



Pests and Pesticides in Child-serving Facilities: An IPM Newsletter

Managing Fire Ants in and Around Schools

Karen M. Vail

Please see our new publication at <http://schoolipm.utk.edu/SchoolIPMsite/wwwroot/School%20Sample%20Site/resources.htm> for details on fire ant management around schools.

We recommend broadcasting a fire ant bait twice a year to suppress fire ant populations. Temperatures should be in the 70s and 80s (F)



Applying fire ant bait using a herd seeder mounted on an ATV.



Using a chest spreader to apply fire ant bait.

when the bait is applied. The end of the school year (the end of May) is an ideal time for the first fire ant bait application because the temperature is right and the kids aren't in school, thus their risk of pesticide exposure is reduced.

Reminder: Enjoy Edible Insects at the Tennessee School Plant Management Association (TSPMA) Annual Conference and Trade Fair, June 1-4, 2010

Music Road Hotel, 303 Henderson Chapel Road Pigeon Forge, Tennessee 37863

Please attend Dr. Karen Vail's session on school integrated pest management from 4:05—4:45 on June 1. Edible insects will be distributed throughout the session for correctly answered questions.

More information on the conference can be found at :<http://www.tspma.com/tspma-annual-conference-and-trade-fair-june-1-4-2010>

Special points of interest:

- > [Managing Fire Ants in and around Schools](#)
- > [Tennessee School Plant Management Association Meeting June 1 -4](#)
- > [Pest Proof for Summer Break!](#)
- > [Use IPM Bid Specs!](#)

Fire ant management: *The end of the school year is an ideal time for the first fire ant bait application because the temperature is right and the kids aren't in school , thus their risk of pesticide exposure is reduced.*

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Pest Proof for Summer Break!

By Jennifer Snyder & Dawn Gouge. Modified by Karen Vail

Summer break is upon us, and unfortunately pests don't take vacations. In fact, the warmth and moisture of summer will increase the number of insects, spiders and other potential pests. To avoid outbreaks in your classroom, kitchen, or school office this summer, follow these simple pest-proofing guidelines for your space. Your school's Integrated Pest Management (IPM) program works when everyone embraces their unique role...

Administrators

- Inform your staff that you support the IPM approach to managing pests – which means sharing this pest press or circulating a memo with this information (electronic copies available at <http://schoolipm.utk.edu/>). Implementing these measures will improve the structural integrity of your buildings, create a cleaner school environment, and a healthier learning environment.
- Facilities managers should have a plan in place for garbage and recycling over the summer. If there is a cut-off date beyond which classroom garbage and recycling will *not* be collected, make sure you communicate with principals to inform teachers and office staff. Infrequent trash collection schedules can generate serious pest problems.
- Principals: make sure staff responsible for the Lost & Found appropriate the items and clear the area out. Cockroaches, mice, and several other pests are commonly found among neglected Lost & Found items.

Teachers

You do an amazing job teaching with limited resources and time. Unfortunately, pests seem to LOVE all things “teacher”! Lounges are high-use areas with minimal accountability. Classrooms often have significant space limitations resulting in clutter. Both areas are among the most pest-prone. **Fortunately, pest management is NOT another job -- it overlaps with what you are already doing.**

- If you have art supplies that dub as food items (macaroni, popcorn kernels, beans, etc.) store them in plastic or glass containers with tightly sealed lids instead of cardboard boxes...or better yet, discard food art altogether.
- When you're reorganizing (end of year, winter break, etc.) use the opportunity to recycle ALL CORRUGATED CARDBOARD and substitute storage bins for cardboard. Adult and immature cockroaches are transported inside the corrugations of cardboard boxes. Both roaches and crickets may also feed on the box materials.
- Classroom garbage and recycling may not be emptied regularly over the summer. Don't return to a classroom full of flies or cockroaches -- be aware of cut-off dates for classroom garbage and cleaning services.
- Report leaky faucets and watermarks in ceilings and walls to maintenance.
- Dry food, snacks, etc. should not be left in the classroom over the summer. Take them home with you, give them to students, or throw them out. (During the school year, store dry snacks in containers with lids.)
- Remove classroom plants, pets and pet food.
- Give yourself an amnesty day on accumulated “stuff”. Haven't used it in two years? Recycle it. Clutter is one of the main attractants for classroom pests. If you find pesticides in your classroom, make sure you dispose of them appropriately.
- Teacher's lounge: open the refrigerator and take a good look at every item – is it yours? Take it home. Is it expired or no longer recognizable? Don't hesitate...toss it!



Cockroaches live contentedly in the seals of refrigerator and microwave doors. Appliances need to be cleaned regularly, and refrigerators emptied before breaks. To increase accountability, consider drawing up schedule for lounge staff. Snyder & Gouge, U of AZ

Custodians

- Report leaky faucets, wet spots, or water damage in ceilings and walls (indoors and outside).

- Hang mops and brooms “head-up” on wall-mounted racks. Ants, crickets, and roaches will feed on the organic residue built up in mops and brooms. Flies, spiders and cockroaches will breed, feed, and take shelter in mop and broom heads resting on the floor.
- Make sure all trash and recycling is removed from classrooms. *All* trash – even paper recycling -- contains something pests want, so don’t make it easy for them and they won’t hang around.
- Arrange for you or other designated staff to flush all toilets and run water in all drains (including floor drains in kitchen area) at least every two weeks. It is well worth the effort! This keeps the P-traps from drying up, and American cockroaches from gaining access via drains. *A building-wide infestation of roaches could be the result of not regularly performing this simple and effective action.*



American Roach. K Vail, UT E&PP

IPM Specialists

- As pest managers, you are diagnosticians of pest problems for your district and naturally fall into an educator role. Share this Pest Press with school principals and encourage them to pass it along to staff. Use archived issues to help your educational efforts. If school staff does their part, it makes your job much more efficient.



Keep a vegetation-free zone next to school. Snyder & Gouge, U of Arizona.

Grounds Crew

A walk around the premises will reveal pest proofing opportunities. Allow yourself to take note of things you’re normally too busy to notice -- or unable to with students present.

- Irrigation/drip lines for plants no longer present and sprinkler heads too large for the job will waste water and create mosquito habitat.
- Prune vegetation a path-width away from buildings. Overhanging trees in particular provide pests an easy access to the indoors.



German cockroach. www.extension.org

Kitchen staff

- Before heading out for the summer, remove as much corrugated cardboard from the pantry and kitchen area as possible. Adult and immature German cockroaches can be found in the corrugation columns and are brought into schools this way. These cockroaches in particular thrive in kitchen environments and can prove challenging to eradicate.
- Kitchen managers: check to make sure the kitchen floor will receive a thorough spray-washing to remove grease and dirt build-up – **especially in corners and under appliances!!** Pests love the food and grease build-up in hard-to-reach corners. Spray or steam washing is ideally done on a monthly basis (at a minimum twice each school year).

Students

- Older students will typically clean out their lockers, whereas younger ones may have things stored and tucked away in cubbies, desks, etc. Students can help take responsibility for a healthy school by removing clutter and any stored food, and by tidying the classroom in preparation for breaks.

Modified from

Snyder, J.L. and D. H. Gouge. 2008. *Pest Proof for summer break!*
Pest Press, University of Arizona Cooperative Extension, June/July issue.

When Requesting Bids for Pest Management Services, Use an IPM Bid Spec!

Karen M. Vail

Integrated pest management can be successfully performed by school employees; however, currently most school districts in Tennessee contract with a pest control firm to provide pest control services. Some schools may wish to combine in-house and contracted services. Each approach has advantages and disadvantages; school officials should decide which is needed for their school district.

Advantages/Disadvantages of Using School Personnel for Pest Control Services (In-House Pest Control)

School personnel providing pest control services may find it easier to communicate and develop a rapport with others present in the school. Cooperation with all individuals occupying the school is needed for an IPM program to succeed. Pest control services can be combined with other maintenance jobs as long as the employee is a licensed pest control operator. Also, the in-house personnel are more likely to identify a pest problem before it becomes too obvious. Using in-house personnel will avoid the difficulty of developing a bid invitation, as well as eliminating the difficulty of choosing a reputable and reliable firm. Greater control of personnel and quality of performance is provided through an in-house program.

The drawbacks to in-house pest control include the need to find a safe storage and disposal site for pesticides and equipment. The potential liability of the district in regard to pesticide use is probably higher in an in-house program. If a re-entry interval is used that is greater than that listed on the label, such as 12 hours, overtime expenses could be incurred.

If schools are affiliated with the state of Tennessee, then payment for the licensing exam can be made with a journal voucher. Otherwise, licensing an employee to apply pesticides in a school will require an initial charge for the licensing exam.

Advantages/Disadvantages of Using Contracted Pest Control Services

Professional pest control personnel are usually more experienced with the techniques that safely and effectively control pests. School district personnel are not required to maintain contracted individuals' licenses, nor are they required to train the pest control technician. Potential liability could be reduced when using contracted services. The need for locating a special storage and disposal site for pesticides is eliminated. The district will avoid overtime pay for work performed after regular working hours.

Communication between contracted individuals and other school personnel, such as custodians, may not be as easily developed as in an in-house program. School district personnel must develop a bid invitation for contracted services, and a reputable and reliable firm must be chosen.

Importance of Bid Specifications

Thorough, stringent bid specifications help eliminate the problem of unrealistically low bids by firms that are unable or unwilling to provide the quality of work the school district should expect. School officials can inquire with the local Better Business Bureau or the Tennessee Department of Agriculture, Division of Regulatory Services (TDA, DRS), to determine whether complaints are received regularly about a prospective company. School district personnel must verify with TDA, DRS the licensing of operators and the certification of pest control technicians.

The choice of a pest control firm should not be based primarily on the lowest bid. Use the Weighted Factor Rating System for Evaluating Pest Control Bids at the end of this document to choose the most qualified contractor. Some school districts may refer to this as a request for proposal (RFP) rather than a bid specification to allow an evaluation of the bid based on quality and services as well as price. A contract awarded for more than a year may allow a firm to determine effective control methods for your site and develop a rapport with school staff. Contracts awarded for several years may encourage contractors to be more productive, knowing that they are not going to lose the job next year to a lower bidder.

When Requesting Bids ..., Use an IPM Bid Spec! Continued

IPM Bid Specifications Essential Items

Some suggested elements for IPM bid specifications are listed below:

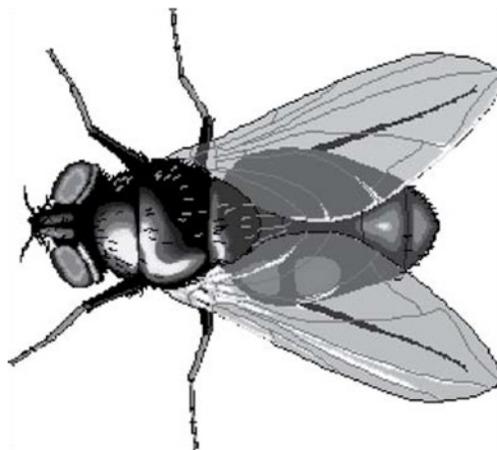
- Prospective bidders should conduct a meticulous on-site inspection before submitting a bid. This allows potential bidders to view firsthand the facilities and pest problems, so bidders can make a realistic estimate of service needed and the time required for these services.
- Minimum service times can be defined by the school district in the bid. Bidders should understand that minimum service times are an expectation of the contract, and any failure of the contractor to meet these minimum service times should be grounds for cancellation of the contract by the school district.
- The use of least toxic materials necessary to provide satisfactory pest control, as identified by the district, should be understood and agreed to by the bidder.
- Appropriate monitoring tools and procedures should be used on a regular basis by the contractor to find pest infestations and assess the need for corrective treatment.
- School districts should receive from the bidder copies of labels and Material Safety Data Sheets (MSDS) for all products to be used on the school district property. The school district reserves the right to approve or disapprove any pesticide or device.
- The use of bait stations, crack-and-crevice or void treatments are preferred over the use of aerosol, broadcast, spot and baseboard treatments. The school district should not allow the use of aerosol or machine-generated fogs, mists or space sprays without written permission from the IPM coordinator.
- Pesticide use should be targeted and on an as needed basis. The use of random, baseboard spraying is discouraged.

The above provisions and others are specified in the model bid specifications at <http://schoolipm.utk.edu/SchoolIPMsite/wwwroot/School%20Sample%20Site/GettingStartedSchool.htm>.

THIS IS ONLY A SUGGESTED MODEL FOR SCHOOLS ATTEMPTING TO IMPLEMENT AN INDOOR IPM PROGRAM. THESE SPECIFICATIONS ARE NOT REQUIREMENTS.

School districts may want to incorporate some elements of the model contract into existing bid specifications; others may adopt the requirements in total, with additions as suggested by the IPM coordinator, purchasing officer or other business personnel. Many standard clauses are omitted from the linked contract to save space.

If there is a conflict between the model bid specifications and the school district's usual bid process, the school district should defer to its regular bidding process.



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**Comments or questions
 on this newsletter?
 Contact kvail@utk.edu**

For more information about IPM in Tennessee schools and other facilities, or to view past issues of *Pests and Pesticides in Child-serving Facilities*, please visit schoolipm.utk.edu or utyeah.utk.edu

NATIONAL IPM INFORMATION
 eXtension's Pest Management In and Around Structures: Urban Integrated Pest Management
<http://www.extension.org/Urban%20Integrated%20Pest%20Management>

National School IPM
schoolipm.ifas.ufl.edu/

IPM in Schools Texas
schoolipm.tamu.edu/resources.htm

IPM Institute of North America
www.ipminstitute.org/

School IPM PMSP—all schools IPM by 2015
http://www.ipminstitute.org/school_ipm_2015.htm

National Pest Management Association IPM
www.whatisipm.org/

EPA schools
www.epa.gov/pesticides/ipm/schoolipm/index.html

For further information about the IPM program at your school or in your county, contact your county Extension Agent or the school IPM Coordinator. For county agent contact information, please visit www.agriculture.utk.edu/personnel/districts_counties/default.asp

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Precautionary Statement

To protect people and the environment, pesticides should be used safely. This is everyone's responsibility, especially the user. Read and follow label directions carefully before you buy, mix, apply, store or dispose of a pesticide. According to laws regulating pesticides, they must be used only as directed by the label.

Disclaimer

This publication contains pesticide recommendations that are subject to change at any time. The recommendations in this publication are provided only as a guide. It is always the pesticide applicator's responsibility, by law, to read and follow all current label directions for the specific pesticide being used. The label always takes precedence over the recommendations found in this publication.

Use of trade or brand names in this publication is for clarity and information; it does not imply approval of the product to the exclusion of others that may be of similar, suitable composition, nor does it guarantee or warrant the standard of the product. The author(s), the University of Tennessee Institute of Agriculture and University of Tennessee Extension assume no liability resulting from the use of these recommendations.

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