



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

Special points of interest:

- > Head Lice
- > Nurses not allowed to apply pesticides in schools
- > Pest management phone survey

Don't spray school premises for head lice, it's not necessary and is illegal if not performed under the direction of a licensed operator!

Karen M. Vail

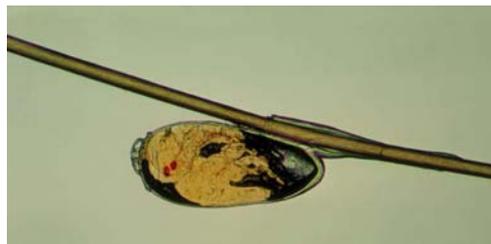
In the United States, approximately 10 – 12 million people, mostly children, are infested annually with head lice, *Pediculus humanus capitis* DeGeer. The first indication of an infestation is the itching and scratching caused by these bloodsucking insects. Examination of the hair and scalp will usually reveal the white or grayish crawling forms (about the size of a sesame seed) and yellowish-white eggs (nits) attached to the hair shafts close to the scalp.



Head louse adult. Photo: University of Florida

The most common way head lice are spread is by direct head-to-head (hair-to-hair) contact. Much less often they are spread by sharing clothing or personal possessions onto which lice have crawled or shed hairs with nits may have fallen. There's a very slim chance of being infested by a louse that has fallen onto a carpet or furniture. Head lice just don't survive very long off a host, often less than 1-2 days if they fall off a person and don't have access to food (your blood). Nits won't hatch and usually die within a week if deprived the temperatures and humidity found close to the scalp.

Head lice are small (1/8 inch), wingless insects with sucking mouthparts, and legs modified for grasping hairs. These lice prefer to cling to head hair with their claw-like legs. Head lice do not normally live in rugs, carpets or school buses. Lice do not have jumping legs or wings, so they cannot jump or fly from person to person. The 1/10 inch eggs (or nits) of head lice are oval, white and cylinder-like and are usually glued to the head hairs near the scalp. Near the ears and back of the head are common places for females to attach the eggs. These nits are sometimes mistaken for dandruff or residues of shampoo but will not wash off or be flicked off with a finger. Red bite marks or scratch marks are often seen on the scalp or neck. Typically, eggs hatch within seven to 10 days. Newly hatched lice must feed within 24 hours or die.



Unhatched nit of head louse attached to a human hair. Note red eyespots of developing embryo. (Photo: Centers for Disease Control and Prevention, Dr. Dennis D. Juranek)

Do not use insecticidal premise sprays or fogs; they are not necessary to control head lice and can be toxic if inhaled or absorbed through the skin.

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Heading Off Head Lice

- Teach children to avoid head-to-head contact during play and other activities at home, school, and elsewhere (sports activities, playgrounds, slumber parties, and camps).
- Teach children not to share clothing and supplies, such as hats, scarves, helmets, sports uniforms, towels, combs, brushes, bandanas, hair ties, and headphones. Lice can be manually removed from headphones with a cleaning wipe.
- Disinfect combs and brushes used by a person with head lice by soaking them in hot water (at least 130°F) for 5–10 minutes.
- Do not lie on beds, couches, pillows, carpets, or stuffed animals that have recently been in contact with a person with head lice.
- Clean items that have been in contact with the head of a person with lice in the 48 hours before treatment. Machine wash and dry clothing, bed linens, and other items using hot water (130°F) and a high heat drying cycle. Clothing and items that are not washable can be dry-cleaned or sealed in a plastic bag and stored for two weeks.
- Vacuum the floor and furniture, particularly where the person with lice sat or lay. Head lice survive less than one or two days if they fall off the scalp and cannot feed.
- **Do not use insecticidal premise sprays or fogs; they are not necessary to control head lice and can be toxic if inhaled or absorbed through the skin.**
- After finishing treatment with lice medication, check everyone in your family for lice after one week. If live lice are found, contact your health care professional.

See the CDC website for frequently asked questions about lice and management <http://www.cdc.gov/lice/head>

Sources

FDA Anonymous. July 24, 2009. Treating Head Lice. <http://www.fda.gov/ForConsumers/ConsumerUpdates/ucm171730.htm>

Head Lice Information from the Centers for Disease Control and Prevention. www.cdc.gov/lice/head/

National Pediculosis Association. www.headlice.org

Vail, K.M. 2006, Head Lice, <https://utextension.tennessee.edu/publications/Documents/SP341-S.pdf>

Nurses NOT Allowed to Apply Pesticides in Schools!

Tennessee Code Annotated 62-21-124. Pesticides in buildings used for food preparation and service, or lodging states:

(a) Whether or not engaged in the business of applying pesticides, a person may not apply a pesticide within any of the following buildings, except under the direct supervision of a person licensed to apply pesticides in accordance of this chapter:

- (1) any building used for the preparation or serving of food;**
- any building used for the temporary or permanent lodging of others;
- 3) any building used primarily for educational purposes, except those buildings used primarily for religious instruction or for providing education to not more than ten (10) persons; or**
- any commercial food processing facility.



Thus, nurses, computer lab supervisors, teachers, custodians, maintenance and other school personnel are NOT allowed to apply pesticides in a school unless the school has someone licensed for this purpose. I would expect most school personnel have not been made aware of this Tennessee law. (By the way, violation of this law could result in a class A misdemeanor. Most likely, the Tennessee Department of Agriculture would warn the violator, but if repeated occurrences were to occur after a warning, a judge would be determining the discipline.)

In schools, we want to prevent the school occupants from being exposed to pesticides and in the case of head lice, it just isn't necessary. Some pesticide labels will actually state that pesticides cannot be applied while children are present. Some of the premise lice spray formulations are for home use only. In addition, the application of some products that have a strong odor (even a strong pleasant odor) and are low in toxicity, could trigger an asthma attack if done when children or other occupants are present.

UT Pest Management Phone Survey

Karen M. Vail

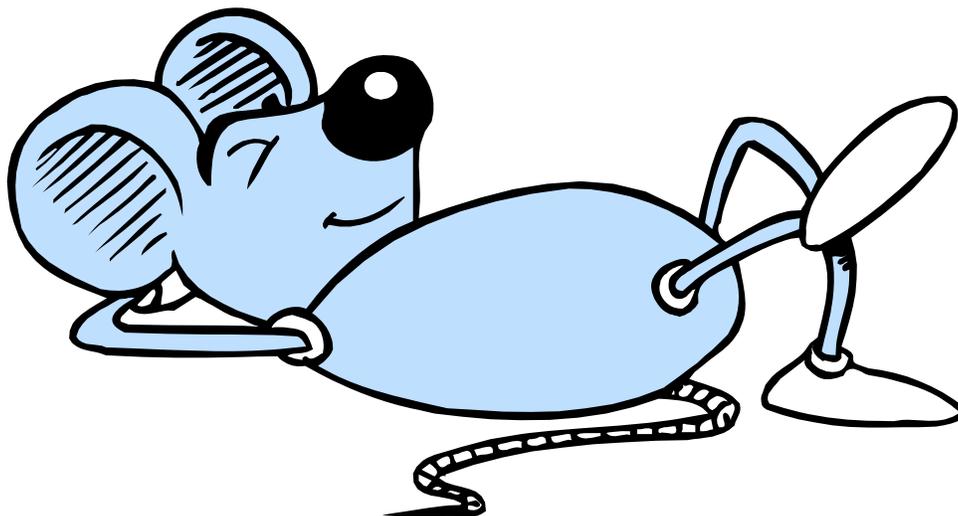
By now, most of you have received a phone call from Pat Barnwell, one of my support staff, requesting that you complete a pest management phone survey with her. If you haven't called her back yet, I want to encourage you to do so. It's really rather painless and only takes about 5 minutes of your time to answer the 17 questions. One question pertains to demographics so not much thought required to answer that one.

We decided to go this route to determine the level of IPM adoption in Tennessee rather than use the online survey form which was more thorough, but also more time consuming for you. We've also changed the survey this year so your responses pertain to the entire school system rather than answering questions about each school. Yes, we again made it easier for you.

Please remember that our goal is to have all of Tennessee's schools using integrated pest management by 2013. We currently have demonstrations in Johnson and Humphreys counties and are trying to initiate another one somewhere in east Tennessee. If we can do anything to help your school system to adopt IPM, please let us know.



Pat wouldn't let me take her picture, but this is a close representation of her efforts.



Have you pest-proofed your schools or are mice recreating in your facility?

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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.

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