



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

### Special Points of Interest



Photo: <http://www.masonbarry.com/westsidesideelementary>

#### To attract fewer night-flying insects:

Consider mounting lights on poles away from the structure where they can be directed as needed.

Use shielded fixtures to direct light downward.

Mount light fixtures near the hinged side of the door so less light shines inside when doors are opened.

### Night Lighting and Insects

Pat Barnwell and Karen Vail

For safety and security school entrances need illumination at night, but the placement and type of light source can affect insect attraction to the structure. Although insect species vary in their sensitivity to different wavelengths of light, generally, the most attractive wavelengths fall within ultraviolet to blue-green regions of the light spectrum. Incandescent, fluorescent and mercury vapor lamps that produce bright white light attract insects because the lamps produce a cool bluish tone. Lamps such as yellow fluorescent and high sodium vapor are good choices for the exterior because their warm tones mimic sunlight and are less attractive than the cool tones. If your school is using LED lights choose warm white LED bulbs for the exterior. LED technology is rapidly developing so check with your vendor for the best product. LED lights do have the advantage of producing less heat which can also be a factor in attracting insects.

Several other strategies that deter insects from entering buildings include:

- 1) mounting light fixtures near the hinged side of the door, not above, so less light shines inside when doors are opened,
- 2) placing security lights on a poles away from the structure where they can be directed as needed, and
- 3) using shielded fixtures that direct light downward instead of skyward to attract fewer insects.

Consider using timers or motion sensor switches in areas where security isn't a major issue. Timing can make a difference. For example, turning lights on 1 hour after dusk decreased the number of midges that were attracted to a building. Deterring insects also deters spiders, bats and [toads](#) that feed on insects.

Check to see if light is visible under or between doors where insects, such as crickets or ground beetles, can enter. If you see light, it is time to replace door sweeps or weatherstripping.

#### References:

Smith, Eric. LED lights and flying insects. <http://www.dodsonbros.com/blog/led-lights-and-flying-insects-242.html>

Smith, Eric. Managing Light, the Key to Reducing Night-flying Insects. <http://www.dodsonbros.com/blog/managing-light-the-key-to-reducing-night-flying-insects-231.html>

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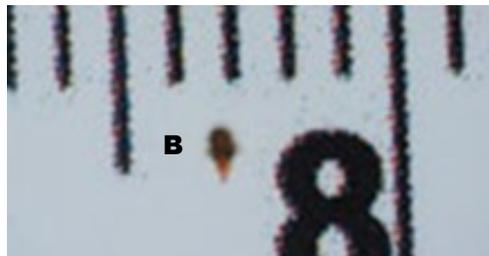
## Clover Mites (*Bryobia praetiosa*)

Pat Barnwell and Karen Vail

Clover mites, arachnids related to spiders and ticks, are smaller than a pinhead (1/30 inch). These mites are most active in spring and fall when temperatures are moderate (50 to 75 degrees F). Warmer or cooler weather reduces activity. Only females are known, and reproduction occurs without fertilization. Eggs are deposited on vegetation, under bark or in crevices of structures and won't hatch until the temperature is ideal to complete the life cycle. Development from egg to adult takes about 30 days. The mites pass through a larval and two nymphal stages before becoming adults. Larvae have bright red disc-shaped bodies with six legs. Adults and nymphs are oval-shaped, eight-legged, and variously colored from dark red, to rusty brown to olive green. One of the distinguishing features of adults and nymphs are the elongate front legs held forward resembling antennae (Figure 1). Over 200 species of grasses, trees, shrubs and flowering plants can be part of their diet, but most commonly these mites feed on grasses and clover. Large populations can cause silvering of grass blades.

Populations may explode as the weather warms in spring or cools in fall especially in heavily fertilized lawns. Where vegetation next to the structure supports sizable infestations, these mites can invade the interior in large numbers. Clover mites pose no health threat to people nor do they damage property but squashing them can lead to staining of walls and fabrics as the red pigmented bodily fluid is released. Vacuum mites on surfaces and when finished, enclose the vacuum bag in a plastic bag before disposal. Chemical control is unnecessary indoors because the mites have a very limited life in this environment due to dehydration.

Best management practices include caulking window frames, sealing other crevices to block entry points and maintaining an 18- to 24-inch grass-free barrier around the building perimeter.



Clover Mite:

**A**, magnified adult clover mite, <http://entoweb.okstate.edu/ddd/insects/clovermite.htm> and

**B**, clover mite on millimeter ruler, <http://www.ppd.l.purdue.edu/ppdl/hot11/4-18.html>.

### References:

Lyon, W.F. Clover Mite, HYG-2095-94. <http://ohioline.osu.edu/hyg-fact/2000/2095.html>

Townsend, Lee. Enfact-627, Clover Mites. <http://www2.ca.uky.edu/entomology/entfacts/ef627.asp>

## Recent or Upcoming Webinars

### Contending with Vertebrate Pests Around Schools



Contending with  
Vertebrate Pests  
Around Schools



**When:** March 31, 2015

**Time:** 2:00 PM to 3:30 PM Eastern Time (US and Canada)



#### Description

The webinar will begin with a brief overview of Integrated Pest Management (IPM) and how the control of vertebrate mammals around schools should be a part of an overall IPM program. This presentation will then discuss the challenges that large vertebrate pests present and some tried-and-true ways to deter them from your school buildings and grounds. Specific problems with squirrels, raccoons, foxes, deer and feral cats will be discussed along with solutions to the difficulties caused by these opportunistic pests. This presentation is geared specifically to the school community - facility managers, buildings and grounds managers and staff, nurses, administrators, and IPM coordinators.

Space is limited to the first 1,000 to register. After registering, you will receive a confirmation email with information on joining the webinar.

**Register now at:**

[https://epa.connectsolutions.com/vertebratepests\\_sipm/event/registration.html](https://epa.connectsolutions.com/vertebratepests_sipm/event/registration.html)

#### Previous EPA School IPM Webinars

**Dealing with Nuisance Birds Around Schools,** <http://www.epa.gov/pestwise/events/sipm-webinars-past.html#birds>

**Keeping Rodents Out of Your School,** <http://www.epa.gov/pestwise/events/sipm-webinars-past.html#rodents>

**Bed Bugs in Schools,** <http://www.epa.gov/pestwise/events/sipm-webinars-past.html#bedbugs>

**The Basics of School IPM,** <http://www.epa.gov/pestwise/events/sipm-webinars-past.html#basics>

**Creating Tick Safe Schools Using IPM,** <http://www.epa.gov/pestwise/events/sipm-webinars-past.html#ticks>

**School Community Mosquito IPM,** <http://www.epa.gov/pestwise/events/sipm-webinars-past.html#mosquitoes>

#### Previous eXtension Webinar

**Fire Ant Management Using Baits,** <https://learn.extension.org/events/1852>



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**Comments or questions  
 on this newsletter?  
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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](http://schoolipm.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/](http://schoolipm.ifas.ufl.edu/)

IPM in Schools Texas  
[schoolipm.tamu.edu/resources.htm](http://schoolipm.tamu.edu/resources.htm)

IPM Institute of North America  
[www.ipminstitute.org/](http://www.ipminstitute.org/)

School IPM PMSP—all schools IPM by 2015  
[http://www.ipminstitute.org/school\\_ipm\\_2015.htm](http://www.ipminstitute.org/school_ipm_2015.htm)

National Pest Management Association IPM  
[www.whatisipm.org/](http://www.whatisipm.org/)

EPA schools  
[www.epa.gov/pesticides/ipm/schoolipm/index.html](http://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](http://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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