

Fumigants & Pheromones

Insects Limited, Inc.

5 Questions with Pat Kelley

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Article by Heather Gooch originally appeared in the June issue of [PMP Magazine](#).

This month, we chat with Pat Kelley, BCE, president of [Insects Limited](#). He explains how the Westfield, Ind.-based company helps museums across the globe identify, treat for and prevent pests using integrated pest management (IPM) strategies.

1 In March, your company teamed with the MuseumPests Working Group to offer “IPM in Museums, Historic Houses and Archives,” a two-day workshop for museum professionals and pest management professionals (PMPs). It took place before the MuseumPests Working Group’s annual meeting. How did this partnership come about?

MuseumPests is a U.S.-based organization with global ties that creates and updates the website [MuseumPests.net](#), which offers free resources for museums on pest prevention, monitoring, identification and solutions. My direct involvement with this group over the past 15 years — including chairing its “Identification” subgroup — eventually led to me being the host.

2 At the workshop, there were 15 museum professionals and one PMP. Were most of the attendees used to working with a pest management firm for their facility’s pest control needs, or was there education to be had on that side of it, too?

Most institutions have some type of pest management contract with an outside professional company. With that being said, the staff of the museum ultimately is responsible for the protection of our cultural heritage objects. They want to play a direct role in any and every pest treatment or prevention plan. Museum pest management is so specialized in the different types of pests that can attack museum objects, how security is handled, and what types of treatment are accepted or not accepted, that we set aside time to educate both sides on how to approach this task.

3 You and Museum Conservator Rachael Arenstein covered a lot of ground in two days. In your interactions with attendees, did you find anything surprising or unusual?

Destruction of museum objects caused by clothes moths (Tineidae) and carpet beetles are by far the most common stories we hear. Clothes moths in particular have risen to great prominence in the U.S. in the past decade. David Pinniger, an IPM specialist in the UK, shared his story of how clothes moths destroyed the last remaining skin and feathers of the now-extinct dodo. The remains of the bird were hidden in a display case in the museum beneath an artistic rendering of how the bird may have looked when it was alive. When the museum staff opened the case after several years to do some cleaning, there was nothing left of the specimen except the bones. Another story that has stuck with me for many years was shared by Elénore Kissel, a conservator in Paris. She was working in Tibet with Tibetan monks. Their task was to try to save some ancient tapestries from destruction by carpet beetles. The monks' religious view of reincarnation left them uncomfortable with physically killing the beetle larvae and adults on the tapestry, so they spent several weeks removing each insect by hand with tweezers and releasing them far away from the monastery each night.

4 Are there plans to offer this workshop again?

Rachael and I put on several workshops each year, including some that are aimed at PMPs. I recommend PMPs sign up for our [Fumigants & Pheromones newsletter](#), or check online at [InsectsLimited.com](#) to keep an eye out for upcoming workshops.

5 Is protecting museums from pest infestations rewarding work?

Definitely. In a world of so much conflict and sorrow, museums and other institutions that display our cultural heritage bring great joy to large numbers of the public. From an educational standpoint, there are things in the history of mankind — good and bad — that should not be forgotten. If we continue to allow pests to take those things away from us, like they've already done with the dodo, we ourselves are a lesser species for it.



Fumigation Service & Supply, Inc.

FSS Welcomes Brad Joynt



Brad Joynt joined the [Fumigation Service & Supply](#) family on June 10th as our new Purchasing and Logistics Manager. Brad has a bachelor's degree in Supply Chain Management from Michigan State University. He comes to us with a customer service and logistics background and really enjoys working through problems with clients. While we know Brad has much to learn about our industry and our client's unique needs, he will no doubt be a great addition to our team.

Brad has great attention to detail and so far, has been soaking up information on our fine products and services as well as learning our inventory systems and has already completed hazmat shipment training. Quite a first week!

Brad has previously worked to manage inbound and outbound loads for multi-site clients and has been the point person on those accounts. He enjoys being the one they call to improve KPIs, reduce spend and resolve conflicts. Brad has data entry experience, pays special attention to detail with an emphasis on lean principles. With all these attributes and more, we are confident Brad will be a much-appreciated contact for all of our regional office needs and more importantly a great resource for our customers.

Brad likes to travel, play golf and watch other sporting events. He is also a dog person and finds time to foster parent displaced dogs.

Please join us in welcoming Brad Joynt to the FSS team! You can reach him at b.joynt@FumigationZone.com

Regards,

A handwritten signature in black ink, appearing to read "J. Waggoner".

Jeffery J. Waggoner, ACE

Vice President / General Manager

Fumigation Service & Supply, Inc.



The letters "FSS" in a large, bold, blue, sans-serif font with a white outline.

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Pat Kelley, BCE

The Exclusion Conclusion

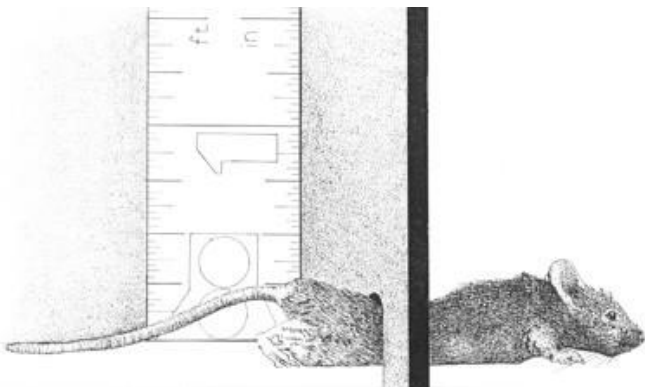


Illustration by J. Crocker, taken from *Rodent Control: A Practical Guide for Pest Management Professionals*, with permission from GIE Media

A ¼ inch gap is enough space for an adult mouse to enter a structure

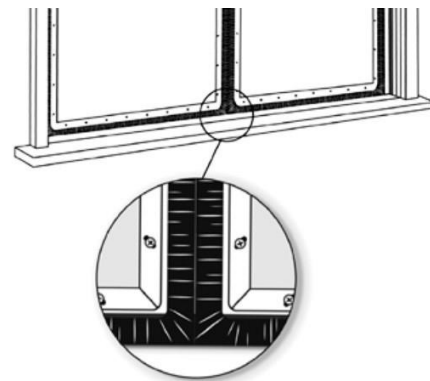
Merriam-Webster's Online defines the following:

ex•clude : “to prevent or restrict the entrance of”

In an IPM program, exclusion of pests from the outside can be one of the most important factors for maintaining a pest free environment. External pest pressure is a major threat for both urban and rural structures. The pest entry of a single rodent can cause food contamination or significant damage in a short period of time and diminish the previous hard work that went into the pest program. This leads one to the conclusion that an exclusion program is an essential component in IPM.

A thorough inspection of the exterior of a facility and some simple supplies can provide a permanent solution to most areas of pest entry. Listed below are some of the more common conditions that allow rodent and insect entry and some recommendations for repair. Please note that most of these treatments will also benefit your energy conservation by better preventing heat loss in the winter and the loss of cool temperatures in the summer.

Gaps beneath doors: Door gaps are the single most common condition that allow the easy entry of insects, rodents and even birds into structures. Warmth and food odors can migrate outdoors through these gaps and draw in pests of all types. Adult rats can enter through a ½ inch (12.7 mm) gap, adult mice only need a ¼ inch (6.35 mm) gap to get in and many insect pests can enter through a 0.08 inch (2 mm) gap or even less. A quality door sweep will remove these spaces beneath the door. The best type of door sweeps are strips made from brush material (e.g. Sealeze). They have outstanding abrasion resistance and they remain flexible at a wide range of temperatures. Their flexibility allows them to conform to imperfections and dips in the floor beneath the doors. They also make brush strips that will seal the astragal gaps that run vertically between double doors. Care should be taken to install the strips correctly but once the bracket that holds the brush strip is mounted, the brushes themselves can be changed quite easily.



The hole between the door sweep and the astragal seal can be an invitation to pests. Close the hole with Sealeze AstraSweeps.

Brush sweeps can fill gaps both beneath and the astragal gaps between double doors. Image from

www.sealeze.com

Window or Construction Gaps Window frames on the exterior of a building can often have gaps between the siding and the window frame that allow pest entry on either side, above or below the frame. Over time, gaps can also develop in construction materials that allow pest entry. A professional foam material (e.g. Foam applied through a Pageris Foam Gun) should be applied in these and any gaps around the exterior of the building. Avoid using some of the commercial foams that expand after being applied as they are hard to work with and become quite messy. They often get on the building materials themselves and cleanup is nearly impossible.



Xcluder brand Fill Fabric getting prepped to fill around a pipe chase.

Image from www.buyxcluder.com

Windows and doors left open by staff: When staff members become hot or cold, they will often open doors and windows to adjust their temperature. A better temperature-controlled work environment and a written policy preventing doors and windows from being left open will help alleviate this problem. Enforcement of the policy becomes the next task.

Broken or insufficient screen material: Insect screening that becomes missing or torn should be quickly replaced or repaired. Also, screening with a mesh size that is too large will allow pest entry. The size screening recommended for insect pests is Tyler Mesh size - 16 mesh or higher. Screens with a larger gap than this should be replaced. Insect screens are available in metal and synthetic fabric materials. Either will work fine for preventing insects from entering.

Cracks in concrete foundation: Broken or cracked concrete at the base of an exterior wall will often allow pests easy access into a wall void or directly into the structure itself. Cleaning and removing the crumbled concrete material and replacing it with sound concrete or materials designed specifically for concrete repairs and cracks will solve many of these issues.

Gaps around the roof-line and beneath shingles: Often, older historic homes with slate roofs have small gaps at the roof line where wasps, Asian ladybird beetles, brown marmorated stink bugs, boxelder bugs and cluster flies can enter. This can be a difficult area to seal off. Each home must be looked at individually for a custom plan to be put in place that will not affect the integrity of the home. Mesh screens and stuffing the area with fill materials are possibilities that can help.

https://www.youtube.com/watch?v=s_x7JH5ir3A



Professional foam gun kit with sealant. Image from www.crawlspacedepot.com

Gaps around a pipe chase: The point of entry where a plumbing, HVAC or electrical pipe conduit passes through an outside wall and into a structure can be called a “pipe chase”. Often, after a hole is drilled through a wall and a pipe is installed, the gap between the pipe and the wall is not sealed or it is incorrectly sealed. Fill materials can shrink with age and an area that was once sealed can become an active pest highway. Professional foam sealants as described above will deter insect pests. If rodents are an issue, copper gauze (Stuff-It brand) or stainless-steel wool (e.g. Xcluder brand) can be stuffed around the pipe and foam sealant applied to secure it in place. Rodents generally will not chew through the copper mesh or the stainless-steel wool. Standard steel wool is not recommended for the fact that if it gets wet, it will rust and disintegrate quite quickly.