Growth, body composition and body wrinkle are favourably correlated with reproductive performance in 2–8-year-old Merino sheep

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Supplementary Material

Table S1. Trait and economic gain after 10 years of index selection

Trait abbreviations are NLW – lamb weaned/ewe joined, YWT – yearling weight, HBWS – hogget body wrinkle score, YEMD – yearling eye muscle depth, YFAT – yearling fat depth, YFD – yearling fibre diameter, YFDCV – yearling coefficient of variation in fibre diameter, YSS – yearling staple strength, ASS – adult staple strength, AFD – adult fibre diameter, YCFW - yearling clean fleece weight, ACFW – adult clean fleece weight, AWT – adult weight. Selection criteria options are 1. Includes YCFW, YFD, YFDCV, YSS and post-weaning worm egg count, 2 = 1 + ywt, 3 = 2 + HBWS, 3 = 2 + hogget eye muscle depth (HEMD), 5 = 2 + hogget fat depth (HFAT), 6 = 2 + HBWS, HEMD and HFAT, 7 = 1 + NLW, 8 = 1 + YWT and NLW, 9 = 8 + HBWS, 10 = 8 + HEMD, 11 = 8 + FAT 16, 12 = 8 + HBWS, HEMD and HFAT.

Selection Criteria Option	NLW (lambs/ ewe joined)	YWT (kg)	*HBWS (score)*	*YEMD (mm)*	YFAT (mm)	YFD (μ)	YFDCV (%)	AFDCV (%)	YSS (N/ktex)	ASS (N/ktex)	AFD (μ)	YCFW (%)	ACFW (%)	AWT (kg)	Economic gain (A$/ ewe.year)
						FP+HBWS index									
1.	-0.020	-0.46	0.34	-0.63	-0.17	-1.17	-0.22	-0.06	1.00	0.52	-1.73	3.14	1.65	-1.60	33.10
2.	-0.007	0.81	0.29	-0.50	-0.11	-1.13	-0.23	-0.06	0.92	0.43	-1.68	2.98	1.64	0.60	34.26
3.	-0.002	0.81	0.23	-0.48	-0.11	-1.13	-0.23	-0.06	0.89	0.39	-1.66	2.93	1.47	0.59	34.42
4.	0.018	0.84	0.25	0.34	-0.05	-1.09	-0.23	-0.06	0.81	0.32	-1.63	2.64	1.21	0.52	35.59
5.	0.000	0.79	0.28	-0.40	-0.04	-1.12	-0.23	-0.06	0.88	0.38	-1.67	2.90	1.49	0.45	34.50
6.	0.021	0.82	0.22	0.34	-0.02	-1.08	-0.23	-0.06	0.79	0.29	-1.62	2.64	1.13	0.44	35.73
7.	0.016	-0.33	-0.22	-0.50	-0.14	-1.13	-0.25	-0.06	0.94	0.48	-1.67	3.14	1.55	-1.07	36.60
8.	0.026	0.82	0.26	-0.39	-0.09	-1.10	-0.26	-0.07	0.86	0.39	-1.63	3.02	1.56	0.90	37.58
9.	0.029	0.82	0.22	0.10	-0.09	-1.09	-0.26	-0.07	0.84	0.37	-1.62	2.98	1.45	0.89	37.67
10.	0.047	0.85	0.22	0.38	-0.03	-1.06	-0.26	-0.07	0.76	0.28	-1.60	2.73	1.19	0.81	38.69
11.	0.031	0.81	0.25	-0.30	-0.03	-1.09	-0.26	-0.07	0.83	0.34	-1.63	2.95	1.43	0.77	37.76
12.	0.048	0.84	0.21	0.38	-0.01	-1.06	-0.26	-0.07	0.75	0.27	-1.59	2.74	1.15	0.74	38.79
						MP+HBWS index									
1.	-0.026	0.22	0.37	-0.60	-0.15	-0.56	-0.05	-0.15	1.58	1.33	-0.74	9.30	7.87	-0.63	9.01
2.	-0.002	2.31	0.26	-0.35	-0.05	-0.51	-0.07	5.58	1.33	1.07	-0.67	8.28	7.16	3.05	10.01
3.	0.044	2.11	-0.35	-0.05	0.00	-0.38	-0.13	-0.29	0.82	0.48	-0.40	5.74	3.58	2.81	12.00
4.	0.048	2.05	0.16	1.40	0.09	-0.41	-0.08	-0.18	0.97	0.71	-0.58	6.42	5.19	2.44	12.01
5.	0.016	2.17	0.23	-0.03	0.16	-0.47	-0.09	-0.20	1.18	0.88	-0.64	7.64	6.35	2.47	10.55
6.	0.079	1.95	-0.31	1.33	0.18	-0.33	-0.14	-0.25	0.61	0.27	-0.40	4.74	2.63	2.22	13.52
7.	0.037	0.36	0.27	-0.32	-0.10	-0.47	-0.09	-0.17	1.32	1.11	-0.62	7.87	6.47	0.23	11.54
8.	0.050	2.06	0.19	-0.16	-0.02	-0.44	-0.10	-0.22	1.15	0.93	-0.59	7.33	6.16	3.16	12.28
9.	0.081	1.98	-0.32	0.06	0.01	-0.35	-0.15	-0.29	0.73	0.43	-0.39	5.54	3.44	2.98	13.87
10.	0.086	1.93	0.12	1.36	0.10	-0.38	-0.11	-0.19	0.87	0.64	-0.54	6.07	4.78	2.65	13.92
11.	0.063	1.97	0.17	0.10	0.16	-0.42	-0.12	-0.21	1.03	0.77	-0.57	6.91	5.60	2.68	12.70
12.	0.109	1.87	-0.29	1.32	0.18	-0.32	-0.15	-0.26	0.54	0.23	-0.39	4.76	2.66	2.44	15.17

	DP+HBWS index														
1.	-0.025	0.91	0.22	-0.21	-0.04	0.33	-0.05	-0.09	1.85	1.90	0.60	12.99	11.78	0.74	6.96
2.	0.032	4.73	-0.04	0.28	0.15	0.15	-0.08	-0.18	0.66	0.62	0.27	5.79	5.58	7.73	15.14
3.	0.078	3.92	-0.69	0.51	0.17	0.17	-0.15	-0.28	0.16	0.01	0.39	3.07	1.51	6.37	19.42
4.	0.093	2.85	-0.12	2.70	0.28	0.09	-0.08	-0.11	0.15	0.07	0.11	2.50	1.94	4.18	26.99
5.	0.057	3.98	-0.07	0.75	0.49	0.14	-0.11	-0.16	0.41	0.29	0.22	4.54	4.00	5.88	17.76
6.	0.116	2.74	-0.46	2.60	0.37	0.12	-0.13	-0.18	-0.07	-0.24	0.20	1.49	0.15	3.90	29.04
7.	0.078	0.65	0.04	0.16	0.03	0.15	-0.09	-0.11	0.94	0.97	0.26	5.97	5.17	1.45	15.87
8.	0.089	3.76	-0.08	0.40	0.15	0.11	-0.11	-0.18	0.54	0.52	0.20	4.45	4.11	6.68	20.75
9.	0.116	3.46	-0.58	0.57	0.17	0.13	-0.16	-0.27	0.17	0.04	0.31	2.81	1.39	6.05	23.78
10.	0.125	2.72	-0.13	2.63	0.28	0.08	-0.10	-0.12	0.13	0.06	0.09	2.37	1.74	4.32	30.65
11.	0.104	3.41	-0.09	0.78	0.43	0.11	-0.12	-0.17	0.36	0.27	0.17	3.78	3.16	5.52	22.69
12.	0.143	2.66	-0.43	2.56	0.36	0.11	-0.14	-0.18	-0.08	-0.23	0.17	1.57	0.25	4.07	32.30