



Dried Distillers Grains with Solubles **DDGS**



What is Dried Distillers Grains with Solubles?

Dried Distillers Grains with Solubles or DDGS is a high quality feedstuff ration for cattle, dairy, swine and poultry. DDGS is a co-product of ethanol production from grains. In ethanol production, the starch from the corn is fermented to obtain ethyl alcohol, but the remaining components of the grain kernel (endosperm, germ) preserve much of the original nutritional value of the grain. Due to concentration that occurs during production of DDGS, protein, vitamin and mineral levels are tripled in the end product as compared to corn. Additional protein is gained from the yeast used during the fermentation process. DDGS are high in protein, energy, fiber and oil, and provide cost-savings as a feed ingredient. SWGE employs the best technology available to maintain a high level of quality with its DDGS. SWGE's DDGS has already earned an exceptional reputation among poultry integrators, swine, cattle and dairy farmers in the Southeast for its consistent quality. SWGE offers a guaranteed analysis which defines the protein, fat, fiber and moisture levels contained in all of its DDGS.

DRIED DISTILLERS GRAINS WITH SOLUBLES



Guaranteed Analysis (as is)

Crude Protein	not less than 25%
Crude Fat	not less than 9%
Crude Fiber	not more than 15%
Moisture	not more than 13%

Ingredients: Corn Net Weight: Bulk

What Quality Control Measures Are Applied to Ensure Consistent Quality?

If corn containing aflatoxin or toxins is used to produce ethanol and DDGS, those toxins are concentrated by three-fold compared to the initial level found in the corn. Aware of the concentration effects, SWGE carefully monitors corn for toxins. We purchase the majority of our corn from the Eastern corn belt where there is minimal risk of aflatoxin. Each rail car is certified by USDA as to its aflatoxin and vomitoxin content. SWGE tests all local corn for aflatoxin. SWGE also tests its DDGS daily for moisture levels. Samples are sent bi-monthly to an independent lab to test for protein, fat and fiber levels. These samples are retained on site for a two week period. A sample analysis report is shown below.



Waters Agricultural Laboratories, Inc.

Feed Analysis Report

P.O. Box 382 * 257 Newton Highway * Camilla, Georgia 31730-0382 * phone: (229) 336-7216

Ship To: FIRST UNITED ETHANOL 4433 LEWIS B COLLINS RD PELHAM, GA 31779-	Grower: FIRST UNITED ETHANOL					
	<table border="1"> <tr> <td>Sample Number: 1400110</td> <td>Date Submitted: 03/10/2010</td> </tr> <tr> <td>Lab Number: 620</td> <td>Report Date: 03/12/2010</td> </tr> <tr> <td>Sample Description: DDG</td> <td></td> </tr> </table>	Sample Number: 1400110	Date Submitted: 03/10/2010	Lab Number: 620	Report Date: 03/12/2010	Sample Description: DDG
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Sample

Moisture	9.93	%
Crude Protein	26.62	%
Crude Fat	10.76	%
Crude Fiber	7.10	%

Results Reported On: W=WET(AS RECEIVED)BASIS

Remarks

What is the shelf life of DDGS?

If handled correctly, DDGS have a similar shelf life as compared to other grains. Due to the low moisture content, there is minimal risk of spoilage during transit and storage. In a U.S. Grains Council field trial, DDGS was shipped from an ethanol plant in South Dakota in a 40 ft. container to Taiwan. Upon arrival in Taiwan, DDGS was put into 50 kg bags and stored in a covered steel pole barn for 10 weeks during the course of the dairy feeding trial on a commercial dairy farm located about 20 km south of the Tropic of Cancer. Environmental temperatures averaged 90+ degrees F and humidity was in excess of 90% during this storage period. Samples of DDGS were collected upon arrival at the farm and again after the 10 week storage period. There was no change in peroxide value (measure of oxidative rancidity of oil) during this trial.

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