

(DDGS)



() SILO

1. ()

DDGS(Distiller's Dried Grains with Solubles)

11.1% 4.5%
 . DDGS 가 가
 가
 . DDGS

3.8%, 8%, 11.2%, 15%, 62%,
 Promotion

2.DDGS

DDGS Traditional Corn DDGS High Quality Golden Corn DDGS
 Traditional Corn DDGS

3 . DDGS
 30%, 9%, 15%,
 5.5%, 9% .DDGS
 , , ,
 80
 , 2005 17
 . 2004 700 DDGS가 600
 100

Dry DDGS
 High Quality Golden Corn DDGS

. 17-20%
 2008 1,400

Dry
 .High Quality Golden

. 84.4%

Corn DDGS

Traditional Corn DDGS DDGS New DDGS
가 가 가
가 . High
Quality Golden Corn DDGS New Generation 3.DDGS

Nutrient	High Quality Golden Corn DDGS Sources	Traditional Corn DDGS Sources	DDGS NRC (1999)
Dry matter, %	88.9 (1.7)	88.3 (0.9)	89.0
Crude protein, %	30.2 (5.4)	28.1 (5.4)	29.8
Crude fat, %	10.9 (7.8)	8.2 (12.5)	9.0
Crude fiber, %	8.8 (8.7)	7.1 (4.2)	4.8
NDF, %	42.1 (14.3)	35.4 (1.8)	17.5
ADF, %	16.2 (28.4)	16.7 (-)	37.2
Ash, %	5.8 (14.7)	6.3 (17.5)	-
Swine DE, kcal/kg	3980 (3.2)	3879 (2.5)	3449
Swine ME, kcal/kg	3749 (3.3)	3661 (2.7)	3036
Arginine, %	1.20 (8.1)	0.92 (18.7)	1.22
Histidine, %	0.76 (7.8)	0.51 (15.2)	0.74
Isoleucine, %	1.12 (8.7)	1.00 (8.1)	1.11
Leucine, %	3.55 (5.4)	2.97 (12.4)	2.76
Lysine, %	0.65 (17.3)	0.53 (25.5)	0.67
Methionine, %	0.55 (13.5)	0.50 (4.5)	0.54
Phenylalanine, %	1.47 (5.6)	1.27 (8.1)	1.44
Threonine, %	1.13 (5.4)	0.98 (7.3)	1.01
Tryptophan, %	0.25 (5.7)	0.19 (19.8)	0.27
Valine, %	1.50 (7.2)	1.39 (2.3)	1.40
Swine App. Dig. Arg, %	0.90	0.60	0.66
Swine App. Dig. His, %	0.51	0.30	0.45
Swine App. Dig. Ile, %	0.72	0.42	0.73
Swine App. Dig. Leu, %	2.57	1.84	2.10
Swine App. Dig. Lys, %	0.44	0.00	0.31
Swine App. Dig. Met, %	0.32	0.24	0.39
Swine App. Dig. Phe, %	0.69	0.66	1.09
Swine App. Dig. Thr, %	0.62	0.36	0.56
Swine App. Dig. Trp, %	0.15	0.15	0.14
Swine App. Dig. Val, %	0.92	0.51	0.66
Calcium, %	0.06 (57.2)	0.44 (34.7)	0.22
Phosphorus, %	0.69 (11.7)	0.90 (7.5)	0.63
Swine Avail. Phosphorus, %	0.60	--	0.64
Sodium, %	0.24 (70.5)	0.28 (52.2)	0.25
Sulfur, %	0.47 (37.1)	0.51 (43.5)	0.30

*values in [] are coefficients of variation amongstead plants.

*National Research Council(NRC)

Comparison of Nutrient Composition of DDGS (100% Dry Matter Basis)

Between High Quality, Golden DDGS Sources, Traditional DDGS Sources, and Values Published in the Swine NRC (1998).

4.High Quality Golden Corn DDGS



5.

Ethanol Plants in North America - June 16, 2004



6.DDGS

단위: 천톤

년도별	2004년	2005년	2006년	2007년	2008년
생산량	6,928	8,363	10,000	12,000	14,000

7.DDGS

단위: 천톤

구분	2001년	2002년	2003년	2004년
Dairy	60%	45%	48%	44%
Beef	38%	35%	36%	37%
Swine	4%	15%	11%	18%
Poultry		5%	4%	3%
합계	100%	100%	100%	100%

8.

구분	비율(%)	비고
Ireland	22.5	
UK	24.0	
Canada	11.0	
Spain	9.3	
Mexico	9.2	
Portugal	8.3	
남미	11.1	
아시아	4.5	
합계	100	

*아시아 지역에 대한 수출은 주로 말레이시아, 인도네시아, 타이완, 일본 등으로 많이 수출되었다.

9.

400

DDGS High Quality Golden Corn DDGS 40'

