



Saving Dollars and Making Sense: *Keeping Bugs Out of the Classroom*

School officials, teachers and parents alike want a healthy school environment. Schools face many challenges, but keeping kids healthy while looking for opportunities to save money is a priority for everyone. In school settings, children face risks arising from pests and exposure to pesticides. They may contract diseases vectored by biting insects; suffer asthma attacks from allergens or triggers from cockroach and rodent infestations; and be unnecessarily exposed to pests and pesticides in schools.

Because protecting children's health is a top priority, EPA recommends schools use Integrated Pest Management (IPM) - a **Smart**, **Sensible**, and **Sustainable** approach to pest control. **Smart** because IPM creates a safer and healthier learning environment by managing pests and reducing children's exposure to pests and pesticides. **Sensible** since practical strategies are used to reduce sources of food, water, and shelter for pests in school buildings and grounds. **Sustainable** because the emphasis is on prevention that makes it an economically advantageous approach.

Benefits of IPM

Fewer Pests

- Auburn (Alabama) City Schools reduced pest complaints by 90% using IPM (Gouge *et al.* 2006).

Fewer Pesticide Applications

- Montgomery County (Maryland) Public Schools' adopted an IPM program in 1985 and reduced pesticide applications from 5,000 to 600 over a 3 year period (Forbes 1991).
- Kyrene (Arizona) School District reduced pesticide applications from 12 to 1 per year in three schools by adopting IPM (Gouge *et al.* 2006).
- Initially implemented in ten school districts, the Monroe Model for school IPM dramatically reduced pesticide applications with eight of ten school districts showing a $\geq 50\%$ reduction in pesticide applications and five of eight districts above an 80% reduction (Gouge *et al.* 2006).

Money Savings

- An IPM approach can provide pest control with no long-term increase in costs (Gouge *et al.*, 2006).
- Montgomery County (Maryland) Public Schools initial investment of \$9,300 in an IPM program which included monitoring practices, supplies and training for staff members saved the district \$17,100 per year (Forbes 1991).
- Installing door sweeps and ensuring that windows and doors close tightly excludes pests and improves energy efficiency.
- The Monroe County (Indiana) Community School Corporation realized a \$6,000 annual savings by hiring an IPM coordinator to provide their pest management services (Safer Pest Control Project 1998).
- In New York, Susquehanna Valley Central School District saved \$1,000 per year using IPM while continuing to maintain attractive facilities (Safer Pest Control Project 1998).
- Anne Arundel County (Maryland) School District reduced its annual pest control costs from \$46,000 to \$14,000 (Washington State Department of Ecology 1999).
- The Union County (North Carolina) School District saved \$18,000 in fire ant treatments alone with the implementation of an IPM program in 2002 (North Carolina Public School Maintenance Association 2011).



Improved Environmental Health

- IPM can eliminate asthma triggers from cockroaches and other sources for the estimated 13 percent of U.S. children that have asthma.
- Asthma accounts for more than 12 missed school days a year, making it the leading cause of school absenteeism. In the Northeast Independent School District in Texas, a 1% increase in average daily attendance is worth \$3.4 million to the school district. The district's asthma reduction program, that includes IPM, has earned the district millions of dollars each year (Rhodes 2011).

To learn more about school IPM and the benefits of IPM, visit: www.epa.gov/pestwise/ipminschoools. A more extensive examination of the benefits of IPM to schools can be found in *The Business Case for Integrated Pest Management in Schools: Cutting Costs and Increasing Benefits* (Chambers et al. 2011).

References

Chambers, K, T. Green, D. Gouge, J. Hurley, T. Stock, Z. Bruns, M. Shour, C. Foss, F. Graham, K. Murray, L. Braband, S. Glick, and M. Anderson. 2011. *The Business Case for Integrated Pest Management in Schools: Cutting Costs and Increasing Benefits*. The IPM Institute of North America, Inc. 8 pp. www.ipminstitute.org/school_ipm_2015/ipm_business_case.pdf.

Forbes, W. 1991. *From Spray Tanks to Caulk Guns: Successful School IPM in Montgomery County, MD*. J. Pesticide Reform 10(4): 9-11.

Gouge, D.H., M. L. Lame and J. L. Snyder. 2006. *Use of an implementation model and diffusion process for establishing Integrated Pest Management in Arizona schools*. American Entomologist 2006: 190-196.

North Carolina Public School Maintenance Association. 2011. *School IPM: Good community support means fewer pest problems*. The Maintenance Beacon. 48(7): 2-3.

Rhodes, D. 2011. *Implementing Tailored Environmental Interventions – Maximizing Effectiveness of your Community Asthma Care System*. National Asthma Forum. Washington, D.C. Presented on 9 June 2011.

Safer Pest Control Project. 1998. *Cost of IPM in Schools*. Chicago, IL. 4 pp

Washington State Department of Ecology. 1999. *Calculating the True Costs of Pest Control*. Publication No. 99-433. www.ecy.wa.gov/pubs/99433.pdf.