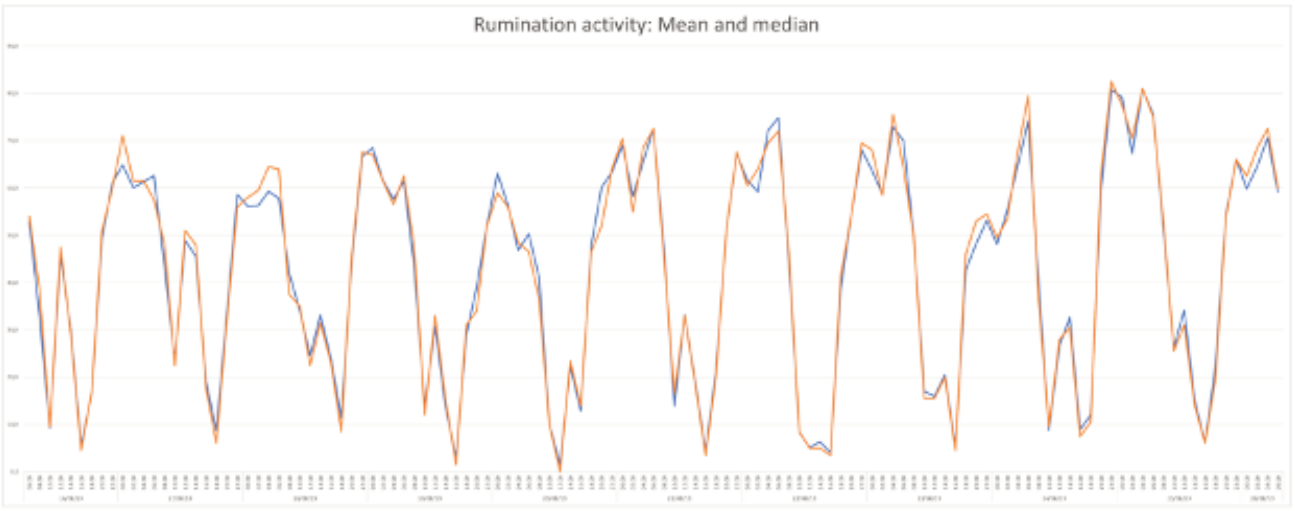
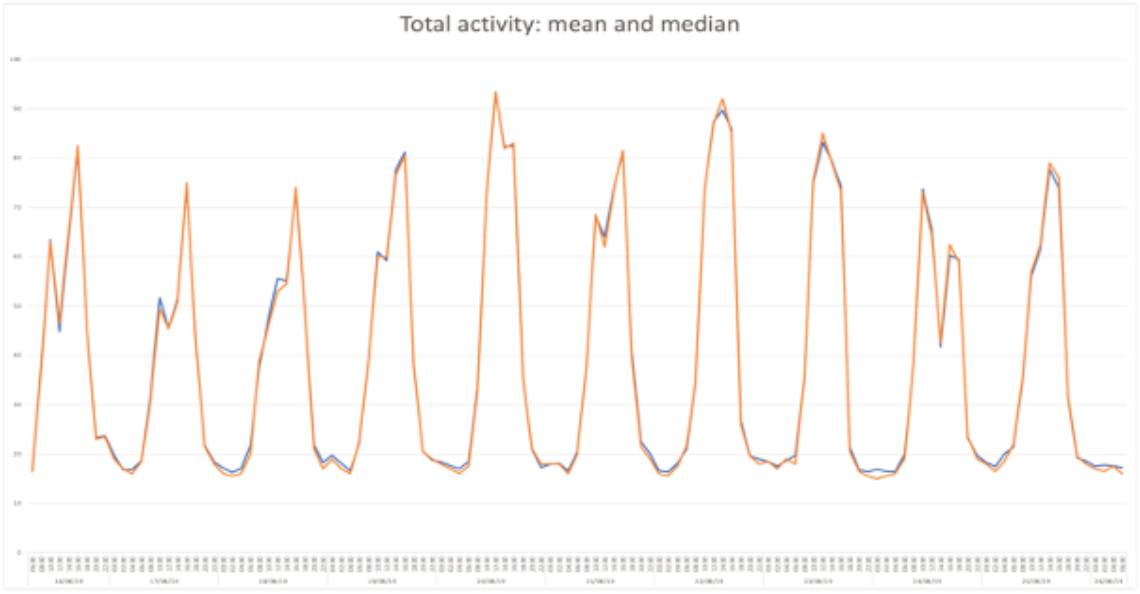
Figure S3(a)



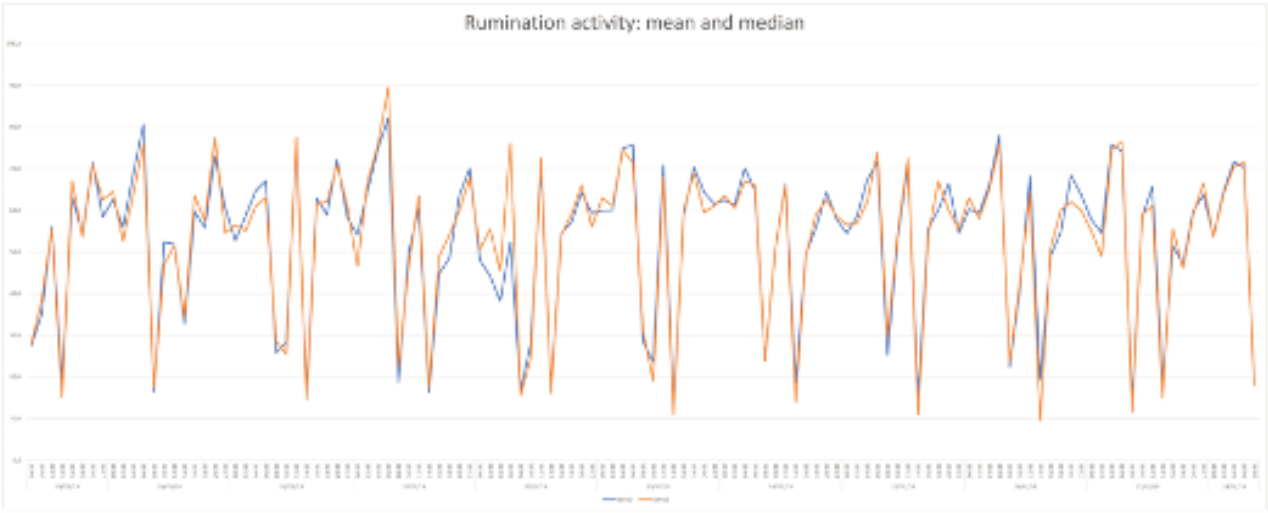
The graph indicates with a blue line (hourly daily average) and orange line (hourly median) the representative cyclical trend detected by the sensors of ruminal activity during 10 days in the third month of rearing of Sambucana lambs.

Figure S3(b)



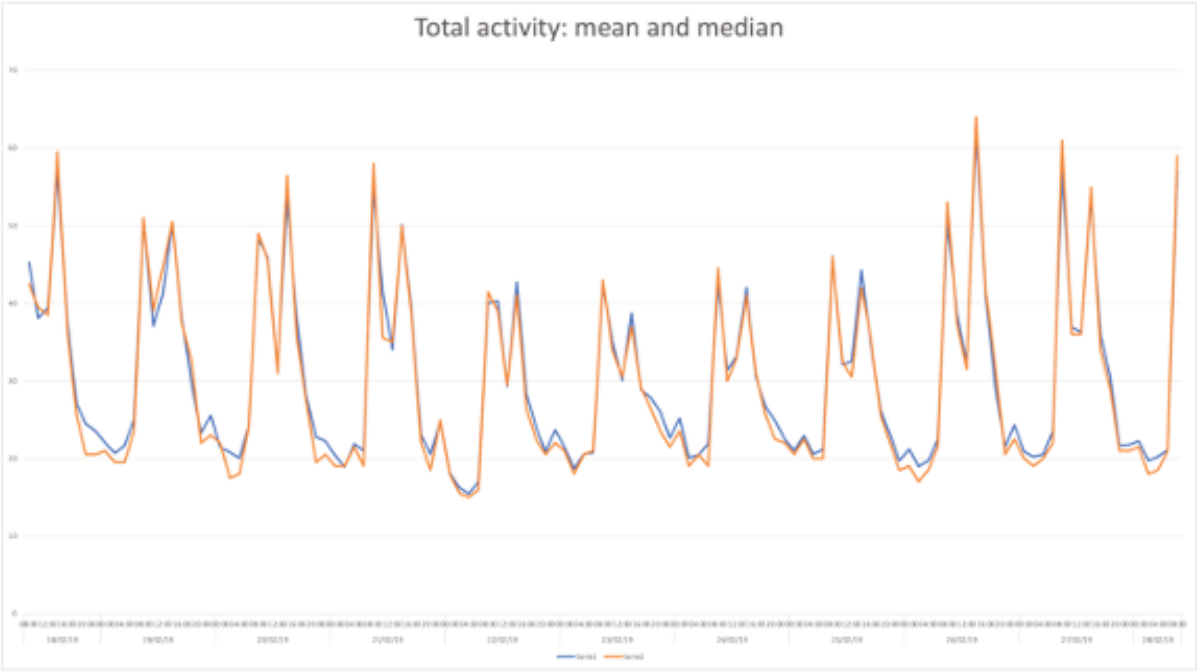
The graph indicates with a blue line (hourly daily average) and orange line (hourly median) the representative cyclical trend detected by the sensors of total activity during 10 days in the third month of rearing of Sambucana lambs.

Figure S3(c)



The graph indicates with a blue line (hourly daily average) and orange line (hourly median) the representative cyclical trend detected by the sensors of ruminal activity during 10 days in the third month of rearing of Biellese lambs.

Figure S3(d)



The graph indicates with a blue line (hourly daily average) and orange line (hourly median) the representative cyclical trend detected by the sensors of total activity during 10 days in the third month of rearing of Biellese lambs.

Table S4 Data from the analysis of the physical and chemical characteristics of meat from 12 Biellese lambs.

SEX	M	M	F	M	M	M	M	M	F	F	M	F
WATER	77,82	78,09	77,18	78,70	77,64	78,05	79,02	78,15	77,85	76,96	77,85	77.11
PROTEIN	19,58	19,48	20,33	19,20	19,58	19,25	18,87	19,86	19,67	20,18	19,32	19,2
FAT	1,56	1,32	0,97	0,54	1,26	1,13	0,73	0,46	1,04	1,42	1,34	1,04
ASH	1,00	1,02	1,08	1,08	1,05	1,09	1,08	1,10	1,09	1,06	1,01	1,08
pH 24h	5,66	5,77	5,63	5,66	5,75	5,71	5,71	5,67	5,66	5,69	5,65	5,68
DL d3 (%)	6,11	3,31	4,71	5,32	5,23	4,38	5,39	5,11	7,01	5,22	3,32	4,77
DL d7 (%)	6,85	3,35	4,60	4,52	6,42	7,17	7,86	4,87	6,93	5,73	5,55	5,89
DL d14 (%)	7,75	5,12	8,19	5,64	9,04	7,19	8,18	7,07	7,24	9,06	7,77	8,83
CL d1 (%)	9,43	8,95	10,67	10,08	12,80	10,96	13,44	11,67	11,21	14,35	9,45	10,03
CL d3 (%)	14,32	15,75	13,60	14,19	16,43	13,73	16,24	16,22	13,52	13,20	14,45	15,56
CL d7 (%)	16,97	11,09	15,92	13,81	19,85	17,63	20,38	16,03	15,41	15,67	14,56	17,78
CL d14 (%)	17,39	14,79	17,44	15,00	19,16	15,07	23,33	16,50	16,66	17,55	15,56	16,78
L*(D65)	45,28	49,83	50,42	51,76	47,99	50,33	50,56	49,38	47,17	44,82	48,45	49,45
a*(D65)	9,54	10,17	7,66	6,93	9,29	8,38	8,56	10,64	10,35	10,11	7,99	6,78
b*(D65)	11,65	14,25	13,72	13,09	13,09	13,96	12,07	13,71	12,9	11,39	12,34	13,34
Chroma	15,06	17,51	15,71	14,81	16,05	16,28	14,80	17,35	16,54	15,23	16,05	16,09
Hue angle	50,69	54,49	60,82	62,10	54,64	59,02	54,66	52,19	51,26	48,41	52,43	59,56
L*3(D65)	42,98	47,13	47,75	52,28	50,38	51,50	46,66	46,72	45,81	46,20	46,56	47,87
a*3(D65)	11,44	10,53	7,74	7,49	9,25	7,89	10,01	11,29	9,01	11,46	10,45	11,03
b*3(D65)	12,68	13,70	11,75	13,50	12,95	13,78	12,24	13,44	11,97	12,26	13,45	12,13
3Chroma	17,08	17,28	14,07	15,44	15,91	15,88	15,81	17,55	14,98	16,78	17,04	17,12
3Hue angle	47,94	52,45	56,63	60,98	54,46	60,21	50,72	49,97	53,03	46,93	49,99	50,78
L*7(D65)	45,15	46,81	49,72	48,59	46,99	50,82	48,82	46,27	45,86	43,43	45,67	46,87
a*7(D65)	10,60	9,11	9,07	9,55	10,21	9,65	8,37	10,57	10,29	10,91	10,6	8,88
b*7(D65)	11,85	12,20	12,75	12,79	12,10	13,88	11,36	12,51	11,51	11,31	11,34	11,45
7Chroma	15,90	15,23	15,65	15,96	15,83	16,90	14,11	16,38	15,44	15,71	15,34	15,67
7Hue angle	48,19	53,25	54,57	53,25	49,84	55,19	53,62	49,80	48,20	46,03	48,34	49,02
L*14(D65)	46,92	47,50	48,02	51,99	49,32	46,68	48,46	46,33	46,28	44,82	46,78	46,89
a*14(D65)	11,67	13,52	8,72	10,55	10,92	8,79	11,90	11,45	11,60	11,47	11,45	11,67
b*14(D65)	13,24	16,73	12,77	14,73	13,86	12,31	12,76	12,20	12,12	12,07	14,45	16,08
14Chroma	17,65	21,51	15,46	18,12	17,64	15,13	17,45	16,73	16,78	16,65	17,32	17,78
14Hue angle	48,61	51,06	55,67	54,39	51,77	54,47	47,00	46,82	46,26	46,46	49,98	46,89
WB d1 kg	4,82	3,65	5,36	4,32	3,92	4,48	4,65	5,56	3,44	5,04	4,85	5,09
Area d1 kgxmm	13,26	9,22	12,35	9,75	11,87	15,81	9,32	13,91	12,68	12,52	12,56	12,45
Firmness d1 kg/s	2,66	2,35	3,53	2,9	2,14	2,23	5,41	4,67	2,61	3,85	2,67	2,89
WB d3 kg	6,45	4,16	5,89	5,23	4,14	3,48	2,39	4,24	4,93	3,28	3,45	4,31
Area d3 kgxmm	18,8	9,05	14,43	13,27	10,43	15,32	5,69	9,54	11,11	12,95	12,34	10,45
Firmness d3 kg/s	3,52	3,28	3,88	3,21	2,57	1,97	1,77	3,56	3,76	1,79	3,25	3,27
WB d7 kg	8,11	3,45	5,9	4,76	2,93	5,9	2,33	3,18	4,64	2,4	5,45	2,36
Area d7 kgxmm	25,84	5,8	11,14	13,13	6,43	22,9	4,63	7,92	20,29	8,02	7,45	13,67
Firmness d7 kg/s	5,69	4,79	7,34	4,01	3,18	3,36	2,94	2,87	2,5	1,81	3,44	3,67
WB d14 kg	2,72	2,79	3,08	4,12	3,16	2,63	2,47	2,66	2	2,81	2,78	4,12
Area d14 kgxmm	8,25	9,79	6,62	8,2	8,32	10,39	6,84	6,7	7,24	7,94	8,33	9,87
Firmness d14 kg/s	1,73	1,58	2,36	2,97	2,11	1,43	1,81	1,82	1,16	1,78	1,74	1,78

Table S5 Data from the analysis of the physical and chemical characteristics of meat from 10 Sambucana lambs.

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SEX	M	M	F	M	M	M	M	M	F	F
WATER	77,82	78,09	77,18	78,70	77,64	78,05	79,02	78,15	77,85	76,96
PROTEIN	19,58	19,48	20,33	19,20	19,58	19,25	18,87	19,86	19,67	20,18
FAT	1,56	1,32	0,97	0,54	1,26	1,13	0,73	0,46	1,04	1,42
ASH	1,00	1,02	1,08	1,08	1,05	1,09	1,08	1,10	1,09	1,06
pH 24h	5,66	5,77	5,63	5,66	5,75	5,71	5,71	5,67	5,66	5,69
DL d3 (%)	6,11	3,31	4,71	5,32	5,23	4,38	5,39	5,11	7,01	5,22
DL d7 (%)	6,85	3,35	4,60	4,52	6,42	7,17	7,86	4,87	6,93	5,73
DL d14 (%)	7,75	5,12	8,19	5,64	9,04	7,19	8,18	7,07	7,24	9,06
CL d1 (%)	9,43	8,95	10,67	10,08	12,80	10,96	13,44	11,67	11,21	14,35
CL d3 (%)	14,32	15,75	13,60	14,19	16,43	13,73	16,24	16,22	13,52	13,20
CL d7 (%)	16,97	11,09	15,92	13,81	19,85	17,63	20,38	16,03	15,41	15,67
CL d14 (%)	17,39	14,79	17,44	15,00	19,16	15,07	23,33	16,50	16,66	17,55
L*(D65)	45,28	49,83	50,42	51,76	47,99	50,33	50,56	49,38	47,17	44,82
a*(D65)	9,54	10,17	7,66	6,93	9,29	8,38	8,56	10,64	10,35	10,11
b*(D65)	11,65	14,25	13,72	13,09	13,09	13,96	12,07	13,71	12,9	11,39
Chroma	15,06	17,51	15,71	14,81	16,05	16,28	14,80	17,35	16,54	15,23
Hue angle	50,69	54,49	60,82	62,10	54,64	59,02	54,66	52,19	51,26	48,41
L*3(D65)	42,98	47,13	47,75	52,28	50,38	51,50	46,66	46,72	45,81	46,20
a*3(D65)	11,44	10,53	7,74	7,49	9,25	7,89	10,01	11,29	9,01	11,46
b*3(D65)	12,68	13,70	11,75	13,50	12,95	13,78	12,24	13,44	11,97	12,26
3Chroma	17,08	17,28	14,07	15,44	15,91	15,88	15,81	17,55	14,98	16,78
3Hue angle	47,94	52,45	56,63	60,98	54,46	60,21	50,72	49,97	53,03	46,93
L*7(D65)	45,15	46,81	49,72	48,59	46,99	50,82	48,82	46,27	45,86	43,43
a*7(D65)	10,60	9,11	9,07	9,55	10,21	9,65	8,37	10,57	10,29	10,91
b*7(D65)	11,85	12,20	12,75	12,79	12,10	13,88	11,36	12,51	11,51	11,31
7Chroma	15,90	15,23	15,65	15,96	15,83	16,90	14,11	16,38	15,44	15,71
7Hue angle	48,19	53,25	54,57	53,25	49,84	55,19	53,62	49,80	48,20	46,03
L*14(D65)	46,92	47,50	48,02	51,99	49,32	46,68	48,46	46,33	46,28	44,82
a*14(D65)	11,67	13,52	8,72	10,55	10,92	8,79	11,90	11,45	11,60	11,47
b*14(D65)	13,24	16,73	12,77	14,73	13,86	12,31	12,76	12,20	12,12	12,07
14Chroma	17,65	21,51	15,46	18,12	17,64	15,13	17,45	16,73	16,78	16,65
14Hue angle	48,61	51,06	55,67	54,39	51,77	54,47	47,00	46,82	46,26	46,46
WB d1 kg	4,82	3,65	5,36	4,32	3,92	4,48	4,65	5,56	3,44	5,04
Area d1 kgxmm	13,26	9,22	12,35	9,75	11,87	15,81	9,32	13,91	12,68	12,52
Firmness d1 kg/s	2,66	2,35	3,53	2,9	2,14	2,23	5,41	4,67	2,61	3,85
WB d3 kg	6,45	4,16	5,89	5,23	4,14	3,48	2,39	4,24	4,93	3,28
Area d3 kgxmm	18,8	9,05	14,43	13,27	10,43	15,32	5,69	9,54	11,11	12,95
Firmness d3 kg/s	3,52	3,28	3,88	3,21	2,57	1,97	1,77	3,56	3,76	1,79
WB d7 kg	8,11	3,45	5,9	4,76	2,93	5,9	2,33	3,18	4,64	2,4
Area d7 kgxmm	25,84	5,8	11,14	13,13	6,43	22,9	4,63	7,92	20,29	8,02
Firmness d7 kg/s	5,69	4,79	7,34	4,01	3,18	3,36	2,94	2,87	2,5	1,81
WB d14 kg	2,72	2,79	3,08	4,12	3,16	2,63	2,47	2,66	2	2,81
Area d14 kgxmm	8,25	9,79	6,62	8,2	8,32	10,39	6,84	6,7	7,24	7,94
Firmness d14 kg/s	1,73	1,58	2,36	2,97	2,11	1,43	1,81	1,82	1,16	1,78
Firmness d14 kg/s	2,22	2,92	2,14	2,00	2,26	2,39	2,08	1,57	1,47	2,44

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3