

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



COLLEGE OF  
AGRICULTURE  
& LIFE SCIENCES  
COOPERATIVE EXTENSION

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## Poison Prevention

Each year, poison centers receive more than 145,000 reports involving pesticides and disinfectants. The U.S. Environmental Protection Agency (EPA) urges parents, school staff and caregivers to secure pesticides and other household chemicals in locked cabinets out of children's reach. More than 90% of poisonings happen in homes. Each year, approximately 65,000 children aged 5 and younger are accidentally exposed to pesticides. More than 10,000 of those exposures involve mouse and rat poisons. EPA established new and improved safety standards for consumers to use a protective tamper-resistant bait station for mouse and rat bait products. These measures will prevent children from accessing baits and reduce exposure to the active ingredient.

**National Poison Prevention Week** (March 20-26, 2016), the third week in March each year is designated to highlight the dangers of poisonings and how to prevent them. Every day, people can and do prevent poisonings. We invite you to review the information here and to become actively involved to ensure the safety of children and adults in your home and in your community.

### Poisonings are preventable

Here are some simple tips to keep your home and school environment safe from accidental poisonings:

- Always store pesticides and other household chemical products out of the reach of children – preferably in a locked cabinet.
- Use mouse and rat poison products with a tamper-resistant bait station.
- Inspect your home and school regularly, room by room, for potential poisoning hazards and remove any unsafe products.
- Use child-resistant packaging properly by closing the container tightly after use.
- Purchase only the amount of pesticide product that is required for the job.
- Never transfer pesticides or other household chemical products to containers that can be mistaken for food or drink.



Robert, Age 6 – Jacksonville, FL – Younger Division

- Never store pesticides in the same locations with food products.
- Never mix household or chemical products together. Doing so can create dangerous gases or other chemical reactions.
- Never share prescription medicines.
- Never use illegal pesticides from foreign internet or mailorder sources.
- Program into your phone the Poison Help Center number, **1-800-222-1222**.

Poison prevention tips and resources to protect your family:

<http://www.epa.gov/pesticides/health/poisonprevention.htm>

Room by room checklist for potential poisoning hazards:

<http://www.epa.gov/pesticides/factsheets/roombyroom-checklist.htm>

List of rat and mouse products that meet the EPA's safety standards:

<http://www.epa.gov/pesticides/mice-and-rats/rodent-bait-station.html>




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## Caution! Warning! Danger! Understanding Signal Words on Pesticide Labels

Authored by Wierda, M., Fournier, A., Li, S., Nair, S., Gouge, D. and Ellsworth, E. This information is available as a one-page IPM short at <http://ag.arizona.edu/crops/cotton/files/SignalWords.pdf>

Pesticide labels contain a lot of information and can be overwhelming. But reading and understanding pesticide labels is **essential** to ensuring **safe** and **effective** use of pesticides. Further, it is a federal crime to use a pesticide in any way that is not consistent with label instructions.

One important element of a pesticide label is the **Signal Word** (Figure 1). But what is a Signal Word? What does a Signal Word mean? This short communication will explain why Signal Words are on labels, what each Signal Word means and why some pesticides do not have one.

Signal Words are required for all registered pesticides except those that meet Toxicity Category IV (meaning it is practically non-toxic and not an irritant). In these cases, at the manufacturer's discretion, the Signal Word CAUTION may be included on the label.

The Signal Word must appear in large letters on the front panel of the label along with the statement “Keep Out of Reach of Children.” Each Signal Word tells the user how toxic a product is if it gets on or enters the body. Routes of entry include: swallowing or ingestion (i.e., orally), through the skin (i.e., dermally), or by breathing (i.e., inhalation).

General definitions of Signal Words from the National Pesticide Applicator Certification Core Manual, 2nd Edition, 2014:

**CAUTION.** This means that the product is **slightly toxic** orally, dermally, or through inhalation, or it causes slight eye irritation.

**WARNING.** This means that the product is **moderately toxic** either orally, dermally, or through inhalation, or it causes moderate eye and skin irritation. **AVISO**, the Spanish word for WARNING, must also appear on the label.

**DANGER.** This means that the product is **highly toxic by at least one route of entry into the body**. Products with this Signal Word can cause severe eye damage or skin irritation. **PELIGRO**, the Spanish word for DANGER must also appear on the label.

**DANGER – POISON.** These words are always accompanied by a skull and crossbones symbol (Figure 2). This means that the product is **highly toxic by any route of entry into the body**. **These products can cause death in very low doses**. **PELIGRO**, the Spanish word for DANGER must also appear on the label. “Poison” must be in red letters.

When purchasing a pesticide, use the Signal Word and labeling to help you determine the least toxic and most effective product that will address your need.

**Remember, all pesticides can be potentially harmful in high enough concentrations, no matter what the Signal Word is.**



**Figure 1.** An example label showing key information about the product, including the Signal Word, in this case “WARNING/AVISO”.



**Figure 2.** The “DANGER – POISON” Signal Words are always accompanied by the skull and cross-bones, which tells the user that this product is highly toxic by any route of entry.

### ***Additional Resources:***

For a more detailed explanations, typical route of entry statements for Signal Word categories, and additional resources see the following University of Florida, Institute of Food and Agricultural Science Extension publication <https://edis.ifas.ufl.edu/pi137>.

Downloadable copies of the National Pesticide Applicator Certification Core Manual, 2nd Edition 2014 can be found at <http://www.nasda.org/9381/Foundation/11379/11383/30485.aspx>.

For a Signal Word topic fact sheet and more resources visit the National Pesticide Information Centers web page at <http://npic.orst.edu/factsheets/signalwords.html>.

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## **Spring Preemergence Weed Control in Lawns**

Authored by Dave Kopec and Kai Umeda.

Spring means warmer weather, whether you are in Flagstaff or Yuma, AZ. Turfgrass weeds that come up from seeds and then die later in the same season are called “annuals”. There are two categories of annual weeds in the desert: “summer” and “winter” annual weeds. Summer annual weeds germinate from seed in late winter or early spring, and then thrive through the summer months, which includes the production of more seeds to come up in future years! Winter weeds in the low desert emerge in the late summer through winter during the cooler season.

At sites where the same species of annual weeds come up year after year because of the accumulation of thousands or millions of seeds in the soil, they can be prevented from becoming established at all by using a preemergence herbicide, rather than to treat them after they come up with a postemergence weed control product.

Weed seed germination occurs below the soil surface and then the first visible leaf or shoot emerges through the soil. Preemergence herbicides stop the seedling root from growing after germination or prevent the emergence of the shoot that you “don’t see”.

For preemergence herbicides to be effective, the product has to be applied evenly across the surface of the turf and then immediately “irrigated in”. Most preemergence herbicides must be watered in very soon after application, so they can bind to the soil particles so that the roots and shoots of the germinating seedling can be exposed to the herbicide. The product label will specify that adequate rainfall or sprinkler irrigation should occur within a month or so to ensure the herbicide is “activated”. Otherwise, exposure on the soil surface to sunlight will result in breakdown of the herbicide and reduced weed control efficacy.

There are several active ingredients that are often sold under a variety of branded product names. Commonly sold active ingredients of preemergence herbicides include the following: trifluralin, benfenin, pendimethalin, oryzalin, prodiamine, dithiopyr, metolachlor, dimethenamid, and oxadiazon.



Summer annual grassy weeds include (at low desert locations) southwest cupgrass (Figure 1), liverseedgrass (Figure 2), stinkgrass, goosegrass (Figure 3) and sometimes crabgrass (Figure 4). At higher elevation locations crabgrass is a major summer annual grass weed. The above active ingredients are predominately active against grassy weeds.



Figure 1. Southwest cupgrass. Oklahoma State University.



Figure 2. Liverseedgrass. Ptrpest.com



Figure 3. Goosegrass. Extesion.umass.edu



Figure 4. Crabgrass. www.senske.com

Small-seeded broadleaved annual weeds such as spurge and purslane can be controlled by the same preemergence herbicides used against the grass weeds. Herbicide products containing the active ingredient, isoxaben can control additional broadleaved weeds with preemergence applications to the soil.

Preemergence weed control products should be applied when the soil temperature is 50-55 °F or so. Normally, preemergence herbicides should be applied by the end of February/early March in Tucson and Phoenix, and by early to mid-February in Yuma. Likewise, the similar temperatures occur in mid-May in Flagstaff. Soil temperatures can be found at the following web site <http://cals.arizona.edu/AZMET>.

Some preemergence herbicides are also formulated with the active ingredient attached to a granular fertilizer. This can offer some convenience since a fertilizer application can be made when applying suitable pre-emergence weed control agent. These types of products are often referred to as “weed and feed” products.

Active ingredients and product references included are provided for technical/educational purposes and examples only. No recommendations or exclusions are intended, or implied.

Also see: <http://wssa.net/wssa/weed/articles/wssa-choosing-herbicides/>

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## 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>

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## 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](#).

Upcoming webinars include:

1. Help Pollinators Cope with Pesticides – April 1, 2016
2. Managing Pests of Backyard Pecans – May 6, 2016
3. Spotted Wing Drosophila – June 3, 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>

**March 15, Tuesday, 2:00-3:30 pm. Eastern / 11:00-12:30 pm. Arizona. EPA Webinar: [IPM for Turf on School Grounds](#).**

EPA's Center of Expertise for School IPM will offer a [webinar](#) titled IPM for Turf on School Grounds. This webinar will provide insight for improving the quality and playability of school athletic and recreational fields. You will come away with an increased understanding of the importance of IPM in turf maintenance, cultural and physical control options, and the value of record keeping. You will also learn about solutions to common turf problems that you can incorporate into your school's IPM program.

To register now, please visit the following link: [https://epawebconferencing-events.acms.com/content/connect/c1/7/en/events/event/shared/100012997/event\\_registration.html?sco-id=100004877& charset =utf-8](https://epawebconferencing-events.acms.com/content/connect/c1/7/en/events/event/shared/100012997/event_registration.html?sco-id=100004877& charset =utf-8)

To know more about the event, please visit the website: [https://epawebconferencing-events.acms.com/content/connect/c1/7/en/events/event/shared/100012997/event\\_landing.html?sco-id=100004877& charset =utf-8](https://epawebconferencing-events.acms.com/content/connect/c1/7/en/events/event/shared/100012997/event_landing.html?sco-id=100004877& charset =utf-8)

Upcoming webinars include:

1. Vertebrate Turf Pests – April 19, 2016
2. Stop School Pests and iPestManager - School IPM Tools – May 10, 2016
3. Ants - The #1 Pest in Schools – May 17, 2016

For more information about upcoming and past School IPM webinars:

<http://www.epa.gov/managing-pests-schools/webinars-about-integrated-pest-management-schools>

**April 13-14, 2016. National Environmental Health Association (NEHA). [Enhancing Environmental Health Knowledge \(EEK\): Vectors and Public Health Pests Virtual Conference](#).**

EEK: Vectors and Public Health Pests Virtual Conference is designed to enhance the knowledge of environmental health professionals in order to help them better prepare to respond to environmental events of public health concern as well as to bring professionals together in a unique virtual environment to exchange information and discover new solutions to issues in vectors and public health pests. Registration for the conference is available to anyone and free of charge. See more at: <http://www.neha.org/news-events/community-calendar/EEK-vectors-and-public-health-pests-virtual-conference#sthash.RSHsECaB.dpuf>

**May 5, Thursday, 8:00-5:00 pm. Integrated Pest Management Workshop for schools, homes, and related environments. University of Arizona South, Sierra Vista, 1140 Colombo Ave, Public Meeting Room, Sierra Vista, AZ 85635**

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 Cochise 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 Shaku Nair at [nairs@email.arizona.edu](mailto:nairs@email.arizona.edu) for more information and to register.

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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## Acknowledgements

This material is based upon work that is supported in part by the National Institute of Food and Agriculture, U.S. Department of Agriculture (USDA NIFA). Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the authors and do not necessarily reflect the view of the U.S. Department of Agriculture. Additional support is provided by the U.S. Environmental Protection Agency (EPA) and the University of Arizona – Arizona Pest Management Center (APMC).



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Department of  
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