

VARENNES PLANT

Corn Distillers' Dried Grains with Solubles

DESCRIPTION:

Corn Distillers' Dried Grains consist of the portion of corn or grain mixture in which corn predominates, the yeast that remains after yeast fermentation and the ethyl alcohol distillation of the mash. The product is moderately coarse, friable and golden in colour. Fermentation of the starch, which is 2/3 of the weight of cereal grains, results in a 3 fold concentration of non starches such as proteins, fats, minerals and vitamins. During the fermentive process, yeast cells grow and multiply to produce additional protein, vitamins and growth factors and add further nutrients to the fermented corn residue.

TYPICAL RESULTS: (Dry matter basis)

Dry Matter, %	89.0
Crude Protein, %	30.5
Crude Protein, % (as fed)	27.2
Acid Detergent Insoluble Crude Protein, %	3.4
Neutral Detergent Insoluble Crude Protein, %	6.8
Soluble Crude Protein, %	14.5
Crude Fibre, %	7.3
Crude Fibre, % (as fed)	6.5
Acid Detergent Fibre, %	16.3
Neutral Detergent Fibre, %	32.8
Lignin, %	4.6
Fat, %	14.3
Fat, % (as fed)	12.7
Non Fibre Carbohydrates, %	22.5
Total Digestive Nutrients, %	85.2
Net Energy for Lactation, M cal/lb	0.97
M cal/kg	2.1
Net Energy for Gain, M cal/lb	0.71
M cal/kg	1.6
Net Energy for Maintenance, M cal/lb	1.03
M cal/kg	2.3

Calcium, %	0.03
Phosphorous,%	0.92
Magnesium, %	0.37
Potassium, %	1.07
Sodium, %	0.26
Sulphur, %	0.63
Iron, ppm	89
Zinc, ppm	64
Copper, ppm	3
Manganese, ppm	15
Starch, %	4.1
Simple Sugars (Ethanol Soluble Carbohydrates), %	6.6
Ash, %	6.6
Lysine, %	0.97
Available Lysine, %	0.89
<u>Particle Size, %</u>	
> 2.00 mm	5.0
1.40 mm	14.9
1.00 mm	28.6
850 µm	13.0
500 µm	30.8
425 µm	2.9
250 µm	1.8
< 250 µm	0.6

N=40 samples

FEEDING SUGGESTIONS :

Corn Distillers Dried Grains with Solubles (Maximum levels)

(Corn Distillers Dried Grains are a good source of energy, protein, and many other essential nutrients and fermentation factors)

>dairy: 20 %

>beef: 40 %

>sheep: 20 %

>poultry:

>swine:

>broilers: 10 %

>nursery pigs (>15 pounds): 25 %

>layers: 15 %

>grower – finisher: 20 %

>turkeys: 10 %

>gestation sows: 40 %

>starter chicks: 5 %

>lactation sows: 20%

REFERENCES:

Distillers' Grains Technology Council (www.distillersgrains.org)

National Corn Growers' Association (www.ncga.com)

FMCQ – V – 007.01E

Results: Nov. 1st, 2007 to March 31, 2008
April 23, 2008 - JM