MONITORING GUIDELINES

**Rice Weevil**  
*Sitophilus oryzae*

**Description**

**Adult:** These small beetles are reddish brown, and about 2.5 mm long and have 4 yellowish patches, one at each corner of the elytra. They have distinctively long snouts and numerous round pits on the thorax. These weevils are able to fly.

**Larvae:** The immature stage is approximately 2-3 mm long, white to yellowish in colour. It has a grub like in appearance and has no visible legs.

**Damage and Detection**

The rice weevil is a primary pest of whole grains, especially rice and corn. The adults chew a small hole in the kernel and then lay a single egg in the grain. Damage is seldom noticed until exit holes appear and adults are seen roaming the grain mass. This weevil can be found in pearled barley, and packages of pasta, or in bird seed.

**Life Cycle**

Female weevils will deposit 300 – 575 eggs in grains over a 6 -8 month life span. Eggs hatch in about three days, and the larvae can mature within 24 days or as long as 96 days depending on temperature. Adults will feed on grains and pasta continuously until death.

**Lure**

PANTRY PATROL® Pheromone/oil dispenser. Contains grain based food attractants for rice weevils. The food attractant is effective for 12 weeks. There are no pheromones for rice weevil in this product. PC FLOOR trap lures are food bait lures attract adult weevils into the PC Floor trap or PC Grain Probe. Live insects produce their own natural pheromone to attract more weevils. This lure will attract other species of food beetles as well. Using this lure will provide a "dry" (no oils) set. Insects are removed by shaking the trap like a salt shaker over water or sticky board. This food bait lure lasts 30 days.

The Bullet Lure for rice weevil is an aggregation pheromone that is best designed for the PC floor trap or a flat sticky monitor. The pheromone lure lasts for 60 days. These are used to monitor facilities for wandering adults.

**Lure Storage**

Keep unopened Pantry Pest pheromone/oil dispensers and Bullet Lures in cool storage or in refrigeration. Keep unopened foil pouches with PC Floor bait lures in cool storage (less than 60° F) or place in freezer for extended storage. Lures in unrefrigerated storage should be used within 6 months of purchase. Refrigerated lures can be used up to 1 year after purchase.

**Trap Designs used with Lure**

PANTRY PATROL® “CORNER” pitfall traps contain a triangular pit to receive full dispenser of pheromone/oil. Dust cover is incorporated into cardboard packaging. PC Floor pitfall traps have a round plastic tray to receive food oil from a separate dispenser and filter papers placed in bottom of pit. PC Floor bait lures and Bullet lures can be used as a “dry” set (no oils). PC Grain Probes are best suited for bulk food storage totes and bins; food or pheromone lures or oil can be used.

**Trap Placement Techniques**

**Timing** - Traps can be placed year round but should be in greater numbers during the warmer months.

**Density** - It is recommended that traps be placed near materials susceptible to attack at one per every 10-25 feet.

**Location** - Trapping along corners, walls and posts is most effective for these beetles and trap designs. In residences, place on shelving of cabinets near food products. Use all traps at once for faster catch.

**Trap and Lure Maintenance**

Pantry Patrol traps must be replaced when filled with beetles or become dusty. Traps may remain effective for many months if maintained. Pheromone/oil mix must be replaced every 12 weeks. Oils will evaporate and change to a hard gel when outdated. PC Floor bait lures must be replaced every 4 weeks. The old lure should be removed from the trap. Bullet Lures should be replaced every 8 weeks. Trapped beetles should be recorded regularly on a separate monitoring Data Sheet to determine trapping trends.

**Expectations and Interpretations**

Threshold limits need to be established for each client where a trapping program is in place.

**Important Notes:**

Large numbers of beetles require other means of control and management to eradicate infestations. The aggregation pheromones used with these trapping combinations cannot be successfully be used in a mass trapping program for control, but are excellent tools to help you locate infested products in the early stages.