



# Distillers Grains By-products in Livestock and Poultry Feeds

## What's inside

### General Information

- [Overview](#)
- [Nutrient Profiles](#)
- [Location of U.S. Plants](#)
- [Analytical Procedures](#)
- [Feeding Recommendations](#)
- [Types of Distillers By-products](#)

### Technical Information

- [Beef](#)
- [Dairy](#)
- [Poultry](#)
- [Sheep](#)
- [Swine](#)
- [Horse](#)
- [Companion Animals](#)
- [Aquaculture](#)
- [Industry](#)
- [Processing, Storage, Quality](#)

### PowerPoint Presentations

### International

- [International Research](#)
- [Translated Material](#)

For additional information,  
contact:

[Dr. Jerry Shurson](#)  
Phone: 612-624-2764  
Fax: 612-625-1210

University of Minnesota  
Department of Animal Science  
305 Haecker Hall  
1364 Eckles Avenue  
St. Paul, MN 55108



College of Food, Agricultural and  
Natural Resource Sciences

UNIVERSITY OF MINNESOTA

[Home](#) > [More About Distillers Grains By-products](#)

## More About Distillers Grains By-products

### The Value and Use of Distillers Grains By-products in Livestock and Poultry Feeds, continued

Of these dry-grind ethanol plant by-products, distillers grains with solubles (DDGS) is the predominant by-product being marketed domestically. Several relatively new ethanol plants were designed and built without dryers. As a result, approximately 40% of the distillers grains with solubles is marketed as a wet by-product for use in dairy operations and beef cattle feedlots. The remaining 60% of distillers grains with solubles is dried (DDGS) and marketed domestically and internationally for use in dairy, beef, swine and poultry feeds. More than 8 million metric tonnes of distillers grains with solubles will be produced in the year 2006. Some industry experts are predicting that distillers by-product production will reach 10 to 14 million metric tonnes within the next few years. Corn is the primary grain used in wet mills and dry-grind ethanol plants because of its high fermentable starch content compared to other feedstocks. Therefore, the majority of information included on this Web site involves the evaluation of corn distillers by-products in livestock and poultry feeds. However, some ethanol plants use sorghum, or blend corn with barley, wheat or sorghum to make ethanol and distillers by-products, depending on geographical location, cost, and availability of these grains relative to corn. The beverage alcohol industry also produces grain by-products in the form of DDGS (whiskey distilleries) or brewers grains (beer manufacturing). As a result, we have also included a section for research and technical information specific to sorghum DDGS (see [Types of Distillers By-products](#)). All of these by-products are nutritionally different from each other and have different economic value in various types of animal and poultry feeds. There are a wide variety of ethanol by-products available to livestock and poultry producers, but they vary in nutrient content, quality, and feeding value.

Because of the large supply of distillers grains by-products (including DDGS) available to the feed and livestock industry, researchers at several Land Grant Universities have been conducting experiments to evaluate the nutritional value of these by-products in order to develop feeding recommendations for dairy, beef, swine, and poultry. In addition to DDGS research conducted by scientists in the [Department of Animal Science](#) at the University of Minnesota, we are pleased to provide you with research and technical publications from researchers at:

University of Georgia  
University of Illinois  
Iowa State University  
Kansas State University  
Michigan State University  
University of Nebraska-Lincoln  
South Dakota State University

Many of these publications have been translated into various languages in [Translated Materials](#) in the International section.

©2006 Regents of the University of Minnesota. All rights reserved.

[Trouble seeing the text?](#) | [Contact U of M](#) | [Privacy](#)

*The University of Minnesota is an equal opportunity educator and employer.*

Last modified on 3/11/06