

# Red/Confused Flour Beetle



## Appearance:

Adults of both the red and confused flour beetles measure 1/8 inch long, and are reddish-brown in color. However, red flour beetle antennae terminate in an abrupt, 3-segmented club. Whereas confused flour beetle antennae gradually widen from the head outward. Wings functional but commonly flies only short distances. Also, the red flour beetle has functional wings but only flies short distances; while the confused flour beetle is never observed flying. Full-grown larvae of both species measure 1/8 to 1/4 inch long and are yellowish-white, and wiry in appearance.

## Habitat:

These beetles are unable to feed on whole kernels or undamaged grain. They have been recorded attacking grains and grain products, peas, beans, shelled nuts, dried fruits, spices, milk chocolate, drugs, snuff, cayenne pepper, herbarium and insect specimens, and other museum display and collection items. They are mainly attracted to flour of high moisture content. Although they do not injure humans, flour beetles do impart a disagreeable odor and taste to the flour and food products they infest. Red flour beetle adults can fly and are attracted to light. Confused flour beetles often crawl towards light sources.

## Diet:

Flour beetles are scavengers that cannot attack whole grains—they must rely on other insects such as rice weevils or lesser grain borers to first damage the kernels. They are known as “bran bugs” because of their preference for flour and flour by-products.

## Solutions:

**What you can do:** The first step towards stopping an infestation of red or confused flour beetles is locating and, if possible, removing the food source(s) or excluding the breeding site(s). Beetles, larvae and pupae can be removed using a vacuum cleaner fitted with a hose attachment. Flour, meal, cereal and other vulnerable items should be stored in airtight, thick-walled containers until needed. Infested items of value can be heat-treated in a warm oven (140°F) for 30 minutes to destroy all stages, or deep-frozen (0°F or colder for 72 hours) to destroy eggs, larvae and adults (but not all the pupae, if present).

Rodent bait that has been stashed away in structural voids by invasive mice, as well as dry animal carcasses in structural voids, may be infested by beetle larvae and can be difficult to locate and treat.

Infestations in large commercial settings, such as food processing plants, mills and warehouses must be addressed via an aggressive on-site cleaning and sanitation program. All floor areas (including edges and crevices), equipment surfaces, beams, bracework, exhaust fan components and other interior surfaces on which processed cereal and grain dust may accumulate, must be thoroughly cleaned.

**Professional Solution:** A Quik-Kill service technician will assist in locating red and confused flour beetle breeding sources and making recommendations for preventing re-infestation. A spot treatment of an infested structural void or a crack and crevice treatment into cabinet seams and shelf junctures may be applied by the technician to stop additional pest breeding.



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