



Please consider distributing this newsletter within the state of Arizona. If you work in education please let us know if you send this on to anyone in the following groups: school staff, faculty, students, and/or parents and guardians.

Fall Pests and Pest-proofing Tips

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Adult male Turkestan (left), Photo: Dave Beaudette;
Male American (center) and Oriental (right) cockroaches, Photos: Ken Schneider

The cooler fall temperatures are finally here, bringing some relief from the low desert scorching summer temperatures! People have started preparing for the upcoming winter, and so have pests! It is never too cold in Arizona for some pests, but this is the time of the year when many common pests that normally thrive outdoors, move indoors seeking warmth and shelter within our homes and buildings. Here are some fall pests to watch out for:

Cockroaches: There are many species of cockroaches that are pests in community environments. Some species, like American and Turkestan cockroaches are essentially outdoor cockroaches. When outside temperatures drop, these insects will start to move

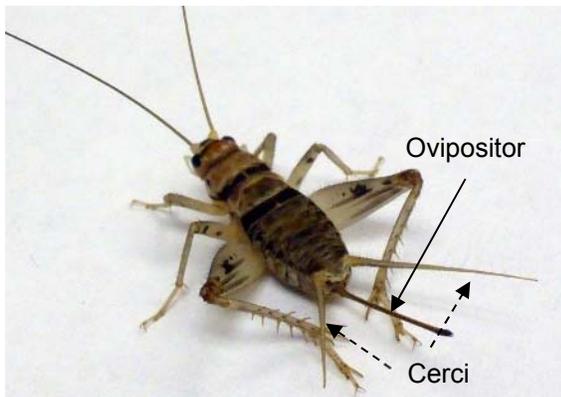
indoors through gaps or cracks under and around doors or windows, drainpipes, and other entry points.

German cockroaches are the more problematic indoor species, and do not survive cold temperatures outdoors. However, existing infestations of German cockroaches in indoor environments will thrive and continue reproducing year round unless remedial measures are taken.

Generally, cockroaches are active by night and spend the daytime hiding. Sightings during the day may be indicative of significant infestations. Other signs of infestations include frass (insect poop), dead cockroaches, egg cases, shed skins and body parts.



German cockroaches inside equipment
Photo: Armed Forces Pest Management Board



Indian house cricket
Photo: Shaku Nair

Crickets: Indian house crickets are medium sized wingless crickets, about 1 inch long when mature, and are the most common species found around human habitats. They are light yellowish brown or tan in color, and mottled with darker bands and spots. The wings appear as short stubs in females, while in males they cover only half the abdomen. Females have a very long and prominent ovipositor on their rear end, which is used to lay eggs. Female crickets do not sting. Either side of the long ovipositor on females are cerci. Male crickets have only cerci, which sense air currents in the insects surroundings. Crickets will readily enter buildings through gaps or cracks under doors,

and will thrive indoors if food and water are available. They are harmless to humans, but are a food source for other predatory arthropods such as scorpions and spiders.

Termites: As the saying goes, “In Arizona, you either have termites or you’re going to get them”. Arizona is one of the places that have termite activity year-round. In the colder months, they may move deeper into the ground, but drywood and subterranean termites can be active in or near walls and foundations of buildings. Look out for mud tubes or piles of coffee grounds or sawdust-like termite frass, that are signs of activity.



Sign of western drywood termite damage Photo: Kevin (ibkev2002)



Subterranean termite-working tubes Photo: USDA-Forest Service



House mouse Photo: J.N. Stuart

Rodents: Many commensal rodents, such as house mice and roof rats, will migrate indoors as the weather cools in search of warmth, shelter, food, and water. They will thrive in various suitable, undisturbed locations which have available food sources nearby. Because house mice are so small, they can gain entry into homes and other buildings much more easily than rats. House mouse infestations are probably 10 to 20 times more common than rat infestations.



Gaps or holes in walls or foundations provide entryways to rats. Photo: Dawn Gouge

Be on the lookout for droppings, chewed-up fruit or other items, signs of gnawing, pattering sounds from attics or wall voids.

Fleas: All rodents can host parasites such as fleas, mites and ticks, so an influx of rodents into homes and buildings can also bring in these parasites. Fleas are not adapted to survive cold temperatures outdoors, but they will thrive in the warm conditions indoors, and infest pets and other domestic animals.



Wolf spider
Photo: Katja Schulz, Flickr.com

Spiders: Several outdoor spiders, such as wolf spiders, may wander indoors or closer to buildings in the fall in search of prey because many of their normal prey insect populations outdoors start declining.

The medically significant spiders (black widows and desert recluses) are active year-round in Arizona. They persist in animal burrows or under other debris outdoors. If brought indoors, they can stay active under or behind furniture, and other secluded spots. Look for webbing and vacuum these regularly. Always shake out clothing and footwear thoroughly before wearing.

Pest-Proofing for Fall

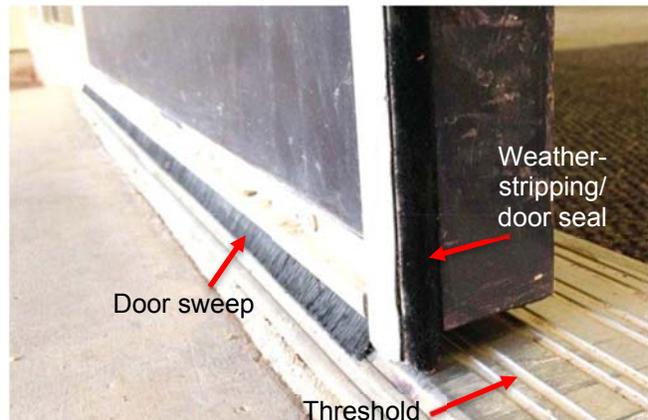
Many of the creatures we encounter in our homes can be prevented from entering in the first place by using simple techniques collectively referred to as “pest-proofing”. If done correctly, pest-proofing your home saves you money by reducing pest management costs, and more importantly, reduces indoor pesticide costs and exposure.

All too often, residents resort to purchasing over-the-counter pesticides to ‘solve’ pest problems only to be frustrated by the results. Costs can dramatically increase in this way, especially when the purchased pesticide is not applied correctly, is over-applied leading to pest avoidance (pests moving to another spot to avoid the pesticide), or is not the appropriate solution for the pest problem. For example, a gap under a door may be an entry way for pests that reside elsewhere but come in searching for food or shelter.

A better use of your hard-earned money would be to pest-proof the doorway. Pest management professionals can advise you on pest-proofing your home. If your service provider declines to help with this, get a different one. Some companies



This locked door is wide open to pests! See light coming in through gaps under door.
Photo: Dawn Gouge



Exterior door of a building showing a brush door sweep, door seal/ weather stripping and threshold. Ensuring that these are in good condition is one of the first steps in pest-proofing. Photo: Shaku Nair

even provide pest-proofing services themselves, but they should all be offering guidance when that's the ideal solution to your problem.

Below are ten pest-proofing tips from the National Pest Management Association to keep pests outside during the fall and winter:

1. Screen attic vents and openings to chimneys, and any other areas where homes may be open to the outdoors, like mail slots and animal doors.
2. Keep basements, attics and crawl spaces well ventilated and dry. Pests are attracted to areas of moisture, something they need to survive. Using dehumidifiers in basements and garages will help keep these areas dry.
3. Seal cracks and crevices on the outside of the home using caulk and cement. Pay close attention to where utility pipes enter the structure. House mice can fit through a hole the size of a dime.
4. Keep kitchen counters clean, store food in airtight containers and dispose of garbage regularly in sealed receptacles. Crumbs and a buildup of garbage are attractive to pests scrounging for food. It is recommended to clean up after each meal and to properly close garbage cans when they are stored in the home or garage.
5. Replace weather-stripping and repair loose mortar around the foundation and windows. These are easy ways to keep not only pests, but also cold air out of the house.
6. Store firewood at least 20 feet away from the house and keep shrubbery well trimmed. Removing areas where pests can hide near your home can reduce the chance of them finding a way inside.
7. Install door sweeps and repair damaged screens. Torn window screens and cracks under doors are an ideal entry point for household pests. When you open the window, you could be letting in more than just fresh air.
8. Inspect items such as boxes of decorations, package deliveries, and grocery bags before bringing them indoors. Pests can find creative ways to get inside a home. Shake out or inspect anything that has been left or stored outside. Wear thick protective gloves when handling items that have been in storage.
9. Avoid leaving pet food dishes out for long periods of time. Pests don't discriminate between people food and pet food. Pet dishes that have been left sitting out are enticing for all kinds of insects and rodents.
10. Have a proper outdoor drainage system. Installing gutters or repairing an existing system will help draw water and moisture away from your home, preventing any leaks or build up that might attract pests.
11. The best way to protect your home and prevent any type of pest infestation during the winter is to follow these pest-proofing tips in the fall when the temperature begins to drop.

Pest-proofing your buildings is a good investment! A 'hidden' benefit of pest-proofing homes is an improvement in energy efficiency of the building, resulting in a welcome reduction in utility bills.

For more information on pests and pest-proofing, read our publication here:



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PEST-PROOFING YOUR HOME

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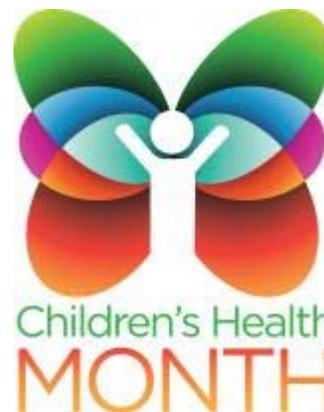


<https://extension.arizona.edu/sites/extension.arizona.edu/files/pubs/az1677-2015.pdf>.

October Is National Children's Health Month

The U.S. Environmental Protection Agency (EPA) recognizes October as Children's Health Month.

October 1st is the first day of **Children's Health Month**. During October, EPA raises awareness about children's unique vulnerabilities to environmental exposures and focuses special emphasis on kid's health through social media, events, and communication with partners. This year, we are happy to announce the release of 4 PSA videos. These videos can be shared with your partners or used on social media or other outreach as you determine appropriate. Here are the links for the PSAs:



- **Integrated Pest Management (IPM):** <https://youtu.be/EDAkf5Yec6Y>
- **Environmental Asthma Triggers:** <https://youtu.be/uEV55nRwzZc>
- **3Ts (Training, Testing, and Taking Action):** <https://youtu.be/O0VxEte0vS8>
- **Lead Poisoning Prevention:** <https://youtu.be/-si711Gizfg>

Please help raise awareness about children's environmental health risks during these special days of the month!

To spread public awareness of this important topic and provide information about ways people can protect children from a number of potential environmental exposure risks,

the EPA has created a list of online educational resources, available here <https://www.epa.gov/children/childrens-health-month-resources>. The list covers topics ranging from mold and indoor air quality (IAQ) to lead in drinking water and protecting children from pesticides.

Read a blog by Centers for Disease Control and Prevention/Agency for Toxic Substances and Disease Registry (CDC/ATSDR) on Children's Health Month here: <https://blogs.cdc.gov/yourhealthyouenvironment/2019/10/02/childrens-health-month-october-2019/>.

Webinars and Events

Southwest Termite Academy, October 23-24, 2019. Maricopa Agricultural Center, University of Arizona, Maricopa AZ. Details at: <https://www.azppo.org/event-3508153>.

Southwest Rodent Academy, December 4-5, 2019. Maricopa Agricultural Center, University of Arizona, Maricopa AZ. Details are coming soon.

Please join in for the [2019 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 2p.m. Eastern time**.

Upcoming webinars include:

Spiders Commonly Found in Houses

Host: All Bugs Good and Bad Webinar Series
November 1, 11 a.m. Pacific
<https://auburn.zoom.us/j/615766171>



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



To view all our previous newsletters, visit:
<https://cals.arizona.edu/apmc/westernschoolIPM.html#newsletter>

Acknowledgements

This material is in part funded by the Extension Strategic Investment Fund 2018, and in part by the National Institute of Food and Agriculture, U.S. Department of Agriculture, under award number 2017-70006-27145 that provides Extension IPM funding to the University of Arizona. Additional support is provided by the University of Arizona – Arizona Pest Management Center.



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