DIVISION OF AGRICULTURE
RESEARCH & EXTENSION
University of Arkansas System

Pest Management News

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Home Pest Control Safety

John D. Hopkins

The most effective way to reduce or eliminate pest problems and risks posed by pesticides is to first prevent pests from entering your home. Around the home, pest prevention measures include removing sources of food and water and eliminating pest shelters and breeding sites:

Before purchasing or using any pesticide, always read and then carefully follow the directions on the container label.

- Store food in sealed plastic or glass containers. Make sure food and food scraps are tightly sealed and garbage is regularly removed from the home. Garbage containing food scraps should be placed in tightly covered trash cans.
- Fix leaky plumbing and do not let water accumulate anywhere in the structure. Don't let water accumulate in trays under houseplants or under the refrigerator.
- Don't leave pet food and water out overnight. Also, if you apply pesticides, pet food and water should be removed from the area.
- Clutter provides shelter for pests-places for roaches and mice to breed and hide-and makes it difficult to provide effective pest control. Keep the level of clutter down. Stacks of newspapers, magazines, or cardboard provide excellent shelter for roaches and other pests.
- Close off entryways and hiding places. For example, you can caulk cracks and crevices around cabinets or baseboards, and use wire mesh to fill holes around where pipes go through a wall, ceiling, or floor.
- Check for pests in packages or boxes before carrying them into the home.

Before purchasing or using any pesticide, always read and then carefully follow the directions on the container label. When using pesticides in the home, keep pets and children away from areas where pesticides have been applied. After preventative steps have been taken, you can use baits as a first line of chemical defense against insects or rodents. These are often effective and can be used with low risk of exposure to the pesticide, as long as they are kept out of the reach of children and pets. Pesticides not contained in baits or traps should generally only be applied to targeted locations, not sprayed over the whole room. Only mix as much as you are going to use at one time if the pesticide

must be mixed with water. Use fogging devices only when absolutely necessary. Use ready-to-use products (i.e., no mixing needed) whenever possible.

Only apply pesticides approved for use in homes; the label will list where the pesticide may be used. You should write down the name and EPA registration number of any pesticide used by someone you hire. You will need this information if you decide to look up more information on the pesticide. The pest control operator should be able to provide information about the materials used, such as the material safety data sheet.

When disposing of leftover pesticides and pesticide containers, do so properly. Read the label to find out how to dispose of the pesticide and the container. Many communities have household hazardous waste collections that will accept unwanted pesticides. Call your waste disposal authority for information about your community.

Never transfer pesticides to other containers. Pesticides should only be stored in their original containers. Poisonings have occurred when someone accidentally consumed a pesticide stored in food or beverage containers. Don't use empty pesticide containers to store anything else. No matter how well you wash the container, it could still contain remnants of the pesticide and could harm someone.

For additional information on pest issues and pesticide safety see EPA Publication 735-K-04-002 "Citizen's Guide to Pest Control and Pesticide Safety" (PDF) (54 pp, 2.4 MB)

A Guide to Minimum Risk Pesticides

Reprinted from Integrated Pest Management Insights, July 2018 Vol. 15, Issue 2. Northeast IPM Center.

Whether in an agricultural or structural setting, assessing risk is a key step in choosing the right method for controlling pests. Careful adherence to pesticide labels is essential, but what about “all natural” ingredients and other alternatives to regulated pesticides? Where can one find reliable data on low-risk ingredients to help assess human health and environmental risks, while also learning about their efficacy for different target pests?

The New York State IPM Program is providing answers with a new, online resource covering minimum risk pesticides. It lists 31 ingredients determined by the EPA to pose little to no risk to human health or the environment. Each ingredient links to a detailed profile containing available data on its physical and chemical properties, human health assessment, environmental assessment, product performance, and standards and regulations that apply to its use.

The ingredient profiles will help officials, practitioners, and the public better understand the risks and benefits of minimum risk pesticides.

To access the resource, visit the following link or scan the code below:

http://neipmc.org/go/nctc

October 8 Fall Armyworm Update Meeting

Kelly M. Loftin

Fall armyworms above treatment threshold.

As you know, Arkansas hay and cattle producers has been experiencing severe fall armyworm outbreaks for over two months. Outbreak were/are particularly bad in southwest Arkansas. This year fall armyworms has been more difficult to control because of overlapping generations that result in frequent re-infestations. Oftentimes producers applied multiple treatments to produce a hay crop if short residual products were used. With the planting of cool season annuals and continued fall armyworm threat, a meeting is planned for October 8, 2018 at the Southwest Research and Extension Center in Hope, AR to address these concerns. The meeting will begin at 10:30 AM and conclude at noon. Topics will include information on the biology and management of fall armyworms, potential of the FAW virus for FAW control and calibration and use of boom-less sprayers. The target audience includes producers, county extension agents and farm chemical sales representatives. An opportunity for participation through a webinar is available to those that live too far from the Hope, AR area.

Some producers have already experienced severe fall armyworm damage in cool season annuals such as wheat. Others are reluctant to plant because of the fall armyworm threat. We should keep in mind that newly emerged stands are vulnerable to severe fall armyworm damage and significant losses. Continued scouting in bermudagrass and newly emerging cool season annuals is essential. We need to identify and manage outbreaks before significant losses occur. Infestations are easily overlooked when the caterpillars are small and eating very little. Once they grow large and consume more grass, damage becomes apparent.

Clues to fall armyworm infestations include: 1) field appears “frosted” 2) presence of birds in the field or 3) the odor of freshly grass. Armyworm outbreaks often occur in waves about 30 days apart. However, when mixed worm sizes are present in the field, new infestations occur more frequently than 30 days. When scouting, carefully examine grass blades, stems and organic debris at plant base for armyworms. It is best to take at least ten one-foot-square random samples across the pasture or hay meadow. Make note of the armyworm sizes as this will help make good management decisions.

Insecticide application is recommended when three or more fall armyworms per square foot occur in a field. Per-acre insecticide cost will vary from as low as $2.00 up to about $14.00. Consider residual activity of the product, especially if you are seeing overlapping generations (all sizes of fall armyworm caterpillars) and heavy fall armyworm pressure. Pyrethroid insecticides such as Karate® (lambda-

cyhalothrin), Mustang Max® (zeta-cypermethrin) and Baythroid XL (beta-cyfluthrin) have short-duration residual activity. In contrast, products such as Prevathon® (chlorantraniliprole), Besiege® (chlorantraniliprole and lambda-cyhalothrin) and Intrepid® (methoxyfenozide)) have longer-duration residual activity and can reduce the number of applications necessary to produce a hay crop or protect a newly emerged cool season grass. A recent study in central Arkansas showed that a mixture of lambda-cyhalothrin and diflubenzuron (Dimilin) provided similar efficacy and residual activity to Besiege® (chlorantraniliprole and lambda-cyhalothrin (> 3 weeks residual control). A tank mix of generic lambda-cyhalothrin at 3.8 oz. per acre and Dimilin® or Unforgiven (diflubenzuron) at 2 oz. per acre would cost about $5.00 per acre. Also if the grass is ready, cutting for hay will avoid the need to make an insecticide application. For additional information on armyworms see "Managing Armyworms in Pastures and Hayfields" and is available at: http://www.uaex.edu/publications/PDF/FSA-7083.pdf and the "2018 Insecticide Recommendations for Arkansas" at: http://www.uaex.edu/publications/pdf/mp144/c-forages.pdf.

"Gordon the Greedy Goose" Booklet Available

Becky McPeake

In parks and farm ponds, a few ducks and geese may seem desirable at first. However, a pair of geese can quickly become a large population with feces and dirty feathers everywhere. A booklet titled "Gordon the Greedy Goose" is being distributed to Little Rock area elementary schools and to 4-Hers in the state by the MacArthur Park Group. The book encourages young readers to not feed bread and junk food to geese and ducks. Contact me (rmcpeake@uaex.edu) if you would like copies for distribution to your county Cloverbuds and wildlife clubs, or community events in your county.

Figure 1. School children read *Gordon the Greedy Goose* at a press conference at MacArthur Park in Little Rock on September 13, 2018. *Photo by Becky McPeake.*

Many problems can occur from feeding ducks and geese:

- increased spread of disease among birds and in some cases, to people;
- degradation of water quality from bird feces;
- malnutrition among birds eating foods with low or no nutritional value;
- bird injuries from swallowing non-food items;
- behavioral problems when birds lose their fear of humans and become aggressive; and
- birds becoming dependent on people for food and unable to forage independently.

Use several of these control methods to deter ducks and geese from residential areas, parks and ponds.

Figure 2. Park visitors have a history of feeding ducks and geese, a pattern which some park supporters hope to break. *Photo by Becky McPeake.*

- ***Ban feeding***. Ducks and geese tend to stay where food is present and where there is open water.
- ***Grow less nutritious grass***. Mow and fertilize as little as possible, and avoid planting Kentucky bluegrass, which Canada geese highly prefer.
- ***Disrupt travel and site lines***. Plant bushes, hedges, or shrubs to make the area appear unsafe to ducks and geese.
- ***Modify the shoreline***. Allow vegetation to grow, as geese prefer gently sloping banks with low vegetation.
- ***Install fencing***. Short fences, vertical banks, or hedges of at least one foot high around ponds can be very effective, especially if geese have goslings. Even if ducks or geese fly over the barrier between the pond and an open grassy area, the hassle of continuously flying over the fence has been found to eventually drive them away. On smaller ponds, high tensile wire or UV-resistant polypropylene line can be strung tightly across no more than five feet apart and three to four inches above water level.
- ***Use frightening devices***. Frightening devices, such as loud noises, or an inflatable tube "air dancer," are most effective when used immediately when they first arrive.
- ***Apply repellents***. Some repellents can be purchased in home and garden stores, or may require pesticide permits, such as methyl anthranilate and anthraquinone. Methyl anthranilate is an extract from grapes that causes a pain sensation when birds inhale it. Anthraquinone deters geese from eating grass by causing stomach upset. Anthraquinone has a sparkle visible to geese but not humans, which allows geese to identify treated areas.
- ***Sterilize eggs.*** OvoControl-G is bait that contains an active ingredient nicarbizan which prevents eggs from becoming fertilized and hatching, as long as female geese continue to eat it. Geese that are fed this product during the egg-laying season will produce sterile eggs. A pesticide applicator license is required.
- ***Legal hunting.*** Hunting is effective for reducing populations and deterring geese in rural areas. The Arkansas Game and Fish Commission offers a special hunting season when geese are numerous.

Grape Eutypa dieback

Sherrie Smith

Eutypa dieback or dead arm is a serious disease of the woody tissues of grapes. The causal fungus, *Eutypa lata,* has a wide host range, including about 80 species of woody pants. Eutypa dieback is usually found in grapevines at least 8 or more years old. The fungus enters the vine through pruning wounds or other injury sites. The disease is particularly severe in areas where vines get a lot of rainfall. Symptoms are deformation and discoloration of new shoots in the spring. The leaves are

smaller than normal, cupped, and chlorotic. They often develop small necrotic spots and tattered margins. Dwarfing of the internodes accompanies these leaf symptoms. Clusters of berries on the affected shoots may have a mixture of both large and small berries. Examination of an arm, cordon, or trunk usually reveals a canker surrounding a pruning wound made several years previously. In cross section, a pie shaped wedge zone of necrotic wood may be found. Control of Eutypa dieback is difficult. Pruning should be done late in the dormant season to promote rapid healing. All infected wood should be burned to reduce the spread of the pathogen. Remove all cankers, pruning below the canker until no dark canker tissue remains. Make large cuts directly after a rain if possible, as there is not as much air borne inoculum at that time. Mark locations of suspicious vines in the spring for future examination to confirm the disease. Pruning wounds may be treated with a 1% paste of Topsin M. Lime sulfur applied during the dormant season may help reduce inoculum.

Eutypa dieback or dead arm is a serious disease of the woody tissues of grapes

Name That Weed

Bob Scott

This month's weed is at home in a semi aquatic or wet environment, but must have its roots in the ground somewhere. It is bad about stopping up waterways and hindering recreational activities in small ponds and shallow waterways. Its solid stem and yellow flower differentiate it from another aquatic weed, alligatorweed, which has a hollow stem and white flowers. These two weeds In the vegetative stage can be easily confused. Be the first to email Dr. Bob Scott at bscott@uaex.edu with the correct common name and win a prize! For control of this weed see the aquatic section of the MP44.

To The Readers

Please offer any suggestions for Urban or Livestock Integrated Pest Management topics (insect pests, plant diseases, weed problems, wildlife control problems) that you would like to see – *OR* – feel free to submit an article that you have prepared. Kelly and I will be glad to include it (subject to editing). Send feedback to jhopkins@uaex.edu or kloftin@uaex.edu

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