

Pyralis farinalis (Linnaeus, 1758) (Tignola della farina)

Pyralidae Pyralinae Pyralini

Synonyms (species): *domesticalis* Zeller, 1847

Wingspan 18-30 mm.

The larvae of this colourful moth feed on stored grain, and the species is found mainly in barns, warehouses, and other grainstores.

The adults, which fly from June to August, rest characteristically with the tip of the abdomen curved up at right-angles to the body.



**Ord. Lepidotteri > fam. Piralidi > *Pyralis farinalis*
(tignola della farina)**

Cosmopolita, si insedia in ambienti umidi e su cereali o farine ammuffite: è indice di cattivo stato di manutenzione di impianti quali magazzini, mulini, mangifici e/o partite di derrate.

Tra i lepidotteri infestanti le derrate la *Pyralis farinalis* è forse la specie più appariscente: le ali anteriori sono maculate in modo caratteristico, di colore bruno, quasi cioccolato, nelle due fasce prossimale e distale, bruno chiaro nella banda intermedia; le ali posteriori sono nero-fumo, con due sottili bande biancastre. L'apertura alare è di 15-28 mm.

The genus *Farinalis* gets its name from the Latin *farina*, a fine meal of vegetable matter (as cereal grains, nuts or sea moss).

This cosmopolitan moth hangs out mainly in homes, barns, and warehouses where can be found grain or processed grain products. Larvae, which can grow to 20mm, feed on stored grain, flour, corn meal and other milled grain products.

Meal moths attack stored grain products or household foodstuffs. Once established in food, insect populations can increase and infest vulnerable material throughout the home, apartment, or storage area. Some adult moths do fly into the home through open doors or windows, but most are carried inside from outdoor storage or in packaged goods or groceries.

Everyone's home is vulnerable. However, those who do not store food properly have the greatest problems. Spilled or exposed foods attract the insects and increase the chance of infestation. Foods that are not tightly

sealed, especially those maintained for long periods of time, are particularly susceptible to infestation.

The Indianmeal moth and the Mediterranean flour moth are the most prevalent meal moths which infest foodstuffs in Washington. Several other moths that are found occasionally in foodstuffs include the meal moth, the whiteshouldered house moth, and the brown house moth.

The adult female meal moth lays about 200 - 400 eggs. The larval stage takes as little as 6 weeks. Larvae spin tough silk tubes that are coated or mixed with food particles; they stay in these tubes and feed from the open ends. When fully developed, the larvae leave these tubes and spin silken cocoons in which they pupate.

The larvae of this moth species feed on a variety of grain products. They are generally a problem on food products that are in poor condition, moist, or stored in damp places.

Prevention and Control of Meal Moths

Sanitation. The primary method for avoiding problems with stored product pests is good sanitation. Some points to remember include:

Spilling or leaving food exposed attracts and harbors these pests. Avoid these practices and you will probably never have this problem.

Cookie crumbs and bits of dried pet food may fall behind furniture or under appliances where children play or pets are fed. Toaster crumbs and crumbs from food preparation fall into cracks beside the stove or refrigerator. Stored grains, etc., may also fall behind storage drawers. Pull out appliances and drawers occasionally and thoroughly vacuum these out-of-the-way locations.

Buy "storage" food such as flour grains only in quantities that you will use in a reasonable length of time. Materials stored for long periods (for example, six months or more) are often the source of serious infestations. Pests can develop here without being observed and explode into near unmanageable numbers.

Most cupboard pests can chew their way into cardboard boxes or plastic sacks. Place stored materials into tight-fitting containers, preferably of glass or other tough material. If an infestation should occur under these conditions, it probably will be limited to a single jar. Glass jars should have rubber seals, and plastic containers must have tight-fitting seals. Tiny hatchlings can crawl through even the tiniest of gaps. The best storage is cool and dry. If at all possible, you may want to consider refrigerated storage of little used but important dry goods. When dried pet foods are accessible to mice, an unusual problem may occur. Rodents steal the pet food and may store large quantities in unobservable places, as in wall voids and sub-floor spaces. Then, if meal moth pests locate the stolen food, you will have a

difficult time finding and removing the problem source. Dried pet foods are one of the most frequent stored products attacked by these pests, so it is wise to be especially attentive to storage of these foods.

If such pests become apparent, locate the source immediately and get rid of it. If you act early enough, this may be the only material infested. Examine unopened cardboard boxes thoroughly. If there is the slightest suspicion, be ruthless - throw it out. If the material appears uninfested and you prefer to keep it, at least use a containment/inspection technique. Place the material in a jar or Ziploc bag and inspect it frequently. A jar with a tight seal is best since the insects cannot escape. Ziploc bags* are often more convenient, but you will have to inspect them more frequently. Many of these pests can chew their way out and move to new food sources.

Use a vacuum cleaner to remove debris from cracks and corners of storage areas. Also clean all nearby areas, especially spills and crumbs behind and alongside of stoves and refrigerators. Check the dishwasher area and toaster for crumbs. Scrub storage space and vicinity with very hot water and a strong detergent solution. Allow to dry thoroughly.

Chemical Control

Chemicals are not generally recommended. If the problem becomes severe and widespread, you might want to contact a reputable pest control operator (exterminator). Chemicals should not be the primary tool. They can only supplement the more important steps of sanitation. Location of the pests in food prohibits the use of sprays in those areas. Use sprays only in cracks, crevices, or areas away from food where larvae might hide, or where flying adults might collect.

Mechanical Control

Food which has been exposed but shows no visible signs of infestation may be placed in shallow pans and heated in an oven for about an hour at 140°F. Prop the oven door open slightly to prevent scorching the food. Also stir occasionally to encourage rapid heat penetration. Thorough freezing will accomplish the same end.