

Storage of Grain and Legumes at Home

Grains and dried beans and peas that have a low moisture content can be stored safely at home. Storing in 10 to 15 pound amounts is ideal. This quantity can be easily handled and readily inspected for contamination.

Use storage materials manufactured for food use such as plastic freezer bags or plastic buckets that once held food. When using plastic bags, double bag in two bags. Place filled bags in containers with tight-fitting lids to prevent rodent damage. Containers with a press lid instead of a screw-on lid should be sealed with duct tape.

Insect Control

The best way to prevent insect infestation is to store uninfested grain and legumes in insect-free containers.

Insect-infested grain and legumes can be treated to kill insects and their eggs, but insect fragments and the changes they cause in odor and flavor will remain.

Freezing and dry ice fumigation are suitable methods for controlling insects at home. Dry ice is not the most effective fumigant for controlling pests in stored grain and legumes, but it is a safe technique for home use.

Freezing

Place 1 to 15 pounds in a heavy (or double bagged) bag and store in a freezer for 2 to 3 days. Remove the bag from the freezer and leave in a warm room for 24 hours for condensation on the outside to evaporate. Refreeze multiple times until no further insect activity is observed. Then store in tight containers.

Dry Ice Fumigation

To fumigate in 5 gallon containers, spread about 2 ounces of crushed dry ice on 3 to 4 inches of grain or legumes in the bottom of the container. (Wear gloves to protect your hands.) After the ice is added, fill the container to the desired depth. (For 100 pounds of grain, use ½ pound of dry ice.)

The dry ice will replace oxygen with carbon dioxide. Allow about 30 minutes for it to evaporate before placing the lid tightly on the container.

Storage

Store containers in a cool, dark, dry area. Storage at 40 to 60°F. is optimal for maintaining nutritive value. To prevent moisture contamination on the bottom, don't store containers directly on a cement floor.

Inspect containers monthly for three months. If insects are seen, treat the grain or legumes with dry ice or by freezing.

It's wise to rotate your stored grains and legumes every three to five years.

Adapted from Utah State University

Source: Family Food Education Program



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