

School & Home Integrated Pest Management (IPM) Newsletter – July 2016



COLLEGE OF
AGRICULTURE
& LIFE SCIENCES
COOPERATIVE EXTENSION

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Annual Great Arizona Mosquito Hunt

The Arizona Department of Health Services, Maricopa County Department of Public Health, and University of Arizona invite you to participate in the **2nd Annual Great Arizona Mosquito Hunt**. This is an interactive activity to teach youth about new diseases carried by mosquitoes, mosquito biology, and learn more about disease risks across the state.



There are over 40 species of mosquitoes in Arizona, and one type, the *Aedes aegypti* mosquito, can spread many different viruses, including Dengue, Zika and Chikungunya. These mosquitoes are present in Arizona, but currently we don't know exactly where they are (or aren't!). We need your help!

We would like to invite you and your students to help trap the *Aedes* mosquito across the state. The information (data) you gather will be used by the public health department to create maps and be better prepared to respond to disease threats in your community. We also want to teach students about mosquito biology and the importance of protecting themselves from disease.

What is involved? Participants will set out mosquito traps for 2 to 4 weeks, and mail results back to public health.

What supplies are needed? We send you most of the supplies by mail. You just need at least 1 black jar, cup, or other water-holding container.

Who can participate? All Arizona youth with adult guidance.

How will this information be used? Data from this project will be used by people working in public health to identify areas at high and low risk for disease spread from *Aedes* mosquitoes.



Is there any risk to participants? As long as you follow the instructions carefully. The traps you will use only collect mosquito eggs, which do not spread disease. Monitor the traps regularly as directed and don't allow larvae to develop in the traps. You want to remove the papers and cups as soon as you see eggs. Also, these mosquitoes have not been found to carry disease in Arizona.

As long as you follow the instructions, participating in this project will **NOT** increase the risk for mosquito bites or illness.

If you are interested in participating in the 2nd Annual Great Arizona Mosquito Hunt, **please complete** the survey https://azdhs.qualtrics.com/SE/?SID=SV_0kY4m7kqKQcK9ZX to register to receive kits.

We will ask for a contact name (*lead teacher*) and an address (*school or youth organization*). This is where the mosquito trapping kits will be mailed. **If you are not** planning to participate this year, you **do not** need to complete the survey.

For more information about the project, please visit www.azhealth.gov/mosquito.

With questions, email vbzd@azdhs.gov or call 602-364-3676.

Fight the Bite

Prevention

The most effective strategy for mosquito management in communities in general is prevention. The best way to prevent mosquito-borne diseases is to eliminate mosquito breeding sites in the first place. Here are some tips on what you can do to manage mosquitoes and eliminate mosquito-breeding sites around you.

1. Eliminate standing water in plant pots, bird-baths, fountains, tires, tarpaulins covering boats or other objects, and backyard trampolines and other items. Check for standing water after every rain or at least once per week, twice per week is ideal.
2. Remove unnecessary clutter. Keep rain gutters free of leaves and other debris that prevent water from draining. Store boats, canoes and other objects so they do not collect rainwater. Saucers placed under potted plants are a favorite breeding site for *Aedes aegypti*. They should be drained after watering, or removed entirely. If eggs are suspected, they need to be scrubbed away, otherwise they remain viable for months, and will hatch at a later date.
3. Repair water leaks (leaky pipes, sprinkler systems, and outside faucets). Correct drainage problems in yards and playing fields. Report drainage problems in ditches etc.
4. Empty water containers for pets regularly and check livestock watering troughs and tanks. Mosquito eating fish can be added to large (undrainable) water troughs for livestock and horses.

5. Cover rain-collection barrels with insect exclusion netting.
6. Add *Gambusia* (mosquito eating fish) into personal ponds or stagnant swimming pools to reduce the number of mosquitoes. **It is very important to avoid releasing *Gambusia* into natural waterbodies, as these are voracious predators, and can displace native fish.** The fish are available free of charge for Maricopa County residents from the Maricopa County Vector Control office. Just call (602) 506-0700 to schedule a pickup time, and bring your own container.
7. Larvicides specifically target the larval life stage of an insect and are generally more efficient control tools compared with adulticides.

Surveillance

Inspect around your home and buildings to reduce or prevent breeding of mosquitoes (Fig. 1).

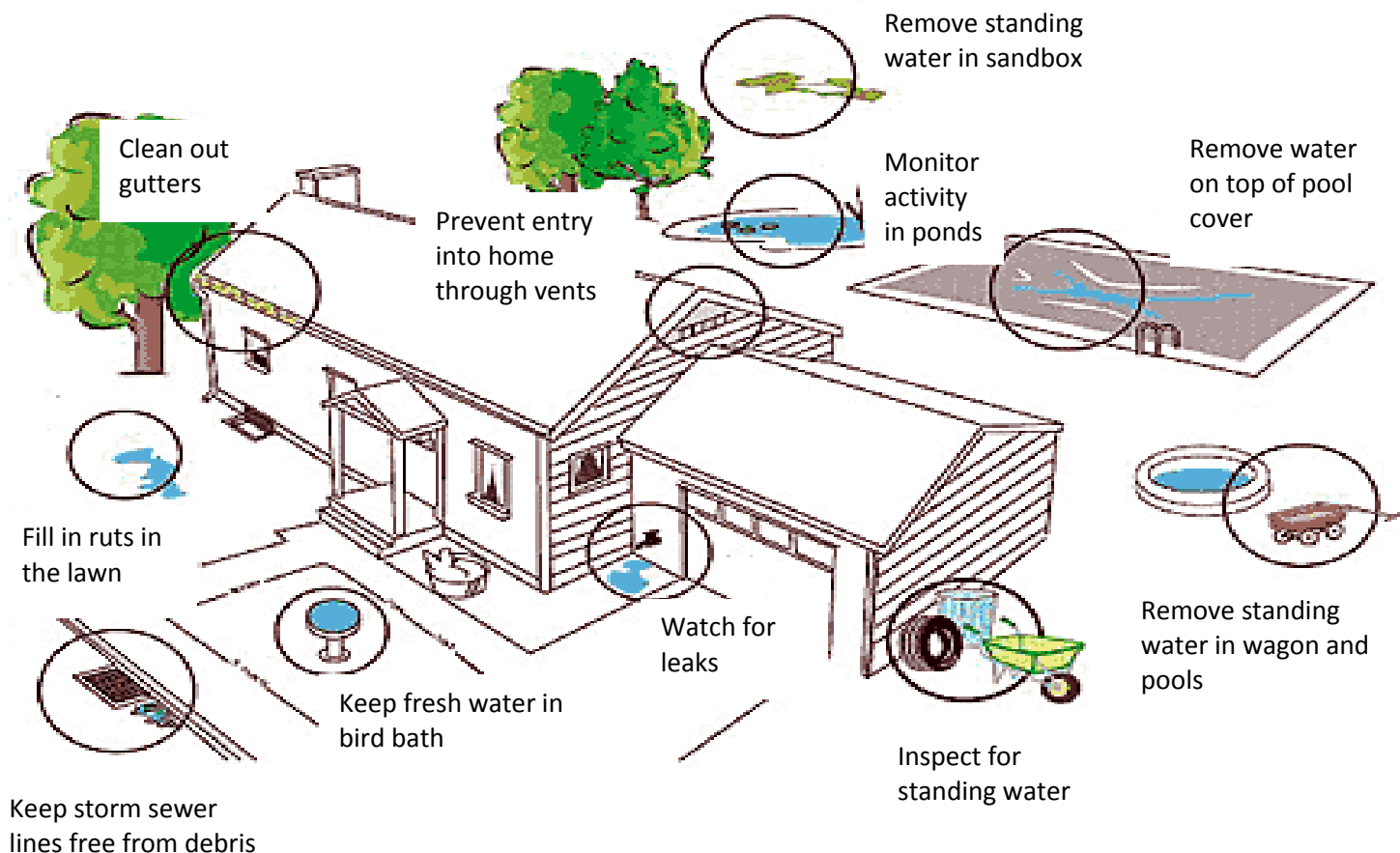


Fig. 1. Illustration of mosquito breeding habitats around buildings. Image by Raul Rivas (Metropolitan School District of Pike Township), enhanced for this publication.

Avoid Mosquito Bites

When outdoors, consider the following safety tips:

- Wear light colored clothing with loose fitting long-sleeves, long pants and socks. Use protective clothing when exposure to mosquitoes cannot be avoided.
- Properly apply insect repellent even if you are outside for just a short period of time, and share your insect repellent with those around you. For additional help selecting which repellent is right for you, go to the EPA search page: <http://cfpub.epa.gov/oppref/insect/#searchform>.
- Use a DEET product or a good non-DEET alternative <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4667684/pdf/iev125.pdf> and, if you are outside for more than a few hours, reapply repellent frequently. The higher the temperature, the more frequently you must reapply repellent for it to be effective.
 - Apply repellents only to exposed skin and/or clothing (as directed on the product label). Do not use under clothing. Apply **over** sunscreen after it has dried.
 - Never use repellents over cuts, wounds, or irritated skin.
 - Do not apply to eyes and mouth, and apply sparingly around ears. When using sprays do not spray directly onto face; spray on hands first and then apply to face.
 - Do not allow children to handle the products, and do not apply to children's hands. When using on children, apply to your own hands and then put it on the child.
 - Do not apply repellent on babies under 2 months old, use mosquito nets or avoid mosquito habitats as much as possible. **Insect repellents are a kind of pesticide, please read the label and follow instructions.** Most products specify the youngest age allowable for a given product.
 - Do not spray in enclosed areas. Avoid breathing a repellent spray, and do not use it near food.
 - After returning indoors, wash treated skin with soap and water or bathe. If you suspect that you or your child is reacting to an insect repellent, discontinue use and wash treated skin. Call your local poison control center (800) 222-1222 if symptoms persist.
 - When properly used, personal repellents can discourage biting insects from landing on treated skin or clothing.
 - Using repellent and sunscreen products at the same time is acceptable practice. However, the use of combination products that contain both an insect repellent and a sunscreen is not recommended.
- Type of repellents: According to the Centers for Disease Control and Prevention (CDC) the three most common active ingredients in repellents are DEET, picaridin, and oil of lemon eucalyptus. The CDC considers DEET and picaridin to be the most effective. Reactions to DEET are uncommon, but picaridin products are less likely to trigger dermal reactions when used repeatedly over extended periods of time.

After-bite Care

Consider the following tips for relieving the itch of mosquito bites. The first step is to clean the

bite area with soap and water. Topical corticosteroids can reduce the rash, itching, and discomfort. Topical diphenhydramine and caine-containing derivatives should be avoided because of concerns about inducing allergic contact sensitivity. Oral antihistamines can be used effectively to reduce the symptoms of mosquito bites. Use of a cold compress can be helpful, but do not apply ice directly to the skin.

With education and awareness, we can limit the health threat posed by mosquitoes.

If you would like to learn more about mosquitoes and their management, please view:

<http://cals.arizona.edu/apmc/public-health-IPM#mosquitoes>

<http://extension.arizona.edu/sites/extension.arizona.edu/files/pubs/az1706-2016.pdf>

<http://extension.arizona.edu/sites/extension.arizona.edu/files/pubs/az1221-2013.pdf>

Know more about “Prevent Mosquito Bites”, view: <http://www.cdc.gov/features/stopmosquitoes/>

West Nile Virus in Maricopa County: <http://www.maricopa.gov/wnv>

Summer To-do Lists

California Department of Pesticide Regulation advocate efforts that support student health. Here is what they recommend their K-12 school staff have on their summer to-do lists:

1. **Review your district IPM Plan** and get it uploaded to your district website.
2. **Put together your annual Pesticide Notification List.** Remember to check the registration status of products before you use or purchase them! Don't forget to contact your pest control contractors and get their pesticide list, too.
3. **Evaluate your Individual Notification methods.** Are you notifying parents and staff of non-exempt applications?
4. **Training.** All school staff who apply pesticides must take training before making applications after July 1. Find online training here: <http://apps.cdpr.ca.gov/schoolipm/training/main.cfm>
5. **Identify next year's IPM Coordinator.**

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](#).

Upcoming webinars include:

1. Controlling Roaches Before They Control You – August 5, 2016
2. Snake Identification – September 2, 2016
3. Don't Use Too Much Pesticide or Fertilizer: Learn How to Calibrate Your Lawn and Garden Sprayers and Spreaders – October 7, 2016
4. Rodenticides – November 4, 2016

For more information about upcoming and past School IPM webinars:

<http://articles.extension.org/pages/73368/2016-all-bugs-good-and-bad-webinar-series>

Please consider joining EPA Office of Children's Health Protection's newly renovated listserv.

Sign up now at: <https://www.epa.gov/children/forms/childrens-health-listserv>

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>



schoolipm



For more information about School IPM in Arizona, visit:

<http://cals.arizona.edu/apmc/westernschoolIPM.html>

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