

# STORGARD<sup>®</sup> APHIS KIT - KB WALL TRAP

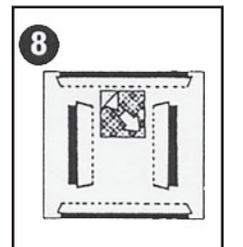
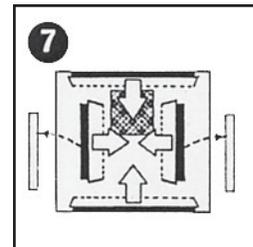
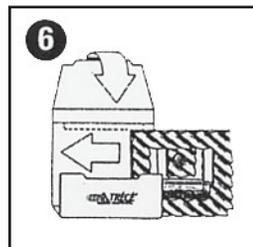
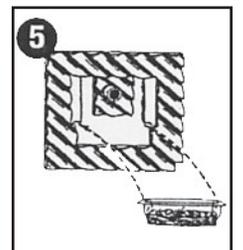
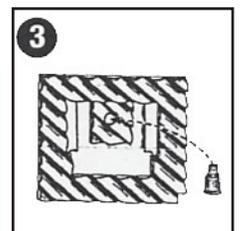
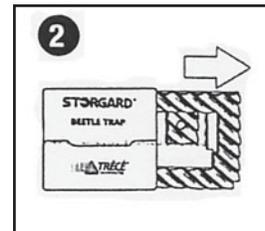
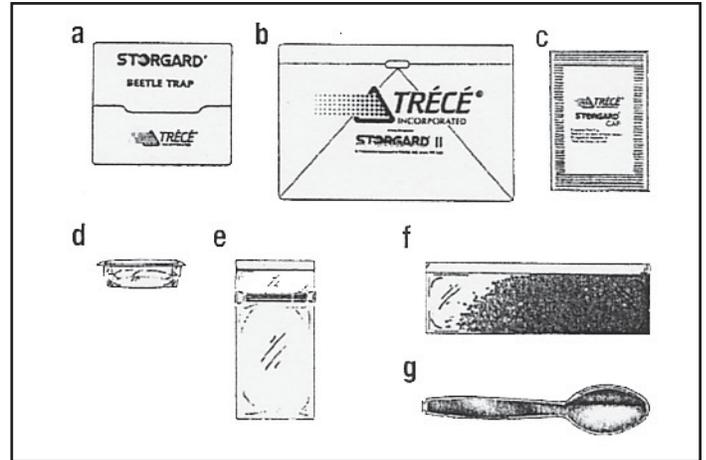
## Insect Monitoring Kit

### Assembly Instructions



#### TRAP ASSEMBLY INSTRUCTIONS

- Remove components from carton. Each carton includes:
  - STORGARD KB/WB traps (assembled) (6)
  - STORGARD II Trap (1)
  - STORGARD KB/WB lures (7)
  - plastic collection trays (12)
  - zipper seal plastic bags (12)
  - kairomone attractant packet (1)
  - measuring spoon (1)
- Slide out housing from cardboard hole.
- Insert small end of lure in pre-punched hole.
- Fill plastic bait tray 1/4 to 1/3 full using measuring spoon, overfilled traps will lead to larvae escape.
- Replace baited plastic tray in trap. Care should be taken not to spill bait in trap.
- Slide the housing, with tray and lure, into the folded jacket, with the large end of the lure facing the front of the trap (the front has the locking tab). Secure the folded jacket by inserting tab into slot.
- Lay the assembled trap flat with the perforated flaps up. Bend the narrow top and bottom flaps outward at about a 45° angle. Avoid excessive bending. Remove the narrow strips at the edges of the two vertical back flaps and bend them out at a 45° angle, as well.
- Remove backing from mounting tape and attach to clean vertical surface.



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## HOW TO USE THE STORGARD® KHAPRA BEETLE WALL TRAP

The new KB trap was designed to be vertically wall-mounted as opposed to the older floor type. The new trap can be used at any height, as well as floor level, as long as it is attached to a vertical surface.

### When and Where to Trap

The Khapra beetle (KB), *Trogoderma granarium*, is a tropical insect. Under ambient conditions a population will not produce adults after the onset of cooling temperatures (<60°F). Larvae become quiescent (a weak form of diapause) under cool conditions. Do not trap until the warm season starts and average temperatures are above 70°F in the trapping environment. Exceptions would be in heated warehouses and food storage and processing areas. Insects seldom move below 50°F, and for KB, this is even more critical. In the more temperate locations, conduct surveys between mid-May through mid-September. At the year-around warm ports, use your judgment as to when temperatures are warm enough.

### A Trapping Strategy

The KB does not fly. However, the common warehouse beetle (WB), *Trogoderma variable* is a strong flyer. Where WB is very abundant, the numbers of WB may overwhelm the wall mounted KB traps. STORGARD® II aerial sticky traps can be used to reduce this problem. Also, any *Trogoderma* caught in an aerial sticky trap therefore cannot be KB. This eliminates the need to identify the flyers, as well.

We suggest the following technique. A sticky aerial trap such as the STORGARD II® with a KB/WB pheromone lure, can be placed high in the open headspace of the building. Use one aerial trap per every 2500-5000 sq. ft., or one every 5-6 KB wall traps.

The KB wall traps should be placed mainly around the inside of exterior walls, and along interior walls. Mount them high enough to be easily serviced, about 2 feet. Research shows that larvae have been trapped as high as 20 ft. on walls within buildings. In any case, keep traps at least above broom height to avoid trap loss. Do not trap in very damp or oily areas, as KB will not be found under these conditions. Spacing traps between 25-40 ft. apart is recommended, but not essential. This is based on building layout.

When placing traps, pay special attention to cement block walls, or other types of porous construction that may harbor hidden larvae. Even a small opening or crack may hold many larvae. Pay special attention to cracks in the walls. Our findings indicate that the cracks may serve as pathways for insect movement. If possible, place a trap over a wall crack if one is found.

The location of each trap should be recorded. Traps and tray can be marked accordingly. Use a Sharpie marker, as this will not come off during handling and is removable with 100% alcohol. Sharpies work best; however, they will not write well on oily trays. Therefore, keep your hands and trays clean. Traps should be checked every 1-2 weeks minimum, primarily for the sake of obtaining specimens in good condition.

Do not overfill trap trays, as this would negate the escape-proof feature and allow insects to crawl out and escape. Fill the replaceable dish ONLY 1/4-1/3 full. Use a small plastic spoon to place the wheat germ food bait in the trap dish. Remember to mark the trays and traps as to location of trapping.

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### Servicing the Trap

Upon inspecting the trap, one can dump the contents (wheat germ and insects) into the small zip lock bag included. Another method is to place the entire dish, with contents, into the zip lock bag and then replace with a new trap. The kits are supplied with 2 plastic trays per trap. Used trays can be washed and reused. Be sure to identify the bag and contents.

Examine and immediately remove adults and large larvae from tray. The food material can be retained in a vial or bag for several days or even weeks until small larvae have increased to a size suitable for identification. Rearing-out of samples in secured areas is a standard technique in stored-product entomology.

Insects lured to the trap nearly always find their way into the tray over time. However, when checking a trap look for insects that may be “ready” to drop into the tray. A sharp tap will usually cause them to fall in. When checking the trap for the last time and removing it, place the complete trap in a sandwich size locking type plastic bag. Later, the trap can be firmly tapped over a tray to dislodge any insects that may be present.

### Interpretation of Catch

Experience shows that adults may not be trapped at the precise site of the insect infestation. Adults are much more mobile than larvae. Also, the adults are easier to catch if present. Pay special attention to trapped larvae. The trapping of one larva has about 50-100 times the significance of trapping a single adult. For *Trogoderma* in general, if one larva is trapped, be alarmed. If two or more are trapped, or if one location produces consecutive larval catches, this indicates a potential major problem. Of course, for a species of quarantine significance such as the KB, ANY SPECIMENS, including dead KB or larvae, and exuviae, are actionable.