

# Pantry Moths - Life Cycle and Moth Control (part 1)



Once you see one pantry moth flying around your kitchen it's time to focus on getting rid of all the pantry moths you haven't seen yet. Why? One flying adult pantry moth means the odds of

a full pantry moth infestation are much higher. Typically moth larvae will already have been laid, and the pantry moth worms are ending their feeding stage and preparing to look for a mate to complete the pantry moth life cycle. Stay with us as we explore pantry moths origins, how to identify pantry moths, the pantry moth life cycle, and why the pantry moth is considered such a pantry pest. We'll finish with some ideas for pantry moth control, how to get rid of moths naturally, including [pantry moth traps](#).

## About Pantry Moths

It's not uncommon to see a moth and ask yourself: "What kind of moth do I have?". We will explore the answer and look at the moth - the Pantry Pest itself: Pantry moth identification, including some basic scientific entomology information, how the pantry moth life cycle progresses and varieties of pantry moths that you might encounter.

So let's get started as we explore *all about types of pantry moths*

## Types of Moths From a Scientific Point of View

Pantry Moths are a shorthand for any moths found in the kitchen feeding on grains. Specifically, pantry moths are either indian meal moths or mediterranean flour moths. For the pure entomologist:

Indian Meal Moth Identification / Scientific classification is:  
Animalia Kingdom, Arthropoda Phylum, Insecta Class,  
Lepidoptera Order, Pyralidae Family, Phycitinae Subfamily,  
Plodia Genus, Plodia interpunctella Species - Luckily, we can just use the shorthand - Indian Meal Moth or P. interpunctella.

Scientific Classification for mediterranean flour moth identification is: Animalia Kingdom, Arthropoda Phylum, Insecta Class, Lepidoptera Order, Pyraloidea Superfamily, Pyralidae

Family, Phycitinae Subfamily, Phycitini Tribe, Ephestia Genus, Kuehniella Species. Again, for short hand, **indian meal moth**, **mediterranean moth** or just **pantry moth**.

From here on out when we refer to Pantry Moths we mean either the indian meal moth or the mediterranean flour moth. The picture at the top of the article shows both moths caught by in the same [pantry moth trap](#). That means that one infestation has both moth species.

## **Fast Life Cycle Pantry Moths**

Entomologically, like most members of the insect class the pantry moths follow a life cycle of Eggs, Larvae, Pupa and adult hood. Typically, we first are alerted to the presence of pantry moths when we spot an adult haplessly flying by. But you can be certain their are more in the wings...

The full pantry moth life cycle can be completed in as little as 30 days or as long as 300 days depending on the conditions, food availability and temperatures. The warmer the temperature the faster the cycle completes.

### **Pantry Moths Life Cycle - Egg Stage**

How to identify a pantry moth egg? Moth eggs are white gray colour and are quite small, measuring only 1 to 2 hundredths of an inch. A female moth who has mated is capable of laying 400 eggs. The female moth will deposit eggs directly on the food source that will be used by the larvae. This requires the female moth to be able to find a food source; no food source, no larvae.

*Pantry Moth eggs* will hatch in about 7 days.

### **Pantry Moths Life Cycle - Larvae Stage**

The Pantry moth larvae stage is the feeding stage. A pantry moth egg produces a caterpillar worm-like moth larvae that may be a 1/2 inch long and contains about 5 pair of legs. Many times larvae will be mistaken for weevil grubs, but Pantry Moth Larvae have an off white color, but at this point, color really depends on

the food source, and can be light green, pale pink or brown. Once the larvae have gone through 5 stages of development their feeding is complete, and the moth larvae use their legs to find a location to pupate. By this time the damage to the top 2 inches of the food source is complete because of waste products left behind.

*Pantry Moth Larvae* will develop in 42 to 56 days.

## **Pantry Moths Life Cycle - Pupa Stage**

Pupae pantry moths can be found either lying in the open or many times in spun webbing cocoon. Oft times the pantry moth larvae will go somewhere other than the food source to pupate, typically seeking the crevices of pantry shelves, or the seams of doorways. In some cases, the larvae will spin the cocoon directly in the food source which is why stored foods may have a matted web when cleaning. Sometimes, the pupae will be in a nearby closet around clothing causing the pantry moth to be confused with a clothing moth.

Moth pupae are no more than 1/3 of an inch long and may be as small as 1/4 inch.

*Pantry Moth Pupa Stage* will last 15 to 20 days.

## **Pantry Moths Life Cycle - Adult Stage**

When you find a pantry moth flying around it is an adult. Having left the Larval and pupa stage, the adult pantry moth has finished feeding and has only 1 mission: To Create More Moths! Those moths will fly all over the house, typically at night, drawn to light and looking for a mate. The female moth will be releasing a pheromone or scent to help the male moth locate her so that she can lay her eggs. Adult moths will only live 1 or 2 weeks because they don't feed as adults. But with the ability to lay 400 eggs at a time, there always appear to be many adults to bug you.

An adult moth is roughly half an inch, and is 5/8 of an inch with wings extended. Depending on the type of pantry moth (see

pantry moths photo above) the coloring can differ. An indian meal moth has a redish tint on the rear area while the top of the moth appears mottled buff grey. A Flour moth is alternately grey and buff white with no hint of color. Both can be seen in the pantry moth photo pictured at the top of the page.

*Pantry Moth Adult Stage* will last 7 to 13 days.

## **By any other name, still Pantry moths**

As we mentioned at the start, the term pantry moths is really just one of many ways that consumers refer to these pantry pests (Flour Moths and Indian Meal Moths). In this section we try to explore all of the aliases used by our little brown pantry pests.

- **Mediterranean Flour Moth**  
This is the short moth name for *E. kuehniella* species.
- **Grain Moth**  
Because patry moths are often found in grains the grain moth name sticks. Sometimes this can be said as a rice moth, cereal moth, oatmeal moth, or corn moth.
- **Miller moth**  
Just a little different from the Grain moths, the miller moth is an older term referring to milled grains, and more typically rough milled grains like wheat moths, barley moth, bean moth or oatmeal moth. Most times this is a flour moth.
- **Pantry Moth**  
Where these moths are found also becomes the shorthand for their name. So Kitchen moths, cupboard moths, cake moths, bird seed moths, garage moths are not uncommonly heard.
- **Seed moth**  
Not only are grains infested, but also bird seed such as black oil sunflower, nyjer seed, millet and even parrot seeds can be infested by bird seed moths, but they are still just our friends the pantry moths.
- **Food moths**

This extends to pantry moths found in areas other than food preparation, such as the garage where dog food, cat food, wild bird seeds or even guinea pig pellets might be stored. Again, regardless of what food the moth is snacking on, you can bet it is a flour or indian meal moth.

## Why is the pantry moth a pantry pest?

When a pantry moth arrives in your kitchen and starts through the pantry moth life cycle, you quickly have hundreds of pantry moth larvae feeding on whatever they can find. Believe us, *pantry moth larvae worms* can find the most meager scraps of food on the floor of the pantry, or they will work their way into old boxes of corn meal, oatmeal even match boxes. *Pantry moth webbing* has been found everywhere from the edge of canned goods, to the underside of a screw on lid to peanut butter. If the food stuff is toward the back of the cupboard, the odds of infestation are higher, because it is dark and relatively undisturbed. But as time goes by, the **pantry moths need more food** and work their way forward.

Tired of an old box of cheerios? Corn starch you haven't touched in years? Don't worry, pantry moths love it!! They get everywhere, and cleaning up from an infestation takes time, and patience. But who wants to share their cereal with bugs? *Pantry Moths are the classic pantry pest* because they are just plain annoying. Once you have them, you'll want to **get rid of pantry moths** as soon as you can because they really are a PEST.

## How to get rid of moths

## Pantry Moth Infestation Control Tips



As we said in Part 1, once you see one pantry moth flying around your kitchen it's time to focus on getting rid of all the pantry moths you haven't seen yet. By now the Pantry Moths have moved from egg, to larvae to Pupae and now you have adult pantry moths. Pantry Moths who just want to start the pantry moth life cycle all over.

Controlling a pantry moth infestation is the key when figuring how to get rid of moths. Our focus is on getting rid of moths particularly pantry moth infestation control: how to get rid of moths naturally, including use of [pantry pest moth traps](#) and some folk remedies.

## Getting rid of Moths : Moth Control

Natural control is the preferred moth approach, but sometimes you just can't control moths. In those cases you need to need a safe, insecticide free way to take back control of your kitchen. The simple solution : [pantry pest traps](#).

We'll explore recognizing an moth infestation, cleaning up a pantry moth infestation, and Pantry moth control techniques including: Pantry Moth Pheromone traps, Folk Remedies and pesticides.

## Signs of a Pantry Moth Infestation

The obvious signs of moth infestation is adult pantry moths who fly around mostly at night. Once you have seen an adult pantry

moth in flight, head for the nearest food sources, and start looking for cocoon webbing, or worm-like moth larvae in very old dry food products. Check around edges of cupboards and food storage areas for webbing, or just open a plastic container or cereal box and notice an adult pantry moth fly out. In any of these cases you can be sure you have a moth problem. The type of moth is not really important, because the main types of pantry moths are all from the same Pyralidae Family and the techniques for effective control of pantry moths are all the same. So the first step to getting rid of pantry moth infestations is finding the source of the pantry moths.

## **Cleaning : The key to beating Pantry Moths**

Once the source of the pantry moths has been located its time to clean up the mess. The foodstuff these nuisance pantry pests have lived needs to be thrown out. When you control the source of food, you control the next wave of infestation.

If you are certain you have located the only food items infested, just put them in a garbage bag, seal it and throw it outside (don't even leave it in the garage until trash day, unless you want the risk of pantry moths in your garage too!).

If you are not positive that you have a single source then you will need a more methodical process:

1. Inspect every box, bag or package of food, even if it is sealed, open it
2. Check unlikely spots like dried flowers, children's macaroni art, pasta, pet treats, dog biscuits, candy bowls, etc.
3. Inspect every can or jar, the lips of lids and rims of cans are big enough for pantry moth pupa to spin a web. If you find webbing, wash it with vinegar.
4. Remove all shelving liners (maybe a good time to just replace them), sometimes pantry moth eggs may be laid in indentations, or on the underside of wire shelving.

5. Vacuum all edges of walls, baseboard, door trim, hardware and inside wood shelf support pin holes.
6. Wash down all walls, floors and especially the inside of the door hinges and door jamb; both are common moth larvae locations

When you are certain that you have thoroughly removed all of these sources of "young pantry moths", emptying the vacuum bag, and wash all garbage cans as a final measure.

At this point you may only have the stray adults to deal with, and you can move to the section below on **Pantry Moths Ongoing Control**

## **Pantry Moths Ongoing Control**

We receive a lot of inquiries from diligent house keepers wondering why they were not able to keep a kitchen clean enough to prevent pantry moths. Don't blame yourself! **Pantry Moths arrive inside** many foods that you bring into your house, and by opening the food you are unleashing an invasion force of pantry moths.

There is no way that you can prevent the food you buy from the *risk of pantry moths*. So you need to take pro-active measures to prevent a full scale pantry moth infestation. We review the most effective Pantry Moths Control approaches: [Pantry Moth Traps](#) and then also look at some less common methods including Temperature control, moth insecticide, pesticides and Pantry moth folk remedies.

### **Pantry Moth Pheromone Traps**

The safest, natural method to get rid of moth infestation is the use of Pheromone Based Pantry Moth Traps. Pheromone Traps are a natural moth trap free of poisons or pesticides. These pantry moth traps use a super sticky glue board, and the same **female pantry moth pheromone** that is released by the when the female moth is ready to mate. Male Pantry Moths will naturally follow the scent and become trapped in the pantry

moth trap, which prevents them from reaching the female and breeding, and breaks the pantry moth life cycle. We have an extensive article about picking pantry moth traps that you can review for brand recommendations, package sizes, moth trap dimensions and effectiveness.

## **Pantry Moths - Temperature Control**

Many sources recommend using your freezer as a form of pantry moth control. In this approach any new foods you bring home, should be placed in a sealable plastic bag and moved to a freezer for at least 8 days. Once removed from the freezer, keep the foodstuff in the plastic bag, as sometimes freezing pantry moths only slows places the moths into a dormant state until the temperature rises and they 'wake up'. While the freezer method may work, many consumers don't have enough freezer space to dedicate to pantry moths.

## **Using Insecticides and Pesticides on Pantry Moths**

Getting rid of a Pantry Moth with a general pesticides or moth specific pesticide is not on a bad idea, but it could be dangerous. Pantry moths feed on your food, and spraying your food, or pantry areas with chemicals to kill moths, could have very adverse side effects. If you choose pantry moth pesticides as a last resort, we recommend hiring a professional pest control company and at a minimum expect to get rid of all the food in your pantry an start over once the insecticide treatment is completed.

## **Folk Remedies for Pantry Moths**

Over the years we have heard many "natural moth traps" ( folk methods ) for moth control. Some may work, some just seemed a bit over the edge. We thought we would share a couple with you:

- **Pantry Moths & Bay Leaves**

Folk Advice: Place bay leaves in the top couple inches of any dry goods that you want to protect.

Our Opinion: You have better odds of preventing pantry moths by NOT opening the food items to place the bay leaves inside.

- **Pantry Moth Boric Acid Trap**

Folk Advice: Mix boric acid and cornmeal (1 to 3 ratio) and place in tuna cans.

Our Opinion: Odds are you won't attract adults, because they aren't eating, but the larvae may eat the poison and then move onto to your other foods. We suggest you not try to poison your self.

- **Wrigley's Spearmint gum**

Folk Advice: Place unwrapped sticks Wrigley's your pantry shelves.

Our Opinion: Gum is edible by moths, and it also contains sugar which moths love, use pantry moth traps to rid your kitchen of moths rather than leaving food out for the moths.