Effects of Feeding Increasing Levels of Wet Corn Gluten Feed on Production and Ruminal Fermentation in Lactating Dairy Cows

July 22, 2022

Mullins et al., 2010. J. Dairy Sci. 93:5329-5337.

Figure 1. Effects of level of wet corn gluten feed (WCGF) on performance of lactating Holstein cows.

	Dietary WCGF (DM basis)					*P*-value	
Item[1]	0%	11%	23%	34%	SEM	Linear	Quadratic
DMI (kg/d)	26.7	25.9	29.3	29.7	1.6	0.03	0.55
Yield (kg/d)							
Milk	36.8	37.0	40.1	38.9	2.6	0.007	0.28
Milk fat	1.37	1.39	1.49	1.44	0.11	0.06	0.21
Milk protein	1.11	1.14	1.21	1.21	0.08	0.01	0.49
Milk lactose	1.85	1.85	2.02	1.95	0.13	0.01	0.32
SCM	35.2	35.7	38.5	37.2	2.5	0.01	0.19
ECM	38.2	38.8	41.7	40.4	2.8	0.01	0.19
Milk fat (%)	3.65	3.76	3.72	3.67	0.11	0.93	0.23
Milk protein (%)	3.02	3.07	3.05	3.11	0.08	0.13	0.80
Milk lactose (%)	5.02	5.00	5.03	5.01	0.03	0.94	0.96
SCC (1,000/mL)	40.6	64.1	31.9	50.2	14.8	0.96	0.87
MUN (mg/dL)	17.2	16.3	16.3	17.3	0.90	0.83	0.08
ECM/DMI (kg/kg)	1.44	1.50	1.34	1.29	0.06	0.007	0.20
NE_p/DMI[2] (Mcal/kg)	1.02	1.05	0.97	0.98	0.06	0.33	0.75
BW change (kg/28 d)	45.6	14.3	9.2	29.7	17.6	0.65	0.73
BCS change/28 d	−0.02	0.09	0.15	0.25	0.07	0.02	0.92

[1]Total n = 24 for DMI, ECM/DMI, and NE_p/DMI; n = 25 for SCC; n = 28 for other variables. The SEM shown is the mean of treatment SEM.

[2]NE_p = net energy for productive use, defined as milk energy plus energy for BCS gain.

Figure 2. Results

Item	Control	23%	34%	Difference
Milk (lbs)	81.13	88.4	85.75	4.62
Milk fat (lbs)	3.02	3.28	3.17	0.15
Milk protein (lbs)	2.44	2.67	2.67	0.23
ECM (lbs)	**84.2**	**91.9**	**89.1**	**4.9**

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