THE ALLIANCE QUARTERLY

Greater Chicago Pest Management Alliance

GCPMA

Serving Pest Management Professionals Since 2004

2020

Summer Edition

PRESIDENT'S MESSAGE:

Star Date May 8th: It's crazy to think that my last President's message was dated February 17th and in not even 3 months' time, all of our lives have been turned upside down.

First, I want to say that I hope every one of you, your family, and friends are healthy!

Our business has yet again proven that we are a vital part of protecting the public health. We are more than a cohort of bugman and woman, but a legion of bodyguards and defenders. We safeguard our customers whether they are homeowners battling emerging ant trails in their kitchens, restaurateurs from foodborne pathogens, or hospitals that still have bed bugs calls in their ERS. **We are an essential business.**

Although we are all still on the road, we can't deny that the business has changed. We have all needed to make modifications for how we conduct ourselves in our offices and with our customers. That could mean only exterior services, adjusted schedules, the additional PPE for our employees, changes in our behavior and how close we get to each other, office staff at home balancing work and childcare.

It all seems tragically...never ending. But our priority is to keep focused with our goals in mind and not stray from our paths. Hopefully we all make it to the other side stronger. So again, we are so proud of all of you for your dedication and persistence out there.

Although GCPMA cancelled its June seminar, please be on the lookout as we start a CEU webinar series in a few weeks. We don't know what will happen, but we know that GCPMA will continue to be there for your education needs. More info to come.

P.S. be sure you are prepared to discuss the Murder Hornet with your customers. It has caused quite a stir online, giving Tiger King a run for his money!

I always end with "Be safe out there, go forth and prosper!" and today it has never felt more relevant!

Sara McGuire

INSIDE THIS ISSUE

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The WILD Life

BY JANE PEIFER, *Ampest Exterminating & Wildlife Control*

Why Bats Are Breeding Grounds For Deadly Diseases Like Coronavirus, Ebola & SARS

We keep hearing about bat-borne viruses, outstanding in their viral and destructive powers. Most recently, some scientists have laid the blame for the coronavirus epidemic on the furry, winged creatures. **What makes them such hotbeds of deadly disease?**

Bats are responsible for some of the most fear-inducing zoonotic viruses — those that spread from animals to humans — in recent memory. Ebola, SARS, Marburg, Nipah and more have been traced to the world's only mammal capable of sustained flight. A new study suggests that their unique niche in the animal kingdom may be responsible for this viral track record.

Essentially, some of the same adaptations that let bats take to the skies also endowed them with a high-functioning immune system. That powerful immune response thwarts invading viruses, driving them to adapt more rapidly than they would in other hosts. This tends to produce viruses far deadlier than the pathogens found in other creatures. So, when one of them does leap to humans, the consequences are often alarming.

Previous studies have shown that bats host more zoonotic diseases and that the fatality rate in humans for those diseases is higher than for viruses from other animals.

But until now, research has yielded few insights into why bats are a breeding ground for dangerous viruses. Cara Brook, a postdoctoral fellow in the Glaunsinger Lab at the University of California, Berkeley, and her colleagues concluded that the bat immune system — and the relentless viruses it breeds — are side effects of the way they evolved to take to the skies.

To diverge from their earth-bound ancestors, bats had to develop not only wings, but also a metabolic rate far higher than that of tiny terrestrial mammals.

In any other animal, especially such a small one, this would come at the cost of a shorter lifespan, because elevated metabolic levels produce more cell-damaging free radicals.

It seems they've found the ultimate anti-aging serum in a set of physiological pathways that reduce stress to their bodies, repair DNA damage and tamper inflammation, allowing them to live up to 40 years. Other similarly sized mammals might live just a few years.

Their robust defenses mean that bat cells have effectively walled themselves off from viruses. But that doesn't mean the viruses disappear. Instead, they linger, existing within the bat for perhaps its entire life and replicating at a speed not seen in other species. Thus, were born some of the fiercest diseases of our time.

When these bat-hardened strains spill over into human populations, they often wreak more harm on our bodies than those from other sources. As research begins to explain their unique potency, Brook hopes to find ways to predict which species are likely to produce the worst epidemics.

Even as she acknowledges bats' threat to public health, Brook is careful not to demonize the creatures. She notes that outbreaks of diseases originating in bats seem to be growing more common as humans encroach upon their habitat, stressing the animals and causing them to shed more saliva, urine and feces, which contain viruses. She argues that conservation could benefit both our species and bats at one stroke.

"It's really easy to get into this climate of seeing bats as kind of an incubator for these terrible infections," she says. "I do believe that bat-borne viruses pose threats to human health, but I think those threats can be mitigated in ways that involve protecting these populations in the wild."

Researchers note that despite the fact that bats carry coronaviruses, we shouldn't respond by harming or culling of bats in the name of public health. There's abundant evidence that bats are important for ecosystem functioning, whether it be for the pollination of flowers, dispersal of fruits, or the consumption of insects, particularly insects that are responsible for transmission of different diseases to humans. The good they do for us outweighs any potential negatives.

CALL FOR AWARD NOMINATIONS

The 10th International Integrated Pest Management (IPM) Symposium will be held March 15-18, 2021 in Denver, Colorado, USA.

The 2021 International IPM Achievement Awards recognize people who have made outstanding achievements in IPM adoption, implementation, and sustainability.

There are five award categories:

- Lifetime Achievement
- IPM Practitioner – Academic
- IPM Practitioner – Non-academic *(New this year!)*
- IPM Team/Group
- Graduate Student

This year, winners will have the opportunity to submit an article at no cost to the Journal of Integrated Pest Management. At the same time, winners will be invited to present their award-winning story during one of the many symposia sessions. Winners will receive their award recognition at the opening plenary session of the symposium on Monday evening.

The nomination deadline is June 12, 2020, and winners will be notified in August 2020. To apply or learn about the specific criteria for each award, visit ***ipmsymposium.org/2021/awards***.

FIVE RESTAURANT INSECT HOT SPOTS TO TREAT

CONTRIBUTED BY *ZOËCON*

Not only do kitchen pests threaten a restaurant's reputation, they also pose a number of health risks for both employees and customers. From the kitchen sinks to the dining patio, restaurants offer numerous hot spots for pests to seek harborage and it's essential to treat and inspect these areas to ensure that restaurants are protected against insect infestations and potential fines.

KITCHENS

Kitchen infestations present a number of challenges for pest management professionals. German cockroaches, drain and fruit flies, and other kitchen pests can hide in the many nooks and crannies found in a commercial kitchen. Restaurant and bar owners often overlook the numerous drains which require regular cleaning and inspection. Both floor drains and sink drains can build up organic material, which creates a perfect breeding ground for small flies.

BATHROOM

Bathrooms can be another insect hot spot in restaurants. Cockroaches thrive in dark, damp places such as bathroom drains. Remind owners practicing proper sanitation is essential in preventing a roach infestation. Routinely cleaning up after leaky faucets where water tends to pool is an easy but crucial step owners can take to help reduce roach attraction to water sources. Once proper cleaning has been done, PMPs will be in a good place to begin treatment.

EXTERIOR AREAS

In addition to practicing proper maintenance and cleaning protocols, encourage owners to make repairs around the exterior of their restaurant to address any insect entry points. Ants and other crawling insects can creep into restaurants through any small structural hole or gap. Patching up and sealing damaged window screens, door sweeps and seals around foundations can help prevent pests from sneaking inside during the hot summer months. For a crack-and crevice treatment, choose a product with a long residual and apply the solution at entry points such as doors, window casings, and eaves.

PATIOS

With the arrival of the warmer weather, guests look to enjoy a meal on outdoor patios. But, with outdoor eating comes unwanted outdoor guests like house flies and ants. These pests will quickly pick up on the presence of food nearby and annoy customers. In addition to targeted insecticide treatments, encourage owners to wipe down exterior furniture and the patio floor to prevent future infestations.

TRASH DUMPSTERS AND GARBAGE

House flies are also attracted to decaying matter, especially in and around garbage cans and dumpsters. Remind owners to make sure that all trash cans are tightly sealed and placed as far from the restaurant entry points as possible.

To achieve the most effective control of pests for restaurant accounts, it is important to inspect and treat each insect hot spot to prevent callbacks. Effective control is easy with the family of products from Zoëcon. For kitchen pests, the active ingredients found in the Gentrol® line are tough on German cockroaches, drain and fruit flies, and other pests, yet sensitive enough to be used in restaurant accounts.

IT'S TIME TO TALK ABOUT THE BIRDS AND THE BEES AND IGRs.

COMPARISON CHART	HYDROPRENE (GENTROL®)	PYRIPROXYFEN	NOVALURON
• Broad spectrum control includes cockroaches, drain and fruit files, and bed bugs	✓		
• Translocates to reach pest harborages	✓		
• Increases gel bait consumption in adult female cockroaches and nymphs	✓		
• Low odor and non-repellent	✓	✓	✓
• Long-lasting residual activity	✓	✓	✓
• Use in food and non-food areas	✓	✓	✓

KILL CALLBACKS BY PREVENTING FUTURE GENERATIONS.

50 YEARS ZOËCON OF INSECT CONTROL

A LEGACY OF CONTROL.

Go to **ZOECON.com** for the full story

6 PEST MAINTENANCE TIPS TO SERVICE ACCOUNTS

CONTRIBUTED BY *CATCHMASTER*

Even without access to customers' homes there are steps to maintain pest maintenance. Certainly nothing replaces getting access to a commercial or residential account. However, pest maintenance helps you bridge the gap. Undoubtedly, this shows your customers value once access returns.

- **Provide glue boards to your customers along with instructions on where to place them.** Hot spots include kitchen sinks, attached garages or basements. Not only does this help ward off unwanted invaders, you now have a blueprint for how to service once you have access. Pro tip – if you have extra office time get started with private labeling. *Here is an article on some of the benefits of private labeling: catchmasterpro.com/blog/private-label-pest-products-your-marketing-secret-weapon/*
- **Conduct a thorough exterior inspection.** Let your inspection dictate your schedule to systematically address identified issues either immediately or over time. Even if your customers do not move forward right away it provides a road map for continued service when things eventually return to business as usual. Perform proactive exclusion services. *Here is an article that identifies some external hot spots: catchmasterpro.com/blog/top-5-areas-for-exclusion-around-the-home/*
- **Consider your exterior trapping options.** Use weatherproof snap traps like our 605 Easy Set Snap Traps in bait or trapping stations around the perimeter of homes to head off pests. Additionally, our 611 Dual Action Twin Catch is a great tool to install in sheds and attached garages. The trap heads off both crawling insects & unwanted rodents.

DON'T FORGET THE MOSQUITOES!

- **Offer Mosquito Services.** Install and monitor our Ovi-Catch Mosquito Trap around your client's property as well as treating exterior landscaping with Final Feed Mosquito Bait. *If you are new to offering mosquito services here is an article for getting started: catchmasterpro.com/blog/get-in-the-game-of-mosquito-control-with-a-dynamic-mosquito-reduction-program/*
- **Even if you can't offer mosquito services that doesn't mean you can't help your customers get ready for the season.** *Here is a shareable article with some steps they can take for getting their yard ready: catchmasterpro.com/blog/10-mosquito-prevention-tips-for-your-yard/*
- **Consider offering fly trapping products like SilenTrap and GloStik to your customers.** These fly products are great to use in homes, especially now when the weather is turning nice and doors and windows are open. Both products are small, portable, economically priced and work great at removing flying pests that that make their way in with the fresh air. Additionally, both have replaceable glue boards that require changing all season long.

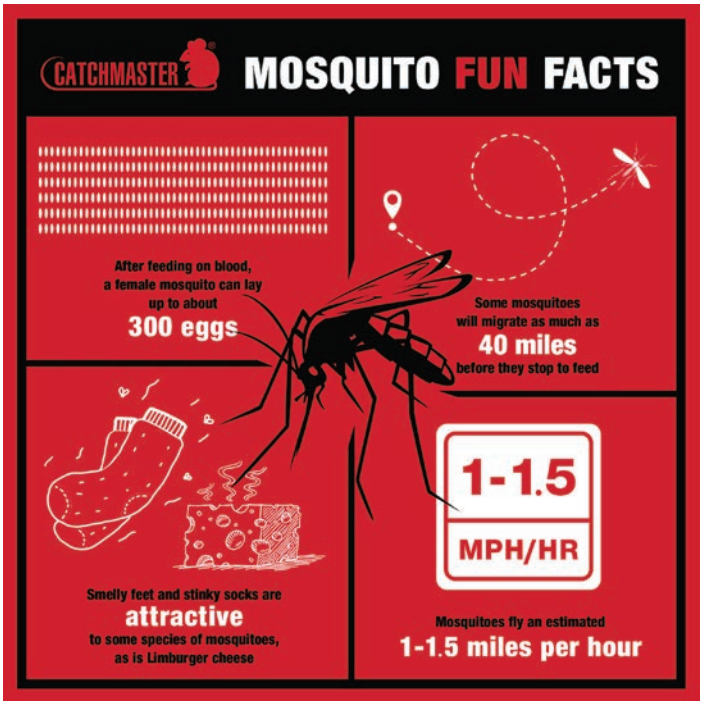
Undoubtedly, nothing replaces a thorough inspection as part of your IPM plan. However, even without a thorough internal inspection there are plenty of steps you can take to keep lines of communication open with your customers. Building up goodwill can go a long way once business returns to normal.

PEST MAINTENANCE – ADDITIONAL RESOURCES

Get more content like this daily when you follow us on Facebook: *facebook.com/catchmasterPRO/*

Sign up for our mailing list: *catchmasterpro.com/join-email/*

Learn more about mosquitoes from the National Pest Management Association: *pestworld.org/pest-guide/mosquitoes/*



PESTS SET TO FLOURISH DURING THE CORONAVIRUS OUTBREAK

CONTRIBUTED BY *PELGAR*

Pest control is already on the front line of public health around the world; given the situation we now find ourselves in it could prove even more essential. The closure of schools, pubs, restaurants, hotels, tourist attractions and other public places to enforce social distancing will have unintended consequences.

Animals are always quick to adapt and, as a result, we anticipate that many pest species will flourish as a direct result of these necessary global measures.

Our general day-to-day activity keeps many pests at bay in our work and leisure environments; pests generally prefer to keep away from human contact and infestations are quickly spotted and dealt with.

However, the complete closure of many premises means that pest technicians may no longer have access to continue existing pest control plans or deal with a rise in infestations. If pests have adequate food and water within these building populations will quickly escalate.

If food and water are in short supply inside those buildings, pests will disperse in search of them. The lack of public social movement, added to a decrease in cleaning and grounds maintenance will also embolden pests which are normally keen to keep out of sight, enabling them to flourish. We should expect therefore to see an increase of pests like rats on our streets in search of easy food from litter and bins. This is already happening in some areas; New Orleans for example are already stepping up their baiting programme to combat this issue.

Within our own homes we may see an increase in mice, ants and flies as they too profit from our reduced movement. Ensure you continue to keep your homes and gardens tidy and your rubbish in bins to discourage pests.

Governments around the world are united in ensuring that basic sanitation will continue as an essential service throughout this period. In the USA pest control has been highlighted as an essential provision. In the UK pest control manufacturers and technicians can continue to work as 'keyworkers' in the sector of public health and hygiene, but whether many will depends upon their own circumstances and preferences.

Some may not be able to access premises they routinely manage whilst others will. Some may continue to provide a domestic service whilst others may have vulnerable family members they would prefer to protect. Companies and technicians must balance the needs of pest control against the safeguarding of their customers, staff and families; that is not a blanket decision that the industry can make but one for individual consideration.

Whatever the outcome of those decisions, we must be aware that pests are not constrained by our social distancing measures and will flourish in our absence.

MAINTAINING YOUR SPRAY TANKS

BY GREG STROHL, *PEST MANAGEMENT SUPPLY*

Most chemical pesticides that we use are water-based formulations. While this reduces the amount of harmful petroleum- based solvents and is more environmentally friendly, the unfortunate consequence is that there is a greater chance that algae and other bacteria will grow in your spray tank.

During the warmer parts of the year, algae spores and bacteria are everywhere in the environment and will contaminate water if nutrients such as nitrogen, calcium, magnesium and iron are available. Combined with sunlight and heat, algae and bacteria contamination can become a problem in spray tanks leading to odor complaints and residues that can cause problems in application.

To reduce the algae and bacterial growth, regular equipment maintenance should be established. A shock treatment may be necessary to control existing algae or bacterial growth. Following the shock treatment, regular monitoring and maintenance are necessary in order to prevent contamination.

Shock Treatment Cleaning should be conducted periodically during our pest control season to keep your tank algae and bacteria free.

Safety First — Always wear proper PPE when cleaning your tank.

SHOCK CLEANING PROCEDURE:

- Mix 5 gallons of water with a quart of bleach.
- Circulate this in your tank, hose, pump and filter for 5 minutes.
- Spray and scrub the interior of the tank.
- Clean out the pump filter
- Dispose of the cleaning solution according to local, State and Federal requirements.

For best results check your pre-pump filter daily and your tank once a week.

RODENTS: SPREADING DISEASE

BY SARA KNILANS, *BELL LABORATORIES, INC.*

The seasoned pest control technician knows that rats and mice play a major role in accelerating the spread of disease. **However, many homeowners and business owners do not realize that major illnesses which can infiltrate communities are caused by rodents.** These rodent-caused diseases are severe and can even lead to death in some instances. Rodents are carriers of at least 35 diseases that plague commercial, industrial, and residential accounts. Some of these diseases include, Hantavirus, Asthma, food poisoning, Leptospirosis, Plague, and Lymphocytic choriomeningitis virus (LCMV).

Proper rodent control and sanitation are the only way to prevent the spread of these disease. It is not enough to simply eliminate a rodent population. Rats and mice spread diseases through their droppings, urine, feet, fur, saliva, and blood—which means that any location a rodent has traveled could be contaminated with disease-causing pathogens. This is one of the reasons why personal protective equipment, such as respirators, rubber gloves, and eye protection should be worn when servicing high activity and high risk accounts.

An adult mouse or rat can produce up to 50-100 fecal droppings and 3,000 urine droppings within a twenty-four-hour window. While these rodent signs prove useful in monitoring activity and determining bait or trap placements, droppings, urine, sebum (rub marks), and other rodent signs are vectors for disease, and must be properly disposed of and cleaned up after. **Always follow the label when handling rodenticides and know that proper clean-up methods and current disease information can be found on the CDC website, *www.cdc.gov/rodents/*.**

EPA ANNOUNCES PROPOSED INTERIM DECISION ON NEONICOTINOIDS

WRITTEN BY: BRAD HARBISON

EPA is proposing changes for five neonicotinoid insecticides that are widely used in the structural pest management industry.

In January, EPA released its Proposed Interim Decisions (PID) for five neonicotinoid insecticides that are widely used in the structural pest management industry (see proposed interim decisions for acetamiprid, clothianidin, dinotefuran, imidacloprid, and thiamethoxam.).

In the PID for neonicotinoids, EPA is proposing:

- management measures to help keep pesticides on the intended target and reduce the amount used on crops associated with potential ecological risks;
- requiring the use of additional personal protective equipment to address potential occupational risks;
- restrictions on when pesticides can be applied to blooming crops in order to limit exposure to bees;
- language on the label that advises homeowners not to use neonicotinoid products; and
- cancelling spray uses of imidacloprid on residential turf under the Food Quality Protection Act (FQPA) due to health concerns.

Jim Fredericks, vice president of technical and regulatory affairs, National Pest Management Association (NPMA), said the PID for Neonicotinoids includes multiple proposed risk mitigation measures that will impact labels and the way pest management professionals use these products. In an email to PCT, Fredericks wrote that NPMA has been actively engaged with EPA to help the Agency better understand the ways that our industry uses neonicotinoids in and around structures.

"Based on our meetings, early drafts of the proposed label changes included greater restrictions on perimeter treatments, however, through constructive dialogue and ongoing education, we were able to positively affect the final proposal," he wrote. "The proposed changes will mean that our industry will likely have to adapt some of our processes with the intention of reducing runoff and improving water quality. NPMA will provide substantive comments to EPA on the Proposed Interim Decision (PID) as there are multiple areas of concern, specifically relating to application restrictions based on expected rainfall and the confusing definition of spot treatments."

Additionally, in the EPA press release, the Agency noted it is working with industry on developing and implementing stewardship and best management practices (BMPs).

Fredericks said NPMA has developed Pollinator Protection Best Management Practices for the structural pest management industry which NPMA has shared with EPA. "Our team will continue to remain engaged in pollinator protection issues, including the development of broader BMPs," he said.

INTERESTING READ:
CHINA MAY SEND DUCKS TO BATTLE PAKISTAN'S LOCUST SWARMS

SOURCE: *www.bbc.com/news/world-asia-china-51658145*

China could deploy 100,000 ducks to neighboring Pakistan to help tackle swarms of crop-eating locusts, according to reports.

Pakistan declared an emergency earlier this month saying locust numbers were the worst in more than two decades.

An agricultural expert behind the scheme says a single duck can eat more than 200 locusts a day and can be more effective than pesticides.

However, another researcher questioned whether the ducks would be effective.

Millions of the insects have also been devastating crops in parts of East Africa.

The Chinese government announced this week it was sending a team of experts to Pakistan to develop "targeted programmes" against the locusts.

- How a single locust becomes a plague
- Somalia declares emergency over locust swarms
- Drones tested to combat desert locusts

Lu Lizhi, a senior researcher with the Zhejiang Academy of Agricultural Sciences, told Bloomberg that the ducks are *"biological weapons"*. He said that while chickens could eat about 70 locusts in one day — a duck could devour more than three times that number.

***"Ducks like to stay in a group so they are easier to manage than chickens,"* he told Chinese media.**

A trial involving the ducks will take place in China's western Xinjiang province in the coming months, Mr Lu said.

After that they will be sent to Pakistan's worst-affected areas of Sindh, Balochistan and Punjab provinces.

The scheme quickly took hold on Chinese social media.

"Go, ducks! I hope you come back alive," wrote one user of China's Twitter-like Weibo platform.

"Heroic ducks in harm's way!" said another, in a parody of the description commonly used for medical staff tackling the coronavirus outbreak in Wuhan.

However, a professor from the China Agriculture University, who is part of the delegation to Pakistan, questioned whether the ducks would be suited to the mainly arid conditions where the locusts are a problem.

***"Ducks rely on water, but in Pakistan's desert areas, the temperature is very high,"* Zhang Long told reporters in Pakistan.**

He said that although ducks have been used against locusts since ancient times, their deployment *"hasn't yet entered the government assistance programme"* and was an *"exploratory"* method.

In 2000, China shipped 30,000 ducks from Zhejiang province to Xinjiang to tackle an infestation of locusts.

According to the UN, the current heavy infestations can be traced back to the cyclone season of 2018-19 that brought heavy rains to the Arabian Peninsula and allowed at least three generations of "unprecedented breeding" that went undetected. Swarms have since spread out into South Asia and East Africa.

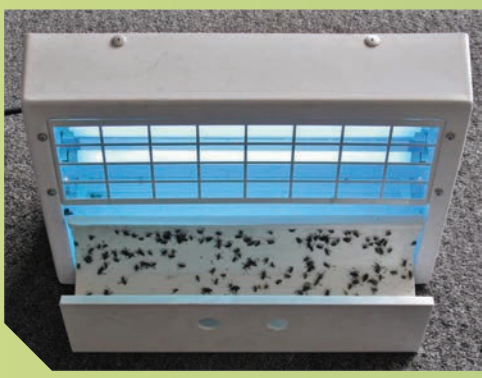
In January, the UN called for international help to fight swarms of desert locusts sweeping through East Africa.

Ethiopia, Kenya and Somalia are all struggling with "unprecedented" and "devastating" swarms of the food-devouring insects, the UN said.

FLYING INSECTS: LET'S SEE SOME IDENTIFICATION

BY: ANNA BERRY, *McCLOUD PEST SOLUTIONS*

FLYING INSECTS



As food plant operators and sanitarians discuss their pest management plans with their Pest Management Professionals (PMP), the term "flying insects" typically is brought up. In meeting FSMA and third party auditing standards, preventing and controlling flying insects in the food supply chain is of the utmost importance. For that reason, the discussion of flying insects is an important, but often daunting one. After all, insects are the only invertebrates that can fly and though we don't know exactly how many species are capable of flight, there certainly are a lot of them! When implementing integrated pest management strategies to prevent and control flying insects, it's therefore essential that we know exactly which of the dreaded flying insects we are attempting to combat. With so many flying insects, there's rarely a "one size fits all" control measure. Proper identification or categorization provides both the Pest Management Professional (PMP) and the Operations Manager with essential information required for an action plan. Here, we'll discuss the most commonly found "Flying Insects" in a food facility.

FILTH FLIES: Bottle Flies, House Flies

Filth Flies, as a group, are problematic because they're disease vectors. As their name implies, they prefer a filthy habitat, one where bacteria are prevalent, and as they fly from food to food, they spread these bacteria. They're therefore much more than a nuisance pest, they're a huge food safety risk, and eliminating them in food areas is of high priority. The good news about Filth Flies is that they typically come from the exterior. So, simply shutting windows, sealing doors, or installing screens does the trick. To eliminate the breeding sites on the exterior, sanitation is key, as is carcass and feces removal (commonly an issue if buildings are near parks).

SMALL FLIES: Fruit Flies, Phorid Flies, Drain Flies, Fungus Gnats

The presence of Small Flies typically tells us something completely different from the presence of Filth Flies. Whereas Filth Flies are usually breeding outside and finding a way inside, Small Flies are typically breeding inside. That means simply closing doors won't eliminate the problem like it might with Filth Flies. Small Flies also tend to have specific habitats. While all Small Flies need moisture in order for their larvae (maggots) to grow, they each have different food preferences, which results in different habitats. Red-Eyed Fruit Flies prefer food that is just starting to ferment. If we find Red-Eyed Fruit Flies, we may want to look in areas where fruit is prepared or stored. Dark-Eyed Fruit Flies and Drain Flies both prefer food that has rotted into something that no longer looks like food. Gunk in drains is often the breeding site for these species. Fungus Gnats are typically found in potted plants. Phorid Flies are often associated with broken drains or sewers.

STORED PRODUCT PESTS: Indianmeal Moth, Cigarette Beetle, Warehouse Beetle, Red Flour Beetle

Stored Product Pests are a unique group of insects that live in the food they eat. While the food source can vary considerably depending on the species (some will eat anything, including spices, others are very particular), it's primarily grain-based foods and at least one stage (typically the larval stage) is found living within the food. They can remain undisturbed like this for generations, resulting in flying adults within the facility. While certainly some species can come from the exterior, more commonly they're found in forgotten ingredients or product, tucked away in far off shelves or in accumulated spillage that isn't easily reached by sanitarians.

CLUSTER FLIES

Cluster Flies are part of a larger group often referred to as Fall Invaders. They, as the name implies, typically appear in the fall. But, though they look similar to Filth Flies, their behavior is very different, and that's what dictates this fall appearance. Cluster Flies lay their eggs in soil, and the maggots burrow into earthworms, where they'll live and feed until adulthood. When the cooler temperatures of fall arrive, the adults seek sites to over-winter. While it may be in tree bark or rock crevices, often it's in the cracks, crevices, and voids of buildings. They get their name because they're found clustering together on the sunny side of walls or at windows on sunny days. Unlike Filth Flies, Cluster Flies aren't a symptom of an exterior garbage or carcass issues. Instead, these flies are in our buildings because they're looking for overwintering sites to spend the cooler temperatures in. The solution? Sealing cracks to prevent entry.

IDENTIFICATION NARROWS DOWN THE HARBORAGE

The importance of identification is so key for this group of insects. Without it, we could be searching the wrong area for the culprit or using a control strategy that may not even impact it. For example, perhaps Indianmeal Moths are our flying insect. The larvae of the Indianmeal Moth are typically buried in stored product such as pet foods, peanuts, cocoa, or grain-based mixes. While applying a chemical to the walls may be very effective at controlling filth flies, it will not result in much impact of the Indianmeal Moths, which are inside the facility and inside the food. Cleaning the drains sure won't reduce the number of night flyers, because they're coming from the outside. Closing the doors probably won't reduce the number of dark-eyed fruit flies, because they're breeding on the inside of the facility. PMPs are trained to properly identify using hand lenses, microscopes, behavior traits, and picture keys. Identification, along with a strong partnership between a PMP and their client, can allow for quick identification and removal of the harborage and pest.

McCLOUD PEST SOLUTIONS — Founded in 1904, McCloud Services is a leader in integrated pest management solutions. Dedicated to providing the highest level of pest management services and customer care, the company's programs are designed to target immediate pest concerns with the least possible threat to people, property and the environment. McCloud Services embraces the latest technology innovations and remains at the forefront of the pest management industry. The company's mission is to protect its customer's health, property, food, and the environment while providing the highest level of safety for its employees and the general public. McCloud Services is a regional service provider with locations in Illinois, Indiana, Iowa, Kansas, Kentucky, Missouri, Ohio, Tennessee and Wisconsin.

ABOUT THE AUTHOR — Anna Berry is training manager at McCloud Services. She is a board-certified entomologist, ServSafe certified and instructor and proctor for the National Restaurant Association and is certified in HACCP. Berry holds a bachelor's degree in biology from the University of Oregon and a master's degree in grain science from Kansas State University.

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