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## Keep Pests Away this Spring

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Spring cleaning is a great way to start the year, especially after a year like 2020. During spring cleaning, many people conduct deep cleaning of their homes, buildings and property, putting away winter gear, clearing fallen leaves and debris from yards, and in general preparing for warmer temperatures. This is a great time to be proactive and take a few extra steps, to keep pests away and have a pest-free spring. These simple steps, collectively referred to as “**pest-proofing**” will go a long way in saving you time, money and effort in keeping pests away from your home and surroundings.



Figure 1. Keep pests away with spring cleaning. Graphic: Shaku Nair

## Indoors

**Clutter.** Clutter includes all items that accumulate in homes or work spaces and surroundings (Fig. 2) in a scattered or disorderly manner during daily lives, impeding movement, and other activities. When people are busy, they often tend to ignore clutter and work around it, and focus on other, more immediate tasks. Gradually, clutter leads to accumulation of dust and debris, and often provides food as well as harborage for pests such as cockroaches and rodents. According to the US Environmental Protection Agency (EPA), insect allergens (which are found in insect feces, shed body parts and dead bodies) along with dust mites account for two of the six most common indoor asthma triggers. In this way, clutter is more than a stress-inducer – it can also be a health concern.



Figure 2. Cluttered rooms (left) and yards (right) are difficult to clean and can be health concerns. Photo: Pixabay.com

De-cluttering promptly eliminates pest harborage. When clutter is reduced, there is increased access, allowing for more thorough cleaning. When there are nooks and crannies – created by “stuff” – pests can easily hide and breed there. Clutter control also helps improve overall hygiene. It becomes easier to sweep, mop, and dust when things are generally organized. Minimizing clutter also helps people stay organized. Involve everyone in your home or work team in a de-cluttering day or week, whenever possible.

**Storage.** Go through your fridge, kitchen cabinets and pantry. Discard any old or expired food materials, especially those that show signs of stored product pests, or damaged containers causing spills (Fig. 3a). Wipe down or vacuum shelves and floors. Use airtight storage containers (Fig. 3b). This applies not only to human food items but also to pet foods. Most pantry pests can be kept away by using airtight containers.



Figure 3a. (Left) Spring cleaning might reveal spilled food items from damaged cartons or containers. Figure 3b. (Right) Airtight containers are best to store food items.



Figure 4. A homeowner inspecting an under-sink cabinet for leaks.

**Pest-Vulnerable Areas (PVAs).** Certain areas of a building, such as kitchens and bathrooms, are particularly suitable for pest populations to develop because food, warmth, and moisture are present. Take extra time to look for pest-conducive conditions (e.g. leaks) (Fig. 4) and signs of pests (e.g., shed skins, excrement or sawdust) in these areas.

**Regular cleaning.** Employ good cleaning procedures. Vacuum up all food crumbs. Promptly clean up spills. Do not leave soiled dishes or containers overnight. Clean under kitchen appliances as frequently as possible. Keep pet feeding dishes off the floor and clean them regularly.

**Waste disposal.** Make sure trash is disposed properly and not accumulating. In schools and offices, employees often assume that one of their coworkers is going to take out the trash, but sometimes no one does. If there is no designated person, create a schedule so that everyone takes a turn. Trash containing food remains should be placed in sealable containers that pests such as mice and rats cannot get into.

**Leaks.** Inspect and repair plumbing and roof leaks regularly to reduce water availability to pests. Check ceiling tiles (Fig. 5) and the false floor under sinks, as a problem may not be apparent. Water damage can weaken walls and ceilings creating additional entryways and be a water source for mold to develop.



Figure 5. Ceiling tiles indicating a roof or plumbing leak.

### Entryways

Keeping your doors and windows closed may not be enough to keep pests out. They will readily use many other openings, such as utility openings or even small cracks and gaps in walls or the foundation, under doors or between window panes. Cockroaches can enter through gaps the width of a credit card, while mice can squeeze in through holes the size of a pencil's diameter (Fig 6).



Figure 6. University of Arizona urban entomologist Dawn Gouge demonstrates how gaps under and around doors can be entryways for pests.

**Door sweeps and seals.** Inspect or install door sweeps at the base of all exterior entry doors. Inspect and repair any damage to door thresholds. No outside light should be visible underneath exterior doors when viewed from the inside at floor level. The bottom of garage doors can be fitted with a brush or rubber seal (vinyl does not perform well in cold weather). Sliding glass doors can be sealed by lining the bottom track with foam weather stripping. Be sure to inspect all seals of doors including the tops and sides. This is especially important for double doors that lack a central vertical support.

**Screens.** Inspect, install or repair screens on all doors or windows that can be opened, and on all ventilation openings. Keep screens in good condition and promptly repair tears or loose edges. This stops the entry of many pests.



Fig. 7. Screens (18 x 18 mesh) on windows and doors help to keep out most flying insects.

Periodically clean the space between the window and the screen to discourage scavenger insects, such as dermestid beetles from breeding and feeding in the organic matter accumulating in these spaces.

**Fill cracks.** To exclude rodents, lizards and insects, look for cracks/gaps around windows, doors and in fascia boards. For small cracks, use good-quality silicone sealant. Silicone lasts longer than latex caulking materials, as it expands and contracts more effectively with changing temperatures. For larger openings, fill with a strong material that matches the structure such as wood, cement, sheet rock or mortar.

**Utility openings.** Seal all utility access panels and openings, including penetration points of pipes and wires, outdoor faucets, gas meters, and laundry vents. Cracks should be cleaned, and any peeling material removed. The hole can then be filled with a suitable sealant. Wider openings should be filled with copper mesh before sealants are applied. Check to make sure escutcheon plates are well seated around plumbing in bathrooms and kitchen.

### Outdoors

After you finish your indoor cleaning, conduct an inspection of your building perimeter, and look for any damage done over the winter months. Here are some tips for spring cleaning outdoors:

**General yard clean up.** Encourage everyone to participate in yard clean up, including children (Fig. 8). Remove accumulated landscape debris, such as leaves and grass clippings from the yard and around the building foundation.



Fig. 8. Everyone can help in yard clean up, including children. (Photo: Pixnio.com)

**Landscape plants.** Vines, shrubs and tree limbs growing close to walls provide pests with access to the building. Prune shrubs and tree limbs at least 18-24 inches away from the building exterior walls to eliminate pest entry points.

**Weak wood.** Remove any rotted tree stumps or other weak wood in the yard, which could attract structural pests such as termites and carpenter ants. Organic landscaping mulch should be placed so it does not come into contact with structural wood (siding, posts, etc.).

**Trash disposal.** Use pest-resistant trash receptacles with lids. Lids should be kept closed, especially at night. Trash receptacles, including dumpsters, should be steam cleaned regularly. Damaged containers should be replaced with new ones.

**Roof.** Repair damaged fascia and rotted shingles, as some insects are attracted to deteriorating wood. Use wire netting to cover gaps under and between rooflines or ¼- inch hardware cloth over the attic, roof, chimney and crawl space vents in order to prevent entry of birds, bats, squirrels, and rodents (Fig. 9). Wear gloves when installing hardware cloth, as the wire edges are extremely sharp.



Fig. 9. Gaps under roofline can attract birds and rodents.

**Crawl spaces.** These spaces under houses are attractive to many pests such as termites, widow spiders, scorpions, feral cats, and rodents. These larger animals may create further insect and health problems (e.g., fleas, ticks, etc.).

**Gutters, window wells and drainage grates.** Clean out window wells, clogged drainage gutters, grates and downspouts to ensure they are not clogged, and water can flow freely (Fig. 10).



Fig. 10. Make sure drainage grates are clear of debris. (Photo: Pixabay.com)

For more information, check out the University of Arizona Cooperative Extension publication “Pest-proofing your home”, available here:  
<https://extension.arizona.edu/sites/extension.arizona.edu/files/pubs/az1677-2015.pdf>

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## Safer spring cleaning

**Safer Choice** is the US EPA’s label for safer chemical-based products. Every chemical, regardless of percentage, in a Safer Choice-labeled product is evaluated through EPA’s rigorous scientific process and only the safest ingredients are allowed. For over 15 years, the program has labeled products that are safer for families, pets, workplaces, neighborhoods, and the environment.



Read more about Safer Choice here <https://www.epa.gov/saferchoice>.

## National Pesticide Safety Education Month

**February is National Pesticide Safety Education Month.** Sponsors include EPA, USDA, NPMA, and Valent. Check out the Safety Education Month roll-out at <https://pesticidestewardship.org/national-pesticide-safety-education-month/> .

As an introduction to Pesticide Environmental Stewardship, find their introduction as follows: “**The Pesticide Environmental Stewardship (PES) Website** is sponsored by the Center for Integrated Pest Management. PES provides convenient access to information on proper pesticide handling. All subject matter content on this site has been reviewed and posted by Pesticide Safety Education Program Coordinators and Specialists from the Cooperative Extension Service. This website is intended for a national audience with links to state-specific information, where available. Crop producers, pesticide dealers, commercial/professional applicators and the general public will benefit from the information presented in each topic, or module.” [PES]

To facilitate access and use of the various pesticide resources at this site, here are a few links that may peak interest. These may be incorporated into outreach programs on pesticide safety and targeted at different audiences (commercial applicators, residents, retailers, etc.).

Tips for Hiring PMPs:

<https://pesticidestewardship.org/national-pesticide-safety-education-month/hiring-a-pmp/>

Self-Assessment of Your Personal Pesticide Safety Practices (unique long list of safety items to check off, good for PMPs/applicators):

<https://pesticidestewardship.org/national-pesticide-safety-education-month/self-assessment-of-personal-pesticide-safety-practices/>

Educational videos (on buying products, gloves, spill kit, homeowner guide, safe storage, respirator, calibrate rotary spreader):

<https://pesticidestewardship.org/national-pesticide-safety-education-month/helpful-videos/>

38 Question T/F Self-Test of your Pesticide Safety Knowledge (great for the general public):

<https://pesticidestewardship.org/national-pesticide-safety-education-month/take-the-quiz/>

Tips, advice, and resources for retailers of pesticides (not commonly seen, but could be used as required reading for all dealers/stores):

<https://pesticidestewardship.org/national-pesticide-safety-education-month/for-retailers/>

Online Training Course for Retailers from Univ. of Illinois (another great item for educating stores selling products) (\$40 fee for the training): <https://web.extension.illinois.edu/rpmr/>

State University Pesticide Safety Specialists/Trainers (contact names, phones, email):

<https://pesticidestewardship.org/national-pesticide-safety-education-month/state-land-grant-university-pesticide-safety-education-programs/>

How to Read the Label:

<https://pesticidestewardship.org/homeowner/how-to-read-the-label/>

Insect Pollinators and Stewardship:

<https://pesticidestewardship.org/wp-content/uploads/sites/4/2019/08/Insect-Pollinators-and-Pesticide-Product-Stewardship.pdf>

School IPM Jam-packed Brochure:

<https://pesticidestewardship.org/wp-content/uploads/sites/4/2016/06/An-Ounce-of-Prevention.pdf>

Another Jam-packed Brochure but for PMPs, cert applicators, and non-certified technicians:

<https://pesticidestewardship.org/wp-content/uploads/sites/4/2019/10/50-Ways-PestManagementProTrifold-8.23.pdf>

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## 4<sup>th</sup> Arizona School IPM Conference



**Save the Dates! The 4<sup>th</sup> Arizona School IPM Conference will be offered online April 19-30, 2021.** The conference is a great opportunity for continuing education, professional development and awareness building; consisting of engaging presentations for all persons involved with schools, childcare and similar facilities in Arizona; and anyone with an interest in ensuring safe, healthy learning and working environments. Listen to talks by experts on various aspects of school IPM, share your experiences and questions, discuss strategies and find solutions to pest issues your school is facing. Give feedback on topics you would like to see in future events. **More information coming soon at** <https://acis.cals.arizona.edu/community-ipm/events/arizona-school-ipm-conference>.

**Who can attend?** Anyone with an interest in safe and effective pest management in schools, childcare and similar facilities. Typically, our audience includes school and other administrative staff, maintenance and operations staff, grounds and landscape managers, teachers, principals, nurses, parents, and pest control technicians, food service staff, facility managers, superintendents, medical professionals, students, and many others.

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## Upcoming EPA Webinars offering Arizona CEU Credits

### **Invasive Woody Plant Management – Part 2 of 2, March 9, 2021**

Encroachment of woody vegetation threatens the biology and ecology of many types of ecosystems. The loss of natural foragers, fires, human-caused disturbance, and the introduction of non-native plants combine to impact native vegetation and its associated wildlife. Removing invasive woody species improves the function of local ecosystems and opens the landscape to provide more suitable habitats for birds and other wildlife. This webinar is the second of a two-part series on managing invasive woody plants and will cover oriental bittersweet, honeysuckle. Attendees will learn the IPM practices used to provide cost-effective management of these woody invasive plants such as mechanical removal (multiflora rose, Japanese barberry, and cutting and shredding), herbicide treatments, fire, and biological controls. In addition, participants will learn how to identify these species and to develop IPM-based strategies for their prevention and control in your region. [Register Now](#)

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## Vector Preparedness Virtual Workshop

**The Vector Preparedness Virtual Workshop** is a great opportunity for anyone with an interest in learning information on mosquito ID, surveillance, management, and insecticide resistance in public health pests.

### **This workshop will present:**

- 1) Basic aspects of mosquito biology and ecology, vector disease risks, and identification of a few important problematic mosquitoes in Arizona.
- 2) Extensive information on integrated mosquito management.
- 3) Why it is important to trap mosquitoes, different types of traps that are available, and tips on how to use them.
- 4) Insecticide resistance, types of resistance (using bed bugs as examples), Integrated Pest Management (IPM), and public health pests IPM including bed bugs, head lice, German cockroaches, mosquitoes, flies, etc.

Arizona certified structural pesticide applicators can earn **4 CEUs** from the AZ Department of Agriculture's Pest Management Division (PMD) after completing the entire workshop. This course will be effective through August 30, 2021.

For more information contact Dr. Lucy Li, Associate in Extension - Public Health IPM, at [lucyli@email.arizona.edu](mailto:lucyli@email.arizona.edu) at University of Arizona.

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Check out upcoming Integrated Pest Management Webinars at <https://www.epa.gov/managing-pests-schools/upcoming-integrated-pest-management-webinars>

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

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To view all our previous newsletters, visit: <https://acis.cals.arizona.edu/community-ipm/home-and-school-ipm-newsletters>

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