

BUG BIZ



PRESIDENT'S MESSAGE

Hello CPCA Members,

I hope that everyone is getting charged up for the spring season. I am honored to serve as association President this year. I am looking forward to serving you in any way that I can, beginning with this newsletter. This newsletter includes a few updates to help you make the best of your membership.

The recent Train-A-Tech program, held on March 18, was a complete success. If you haven't taken advantage of CPCA's educational training opportunities, I encourage you to do so. We will be hosting an educational event this Fall, and will provide more details as we receive them. Outside of the CPCA trainings, I would recommend that you consider attending NPMA's Academy, July 15-17 in Lake Las Vegas. This event is focused on business and operations and this year's event will spotlight leadership and management strategies.

I'd also like to use this space to remind you of the numerous benefits you receive as a CPCA member. Most recently, CPCA members have access to free human resources consulting, a complimentary OSHA Toolbox and an online forum where you can seek solutions from other PMPs to challenges that you are facing. For the most up-to-date list of benefit programs, visit www.cpcaconline.net

I look forward to serving as your President. If you have any suggestions, comments or ideas on ways that we can continue to grow CPCA and represent the industry, please don't hesitate to let me know.

Sincerely,
Emilio Polce
CPCA President

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**Save the Date for
Academy 2015**

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Henderson, Nevada

Stay tuned for more details!

BUG BIZ is a bi-monthly publication of the Connecticut Pest Control Association(CPCA). For advertising information, call CPCA at (800) 678-6722 or e-mail cpcap@pestworld.org.

Free Online Pollinator Health Training Now Available for Your Team

Over the last year, the landscape regarding pollinator issues has changed dramatically and honey bees and other pollinators have moved to the forefront. In response, NPMA developed a Pollinator Awareness Training module to give you a baseline of knowledge about pollinators and the issues surrounding them. This online training explores:

- Who are the pollinators and why they matter
- The threats to pollinators (with a focus on honey bees)
- New label language and how it affects exterior applications of neonicotinoids
- How to effectively communicate the facts to your customers

To begin, log-on to the NPMA Online Learning Center at pestworld.learningzen.com and take the **Pollinator Awareness Training**. This course will take approximately 25 minutes to complete, plus additional time to finish the quiz. This training is free for members, and upon successful completion, you will receive a certificate. Visit My.NPMA.PestWorld.org to download customizable pollinator materials.

Evaluation of Fungal Spores Against Bed Bugs

Over the last decade there has been a growing interest in the use of biological control agents against structural insect pests. A group of scientists from University of Maryland-College Park and USDA, led by Kevin Ulrich, recently evaluated the use of fungal spores, *Metarhizium anisopliae*, against the bed bugs, *Cimex lectularius*, in the lab. The entomopathogenic spores, which have been effective against other true bugs, were introduced to the pyrethroid-susceptible bed bugs in a variety of ways, including feeding, contact, and by aerosol spray. Unless humidity levels were exceptionally high (98%), the only delivery method that effectively caused mortality was ingestion, when spores were mixed with a blood product and fed to bed bugs. Ambient humidities in structures are typically much lower than that so the authors of the study concluded that *M. anisopliae* is not an effective control strategy, at least not in the ways tested in these experiments. However, previous studies have shown another fungus (*Beauveria bassiana*) to be effective against bed bugs.

This research was published in the most recent volume of the Journal of Economic Entomology under the title, "Exposure of Bed Bugs to *Metarhizium anisopliae* at Different Humidities".

We Want to Hear from You!

We are always looking for fun and interesting articles to include in the *Bug Biz* and would love to hear from members about their experiences out in the field. *Bug Biz* welcomes contributions from members. If you would like to contribute, please submit articles typewritten by mail or e-mail to the contact information listed below. Photos should be submitted via e-mail. Be sure to include your name and identify all people shown in the photo. Deadline for submissions is the 10th of each month. The editor reserves the right to edit all submissions for length and content. The *Bug Biz* is a bi-monthly publication by the Connecticut Pest Management Association (CPCA). Views and opinions expressed in editorial articles are not official expressions of the CPCA unless so stated. Send advertising and editorial inquiries to:

CPCA *Bug Biz*
10460 North Street
Fairfax, VA 22030
P: (800) 678-6722
cpca@pestworld.org

Call for Nominations: NPMA Young Entrepreneur Award



NPMA is currently accepting nominations for the annual Young Entrepreneur Award, presented by Rentokil Pest Control, recognizing young entrepreneurs (40 years of age or less) working in the professional pest management industry who have helped create or develop an industry business and/or those who have stewarded a meaningful industry concept to fruition. Visit www.npmapestworld.org for more details on requirements and to submit a nomination.

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PWIPM Now Accepting Nominations for the Professional Empowerment Grant

PWIPM is accepting nominations for their annual Professional Empowerment Grant. This grant will be awarded to one female who is interested in advancing or securing a career in pest management. This grant may be used by the recipient to defer costs related to advancing their career or education in the pest management industry. The grant will be a minimum of \$1000. It also includes \$500 towards travel expenses to attend the National Pest Management Association's PestWorld in Nashville, TN in October 2015. The Professional Empowerment Grant will be awarded during the Professional Women In Pest Management reception at PestWorld. The successful recipient(s) will be notified by September 1, 2015.



For more details on submitting a nomination, please visit www.npmapestworld.org.

Oriental Cockroach

The oriental cockroach, *Blatta orientalis*, was introduced to Connecticut decades ago and has managed to persist since then. You may not often encounter Oriental cockroaches, but being able to identify and understand them can be quite helpful when you are inspecting a structure. Oriental cockroaches have a uniformly dark brown body and pronotum and an overall greasy sheen to them. Females (1.2") of this robust species are slightly larger than males (1"), but wings are the best way to tell males and females apart; males have $\frac{3}{4}$ length wings, while females have only wing pads. Given the reduced wings, it is no surprise that oriental cockroaches can't fly. The length of the wings is a useful feature to help separate this species from other cockroaches that you may encounter.

This species is unique as it prefers to live in cold and damp environments. Oriental cockroaches are usually found at or below ground level and are common in basements, sewers, crawlspaces, and outdoors in dumps, mulch, animal enclosures, and under wood. These environments offer decaying organic matter and biotic slime that these roaches love to eat. They also don't have a lot of competition from other insects in these cold places. Oriental cockroaches are poor climbers and have a sluggish disposition in

general. This may be attributed to the cold and damp environments in which they live, because insect activities levels are generally lower at colder temperatures. In addition to being inadvertently carried into homes in bags and boxes, these cockroaches often gain entry to structures through doors, windows, service ducts, and structural cracks and crevices.

Adult oriental cockroaches usually do not live more than a half year. However, this does not mean that this is a short-lived species. Due to living in a cold environment, development is slow, taking a year or two for an oriental cockroach egg to develop into an adult. Oothecae are reddish brown to black, less than a 0.5" long, have only 8 segments (containing 16 eggs), and are dropped or glued in areas where they are protected by debris.

Oriental cockroaches can harbor a variety of food-borne pathogens, in addition to the usual problems caused by having pests in the home. A combination of moisture reduction, sanitation, harborage removal and chemical control strategies is the best approach to controlling an infestation of these cockroaches. Their preferred habitat may keep them out of sight for homeowners, but be on the lookout for oriental cockroaches when you're inspecting a structure.

NRDC Sues EPA Over Demise of Monarch Butterfly Population

NBC News

An environmental group recently sued the U.S. government, accusing regulators of dragging their feet on efforts to save the declining monarch butterfly population. The Natural Resources Defense Council filed suit against the Environmental Protection Agency in U.S. District Court in New York. The suit claimed the agency has failed to heed warnings about the dangers to monarchs posed by glyphosate, the key ingredient in a widely used herbicide. Glyphosate is used in Monsanto Co.'s Roundup and other herbicides. The NRDC said EPA has failed to respond to a petition filed more than a year ago to limit the use of glyphosate. "The longer EPA delays, the greater the risk we could lose the monarch migration," Sylvia Fallon, an NRDC senior scientist and director of its Wildlife Conservation Project, said in a statement.

Federal law requires EPA to ensure that pesticides it approves will not cause "unreasonable adverse effects on the environment, including wildlife," the lawsuit states. "However, the agency has never considered glyphosate's impacts on monarchs."

The EPA said in a statement issued to NBC News that the science surrounding what's killing off the butterflies is still evolving and there could be multiple factors at play, including loss of habitat, weather and pesticides. "EPA is taking a number of measures to protect the monarch butterfly and other pollinators. With regard to pesticide exposure, EPA is looking holistically at all herbicides, not only glyphosate, to determine the effects on monarchs and resources critical to butterfly populations," the agency said.

The U.S. Fish and Wildlife Service earlier this month pledged \$3.2 million to help save the monarch butterfly. The orange-and-black spotted monarchs are renowned for migrating thousands of miles over many generations from Mexico, across the United States to Canada, and then back again. They have seen their numbers fall precipitously in recent years, according to the Center for Biological Diversity. The lawsuit states that the monarch population was tallied at 1 billion in 1997 and this winter was down to 56.5 million butterflies, the second-lowest number ever measured.

Warehouse Beetle

The warehouse beetle, *Trogoderma variable*, is a very important pest of stored grain products worldwide. Adults are about 1/8 inch long, rounded, brownish-black insects, with a variable mottled pattern of lighter brown small scales on their back. It often requires an insect identification expert to correctly separate this species from similar pest beetles, which is why it's a quarantined pest in many countries.

These tiny beetles feed on a wide range of organic material, from grain, flour, pet food, and dead insects to pasta and even pollen. Warehouse beetles develop from egg to adult in about 35–40 days and are one of the most heat-tolerant of the common grain-infesting pests. Each larva sheds its skin (molts) five or six times, and each cast skin has more than 3,500 tiny setae, which are like tiny, stiff hairs that break off

easily and can cause irritation on contact with human skin. Adult warehouse beetles can fly fairly well, so where they are found may not indicate the breeding/feeding source of the infestation. To control this pest, your pest management professional will do a careful survey to detect, and then discard infested foods and other items. When needed, a properly labeled insecticide will be precisely applied to limited target spots near the infestation.

Remember that these pests can thrive in dry pet foods and sometimes even in stored bird seed. Recently developed pheromone products are currently available to pest management professionals to assist in surveillance. Tackling this beetle can be daunting so let the professionals handle proper identification and treatment!

Norway Rats

Rats. The word alone conjures up fears of scratching sounds coming from inside walls, filthy alleyways, and disease. The Norway rat, *Rattus norvegicus*, is a large, robust-bodied rodent that is considered the most important pest rat in Connecticut and across much of the world. From nose to tip of the tail, which is short in relation to the body, this rat averages 15" long and weighs 12 ounces. However, there have been Norway rats captured that have reached 19" long and weighed 28 ounces!

Fur ranges in color from reddish brown to dark gray and due to high variation, fur color is not a reliable way to tell one rat from another. Norway rats have small ears but have excellent sense of hearing, tasting, touch and smell, and although their eyes are prominent, Norway rats have a poor sense of sight and are color blind. Rats are what is called 'crepuscular' creatures, which means they are active around sunset and sunrise, but not during the day or the middle of the night. Norway rats are exceptional leapers, runners, swimmers, and are capable of climbing pipes, bricks and tree trunks.

Contrary to its name, the Norway rat is originally from eastern Asia but was readily spread by human movement over the last few centuries. The Norway rat is especially adept at living with humans and thrives in urban and rural settings. In fact, the way

that a rat behaves is strongly tied to the type of environment in which it is living. This makes it difficult to describe rat behavior in a straightforward way. In general, Norway rats dig burrows into soil to use as safe havens and nesting sites. In a city, these rats exploit cracks, crevices, and holes in streets, sidewalks, and building foundations to use as burrows. Holes as small as 1 inch across may be enough to allow these rats to enter and exit burrows! Norway rats have a fast reproductive cycle; females can produce nearly 40 offspring per year over 4 litters.

Rodents transmit disease, damage property, and cause emotional distress; three important reasons why PMPs are called on to snuff out infestations. Managing rodent infestations is usually a combination of exclusion (sealing up places that allow rats to come in and out of a structure), limiting/removing food (omnivorous diets provide a lot of opportunity) and water (Norway rats must take water daily), trapping, and baiting. Thorough inspections are essential, look for capsule-shaped droppings (0.75–1"), evidence of gnawing and nesting, and even 'grease' trails that form in trafficked areas.

Norway rats are intelligent and complex creatures, and successful control efforts require you to be familiar with the intricacies of their biology and behavior and to use your knowledge against them.

Paper Wasps

You may notice some unwelcomed guests inside your house in the next few weeks, especially around windows and doors. Wasps! If you observe wasps in your home, you will see that they are most likely sluggish and even a bit disoriented. There is good news and bad news in this situation. The good is that the wasp has no interest in harming you and just wants to find its way outside.

The bad news is, this particular wasp is a queen that already mated in the fall and is looking to start a new colony, probably on the exterior of your home. Of

course, it's not in your best interest to let that happen. Paper wasp nests are very common and pretty easy to identify. They are usually constructed on the underside of eaves, external air conditioners, structural corners and window sills. Paper wasp nests are made from chewed wood pulp, plant matter and saliva and do look like they were made from grey and brown paper. The nest is connected to the structure by a small stalk and hangs down, umbrella-like with many cells visible. Paper wasps are capable of delivering a painful sting and should be regarded as dangerous. Don't risk your health, or the health of your family.

Women of Excellence



NPMA is now accepting nominations for the annual Women of Excellence Award, sponsored by Target Specialty Products.

The international honor is open to women across the pest management industry - PMP's, manufacturers, research organizations, etc. -

who demonstrate outstanding leadership and have made notable contributions to the development and growth of the profession, their business, and other women in the industry.

Award nominations are due by Aug. 29, 2015 and the recipient will be recognized at PestWorld 2015, Oct. 20-23 in Nashville. Visit www.npmapestworld.org to view requirements and to submit your nomination.

Saving America's Pollinators Act Reintroduced in U.S. House of Representatives

On March 4th, Representatives John Conyers, Jr. (D-MI) and Earl Blumenauer (D-OR) reintroduced the Saving America's Pollinators Act of 2015 H.R. 1284, which requires the Administrator of the Environmental Protection Agency (EPA) to suspend the use of certain insecticides, known as neonicotinoids, until the agency can review the registration and declare that such insecticides do not cause adverse effects upon honey bees and other pollinators.

The Saving America's Pollinators Act directs the EPA Administrator to suspend the registration of certain neonicotinoids – such as imidacloprid, clothianidin, thiamethoxam, dinotefuran – and any other members of the nitro group of neonicotinoid insecticides for use in seed treatment, soil application, or foliar treatment on bee attractive plants, trees, and cereals until a determination has been made that such insecticides will not cause adverse effects on pollinators based on an evaluation of peer-review scientific evidence and a completed field study.

The bill also requires the Secretary of the Interior, in coordination with the EPA Administrator, to regularly monitor the health and population status of native bees and identify the scope and likely causes of unusual bee mortality.

H.R. 1284 is essentially the same bill as H.R. 2692, which was introduced in the 113th Congress by Rep. Conyers and Rep. Blumenauer on July 16, 2013. H.R. 2692 was referred to the Agriculture Committee and in August of 2013 H.R. 2692 was referred to the Agriculture Subcommittee on Horticulture, Research, Biotechnology and Foreign Affairs, which has jurisdiction on FIFRA related legislation. No further action was taken on H.R. 2692 during the 113th Congress.

H.R. 1284 has been referred to the House Agriculture Committee, and is expected to be referred to the Subcommittee on Biotechnology, Horticulture and Research, which will have appropriate jurisdiction.



Connecticut Pest Control Association
 10460 North Street
 Fairfax, Virginia 22030
 (800) 678-6722
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	F	\$5,000,001-10,000,000	\$3,025
	G	\$10,000,001-15,000,000	\$4,675
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I hereby apply for membership in the CPCA/NPMA and if accepted, agree to comply with the Constitution Code of Ethics and other policies of the association. I understand that membership does not become effective until notified. I also understand that the use of the CPCA and NPMA logos prior to the approval would disqualify my application.

Signature: _____ Date: _____

Please enclose the application with proper remittance to: Connecticut Pest Control Association, 10460 North Street, Fairfax, VA 22030 or fax to (703) 352-3031. For questions or concerns about your joint membership, please contact CPCA at 703-352-6762 or cpa@pestworld.org.