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*Advice to Grow By ... Ask Us!*

## HOME & GARDEN BAD GUYS – PANTRY PESTS

*By Nanette Londeree, Marin Master Gardener*

'Tis the season to be jolly, and eat and bake, and bake, and bake! Seems like more sweet stuff comes out of the oven during the last six weeks of the year, than in the ten preceding months combined! If you're part of the baking frenzy, ever been startled by a flurry of little flying beasts bursting out of a container of flour or corn meal? If so, you've met one of the obnoxious "pantry pests."

Meal moths, pantry beetles, grain beetles, confused flour beetles (now that's an apt description!), cigarette and drugstore beetles – all potentially unwanted visitors to your food and dry goods stash. These undesirable pests hitch a ride into your home via packaged food where they can rapidly spread to other foodstuffs. They're easy to overlook because the critters are small, especially in the egg and larval stages. The first time you may notice them is when you see a flutter of flying insects in a cabinet, or little beetles crawling over packages. It can be a rather gruesome sight to have living and dead insects and their waste products contaminating your bag of flour or dried fruit. Besides being unsightly, they can introduce microbes into the food that could produce mycotoxins (highly carcinogenic compounds), especially if the food is stored in warm, humid conditions. .

One of the most common pantry pests is the Indianmeal Moth, a small moth with reddish brown forewings and whitish gray body. They feed on a wide range of products from cereal, flour and rice to dried fruit, nuts, chocolate and candy. All the damage is done by the larvae, which is about 1/2-inch long and white with a greenish or pinkish hue. It takes only 6 – 8 weeks for the moth to go through its growth stages during warm weather, so there's the potential for multiple generations each year. And as they move quite a distance to pupate, they can be found far from their original food source.



The warehouse beetle feeds on an amazingly wide range of materials - cereals, candy, cocoa, cookies, cornmeal, fish meal, pet foods, flour, nuts, dried peas and beans, pasta, potato chips, spices, dead animals and insects, while grain beetles consume some of these along with stock and poultry feeds, coconut, bird seed, and even rodent bait! Flour beetles add drugs, herbarium and museum specimens to the list. Cigarette beetles enjoy cured tobacco, cigarettes, and cigars along with many of the delicacies above and hair, wool, dried pepper arrangements, wreaths, and spices like chili powder or paprika. Finally, the drugstore beetle gets its name from feeding on almost all drugs found in pharmacies! It has been said to "eat anything except cast iron." Phew! With that range of edible materials it's a wonder we can keep anything free from these piggy pests.



If you see the tiny moths or beetles crawling or flying around your kitchen, try to locate their food source and remove it. Look for a package damaged at the store or an open container that hasn't been used for a

while; you may not see insects but rather tiny holes in containers or webbing in the storage area. Most often, by the time you notice the pests, they've already spread to other food packages.

These tenacious critters can be really difficult to eliminate, especially if the infestation is severe. If you want to get these little beasts under control, remove everything from the storage area, vacuum cracks and crevices to remove eggs and pupae, and wash shelves with soap and water. Inspect each and every container; don't be timid at this point – toss any container that is even slightly questionable. Until you're sure you've eliminated them, store any susceptible food in airtight containers (plastic bags aren't adequate) or in a refrigerator or freezer. A few other tips to prevent these pests from invading your pantry – don't purchase broken or damaged packages of food materials; store bulk materials (like pet foods) in containers with tight-fitting lids, and clean the containers before filling them with fresh food.

Now, back to the season of baking!

*Photos courtesy of UC IPM website; from top, Indianmeal Moth and sawtoothed grain beetle*