



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

2018 School IPM Demonstrations

It's been an exciting year for our school IPM demonstration schools. We've provided supplies to install a drainage system to reduce moisture near the school's foundation, treated grounds for fire ants and helped with student STEM programs. We'll elaborate on the drainage system improvement at Robbins Elementary in this issue and will follow with those at Sweetwater Elementary in the next issue of the newsletter. We want to remind you that we are seeking two demonstration schools for 2018-19 and four for 2019-20. Please contact Karen Vail (kvail@utk.edu) or Jennifer Chandler (jchand11@utk.edu) if you are interested in participating.

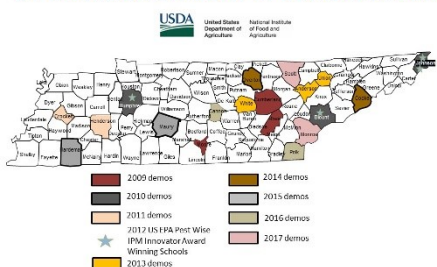
Here's what a demonstration entails:

Initially we inspect the pilot school and make suggestions for repairs that would help with pest prevention and control. Pest prevention repairs often result in energy savings and thus provide an additional bonus for the school. Some funding is available to help with the repairs that we suggest. In the past we have paid for supplies such as door sweeps, caulk, drain cleaning solution and brushes, paint, plastic storage boxes for kitchens and classrooms, glue boards, mouse bait stations, and fire ant bait. Next, we plan a meeting with the pest management professional, the maintenance supervisor, the cafeteria manager, the custodial staff, the school principal, the director of schools, and the county Extension agent to make them aware of the tools and resources



Inspecting downspout for leaks.

UT Extension School IPM Demonstrations



that are available for the integrated pest management program to be successful. The school IPM logbook facilitates communication between the school community and the pest management professional. We ask someone in the school office, usually the receptionist, to oversee the school IPM logbook which involves recording pest sightings reported by the school community. We ask the pest management professional to review the logbook when visiting the school to see where problems have occurred

and indicate his/ her response by leaving the service tickets in the logbook. The logbook can be reviewed periodically to evaluate how well the program is working and to spot trends or hotspots. During the school year we will ask for records from the logbook to evaluate how well the program is progressing and determine where we can assist if help is needed. We try to visit at least twice more before the school year ends when we invite maintenance supervisors from surrounding counties to observe school IPM in action.

Special Points of Interest

We want to remind you that we are seeking two demonstration schools for 2018-19 and four for 2019-20. Please contact Karen Vail (kvail@utk.edu) or Jennifer Chandler (jchand11@utk.edu) if you are interested in participating.

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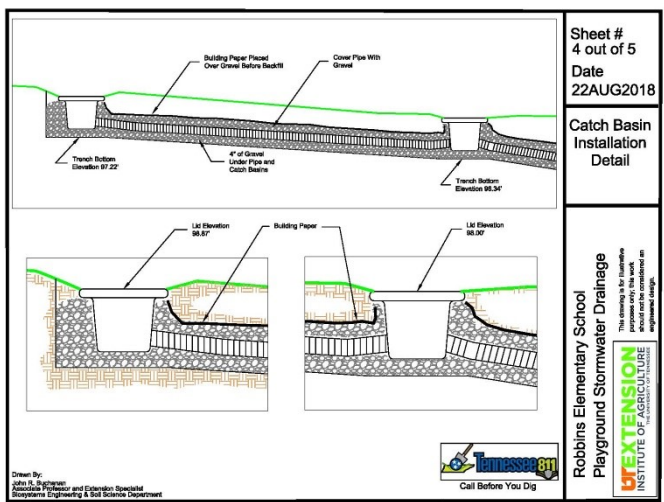
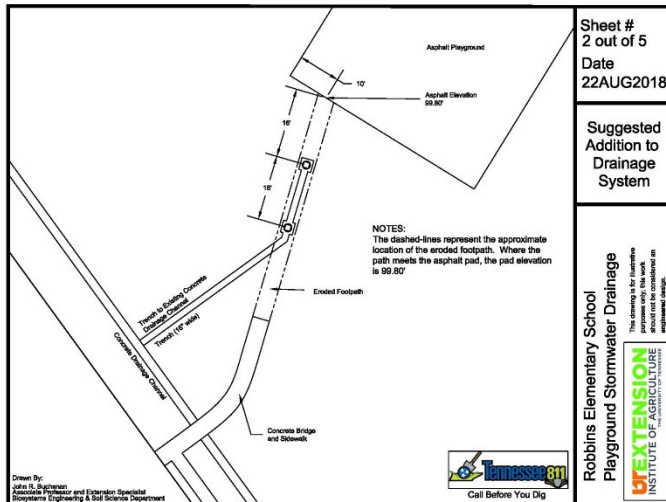
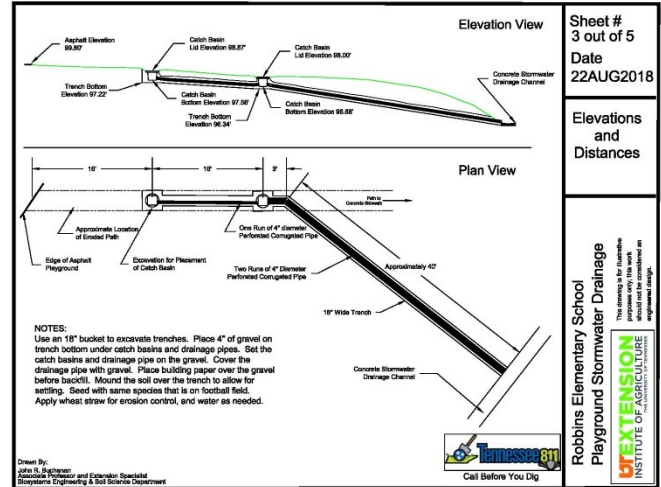
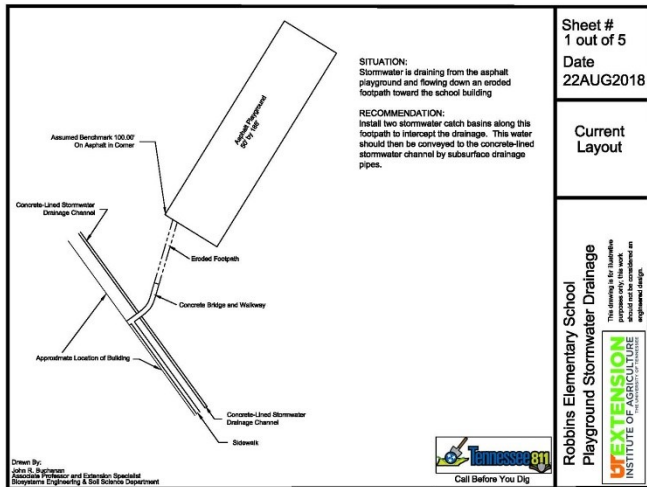
Drainage System Installed at Robbins Elementary

When leadership changed at one of our demonstration schools, we decided it would be beneficial for all involved if we conducted another school inspection with the new principal. We walked the school and drew attention to known pest conducive conditions in need of repair. During the inspection the principal noted they had a severe erosion problem between the asphalt basketball courts/playground and the back of the school. When it rained heavily a stream of water carried rocks and soil to the school. We were concerned that termites would recruit to the moisture or that some of the moisture-loving pests (millipedes, springtails, etc.) would become established. The principal was also concerned about student safety, i.e., students would injure themselves in the deep rut that had developed or trip on the rocks that were accumulating on the sidewalk near the school. Luckily, we hadn't spent the supply money for this school yet and decided to explore the possibilities of providing erosion control and a better drainage system.



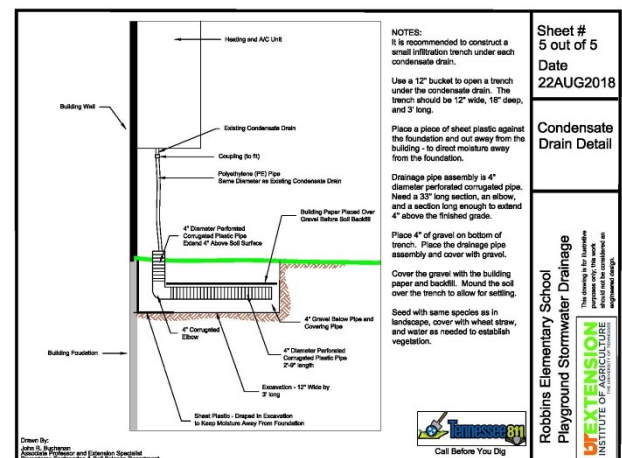
Measuring distance and elevation changes of the drainage field of the asphalt playground, nearby football field and eroded pathway to school.

John Buchanan came to the rescue. John is an associate professor in the Biosystems Engineering and Soil Science Department at the UT Institute of Agriculture. We accompanied John to the school and spent the day making measurements and purchasing local supplies. Upon our return, John developed plans for the drainage system. We provided the supplies and the school personnel installed the system. Principal Keith Shannon indicates, " it has rained several times, heavy rains even, and the catch basins and drainage tiles seem to be working wonderfully."



Above: Plans for the drainage system installed at Robbins Elementary, Scott Co.

Right: Plans to modify AC condensation drainage to move moisture away from school.





Rock covers the drainage system and fills the deep rut that had developed during previous storms.



One of two catch basins installed.



Drain pipes empty into concrete drainage channel near base of school.

Outcomes of School IPM Advisory Board Meeting August 29, 2018

We held the School IPM Advisory Board Meeting on August 29, 2018 in Nashville, Tennessee. After providing a summary of our efforts for the last 2 years, we solicited attendees' input on how we can reduce the incidence of lice insecticidal spray cans in classrooms and further promote and improve our program to prompt those schools lacking an IPM program to adopt one. In attendance were representatives from the Tennessee Department of Agriculture, Department of Education Healthy Schools Program, Local Department of Health/ Director of School Health/Tennessee Association of School Nurses, a TN School System (Maintenance Supervisor and parent), Tennessee Pest Control Association, other pest management professionals and the University of Tennessee Urban IPM team.

Comments on reducing the incidence of lice sprays in classrooms: There is still the antiquated no nit policy in some school districts. Teachers have a fear of head lice so they feel the need to spray. Every district has their own lice policy. The American Academy of Pediatrics (AAP), the Centers for Disease Prevention and Control (CDC) and the National Association of School Nurses (NASN) recommend that students be checked for lice if suspicions arise, and sent home with a note at end of school day. They do not promote a no nit policy. The Tennessee School Board Association (TSBA) has model policies that schools could individualize but they usually don't. Can there be more specific recommendations for head lice incidences? Should we partner with school nurses- perhaps at the TN Association of School Nurses (TASN) annual meeting? The 2018 program already decided, but we should follow up for next year's program. TN has coordinated school health person in every district, could they work one on one with problem districts to correct lice policies?

Actions: We will follow up with TASN to ask for a presence at next year's meeting to inform members of the illegal use of head lice sprays in schools and to seek their assistance in remediating the problem. TSBA will be contacted to see if we can suggest changes to the lice and pest management recommendations.

Comments on improving IPM adoption: Educating teachers on how to prevent pests in classroom is important. There must be a means of communication available when people not present at school. Pest sighting logbooks a must. Need a reporting system either digital or logbook for maintenance requests.

EPA's Indoor Air Quality and Tools for Schools is a great gateway to IPM. Facilities manager important place to start. Have them be a content expert. Facilities director + school nurse = good team. Reminder: EPA says we can't use the word "safe" when talking about pesticides. Must have a designated contact person/expert. Maybe have some sort of fact sheet for new people covering pest issues such as bed bugs and lice. Unless there's an incident, people don't look for information.

PMP continuing education for schools is great, but schools say they don't have time. Local PMP/4H project development? Classroom pest monitoring activity? Suggested working with TPCA and science teachers. TPCA would like a curriculum for PMPs to teach kids.

Overall communication between groups needs improvement. Making IPM/child health a priority is necessary but difficult with everyone's list of what's important being different. Education of all parties (facilities managers, teachers, administrators, nurses, etc) is needed.

Actions:

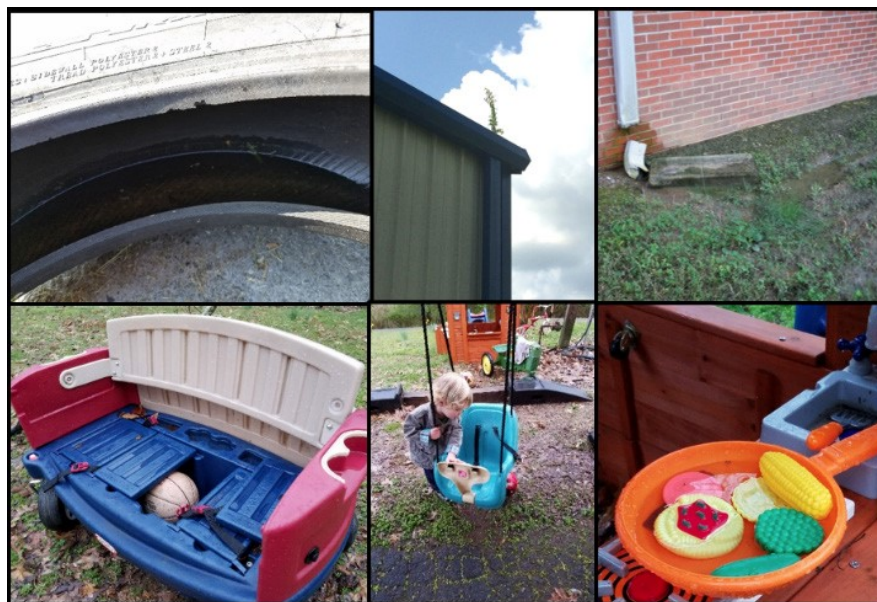
Write a newsletter article touting the importance of the Tools for Schools Program and its connection with IPM. Feature a different school IPM role in each newsletter and forward article to appropriate associations (school nurses, plant managers, etc.). The UT Urban IPM Team is currently promoting student pest monitoring programs in two elementary schools. We will promote this to TPCA, science teachers and STEM programs once

New Mosquito Management Around Schools Publication Released!

In August, UT Extension released a new publication on managing mosquitoes, *They Want to Suck Your Blood! Mosquito Management Around Schools and Childcare Facilities*. You can read the entire publication at <https://extension.tennessee.edu/publications/Documents/W774.pdf>.

Here's an excerpt pertaining to tips for identifying and controlling mosquito development sites and making the environment unfavorable for mosquitoes.

- Anything that can hold water can act as a development site for mosquitoes, including swings, tires, buckets, toys, playground equipment, trash (e.g., cans, bottles, bottle caps, or cups on the ground after a sporting event), etc. These sources should either be removed or water from these sources should be drained immediately and/or have holes drilled into the bottom to promote drainage.
- Items that are meant to hold water, such as fountains, birdbaths, flowerpots and plant saucers, should have the water inspected and changed every week to ensure that immature mosquitoes do not become adults. Containers too large to remove or tip over such as trash and recycling receptacles can be covered.
- Tree holes and stumps can be excellent development sites for mosquitoes. Recommended arboricultural practices include covering holes with an aluminum or stainless steel exclusion plate or filling holes with waterproof expanding foam (not concrete) to prevent water buildup.
- Adult mosquitoes will often rest on vegetation during the day. Work with facilities maintenance staff to schedule regular lawn mowing and removal of weeds and dense vegetation from the premises to reduce suitable resting sites for mosquitoes.
- Work with maintenance staff to regularly check gutters, rooftops (especially flat-roofed buildings), and downspouts that can hold water if not properly maintained. Ensure proper drainage of water from downspouts and other sources, as mosquitoes can develop in puddles of water and in corrugated drainage pipes.
- If possible, reduce outdoor activity during dawn/dusk when mosquito activity is high.



Examples of mosquito development sites. Water in a tire, debris-filled gutters, ground depressions due to broken downspout and misaligned splash block, and children's toys.

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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 <http://schoolipm.utk.edu>

NATIONAL IPM INFORMATION

eXtension's Pest Management In and Around Structures: Urban Integrated Pest Management http://www.extension.org/urban_integrated_pest_management

National School IPM
schoolipm.ifas.ufl.edu/

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

IPM Institute of North America
www.ipminstitute.org/

School IPM PMSP—all schools IPM by 2020 <https://ipminstitute.org/projects/school-ipm-2020/>

National Pest Management Association IPM
www.whatisipm.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://extension.tennessee.edu/Pages/Office-Locations.aspx>

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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