Supplementary Table S1. The effect of feeding a control (CON), short-term (ST), or long- term (LT) dosage of neomycin in milk replacer (MR) on frame size development, including height, hip width, mid girth, and heart girth of 160 Holstein bull calves.[1]

	Week			SEM	*P*-value[2]		
Item[4]	1	3	7		Trt[3]	Wk[3]	Trt*Wk[3]
Hip Height (cm)							
CON	83.14	88.40	96.49	0.75	0.14	<0.01	0.97
ST	86.07	89.19	97.56	0.75			
LT	85.64	89.03	96.71	0.73			
Hip Width (cm)							
CON	19.85	20.78	23.40	0.51	0.27	<0.01	0.17
ST	20.50	21.16	23.33	0.52			
LT	20.27	21.00	23.08	0.52			
Mid Girth (cm)					0.55	<0.01	0.68
CON	85.30	94.34	112.21	1.74			
ST	86.18	94.86	111.88	1.76			
LT	85.31	95.63	113.64	1.76			
Heart Girth (cm)					0.33	<0.01	0.98
CON	86.94	93.07	101.34	0.75			
ST	87.97	93.62	102.34	0.77			
LT	87.12	93.28	101.33	0.77			

[1]Treatments: CON= non-medicated MR, ST= neomycin inclusion in MR at 20mg/kg body weight for 14 d, LT=neomycin inclusion in MR at 20mg/kg BW for 28 d.
[2]Significance declared when $P \leq 0.05$.
[3]Trt = treatment; Wk = week.
[4]lsmeans compared between treatments for hip height, hip width, mid girth, and heart girth.

Supplementary Table S2. Differences of least squares means of the effect of feeding a control (CON), short-term (ST), or long- term (LT) dosage of neomycin in milk replacer (MR) on starter intake, milk intake, BW, and feed efficiency of 160 Holstein bull calves.[1]

Event[4]	ST vs LT[3]	*P*-Value[2]	ST vs CON[3]	*P*-Value[2]	LT vs CON[3]	*P*-Value[2]
Starter Intake[6] (kg/d)	-0.28	0.17	-0.23	0.25	0.06	0.78
Milk Intake[5] (kg/d)	0.00	0.80	0.00	0.89	0.00	0.90
BW (kg)	1.40	0.35	0.90	0.55	-0.50	0.74
Feed Conversion[6] (Mcal/kg gain)	-6.41	0.56	-2.61	0.81	3.80	0.72

[1]Treatments: CON= non-medicated MR, ST= neomycin inclusion in MR at 20mg/kg BW for 14 d, LT=neomycin inclusion in MR at 20mg/kg body weight for 28 d
[2]Significance declared when $P \leq 0.05$, tendency declared when $P \leq 0.10$. Differences of least squares means were compared using a PDIFF statement.
[3]Trt = treatment; Wk = week.
[4]lsmeans compared between treatments for starter intake, milk intake, BW, and feed conversion.
[5]Milk intake measured in kg MR powder per d.
[6]Starter intake and feed conversion calculated per pod of 5 calves.

Supplementary Table S3. Differences of least squares means of the effect of feeding a control (CON), short-term (ST), long- term (LT) dosage of neomycin in milk replacer (MR) on proportions of days with an abnormal respiratory score, attitude score, and rectal temperature in 160 Holstein bull calves.[1]

Event[4]	ST vs LT[3]	*P*-Value[2]	ST vs CON[3]	*P*-Value[2]	LT vs CON[3]	*P*-Value[2]
Respiratory Score	0.51	0.79	0.31	0.87	-0.20	0.91
Attitude Score	0.41	0.63	0.02	0.98	-0.40	0.63
Fecal Score	0.91	0.70	-5.62	0.02	-6.52	< 0.01
Rectal Temperature	0.43	0.85	-0.27	0.90	0.70	0.75

[1]Treatments: CON= non-medicated MR, ST= neomycin inclusion in MR at 20mg/kg BW for 14 d, LT=neomycin inclusion in MR at 20mg/kg BW for 28 d.

[2]Significance declared when $P \leq 0.05$, tendency declared when $P \leq 0.10$.

[3]Proportions calculated using an LSMEANS comparison of the binary distributions for each outcome (0=normal score, 1=abnormal score). Differences of least squares means were compared using a PDIFF statement.

[4]Attitude score, fecal score, and rectal temperatures were recorded for 28 days. Respiratory score was recorded for 49 days. Proportions are expressed as percentages and calculated as the number of days with an abnormal score divided by the total number of days observed.