

Senate Bill 1350 – Introduced to Arizona Legislature in 2007 Notification of Pesticide Use in Child Care Facilities

When it comes to pesticides, children are clearly the most vulnerable population in our society. They are especially sensitive because for each pound of body weight, they have greater exposure to pesticides. They are also more vulnerable because young children tend to put their fingers in their mouth and also are nearer the ground where a lot of pesticides are applied. Their bodies are growing rapidly and are less able to detoxify and excrete pesticides and other toxic chemicals. Most importantly, infants and children have **developing** systems which are far more vulnerable to toxic insult.

Pesticides can have negative impacts on human health. This includes causing damage to the nervous system, reproductive organs, lungs, and immune system function, as well as cause cancer and birth defects.

Researchers have found that pesticide exposure can induce a poisoning effect linked to asthma. Since the mid-1980s, asthma rates in the United States have increased to epidemic levels, particularly in young children. In the U.S. alone, around 16 million people suffer from asthma. Asthma is a serious chronic disorder of the lungs characterized by recurrent attacks of bronchial constriction, which causes breathlessness, wheezing, and coughing.

- Nearly 1 in 8 school-aged children have asthma. This rate is rising most rapidly in pre-school aged children.
- Asthma is the leading cause of school absenteeism due to chronic illness. Every year, asthma accounts for 14 million lost days of school nationally.
- Arizona has some of the highest (in the country) pediatric asthma exacerbations resulting in hospitalization.
- Arizona cases are increasing, especially pediatric cases.
- Asthma is the third-ranking cause of hospitalization among those younger than 15 years of age.
- The number of children dying from asthma increased almost threefold from 1979 to 1996.
- The estimated cost of treating asthma in those younger than 18 years old is \$3.2 billion per year.
- Low-income populations, minorities, and children living in inner-cities experience disproportionately high morbidity and mortality due to asthma.

Two important scientific studies confirm the need for action that limits children's exposure to pesticides. The Journal of the American Medical Association published a study in July 2005 that documents student and school employee poisoning by pesticide use at schools. A second study, Acute Illnesses Associated with Pesticide Exposure at Schools (Vol. 294, No. 4, pp455-465), by Walter A. Alarcon, M.D. (National Institute for Occupational Safety and Health) et al., analyzes 2593 poisonings from 1998 to 2002 from three surveillance systems. While the analysis finds incident rates overall of 7.4 cases per million children and 27.3 cases per million employees, the authors conclude, **“These results should be considered low estimates of the magnitude of the problem because many cases of pesticide poisoning are likely not reported to surveillance systems or poisoning control centers.”** The authors recommend that strategies be adopted to reduce the use of pesticides at school.

Additionally, the Centers for Disease Control's (CDC) Third National Report on Human Exposure to Environmental Chemicals, also released in July 2005, includes striking new data showing widespread exposure to commonly used synthetic pyrethroid pesticides, with residues carried by over 50 percent of the population. In addition to endocrine disrupting effects, all the pyrethroids are closely associated with respiratory illness and asthma.

SB1350 requires that a pesticide applicator notify a child care facility at least seventy- two hours in advance of any pesticide application. It also requires that the child care facility notify parents, guardians, children, and personnel at least forty-eight hours in advance of any pesticide application. Prior to the introduction and adoption of this law in 2007 in Arizona, pesticide application notification laws were in place for schools, but not child care facilities.

This bill also incorporates sensible exemptions to posting and notification that will encourage the application of reduced risk pest management practices. School notification requirements have been in place for over a decade and few exemption situations are recognized. As a result, school districts often meet posting and notification requirements (sending notifications home to parents, and posting notification in buildings) even before the pest management professional has actually determined if any treatment is necessary. SB1350 modifies the exemptions from notification for pesticides for adult vector control to require that the oral notification be attempted at least 72 hours prior to the application. It also includes exemptions for disinfectants and swimming pool chemicals, block, gel or paste-type bait secured in an enclosed tamper-resistant bait station or

placed in areas inaccessible to children; block-type, EPA category II or IV formulations of rodenticide secured in an enclosed tamper-resistant bait station and placed in area inaccessible to children; and personal insect repellants.

Toxicity Categories and Pesticide Label Statements (Source Environmental Protection Agency)

EPA uses the following criteria to determine the toxicity category of pesticides. These criteria are based on the results of animal tests done in support of registration of the pesticide.

	I	II	III	IV
Oral LD50	Up to and including 50 mg/kg	From 50 thru 500 mg/kg	From 500 thru 5000 mg/kg	Greater than 5000 mg/kg
Inhalation LC 50	Up to and including 0.2 mg/liter	From 0.2 thru 2 mg/liter	From 2.0 thru 20 mg/liter	Greater than 20 mg/liter
Dermal LD 50	Up to and including 200 mg/kg.	From 200 thru 2000 mg/kg	From 2,000 thru 20,000 mg/kg	Greater than 20,000 mg/kg
Eye effects	Corrosive; corneal opacity not reversible within 7 days	Corneal opacity reversible within 7 days; irritation persisting for 7 days.	No corneal opacity; irritation reversible within 7 days	No irritation
Skin effects	Corrosive	Severe irritation at 72 hours	Moderate irritation at 72 hours	Mild or slight irritation at 72 hours.

Toxicity Category I - All pesticide products meeting the criteria of Toxicity Category I shall bear on the front panel the signal word "Danger." In addition if the product was assigned to Toxicity Category I on the basis of its oral, inhalation or dermal toxicity (as distinct from skin and eye local effects) the word "Poison" shall appear in red on a background of distinctly contrasting color and the skull and crossbones shall appear in immediate proximity to the word "poison."

Toxicity Category II - All pesticide products meeting the criteria of Toxicity Category II shall bear on the front panel the signal word "Warning."

Toxicity Category III - All pesticide products meeting the criteria of Toxicity Category III shall bear on the front panel the signal word "Caution."

Toxicity Category IV - All pesticide products meeting the criteria of Toxicity Category IV shall bear on the front panel the signal word "Caution."

Child hazard warning - Every pesticide product label shall bear on the front panel the statement "keep out of reach of children." Only in cases where the likelihood of contact with children during distribution, marketing, storage, or use is demonstrated by the applicant to be extremely remote, or if the nature of the pesticide is such that it is approved for use on infants or small children, may the Administrator waive this requirement.

SB1350 requires that the facilities develop a policy for notifying parents or guardians, children and personnel of the facility's pesticide use and application notification policies at the time of registration and at hiring time for personnel. The notification must include the list of pesticides with the EPA registration numbers and of all pesticides used during the previous calendar year and any additional pesticides anticipated of ruse in the current year.

Finally, SB1350 requires that the licensees maintain written records for pesticide application notifications for at least three years after the application.

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