

Preliminary Results:

Table 1. Least square means for dry matter intake (DMI), milk yield and milk components (fat, protein, lactose, SCC, total solids, urea nitrogen) in lactating dairy cows offered no kelp meal (negative control), or 2 oz, 4 oz, or 6 oz of kelp meal, or 300 mg of monensin (positive control) via the ruminal cannula.

Item	Treatments					SEM	P-value
	0 oz	2 oz	4 oz	6 oz	Monensin		
DMI, kg/d	20.1	19.8	19.7	19.8	19.2	0.60	0.36
Milk yield, kg/d	20.9	20.2	20.2	20.8	20.2	0.58	0.10
Milk yield:DMI, kg/kg	1.05	1.04	1.04	1.08	1.07	0.03	0.49
Milk fat, %	4.68c	4.67c	4.81b	4.61c	4.89a	0.09	<0.0001
Milk fat, kg/d	0.96	0.94	0.95	0.96	0.97	0.03	0.61
Milk protein, %	3.59	3.62	3.62	3.56	3.64	0.11	0.0003
Milk protein, kg/d	0.75	0.73	0.72	0.74	0.72	0.03	0.17
Milk lactose, %	4.71	4.68	4.71	4.70	4.71	0.06	0.28
Milk lactose, kg/d	0.98	0.95	0.94	0.98	0.95	0.02	0.13
Milk total solids, %	13.9b	13.9b	14.1a	13.9b	14.2a	0.18	<0.0001
MUN, mg/dL	10.3c	9.80c	10.4c	10.6b	11.2a	0.67	<0.0001

FCM = fat-corrected milk; SCC = somatic cells count; MUN = milk urea nitrogen

Table 2. Least square means for different serum and plasma metabolites in lactating dairy cows offered no kelp meal (negative control), or 2 oz, 4 oz, or 6 oz of kelp meal, or 300 mg of monensin (positive control) via the ruminal cannula.

Item	Treatments					SEM	P-value
	0 oz	2 oz	4 oz	6 oz	Monensin		
Serum T3, ng/mL	1.08	1.03	1.02	0.97	1.03	10.1	0.86
Serum T4, ng/mL	40.6	40.1	43.4	40.7	43.0	0.46	0.51
Insulin, μ IU/mL	12.7	11.0	13.8	11.0	10.8	2.16	0.57
Glucose, mg/dL	52.4d	53.0b	54.6b	53.8b	57.6a	1.50	0.04
Plasma urea nitrogen, mg/dL	13.4	11.8	11.6	11.2	14.2	1.28	0.20
Albumin, g/dL	4.00	3.92	3.98	3.94	3.98	0.06	0.77
Aspartate amino-transferase, U/L	123	129	130	138	141	9.18	0.20
BHBA, mg/dL	8.00	9.40	9.00	9.00	7.40	1.37	0.62
Serum cortisol, μ g/mL	9.31	5.29	6.59	6.44	7.25	0.21	0.48
NEFA, mEq/L	0.08	0.09	0.09	0.10	0.10	0.009	0.44

BHBA = beta-hydroxybutyric acid; NEFA = nonesterified fatty acids