



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

Special Points of Interest

Solving School Pest Problems: An Interactive TSPMA Session

Karen M. Vail

Next week, the Tennessee School Plant Management Association (TSPMA) will hold its annual summer conference at the Gatlinburg Conference Center (<https://tspma.org/>) from June 10 —12. Jennifer Chandler and I will be in attendance and will be tending a booth on School IPM and facilitating an interactive session on school pests (Tuesday, June 11, 9:20—10:15, room 2). In this session, we will introduce pest issues encountered in Tennessee schools and ask the audience to participate in group problem-solving. So, if you have been wondering what to do about bird mites in the classroom, the increase in bed bug introductions, the high density of fire ants on your property, and the relationship between ticks and alpha-gal, this session is for you. We hope to see you there!



TSPMA



Outdoor Pest Checklists

Outdoor Pest Checklist

Karen M. Vail

After school is dismissed for the year, the absence of children on ballfields, playgrounds and other outdoor areas allows for a detailed inspection of conditions that may be conducive to pests such as stinging (yellowjackets, paper wasps, fire ants, Asian needle ants, etc.) and biting arthropods (ticks, bird mites, fleas and mosquitoes), mechanical vectors of pathogens (flies, cockroaches, rodents, etc.) and even structural pests such as subterranean termites. Here we provide you a simplified checklist to inspect outdoor areas for pest and pest conducive conditions.

Easy access to food in dumpsters and trash cans may attract (1) vertebrate hosts of ticks, and fleas, (2) stinging insects and (3) mechanical vectors to schools.

This issue

Solving School Pest Problems: An Interactive TSPMA Session	1
Outdoor Pest Checklist	1
Links/Contacts	5

Exterior Garbage Areas	OK	Needs Work	N/A	Location	Comments
Dumpsters sealed properly or with tightly fitting lids					
Dumpsters located an adequate distance from doors					
Dumpsters on pest-proof pavement					
Area around dumpsters free from spillage					
Outdoor trash receptacles are self-closing (i.e. do they have lids)					

Pest Evidence in Exterior Garbage Areas	Rating M = many F = few
Evidence of Ants <i>(will depend on distance to dumpster to building if this can be an issue)</i>	
Evidence of Rodents	
Evidence of Cockroaches	
Evidence of Flies	
Evidence of Bees/Wasps	
Evidence of Other Pests	

Exterior Landscaping	OK	Needs Work	N/A	Location	Comments
Adequate visibility between plantings and buildings (18 inches)					
Building free from direct contact with tree limbs, shrubs and vines					

Exterior Building Features	OK	Needs	N/A	Location	Comments
Doors sealed tightly – weather-stripping/door sweeps are in place					
Windows and vents are screened or filtered					
Plumbing and electrical penetrations are properly sealed					
Walls-roof line free of cracks/openings					
Air ventilation intakes screened, unobstructed					
Adequate water drainage around foundation					
Awnings, breezeways, and other overhang structures free from bird nests. Bird nests on/near the structure can cause a bird mite migration into the structure when the birds fledge. More information on nuisance birds and bird mites at these links.					
Soil line above building siding or foundation, or other conditions conducive to subterranean termites (for wood structures, is there too much mulch, etc.)					
Mud tubes about the width of a pencil present could indicate subterranean termites. Contact WDO pest management professional.					
Gutters cleared of leaves and debris, no saplings present					

Fire Ant Evidence on Grounds Fire ant mounds are rebuilt after rains and will be more obvious. For information on managing fire ants in schools and on grounds, see UT Extension PB 1788	Rating M = many mounds F = few mounds
Playgrounds, especially borders	
Ballfields	
Sidewalks	
Curbs	
Fence lines	
Piles of debris that retain heat	

Another stinging ant, *Brachyponera chinensis*, [the Asian needle ant](#) (Figure 1), has been found throughout much of East Tennessee. It does not build mounds, and is found in wooded and shaded moist urban areas. Allergic responses, including persistent stinging sensations, to the worker and winged female stings are common with this ant. If you suspect you have *B. chinensis* on your grounds, please send an email to kvail@utk.edu.



Figure 1. *Brachyponera chinensis*, the Asian needle ant (left) is easily distinguished from the hybrid imported fire ant (right) by its one-segmented waist. Left photo credit: Credit: April Nobile, antweb.org. Right photo credit: E. Bernard, UT E&PP.

Tick Evidence on Grounds Drag a 3 feet by 3 feet corduroy cloth around edges of these environments to detect ticks. See UT Extension PB 1895 for detailed instructions on tick dragging and managing ticks on school grounds.	Rating M = many F = few
Edges of playgrounds	
Edges of ballfields	
Fence lines	
Grass/woods interface	
Edges of leaf piles (remove leaf piles)	
Walking paths surrounded by tall vegetation (trim vegetation)	
Outdoor classrooms in wooded areas	

Paper Wasp and Yellowjacket Nest Evidence on Grounds	Rating M = many F = few
Playground equipment	
Chain link fence protectors	
Gazebos, sheds	
Building exterior, especially eaves and open vents	
Abandoned rodent burrows	
Abandoned bird nesting boxes	

Bats—problematic due to ectoparasites, histoplasmosis and rabies risk. More information on Bats. Inspect:	Bat evidence P = present
Unscreened vents	
Gaps/crevices in roofing	
Areas for evidence of feces	
At dusk to determine areas of activity/entry	

Mosquitoes - inspect standing water for larval, aka wrigglers, and pupal (appearance comma-like) mosquitoes. Adult female mosquitoes can transmit disease-causing organisms to humans. Remove standing water where possible. See these links for information on managing mosquitoes around schools and how to involve teachers and students in mosquito monitoring through the MEGA: BITESS ACADEMY.	Mosquito evidence P = present A = absent
Poor drainage from downspouts, puddles below downspouts	
Corrugated drain pipes	
Clogged rain gutters	
Flat roofs	
Tires (holes can be drilled in tire swings to prevent water from accumulating and serving as a mosquito egg-laying site)	
Playground equipment (holes can be drilled in playground equipment where allowable to prevent water from accumulating and serving as a mosquito egg-laying site)	
Ornamental ponds lacking agitation or mosquito-eating fish	
Treeholes	
Anything that will hold water for more than a few days	

Checklists modified from the SCHOOL IPM 2018 Inspection Checklist for Demonstration Projects.

This newsletter produced by :

Karen Vail, Ph.D., Professor,
 Extension Urban Entomologist
 Entomology and Plant Pathology
 370 Plant Biotechnology Bldg.
 2505 E J Chapman Drive
 Knoxville, TN 37996-4560
 ph: (865) 974-7138
 fax: (865) 974-8868
 email: kvail@utk.edu
 web: <https://schoolipm.tennessee.edu/>
<https://utia.tennessee.edu/person/?id=15018>



Jennifer Chandler,
 Research Specialist III
 Entomology and Plant Pathology
 370 Plant Biotechnology Bldg.
 2505 E J Chapman Drive
 Knoxville, TN 37996-4560
 ph: (865) 974-7138
 fax: (865) 974-8868
 Email: jchand11@utk.edu

Comments or questions
 on this newsletter?

Contact kvail@utk.edu

Follow us on
 Facebook at
[https://
 www.facebook.com/
 UrbanIPMTN](https://www.facebook.com/UrbanIPMTN)



Partial support for this newsletter provided by the USDA
 NIFA CPPM EIP grant (#2021-70006-35577) awarded to the
 University of Tennessee.

The University of Tennessee is an EEO/AA/Title VI/Title IX/Section 504/ADA/ADEA institution in the provision of its education and employment programs and services. All qualified applicants will receive equal consideration for employment without regard to race, color, national origin, religion, sex, pregnancy, marital status, sexual orientation, gender identity, age, physical or mental disability, or covered veteran status.

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 <http://schoolipm.tennessee.edu>

NATIONAL IPM INFORMATION

eXtension's Pests in the Home
<https://pestsinthehome.extension.org/>

National School IPM
schoolipm.ifas.ufl.edu/

IPM in Schools Texas
<http://schoolipm.tamu.edu/>

IPM Institute of North America
www.ipminstitute.org/

The Pest Defense for Healthy Schools Online IPM
 Training for School Employees
pestdefenseforhealthyschools.org

EPA schools
<http://www2.epa.gov/managing-pests-schools>

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 <https://utextension.tennessee.edu/office-locations-departments-centers/>

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 and registered for use in your state.

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.

Programs in agriculture and natural resources, 4-H youth development, family and consumer sciences, and resource development. University of Tennessee Institute of Agriculture, U.S. Department of Agriculture and county governments cooperating. UT Extension provides equal opportunities in programs and employment.