Oklahoma School IPM

Pests are more prevalent in many schools and childcare centers than most people realize. A survey conducted on twenty Oklahoma childcare facilities in 1999 indicated that the perception of pest populations was much different than the actual number of pests detected. Cockroaches ranked highest in pest populations. Other pests included ants, rodents, brown recluse spiders, and pantry pests. These pests are linked to many respiratory and digestive illnesses and can cause complications with their bites.

Another alarming fact this survey revealed was that 90% of the childcare centers reported they did not store pesticides, whereas, 55% actually had pesticides on their premises. In addition, most people do not consider over-the-counter pesticides and cleaning/disinfecting products harmful.

Pesticides are used to kill pests, but the potential for harmful effects extends beyond their intended target. Our children can also be exposed to pesticides and their residues more frequently than realized, particularly when pesticides are applied on a routine basis. Children are vulnerable to pesticide exposure. Their bodies and immune systems are still developing. They receive higher doses of toxins based on weight to surface area, less able to eliminate the toxins than adults, and have developing organs that may be more sensitive to the toxic effects. The U. S. Environmental Protection Agency has focused on protecting children, workers, and the environment.

The goal of School integrated Pest Management (IPM) is to reduce pesticide exposure to children while still managing pests. Schools and childcare centers can have a huge impact on our children's health by adopting IPM practices that reduce exposure to these toxins and pests. In addition, schools across the nation who have adapted IPM have educated parents, thus improving children's health at home too.

IPM is a complete pest management approach rather than a pesticide control program. Pesticide exposure reduction is accomplished by using many techniques including sanitation, exclusion, mechanical, and biological management solutions. Pesticides are only used *if* necessary and when applied only the least toxic is used. Pesticides are never applied during school hours.

Most schools that use IPM have reduced their pesticide use by 90%. These schools have also experienced a drop of pests by 85%. Children, teachers, staff, and administrators have a direct positive impact on the pest activity and pesticide exposure in schools and childcares. A checklist is provided to guide interested facilities. For additional information and resources assistance, contact Dr. Tom Royer, Department of Entomology and Plant Pathology, 127 NRC, Stillwater, OK 74078, 405.744.9406, tom.royer@okstate.edu.

Integrated Pest Management IPM Oklahoma!

Southwest Technical Resource Center for IPM IN SCHOOLS

OSU EXTENSION

School IPM Checklist

1. **Adopt an IPM policy** that state how pests will be managed in your school or childcare buildings and on the grounds. In addition, an important consideration in policy development is the procedure for pesticide use notification.

2. **Designate an IPM coordinator for each building.** This person will act as a liaison between the building occupants and the pest management professional. Staff members should report any pest sightings (through the use of logs) so they can be communicated to the pest management professional.

3. **Inspect all buildings and grounds.** Regular inspections should be performed by a pest management professional or another person who is knowledgeable about pest biology and habits. The inspector will note situations that are conductive to pest populations and recommend repairs, sealing of pest entry points, clutter reduction, improved sanitation, and monitoring procedures.

4. **Perform repair as needed** to prevent pest access to buildings or to hiding spaces in walls and equipment. Repair any leaks and eliminate standing water wherever possible.

5. **Review sanitation practices and reduce clutter.** Sanitation includes areas such as kitchen cleaning and maintenance, waste disposal procedures, and elimination of clutter. Clutter is an important harborage of many pests, including rodents, spiders, and cockroaches. Elimination of cardboard is recommended.

6. **Set up a monitoring program for pests.** Monitoring means thorough and regular inspections to determine if pests are present. Monitoring programs focus on pest-vulnerable areas such as kitchens, teacher's lounges, and custodial closets, and use tools such as pest sighting logs and insect use tools such as pest sighting logs and insect "sticky traps." Staff should report any pest sightings to the IPM Coordinator.

7. **Identify potential pest species found and determine a control strategy** (if one is needed.) Control strategies may include improved sanitation, repairs, and targeted pesticide treatments.

8. **Only apply pesticides when a known pest is present.** Preventative applications of pesticides are generally not an effective way to manage pest populations, and are not part of an IPM program.

9. **If a pesticide is needed, select the least toxic pesticide.** Target treatments to the area where pests hide. Never apply when children are present.

10. **Keep records of pest activity and control measure used.**

11. **Evaluate the program on a regular basis.**

Adapted from *Components of an IPM Program*, Purdue University, Department of Entomology, IPM Technical Resource Center.