

RED FLOUR BEETLE MANAGEMENT TIPS

by Dr. Pat Porter, Extension Entomologist

The red flour beetle, *Tribolium castaneum*, is one of the most common beetles infesting stored products in homes. The larvae and adults feed on grain and grain products, peas, beans, shelled nuts, dried fruit, spices, milk chocolate, and even dead insects. They are more likely to be found in processed grain products like flour or meal, and feed less on whole grains. The beetles are not toxic or venomous and not known to transmit disease. They do produce a foul-smelling odor when present in high numbers.

This publication presents best practices for dealing with indoor home infestations caused by large numbers of beetles outside the home.

Key Elements

Prevent beetle entry

- Weather seal the bottoms of doors.
- Caulk all cracks around windows and gaps in entry/exit holes in exterior walls for appliances and plumbing.
- Put fine mesh screen on roof vents, attic vents, soffit vents, and any under home access points. (Beetles can enter the attic and “crawl space” to then make their way into living spaces.) Conventional window screen will not prevent the small beetles from getting through, so purchase screen with a finer mesh.
- A pyrethroid insecticide barrier spray can be applied to exterior parts of the house to provide some repellent effect. In addition to some repellency, beetles that contact the insecticide will die, but probably live long enough to make entry. Most pyrethroid insecticides will provide at least 30 days of control when applied to the exterior of a house. (Pyrethrins, the organic alternative to pyrethroids, break down very quickly in sunlight and are not a good choice for exterior insect control.)
- Turn off all exterior lights if possible. Red flour beetles are attracted to light at night. Keep windows closed unless the screen has been switched to the type with a finer mesh than standard window screen.

Control Indoors

Perimeter sprays with synthetic pyrethroids or pyrethrins, the organic alternative to pyrethroids, can be done. **It is not necessary to treat large areas of carpets or floors, just spray corners and floor/wall junctions where the beetles naturally accumulate. Do not use insecticides in food preparation areas, and always read and follow the insecticide label. Only use insecticides labeled for indoor use.** Pyrethroid insecticides are explained here: <https://citybugs.tamu.edu/factsheets/ipm/ent-6003/>. A vacuum cleaner can be used to remove live or dead beetles but change bags frequently because the beetles have a foul odor.

What comes next?

An influx of red flour beetles from outside the home might set up a more typical, longer running infestation inside the home. Routine household infestations of red flour beetle and other stored product pests are common, and we address these situations here: http://lubbock.tamu.edu/files/2015/04/Pantry_Pests_E486.pdf.

Low-level infestations of red flour beetle can be monitored with pheromone (chemical attractant) traps. Trece Inc. (<https://www.trece.com>) sells Storgard Dome kits with red flour beetle pheromone for this purpose. These traps will not control the beetles, they are meant to allow their detection at low numbers.