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10 MYTHS ABOUT PESTICIDES

MYTH #1: Pesticides prevent pests

- **Fact:** This is a classic misconception. Pesticides may kill pests, but they do not prevent them. The IPM approach is successful because it is largely preventative. IPM involves simple approaches to exclude pests in the first place, combined with good sanitation and awareness of what creates good pest habitats. Pesticides may be used in an IPM program, but are preferably of low toxicity and employed along with other measures.

MYTH #2: Pesticides are not a health risk for children

- **Fact:** Pesticides are more of a health risk for children than adults and adolescents. A child's smaller body size and greater surface area per kilogram of body weight means it takes less pesticide to effect their developing organs and tissues. Children's habit of playing on the floor or ground, exploring, and putting things in their mouths predisposes them to greater exposure than adults wherever pesticides have been used.

MYTH #3: Botanical pesticides are safe

- **Fact:** Toxic plant extracts are nature's way of defending plants from bugs. These extracts are the original "pesticides" whose function and indeed even molecular structure gave rise to the engineered pesticides we make today. Headaches, respiratory problems, skin rashes, and a variety of allergic reactions can result from the improper use of botanicals. Whether purchased over-the-counter or homemade, botanical or "natural" pesticides should be used with the same degree of caution and awareness as their synthetic counterparts.



MYTH #4: Pesticides are necessary because IPM is too expensive for schools and homes

- **Fact:** The initial cost associated with addressing long-overdue maintenance needs can be a hurdle the first year on an IPM program. Once maintenance issues have been addressed (door sweeps, general pest proofing) and the school community is practicing real IPM, the pest management costs go down and may continue to decrease.



MYTH #5: Pesticides are tested extensively before being approved.... If they weren't safe the government wouldn't let us have them

- **Fact:** For a number of reasons, current testing methods do not fully address pesticide toxicity in humans, and **NO** standard testing method is conducted that would predict and warn against health effects to those most vulnerable among us: children. Even when it comes to adults, the long term health effects of many pesticides already in use are a question mark. Though the law requires that any application of pesticides on school grounds be done by a licensed professional, they nevertheless may pose a health risk to adults, adolescents, individuals with health problems and especially children in ways science has does not yet fully understand.



MYTH #6: Vendors who sell pesticides are knowledgeable about their safety and which ones – if any – to use for good pest management

- **Fact:** Seemingly benign over-the-counter products – like those found at a corner drug store or home supply store – can be among the most toxic available for their purpose. The EPA is currently undergoing a review of previously approved pesticides in light of new science on the toxicity of some chemical compounds (FQPA, 1996). It has been a slow process so far and will extend over a 10 year period. Accepting the unknowns and potential known risks of pesticide use is a responsibility that lies ultimately in our own hands, not the government's or store's who sell them.

Relatively few vendors provide their staff with any training at all regarding pesticide safety and/or efficacy. Staff training is usually limited on how to be "helpful". They will likely offer some advice; well intentioned, but not based on scientific fact.

The following "signal words" can be found on the front of pesticide products and serve as a guide to determining how toxic a pesticide is. Recall that research on the health effects among children is not included.

CAUTION: Slightly toxic

- Combat Roach Control bait trays
- Scratchex flea collar
- D-Con mouse killer

WARNING: Moderately toxic

- Safer Brand Insecticidal Soap
- Walgreens' Roach Control bait trays

DANGER: Highly toxic

- Gopher Getter bait

Arizona IPM News

The above signal words don't portray how toxic the compounds in the ingredients are, but rather how toxic they are at *that concentration*. So while bleach (5% Sodium Hypochlorite, a known corrosive) falls under the category of CAUTION, Safer Insecticidal Soap (an organic product with 49.5% concentrated fatty acids) is categorized at the higher level of WARNING. The point being that they are ALL toxic, and a lower toxicity rating may reflect an instructed diluting down of a very nasty chemical compound.

MYTH #7: More is better

- **Fact:** Actually more can be deadly. Labels are very carefully written and directions should be followed to the letter.



MYTH #8: Schools should not be burdened with providing the entire school community prior notification of pesticide applications

- **Fact:** Universal notification includes the entire school community, as opposed to a registry of folks who ask to be notified. Universal notification makes sure staff, busy parents and guardians are informed about pesticide applications in their child's school environment. It is by far the most efficient way of notifying the school community.

MYTH #9: Parents and staff only need 24 hours prior notification to the use of pesticides at schools

- **Fact:** It is the law in Arizona that schools must provide **72 hours advanced notice** to parents and staff prior to a pesticide application. Schools are required to pre-notify by posting signs in and around the school where the pesticide is to be applied. This includes baits, gels, and pastes that may fall under the EPA's definition of "least toxic pesticide". Furthermore, only those holding an Applicator's License for the state of Arizona are allowed to apply pesticides.



For the renegade teachers out there with a can of Raid ready under the sink for the odd "pest emergency", you are not only breaking the law...you're also putting your students' health at risk. Many products labeled for indoor crawling and flying pests contain pesticides which frequently trigger asthma attacks. Please don't be tempted to put yourself in such a liable position.

MYTH #10: Pesticides are only harmful if they are sprayed directly on someone

- **Fact:** What we do know is that commonly used pesticides in schools today contain compounds which can take days or even weeks to "wear off", particularly indoors or during the winter. Pesticide residues can enter the human body by accidental ingestion, skin absorption or inhalation.

- B Thanks to everyone participating in last month's **National IPM in Schools Workshop** hosted by yours truly in Tempe, AZ. School custodians, administrators, college professors and state employees traveled far and wide from all parts of Arizona, Florida, Ohio, and Indiana to participate in this fun and a little grueling IPM workshop. We spent two days learning about communication – effective communication is essential to a successful IPM program – and got to crawl on our bellies while conducting pest inspections of school grounds. **Thanks to all participants & presenters!**

- B Congratulations to Washington Elementary School District and their stellar IPM efforts for earning the S.T.A.R. Award. This honor is earned by demonstrating the strictest IPM standards as judged by the National IPM Institute. WESD has been involved with the IPM in Schools Coalition program for less than a year, but thanks to their dedication to IPM and highly motivated District IPM Specialist, Larry Schmeits, **they are now one of only 10 school districts in the country to hold the STAR award** (note: Kyrene School District is another).



- B IPM in Schools is catching on around the State. Two new districts were added this fall (Gilbert Public and Tucson Unified). Now we have a total of nine school districts involved:

- Kyrene
- Mesa Public
- Scottsdale Unified
- Gilbert Public
- Salt River Pima-Maricopa Indian Reservation
- Madison
- Tucson Unified
- Washington Elem.
- HOPI Indian Reservation

Pest Management is People Management

IPM is the first of several Children's Environmental Health programs that will be implemented using the Monroe Model process. The next layer of the program will facilitate the adoption of **Tools for Schools** which focuses on improving indoor air quality.

Information sources:

Beyond Pesticides/NCAMP Fact Sheet, "Ten Myths Behind Pesticide-Dependent Pest Management In Schools,"

<http://www.beyondpesticides.org/schools/publications>

Safer Pest Control Project NFP fact sheet, "Pesticides in Schools, What are the Health Risks?" <http://www.spcpweb.org/>

**In the Event of Accidental Pesticide Exposure, Always Call the Poison and Drug Information Center for Advice:
1 (800) 222-1222**