



# High Quality Golden Corn DDGS 가



( )

SILO

1. 가 . Wet

가 , DDGS , , , , 83 , 16 .

43 20% 가 (Renewable Fuels Association, 2004). 2004 2005 DDGS 가 1.3

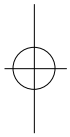
50% Wet-mill . 가 가 70 가 , , 가 가 .

50% Dry-mill 가 DDGS(Distiller's dried grains solubles) . Dry-mill 7 DDGS . 2005

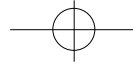
가.

( : )

	2001	2002	2003	2004	2005
	241.5	227.8	257.0	256.2	299.9
(A)	203.5	227.8	248.7	211.7	222.5
(B)	8.4	13.5	17.7	21.6	24.0
(B/A, %)	4.1	5.9	7.1	8.4	10.9







가. 가 (DE) (ME) (88% DM )

	DE, cal/kg	ME, cal/kg	NE, cal/kg
U of M-New Generation (1999)	3.49	3.37	No data
U of M-Old Generation (1999) <sup>1)</sup>	3.41	3.10	No data
KSU-New Generation (2004) <sup>2)</sup>	3.87	3.49-3.70	2.61
KSU-"Old Generation" (2004) <sup>3)</sup>	3.73	3.13-3.59	2.45
Hanor-Hubbard-Ajinomoto (2004) <sup>4)</sup>	No data	3.25	2.42
NRC (1998)	3.45	2.67	No data

- 1) Calculated values
- 2) Determined by growth and metabolism trials (source Dakota Gold)
- 3) Not DDGS but corn gluten from a NE ethanol plant
- 4) Determined by growth trials (source Dakota Gold)

(88% DM )

Nutrient	"New"DDGS	"Old"DDGS	DDGS (NRC, 1998)
Lysine, %	0.75 (17.3)	0.47 (26.5)	0.59
Methionine, %	0.63 (13.6)	0.44 (4.5)	0.48
Threonine, %	0.99 (6.4)	0.86 (7.3)	0.89
Tryptophan, %	0.22 (6.7)	0.17 (19.8)	0.24
Valine, %	1.32 (7.2)	1.22 (2.3)	1.23
Arginine, %	1.06 (9.1)	0.81 (18.7)	1.07
Histidine, %	0.67 (7.8)	0.54 (15.2)	0.65
Leucine, %	3.12 (6.4)	2.61 (12.4)	2.43
Isoleucine, %	0.99 (8.7)	0.88 (9.1)	0.98
Phenylalanine, %	1.29 (6.6)	1.12 (8.1)	1.27

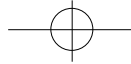
\*.Values in ( ) are CV % ( ) among plants

가 (88% DM )

Nutrient	"New"DDGS	"Old"DDGS	DDGS (NRC, 1998)
Lysine, %	0.39	0.00	0.27
Methionine, %	0.28	0.21	0.34
Threonine, %	0.55	0.32	0.49
Tryptophan, %	0.13	0.13	0.12
Valine, %	0.81	0.45	0.77
Arginine, %	0.79	0.53	0.77
Histidine, %	0.45	0.26	0.40
Leucine, %	2.26	1.62	1.85
Isoleucine, %	0.63	0.37	0.64
Phenylalanine, %	0.78	0.60	0.96

2004 Quality Golden Corn DDGS 가  
 44%, 37%, , 가 , 가  
 16%, 3%  
 High High





가 (88% DM )

Nutrient	" New "DDGS	" Old "DDGS	DDGS NRC (1998)	Core NRC (1998)
Total P, %	0.78 Range 0.62-0.87	0.79	0.73	0.25
P Availability, %	90 Range 88-92	No data	77	14
Available P, %	0.70	No data	0.56	0.03

. DDGS

	( )	( )	
Nursery pigs(>7kg)	25%	5%	
Grow-finish pigs	20%	10%	
Developing gilts	20%	5%	
Gestating sows	50%	10%	
Lactating sows	20%	10%	
Boars	50%	10%	

Quality Golden Corn DDGS

가

가. Color

가

Shurson

New DDGS

2003

가

25%,

20%,

가

20%,

50%,

20%,

50%

가

New DDGS

DDGS

가

DDGS

10%

Shurson

가

DDGS

가

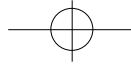
New DDGS

가

가

3. DDGS

. Mycotoxins



New DDGS

Analysis	Week 1	Week 10
Peroxide value, mEq/kg (가, PV)	0.70	0.60
Free fatty acids, % as oleic (가, FFA)	11.2	16.2

\*. 가 가5mEq/kg  
가

DDGS

New  
Midwest

- DDGS

4.

Shurson 2004  
Eastern Nutrition Conference Pre-  
Conference

DDGS

Shurson

DDGS

1)

Jalisco

16

가가 가

가

96%

(Bane et al., 1997) 28%가

-

2

28

(NAHMS, 2000)

(Ileitis)

- 가

25

- 가

8.4

가

- 16

가

DDGS

2)

가 가

DDGS 가

- DDGS

40"

DDGS 가

40KG BAG

DDGS

- DDGS BAG

10

