

**Little Sioux Corn Processors
Marcus, Iowa**

IOWA TESTING LAB REPORT NO: 04-000538
DATE: 1/27/2004
REC'D DATE: 1/19/2004
METHOD: AOAC; ICP; MOD/AOAC

PROXIMATE ANALYSIS, CALCULATED DE, ME AND NE VALUES FOR SWINE, AND MINERAL AND AMINO ACID CONTENT OF DDGS.¹

Proximate Analysis:

Dry Matter (%)	Crude Protein (%)	Crude Fat (%)	AH Fat (%)	Crude Fiber (%)	Ash (%)	Nitrogen Free Extract (%)	Carbohydrates (%)	Acid Detergent Fiber (%)	Total Digestible Nutrients (%)	Digestible Energy ² (kcal/kg)	Metabolizable Energy ² (kcal/kg)	Net Energy ³ (kcal/kg)
88.50	32.26	11.62	ND ⁴	6.51	6.81	42.80	49.31	12.15	86.68	4087	3822	2024

Mineral Analysis:

Calcium (%)	Phosphorus (%)	Potassium (%)	Magnesium (%)	Sulfur (%)	Sodium (%)	Chloride (%)	Zinc (ppm)	Manganese (ppm)	Copper (ppm)	Iron (ppm)
0.07	0.73	0.82	0.31	0.43	0.11	0.14	68	19	6	132

Amino Acid Analysis:

Arginine (%)	Histidine (%)	Isoleucine (%)	Leucine (%)	Lysine (%)	Methionine (%)	Cystine (%)	Phenylalanine (%)	Threonine (%)	Tryptophan (%)	Valine (%)
1.40	0.89	1.21	3.72	0.97	0.66	0.68	1.55	1.20	0.26	1.67

¹ Nutrient values expressed on 100% dry matter basis.

² DE (for swine) = 4,151 – (122 x % Ash) + (23 x %CP) + (38 x %Fat) – (64 x %Crude Fiber); ME (for swine) = DE x [1.003 - (0.0021 x %CP)], Noblet and Perez (1993).

³ NE (for swine) = 328 + (0.599 x ME) – (15 x %Ash) – (30 x %ADF), Ewan (1989).

⁴ ND = not determined.

APPARENT AND STANDARDIZED TRUE ILEAL DIGESTIBILITY OF CRUDE PROTEIN AND AMINO ACIDS OF DDGS FOR SWINE (100% DRY MATTER BASIS).

	DM	CP	Agr	His	Ile	Leu	Lys	Met	Phe	Thr	Trp	Val	Ala	Asp	Cys	Glu	Gly	Pro	Ser
TOTAL, %	87.7	32.20	1.41	0.86	1.14	3.83	0.91	0.60	1.57	1.18	0.25	1.55	2.35	2.08	0.52	5.59	1.24	2.69	1.55
AID¹, %		70.94	78.16	80.61	77.72	87.12	64.65	83.68	82.38	69.06	63.01	77.06	79.03	68.85	74.58	84.31	44.66	33.83	76.76
A DIG², %		22.84	1.10	0.70	0.88	3.34	0.59	0.50	1.29	0.82	0.16	1.19	1.86	1.43	0.39	4.71	0.55	0.91	1.19
SID³, %		79.97	86.23	83.61	80.90	88.77	68.71	85.32	86.01	75.86	71.00	80.66	82.99	74.30	78.53	86.68	67.28	80.74	82.62
S DIG⁴, %		25.75	1.22	0.72	0.92	3.40	0.62	0.51	1.35	0.90	0.18	1.25	1.95	1.55	0.41	4.85	0.83	2.17	1.28

	NDF, %	ADF, %	ADICP ⁵ , %	Mean particle size, µm	Soluble CP, %	Ash, %	Bulk density, lbs/ft3	pH
OTHER	24.95	8.88	2.42	703.33	25.86	3.90	29.22	4.00

¹ AID = Apparent Ileal Digestibility
² A DIG = Apparent Ileal Digestible CP & Amino Acids
³ SID = Standardized True Ileal Digestibility
⁴ S DIG = Standardized True Ileal Digestible CP & Amino Acids
⁵ ADICP = Acid Detergent Insoluble Crude Protein



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