



# **Early Warning Monitoring Systems**

**Technical Bulletin** 

# STORGARD® QUICK-CHANGE™ DOME™ TRAP with BROAD SPECTRUM™ BEETLE ATTRACTANTS

The QUICK-CHANGE DOME TRAP monitoring system for more than 30 stored product beetles features a pre-baited, optimized attraction and cost-effective method of detecting beetle activity at the earliest possible stages. It utilizes synthetic sex and aggregation pheromones, along with two proprietary kairomone attractants, that lure beetles into a specially designed pitfall trap that contains a kairomone oil, which also retains the beetles. Early detection of beetle activity allows control measures to be employed before large quantities of stored food products are contaminated. Each STORGARD QUICK-CHANGE DOME TRAP kit contains enough materials for up to 8 weeks of continuous monitoring, depending upon environmental conditions.

#### **Pheromone Attractant**

The STORGARD® QUICK-CHANGE™ ULTRA-COMBI™ attractant contains: Confused and Red Flour Beetle (CFB/RFB) aggregation pheromone, Cigarette Beetle (CB) sex pheromone, Khapra and Warehouse Beetle (KB/WB) sex pheromone, as well as multiple proprietary kairomones that attract more than 25 additional stored product beetles. STORGARD®QUICK-CHANGE products are available as well for CFB/RFB, CB and KB/WB as individual monitoring systems. \*Pheromones are chemicals that adult insects produce to communicate with each other. \*Kairomones are chemicals or foods that lure male and female insects.

## **Trap Design**

The STORGARD QUICK-CHANGE DOME TRAP has been behaviorally modified, precision engineered, to retain the best features of the original DOME. In fact, every key feature of the original, highly successful, DOME has been revisited to significantly improve key structural and behavioral features, "synergized" with a NEW QUICK-CHANGE SNUGFIT® lure and trapping system. Behavioral engineering has been used to synergize pheromones, kairomones and trap design to optimize attractiveness and capture capabilities. The easy-to-check and replace SNUGFIT™ lure tray makes servicing and inspecting fast!

#### When to Monitor

As a general rule, most insect development slows at average temperatures below 55°F. In heated facilities, or in warmer climates, a year-round monitoring program is essential for early detection of stored product pests. Even in unheated storage areas in cold climates, it is important to recognize locations that may provide sources of heat. For example, temperatures surrounding machinery may be sufficient to promote insect development even though temperatures nearby are below the 55°F threshold. Anytime susceptible food products or commodities are stored there is a possibility of stored product insect infestation.

## **Trap Density and Placement**

When beginning a monitoring program, place traps in a grid pattern at intervals of 30 feet to 50 feet. Tighten the grid to pinpoint the source of an infestation. Additional areas where traps should be placed are near suspected sources of contamination, high risk areas, such as in or around equipment and close to ducts where dust may accumulate. The main criteria for selecting trap placement is convenience for monitoring personnel, placement near susceptible food products and protection against damage by equipment, water and cleaning procedures or agents. Although trap placement is not critical, research has shown that capture efficiency can be maximized by placing traps on a solid floor and near cracks, crevices, equipment racking, poles and building columns. For more information on secure trap placement, see the "new" STORGARD DOME Trap Holder™ on the Trece website.

The information presented herein, while not guaranteed, is to the best of our knowledge true and accurate. No warranty or guarantee expressed or implied is made regarding the performance or stability of any product, since the manner of use and conditions of storage and handling are beyond our control.

Visit our website: www.trece.com or call 1-866-785-1313

© 2017 TRECE, Adair, OK USA

TRECE, PHEROCON, STORGARD and CIDETRAK are registered trademarks of Trécé, Inc., Adair, OK USA

Continued on back

INSECTPHEROMONE & KAIROMONE SYSTEMS

Your Edge - And Ours - Is Knowledge.

# **Trap Density and Placement**

Pheromone and Kairomone monitoring systems serve three primary functions:

- 1. Detect the presence of stored product insects
- 2. Gauge the abundance of the insect population
- 3. Verify corrective actions

## **Trap Inspection**

Traps should be inspected at least once a week, and twice weekly if an infestation is suspected. In some situations, it may be desirable to check traps every day. Keep a record of the number of insects caught in each trap and the monitoring site.

## **Service and Storage**

STORGARD QUICK-CHANGE DOME TRAP monitoring systems require minimum service. However, it is important to replace the lure tray every four to eight weeks since their attractant properties eventually degrade. When inspecting the traps, care should be taken to ensure sufficient kairomone oil is remaining in the lure tray. In some high heat or excessive dust environments, kairomone oil may evaporate. Additional kairomone oil is available for purchase from authorized distributors. Add a few drops to the lure tray, as needed, when servicing the traps. Removal of dead insects and debris when traps are inspected is an option. Replace the lure tray more often under extreme conditions.

**Please note:** Lure trays should be stored in a cool place in an upright position. For longest possible storage life, you may store lure trays in a refrigerator and keep their foil barriers sealed.

The STORGARD QUICK-CHANGE DOME TRAP monitoring systems are proven to attract the following insects:

	Common Name	Scientific Name Common Name		Scientific Name	
1.	American Black Flour Beetle	Tribolium audax	16. Le	esser Mealworm Beetle	Alphitobius diaperinus
2.	American Spider Beetle	Mezium americanum	17. Lo	ongheaded Flour Beetle	Latheticus oryzae
3.	Antlike Flower Beetle	Anthicus spp.	18. N	/laizeWeevil	Sitophilus zeamais
4.	Cigarette Beetle	Lasioderma serricorne	19. M	Merchant Grain Beetle	Oryzaephilus mercator
5.	Confused Flour Beetle	Tribolium confusum	20. Pi	icnic Beetle	Glischrochilus quadrisignatus
6.	Depressed Flour Beetle	Palorus subdepressus	21. P	redaceous Hister Beetle	Carcinops pumilio
7.	Drugstore Beetle	Stegobium paniceum	22. <b>R</b>	ed Flour Beetle	Tribolium castaneum
8.	Dusky Sap Beetle	Carpophilus lugubris Murray	23. R	edlegged Ham Beetle	Necrobia rufipes
9.	Flat/Rusty Grain Beetle	Cryptolestes spp.	24. R	ice Weevil	Sitophilus oryzae
10.	Foreign Grain Beetle	Ahasverus advena	25. Sa	awtoothed Grain Beetle	Oryzaephilus surinamensis
11.	Golden Spider Beetle	Niptus hololeucus	26. Se	eedcorn Beetle	Stenolophus lecontei
12.	Granary Weevil	Sitophilus granarius	27. SI	lender Seedcorn Beetle	Clivinia impressifrons LeConte
13.	Hairy Fungus Beetle	Typhaea stercorea	28. Si	mall Eyed Flour Beetle	Palorus ratzeburgii
14.	Khapra Beetle	Trogoderma granarium	29. <b>W</b>	Varehouse Beetle	Trogoderma variabile
15.	Larder Beetle	Dermestes lardarius	30. ()	ther small beetles	

 ${\it Dark Shaded in sects indicate primary attraction} based on a sex or aggregation pheromone$ 

Visit our website: www.trece.com or call 1-866-785-1313

© 2017 TRECE, Adair, OK USA

TRECE, PHEROCON, STORGARD and CIDETRAK are registered trademarks of Trécé, Inc., Adair, OK USA

