

Fumigants & Pheromones

Issue 114
Spring 2015

Routing:



EPA Award Winner
Best of the Best

A Newsletter for the Insect Control & Pest Management Industry, est. 1981

Adelaide, South Australia

“The Gateway to the Outback”

Adelaide is the host city for the 12th Fumigants & Pheromones Conference and Workshop. This may seem like an odd spot to hold an international stored product conference but in reality it is the perfect place and the perfect time of year. This picture shows the renewed riverfront with the host hotel, and the new Convention Centre across from Adelaide's International Cricket Oval. All three are venues for this international conference.

Adelaide is a vibrant city where everything is within a 20-minute drive. It is also the gateway to the outback and to some of the finest vineyards in the world. Over 175 vineyards surround this city of about one million people where kangaroos and koalas roam wild.

The Adelaide Arts Festival, Adelaide Fringe, and Womad Music Festival take place in “Mad March” in downtown Adelaide and will be happening during the 12th Fumigants & Pheromones Conference. From international events to pop-up festivals, there is always something to do in Adelaide.

The educational program of the conference and the Australian experience will be worth the trip.



Host hotel and new convention centre

Adelaide is just four movies, one good book, and a couple of naps away from Europe or North America. So pull out your phone or calendar and flip to March, 2016 and make a note to “hop on down” to Australia on March 6-9, 2016. For more information about Adelaide go to: <http://www.southaustralia.com/regions/adalaidecity>.

March is an ideal time to leave the grey cold weather of the Northern Hemisphere and go down-under. Adelaide has warm dry days during March where the South Ocean beaches are just 20 minutes

away. Did I mention that Adelaide is known for its 175 wineries? The conference in 2016 will be held at the brand new Adelaide Convention Centre just steps away from the host InterContinental Hotel. The two day educational program of practical experiences will feature well-known experts from around the world. The gala dinner will be held at the newly refurbished Adelaide Oval. This cricket oval is directly across the river from the conference venue. Dinner will be served at midwicket while learning the history of one

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New Pheromone Lures

To receive your new *Insects Limited* catalog, contact Tom Mueller, t.mueller@insectslimited.com

Pheromones are specific chemicals that attract insects of the same species or family. Recent research by Insects Limited shows that these pheromones don't interfere with each other when added together in combination. A pheromone is like a key and lock. A key is specific to its lock. If the key is made properly, it will unlock the lock, much like when a pheromone causes a specific insect response. The insect then will detect the odor at very low levels and a biological reaction will occur. This behavior could be mating, aggregating, or just coming to the food volatiles.



Stored Product Beetles; IL-1805-10

SPB Lure

This is a newly formulated fiber lure with a combination of Stored Product Beetle pheromones and kairomones (food attractants). This lure is made to attract:

Red and Confused Flour Beetles (*Tribolium spp*)

Warehouse Beetle (*Trogoderma variabile*)

Khapra Beetle (*Trogoderma granarium*)

Cigarette Beetle (*Lasioderma serricorne*)

Rice Weevil (*Sitophilus oryzae*)

Saw-toothed and Merchant Grain Beetle (*Oryzaephilus spp*)

Lesser Grain Borer (*Rhyzopertha dominica*)



Multi-Species Bullet Lure; IL 109-10

Multi Species Lure

This is a newly formulated Bullet Lure with a combination of 3 different pheromones for beetles and moths that will capture over 20 species of stored product insects.

This combination of pheromones is made to attract:

Food moths like Indianmeal Moths and Mediterranean Flour Moths (*Plodia* and *Ephestia*)

Warehouse Beetle (*Trogoderma variabile*)

Cabinet Beetles (*Trogoderma spp*)

Cigarette Beetle (*Lasioderma serricorne*)



AA Carpet Beetle Bullet Lure; IL-243-10

AA Carpet Beetle Lure

This new Bullet lure from Insects Limited attracts the adult carpet beetles from two different genera, *Attagenus* and *Anthrenus*. There are at least 6 pheromones and kairomones in this lure to attract 4-8 species of adult carpet beetles.

These carpet beetles are active in the late spring and early summer. Now is the time to establish a pheromone trapping program for these destructive fabric pests.



Alain VanRyckeghem, BCE has developed new pheromone lures for stored product insects.

Adelaide

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of Australia's favorite sports. The third day will be the 'Walk About Workshop'. Imagine a short bus ride to a winery where workshop tables are set up to sit and discuss various topics from the conference speakers. If one wants to start a discussion on a topic, they will have over 200 people to choose from. In previous conferences we have gained more information with fellow professionals in a casual setting rather than in a lecture hall. After the 'Walk About Workshop' the group will bus 20 minutes away to Cleland Wildlife Park.

While this conference, like others, features practical and proven hands-on topics from around the world, expert speakers, and the exchange of knowledge, this one will be in a casual setting like none before.



Feeding time at Cleland Wildlife Park

Mark your calendar for your next vacation and Fumigants & Pheromones Conference... in Adelaide, South Australia.

Come Down Under; we're waiting for you!



(PHOTO: VITERRA AUSTRALIA)

*Port Adelaide Inner Harbour Bulk Loading Facilities
Berth 27 - Grain Loading Terminal*



No trip to Australia would be complete without feeding a kangaroo at Cleland Wildlife Park



12th Fumigants & Pheromones Conference



MARCH 6-9, 2016 | ADELAIDE, SOUTH AUSTRALIA

Four New Certified Entomologists



Patrick Kelley, BCE



Ethan Estabrook, BCE



Curt Lilleodden, ACE



Jeff Waggoner, ACE

Rigorous experience standards and testing by the Entomological Society of America (ESA) gave rise to new Board Certified Entomologists and Associate Certified Entomologists. The ESA website states: "Certification in entomology is a way for professionals to stand out from the crowd, to prove their capabilities to customers and employers, and differentiate themselves from others in the field." Joining David Mueller and Alain VanRyckeghem as Board Certified Entomologists (BCE's) are Pat Kelley and Ethan Estabrook. Jeff Waggoner and Curt Lilleodden both achieved certification as Associate Certified Entomologists (ACE).



Dave Mueller, BCE, President of FSS and IL stated: "Congratulations on the hard work and efforts of these four as they continue to achieve in the area of professional development and technical support to our customers."

Superior Customer Service



Victoria Meerhoff
v.meerhoff@fumigationzone.com

Victoria has been with FSS and IL since 2003. Previously Victoria worked for an international air freight carrier where packages had to be prepared and shipped around the world with tight deadlines.

Victoria wears many hats with the company including shipping and receiving manager and inside sales support. Often hers is the voice that you hear when you are placing an order or asking to track a shipment. Fumigants and other hazardous materials are often difficult to ship without delays. Victoria works hard to make arrangements with various carriers to get the best service and the best price for her customers.

Dave Mueller, President of FSS stated: "Victoria is a people person. She is knowledgeable, helpful, and customer friendly. Victoria often stays late to track 'her' packages and finish the task of processing the paper work for your order. In short, Vic takes her job seriously and is willing to go the extra mile to offer superior customer service."



John Luther
j.lutherf@fumigationzone.com

John has been a part of Fumigation Service & Supply Inc. since 2013. He brings with him an ongoing military career through the Indiana Army National Guard. He has served in two deployments to Iraq and has

completed other military schools. On the weekends and during his summer training, John is a sergeant first class who leads fifteen soldiers in his squad.

John fills two main roles with FSS: shipping and logistics as well as working on fumigations. John stated: "I am looking to grow within the company and am excited about the future for FSS and Insects Limited." With his military background he hopes his leadership, discipline, and organizational capabilities will be put to good use.

John has also helped serve his community volunteering his time helping coach the local high school wrestling team, where he first met Pete Mueller in middle school. In addition to wrestling and the military, John enjoys weight lifting, learning about history and the way things are made.

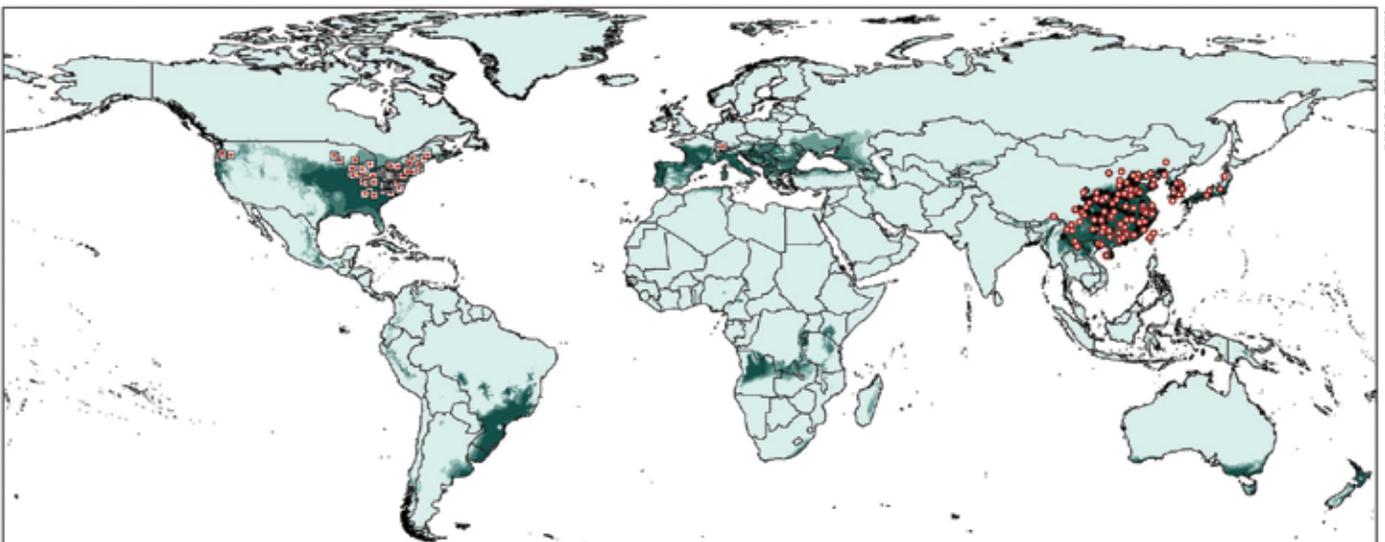
Brown Marmorated Stink Bug is Becoming a Real “Stinker”

Since its initial discovery in Allentown, PA, USA, the brown marmorated stink bug (BMSB), *Halyomorpha halys*, has now officially been detected in 38 states and the District of Columbia in the USA. This Asian species (see map) quickly became a major nuisance pest in the mid-Atlantic USA region due to its overwintering behavior of entering structures. BMSB has an extremely wide host range in both its native home and invaded countries where it feeds on numerous tree fruits, vegetables, field crops, ornamental plants, and native vegetation. In 2010, populations exploded causing severe crop losses to apples, peaches, sweet corn, peppers, tomatoes, and row crops such as field corn and soybeans in several mid-Atlantic states. Damaging populations were detected in vineyards, small fruit, and ornamentals. Researchers are collaborating to develop management solutions that will complement current integrated pest management programs.



Australia and New Zealand are requiring a certificate of fumigation on all inbound non-commodity products like cars, agricultural parts, and other containerized and non-containerized items that could contain overwintering stink bugs. At this writing, there are about 1000 containers being fumigated for the BMSB each week in

ports located on the east coast of the United States. Treatment: Sulfuryl flouride and methyl bromide Q-gas are approved by the Australian government to treat for BMSG on imported items. In New Zealand, Methyl bromide is the only product allowed at this time for BMSB.



Distribution of the Brown Marmorated Stink Bug.

PHOTO: FRUIT NEWS

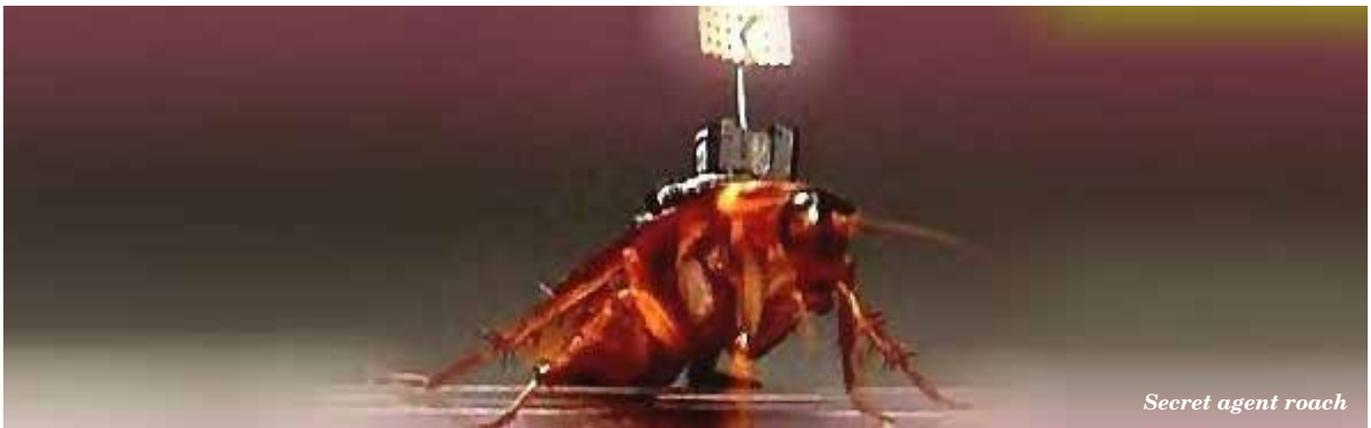
Insects as Spies

The lowly cockroach, one of the most reviled insects, could become the world's next hero. Outfitted with tiny sensor backpacks, cockroaches could be deployed in a swarm to sniff out toxic chemicals, bombs, or communicate with and locate victims of a disaster.

A team of scientists from Purdue University led by Dr. B. Jung, a

professor of engineering, has developed and tested a high-sensitivity, low power wireless transceiver for insect-based wireless sensor networks. The stout and tank-like roaches lugging a microcontroller, sensor, antenna, and wireless transceiver, can either send data directly to a base station or pass data to other roaches closer to the station.

The project originated as an assignment from the systems developed for the US Army. Jung says, "Based on the successful development of this prototype, the work is taking steps toward commercialization."



Secret agent roach

PHOTO: GIZMODO.COM

The Most Dangerous Spider in the World

Sydney funnel-web (*Atrax robustus*)

With highly toxic venom produced in large amounts and large fangs to inject it, the Sydney funnel-web is without a doubt the deadliest spider in Australia and possibly the world. Found in New South Wales, in forests as well as populated urban areas, they burrow in humid sheltered places. They can wander in backyards and sometimes fall into swimming pools, and though they're not often encountered, they can be quite aggressive when threatened. Though just 1.5–3.5 cm big, the Sydney funnel-web has fangs so powerful they can even pierce through nails and toenails. Their venom has a compound that can attack the human nervous system alter the functioning of all organs, and when coming from a male, can kill.



PHOTO: AUSTRALIAN GEOGRAPHIC



MARK YOUR CALENDAR, MATE

12TH Fumigants & Pheromones Conference

Adelaide, South Australia
March 6-9, 2016

For more details, go to:
www.insectslimited.com/Adelaide

Pets in Residence

Number of U.S. Households with a:

Dog - 56.7

Bird - 6.9

Cat - 45.3

Small Animal - 6.9

Fish - 10.1

Reptile - 5.6

In millions



Source: American Pet Products Assoc.

Book Reviews

“Integrated Pest Management in Cultural Heritage” by David Pinniger

David Pinniger spent many years as a research entomologist at the government Central Science Laboratory (Ministry of Agriculture, Fisheries and Food) in Slough in the UK. He now provides consultancy and training on pest management in museums. Since 1989, he has been writing books specific for pest management in museum settings. “This new book titled, *Integrated Pest Management in Cultural Heritage* is what I would call his finest accumulation of pest biology, control, IPM strategies and superb images of museum-related pest issues,” stated reviewer Pat Kelley, BCE. This book is a “must have” for anyone working with pests in museums. It is available through Insects Limited’s bookstore for \$99.00.

Bennett Writes New Book

Gary Bennett, Ph.D., is a professor of Urban Pest Management with Purdue University’s Entomology Department. *Bugs Be Gone* is a new illustrated guide designed to assist pest management professionals and consumers. This practical guide is broken down by pest type, where they might be found, and the threats they pose to public health, structures, and food stores. Available through Insects Limited’s bookstore for \$29.99.



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CALENDAR OF EVENTS

- * May 4-8; *International Association of Operative Millers*, Palm Springs, CA
- June 28-July 1; *Integrated Protection of Stored Products*, Zagreb, Croatia
www.iobc-ipsp2015.com
- ** August; *Nestle Purina Food Safety Symposium*, St. Louis, MO
- *** December 2015 TBA, *Fumigation Continued Education Training*, Westfield, IN, Bloomington, IL, Cincinnati, OH (www.fumigationzone.com)
- *** March 6-9, 2016; *12th Fumigants & Pheromones Conference*; Adelaide, Australia

* attending *** organizer
 ** invited speaker ^ exhibiting

“Quotable Quotes”



“Cinderella is a perfect example of what one pair of shoes can do for you.”

— Anonymous