

SUPPLEMENTARY MATERIAL

A retrospective analysis of seasonal growth patterns of nursery and finishing pigs in commercial production

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Code for statistical analysis

Nursery ADG

```
mixed adg fill avg_dof mortality sowfarm  
i.sysflow i.size i.year i.startwk ///
```

```
i.sysflow#c.fill i.sysflow#c.avg_dof  
i.sysflow#c.mortality i.sysflow#i.year ///
```

```
i.size#c.sowfarm i.size#i.year ///
```

```
|| site: || closeout: vargrp, nocons base reml  
dfmethod(kroger)
```

estat ic

Nursery ADFI

```
mixed adfi fill avg_dof mortality sowfarm  
i.sysflow i.size i.feeder i.year i.startwk  
///
```

```
i.sysflow#c.fill i.sysflow#c.avg_dof  
i.sysflow#c.mortality i.sysflow#i.size  
i.sysflow#i.year ///
```

```
i.size#c.fill i.size#c.sowfarm ///
```

```
|| site: || closeout: vargrp, nocons base reml  
dfmethod(kroger)
```

estat ic

Nursery G:F

```
mixed gf avg_dof mortality i.sysflow i.feeder  
i.year ///
```

```
i.sysflow#c.avg_dof i.sysflow#c.mortality  
i.sysflow#i.year ///
```

```
|| site: || closeout: vargrp, nocons base reml  
dfmethod(kroger)
```

estat ic

Finisher ADG

```
mixed adg startwt mortality sowfarm NE  
i.system i.flow i.size i.feeder i.year i.startwk  
///
```

```
i.system#c.startwt i.system#c.mortality  
i.system#c.sowfarm i.system#i.flow  
i.system#i.size i.system#i.feeder  
i.system#i.year i.system#i.startwk  
///
```

```
i.flow#c.startwt i.flow#c.mortality i.flow#c.  
NE i.flow#i.year ///
```

```
i.size#c.sowfarm ///
```

```
|| site: || closeout: vargrp, nocons base reml  
dfmethod(kroger)
```

estat ic

Finisher ADFI

```
mixed adfi fill startwt mortality sowfarm NE  
i.system i.flow i.size i.feeder i.year i.startwk  
///
```

```
i.system#c.fill i.system#c.startwt i.system#c.  
sowfarm i.system#c.NE i.system#i.  
flow i.system#i.size i.system#i.  
feeder i.system#i.year i.system#i.  
startwk ///
```

```
i.flow#c.fill i.flow#c.mortality i.flow#c.sow-  
farm i.flow#c.NE i.flow#i.year ///
```

```
i.size#c.fill i.size#c.sowfarm i.size#i.feeder  
///
```

```
|| site: || closeout: vargrp, nocons base reml  
dfmethod(kroger)
```

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Finisher G:F

```
mixed gf fill startwt mortality sowfarm NE  
i.system i.flow i.size i.year i.startwk ///
```

```
i.system#c.fill i.system#c.startwt i.system#c.  
mortality i.system#c.NE  
i.system#i.flow i.system#i.size  
i.system#i.year i.system#i.startwk  
///
```

```
i.flow#c.sowfarm i.flow#i.size ///
```

```
i.size#c.mortality i.size#c.sowfarm ///
```

```
|| site: || closeout: vargrp, nocons base reml  
dfmethod(kroger)
```

estat ic

Table S1: List of variables and corresponding codes and descriptions used in multi-level linear mixed models for nursery and finisher ADG, ADFI, and G:F in 3 swine production systems located in the midwestern United States from January 2013 to December 2017.

Variable	Code	Description
Year	year	2013-2017
System	system	Commercial production system located in the midwestern United States
Pig flow	flow	Converted-nursery, Nursery, WF_nursery; Finisher, WF_finisher
System-pig flow	sys flow	One-way factor merged from system and flow variables
Site	site	Production sites, including single- and multi-barn sites
Batch	closeout	Cohort of pigs per airspace within a site
Batch size	size	Size of closeouts based on head counts
Feeder	feeder	Dry, tube, wet-dry
Dietary NE, kcal/kg	NE	Dietary net energy
DOF	avg_dof	Average days on feed
Fill length	fill	Length of fill period (continuous)
Sowfarm	sow farm	Number of sow farm sources (continuous)
Initial BW, kg	start wt	Average initial body weight
Final BW, kg	final wt	Average final body weight
Mortality, %	mortality	Percentage of mortality over initial inventory
ADG, g	adg	Average daily gain
ADFI, g	adfi	Average daily feed intake
G:F, g/kg	gf	Gain:feed ratio

WF = wean-to-finish; NE = net energy; DOF = days on feed; BW = body weight; ADG = average daily gain; ADFI = average daily feed intake; G:F = gain to feed ratio.

Table S2: Parameter coefficients and statistics for nursery ADG

ADG	Coefficient	SE	t	P > t	95% LCL	95% UCL
fill	0.517	0.436	1.190	0.236	-0.338	1.372
average_DOF	3.845	0.226	17.030	0.000	3.402	4.288
mortality	-3.959	0.316	-12.530	0.000	-4.579	-3.339
sowfarm	-5.060	1.000	-5.060	0.000	-7.022	-3.099
sysflow						
A-Converted-Nursery	0.000	(base)				
A-Nursery	100.445	17.887	5.620	0.000	65.372	135.518
A-WF_nursery	142.460	16.725	8.520	0.000	109.663	175.256
B-Nursery	86.569	19.339	4.480	0.000	48.656	124.482
B-WF_nursery	111.032	22.433	4.950	0.000	67.053	155.012
C-Nursery	98.926	18.367	5.390	0.000	62.918	134.935
C-WF_nursery	70.956	19.518	3.640	0.000	32.692	109.221
size						
3000 - 6000	0.000	(base)				
< 3000	10.589	5.323	1.990	0.047	0.152	21.025
> 6000	-16.441	4.715	-3.490	0.000	-25.685	-7.196

Table S2 continued

ADG	Coefficient	SE	t	P > t	95% LCL	95% UCL
year						
2013	0.000	(base)				
2014	-2.867	6.148	-0.470	0.641	-14.923	9.188
2015	-14.673	6.247	-2.350	0.019	-26.922	-2.424
2016	-7.128	7.563	-0.940	0.346	-21.958	7.701
2017	-34.449	9.381	-3.670	0.000	-52.845	-16.053
startwk						
1	0.000	(base)				
2	-4.710	6.826	-0.690	0.490	-18.092	8.672
3	-9.488	6.472	-1.470	0.143	-22.177	3.201
4	-9.840	6.926	-1.420	0.155	-23.419	3.739
5	-2.086	6.774	-0.310	0.758	-15.367	11.194
6	-4.051	6.748	-0.600	0.548	-17.280	9.178
7	-6.241	6.833	-0.910	0.361	-19.638	7.156
8	-12.170	6.737	-1.810	0.071	-25.378	1.038
9	-7.757	6.642	-1.170	0.243	-20.778	5.264
10	-10.312	6.744	-1.530	0.126	-23.533	2.909
11	-12.181	6.868	-1.770	0.076	-25.646	1.284
12	-10.680	6.566	-1.630	0.104	-23.553	2.193
13	-20.146	6.494	-3.100	0.002	-32.878	-7.414
14	-12.540	6.788	-1.850	0.065	-25.848	0.767
15	-21.015	6.521	-3.220	0.001	-33.799	-8.230
16	-16.837	6.725	-2.500	0.012	-30.022	-3.653
17	-18.471	6.867	-2.690	0.007	-31.934	-5.007
18	-14.293	6.543	-2.180	0.029	-27.121	-1.465
19	-24.281	6.648	-3.650	0.000	-37.315	-11.248
20	-16.061	6.898	-2.330	0.020	-29.584	-2.538
21	-14.540	6.587	-2.210	0.027	-27.453	-1.626
22	-19.505	6.753	-2.890	0.004	-32.746	-6.265
23	-14.097	6.607	-2.130	0.033	-27.050	-1.143
24	-16.386	6.542	-2.500	0.012	-29.211	-3.560
25	-14.614	6.652	-2.200	0.028	-27.656	-1.572
26	-10.996	6.730	-1.630	0.102	-24.190	2.198
27	-7.732	6.419	-1.200	0.228	-20.317	4.853
28	-13.189	6.757	-1.950	0.051	-26.436	0.058
29	-12.323	6.421	-1.920	0.055	-24.910	0.265
30	-13.006	6.677	-1.950	0.052	-26.097	0.085
31	-9.933	6.714	-1.480	0.139	-23.095	3.230
32	-4.330	6.482	-0.670	0.504	-17.038	8.378
33	-12.693	6.737	-1.880	0.060	-25.901	0.515
34	-3.888	6.615	-0.590	0.557	-16.856	9.080
35	-9.615	6.720	-1.430	0.153	-22.790	3.559

Table S2 continued

ADG		Coefficient	SE	t	P > t	95% LCL	95% UCL
	36	-12.100	6.411	-1.890	0.059	-24.670	0.470
	37	-11.734	6.739	-1.740	0.082	-24.946	1.477
	38	-6.088	6.561	-0.930	0.353	-18.951	6.774
	39	-15.076	6.454	-2.340	0.020	-27.729	-2.423
	40	-7.296	6.666	-1.090	0.274	-20.365	5.774
	41	-3.251	6.433	-0.510	0.613	-15.863	9.361
	42	-12.542	6.798	-1.840	0.065	-25.870	0.787
	43	-2.534	6.535	-0.390	0.698	-15.347	10.279
	44	-11.594	6.746	-1.720	0.086	-24.819	1.632
	45	5.455	7.014	0.780	0.437	-8.296	19.206
	46	-9.719	6.574	-1.480	0.139	-22.608	3.169
	47	-2.559	6.419	-0.400	0.690	-15.143	10.025
	48	-8.323	6.739	-1.240	0.217	-21.536	4.889
	49	-7.153	6.999	-1.020	0.307	-20.876	6.569
	50	-3.214	6.779	-0.470	0.636	-16.505	10.078
	51	-3.377	6.628	-0.510	0.610	-16.373	9.618
	52	-4.584	6.449	-0.710	0.477	-17.228	8.060
sysflow#c.fill							
	A-Nursery	0.266	0.498	0.530	0.593	-0.711	1.243
	A-WF_nursery	0.779	0.487	1.600	0.109	-0.175	1.733
	B-Nursery	-1.874	0.544	-3.440	0.001	-2.940	-0.807
	B-WF_nursery	-1.438	0.656	-2.190	0.028	-2.724	-0.152
	C-Nursery	-0.270	0.633	-0.430	0.669	-1.511	0.971
	C-WF_nursery	-0.312	0.624	-0.500	0.617	-1.535	0.911
sysflow#c.avg_DOE							
	A-Nursery	-1.639	0.308	-5.330	0.000	-2.242	-1.036
	A-WF_nursery	-2.207	0.259	-8.520	0.000	-2.715	-1.699
	B-Nursery	0.061	0.341	0.180	0.858	-0.608	0.730
	B-WF_nursery	-0.090	0.354	-0.250	0.800	-0.785	0.605
	C-Nursery	-0.168	0.342	-0.490	0.624	-0.839	0.503
	C-WF_nursery	0.445	0.341	1.300	0.192	-0.223	1.113
sysflow#c.mortality							
	A-Nursery	1.554	0.548	2.840	0.005	0.480	2.628
	A-WF_nursery	0.382	0.436	0.880	0.381	-0.473	1.237
	B-Nursery	-1.104	0.581	-1.900	0.057	-2.242	0.034
	B-WF_nursery	-5.405	1.257	-4.300	0.000	-7.869	-2.942
	C-Nursery	-6.235	0.575	-10.840	0.000	-7.363	-5.108
	C-WF_nursery	-5.529	0.523	-10.580	0.000	-6.554	-4.505
sysflow#year							
	A-Nursery#2014	-13.915	9.407	-1.480	0.139	-32.359	4.529
	A-Nursery#2015	-14.504	9.010	-1.610	0.108	-32.170	3.161
	A-Nursery#2016	-35.093	9.969	-3.520	0.000	-54.639	-15.546
	A-Nursery#2017	0.991	11.263	0.090	0.930	-21.094	23.077
	A-WF_nursery#2014	5.343	8.724	0.610	0.540	-11.764	22.449

Table S2 continued

ADG	Coefficient	SE	t	P > t	95% LCL	95% UCL
A-WF_nursery#2015	19.364	8.343	2.320	0.020	3.005	35.724
A-WF_nursery#2016	-1.733	8.965	-0.190	0.847	-19.312	15.846
A-WF_nursery#2017	3.730	10.607	0.350	0.725	-17.068	24.529
B-Nursery#2014	2.121	7.630	0.280	0.781	-12.837	17.080
B-Nursery#2015	10.004	7.737	1.290	0.196	-5.165	25.172
B-Nursery#2016	6.295	8.846	0.710	0.477	-11.047	23.637
B-Nursery#2017	48.058	10.370	4.630	0.000	27.727	68.390
B-WF_nursery#2014	-8.347	9.114	-0.920	0.360	-26.214	9.521
B-WF_nursery#2015	7.675	9.118	0.840	0.400	-10.200	25.551
B-WF_nursery#2016	9.846	10.206	0.960	0.335	-10.162	29.854
B-WF_nursery#2017	53.614	11.604	4.620	0.000	30.865	76.363
C-Nursery#2014	-10.391	8.682	-1.200	0.231	-27.411	6.629
C-Nursery#2015	-7.852	8.731	-0.900	0.369	-24.969	9.265
C-Nursery#2016	-7.356	9.682	-0.760	0.447	-26.337	11.625
C-Nursery#2017	33.872	10.899	3.110	0.002	12.503	55.240
C-WF_nursery#2014	-7.381	8.189	-0.900	0.367	-23.436	8.674
C-WF_nursery#2015	-6.175	8.168	-0.760	0.450	-22.187	9.838
C-WF_nursery#2016	-6.873	9.190	-0.750	0.455	-24.889	11.143
C-WF_nursery#2017	28.294	10.885	2.600	0.009	6.953	49.634
size#c.sowfarm						
< 3000	-8.088	2.541	-3.180	0.001	-13.072	-3.105
> 6000	2.857	1.198	2.380	0.017	0.507	5.206
size#year						
< 3000#2014	3.266	5.823	0.560	0.575	-8.150	14.682
< 3000#2015	9.668	5.788	1.670	0.095	-1.680	21.016
< 3000#2016	-3.193	5.818	-0.550	0.583	-14.599	8.214
< 3000#2017	-13.305	5.742	-2.320	0.021	-24.562	-2.048
> 6000#2014	6.963	5.030	1.380	0.166	-2.898	16.825
> 6000#2015	5.401	4.865	1.110	0.267	-4.136	14.938
> 6000#2016	0.332	4.775	0.070	0.945	-9.030	9.694
> 6000#2017	-8.695	4.716	-1.840	0.065	-17.940	0.550
Constant	156.441	14.510	10.780	0.000	127.992	184.891
Random-effects Parameters	Estimate	SE	95% LCL	95% UCL		
site: Identity						
var(const)	256.660	33.000	199.487	330.218		
closeout: Identity						
var(vargrp)	1256.468	84.403	1101.469	1433.278		
var(Residual)	1264.230	39.659	1188.842	1344.399		
Model	Observations	df	AIC	BIC		
Nursery ADG	4960	123	51348.65	52149.28		

ADG = average daily gain; LCL = lower confidence limit; UCL = upper confidence limit; DOF = days on feed; WF = wean-to-finish; AIC = Akaike information criterion; BIC = Bayesian information criterion.

Table S3: Parameter coefficients and statistics for nursery ADFI

ADFI	Coefficient	SE	t	P > t	95% LCL	95% UCL
fill	2.103	0.880	2.390	0.017	0.377	3.829
average_DOF	8.433	0.417	20.220	0.000	7.615	9.251
mortality	-1.950	0.574	-3.400	0.001	-3.075	-0.824
sowfarm	-6.592	1.926	-3.420	0.001	-10.369	-2.814
sysflow						
A-Converted-Nursery	0.000	(base)				
A-Nursery	1.957	51.250	0.040	0.970	-98.545	102.459
A-WF_nursery	163.937	34.072	4.810	0.000	97.123	230.751
B-Nursery	80.037	37.369	2.140	0.032	6.774	153.301
B-WF_nursery	58.301	40.538	1.440	0.150	-21.176	137.778
C-Nursery	142.040	34.979	4.060	0.000	73.463	210.617
C-WF_nursery	51.172	35.590	1.440	0.151	-18.603	120.948
size						
3000 - 6000	0.000	(base)				
< 3000	129.213	24.020	5.380	0.000	82.118	176.309
> 6000	-26.202	96.363	-0.270	0.786	-215.175	162.770
feeder						
Dry	0.000	(base)				
Tube	14.420	7.759	1.860	0.064	-0.829	29.668
Wetdry	25.641	6.427	3.990	0.000	13.002	38.280
year						
2013	0.000	(base)				
2014	-17.754	12.045	-1.470	0.141	-41.376	5.868
2015	-50.339	12.212	-4.120	0.000	-74.289	-26.389
2016	-36.115	14.363	-2.510	0.012	-64.282	-7.947
2017	-88.405	17.598	-5.020	0.000	-122.917	-53.893
startwk						
1	0.000	(base)				
2	6.812	11.831	0.580	0.565	-16.386	30.009
3	-7.143	11.267	-0.630	0.526	-29.234	14.948
4	-3.518	12.227	-0.290	0.774	-27.491	20.456
5	-9.222	11.889	-0.780	0.438	-32.534	14.089
6	4.805	11.780	0.410	0.683	-18.291	27.902
7	-4.635	11.924	-0.390	0.698	-28.013	18.744
8	-11.019	11.676	-0.940	0.345	-33.913	11.875
9	-8.818	11.695	-0.750	0.451	-31.748	14.113
10	-18.973	11.708	-1.620	0.105	-41.930	3.983
11	-12.973	12.023	-1.080	0.281	-36.546	10.600
12	-2.535	11.471	-0.220	0.825	-25.027	19.957
13	-29.450	11.432	-2.580	0.010	-51.864	-7.036
14	-25.675	11.973	-2.140	0.032	-49.151	-2.198

Table S3 continued

ADFI	Coefficient	SE	t	P > t	95% LCL	95% UCL
15	-25.696	11.303	-2.270	0.023	-47.858	-3.534
16	-23.149	11.784	-1.960	0.050	-46.254	-0.044
17	-25.600	12.089	-2.120	0.034	-49.302	-1.898
18	-18.485	11.497	-1.610	0.108	-41.026	4.057
19	-31.751	11.576	-2.740	0.006	-54.449	-9.053
20	-30.457	12.105	-2.520	0.012	-54.191	-6.722
21	-26.232	11.461	-2.290	0.022	-48.703	-3.762
22	-28.670	11.747	-2.440	0.015	-51.702	-5.638
23	-27.650	11.664	-2.370	0.018	-50.520	-4.780
24	-15.919	11.575	-1.380	0.169	-38.615	6.776
25	-14.674	11.763	-1.250	0.212	-37.737	8.390
26	-19.906	11.971	-1.660	0.096	-43.376	3.565
27	-8.176	11.334	-0.720	0.471	-30.399	14.047
28	-20.352	11.848	-1.720	0.086	-43.582	2.878
29	-7.638	11.291	-0.680	0.499	-29.776	14.499
30	-10.644	11.671	-0.910	0.362	-33.527	12.239
31	-3.541	11.736	-0.300	0.763	-26.552	19.471
32	-2.680	11.537	-0.230	0.816	-25.300	19.940
33	-4.509	11.859	-0.380	0.704	-27.761	18.744
34	2.946	11.588	0.250	0.799	-19.774	25.666
35	-9.948	11.787	-0.840	0.399	-33.059	13.162
36	-10.329	11.274	-0.920	0.360	-32.434	11.775
37	5.867	11.773	0.500	0.618	-17.215	28.950
38	-14.239	11.823	-1.200	0.229	-37.420	8.943
39	-19.516	11.237	-1.740	0.083	-41.548	2.517
40	-1.678	11.505	-0.150	0.884	-24.236	20.881
41	-3.987	11.201	-0.360	0.722	-25.949	17.976
42	-8.564	11.836	-0.720	0.469	-31.771	14.644
43	-3.323	11.429	-0.290	0.771	-25.732	19.086
44	-11.196	11.750	-0.950	0.341	-34.234	11.842
45	6.704	12.546	0.530	0.593	-17.895	31.303
46	-5.198	11.547	-0.450	0.653	-27.838	17.443
47	-1.950	11.100	-0.180	0.861	-23.714	19.815
48	-5.022	11.827	-0.420	0.671	-28.211	18.167
49	-13.338	12.273	-1.090	0.277	-37.401	10.724
50	3.103	11.726	0.260	0.791	-19.888	26.093
51	7.004	11.544	0.610	0.544	-15.629	29.638
52	-9.022	11.235	-0.800	0.422	-31.050	13.006
sysflow#c.fill						
A-Nursery	-0.201	1.287	-0.160	0.876	-2.725	2.323
A-WF_nursery	0.171	1.115	0.150	0.878	-2.015	2.357

Table S3 continued

ADFI	Coefficient	SE	t	P > t	95% LCL	95% UCL
B-Nursery	-3.284	1.074	-3.060	0.002	-5.389	-1.179
B-WF_nursery	-0.380	1.224	-0.310	0.756	-2.778	2.019
C-Nursery	-0.260	1.376	-0.190	0.850	-2.958	2.438
C-WF_nursery	-1.763	1.330	-1.330	0.185	-4.371	0.845
sysflow#c.avg_DOF						
A-Nursery	0.120	0.702	0.170	0.864	-1.257	1.497
A-WF_nursery	-1.791	0.477	-3.760	0.000	-2.727	-0.856
B-Nursery	0.667	0.609	1.100	0.273	-0.526	1.861
B-WF_nursery	1.437	0.604	2.380	0.017	0.252	2.621
C-Nursery	-0.751	0.605	-1.240	0.215	-1.938	0.435
C-WF_nursery	1.079	0.587	1.840	0.066	-0.072	2.230
sysflow#c.mortality						
A-Nursery	1.466	1.046	1.400	0.161	-0.585	3.517
A-WF_nursery	-0.554	0.791	-0.700	0.484	-2.106	0.998
B-Nursery	-5.035	1.359	-3.700	0.000	-7.700	-2.370
B-WF_nursery	-9.317	2.035	-4.580	0.000	-13.308	-5.326
C-Nursery	-10.818	0.969	-11.160	0.000	-12.719	-8.918
C-WF_nursery	-12.217	0.879	-13.890	0.000	-13.941	-10.493
sysflow#size						
A-Nursery# < 3000	-90.332	39.526	-2.290	0.022	-167.843	-12.821
A-Nursery# > 6000	8.100	99.575	0.080	0.935	-187.177	203.377
A-WF_nursery# < 3000	-134.303	24.941	-5.380	0.000	-183.213	-85.392
A-WF_nursery# > 6000	-12.275	93.779	-0.130	0.896	-196.187	171.638
B-Nursery# < 3000	-79.393	25.429	-3.120	0.002	-129.260	-29.525
B-Nursery# > 6000	29.081	95.349	0.300	0.760	-157.904	216.066
B-WF_nursery# < 3000	-51.644	35.313	-1.460	0.144	-120.964	17.676
B-WF_nursery# > 6000	26.455	95.119	0.280	0.781	-160.079	212.990
C-Nursery# < 3000	-87.459	23.538	-3.720	0.000	-133.610	-41.308
C-Nursery# > 6000	-11.116	95.361	-0.120	0.907	-198.126	175.894
C-WF_nursery# < 3000	-67.273	25.776	-2.610	0.009	-117.807	-16.738
C-WF_nursery# > 6000	10.669	95.096	0.110	0.911	-175.822	197.160
sysflow#year						
A-Nursery#2014	6.443	18.606	0.350	0.729	-30.046	42.933
A-Nursery#2015	15.495	18.007	0.860	0.390	-19.820	50.810
A-Nursery#2016	-23.042	19.846	-1.160	0.246	-61.964	15.879
A-Nursery#2017	39.221	21.796	1.800	0.072	-3.525	81.967
A-WF_nursery#2014	42.182	16.271	2.590	0.010	10.272	74.091
A-WF_nursery#2015	33.812	15.790	2.140	0.032	2.846	64.779
A-WF_nursery#2016	0.716	16.950	0.040	0.966	-32.525	33.957
A-WF_nursery#2017	69.773	19.910	3.500	0.000	30.727	108.819

Table S3 continued

ADFI	Coefficient	SE	t	P > t	95% LCL	95% UCL
B-Nursery#2014	30.375	14.167	2.140	0.032	2.598	58.153
B-Nursery#2015	46.127	14.305	3.220	0.001	18.079	74.175
B-Nursery#2016	25.962	16.153	1.610	0.108	-5.710	57.634
B-Nursery#2017	99.122	19.080	5.200	0.000	61.710	136.534
B-WF_nursery#2014	8.694	15.749	0.550	0.581	-22.183	39.570
B-WF_nursery#2015	54.438	15.896	3.420	0.001	23.272	85.603
B-WF_nursery#2016	62.917	17.753	3.540	0.000	28.111	97.723
B-WF_nursery#2017	129.704	20.510	6.320	0.000	89.491	169.916
C-Nursery#2014	9.116	15.391	0.590	0.554	-21.059	39.291
C-Nursery#2015	22.222	15.309	1.450	0.147	-7.792	52.236
C-Nursery#2016	2.801	17.001	0.160	0.869	-30.532	36.134
C-Nursery#2017	66.045	19.584	3.370	0.001	27.646	104.444
C-WF_nursery#2014	2.477	14.102	0.180	0.861	-25.173	30.126
C-WF_nursery#2015	16.046	14.232	1.130	0.260	-11.859	43.951
C-WF_nursery#2016	13.532	16.070	0.840	0.400	-17.977	45.041
C-WF_nursery#2017	60.816	19.388	3.140	0.002	22.801	98.830
size#c.fill						
< 3000	-3.484	1.262	-2.760	0.006	-5.959	-1.010
> 6000	-0.646	0.741	-0.870	0.384	-2.099	0.808
size#c.sowfarm						
< 3000	-18.217	4.957	-3.670	0.000	-27.939	-8.496
> 6000	3.186	2.730	1.170	0.243	-2.168	8.539
Constant	125.627	28.608	4.390	0.000	69.531	181.722
Random-effects Parameters	Estimate	SE	95% LCL	95% UCL		
site: Identity						
var(const)	1000.371	124.630	783.638	1277.047		
closeout: Identity						
var(vargrp)	4964.350	280.025	4444.762	5544.678		
var(Residual)	3076.755	99.856	2887.136	3278.828		
Model	Observations	df	AIC	BIC		
Nursery ADFI	4365	131	49477.22	50313.18		

ADFI = average daily feed intake; LCL = lower confidence limit; UCL = upper confidence limit; DOF = days on feed; WF = wean-to-finish; AIC = Akaike information criterion; BIC = Bayesian information criterion.

Table S4: Parameter coefficients and statistics for nursery G:F

G:F	Coefficient	SE	t	P > t	95% LCL	95% UCL
average_DOF	-1.830	0.304	-6.020	0.000	-2.425	-1.234
mortality	-5.291	0.416	-12.710	0.000	-6.107	-4.475
sysflow						
A-Converted-Nursery	0.000	(base)				
A-Nursery	18.062	27.475	0.660	0.511	-35.817	71.940
A-WF_nursery	80.921	20.478	3.950	0.000	40.762	121.080
B-Nursery	107.901	24.097	4.480	0.000	60.658	155.144
B-WF_nursery	39.921	25.244	1.580	0.114	-9.570	89.412
C-Nursery	75.322	23.244	3.240	0.001	29.752	120.891
C-WF_nursery	119.219	23.440	5.090	0.000	73.266	165.173
feeder						
Dry	0.000	(base)				
Tube	-13.183	4.728	-2.790	0.006	-22.474	-3.892
Wetdry	-21.828	3.842	-5.680	0.000	-29.384	-14.271
year						
2013	0.000	(base)				
2014	15.040	8.538	1.760	0.078	-1.703	31.783
2015	29.496	8.619	3.420	0.001	12.593	46.399
2016	30.056	10.172	2.950	0.003	10.107	50.005
2017	46.027	12.610	3.650	0.000	21.298	70.757
sysflow#c.avg_dof						
A-Nursery	0.351	0.512	0.680	0.493	-0.653	1.355
A-WF_nursery	-1.106	0.344	-3.220	0.001	-1.780	-0.432
B-Nursery	-1.177	0.434	-2.710	0.007	-2.028	-0.326
B-WF_nursery	-0.529	0.431	-1.230	0.220	-1.374	0.316
C-Nursery	-0.205	0.436	-0.470	0.638	-1.060	0.649
C-WF_nursery	-1.052	0.425	-2.480	0.013	-1.885	-0.219
sysflow#c.mortality						
A-Nursery	0.316	0.746	0.420	0.672	-1.148	1.779
A-WF_nursery	2.240	0.574	3.900	0.000	1.114	3.367
B-Nursery	-0.333	0.878	-0.380	0.705	-2.055	1.390
B-WF_nursery	0.247	1.410	0.180	0.861	-2.516	3.011
C-Nursery	0.820	0.702	1.170	0.242	-0.556	2.197
C-WF_nursery	4.054	0.633	6.400	0.000	2.813	5.296
sysflow#year						
A-Nursery#2014	10.351	13.124	0.790	0.430	-15.386	36.089
A-Nursery#2015	6.006	12.529	0.480	0.632	-18.565	30.576
A-Nursery#2016	5.900	13.621	0.430	0.665	-20.812	32.613
A-Nursery#2017	-35.541	15.503	-2.290	0.022	-65.944	-5.139

Table S4 continued

G:F	Coefficient	SE	t	P > t	95% LCL	95% UCL
A-WF_nursery#2014	-30.425	11.577	-2.630	0.009	-53.128	-7.723
A-WF_nursery#2015	-13.249	11.041	-1.200	0.230	-34.900	8.402
A-WF_nursery#2016	-25.476	11.893	-2.140	0.032	-48.799	-2.154
A-WF_nursery#2017	-88.069	14.141	-6.230	0.000	-115.801	-60.338
B-Nursery#2014	-20.443	10.125	-2.020	0.044	-40.294	-0.592
B-Nursery#2015	-26.531	10.153	-2.610	0.009	-46.437	-6.625
B-Nursery#2016	-21.127	11.492	-1.840	0.066	-43.659	1.405
B-Nursery#2017	-39.709	13.681	-2.900	0.004	-66.535	-12.883
B-WF_nursery#2014	-18.436	11.252	-1.640	0.101	-40.496	3.624
B-WF_nursery#2015	-33.821	11.301	-2.990	0.003	-55.977	-11.664
B-WF_nursery#2016	-45.574	12.653	-3.600	0.000	-70.380	-20.767
B-WF_nursery#2017	-54.968	14.708	-3.740	0.000	-83.804	-26.131
C-Nursery#2014	-27.759	10.965	-2.530	0.011	-49.256	-6.262
C-Nursery#2015	-29.893	10.903	-2.740	0.006	-51.270	-8.516
C-Nursery#2016	-27.638	12.081	-2.290	0.022	-51.324	-3.951
C-Nursery#2017	-44.041	14.031	-3.140	0.002	-71.553	-16.529
C-WF_nursery#2014	-9.770	10.062	-0.970	0.332	-29.497	9.958
C-WF_nursery#2015	-23.971	10.108	-2.370	0.018	-43.789	-4.152
C-WF_nursery#2016	-33.135	11.423	-2.900	0.004	-55.533	-10.738
C-WF_nursery#2017	-36.688	13.918	-2.640	0.008	-63.978	-9.399
Constant	697.724	17.562	39.730	0.000	663.285	732.163
Random-effects Parameters						
site: Identity						
var(cons)	284.8505	40.00879	216.3023	375.1223		
closeout: Identity						
var(vargrp)	2819.26	150.1316	2539.843	3129.417		
var(Residual)	1668.38	53.37558	1566.978	1776.343		
Model						
Nursery G:F	Observations	df	AIC	BIC		
	4365	54	47101.78	47446.38		

G:F = gain to feed ratio; LCL = lower confidence limit; UCL = upper confidence limit; DOF = days on feed; WF = wean-to-finish; AIC = Akaike information criterion; BIC = Bayesian information criterion.

Table S5: Parameter coefficients and statistics for finisher ADG

ADG	Coefficient	SE	t	P > t	95% LCL	95% UCL
startwt	1.967	0.182	10.780	0.000	1.609	2.325
mortality	-9.689	0.574	-16.880	0.000	-10.814	-8.563
sowfarm	-0.726	1.776	-0.410	0.683	-4.208	2.756
NE	0.162	0.022	7.440	0.000	0.119	0.204
system						
A	0.000	(base)				
B	30.373	22.333	1.360	0.174	-13.410	74.157
C	-42.422	20.505	-2.070	0.039	-82.622	-2.222
flow						
Finishing	0.000	(base)				
WF_finishing	244.875	80.550	3.040	0.002	86.955	402.795
size						
1500 - 3500	0.000	(base)				
< 1500	-21.002	16.667	-1.260	0.208	-53.687	11.682
> 3500	-10.319	4.019	-2.570	0.010	-18.200	-2.437
feeder						
Dry	0.000	(base)				
Tube	-17.819	9.878	-1.800	0.071	-37.199	1.560
Wetdry	10.363	9.451	1.100	0.273	-8.178	28.904
year						
2015	0.000	(base)				
2016	4.593	3.483	1.320	0.187	-2.237	11.424
2017	21.709	4.753	4.570	0.000	12.389	31.029
startwk						
1	0.000	(base)				
2	-18.181	13.862	-1.310	0.190	-45.363	9.002
3	-22.222	15.840	-1.400	0.161	-53.283	8.840
4	-17.373	14.513	-1.200	0.231	-45.832	11.086
5	-25.651	15.134	-1.690	0.090	-55.329	4.027
6	-34.385	13.709	-2.510	0.012	-61.267	-7.502
7	-28.313	14.233	-1.990	0.047	-56.223	-0.403
8	-32.001	14.685	-2.180	0.029	-60.798	-3.204
9	-35.699	15.318	-2.330	0.020	-65.738	-5.660
10	-37.956	14.275	-2.660	0.008	-65.948	-9.964
11	-50.736	14.310	-3.550	0.000	-78.799	-22.674
12	-62.931	14.624	-4.300	0.000	-91.608	-34.253
13	-75.821	14.184	-5.350	0.000	-103.635	-48.007
14	-81.384	14.582	-5.580	0.000	-109.979	-52.789
15	-66.476	14.157	-4.700	0.000	-94.237	-38.715
16	-73.647	14.945	-4.930	0.000	-102.954	-44.340
17	-74.720	14.125	-5.290	0.000	-102.420	-47.021

Table S5 continued

ADG	Coefficient	SE	t	P > t	95% LCL	95% UCL
18	-74.086	13.657	-5.420	0.000	-100.868	-47.304
19	-82.728	13.835	-5.980	0.000	-109.858	-55.599
20	-69.550	15.229	-4.570	0.000	-99.414	-39.686
21	-57.157	15.423	-3.710	0.000	-87.402	-26.913
22	-48.404	15.459	-3.130	0.002	-78.719	-18.088
23	-53.560	14.666	-3.650	0.000	-82.321	-24.799
24	-43.955	14.057	-3.130	0.002	-71.521	-16.389
25	-31.424	14.668	-2.140	0.032	-60.187	-2.660
26	-42.969	14.683	-2.930	0.003	-71.762	-14.176
27	-23.996	15.258	-1.570	0.116	-53.917	5.924
28	-27.858	14.337	-1.940	0.052	-55.972	0.255
29	-29.689	14.304	-2.080	0.038	-57.740	-1.638
30	-22.891	14.277	-1.600	0.109	-50.888	5.105
31	-13.472	13.679	-0.980	0.325	-40.296	13.352
32	3.396	14.498	0.230	0.815	-25.035	31.827
33	-6.605	15.015	-0.440	0.660	-36.049	22.840
34	-2.988	14.142	-0.210	0.833	-30.720	24.744
35	-16.268	13.890	-1.170	0.242	-43.507	10.970
36	-12.102	14.268	-0.850	0.396	-40.081	15.876
37	-2.688	13.957	-0.190	0.847	-30.057	24.681
38	-16.961	14.348	-1.180	0.237	-45.097	11.174
39	-14.147	14.487	-0.980	0.329	-42.557	14.262
40	-23.512	13.640	-1.720	0.085	-50.260	3.237
41	-28.212	14.623	-1.930	0.054	-56.887	0.464
42	-21.619	14.136	-1.530	0.126	-49.339	6.100
43	-17.943	14.247	-1.260	0.208	-45.881	9.995
44	-11.511	13.850	-0.830	0.406	-38.671	15.648
45	-3.748	14.671	-0.260	0.798	-32.518	25.021
46	-23.868	14.130	-1.690	0.091	-51.576	3.840
47	4.907	13.930	0.350	0.725	-22.409	32.222
48	3.169	15.961	0.200	0.843	-28.131	34.468
49	-10.006	14.687	-0.680	0.496	-38.807	18.795
50	-16.496	13.274	-1.240	0.214	-42.526	9.534
51	-13.782	13.506	-1.020	0.308	-40.266	12.703
52	-27.897	14.965	-1.860	0.062	-57.243	1.448
system#c.startwt						
B	-1.237	0.291	-4.250	0.000	-1.808	-0.666
C	0.041	0.292	0.140	0.887	-0.531	0.614
system#c.mortality						
B	-2.289	1.057	-2.160	0.030	-4.362	-0.216
C	-2.216	0.841	-2.640	0.008	-3.864	-0.568

Table S5 continued

ADG	Coefficient	SE	t	P > t	95% LCL	95% UCL
system#c.sowfarm						
B	-2.086	1.774	-1.180	0.240	-5.564	1.393
C	-15.831	3.541	-4.470	0.000	-22.774	-8.889
system#flow						
B-WF_finishing	-24.930	9.558	-2.610	0.009	-43.669	-6.190
C-WF_finishing	-47.389	8.697	-5.450	0.000	-64.439	-30.339
system#size						
B# < 1500	72.233	17.442	4.140	0.000	38.027	106.440
B# > 3500	1.974	6.591	0.300	0.765	-10.957	14.905
C# < 1500	44.422	17.246	2.580	0.010	10.598	78.246
C# > 3500	8.774	5.898	1.490	0.137	-2.802	20.349
system#feeder						
B#Tube	14.820	11.154	1.330	0.184	-7.068	36.709
B#Wetdry	33.639	12.168	2.760	0.006	9.757	57.521
C#Tube	30.537	11.043	2.770	0.006	8.867	52.206
C#Wetdry	34.827	10.314	3.380	0.001	14.589	55.064
system#year						
B#2016	-6.132	4.438	-1.380	0.167	-14.832	2.569
B#2017	-7.985	5.192	-1.540	0.124	-18.163	2.194
C#2016	2.113	4.164	0.510	0.612	-6.051	10.277
C#2017	-10.622	5.355	-1.980	0.047	-21.122	-0.123
system#startwk						
B# 2	13.373	19.599	0.680	0.495	-25.051	51.798
B# 3	1.008	21.317	0.050	0.962	-40.785	42.801
B# 4	3.931	20.616	0.190	0.849	-36.488	44.350
B# 5	16.616	21.496	0.770	0.440	-25.528	58.760
B# 6	18.901	19.907	0.950	0.342	-20.126	57.929
B# 7	13.023	20.061	0.650	0.516	-26.307	52.353
B# 8	14.342	21.586	0.660	0.506	-27.979	56.663
B# 9	-8.383	21.039	-0.400	0.690	-49.631	32.864
B#10	-6.764	20.427	-0.330	0.741	-46.813	33.284
B#11	16.229	20.093	0.810	0.419	-23.163	55.622
B#12	15.866	20.807	0.760	0.446	-24.926	56.657
B#13	56.864	21.247	2.680	0.007	15.209	98.518
B#14	45.811	20.399	2.250	0.025	5.818	85.803
B#15	29.655	20.410	1.450	0.146	-10.360	69.670
B#16	16.549	20.729	0.800	0.425	-24.090	57.188
B#17	38.203	19.884	1.920	0.055	-0.780	77.186
B#18	25.383	19.851	1.280	0.201	-13.536	64.302
B#19	40.017	20.575	1.940	0.052	-0.321	80.355
B#20	27.039	20.822	1.300	0.194	-13.782	67.861

Table S5 continued

ADG	Coefficient	SE	t	P > t	95% LCL	95% UCL
B#21	26.149	21.379	1.220	0.221	-15.765	68.064
B#22	36.388	21.188	1.720	0.086	-5.151	77.927
B#23	37.371	20.326	1.840	0.066	-2.480	77.222
B#24	31.227	20.226	1.540	0.123	-8.427	70.881
B#25	47.457	20.799	2.280	0.023	6.681	88.232
B#26	47.797	20.314	2.350	0.019	7.972	87.623
B#27	53.411	22.179	2.410	0.016	9.928	96.893
B#28	46.052	20.232	2.280	0.023	6.387	85.717
B#29	56.164	21.745	2.580	0.010	13.532	98.796
B#30	37.819	19.981	1.890	0.058	-1.355	76.993
B#31	30.317	19.982	1.520	0.129	-8.859	69.492
B#32	35.733	20.202	1.770	0.077	-3.873	75.340
B#33	34.396	21.015	1.640	0.102	-6.806	75.597
B#34	45.897	19.944	2.300	0.021	6.796	84.997
B#35	25.775	19.376	1.330	0.184	-12.212	63.762
B#36	23.446	19.923	1.180	0.239	-15.613	62.506
B#37	15.972	19.969	0.800	0.424	-23.178	55.121
B#38	40.281	20.677	1.950	0.051	-0.256	80.817
B#39	42.855	20.498	2.090	0.037	2.668	83.042
B#40	25.018	20.152	1.240	0.214	-14.490	64.526
B#41	19.788	20.421	0.970	0.333	-20.248	59.825
B#42	21.650	20.032	1.080	0.280	-17.623	60.923
B#43	2.369	20.007	0.120	0.906	-36.855	41.593
B#44	-11.341	19.728	-0.570	0.565	-50.018	27.335
B#45	17.195	21.130	0.810	0.416	-24.231	58.621
B#46	27.125	20.037	1.350	0.176	-12.158	66.408
B#47	-19.617	20.081	-0.980	0.329	-58.986	19.752
B#48	-5.810	21.632	-0.270	0.788	-48.221	36.600
B#49	2.365	21.336	0.110	0.912	-39.464	44.194
B#50	-0.623	19.423	-0.030	0.974	-38.703	37.456
B#51	13.704	19.681	0.700	0.486	-24.881	52.289
B#52	13.100	21.357	0.610	0.540	-28.771	54.971
C# 2	22.003	17.089	1.290	0.198	-11.501	55.506
C# 3	21.417	18.961	1.130	0.259	-15.758	58.593
C# 4	9.902	18.284	0.540	0.588	-25.944	45.749
C# 5	3.201	18.481	0.170	0.863	-33.032	39.434
C# 6	22.190	17.083	1.300	0.194	-11.301	55.682
C# 7	10.018	17.863	0.560	0.575	-25.004	45.040
C# 8	11.067	18.435	0.600	0.548	-25.076	47.209
C# 9	2.547	18.677	0.140	0.892	-34.071	39.164
C#10	16.146	17.480	0.920	0.356	-18.125	50.416

Table S5 continued

ADG	Coefficient	SE	t	P > t	95% LCL	95% UCL
C#11	29.192	17.383	1.680	0.093	-4.889	63.272
C#12	30.287	17.856	1.700	0.090	-4.721	65.296
C#13	56.050	17.383	3.220	0.001	21.970	90.130
C#14	56.376	17.806	3.170	0.002	21.466	91.287
C#15	36.217	17.519	2.070	0.039	1.870	70.564
C#16	42.515	18.455	2.300	0.021	6.333	78.696
C#17	48.050	17.409	2.760	0.006	13.919	82.181
C#18	45.314	17.284	2.620	0.009	11.428	79.200
C#19	61.264	17.610	3.480	0.001	26.738	95.789
C#20	64.220	18.556	3.460	0.001	27.840	100.600
C#21	56.555	18.716	3.020	0.003	19.861	93.250
C#22	39.462	18.854	2.090	0.036	2.497	76.427
C#23	62.236	17.785	3.500	0.000	27.366	97.105
C#24	53.907	17.644	3.060	0.002	19.315	88.498
C#25	44.799	17.836	2.510	0.012	9.830	79.768
C#26	59.208	18.219	3.250	0.001	23.490	94.927
C#27	48.741	18.797	2.590	0.010	11.890	85.593
C#28	43.142	17.872	2.410	0.016	8.103	78.181
C#29	65.356	17.737	3.680	0.000	30.582	100.130
C#30	48.250	18.059	2.670	0.008	12.846	83.655
C#31	57.456	17.253	3.330	0.001	23.631	91.282
C#32	23.920	17.489	1.370	0.171	-10.369	58.208
C#33	44.543	18.647	2.390	0.017	7.984	81.103
C#34	48.532	17.156	2.830	0.005	14.896	82.168
C#35	49.970	17.430	2.870	0.004	15.797	84.142
C#36	38.985	17.513	2.230	0.026	4.649	73.320
C#37	21.615	17.412	1.240	0.215	-12.522	55.753
C#38	35.949	17.880	2.010	0.044	0.895	71.004
C#39	44.421	17.679	2.510	0.012	9.761	79.082
C#40	46.589	17.757	2.620	0.009	11.776	81.401
C#41	41.825	17.865	2.340	0.019	6.800	76.851
C#42	38.839	17.541	2.210	0.027	4.450	73.228
C#43	31.946	17.574	1.820	0.069	-2.508	66.400
C#44	37.927	17.611	2.150	0.031	3.400	72.454
C#45	16.129	17.927	0.900	0.368	-19.017	51.276
C#46	44.056	17.421	2.530	0.011	9.902	78.210
C#47	19.613	17.342	1.130	0.258	-14.386	53.613
C#48	10.561	19.064	0.550	0.580	-26.815	47.938
C#49	18.685	17.883	1.040	0.296	-16.376	53.746
C#50	29.219	16.745	1.740	0.081	-3.611	62.048
C#51	31.339	17.218	1.820	0.069	-2.417	65.095
C#52	21.732	18.412	1.180	0.238	-14.365	57.829

Table S5 continued

ADG	Coefficient	SE	t	P > t	95% LCL	95% UCL
flow#c.startwt						
WF_finishing	-0.560	0.268	-2.090	0.037	-1.085	-0.035
flow#c.mortality						
WF_finishing	-3.846	0.859	-4.480	0.000	-5.530	-2.163
flow#c.NE						
WF_finishing	-0.072	0.030	-2.430	0.015	-0.130	-0.014
flow#year						
WF_finishing#2016	10.985	3.623	3.030	0.002	3.881	18.089
WF_finishing#2017	20.048	3.823	5.240	0.000	12.552	27.544
size#c.sowfarm						
< 1500	-7.124	2.285	-3.120	0.002	-11.605	-2.643
> 3500	-0.348	1.318	-0.260	0.792	-2.932	2.236
Constant	456.970	61.902	7.380	0.000	335.608	578.331
Random-effects Parameters	Estimate	SE	95% LCL	95% UCL		
site: Identity						
var(const)	495.309	45.825	413.167	593.782		
closeout: Identity						
var(vargrp)	3006.807	133.037	2757.045	3279.195		
var(Residual)	1104.778	36.955	1034.671	1179.635		
Model	Observations	df	AIC	BIC		
Finisher ADG	4747	197	49797.57	51071.23		

ADG = average daily gain; LCL = lower confidence limit; UCL = upper confidence limit; BW = body weight; NE = net energy; WF = wean-to-finish; AIC = Akaike information criterion; BIC = Bayesian information criterion.

Table S6: Parameter coefficients and statistics for finisher ADFI

ADFI	Coefficient	SE	t	P > t	95% LCL	95% UCL
fill	-1.968	1.670	-1.180	0.239	-5.243	1.306
startwt	15.058	0.413	36.490	0.000	14.248	15.867
mortality	-13.305	1.100	-12.100	0.000	-15.462	-11.149
sowfarm	-7.022	4.375	-1.610	0.109	-15.599	1.555
NE	-0.196	0.061	-3.200	0.001	-0.316	-0.076
system						
A	0.000	(base)				
B	-1298.527	422.704	-3.070	0.002	-2127.358	-469.696
C	1016.912	346.882	2.930	0.003	336.760	1697.064
flow						
Finishing	0.000	(base)				
WF_finishing	617.974	205.392	3.010	0.003	215.293	1020.654
size						
1500 - 3500	0.000	(base)				
< 1500	16.071	47.284	0.340	0.734	-76.665	108.807
> 3500	-54.461	20.027	-2.720	0.007	-93.765	-15.157
feeder						
Dry	0.000	(base)				
Tube	-67.961	26.480	-2.570	0.010	-119.926	-15.995
Wetdry	43.020	26.080	1.650	0.099	-8.161	94.201
year						
2015	0.000	(base)				
2016	2.230	8.278	0.270	0.788	-14.003	18.464
2017	31.139	12.406	2.510	0.012	6.812	55.466
startwk						
1	0.000	(base)				
2	-28.215	32.667	-0.860	0.388	-92.275	35.845
3	-26.351	37.308	-0.710	0.480	-99.511	46.810
4	-45.905	34.212	-1.340	0.180	-112.995	21.185
5	-53.822	35.654	-1.510	0.131	-123.739	16.095
6	-73.646	32.403	-2.270	0.023	-137.189	-10.104
7	-48.123	33.549	-1.430	0.152	-113.912	17.666
8	-76.537	34.610	-2.210	0.027	-144.408	-8.667
9	-70.522	36.104	-1.950	0.051	-141.322	0.278
10	-118.421	33.637	-3.520	0.000	-184.383	-52.458
11	-105.079	33.735	-3.110	0.002	-171.234	-38.924
12	-169.234	34.479	-4.910	0.000	-236.847	-101.620
13	-153.995	33.423	-4.610	0.000	-219.537	-88.453
14	-170.957	34.386	-4.970	0.000	-238.388	-103.527
15	-152.098	33.381	-4.560	0.000	-217.558	-86.638
16	-151.791	35.254	-4.310	0.000	-220.924	-82.658
17	-160.525	33.287	-4.820	0.000	-225.801	-95.249

Table S6 continued

ADFI	Coefficient	SE	t	P > t	95% LCL	95% UCL
18	-141.591	32.189	-4.400	0.000	-204.714	-78.468
19	-156.029	32.628	-4.780	0.000	-220.012	-92.046
20	-142.850	35.907	-3.980	0.000	-213.264	-72.436
21	-63.385	36.329	-1.740	0.081	-134.627	7.857
22	-109.469	36.417	-3.010	0.003	-180.882	-38.055
23	-123.499	34.532	-3.580	0.000	-191.216	-55.781
24	-67.167	33.118	-2.030	0.043	-132.112	-2.222
25	-67.862	34.563	-1.960	0.050	-135.640	-0.085
26	-79.263	34.635	-2.290	0.022	-147.183	-11.344
27	-35.258	35.983	-0.980	0.327	-105.822	35.305
28	-36.655	33.780	-1.090	0.278	-102.897	29.586
29	-21.755	33.724	-0.650	0.519	-87.888	44.378
30	-1.086	33.694	-0.030	0.974	-67.159	64.987
31	-53.051	32.222	-1.650	0.100	-116.238	10.135
32	-14.104	34.141	-0.410	0.680	-81.055	52.848
33	27.628	35.325	0.780	0.434	-41.644	96.900
34	29.378	33.477	0.880	0.380	-36.271	95.027
35	41.732	32.736	1.270	0.203	-22.463	105.928
36	29.957	33.623	0.890	0.373	-35.978	95.891
37	45.149	32.850	1.370	0.169	-19.269	109.568
38	4.424	33.785	0.130	0.896	-61.828	70.676
39	28.328	34.141	0.830	0.407	-38.624	95.279
40	45.028	32.136	1.400	0.161	-17.990	108.047
41	40.928	34.502	1.190	0.236	-26.730	108.586
42	31.259	33.304	0.940	0.348	-34.050	96.569
43	32.638	33.553	0.970	0.331	-33.159	98.435
44	37.543	32.671	1.150	0.251	-26.524	101.611
45	12.469	34.563	0.360	0.718	-55.310	80.247
46	-2.229	33.301	-0.070	0.947	-67.532	63.075
47	-2.137	32.881	-0.060	0.948	-66.615	62.342
48	49.539	37.614	1.320	0.188	-24.222	123.301
49	-22.606	34.652	-0.650	0.514	-90.558	45.345
50	-25.952	31.286	-0.830	0.407	-87.303	35.399
51	-4.884	31.811	-0.150	0.878	-67.266	57.497
52	-44.670	35.284	-1.270	0.206	-113.861	24.521
system#c.fill						
B	4.864	3.934	1.240	0.216	-2.851	12.579
C	4.511	2.303	1.960	0.050	-0.004	9.027
system#c.startwt						
B	-2.476	0.781	-3.170	0.002	-4.006	-0.946
C	1.867	0.716	2.610	0.009	0.462	3.271

Table S6 continued

ADFI	Coefficient	SE	t	P > t	95% LCL	95% UCL
system#c.sowfarm						
B	-13.635	4.464	-3.050	0.002	-22.387	-4.883
C	-48.629	9.876	-4.920	0.000	-67.994	-29.264
system#c.NE						
B	0.553	0.165	3.340	0.001	0.229	0.877
C	-0.513	0.138	-3.730	0.000	-0.783	-0.243
system#flow						
B-WF_finishing	-157.964	27.195	-5.810	0.000	-211.284	-104.644
C-WF_finishing	-102.061	22.487	-4.540	0.000	-146.146	-57.976
system#size						
B# < 1500	136.330	48.628	2.800	0.005	40.939	231.721
B# > 3500	-26.107	21.138	-1.240	0.217	-67.584	15.369
C# < 1500	88.044	44.868	1.960	0.050	0.037	176.051
C# > 3500	1.953	18.616	0.100	0.916	-34.585	38.491
system#feeder						
B#Tube	46.942	28.554	1.640	0.101	-9.102	102.987
B#Wetdry	75.933	31.508	2.410	0.016	14.082	137.784
C#Tube	98.361	28.528	3.450	0.001	42.370	154.352
C#Wetdry	73.824	27.203	2.710	0.007	20.435	127.213
system#year						
B#2016	-13.631	11.629	-1.170	0.241	-36.429	9.168
B#2017	-20.740	15.515	-1.340	0.181	-51.158	9.678
C#2016	-9.416	11.707	-0.800	0.421	-32.368	13.535
C#2017	-53.770	14.817	-3.630	0.000	-82.819	-24.721
system#startwk						
B# 2	-4.842	51.489	-0.090	0.925	-105.789	96.105
B# 3	-61.336	55.413	-1.110	0.268	-169.975	47.303
B# 4	-24.564	54.215	-0.450	0.651	-130.855	81.727
B# 5	-2.386	56.549	-0.040	0.966	-113.253	108.482
B# 6	-12.291	52.698	-0.230	0.816	-115.610	91.028
B# 7	-20.996	52.724	-0.400	0.690	-124.364	82.372
B# 8	-47.560	57.122	-0.830	0.405	-159.551	64.432
B# 9	-96.266	55.057	-1.750	0.080	-204.207	11.674
B#10	-31.231	53.871	-0.580	0.562	-136.849	74.387
B#11	-67.124	52.865	-1.270	0.204	-170.770	36.521
B#12	-21.759	54.775	-0.400	0.691	-129.148	85.630
B#13	13.445	56.400	0.240	0.812	-97.133	124.023
B#14	7.313	53.603	0.140	0.891	-97.780	112.405
B#15	-48.722	53.936	-0.900	0.366	-154.468	57.024
B#16	-101.395	54.255	-1.870	0.062	-207.764	4.975
B#17	-51.395	52.245	-0.980	0.325	-153.825	51.034

Table S6 continued

ADFI	Coefficient	SE	t	P > t	95% LCL	95% UCL
B#18	-133.641	52.369	-2.550	0.011	-236.314	-30.967
B#19	-93.807	54.677	-1.720	0.086	-201.006	13.392
B#20	-75.967	54.395	-1.400	0.163	-182.611	30.677
B#21	-154.523	56.046	-2.760	0.006	-264.404	-44.642
B#22	-83.038	55.399	-1.500	0.134	-191.650	25.574
B#23	-56.585	53.185	-1.060	0.287	-160.858	47.687
B#24	-83.409	53.338	-1.560	0.118	-187.981	21.164
B#25	-57.265	54.649	-1.050	0.295	-164.408	49.878
B#26	-66.581	53.158	-1.250	0.210	-170.800	37.639
B#27	2.811	58.594	0.050	0.962	-112.066	117.688
B#28	-5.067	53.161	-0.100	0.924	-109.292	99.157
B#29	12.089	57.866	0.210	0.835	-101.364	125.541
B#30	-46.024	52.432	-0.880	0.380	-148.819	56.771
B#31	25.471	52.794	0.480	0.630	-78.036	128.978
B#32	8.399	52.916	0.160	0.874	-95.346	112.144
B#33	-43.636	55.047	-0.790	0.428	-151.558	64.286
B#34	31.178	52.494	0.590	0.553	-71.739	134.095
B#35	-59.300	50.865	-1.170	0.244	-159.024	40.424
B#36	7.151	52.320	0.140	0.891	-95.425	109.726
B#37	-17.801	52.539	-0.340	0.735	-120.807	85.206
B#38	42.021	54.526	0.770	0.441	-64.880	148.923
B#39	-24.243	53.924	-0.450	0.653	-129.965	81.478
B#40	-5.097	53.350	-0.100	0.924	-109.694	99.499
B#41	-67.811	53.588	-1.270	0.206	-172.873	37.251
B#42	-33.895	52.653	-0.640	0.520	-137.125	69.334
B#43	-83.403	52.584	-1.590	0.113	-186.499	19.692
B#44	-124.228	51.893	-2.390	0.017	-225.968	-22.488
B#45	19.379	55.748	0.350	0.728	-89.919	128.677
B#46	10.662	52.662	0.200	0.840	-92.585	113.909
B#47	-46.114	53.022	-0.870	0.385	-150.067	57.838
B#48	-123.583	56.324	-2.190	0.028	-234.008	-13.157
B#49	-8.819	56.400	-0.160	0.876	-119.395	101.757
B#50	-3.458	51.383	-0.070	0.946	-104.198	97.282
B#51	-38.672	52.005	-0.740	0.457	-140.631	63.286
B#52	-8.588	56.216	-0.150	0.879	-118.803	101.627
C# 2	22.595	43.471	0.520	0.603	-62.631	107.821
C# 3	37.279	47.820	0.780	0.436	-56.474	131.032
C# 4	49.839	46.790	1.070	0.287	-41.893	141.571
C# 5	1.019	46.856	0.020	0.983	-90.844	92.882
C# 6	48.902	43.727	1.120	0.263	-36.825	134.630
C# 7	-13.740	45.752	-0.300	0.764	-103.437	75.957

Table S6 continued

ADFI	Coefficient	SE	t	P > t	95% LCL	95% UCL
C# 8	39.883	47.178	0.850	0.398	-52.611	132.376
C# 9	-22.402	47.552	-0.470	0.638	-115.629	70.824
C#10	66.132	44.702	1.480	0.139	-21.508	153.772
C#11	59.960	44.358	1.350	0.177	-27.005	146.925
C#12	85.582	45.635	1.880	0.061	-3.887	175.051
C#13	94.767	44.591	2.130	0.034	7.347	182.188
C#14	90.179	45.650	1.980	0.048	0.681	179.677
C#15	72.150	45.190	1.600	0.110	-16.447	160.746
C#16	22.135	47.446	0.470	0.641	-70.884	115.153
C#17	72.131	44.703	1.610	0.107	-15.511	159.772
C#18	18.891	44.748	0.420	0.673	-68.837	106.620
C#19	46.457	45.563	1.020	0.308	-42.870	135.784
C#20	83.868	47.400	1.770	0.077	-9.061	176.797
C#21	-27.137	47.774	-0.570	0.570	-120.799	66.525
C#22	-3.620	47.945	-0.080	0.940	-97.619	90.378
C#23	66.021	45.114	1.460	0.143	-22.426	154.467
C#24	12.616	45.403	0.280	0.781	-76.397	101.630
C#25	23.200	45.227	0.510	0.608	-65.467	111.868
C#26	40.258	46.507	0.870	0.387	-50.920	131.436
C#27	47.604	47.830	1.000	0.320	-46.166	141.375
C#28	31.589	45.564	0.690	0.488	-57.739	120.917
C#29	56.837	45.217	1.260	0.209	-31.812	145.486
C#30	-9.632	46.273	-0.210	0.835	-100.351	81.086
C#31	139.559	44.157	3.160	0.002	52.988	226.131
C#32	21.876	44.200	0.490	0.621	-64.779	108.530
C#33	-4.350	47.455	-0.090	0.927	-97.385	88.686
C#34	57.135	43.601	1.310	0.190	-28.345	142.616
C#35	30.614	44.586	0.690	0.492	-56.798	118.026
C#36	42.922	44.485	0.960	0.335	-44.292	130.136
C#37	-3.924	44.418	-0.090	0.930	-91.007	83.158
C#38	75.505	45.687	1.650	0.098	-14.065	165.075
C#39	49.901	44.909	1.110	0.267	-38.144	137.946
C#40	23.520	45.906	0.510	0.608	-66.479	113.520
C#41	6.383	45.451	0.140	0.888	-82.725	95.492
C#42	27.039	44.809	0.600	0.546	-60.809	114.887
C#43	16.096	44.750	0.360	0.719	-71.636	103.829
C#44	40.120	45.239	0.890	0.375	-48.572	128.811
C#45	39.621	45.593	0.870	0.385	-49.765	129.007
C#46	81.621	44.579	1.830	0.067	-5.777	169.018
C#47	90.955	44.271	2.050	0.040	4.161	177.750
C#48	11.162	48.150	0.230	0.817	-83.238	105.562

Table S6 continued

ADFI	Coefficient	SE	t	P > t	95% LCL	95% UCL
C#49	72.141	45.396	1.590	0.112	-16.859	161.141
C#50	90.773	42.872	2.120	0.034	6.722	174.824
C#51	65.647	44.143	1.490	0.137	-20.896	152.191
C#52	46.383	46.811	0.990	0.322	-45.390	138.156
flow#c.fill						
WF_finishing	13.806	2.335	5.910	0.000	9.227	18.385
flow#c.mortality						
WF_finishing	-8.194	2.107	-3.890	0.000	-12.325	-4.063
flow#c.sowfarm						
WF_finishing	28.861	4.787	6.030	0.000	19.475	38.247
flow#c.NE						
WF_finishing	-0.235	0.075	-3.150	0.002	-0.382	-0.089
flow#year						
WF_finishing#2016	25.881	9.919	2.610	0.009	6.433	45.330
WF_finishing#2017	39.555	11.082	3.570	0.000	17.826	61.284
size#c.fill						
< 1500	-6.336	4.551	-1.390	0.164	-15.258	2.587
> 3500	4.035	1.784	2.260	0.024	0.538	7.533
size#c.sowfarm						
< 1500	-16.398	6.758	-2.430	0.015	-29.651	-3.145
> 3500	5.479	3.655	1.500	0.134	-1.687	12.646
size#feeder						
< 1500#Tube	-66.377	27.919	-2.380	0.018	-121.181	-11.573
< 1500#Wetdry	-6.019	34.354	-0.180	0.861	-73.463	61.426
> 3500#Tube	49.317	17.654	2.790	0.005	14.654	83.980
> 3500#Wetdry	14.617	19.328	0.760	0.450	-23.328	52.562
Constant	2716.176	172.736	15.720	0.000	2377.460	3054.892
Random-effects Parameters	Estimate	SE	95% LCL	95% UCL		
site: Identity						
var(const)	3447.749	318.849	2876.181	4132.901		
closeout: Identity						
var(vargrp)	13410.910	761.781	11997.960	14990.260		
var(Residual)	9139.323	307.505	8556.068	9762.337		
Model	Observations	df	AIC	BIC		
Finisher ADFI	4,743	207	58351.92	59690.06		

ADFI = average daily feed intake; LCL = lower confidence limit; UCL = upper confidence limit; BW = body weight; NE = net energy; WF = wean-to-finish; AIC = Akaike information criterion; BIC = Bayesian information criterion.

Table S7: Parameter coefficients and statistics for finisher G:F

G:F	Coefficient	SE	t	P > t	95% LCL	95% UCL
fill	0.001	0.109	0.010	0.992	-0.212	0.214
startwt	-1.414	0.041	-34.650	0.000	-1.494	-1.334
mortality	-2.139	0.172	-12.450	0.000	-2.476	-1.803
sowfarm	1.286	0.266	4.830	0.000	0.764	1.809
NE	0.110	0.006	19.210	0.000	0.098	0.121
system						
A	0.000	(base)				
B	261.687	43.017	6.080	0.000	177.343	346.031
C	-22.978	35.524	-0.650	0.518	-92.630	46.675
flow						
Finishing	0.000	(base)				
WF_finishing	12.057	1.183	10.190	0.000	9.737	14.376
size						
1500 - 3500	0.000	(base)				
< 1500	-9.634	4.007	-2.400	0.016	-17.491	-1.776
> 3500	-1.646	1.568	-1.050	0.294	-4.720	1.427
year						
2015	0.000	(base)				
2016	1.838	0.784	2.340	0.019	0.301	3.375
2017	7.275	1.222	5.950	0.000	4.879	9.671
startwk						
1	0.000	(base)				
2	-2.365	3.260	-0.730	0.468	-8.757	4.027
3	-6.584	3.741	-1.760	0.079	-13.920	0.751
4	0.044	3.410	0.010	0.990	-6.644	6.732
5	-0.715	3.531	-0.200	0.840	-7.640	6.210
6	-1.754	3.216	-0.550	0.586	-8.061	4.553
7	-2.990	3.294	-0.910	0.364	-9.450	3.469
8	-2.590	3.416	-0.760	0.448	-9.288	4.108
9	-5.442	3.586	-1.520	0.129	-12.475	1.590
10	-0.418	3.338	-0.130	0.900	-6.963	6.127
11	-3.344	3.359	-1.000	0.320	-9.931	3.243
12	-0.804	3.435	-0.230	0.815	-7.539	5.931
13	-7.855	3.359	-2.340	0.019	-14.442	-1.268
14	-6.904	3.434	-2.010	0.044	-13.637	-0.170
15	-4.001	3.343	-1.200	0.231	-10.557	2.554
16	-6.006	3.557	-1.690	0.091	-12.982	0.969
17	-7.489	3.328	-2.250	0.025	-14.014	-0.964
18	-8.748	3.224	-2.710	0.007	-15.071	-2.426
19	-9.881	3.263	-3.030	0.002	-16.280	-3.482
20	-6.614	3.524	-1.880	0.061	-13.525	0.296

Table S7 continued

G:F	Coefficient	SE	t	P > t	95% LCL	95% UCL
21	-12.349	3.608	-3.420	0.001	-19.425	-5.273
22	-2.410	3.594	-0.670	0.502	-9.457	4.636
23	-1.728	3.471	-0.500	0.619	-8.535	5.079
24	-6.119	3.273	-1.870	0.062	-12.537	0.298
25	-3.117	3.453	-0.900	0.367	-9.889	3.654
26	-5.863	3.423	-1.710	0.087	-12.575	0.850
27	-3.477	3.520	-0.990	0.323	-10.379	3.425
28	-4.127	3.363	-1.230	0.220	-10.722	2.468
29	-6.692	3.358	-1.990	0.046	-13.277	-0.108
30	-6.807	3.304	-2.060	0.040	-13.286	-0.327
31	2.306	3.221	0.720	0.474	-4.010	8.621
32	3.202	3.402	0.940	0.347	-3.468	9.872
33	-5.356	3.474	-1.540	0.123	-12.169	1.457
34	-4.944	3.334	-1.480	0.138	-11.482	1.595
35	-10.999	3.291	-3.340	0.001	-17.452	-4.546
36	-7.901	3.376	-2.340	0.019	-14.520	-1.281
37	-7.433	3.295	-2.260	0.024	-13.895	-0.972
38	-6.616	3.366	-1.970	0.049	-13.216	-0.016
39	-9.115	3.329	-2.740	0.006	-15.644	-2.587
40	-14.632	3.220	-4.540	0.000	-20.946	-8.317
41	-14.493	3.371	-4.300	0.000	-21.103	-7.882
42	-10.900	3.261	-3.340	0.001	-17.294	-4.505
43	-9.684	3.330	-2.910	0.004	-16.214	-3.154
44	-7.557	3.236	-2.340	0.020	-13.902	-1.212
45	-3.576	3.402	-1.050	0.293	-10.247	3.094
46	-9.477	3.365	-2.820	0.005	-16.075	-2.879
47	1.892	3.304	0.570	0.567	-4.587	8.370
48	-3.826	3.706	-1.030	0.302	-11.092	3.440
49	0.121	3.507	0.030	0.973	-6.756	6.998
50	-1.556	3.132	-0.500	0.619	-7.697	4.585
51	-4.075	3.160	-1.290	0.197	-10.272	2.122
52	-1.263	3.502	-0.360	0.718	-8.131	5.605
system#c.fill						
B	-0.329	0.372	-0.880	0.377	-1.059	0.401
C	-0.845	0.224	-3.770	0.000	-1.285	-0.405
system#c.startwt						
B	-0.151	0.080	-1.890	0.059	-0.309	0.006
C	-0.429	0.074	-5.770	0.000	-0.575	-0.284
system#c.mortality						
B	-1.546	0.308	-5.020	0.000	-2.150	-0.942
C	-0.944	0.248	-3.810	0.000	-1.429	-0.458

Table S7 continued

G:F	Coefficient	SE	t	P > t	95% LCL	95% UCL
system#c.NE						
B	-0.101	0.017	-6.020	0.000	-0.134	-0.068
C	0.022	0.014	1.540	0.123	-0.006	0.049
system#flow						
B-WF_finishing	12.883	2.159	5.970	0.000	8.649	17.116
C-WF_finishing	-4.452	1.490	-2.990	0.003	-7.373	-1.530
system#size						
B# < 1500	10.682	4.180	2.560	0.011	2.485	18.880
B# > 3500	7.186	2.018	3.560	0.000	3.227	11.145
C# < 1500	4.372	4.078	1.070	0.284	-3.626	12.370
C# > 3500	3.666	1.755	2.090	0.037	0.224	7.109
system#year						
B#2016	-0.884	1.159	-0.760	0.446	-3.157	1.388
B#2017	-3.328	1.565	-2.130	0.033	-6.395	-0.260
C#2016	5.305	1.184	4.480	0.000	2.984	7.626
C#2017	2.036	1.491	1.370	0.172	-0.888	4.960
system#startwk						
B# 2	6.628	5.285	1.250	0.210	-3.734	16.991
B# 3	9.662	5.684	1.700	0.089	-1.482	20.806
B# 4	6.136	5.547	1.110	0.269	-4.739	17.012
B# 5	6.578	5.626	1.170	0.242	-4.452	17.608
B# 6	9.307	5.425	1.720	0.086	-1.329	19.944
B# 7	9.155	5.385	1.700	0.089	-1.403	19.712
B# 8	16.027	5.834	2.750	0.006	4.589	27.466
B# 9	13.923	5.623	2.480	0.013	2.898	24.948
B#10	5.603	5.563	1.010	0.314	-5.304	16.510
B#11	15.547	5.435	2.860	0.004	4.890	26.203
B#12	9.356	5.603	1.670	0.095	-1.628	20.340
B#13	21.810	5.804	3.760	0.000	10.432	33.188
B#14	16.948	5.460	3.100	0.002	6.243	27.652
B#15	18.899	5.482	3.450	0.001	8.151	29.646
B#16	20.480	5.612	3.650	0.000	9.478	31.483
B#17	24.829	5.389	4.610	0.000	14.264	35.394
B#18	30.691	5.412	5.670	0.000	20.081	41.301
B#19	30.801	5.635	5.470	0.000	19.754	41.849
B#20	21.716	5.578	3.890	0.000	10.780	32.652
B#21	32.301	5.683	5.680	0.000	21.161	43.442
B#22	27.039	5.691	4.750	0.000	15.881	38.196
B#23	23.629	5.491	4.300	0.000	12.863	34.394
B#24	24.210	5.393	4.490	0.000	13.637	34.783
B#25	28.671	5.627	5.100	0.000	17.639	39.703
B#26	28.308	5.428	5.220	0.000	17.667	38.950

Table S7 continued

G:F	Coefficient	SE	t	P > t	95% LCL	95% UCL
B#27	21.213	5.845	3.630	0.000	9.753	32.673
B#28	18.516	5.472	3.380	0.001	7.788	29.245
B#29	19.820	5.849	3.390	0.001	8.352	31.287
B#30	20.866	5.386	3.870	0.000	10.305	31.426
B#31	10.202	5.413	1.880	0.060	-0.410	20.814
B#32	13.538	5.467	2.480	0.013	2.819	24.257
B#33	16.885	5.579	3.030	0.002	5.947	27.823
B#34	13.855	5.405	2.560	0.010	3.259	24.451
B#35	16.871	5.247	3.220	0.001	6.585	27.157
B#36	10.497	5.363	1.960	0.050	-0.017	21.010
B#37	10.541	5.426	1.940	0.052	-0.096	21.179
B#38	9.547	5.517	1.730	0.084	-1.269	20.364
B#39	21.337	5.453	3.910	0.000	10.646	32.028
B#40	13.599	5.508	2.470	0.014	2.800	24.397
B#41	16.988	5.472	3.100	0.002	6.260	27.716
B#42	11.903	5.409	2.200	0.028	1.297	22.508
B#43	11.452	5.399	2.120	0.034	0.867	22.038
B#44	12.323	5.301	2.320	0.020	1.930	22.716
B#45	5.772	5.592	1.030	0.302	-5.191	16.736
B#46	11.953	5.419	2.210	0.027	1.330	22.576
B#47	0.359	5.448	0.070	0.947	-10.321	11.040
B#48	15.929	5.782	2.750	0.006	4.593	27.266
B#49	2.763	5.738	0.480	0.630	-8.487	14.013
B#50	1.092	5.312	0.210	0.837	-9.323	11.506
B#51	11.529	5.357	2.150	0.031	1.027	22.032
B#52	4.261	5.809	0.730	0.463	-7.129	15.651
C# 2	4.130	4.375	0.940	0.345	-4.448	12.708
C# 3	3.888	4.803	0.810	0.418	-5.528	13.304
C# 4	-3.762	4.658	-0.810	0.419	-12.894	5.371
C# 5	-1.178	4.698	-0.250	0.802	-10.389	8.033
C# 6	0.402	4.391	0.090	0.927	-8.207	9.011
C# 7	4.717	4.518	1.040	0.297	-4.141	13.574
C# 8	-0.936	4.733	-0.200	0.843	-10.215	8.343
C# 9	7.438	4.776	1.560	0.119	-1.926	16.802
C#10	0.018	4.504	0.000	0.997	-8.812	8.847
C#11	3.089	4.446	0.690	0.487	-5.627	11.804
C#12	1.741	4.607	0.380	0.705	-7.290	10.772
C#13	10.932	4.523	2.420	0.016	2.065	19.798
C#14	10.373	4.553	2.280	0.023	1.447	19.300
C#15	6.057	4.550	1.330	0.183	-2.863	14.977

Table S7 continued

G:F	Coefficient	SE	t	P > t	95% LCL	95% UCL
C#16	16.718	4.834	3.460	0.001	7.241	26.195
C#17	12.067	4.507	2.680	0.007	3.232	20.903
C#18	19.783	4.545	4.350	0.000	10.873	28.693
C#19	19.759	4.586	4.310	0.000	10.768	28.749
C#20	15.705	4.670	3.360	0.001	6.550	24.860
C#21	29.099	4.783	6.080	0.000	19.723	38.476
C#22	18.153	4.751	3.820	0.000	8.838	27.468
C#23	15.083	4.572	3.300	0.001	6.120	24.047
C#24	20.049	4.571	4.390	0.000	11.087	29.011
C#25	16.303	4.569	3.570	0.000	7.346	25.261
C#26	20.232	4.605	4.390	0.000	11.204	29.259
C#27	12.041	4.704	2.560	0.011	2.819	21.263
C#28	11.562	4.582	2.520	0.012	2.579	20.546
C#29	14.364	4.514	3.180	0.001	5.514	23.215
C#30	18.649	4.608	4.050	0.000	9.615	27.682
C#31	2.025	4.453	0.450	0.649	-6.704	10.755
C#32	6.054	4.454	1.360	0.174	-2.679	14.786
C#33	16.409	4.712	3.480	0.001	7.170	25.647
C#34	8.732	4.352	2.010	0.045	0.200	17.265
C#35	12.239	4.483	2.730	0.006	3.451	21.028
C#36	7.648	4.475	1.710	0.088	-1.126	16.423
C#37	8.448	4.453	1.900	0.058	-0.282	17.177
C#38	2.470	4.619	0.530	0.593	-6.585	11.525
C#39	9.540	4.475	2.130	0.033	0.768	18.313
C#40	13.256	4.579	2.890	0.004	4.279	22.233
C#41	12.324	4.533	2.720	0.007	3.438	21.210
C#42	8.001	4.452	1.800	0.072	-0.727	16.728
C#43	7.992	4.508	1.770	0.076	-0.845	16.829
C#44	4.948	4.515	1.100	0.273	-3.903	13.800
C#45	-0.081	4.527	-0.020	0.986	-8.956	8.793
C#46	4.824	4.520	1.070	0.286	-4.037	13.685
C#47	-5.222	4.493	-1.160	0.245	-14.031	3.587
C#48	1.196	4.781	0.250	0.803	-8.178	10.570
C#49	-4.718	4.595	-1.030	0.305	-13.726	4.290
C#50	-3.419	4.331	-0.790	0.430	-11.910	5.071
C#51	2.073	4.440	0.470	0.641	-6.632	10.778
C#52	-1.812	4.702	-0.390	0.700	-11.031	7.407
flow#c.sowfarm						
WF_finishing	-3.423	0.494	-6.930	0.000	-4.392	-2.454

Table S7 continued

G:F	Coefficient	SE	t	P > t	95% LCL	95% UCL
flow#size						
WF_finishing# < 1500	-9.362	3.495	-2.680	0.007	-16.215	-2.508
WF_finishing# > 3500	-3.493	1.338	-2.610	0.009	-6.115	-0.870
size#c.mortality						
< 1500	0.694	0.334	2.080	0.038	0.038	1.349
> 3500	0.213	0.208	1.030	0.304	-0.194	0.621
size#c.sowfarm						
< 1500	0.187	0.618	0.300	0.763	-1.025	1.398
> 3500	-1.098	0.367	-2.990	0.003	-1.817	-0.378
Constant	105.857	16.055	6.590	0.000	74.375	137.339
Random-effects Parameters	Estimate	SE	95% LCL	95% UCL		
site: Identity						
var(const)	54.994	4.374	47.056	64.270		
closeout: Identity						
var(vargrp)	150.880	8.130	135.758	167.687		
var(Residual)	101.601	3.377	95.193	108.441		
Model	Observations	df	AIC	BIC		
Finisher G:F	5187	194	41777.78	43049.24		

G:F = gain to feed ratio; LCL = lower confidence limit; UCL = upper confidence limit; BW = body weight; NE = net energy; WF = wean-to-finish; AIC = Akaike information criterion; BIC = Bayesian information criterion.

