

PROPER MANAGEMENT OF FLOODED GRAIN AND HAY

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Farmers affected by the recent floods in Iowa should be aware that ruined grain and hay must be disposed of properly and safely to avoid combustion.

HANDLING FLOODED GRAIN

Flood waters have soaked grain bins on farms or at commercial elevators. With only a few exceptions, flood-soaked grain is not usable for feed or food. To be considered for use in animal feed, these products must be tested, and a diversion plan must be submitted. Plans for grain kept in intra-state will be handled by the Iowa Department of Agriculture and Land Stewardship (IDALS). Plans for grain in inter-state commerce will be handled by the U.S. Food and Drug Administration. For more information visit www.iowaagriculture.gov or contact IDALS Feed & Fertilizer Bureau at 515-242-6338, Kevin Klommhaus, Bureau Chief.

Wet grain molds and heats rapidly and is most likely not salvageable. Wet feed should not be given to animals (domestic or wild) since it may contain contaminants from floodwaters or toxins. Drying wet seed grain is probably not practical as drying halts the germination process and prevents later growth.

The disposal options below are for farm operations dealing with damaged grain or hay as a means of handling the material on their own property/farm ground.

First, working from the top or side, act quickly to remove and store dry grain in a separate location. Farms disposing of spoiled grain and feed on their own property can land apply damaged grain at the following application rates:

- **Corn:** 4.1 tons/acre or 146 bushels/acre
- **Soybeans:** 1.5 tons/acre or 50 bushels/acre
- **Oats:** 1.2 tons/acre or 75 bushels/acre



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Contaminants and spoilage can prevent flood-damaged grain from being used for feed or fuel. Contact the Iowa Department of Agriculture and Land Stewardship for information on salvaging flooded grain. Or, protect livestock and wildlife by working with the Iowa Department of Natural Resources for proper disposal.

Spoiled grain needs to be incorporated/disked into the ground the same day of application to prevent poisoning migrating waterfowl and other birds. While mammals will generally avoid moldy or bad-tasting grain, birds do not have a sense of smell. It's fairly common for birds to eat damaged grain and become sick or die. For the same reasons, as well as run-off concerns, avoid stockpiling grain at the application site.

Producers can contact Matt McDonald, DNR Solid Waste, at 515-281-8150 for more information on proper disposal.

HANDLING FLOODED HAY

Flood-damaged hay also poses a risk of combustion. Separate dry hay from wet hay. Monitor the damaged hay for signs of heating, such as a strong burning odor, noticeable vapor or a warm feeling to the touch. Check the temperature of the hay regularly. If it rises above



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140 degrees Fahrenheit, carefully remove the hay from the storage area. Moving it too quickly can cause it to burst into flame. For assistance, contact your local fire department to have them on stand-by while the hay is transferred.

If you choose not to salvage flood-damaged hay, move hay away from buildings as soon as possible since spontaneous combustion can occur within several weeks. Land apply the hay by chopping or disking it back into the soil. Contact your local Iowa State University Extension office (www.extension.iastate.edu/ouoffices.htm) for recommended application rates. If dead animals are managed on site through composting, hay can be used as a cover material or bulking agent.

As a last resort, farmers can contact their local landfill to see if disposal is an option.

Flood-damaged hay can pose a risk of fire. Frequent monitoring and carefully moving wet hay may prevent combustion.

CONTACTS

Iowa Department of Agriculture

www.iowaagriculture.gov/

Feed and Fertilizer Bureau, Kevin Klommhaus, Bureau Chief at 515-242-6338

Iowa Department of Natural Resources

DNR Field Office locations for information about on-farm land application

DNR Solid Waste Section, Matt McDonald, 515-281-8150 or Matt.McDonald@dnr.iowa.gov

Iowa State University Extension

Disaster Recovery

Office Locations



IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP



IOWA DEPARTMENT OF NATURAL RESOURCES