

Fumigants & Pheromones

Digital Newsletter Delivered by Insects Limited, Inc.

Issue 164

Drugstore and Cigarette Beetles



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Drugstore (*Stegobium paniceum*) and cigarette beetles (*Lasioderma serricorne*) cause serious damage to stored products.

Larvae can chew and burrow holes into some food packaging causing product defects. The larvae also damage products through feeding and introduce contaminants like larval cocoons, frass (excrement), and dead adult beetles.

Drugstore beetles and cigarette beetles carry a symbiotic yeast in their guts that assists them in the digestion of less nutritious foods and can provide resistance to certain toxins. This symbiotic relationship allows these beetles to feed



[Click to watch](#) a time-lapse GIF of drugstore beetle (*Stegobium paniceum*) damage to dog treats over 6 months. 100 adult drugstore beetles were introduced and maintained at 82°F (28°C) and 50% relative humidity. You can see how quickly these insects can cause major damage to stored products over time.

on a wide range of materials including dried foods, grains, seeds, pharmaceuticals, spices, hay, dried fruit, powdered milk, nuts, animal feed, pet food, and many other organic materials. Cigarette beetles get their name from their ability to feed on tobacco which is toxic to most insects. Both can also be a serious pest to museum specimens and have been reported feeding on books, leather, feathers, bamboo, manuscripts, upholstery, and wool.

Insects Limited Product Guide

Our newest product guide is a must-see. The 20-page full-color and fully illustrated booklet can be viewed as a hard copy, online, or as a [PDF HERE](#).





Dorsal view of a cigarette beetle
(*Lasioderma serricorne*).



Dorsal view of a drugstore beetle
(*Stegobium paniceum*).

Notice the two main physical distinguishing characteristics from the [drugstore beetle](#) and [cigarette beetle](#) images above. Drugstore beetles have three largely clubbed antennae segments and deeper longitudinal rows of pits on the elytra (wing covers) while cigarette beetles have smaller, more numerous, serrated antennae segments and smooth elytra (wing covers).

Although the drugstore and cigarette beetles look very similar, they are distantly related and require different monitoring practices as they do not share the same sex pheromone. Both of these beetles are in the family Pitinidae which include anobiid beetles that are more commonly known as “woodworm” or “wood borers.” The furniture beetle (*Anobium punctatum*) is a commonly found insect in this family and is known to damage wooden furniture and house structures.

[Insects Limited](#) is a leading pheromone technology company that researches, tests, develops, manufactures and distributes pheromones and trapping systems for insects in a global marketplace.

Insects Limited specializes in a unique niche of pest control that started out as an idea and has developed into a business that provides products and services that are mainstream in protecting stored food, grain, museum collections, tobacco, and fiber worldwide.

Shop [Drugstore Beetle Pheromone Traps](#) and [Cigarette Beetle Pheromone Traps](#) from Insects Limited



Quality Pheromones and Trapping Systems

Insects Limited was established in 1982. It was founded on a statement made by an entomology professor at Purdue University while founder Dave Mueller was attending college: ***“The future of pest control is without the use of toxic chemicals”.***

Today, **Insects Limited, Inc.** researches, tests, develops, manufactures, and distributes quality pheromones and trapping systems for food infesting insects to a global marketplace with a focus on the statement above. At our core, Insects Limited focuses on bring **Science, Education, and Innovation to the Stored Product Industry.**

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Laboratory Intern Plays Important Role in Insects Limited Research

Samantha Kiever, an Entomology major from the University of Nebraska-Lincoln was welcomed in by the Insects Limited's staff this summer to share her skills with the company while gaining some important experience in an entomology lab while working with three Board Certified Entomologists.

Samantha's keen eye for detail has been a definite asset to the team and their ongoing studies. Samantha has assisted with projects centered on pheromone discovery for stored product pests, pheromone quality and insect package penetration. One of Samantha's tasks has been the tedious job of determining the sex of live, adult clothes moths without harming them. The sexed-moths are used in pheromone and odor preference studies for quality control and research purposes. She has proven to be the quickest and most accurate person to perform this task.



Insects Limited's Lab Team: From left, Entomology Intern; Samantha Kiever, Research Associate; Ethan Estabrook, President; Pat Kelley and Director of Research; James Feston

Insects Limited President, Pat Kelley stated, "I am not surprised at how much Samantha has helped us out at Insects Limited as she came highly recommended from the University of Nebraska – Lincoln Entomology Professor Dr. Louise Lynch-O'Brien, who described Samantha as a star student in her class. Samantha's involvement with the research labs at University of Nebraska – Lincoln as well as her experience as being a teaching assistant in an insect biology course at UNL has given her the tools to be a great entomological resource for us here. Sam brings enthusiasm and skill to every project that she has been assigned to. She is a great asset".

Besides her work with [Insects Limited](#), Samantha is set to graduate from the University of Nebraska-Lincoln in December of 2022. She enjoys writing, painting, cooking, fishing, and singing, *albeit not very well according to her*.

She lives in Brownsburg, Indiana with her husband, Glenn, a jumping spider named Gizmo, an ever-growing number of pet cockroaches, some earwigs, and a dog that is too smart for his own good. Samantha also enjoys teaching her old dog new tricks, such as spinning left or right, hugging, or crawling on command, which is one of her greatest joys.

After school, Samantha hopes to one day start a business breeding ethically-sourced arthropod pets. Her greatest aspiration is to successfully get blue death feigning beetles to reproduce in captivity.

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