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Why Pesticide Application Notifications in Schools are Important

One of the priorities of the United States Environmental Protection Agency (EPA) is protecting children's health from unnecessary exposure to pesticides. Schools are an environment where students are present most days and where pesticides are used to control pests.

When it comes to risks associated with pests and pesticides, children are the most vulnerable because 1) their behavior increases the chance of exposure, and 2) their developing bodies are more profoundly impacted by pest related disease, allergens, and toxic substances; and 3) because of their relatively smaller size, less of a toxic substance is needed to have detrimental effects on children.

Pesticide exposure can be reduced by controlling the type and frequency of pesticides applied in school environments. It is important to pay attention to **signal words** on pesticide labels, and to follow the label carefully (Wierda et al. 2016). Despite utmost care when applying pesticides, mistakes do happen and there are also individuals who have chemical sensitivities. **That is why pesticide application notifications are critically important!**

Find out what your state pesticide notification requirements are. Here we will take a look at the rules in Arizona. This information is available as a one-page IPM short at http://cals.arizona.edu/apmc/docs/Pesticide_Notification_Schools.pdf

Arizona Revised Statute (ARS) 15-152 (2002) (known as pest management at schools; notice) requires that the governing board of each school district, in consultation with others, shall develop and **adopt a policy** to provide pupils, employees, parents and guardians, with at least 48 hours' notice before pesticides are applied on school property.

ARS 32-2307 (2002) (known as pesticide applications at schools and child care facilities; notifications; exemptions) requires that a licensed pesticide applicator should notify schools or child care facilities at least 72 hours prior to any pesticide application. The statute also states that **only licensed pesticide applicators are allowed to apply pesticides in schools, child care, food service and medical facilities**. There are sensible pesticide exemptions built into the statute.

The purpose is to reduce risks associated with pesticide use around vulnerable populations while allowing the use of effective pesticides for pest control, when they are needed.



An effective and practical method to ensure that all staff, students and parents are aware of pesticide use in schools is to use electronic notifications and physical pesticide application warnings placed in relevant locations. Notifications should include the following information: brand name, concentration(s) of active ingredient(s), rate of application, pesticide label and safety data sheet and any use restrictions required by the pesticide label. A contact for emergencies or further information is desirable.

A summary of potential adverse health effects associated with products are listed on the Safety Data Sheet (SDS) and labeling. Schools and childcare facilities are required to have these documents on-hand.

ARS [32-2307](#) requires that pesticide treated areas are posted immediately after the application. The posting shall be at least 8.5 X 11 inches and shall include the name of the pesticide, the registration number issued by the EPA, the date and time of application and the name and telephone number of the business licensee and certified applicator. A copy of the posting shall also be placed at the main entrance to the school or child care facility. The posting and the copy of the posting shall remain in place for at least 48 hours after the application.

Keeping Children Safe

The EPA and University of Arizona encourage schools and childcare providers to practice Integrated Pest Management (IPM). IPM is a risk reduction approach, which minimizes health impacts associated with pests and pesticides.



Additional information:

IPM Works Inside and Outside School Buildings. University of Arizona.
<http://extension.arizona.edu/sites/extension.arizona.edu/files/pubs/az1579.pdf>

Gouge, D.H., Stock, T., Nair, S., Li, S., Bryks, S., Hurley, J., Fournier, A. 2015. Preparing your school integrated pest management (IPM) plan. University of Arizona Cooperative Extension. Publication no. AZ1669.
<http://extension.arizona.edu/sites/extension.arizona.edu/files/pubs/az1669-2015.pdf>

Wierda, M., Fournier, A., Li, S., Nair, S., Gouge, D.H. and Ellsworth, P.C. 2016. Caution! Warning! Danger! Understanding Signal Words on Pesticide Labels. University of Arizona.
<http://ag.arizona.edu/crops/cotton/files/SignalWords.pdf>

Pesticide Use in Schools and Public Health Facilities. Arizona Office of Pest Management.
http://www.sb.state.az.us/Assets/PDFDocuments/Outreach_Brochure.pdf

Zika Virus

Based on an article authored by Janet Hurley Texas AgriLife Extension, with additions from UA faculty.

Zika virus seems to be the latest and (not the) greatest in the news as of late. Everyone needs to know about this so they can take proper precautions. Zika virus is transmitted by [Aedes mosquitoes](#). *Aedes aegypti* is being the main vector.

Currently, there is no specific treatment for the virus, nor is there a vaccine. The best way to avoid getting Zika virus is to avoid being bitten by infected mosquitoes. Zika virus can be contracted through the bite of an infected mosquito, through blood transfusions, through sexual contact, and from mother to child during pregnancy.



The distribution of *Aedes aegypti* in the US

CDC has updated its interim guidelines for U.S. health care providers caring for pregnant women during a Zika virus outbreak. Updated guidelines (Petersen et al. 2016) include a new recommendation to offer serologic testing to pregnant women who do not report clinical illness consistent with Zika virus disease who have traveled to areas with ongoing Zika virus transmission. Testing can be offered 2 - 12 weeks after pregnant women return from travel. This update also expands guidance to women who reside in areas with ongoing Zika virus transmission, and includes recommendations for screening, testing, and management of pregnant women and recommendations for counseling women of reproductive age (15 - 44 years). Pregnant women who reside in areas with ongoing Zika virus transmission have an ongoing risk for infection throughout their pregnancy.

While the incubation period of Zika virus is variable, and thought to be from a few days to one week long. Symptoms include fever, skin rash, conjunctivitis, muscle and joint pain, and headache. Symptoms tend to be mild and last from 2-7 days. Only about 20% of people who contact Zika virus actually become ill from the virus, and severe disease symptoms that require hospitalization are uncommon. Death due to the virus is rare, but Zika virus appears to be linked to the development of unusually small heads and brain damage in newborns.

The *Aedes* mosquitoes that transmit Zika virus are also able to transmit [Dengue](#) and [Chikungunya](#) viruses. These mosquitoes are daytime biters, but can also bite at night. *Aedes* mosquitoes tend to lay their eggs near or in standing water, so reducing these sources can be a way to help reduce mosquito populations near your home.

To protect yourself from mosquito bites, wear light colored clothing that covers as much skin as possible, use insect [repellent](#) (read and follow label instructions), use screening on doors and windows, reduce standing water, and if sleeping outside, use mosquito netting.

Materials containing DEET (N,N-diethyl-meta-toluamide) are effective in repelling mosquitoes. See the following extension publication for information on mosquito management and repellents: <https://extension.arizona.edu/sites/extension.arizona.edu/files/pubs/az1221-2013.pdf>

For more information on Zika virus, please see the CDC website: <http://www.cdc.gov/zika/index.html>

Petersen EE, Staples JE, Meaney-Delman D, et al. Interim guidelines for pregnant women during a Zika virus outbreak - United States, 2016. CDC Morbidity and Mortality Weekly Report (MMWR), Jan 22, 2016. 65(2): 30-33. <http://www.cdc.gov/mmwr/volumes/65/wr/mm6502e1.htm>

Bed Bug Battle – We Want to Hear From You

The University of Arizona and several partnering research institutions are working to battle the bed bug resurgence in the United States. Researchers hope to determine the real impact and social cost of bed bugs, the risks to individuals and society, as well as the significant causes of infestations.

We hope you will complete an online bed bug survey. This voluntary survey should take about ten minutes. The survey is available in English and Spanish. There is no compensation available for your participation. Your answers are anonymous and confidential while you contribute information that will help us battle the pesky parasites.

Who should take this survey? Everyone!

English version of Bed Bug survey: <http://www.surveymonkey.com/s/DGLQS52>

Spanish version of Bed Bug survey: <https://es.surveymonkey.com/s/F5NZXJK>

Upcoming Webinars and Events

Attend Free Sessions of the [Green Strides Webinar Series](#). View archived webinars [here](#).

Please join in for the [2016 All Bugs Good and Bad Webinar Series](#). This webinar series provides information about good and bad insects. Webinars are free and open to everyone. Webinars will be on the **first Friday of each month at 2 p.m. Eastern time**. The webinars are brought to you by the following eXtension Communities of Practice: [Imported Fire Ants](#), and [Urban IPM](#); and by the [Alabama Cooperative Extension System](#), the [Texas A&M AgriLife Extension Service](#), and the [University of Georgia Center for Urban Agriculture](#).

February 18, Thursday, 12:30 - 5:00 pm. Workshop: [Managing for Healthy Trees](#). Maricopa Agricultural Center, 37860 W. Smith-Enke Rd, Maricopa, AZ 85138

All arborists and landscapers are invited to register ASAP to attend to hear and see UA faculty present topics on salinity effects, weed control, insect pest management, pruning trees, and plant species identification. The pre-registration rate deadline is February 16. Contact Kai Umeda (KUmeda@cals.arizona.edu) for more information on agenda and to register.

February 23, Tuesday, 2:00 - 3:30 pm (EDT). EPA Webinar: [Pest Prevention by Design in Schools](#).

Pest Prevention by Design Guidelines provides school administrators, facility managers, architects, engineers, builders and the green building community information on designing pests out of buildings. For example, where a school may traditionally address a rat infestation with rat poison, the guidelines would recommend sealing the gap in the door frame that let the animals enter in the first place, putting a better lid on the dumpster out back, or removing the English ivy

from the landscaping (a preferred rodent habitat). By following these recommendations, we can keep pests out, thereby improving indoor air quality and saving money over the life of the building. Join us to learn how you can better incorporate pest prevention in your school district's Integrated Pest Management (IPM) program.

To register now, please visit the following link:

<https://epawebconferencing.acms.com/pestprevention/event/registration.html>

To know more about the event, please visit our website:

https://epawebconferencing.acms.com/pestprevention/event/event_info.html

February 25, Thursday, 7:00 - 3:30 pm. Pesticide Safety Education Workshop. University of Arizona South, Sierra Vista, 1140 Colombo Ave, Public Meeting Room, Sierra Vista, AZ 85635

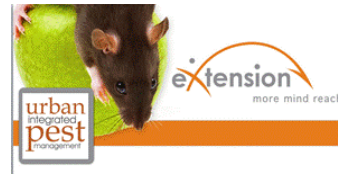
Join Drs. Mike Wierda and Dawn Gouge from the Arizona Pest Management Center for a **FREE** workshop on pesticide safety on February 25th. Workshop **topics** include: pesticide safety, IPM philosophy, non-target concerns, pesticide modes of action, pesticide application safety, reading and comprehension of pesticide labeling, signal words, and new worker protection standards. This workshop is for facilities managers and staff, nurses, administrators, residents, pest management professionals, master gardeners, and you. Pre-registration is required. Contact Dr. Wierda (mwierda@email.arizona.edu) for more information and to register. 6 OPM or 6 ADA CEUs will be available for professionals.

March 2, Wednesday, 8:00 - 5:00 pm. Integrated Pest Management Workshop for schools, homes, and related environments. University of Arizona Mohave County Cooperative Extension Office, 101 Beale Street, Kingman AZ 86401.

This workshop is for anyone who are interested in safe and effective pest management in community environments including homes, schools, child/elder care facilities, medical facilities, offices, parks-rec. facilities, in Mohave County. Lunch and refreshments will be provided at venue! 6 OPM CEUs will be awarded to OPM license holders. Pre-registration is required. There is no registration fee. Email Elisabeth Alden at aldene@cals.arizona.edu or Shaku Nair at nairs@email.arizona.edu for more information and to register. Agenda and flyer can be downloaded at [Mohave County School IPM Workshop Agenda](#), [Mohave County School IPM Workshop Flyer](#).

For more information about the EPA Schools program, visit:
<http://www.epa.gov/schools/>

For more information about the Community IPM, visit:
<http://www.extension.org/pages/23359/urban-integrated-pest-management-community-page>



For more information about School IPM in Arizona, visit:
<http://cals.arizona.edu/apmc/westernschoolIPM.html>

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