al., Development and field testing of a high volume sampler for pesticides and toxics in dust, *J. Exposure Anal. and Env. Epidemiol.* 1 ([1991]2).

8. N. Simcox et al., Pesticides in household dust and soil exposure pathways for children of agricultural families, *Env. Health Persp.* 103 (1995): 1126–34.

9. R.W. Whitmore et al., Non-occupational exposure to pesticides, *Arch. of Env. Contam. and Toxicol.* 26 (1994): 47–59.

10. E. Esteban et al., Association between indoor residential contamination with methyl parathion and urinary para-nitrophenol, *J. Exposure Anal. and Env. Epidem.* (1996): 384.

11. Simcox et al., Pesticides, 1126.

12. C. Wilkinson and S. Baker, *The Effects of Pesticides on Human Health* (Princeton, NJ: Princeton Scientific Publishing Co., 1990), citing R. Lewis and R. Lee, Air pollution from pesticides: Sources: Occurrence and dispersion, *Indoor Air Pollution from Pesticides and Agricultural Processes* (Boca Raton, FL: CRC Press, 1976), 51–94.

13. Wilkinson and Baker, *Effects of Pesticides*, 83.

14. Leidy et al., Concentration and movement of diazinon in air, *J. Env. Sci. Health* B17 (1982): 311–19.

15. M. Nishioka et al., Measuring transport of lawn-applied herbicide acids from turf to home: Correlation of dislodgeable 2,4-D turf residues with carpet residues and carpet surface residues, *Env. Sci. Technol.* 30 ([1996]11).

16. Gurunathan et al., Accumulation of chlorpyrifos on residential surfaces and toys accessible to children, *Env. Health Persp.* 106(1998): 9–16.

For more information on school pest control that protects children's health, contact the Washington Toxics Coalition at (206) 632-1545 or info@watoxics.org

Ten Steps to a Healthy School

A single individual can begin a campaign to adopt a least-toxic pest management policy in his or her school district. There is no one formula for reducing pesticide use at schools, but many lessons have been learned through the efforts of parents and others in school districts across the country. Here are ten steps that have been useful in many communities:

1. **Research the problem**—The first step towards a healthy school comes from understanding the pesticide problem your school district confronts. An ability to explain that problem gives you a powerful tool for demanding change. Research should establish what pesticides are being used and their health effects, what pest problems the school faces, whether your school district has a pesticide policy, and how pest management decisions are made. The best place to start is with the Building and Grounds Department or the Office of the Superintendent.

2. **Build support**—After completing your research, develop a core group of people to launch your campaign. A group, as opposed to an individual, is unquestionably more effective in being heard and meeting goals. Several strategies are useful to find members for your initial group. Talk to neighbors or parents and teachers within your school or school district. Contact local groups with possible interest, such as the PTA or local community and environmental organizations. Brainstorm to ascertain all community constituents that might be concerned about the issue and determine how best to get them involved.

3. **Establish your platform**—You and the other community members you enlist should determine exactly what you want the school district to do. Clearly defining the steps that you want the district to take helps organize your campaign and assure that the district passes a strong pesticide policy. Consider the following positions when developing your platform: 1) Ban use of the most hazardous pesticides; 2) Establish least-toxic Integrated Pest Management (IPM) as official school district policy; 3) Provide universal notification of pesticide use; and 4) Establish a pest management committee consisting of parents, teachers, school staff, and public health organizations to oversee policy implementation.

4. **Approach school district staff to support your platform**—After determining your platform, meet with school maintenance staff and other staff responsible for pest management to determine their position on your request. The more that they feel part of the policy design process, the better the chance of program success. Be prepared to talk about successful alternative solutions in other school districts. Be sure to bring to the meeting people who represent the impacted community, including teachers, parents, and students.

5. **'Power map' the school board**—In order to pass a policy, you must convince the majority of school board members that a least-toxic IPM policy is the right approach to pest control. Determine how best to influence them by ascertaining who has the ultimate power of decision, the politics of the board and which members are likely to support or oppose you, which individuals or institutions are likely to influence your targets, and which targets and influences you have access to. Finally, over whom does your group have influence? Remember that your allies on the school board are often the most effective messengers.

6. **Develop and implement a strategic plan of action**—Once you know your goals, develop a strategic campaign. Base your plan on your discoveries about the school board. Having learned what influences its decisions, select appropriate strategies, such as recruitment of board members, media coverage, grassroots pressure, lobbying, and coalition building.

7. **Present your proposal to the school board for formal adoption**—A least-toxic IPM policy has its greatest impact when formally adopted and institutionalized by the district school board. Usually a board sub-committee will review and approve the policy before it goes to the full board. As you prepare to present your proposal at school sub-committee and board meetings, line up your votes, ready your speakers, recruit supporters to pack the room, and prepare for opposition.

8. **Form a pest management committee—**The most successful IPM programs enlist diverse constituents. The committee responsible for overseeing implementation of the least-toxic IPM policy should

include parents, teachers, students, maintenance workers, environmental and public health organizations, and school staff. Generally, the pest management committee must meet frequently in the initial stages of establishing the program and less often as the policy is properly implemented.

9. **Publicize the results**—Use media to inform people about your efforts throughout your campaign. If you succeed, a wide audience witnesses your victory. If your plan is rejected, that same audience witnesses the school board's refusal to protect children's health. Either way, strategic use of media educates and influences your targets.

10. **Watchdog policy implementation**—A least-toxic IPM policy is only effective if implemented and maintained. Ongoing vigilance is essential in order to avoid falling into old habits of pesticide dependence. Track and attend important meetings, work to develop a strong pest management committee, and develop good relations with the offices of the Superintendent and Grounds and Maintenance to ensure ready access to information. Long-term success also comes from nurturing continued support from parents, teachers, and staff.

For more information and assistance on how to pass a good least-toxic IPM policy, contact contact the Washington Toxics Coalition at (206) 632-1545 or info@watoxics.org. *Reducing Pesticide Use in Schools*, Pesticide Watch's school organizing manual, is another rich source for learning more about passing an effective least-toxic pest control policy in your district. It is available at www.pesticidewatch.org.

For more information on school pest control that protects children's health, contact the Washington Toxics Coalition at (206) 632-1545 or info@watoxics.org

Model Least-Toxic IPM Policy

Prepared by the Washington Toxics Coalition

POLICY _____: Least-Toxic Integrated Pest Management (IPM) and Pesticide Use Minimization

Because the health and safety of students and staff is our first priority, and a prerequisite to learning, the _____ School District manages vegetation and pests using a minimum of least-toxic pesticides. The district utilizes physical, mechanical, cultural, biological and educational tactics as primary controls. Least-toxic chemical controls are used as a last resort.

Pesticide Use and Selection

Pesticides will only be used if necessary for the health and safety of students and staff. No high-hazard pesticides will be used. To ensure that no high-hazard pesticides are used, any pesticide used by the school district must meet the following criteria:

a. Pesticide is not classified as highly acutely toxic (Hazard Category I or II) by the Environmental Protection Agency (signal word for Hazard Category I products = DANGER; signal word for Hazard Category II products = WARNING);

b. Pesticide is not a restricted use pesticide (use of the product is restricted to certified pesticide applicators);

c. Ingredients in product have been evaluated by the U.S. EPA and found to include no possible, probable, known or likely carcinogens;

d. Ingredients in product include no reproductive toxicants (CA Prop 65 list);

e. Ingredients in product not listed by Illinois EPA as known, probable or suspected endocrine disruptors;

f. Ingredients in product include no nervous system toxicants (i.e. ingredients that are cholinesterase inhibitors and/or are listed as neurotoxic by the Toxics Release Inventory);

g. Ingredients have soil half-life of 30 days or less;

h. Ingredients have extremely low or very low mobility in soil, according to Groundwater Ubiquity Score (GUS) index;

i. Product is not labeled as toxic to fish, birds, bees, wildlife, or domestic animals.

No pesticide will be used if the school district does not have information on all pesticide ingredients.

No routinely scheduled (e.g. seasonal, monthly, or weekly) pesticide applications will be made. No pesticide fogging or space spraying will be done. Insecticides will be used only in containerized baits, or for spot treatments targeted to insect nests or problem areas where a minimal amount of material will be used. Pesticides will not be used solely for aesthetic purposes. Cost and staffing are not sufficient justification for use of a pesticide.

Notification and Timing

Pesticide notification signs shall be posted at the treatment site, at a prominent place in the main office, and at primary entrypoints to the site of application prior to any pesticide application. Signs shall remain in place for one week after pesticide application, or a longer period of time if specified by the pesticide label.

In addition, written notice shall be provided to students, parents, guardians and employees 48 hours in advance of any pesticide application.

Posted notices shall begin with a header containing the words "NOTICE: Pesticide Application; THIS AREA (or “LANDSCAPE” for outdoor applications) HAS BEEN RECENTLY SPRAYED OR TREATED WITH PESTICIDES BYYOUR SCHOOL."

Notices shall be at least 8-1/2 by 11 inches, and shall include the following information: the signal word from the pesticide label, alongside the product name (e.g. “DANGER: Confront”); the pesticide’s active ingredient; the intended date and time of application; the location and area to which the pesticide is to be applied; the rate of application; the pest to be controlled; the name and phone number of the responsible party where the pesticide label and material safety data sheets may be obtained; a footer including “FOR MORE INFORMATION PLEASE CALL” and name and phone number of the contact person for the application; and a boxed-off warning stating: "CAUTION: Individuals taking medication, pregnant women, infants, children, and individuals with respiratory or heart disease, chemical sensitivities, or weakened immune systems may be particularly susceptible to adverse health effects due to pesticide exposure."

Notification signs shall be printed in colors contrasting to the background.

Any pesticide application will be timed for maximum protection of human health and beneficial organisms. Any pest control activities will be conducted in consideration of effects on classroom activities.

Recordkeeping

The school district will maintain records of all pesticides used and their active ingredients, amounts and locations of treatments, and target pests. Alternative pest control measures will also be documented. Pesticide use and pest control records, pesticide Material Safety Data Sheets (MSDS), pesticide product labels, and manufacturer information about all pesticide ingredients will be on file at each school as well as at school district headquarters.

School staff, parents and students will have access to all records upon request, including an annual summary of pesticide use records for each school and for the district as a whole.

Pest Management Committee

Any proposals for pesticide use must be approved by a Pest Management Committee or other committee consisting of parents, staff, and community members.

The Pest Management Committee will be responsible for the progress review described below, and carry out other activities as needed to oversee the implementation of the least-toxic IPM policy.

Progress Review

At the beginning of each school year, the district will provide written information to staff, students, and parents regarding pest control activities within the school district. This information will include the names of all compounds that may be used, and a description of the district's pest control policies and methods, including all posting and notification policies.

The district will annually review its pest management program to evaluate how well its pest prevention and control objectives are being met, and to identify areas where improvement is needed. The district will prepare a report containing the following information:

a. Quantities of each pesticide applied during the previous year;

b. Target pest for each pesticide used;

c. Non-chemical pest prevention and control measures used;

d. Pest management plan for the coming year.

The report will be provided to members of the school board of directors, all district parents, and made available to the public upon request.

Note: These reporting specifications satisfy the annual notification and reporting requirements of the Children's Pesticide Right-to-Know Act (SB 5533), including the required annual summary of pesticide use, and the required notice of pest control policies and methods.

Right to Appeal

Parents, staff, and neighbors may appeal pesticide use plans to the Pest Management Committee. Notification of this right will be provided at the beginning of the school year, as well as with any additional notification of a particular planned use of pesticides during the school year. The Pest Management Committee will consider all appeals received up to three days prior to the planned pesticide application. Appeals received within three days prior to the application will be considered by the superintendent.

Identification and Notification of Sensitive Individuals

The district will maintain a registry of chemically-sensitive students, staff, or others requesting special consideration in the event of the use of pesticides. The district will provide personal notification to these individuals two weeks prior to any planned pesticide use, and will make an effort to address their concerns and special needs relative to such pesticide applications.

What are the Alternatives?

Alternative approaches make sense

Many school districts nationwide are finding effective pest control is possible without using toxic pesticides. Alternative approaches employ common sense preventive approaches, prioritize children's health, and often save school districts money in the long run.

The least-toxic approach

An effective, least-toxic pest control policy begins with a good definition of IPM, or Integrated Pest Management.

IPM is a pest management strategy that focuses on long-term prevention or suppression of pest problems through combinations of techniques that minimize risk to people, property, and the environment. IPM methods emphasize monitoring for pest presence and establishing treatment threshold levels; nonchemical strategies to make the habitat less attractive to pests; improved sanitation; and mechanical and physical controls. Effective pesticides that pose the least possible hazard are used only after careful monitoring indicates they are needed according to pre-established guidelines and treatment thresholds.

Least-toxic IPM decision-making seeks to manage pests through prevention. It proceeds based on the fact that pests almost always can be managed without toxic chemicals. Rarely does IPM use pesticides, and then only those with the lowest risk. IPM involves a progression of steps:

- Prevention is the first line of defense. Improved sanitation (removal of pest attractions such as food crumbs) and mechanical exclusion (caulking, screens) provide significant pest control. Modification of pest habitats (vegetation-free buffer zones alongside buildings) deters pests and minimizes infestation. Planting appropriate landscapes and using mulch can prevent weed infestation. IPM requires extensive knowledge about pests, such as infestation thresholds, life cycles, environmental considerations, and natural enemies.

- Pest monitoring is critical to identify existing pest problems and areas of potential concern, as well as to determine how decisions and practices may impact future pest populations. Monitoring must be ongoing to prevent a small pest problem—easily controlled with least-toxic means—from becoming an infestation.

- Threshold tolerance levels of pest populations are established to guide decisions about when pests pose a problem sufficient to warrant some level of treatment.

- If treatment is necessary, non-chemical means are given priority. Traps and enclosed baits, beneficial organisms, freezing and flame or heat treatments, among others, are all examples of non-chemical or least-toxic pest treatment strategies. Any chemicals used must pose the least possible risk of toxicity to humans and the environment.

A good IPM program prohibits use of known and probable carcinogens, reproductive or developmental toxins, endocrine disrupters, nerve toxins, and the most acutely toxic pesticides. (See sample policy in this Pesticide Action Kit.)

In sum, least-toxic IPM establishes a hierarchy of appropriate pest management strategies, with monitoring and prevention at the top and toxic pesticides at the bottom. Least-toxic IPM never gives all available pest control methods equal consideration. It always favors non-toxic alternatives. Beware of alleged IPM policies that allow use of chemical pesticides without prior exhaustion of all other means of control or that ever permit use of pesticides that cause cancer, harm the reproductive, endocrine or nervous systems, or are acutely toxic.

Many schools practice least-toxic pest control

Growing numbers of Washington school districts are implementing effective least-toxic IPM programs that eliminate or minimize toxic pesticide use. School districts with good policies in place include Bainbridge Island and Sedro-Woolley. Nationally, more than 100 districts have adopted IPM policies and 32 states have laws governing pesticide use in schools.

Non-toxic alternatives for pest problems

Alternatives to pesticides include pest prevention and common sense non-toxic approaches. Recommended prevention techniques for some common pests include:

Weeds: Control weeds in turf and playing fields by planting grass species that flourish in the local environment and by maintaining healthy turf. Remove weeds in paved areas by using weed-eaters, weed "flamers," and hot water treatments. Control weeds in ornamental beds by mulching and planting native ground cover plants.

Tent Caterpillars: Physical controls include pruning to remove tents, and wiping off egg masses while pruning during the winter.

Cockroaches: Eliminate roach-attracting habitat, including paper and cardboard stacks and exposed food and water. Store food and organic waste in roach-proof containers. Clean and caulk cracks and crevices. Repair water leaks and keep kitchen and bathrooms dry.

Rats and mice: Combine exclusionary measures and traps to manage rodents. Seal holes and potential entryways and weather-strip doors. Remove food sources by cleaning food scraps and keeping food in sealed containers.

Ants: To manage ants, block their entryways, eliminate food sources, and remove ant trails with soapy water. Caulk cracks and crevices and seal exterior doors and windows with weather stripping and door sweeps.

Fleas: If the problem is indoors, determine what happened to bring fleas into the building. Avoid having animals come into and out of school buildings. Cleaning and vacuuming should be primary controls. Floors without carpeting will be easier to keep pest-free.

Least-toxic approaches save schools money

According to the U.S. EPA, "preliminary indications from IPM programs in school systems suggest that long term costs of IPM may be less than a conventional pest control program."[1] By focusing on prevention and monitoring whether pests present a problem, school IPM programs may require no treatments at all. An IPM program usually requires an initial economic investment. Short-term costs may include IPM training, new equipment purchases, hiring an IPM coordinator, or preliminary school building repairs. However, in contrast with chemical-intensive methods, over the long-term IPM garners savings by eliminating or reducing ongoing chemical purchases and applications—and through the incalculable benefit of a healthier environment for our children.

Public schools in Montgomery County, Maryland, provide a tangible example of how IPM can save money. Their IPM program, encompassing 200 sites, reduced pesticide use from 5,000 applications in 1985 to none four years later. The school district saved $1,800 per school and $30,000 at the county school food-service warehouse.[2]

In Monroe County, Indiana, a school IPM program decreased pest management costs by $6,000 in two years. Pesticide use has reportedly plummeted 90%, and all aerosol and liquid pesticides have been discontinued.[3]

Vista de las Cruces School in Santa Barbara, California, formerly contracted out pest management with a pest control company for $1,740 per year for routine pesticide applications. After the school switched to an IPM program, costs fell to a total of $270 over two years.[4]

A survey of Pennsylvania school districts that have adopted IPM reveals that alternatives are effective, less than or equal in cost to pesticide use, and may reduce school absenteeism.[5]

Conclusion

Least-toxic pest control is the effective, responsible means for school districts to manage pest problems. Many resources are available to help schools adopt pest control practices that put children's health first.

1. U.S. EPA, *Pest Control in the School Environment: Adopting Integrated Pest Management*, 735-F-93-012 (Washington, DC: Office of Pesticide Programs, 1993).

2. J.D. Schubert et al.,*Voices for Pesticide Reform: The Case for Safe Practices and Sound Policy* (Washington, DC: Beyond Pesticides/National Coalition against the Misuse of Pesticides, 1996).

3. Safer Pest Control Project, *Cost of IPM in Schools: A Fact Sheet from the Safer Pest Control Project* (Chicago, IL: 1998).

4. Pesticide Watch Education Fund and Pesticide Action Network, *Advancing Alternatives: Successful Least-toxic Pest Management Programs in California's Urban Settings* (2000).

5. Clean Water Action, *Evaluation of Integrated Pest Management (IPM) Use in Pennsylvania School Districts* (October 1997).

For more information on school pest control that protects children's health, contact the Washington Toxics Coalition at (206) 632-1545 or info@watoxics.org

Notification:
Your Right to Know

The Children's Pesticide Right-to-Know Act requires your school or day care facility to post notification signs at all sites where pesticides are applied (both indoors and outdoors), at a prominent place in the main office, and at primary entry points to the site of application. The sign in the main office must be posted 48 hours in advance of treatment, and all signs must remain for at least 24 hours afterwards. (The Model Least-Toxic IPM Policy in this Action Kit recommends that signs remain in place for at least a week.) A sample notification sign is below. Additional information about school pesticide use reporting and notification is on the reverse side, including a sample request for advance written notification of school pesticide applications (many districts require parents to make such requests in order to receive written notification).

Sample Pesticide Use Application Sign (at least 8-1/2 by 11 inches)

The signal word from the pesticide label should appear alongside the product name (e.g. "DANGER: Confront")

You can use either the pesticide product name or the active ingredient to find out more information about the pesticide applied.

Refer to the Hazards of Common Pesticides factsheet in this Kit to find out about possible health effects of many frequently used pesticides.

For additional information on these and other pesticides, log on to:

www.pesticideinfo.org

NOTICE: PESTICIDE APPLICATION
THIS AREA HAS BEEN RECENTLY TREATED WITH PESTICIDES BY YOUR SCHOOL

SIGNAL WORD, NAME OF PESTICIDE(S) APPLIED:
(e.g. DANGER: Confront)

_____

ACTIVE INGREDIENT(S):
clopyralid; triclopyr

_____

APPLICATION DATE AND TIME:

_____

TREATED AREA(S) :

_____

RATE OF APPLICATION:

_____

TARGET PEST:

_____

Caution:

Individuals taking medication, pregnant women, infants, children, and individuals with respiratory or heart disease, chemical sensitivities, or weakened immune systems may be particularly susceptible to adverse health effects due to pesticide exposure.

FOR MORE INFORMATION PLEASE CALL:
Name:
Phone:

Starting in the 2001-02 school year, Washington school districts are required to notify all parents annually about their pest management policies and methods, including posting and notification requirements. School districts are also required to maintain records of all pesticide applications to school facilities and make records readily accessible tointerested persons, and provide an annual summary of all pesticide use in the disitrct during the previous year. Below is a sample annual summary of pesticide use, as well as a sample request for advance written notfication of school pesticide applications.

Sample Annual Summary of District Pesticide Use

Name of Pesticide	Active Ingredient(s)	Quantity Applied	School Name
Roundup Concentrate	Glyphosate, isopropylamine salt	Total quantity of concentrate	Bagley Elementary
Dursban	Chlorpyrifos	8 oz.	Lakeview Elementary
Raid Ant & Roach Killer 13	Tetramethrin, Cypermethrin	12 oz.	Stevens Elementary
(Complete report should include summary information on all pesticides applied during the previous year.)			

Sample Request for Written Pesticide Application Notification

I understand that, upon request, the school district is required to supply information about individual pesticide applications at least 48 hours before application. I would like to be notified before each pesticide application at this school.

I prefer to be contacted by (circle one): U.S. Mail Email Phone

Parent/Guardian Name: _____ Date: _____

Address: _____

Day Phone: (_____)_____ Evening Phone: (_____)_____

Email: _____

Return to [School Contact Name, Address]

Your school must offer you the option to register to receive advance written notification <u>every</u> <u>time</u> it plans to use a pesticide. If your district requires parents to request such notification, enlist and join with other parents in calling to register. Given large registration numbers, your district may decide it is easier to notify all parents every time than to maintain a registry—or simply to use fewer pesticides!

For more information on school pest control that protects children's health, contact the Washington Toxics Coalition at (206) 632-1545 or info@watoxics.org

Sample Schools Petition

PETITION for Healthy, Least-Toxic Schools

Whereas the U.S. Environmental Protection Agency and other scientific authorities have linked many pesticides currently on the market to cancer, nervous system damage, hormone disruption, and/or reproductive harm; and

Whereas current federal and state regulations do not adequately regulate pesticides to protect human and environmental health—especially children's health; and

Whereas a precautionary approach toward pesticides and other chemicals is needed to protect the health and safety of the environment and future generations;

Therefore, so be it resolved that we, the undersigned parents and community residents, do hereby sign our support for the adoption of a least-toxic Integrated Pest Management (IPM) policy by the _____ School District that:

1. ends the use of highly hazardous pesticides (including pesticides linked to cancer, nervous system damage, endocrine disruption, or reproductive damage);

2. allows pesticide use only to protect human health or safety; and

3. requires 48-hour advance, written notification of all parents before pesticides are applied at schools.

Name	Address	Phone	Email

Name	Address	Phone	Email

For more information on school pest control that protects children's health,
contact the Washington Toxics Coalition at (206) 632-1545 or info@watoxics.org

Pesticide Information Online: www.pesticideinfo.org

How To use Pesticide Action Network's Online Pesticide Database

Do you want to know the health effects of pesticides your child's school uses? Visit www.pesticideinfo.org for answers.

The Pesticide Action Network (PAN) Online Pesticide Database brings together a diverse array of information on pesticides from many different sources to apprise you of human and environmental hazards associated with pesticide active ingredients, their breakdown products, and pesticide product additives like adjuvants and solvents.

System/Software Requirements

- A Java-enabled browser, either Netscape 4.0 or higher, or MS Explorer 4.0 or higher.
- A network connection, either through a phone line modem, DSL, or cable modem.

How to find information on a pesticide

Getting started

1. Open Netscape or Internet Explorer and go to http://www.pesticideinfo.org.
2. Click the gray **Open Database** button to enter the search mode. You will be taken to the **Basic Chemical and Product Search** page.

Defining your search: product or chemical?

The PAN Pesticide Database website provides information on both pesticide products and pesticide chemicals. A pesticide **product** is what the consumer, exterminator, or farmer purchases from a retailer or pesticide distributor. Common products you might have heard of are Raid™ and Roundup™. Pesticide products comprise active and other ingredients. Active ingredients are specific **chemicals** designed to kill a particular pest(s), appear on the product label, and may be listed by common name (e.g., diazinon, permethrin) or formal chemical name (e.g., O,O-diethy-l O-[3,5,6-trichloro-2-pyridyl] phosphorothioate). The other, "inert" ingredients dilute the pesticide, make it easier to apply, and/or allow different components to mix properly.

How to find information about a pesticide active ingredient (chemical)

1. From the Basic Product and Chemical Search page, click the Chemical button.
2. Type into the search box the name of the pesticide active ingredient(s) on the pesticide product label.
3. Click the **Search** button. A short list of chemicals appears, among them the one you entered. If your search does not yield any results, see the **Troubleshooting Your Search** section of this factsheet.
4. Click the **More** button for the chemical you are interested in to learn more about it. This takes you to the **Chemical Information** page, which provides both summary and detailed toxicity information for the chemical, plus links to other websites with helpful resources.

How to find information about a pesticide product (brand name)

1. From the **Basic Product and Chemical Search** page, click the **Product** button.
2. Type into the search box the name of the pesticide product on the pesticide product label in large letters (e.g., Roundup™ or Raid™).
3. Click the **Search** button. A list of products appears that begins with the name you entered. If your search does not yield any results, see the **Troubleshooting Your Search** section of this factsheet.
4. Select the product you are interested in carefully, because many products have very similar names. To ensure that you investigate the correct product, compare U.S. EPA product registration numbers in the list with the one on the school's form or the product label. Your search may produce more than one page of results. View subsequent results pages by clicking the number of the next page of results.
5. Once you locate the product of interest, click the **More** button to go to the **Product Information** page for summary toxicity data for each active ingredient in the product.
6. To learn still further about each active ingredient, click its name to proceed to the **Chemical Information** page, with more detailed toxicity information.

Finding definitions and references

Pesticide toxicity information can look confusing and technical at first glance, but the PAN Pesticide Database provides definitions and links to clear explanations of what information means. You can access them in these ways.

- Terms that are defined and explained are underlined. Clicking on any underlined term will link you to its definition.
- The sidebar menu on the PAN Pesticide Database home page contains a site table of contents. Click the **Definitions/References** link for an overview page that describes the available information and provides links to the pages on which it is found. The direct link is: http://www.pesticideinfo.org/documentation2/ref_overview.html.
- The navigation bar (blue buttons) at the top of the Search page or any of the data pages displays a button labeled **Definitions/About the Data** that links to the overview page that describes all documentation.

What if no information is available for the chemical?

Large question marks appear in the summary toxicity information for many pesticides. Some information about that particular toxin may exist in the registration documents (compiled by U.S. EPA) or scientific literature, but question marks indicate absence of a "weight-of-the-evidence" evaluation. Such evaluations require a panel of experts to assess all available laboratory studies for a particular type of toxicity (cancer, birth defects, reproductive harm, etc.), as well as any human health effects data, to determine a consensus hazard rating for the chemical. Most "official" toxicity rankings (e.g., U.S. EPA, World Health Organization) follow this procedure. This is the best system in place for objectively evaluating the intrinsic hazards of chemicals, but be aware that even it is subject to political pressure and funding constraints. For more information about such data limitations, see http://www.pesticideinfo.org/documentation3/ref_toxicity1.html.

Further facts on a pesticide may be available through the **Resources** links on the **Chemical Information** page. Good places to start are U.S. EPA factsheets (REDs); consumer factsheets; and the National Library of Medicine's Toxnet, Hazardous Substances Data Bank (HSDB), and Toxline. Learn about these resources at: http://www.pesticideinfo.org/documentation3/ref_help4.html#AdditionalResources.

Troubleshooting your search

- Check the **spelling** of the pesticide name. Perhaps the notice your school provided contained mis-typed information.
- If you know what letter or letters the pesticide name starts with, type only the **beginning part of the name** into the search box. For example, you might enter "mal" to locate malathion. The shorter the entry, and the more general the search, the longer your list of results.
- Be sure to search for **only one** chemical or product at a time. You cannot type in "raid, dursban" in hopes of finding both simultaneously.
- Use the **Browse** mode to find the product or chemical. Clicking on the letter or number the product or chemical begins with yields an alphabetical list of all products or chemicals that start with that letter or number. The list may be long and require scrolling through several pages to find the pesticide of interest.

For more detailed information on how to use the PAN Pesticide Database, go to the **Help** pages at: http://www.pesticideinfo.org/documentation3/ref_helptop.html.

Important note

The PAN Pesticide Database is a collection of datasets from a variety of government organizations and scientific publications. While all care has been taken to ensure that the information it contains is as accurate as possible at the time of preparation, PAN and its funders bear no responsibility for errors or omissions in the original data sources or for data sources that may have changed since incorporation into the database. Information in this database in no way replaces or supersedes information provided on the pesticide product label or under other regulatory requirements. Please refer to the pesticide product label. Should you have comments about the database or suggestions for changes, please contact Pesticide Action Network: 415-981-1771; panna@panna.org.

For more information on school pest control that protects children's health, contact the Washington Toxics Coalition at (206) 632-1545 or info@watoxics.org

Additional Resources

Pesticides and Schools Resources:

Bio-Integral Resource Center (BIRC)
PO Box 7414
Berkeley, CA 94707
Phone: 510-524-2567
Email: birc@igc.org
Website: www.birc.org

BIRC specializes in finding non-toxic and least-toxic Integrated Pest Management solutions to urban and agricultural pest problems. Their staff has a sophisticated knowledge of least-toxic programs for home and garden, and consults with institutions and the public for a small fee.

Beyond Pesticides/National Coalition Aganist the Misuse of Pesticides (NCAMP)
701 E Street SE
Washington, DC 20003
Phone: 202-543-5450
Email: info@beyondpesticides.org
Website: www.beyondpesticides.org

Beyond Pesticides is a national pesticide activist network that promotes pesticide safety and adoption of pest control alternatives to reduce or eliminate dependency on toxic chemicals. It provides useful information on pesticides and alternative pest management, including factsheets on pesticides, pesticide policy, and least-toxic alternatives.

Childproofing Our Communities
c/o Center for Health, Environment and Justice
PO Box 6806
Falls Church, VA 22040
Phone: 703-237-2249
Email: childproofing@chej.org
Website: www.childproofing.org

The Childproofing Our Communities Campaign is a locally based, nationally connected campaign to protect children from exposure to environmental health hazards in schools, homes, and communities.

Children's Health Environmental Coalition (CHEC)
P.O. Box 1540
Princeton, NJ 08542
Phone: 609-252-1915
Email: chec@checnet.org
Website: www.checnet.org

CHEC focuses on environmental issues related to children. Its website provides information on removing toxic materials from communities, schools, playgrounds, and homes, and a parent forum to share information.

Institute for Children's Environmental Health (ICEH)
Elise Miller, Executive Director
PO Box 757
Langley, WA 98260
Phone: 360-221-7995
Email: emiller@iceh.org
Website: www.iceh.org

ICEH is a non-profit educational organization working to ensure a healthy, just and sustainable future for children and the planet. The primary mission of ICEH is to foster collaborative initiatives to mitigate environmental exposures that can undermine the health of current and future generations.

Northwest Coalition for Alternatives to Pesticides (NCAP)
PO Box 1393
Eugene, OR 97440
Phone: 541-344-5044
Email: info@pesticide.org
Website: www.pesticide.org

NCAP works to protect people and the environment by advancing healthy solutions to pest problems. NCAP has a wealth of information on pesticides and least-toxic alternatives, including comprehensive factsheets on specific pesticides and pests.

Washington State Parent Teacher Association (WSPTA)
2003 65th Avenue West
Tacoma WA 98466-6215
Phone: 253-565-2153 or 1-800-562-3804
Email: wapta@wastatepta.org
Website: www.wastatepta.org

Washington State PTA supports improved notification about school pesticide use as a priority issue in its legislative platform.

Washington Toxics Coalition (WTC)
4649 Sunnyside Ave N, Suite 540
Seattle, WA 98103
Phone: 206-632-1545
Email: info@watoxics.org
Website: www.watoxics.org

WTC works to identify and promote alternatives to toxic chemicals. Its website has information on pesticides and details on least-toxic household products and alternative household solutions.

An earlier version of the Healthy Schools Pesticide Action Kit was developed for use in California by the following organizations:

Californians for Pesticide Reform (CPR)
49 Powell Street, Suite 530
San Francisco, CA 94102
Phone: 415-981-3939, 1-888-CPR-4880 (California only)
Email: pests@igc.org
Website: www.igc.org/cpr

California Public Interest Research Group (CALPIRG)
3486 Mission Street
San Francisco, CA 94110
Phone: 415-206-9338
Email: calpirg@pirg.org
Website: www.pirg.org/calpirg

Pesticide Action Network North America (PANNA)
49 Powell Street, Suite 500
San Francisco, CA 94102
Phone: 415-981-1771
Email: panna@panna.org
Website: www.panna.org

Pesticide Watch Education Fund (PWEF)
3486 Mission Street
San Francisco, CA 94110
Phone: 415-206-9185
Email: info@pesticidewatch.org
Website: www.pesticidewatch.org

Physicians for Social Responsibility—Los Angeles
3250 Wiltshire Blvd #1400
Los Angeles, CA 90010-1438
Phone: 310-458-2694
Email: psrsm@psr.org
Website: www.psrla.org

Women's Cancer Resource Center
3023 Shattuck Avenue
Berkeley, CA 94705
Phone: 510-655-4921
Email: wcrc@wcrc.org
Website: www.wcrc.org

For more information on school pest control that protects children's health, contact the Washington Toxics Coalition at (206) 632-1545 or info@watoxics.org.