

## Snap, Crackle and Pop! Grain Beetles

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It's still early morning, you are running a little late to get the kids fed and off to school. You are near the kitchen pantry and grab the unopened box of cereal you just purchased from the grocery store the other day. You hastily pour the cereal into each bowl and add milk, when all of a sudden you see something crawling inside the cereal. Just at that moment, the youngest one starts to take a heaping spoonful and you yell, "DON'T EAT THAT! It's got GA'GA (bugs, for you non-chamoru speakers) INSIDE!"

Many have purchased cereal, rice, pasta, ichiban, candy, or flour from the grocery store and realized, to dismay, that it was infested with crawling little creatures. Shivers usually go up and down one's spine when they see these creatures in something that they have already taken a bite of. Snap, Crackle and Pop will take on a brand new meaning on those encountered with this scenario.

Most stored product pests are insects that are found within the beetle world, though there are a few moths that are stored product pests as well. On Guam, there are five important stored product pests – the granary and rice weevils, the red and confused flour beetles, and the grain beetle. On rare occasions, grain and cereal moths can also be a problem. Most of these pests enter the home via food items already infested with these insects. Usually, the first noticeable sign that one has a



problem is the appearance of small beetles crawling over the counter top. Certain grain items that are not frequently used, such as wheat or flour, may be slightly infested when they are purchased, but over time, a large number of beetles can be generated and will eventually be found crawling outside of their original package.

Beetles are insects that have very hard front wings that offer them lots of protection and chewing mouthparts, which they use to penetrate wrappers or cardboard boxes as they make their way towards their food of choice.

The adults of these beetles and weevils are quite small in comparison to an adult housefly or a honeybee. Adults range in size from one-eighth to one-fourth inches long. Weevils differ from beetles in that weevils have a very extended snout – “a good sized nose.” Like many of their insect relatives, these stored product pests can reach huge numbers if left unchecked. In my office at UOG, sealed in a glass container, I have about 1,000 grain beetles feeding on less than four ounces of uncooked pasta. Tremendous numbers of stored product pests can be generated on a little amount of food.

So what can a homeowner do to keep these stored product pests out of the home and kitchen cabinets? The first line of defense is at the grocery market. Inspect all packages before bringing them home. Look for small entry holes

in the wrappers or cardboard boxes the items come in. Items like processed grain (flour and rice), dried fruits, dry pet food, candy bars, tobacco, seeds and nuts, and spices are all sources of food for these insect pests.

If infested food items are found in the home, they should immediately be thrown away. Once an item is found to be infested, check all stored food items in pantries or on nearby shelves. Thoroughly vacuum the shelves and use a crevice attachment to clean cracks and crevices.

Proper storage and good sanitation are the keys to preventing certain problems. In Micronesia, it is important to place products sold in cardboard, paper, or thin plastic material into glass jars or other containers

that can be sealed tightly. Houses that do not have air-conditioned kitchens will either need to seal these items or store them inside the refrigerator or freezer. If at all possible, try to keep these materials cool and dry. Freezing most food items for four to five days at 0°F will kill most stored-product pests. Since most home freezers do not get that cold, it therefore requires 12-15 days to kill beetle or moth pests.

The use of insecticides around food items is not recommended. It is much better and a lot safer to throw away contaminated food items or any other product that might be infested, than to pick up a can of insect spray. The best advice is to throw it out if there exists any concerns regarding a food item's safety.

*This factsheet was part of a series on household insects written for the Pacific Daily News from September 1997 - November 1999. Content has been verified as of January 2017.*