

Nutrient Values: Wet vs. Dry Corn CoProducts

Tables 1 and 2 show the range in reported nutrient values for selected wet and dry corn coproducts. These values were gathered from industry publications as well as the National Research Council. In general these products concentrate

many of the nutrients from corn into a nutritious, palatable livestock feed.

For beef cattle in Iowa, wet corn gluten feed and wet distillers grains have particularly high values and can serve as an excellent source of protein, energy, and several minerals. In some diets

the concentration of certain minerals may be excessive and require special management. Feed coproducts from the corn processing industry provide an opportunity for the livestock industry to lower cost of products through locally produced, high quality feeds.

Table 1. Nutrient Value of Selected Wet Corn Milling Coproducts.

	Dry Corn Gluten Feed	Corn Gluten Meal	Wet Corn Gluten Feed	Condensed Steep Water Solubles
Dry Matter	90	90	42 - 44	50
Protein, %	20	66	17 - 21	35
Fat, %	2.8	2.2	3 - 4	3
Fiber, %	11.1	3.3	3.5	--
ADF, %	37.6	14	12 - 14	6 - 1
NDF, %	12.4	5	38.48	1.5
TDN, %	80	86	80	91
NEm, mcal/lb	0.96	1	0.9 - 0.97	1
NEg, mcal/lb	0.59	0.69	0.62 - 0.67	.72
Ca, %	0.055	0.08	0.03 - 0.1	0.07
P, %	1.1	0.53	0.5 - 1	2
K, %	1.6	0.22	1	3
Mg, %	0.5	0.088	0.3	0.9
Na, %	0.16	0.066	0.1	0.4 - 0.5
S, %	0.33	0.72	0.4 - 0.5	1.8 - 2
Fe, ppm	178	313	80 - 110	127 - 178
Cu, ppm	5.5	27	5 - 7	8
Zn, ppm	83.3	34	46 - 64	113 - 164
Mn, ppm	23.3	7.8	0.3	42 - 50

Table 2. Nutrient Value of Selected Dry Corn Milling Coproducts.

	Distilled Dried Grains Solubles	Cond. Distillers Solubles	Wet Distillers Grains	Modified Distillers Grains
Dry Matter	89	25 - 45	31 - 36	46 - 51
Protein, %	31	14 - 23	32 - 36	26 - 32
Fat, %	11	15 - 24	9 - 12	11 - 16
Fiber, %	7.2	--	--	5 - 15
ADF, %	12	--	10 - 12	11 - 18
NDF, %	45	--	30 - 50	35 - 50
TDN, %	87	95 - 120	90 - 110	90 - 110
NEm, mcal/lb	0.99	1.05 - 1.15	0.9 - 1.1	.9 - 1.1
NEg, mcal/lb	0.68	0.85 - 0.93	0.7 - 0.8	.7 - .8
Ca, %	.07	0.03 - 0.17	0.02 - .05	<.10
P, %	.77	1.3 - 1.5	0.4 - 0.5	.85 - 1.4
K, %	1.00	1.75 - 2.25	0.5 - 1	1 - 1.5
Mg, %	.30	0.65 - 0.9	0.2 - 0.3	.3 - .5
Na, %	.18	.2 - .4	0.1 - 0.2	.2 - .3
S, %	.68	.9 - 1.4	.4 - .6	.4 - 1.2
Fe, ppm	127	90 - 120	70 - 180	67 - 130
Cu, ppm	6	6 - 7	6 - 7	5 - 7
Zn, ppm	62	100 - 140	40 - 80	62
Mn, ppm	19	30 - 35	8 - 16	27

*All values expressed on a dry matter basis

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