

School Pesticide Monitor

A Bi-monthly Bulletin on Pesticides and Alternatives

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Beyond Pesticides / National Coalition Against the Misuse of Pesticides
701 E Street, SE, Suite 200 • Washington, DC 20003 • 202-543-5450
info@beyondpesticides.org • www.beyondpesticides.org



Toxics Drift Into School Hallways

Recent pesticide-poisoning incidents in Massachusetts, California and New York exemplify the need for better regulations to protect school children from pesticide drift. Pesticide drift is an inevitable problem when pest management strategies rely on spray and dust pesticides. Three incidents in one month show that it is a problem that government and school officials need to address.

On May 21st, the Spofford Pond Elementary School in Boxford, Massachusetts was evacuated after a pesticide, containing the active ingredient malathion, drifted onto the school property after a neighbor applied it to his property, according to the *Tri-Town Transcript*. Seven children reported feeling dizzy and nauseous from inhaling the strong odor that overtook several of the schools' classrooms. It was reported that the chemical spray was carried 200 feet into an open window at the school. The fire chief, Peter Perkins, told the *Transcript*, "The homeowner had no idea that what he was doing was causing a problem." Two children later went to the hospital.

A similar incident took place earlier that week at the Terrace View Elementary School in Grand Terrace, California. Students got sick from pesticides drifting onto the school property on May 19th, according to the *Mercury News*. Twenty-one students complained of nausea and stomach cramps and were taken to a nearby hospital. Local authorities believe that the students felt ill after inhaling fumes released from a malathion container that was on a field adjacent to the school. The school closed early that day.

Only one month earlier, *New York Newsday* reported that fifteen high-school students in Bronx, New York were treated after expo-

sure to an herbicide that park employees were spraying nearby.

"There are thousands of reported complaints of off-target spray drift each year," states the

U.S. EPA. For more information, see "Getting the Drift on Chemical Trespass," from Beyond Pesticides' Summer 2004 issue of *Pesticides and You*. Contact Beyond Pesticides for a copy at 202-543-5450.

What You Can Do About Pesticide Drift

When possible, advocate for sustainable, organic alternatives to pesticide use in your community. If smaller steps seem more realistic, you can work toward these technical fixes, which have limited ability to control drift:

Buffer Zones. To protect against vapor chemical drift, meaningful buffer zones require a two-mile radius around the school property. Aerial applications should have a larger buffer zone, at least three-miles encircling the designated property. No-deposit buffer zones, which reduce the impact of particle drift, should encompass a minimum of 400 ft.

Time of Day. Ultimately, buffer zones should be in effect at all times of the day, and at a minimum, during commuting times and while school property is in use.

Communication. School officials and nearby farmers should meet to talk about pesticides planned for use, emergency plans for accidental exposure, and share schedules.

Notification. Ideally, pesticide applicators should provide 48-hour prior notification to a school, which should include application time and location, pesticide product name, known ingredients, and applicator contact information.

Wind Breaks. The use of natural or artificial wind shields or breaks can help deflect and contain spray drift away from sensitive areas.

Pesticide Choice. Because completely eliminating drift is virtually impossible, growers and pesticide applicators should use the least toxic substances. Products with label temperature restrictions should be avoided. It is also important to avoid using chemicals that volatilize rapidly from moist soil, such as butyl ester or butoxyethanol ester, because they are more likely to result in vapor drift. Application of the most toxic pesticides should be prohibited from use.

Application Equipment. Drift increases significantly as boom height on spray equipment increases. Sprayers should be set up to produce the largest droplets (at least 200 microns). Ultimately, aerial and other problematic spray technologies should be prohibited altogether.

Weather. Application of a pesticide should never take place when a school is downwind, no matter the wind speed. Other weather considerations include: air temperature, relative humidity, topography and atmospheric stability.

Enforcement of Pesticide Regulations. State pesticide agency inspectors should routinely inspect planes, equipment, and application sites to ensure that regulations are being followed, and to prevent potentially damaging exposure to drift from pesticide applications. Drift incidents should be reported to state enforcement agencies.

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Pesticides and Playing Fields: An Unhealthy Mix

Set apart from dangerous streets, in the protective setting of school grounds, athletic fields should be safe places for children to spend their energy. However, hidden dangers may lurk in the grasses when hazardous pesticides are used on playing fields, especially since bodies of children and youths are often in direct contact with the grass.

Despite these concerns, last year TruGreen ChemLawn signed on as a sponsor to US Youth Soccer (USYS), the largest youth sports association. TruGreen expects increased business out of the deal, since it is publicly pledging a "percentage of every purchase made by members and supporters of US Youth Soccer back to US Youth Soccer." In other words, the 3.2 million soccer parents and other members of USYS will be solicited in hiring TruGreen to treat their own lawns, since doing so will result in TruGreen donating money to the youth sports association. The donated monies will go toward "field refurbishment across the United States," giving the company even more business, as it is now signed on as the "exclusive lawn care, turf care and landscape maintenance provider" of the sports organization. The partnership is up for renewal in December 2004, with a two-year option.

Beyond Pesticides and other child health advocates agree that this partnership is inappropriate in that it encourages the use of toxic lawn care pesticides around young children. Especially in light of the fact that the U.S. EPA has stated "Childhood exposure to pesticides

is an environmental health risk facing children today." Children face higher risks than adults from pesticide exposure due to their small size, tendency to place their hands close to their face, engaging in activities on or near the ground, greater intake of air and food relative to body weight, developing organ systems, and other unique characteristics.

Of the 36 most commonly used lawn pesticides, 14 are probable or possible carcinogens, 15 are linked with birth defects, 21 with reproductive effects, 24 with neurotoxicity, 22 with liver or kidney damage, and 34 are sensitizers and/or irritants.

Worse yet, these hazardous lawn chemicals have been found indoors. The most common lawn pesticide 2,4-D, linked with cancer, mutagenicity and acute adverse health effects, was recently found in 63% of dust samples of homes tested. Furthermore, research found that 2,4-D is easily tracked indoors, contaminating the air and surfaces inside residences and exposing children at levels ten times higher than preapplication levels.

Athletic fields don't need poisons to be healthy and green. Most weeds, insects and grass diseases result from lawn stress. Pest management begins by addressing the conditions that cause this stress, which may include soil compaction, improper mowing height, unsuitable grass species, too much

or too little irrigation or fertilization, accumulation of thatch, and uneven grading. By using knowledge of the local pest and the conditions it favors to relieve the lawn stress, the problem can be reduced or eliminated. For example, chinch bugs indicate drought, and brown patch disease suggests excessive fertilization with soluble nitrate fertilizers.

Several minor changes can make a world of difference to the health of an athletic field. First, replenish soil's organic matter by leaving grass clippings to decompose on the lawn. Second, mowing to a proper height (most athletic field grass varieties are fine at 2.5 to 3 inches) will decrease chances for weeds to germinate. When horticultural practices are not sufficient to control pests, flammers and nematodes provide direct control. As a last resort, least-toxic options such as fatty acid soaps, oils, garlic and vinegar-based broad spectrum products are available.

TAKE ACTION

Voice your concerns about the US Youth Soccer/TruGreen ChemLawn partnership by contacting:

US Youth Soccer Marketing Director
Chris Branscome at 800-4SOCCER or
cbranscome@usyouthsoccer.org.
Write him at 1717 Firman Drive, Suite
900, Richardson, Texas 75081.