

Pest Management News

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Moth Flies (also called Drain Flies/Filter Flies/or Sewer Flies)

John D. Hopkins

The moth fly is a problem pest which sometimes becomes a concern to homeowners. This pest is also commonly known as the drain fly, filter fly, or sewage fly. Moth flies are frequently found indoors on windows, sinks and walls. The source of the fly infestation is generally from sinks and floor drains, or from nearby sewage plants or waste disposal areas. Polluted waters and wet organic materials are preferred breeding areas of the fly.

The adult fly is about one-tenth inch long (about one-third the size of a housefly). It has a dark gray body and lighter colored wings. The body and wings are densely covered with long hairs which give the body a fuzzy or hairy appearance, hence the name “moth fly”. When at rest, the adult moth fly often holds its leaf-shaped wings fairly flat to either side of its body.

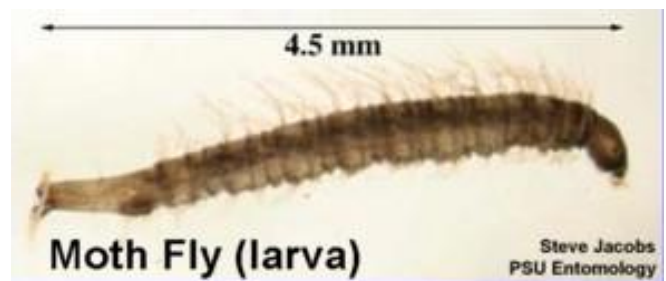
Moth flies are nocturnal, so they feed and lay their eggs in the drains at night. Eggs are deposited throughout the spring and summer in moist, decomposing organic materials. The gelatinous organic deposits which accumulate in drains provide an ideal breeding site. Eggs hatch into the larvae (maggots), which feed in this organic matter. Under favorable conditions, maggots mature in about two weeks and form a hard shell (puparium) within which the pupa forms and from which the adult fly emerges. The scum layer in drains not only provides a food source for the larvae but also provides a safe retreat from harsh chemicals and cleaners poured down the drain, rendering these material relatively ineffective as control measures.

Moth Fly (adult)

Psychoda sp. Meigen, 1803



Whitney Cranshaw, Bugwood.org 5506448



After proper identification, a thorough inspection is required to find the breeding site. Places to check include: slimy drains, sewer leaks or backup, dirty garbage cans, saucers under potted plants, bird baths or feeders, clogged roof gutters, clogged storm drains, air conditioners, cooling towers, moist compost, rain barrels, and septic tanks. If large numbers of flies are seen, be sure to check for nearby sewage treatment plants, especially upwind from the structure. On the interior of buildings or homes, the preferred method of control includes a thorough scrubbing of drains with a brush followed by the application of a microbial drain cleaning formulation, with foam delivery being most effective. Commercial applicators may use insect light traps and/or an ULV application to help reduce large numbers of adult flies while homeowners may use any over-the-counter aerosol insecticide labeled for flying insect control to provide temporary relief. Permanent long term control can only be achieved by correcting plumbing and drain leaks and eliminating breeding site(s).



When large populations of these flies are breeding in sewage filter beds, control usually consists of the periodic flooding for a minimum of 24 hours to kill larvae and pupae; eggs are unaffected. In addition, weed control should be practiced to remove adult roosting sites and any adjacent vertical surfaces should be treated with an appropriately labeled pesticide. Microencapsulated and wettable powder formulations are particularly effective for this use.

EPA Releases Proposed Rule to Revise Certification for Pesticide Applicators

John D. Hopkins

The U.S. Environmental Protection Agency (EPA) released on August 5th, 2015, a pre-publication rule ([Click Here](#)) proposing stronger standards for commercial and private pesticide applicators who apply restricted-use pesticides (RUPs). The rule will raise the Federal standards for applicator competency, including testing, certification and continuing education, in an effort to provide assurances that certified applicators and noncertified applicators under their direct supervision are competent to use RUPs in a manner that will not cause unreasonable adverse effects.

The National Pest Management Association (NPMA) has put together a list of highlights from the “pre-publication that could impact the structural pest management industry:

- Additional training and certification requirements will be implemented for aerial application, soil fumigation and non-soil fumigation.
- All persons, certified applicator or person working under their direct supervision, must be 18 to apply RUPs.

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- Additional training and certification requirements will be implemented for noncertified applicators working under direct supervision of a certified applicator, including training and/or passage of the core exam.
- Added responsibilities for certified applicators supervising a noncertified applicator applying RUPs, including being certified in the category of the application being performed by the non-certified applicator, and being available for direct communication, either on site or via cellphone, two-way radio, or other mechanical device.
- Commercial applicators will be responsible for maintaining training records of non-certified applicators for 2 years.
- Standardizing requirements for certification exams, including the requirement of a proctor and mandating all exams be closed book, in addition to identification procedures.
- Instituting standard based recertification requirements for commercial applicators every 3 years, including 6 CEUs for core application and 6 CEUs per specific category. Applicators must earn half of the required CEUs in the 18 months preceding expiration.
- States will be required to provide information about state requirements and procedures for reciprocity.

Under the current Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) structure, the standards set forth are the minimum requirements a state must implement. In some states many of the above changes are already mandated. EPA specifically noted this fact and has proposed the heightened standards to provide a more unified regulatory scheme under FIFRA. States that are below the proposed minimum standards will be required to raise the minimum standards in their state plans.

The most important thing for Pest Management Professionals (PMPs) to note is that even though the above changes to the federal regulations only apply to persons applying restricted use pesticides or persons working under their direct supervision, each of the fifty states will need to alter their certification and training laws and regulations to come into compliance with the federal requirements. In almost every case, the changes to the state laws and regulations will impact the use of general use pesticides by PMPs.

The proposed rule has not officially been published in the federal register to date. When it is officially published there will be a 90 day public comment period. The proposal provides for a delayed implementation if the rule is finalized, of up to four years for existing state certification plans.

To see a copy of the proposal and more information about certification for pesticide applicators:

[Click Here.](#)

To see a comparison reference chart created by the EPA outlining the changes in the proposed rule:

[Click Here.](#)

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Applying Fire Ant Baits During the Fall

Kelly M. Loftin

Hopefully, you are not having fire ant problems at this time but, if you are... Is the application of fire ant baits during the fall effective? With a few precautions, the answer is yes. As long as temperature does not get too cool, baiting fire ants is effective. A good rule of thumb would be to apply fire ant baits prior to October 15. However during some milder falls, bait applications can be effective after that date. Fire ant baits should be applied when soil temperatures are 60°F or above. When in doubt, determine if fire ants are actively foraging. Foraging activity is easily evaluated by placing small pieces of hot dogs or greasy potato or corn chips in the area you plan on treating. Leave this attractive material out for fifteen to thirty minutes and then check. If this material is covered in fire ants you know that they are actively foraging and application of a fire ant bait should be effective.



Active red imported fire ant colonies following a rain.

Fall is an excellent time to control imported fire ants in your home garden especially if you plan on using the insect growth regulators (IGR) methoprene (Extinguish) or pyriproxyfen (Esteem). Baits containing an IGR generally take longer to achieve the desired results, however if any of these baits are applied now, control will occur prior to gardening next spring. For gardeners desiring organic baits, products containing spinosad (Fertilome "Come and Get It") and methoprene (Extinguish) are the products of choice. Be sure to read and follow label guidelines.

A wider variety of baits are labeled for use around the home or other non-agriculture sites. Those mentioned above are approved for use in residential and recreational turf as well as baits containing hydramethylnon, and indoxacarb. Baits containing indoxacarb (Advion) or metaflumizone (Siesta) are generally quicker in achieving desirable control. With indoxacarb bait applications, foraging activity is significantly reduced two days post-application



Foraging red imported fire ants on a hot dog.

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and colonies controlled from two to seven days post-application. Older bait formulations such as Amdro (hydramethylnon) and Extinguish Plus (hydramethylnon and methoprene) are still very effective and easy to locate but may require a few weeks to achieve control.

Livestock producers have four fire ant bait products from which to choose. Extinguish (methoprene), Amdro Pro (hydramethylnon), Extinguish Plus (methoprene and hydramethylnon) and Esteem (pyriproxyfen) are all labeled for use in pastures. Extinguish and Esteem are IGRs; Amdro Pro is a slow acting toxin; and Extinguish Plus is a combination of a slow acting toxin and an IGR. Products such as Amdro Pro and Extinguish Plus provide control within about 3 weeks. The IGRs, Esteem and Extinguish, will usually provide control within a couple of months.

Should you treat individual mounds or broadcast bait over the entire area? The best answer is to broadcast if colony density is twenty or more per acre. If less than twenty colonies per acre are present, then treat individual colonies. When baiting individual colonies remember do not apply directly to the mound, instead apply uniformly from one to three feet around the base of the mound. Also, never disturb the mound prior to treatment.

Can fire ant baits be used indoors? Usually a good bait application outside and particularly around the structure's perimeter will provide the control necessary to prevent fire ants from foraging indoors. However, Amdro Pro, Extinguish and Extinguish Plus can be used inside structures but only under very specific circumstances. These three products are labeled for use ONLY in inaccessible areas such as cracks, crevices, wall voids, unfinished attics and crawlspaces of structures such as homes, commercial residences, commercial buildings and warehouses. Please consult the label for more detailed information on indoor use.

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Fire Blight: A Bacterial Disease Affecting Members of the Rose Family

Sherrie E. Smith

Fire blight, caused by the bacterium *Erwinia amylovora*, attacks all members of the rose family, with the exception of the stone fruits. Pears, apples, crabapples, cotoneaster, quince, hawthorn, photinia, spirea, pyracantha, roses, blackberry and raspberry are all hosts for Fire blight. Raspberries and some cultivars of blackberries are very susceptible. Fire blight is not a serious problem in blackberries during most seasons because the damage is removed during normal pruning. However, primocane blackberries that bloom more than once have a greater chance of infection when the environment is right for disease development.

Losses occur from flower and fruit blast, and from tip dieback of primocanes. The tips of infected canes turn black and bend over, giving a “shepherd’s crook” appearance. Infections may progress downwards for more than 8 inches. Whole canes may be blighted when the cultivar is extremely susceptible and environmental conditions are favorable for disease. Fruit clusters become infected at bloom. The stalks of the fruit clusters turn black and the young berries become brown to black, dry and become hard.

The strain of *Erwinia amylovora* that attacks brambles is different from the one that attacks pears and apples. Therefore, the strain that attacks apples and pears will not infect raspberries and blackberries and vice versa, with the exception of “Boyne” raspberries that can be infected by the apple strain. Fire blight is spread primarily at bloom through insects, wind, and splashing water. Rain or overhead irrigation, high humidity, and day temperatures of 75-85°F and night temperatures above 55°F favor the disease.

Management consists of pruning out the damage as soon as it is noticed, cutting 6-8 inches below the infection. Dip pruners in a 10% bleach solution (one cup bleach to 9 cups water) between cuts. Avoid working in the berries when the foliage is wet as this may help spread the Fire blight. Lime sulfur applied during the dormant season, (dormant only) may be helpful. Some copper fungicides are labeled for use on blackberry for a different bacterium (*pseudomonas*), but do not specifically address Fire blight in cane berries.



Blackberry Fire blight, *Erwinia amylovora* by Sherrie Smith University of Arkansas Cooperative Extension



Raspberry Fire blight, *Erwinia amylovora* by Sherrie Smith University of Arkansas Cooperative Extension

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Name That Weed

Bob Scott

This member of the Amaryllis family (Amaryllidaceae) ranges from southern North America through the Caribbean and Central America and northern South America. North America is home to 19 species of this family with 2 being found in Arkansas. In Arkansas this wild flower is found along the central Arkansas River Valley, in the Grand Prairie of southeastern Arkansas, and in the Coastal Plain along the border with Louisiana. It is absent from the Ouachita and Ozark mountains. Outside of Arkansas it is found in Louisiana, eastern Texas, southeastern Oklahoma, and is rare in Mississippi and Alabama. This beautiful plant can be a weed if it interferes with waterways or minnow/fish ponds. Be the first to email me at bscott@uaex.edu with the correct common name for this weed and win a prize.



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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