

**U.S. Food and Drug Administration****CENTER FOR FOOD SAFETY AND APPLIED NUTRITION**

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A Notice from the Food and Drug Administration to Growers, Food Manufacturers, Food Warehouse Managers, and Transporters of Food Products About the Safety of Food Affected by Hurricanes, Flooding, and Power Outages

As we put our homes and lives back together in the aftermath of hurricanes, floods, and power outages it is important to remember that these events also have a lingering and potentially hazardous public health impact. Grain and vegetable crops, food manufacturing facilities, food warehouses, and food transporters may have been flooded or lost power. In some areas, crops along with other processed food and food products may be submerged in flood water and may have been exposed to sewage, chemicals, heavy metals, pathogenic microorganisms or other contaminants. Even if the crop is not completely submerged, there may still be microbial contamination of the edible portion of the crop. There is also the potential for plants to take up chemical contaminants. In addition to the direct presence of contaminants, mold and toxins may develop in the crops and food products as a result of exposure to the water. In addition, if power has been lost, perishable or frozen foods are at risk of spoiling.

The federal Food and Drug Administration (FDA) advises that certain foods exposed to flood waters, and perishable foods that are not adequately refrigerated, are adulterated and should not enter the human food supply. In addition, crops and other food commodities exposed to flood waters would not be acceptable for use in animal feed. FDA is also providing guidance in determining when food products can be reconditioned for future use. The information follows.

FOODS THAT SHOULD BE DESTROYED

Crops

If the edible portion of a crop is exposed to flood waters, it is considered adulterated and should not enter human food channels. There is no practical method of reconditioning the edible

portion of a crop that will provide a reasonable assurance of human food safety. Therefore, the FDA recommends that these crops be disposed of in a manner that ensures they are kept separate from crops that have not been flood damaged to avoid adulterating "clean" crops.

Disposition of crops in proximity to, or exposed to a lesser degree of flooding, where the edible portion of the crop has NOT come in contact with flood waters, may need to be evaluated on a case-by-case basis. Factors to consider in the evaluation include:

- What is the source of flood waters and are there potential upstream contributors of human pathogens and/or chemical contaminants?
- Type of crop and stage of growth, e.g., is the edible portion of the crop developing? How far above the ground does the lowest edible portion grow?
- Were conditions such that the crop may have been exposed to prolonged periods of moisture and stress which could foster fungal growth, and possibly, development of mycotoxins?

Grains and similar products stored in bulk can also be damaged by flood waters. These flood damaged products should not be used for human and animal food.

Fresh Fruits and Vegetables

Fresh fruits and vegetables that have been inundated by flood waters cannot be adequately cleaned and should be destroyed. Fresh fruits and vegetables that have begun to spoil due to the lack of refrigeration should also be destroyed. These food items may be considered for diversion to animal feed under certain circumstances.

Food Requiring Refrigeration and Freezing

Refrigerated and frozen foods, including beverages such as milk, that have been immersed in flood waters must be destroyed. Storage vats or sealed tanks of milk in processing plants that have been under water cannot be reconditioned. Foods that have begun to spoil due to the lack of refrigeration must also be destroyed. These food items may be considered for diversion to animal feed under certain circumstances.

Food in Screw-Top, Crimped-Cap, and Similar Containers

Products in containers with screw-caps, snap-lids, crimped-caps (soda pop bottles), twist-caps, flip-top, snap-open, and similar type closures that have been submerged in flood waters cannot be reconditioned. Sediment and debris from flood water that have may become lodged under the cap lips, threads, lugs, crimps, snap-rings are impossible to remove, especially after they have dried.

Food Packed in Plastic, Paper, Cardboard, Cloth, and Similar Containers

Food packed in these containers, which have been water damaged, cannot be salvaged.

THE FOLLOWING PRODUCTS MAY, UNDER SOME

CIRCUMSTANCES, BE RECONDITIONED FOR FUTURE USE

Reconditioning Hermetically Sealed (Top and Bottom Double Seam) Cans

Products in this type of container that have been under water may be reconditioned and relabeled under certain conditions.

General rules for reconditioning foods can be found in the [FDA Investigations Operations Manual](#).

For further information about human food, contact the Office of Compliance, Center for Food Safety and Applied Nutrition (301-436-2359). For animal feed questions contact the Office of Compliance, Center for Veterinary Medicine (240-276-9200). Alternatively, you may contact the [FDA District or Regional Office](#) serving your state.

For more information, see [What Consumers Need to Know About Food and Water Safety During Hurricanes, Power Outages, and Floods](#) (Also available in [French](#) and [Spanish](#)). .

[Food Safety Information for Hurricanes, Power Outages, & Floods](#)

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