Downey et al. "Hay provision affects 24-h performance of normal and abnormal oral behaviors in individually housed dairy calves"

Supplemental Table 3. Model outputs for feed (grain, hay, TMR) intake and water intake in the preweaning and weaning periods, and average daily gain (ADG) during the preweaning period.

| Preweaning model results | | Anova (type III SS) | | | | | | | | R2 | |
| | | Treatment | | | Week | | | Interaction | | | |
Variable	DF*	chisq	p-value	DF*	chisq	p-value	DF*	chisq	p-value	Marginal	Conditional
Grain intake	1	0.46	0.498	1	460.871	<0.001	1	1.666	0.197	0.618	0.776
Hay intake	-	-	-	1	283.107	<0.001	1	-	-	0.645	0.795
Water intake (all values)	1	1.704	0.192	1	62.985	<0.001	1	9.057	0.003	0.019	0.339
Water intake (excl. outlier)	1	0.11	0.74	1	61.731	<0.001	1	0.919	0.338	0.08	0.294
ADG (kg/d)	1	0.302	0.583	1	35.956	<0.001	1	0.243	0.622	0.326	0.326

| Weaning model results | | Anova (type III SS) | | | | | | | | R2 | |
| | | Treatment | | | Day | | | Interaction | | | |
Variable	DF*	chisq	p-value	DF*	chisq	p-value	DF*	chisq	p-value	Marginal	Conditional
Grain intake	1	2.719	0.099	1	113.453	<0.001	1	4.144	0.042	0.194	0.808
TMR intake	1	2.015	0.156	1	37.201	<0.001	1	3.78	0.052	0.271	0.75
Water intake	1	6.244	0.012	1	18.828	<0.001	1	7.202	0.007	0.184	0.566

Overall ADG + final BW

| Variable | Control | | Hay | | T-test | |
	Raw average (SE)	95% CI	Raw average (SE)	95% CI	t	p-value
Overall ADG (kg/d)	0.727 (0.029)	[0.663,0.791]	0.743 (0.029)	[0.679,0.807]	0.402	0.692
Final BW (kg)	80.8 (1.7)	[76.3,83.9]	80.1 (1.8)	[76.7,84.9]	0.273	0.787

*Numerator DF obtained from the Anova type III SS are presented; denominator DF are known to be erroneous in mixed models and are not presented (e.g. https://stat.ethz.ch/pipermail/r-help/2006-May/094765.html)

In reviewing the model summary to confirm conservative analysis outside of DF output, "Calf" is correctly identified as the group (22 calves), and estimates are produced for all 7 weeks when the identity variance model is used.