

Appendix 1: Free-ranging cows equipped with GPS collars and monitored during three summers 2015-2017 in study areas SRA and FVA in south-east Norway. We regrouped cows into heavy and medium weight breeds and reproductive status (Y = lactating cow, N = Non-lactating cow). Total number of positions (N) between the dates for turning out and housing the cattle, alternatively the date when the GPS collars ran out of power (out of battery).

Animal_id	Year	Study area	Breed	Reproduction	N positions	Turned out	Housed/out of battery*
1004a	2016	SRA	medium	Y	8271	19.07	26.09
1004b	2017	SRA	heavy	Y	26131	13.06	12.09
1018	2015	SRA	heavy	Y	19791	26.06	03.09
1018	2016	SRA	heavy	Y	23288	28.06	25.09
1028	2016	FVA	medium	Y	27158	02.06	04.09
1028	2017	FVA	medium	Y	30649	24.05	07.09
1051	2015	SRA	heavy	Y	28723	10.06	18.09
1054	2016	FVA	heavy	N	27757	03.06	08.09
1054	2017	FVA	heavy	N	27461	04.06	07.09
1072	2016	SRA	medium	Y	7489	31.05	01.08*
1108	2017	SRA	medium	Y	27583	06.06	10.09
12	2015	SRA	medium	Y	22934	28.05	16.08*
12	2017	SRA	heavy	Y	17240	23.06	22.08
1201	2015	SRA	heavy	Y	28780	10.06	18.09
125	2015	SRA	medium	N	25880	28.05	26.08*
1350	2015	SRA	medium	N	25705	10.06	07.09*
1505	2017	SRA	heavy	Y	4145	07.06	21.06 ⁱ
1511	2017	FVA	heavy	Y	20463	22.06	07.09
1516	2017	SRA	heavy	Y	28362	07.06	14.09
16	2015	SRA	medium	N	24091	28.06	20.08*
180	2016	FVA	medium	Y	24425	15.06	08.09
187	2015	SRA	medium	Y	25113	06.06	17.09
187	2016	SRA	medium	Y	31884	06.06	25.09
187	2017	SRA	medium	Y	29325	21.06	14.09
2	2017	SRA	heavy	Y	16308	21.07 ⁱⁱ	16.09
202	2015	SRA	heavy	Y	28904	10.06	18.09
22	2015	SRA	heavy	Y	19801	26.06	03.09
295	2016	SRA	heavy	N	13292	20.05	08.09*
298	2017	SRA	heavy	Y	16094	21.07 ⁱⁱⁱ	15.09
309	2017	FVA	medium	Y	22928	22.06	10.09
310	2016	FVA	medium	Y	24404	15.06	08.09
310	2017	FVA	medium	Y	22728	22.06	10.09
32	2015	SRA	medium	Y	23792	28.05	19.08*
35	2017	SRA	medium	N	25463	25.05	22.08*
4015	2016	FVA	heavy	Y	27133	02.06	04.09
5068	2016	FVA	heavy	N	26530	03.06	03.09*
5086	2016	FVA	heavy	N	27718	03.06	08.09
5095	2017	FVA	heavy	N	27467	04.06	07.09
56	2015	SRA	medium	Y	23997	28.05	19.08*

56	2016	SRA	medium	N	13796	20.05	13.09*
597	2016	FVA	heavy	Y	20543	25.06	04.09
597	2017	FVA	heavy	Y	26865	04.06	05.09
6	2016	SRA	medium	Y	8132	19.07	26.09
63	2015	SRA	medium	N	23693	28.05	18.08*
649	2016	FVA	heavy	Y	27121	02.06	04.09
657	2017	FVA	heavy	N	30571	24.05	07.09
828	2015	SRA	medium	N	27873	08.06	13.09*
88	2015	SRA	medium	Y	23015	28.05	16.08*
9001	2015	SRA	medium	Y	23522	28.05	18.08*
9002	2017	SRA	heavy	Y	10701	07.06	14.07 ^{iv}
9005	2015	SRA	heavy	Y	28797	10.06	18.08*
9007	2016	SRA	medium	N	14756	20.05	20.09*
909	2015	SRA	medium	N	28711	08.06	16.09*
95	2016	SRA	medium	N	12190	20.05	09.09*

ⁱ Cow lost her collar early in the season

ⁱⁱ Collar from cow above attached to a new cow

ⁱⁱⁱ Cow lost her collar early in the season

^{iv} Collar from cow above attached to a new cow