



Distilling By-Products on the Farm

What Are Distilling By-Products?

Distillers grains is one of the by-products from the process of distilling spirits. These grains are marketed in several forms based on moisture content. Distillers grains is an acceptable form of livestock feed and may be sold as wet, modified or dried.

- Wet, or “thin stillage,” is often 6% dry matter. Thin stillage is very perishable and becomes spoiled after only a day or two.
- Modified, or “wet cake,” contains approximately 28% - 50% dry matter. Decreasing the moisture content allows for a slightly longer shelf life of about one week.
- Dried distillers grains, which is generally 85% - 95% dry matter, have an extended shelf life and can be transported longer distances. However, some feeding value may be lost in the drying process.

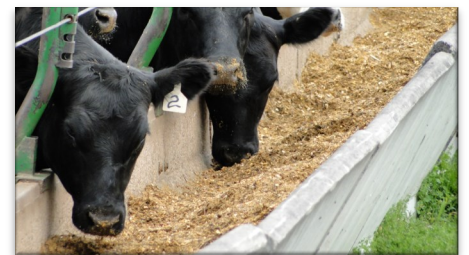
For more information on feeding distillers grains, see the University of Kentucky, College of Agriculture, Cooperative Extension Service publication – *Distillers Grain Coproducts for Beef Cattle* ([ASC-186](#)).



What Can a Farm Do with Excess Distillers' Grain?

Distillers grains that has not been eaten by livestock may be tested and applied to land as a soil amendment for beneficial reuse. Applying the distillers grains to the land must have a beneficial use and the application must not violate Kentucky environmental performance standards ([401 KAR 47:030](#)).

In some commercial applications, a permit may be required and must be obtained from the Division of Waste Management (DWM), Solid Waste Branch. It is suggested that you contact the Solid Waste Branch at 502-564-6716 to answer any questions on proper application and management.



Management of distillers grains may not violate Kentucky Environmental Performance Standards ([401 KAR 47:030](#)).

Can Excess Distillers Grains Go In My Lagoon?

Many farms have a lagoon for manure, which requires an [Agricultural Kentucky No Discharge Operational Permit](#). This type of permit is only available for **animal waste handling systems**.

If a farm takes distillers grains as animal feed, and all of the grain is eaten, no changes are needed. If a farm takes distillers grains and has excess that is either unconsumed or spoiled and wants to put the excess distillers grains in the lagoon, they must first get either an [Industrial Kentucky No Discharge Operational Permit](#) or [Kentucky Pollutant Discharge Elimination System \(KPDES\) permit](#), because the distillers grains is an **industrial waste**.

By putting the excess distillers grains in the lagoon or storage pond, the lagoon and all its contents now become a **special waste** (waste from an industrial process) and land application of the contents of that lagoon requires a [Special Waste Registered Permit-by-Rule for Beneficial Reuse](#) permit to be obtained from DWM ([401 KAR 45:070](#)).



Odor Standard

Kentucky has an odor standard that applies to outdoor or ambient air ([401 KAR 53:010](#)). When an odor complaint is received, the Division for Air Quality (DAQ) staff will visit the site of the reported odor to investigate. An inspector will sample the air using a device that mixes the outdoor air with odorless (filtered) air. A violation is documented if an inspector detects an odor with the device.

Strong and steady odors are often required to document a violation of the Kentucky odor standard. Many odors not rising to the level of a violation are, nevertheless, corrected through cooperative efforts between the inspector and responsible party.

Need More Information?

The Environmental Compliance Assistance Program (ECAP) assists businesses, individuals and organizations in complying with environmental requirements. Contact the program for any of your environmental compliance assistance needs.

This document is not a substitute for Kentucky's statutes and regulations governing the applicability and issuance of environmental permits.

The information in this document is offered only as general guidance. It is not a substitute for reading and understanding Kentucky's statutes and regulations governing the applicability and issuance of environmental permits. Specific requirements may vary with location. ECAP is not authorized to relieve any person from any requirement of federal regulations or Kentucky law through this document.

