

## Use of the Comprehensive Climate Index to estimate heat stress response of grazing dairy cows in a temperate climate region

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### SUPPLEMENTARY FILE

1 Supplementary Table 1. Summary of average daily values for climate and vaginal temperature of dairy cows in a temperate region during the study  
2 period<sup>1</sup>

Date	AT, °C		RH, %		WS, m/s		SR, W/m <sup>2</sup>		CCI, °C		VT, °C <sup>2</sup>	
01-21-17	17.7	± 1.2	70.9	± 4.1	1.3	± 0.2	320.5	± 71.6	17.2	± 1.1	38.37	<sup>e</sup> ± 0.007
01-22-17	19.0	± 1.0	60.5	± 3.1	1.4	± 0.2	351.8	± 79.5	17.8	± 2.0	38.46	<sup>bcd</sup> ± 0.007
01-23-17	17.5	± 0.9	72.2	± 3.1	1.2	± 0.2	306.6	± 71.9	17.5	± 0.9	38.25	<sup>f</sup> ± 0.007
01-24-17	17.8	± 0.5	82.1	± 1.8	1.1	± 0.2	220.6	± 56.9	16.5	± 0.9	38.47	<sup>bc</sup> ± 0.008
01-25-17	21.2	± 1.2	67.0	± 4.4	1.3	± 0.3	330.5	± 74.4	21.5	± 1.5	38.48	<sup>b</sup> ± 0.009
01-26-17	23.8	± 1.3	61.0	± 4.0	1.3	± 0.3	340.0	± 77.6	25.1	± 1.2	38.82	<sup>a</sup> ± 0.012
02-03-17	16.4	± 0.6	80.4	± 2.9	1.7	± 0.2	261.0	± 70.5	12.8	± 0.9	38.41	<sup>bcd</sup> ± 0.006
02-04-17	15.6	± 1.0	72.6	± 4.6	1.1	± 0.2	295.1	± 69.7	14.9	± 0.9	38.35	<sup>e</sup> ± 0.006
02-05-17	15.6	± 1.2	69.8	± 4.3	1.1	± 0.2	328.8	± 76.1	14.8	± 1.3	38.37	<sup>e</sup> ± 0.007
02-06-17	16.0	± 1.1	71.4	± 3.7	1.3	± 0.2	312.4	± 71.9	14.8	± 1.2	38.37	<sup>e</sup> ± 0.007
02-07-17	15.0	± 1.0	66.9	± 3.5	1.4	± 0.2	316.0	± 73.2	12.9	± 1.0	38.35	<sup>e</sup> ± 0.007
02-08-17	16.2	± 0.7	68.2	± 3.0	1.3	± 0.3	283.8	± 66.5	14.7	± 0.7	38.36	<sup>e</sup> ± 0.006
02-09-17	15.4	± 1.1	70.8	± 4.5	1.1	± 0.2	293.2	± 68.6	14.5	± 1.1	38.39	<sup>cde</sup> ± 0.007
02-10-17	16.8	± 1.1	62.2	± 3.6	1.4	± 0.2	310.8	± 72.1	15.0	± 1.2	38.46	<sup>bcd</sup> ± 0.008
02-11-17	16.6	± 1.1	72.7	± 3.8	1.2	± 0.2	311.5	± 73.2	16.2	± 1.0	38.42	<sup>bcd</sup> ± 0.007
02-12-17	16.7	± 1.2	75.9	± 4.2	1.2	± 0.2	282.1	± 71.3	16.1	± 1.3	38.38	<sup>de</sup> ± 0.007

3 <sup>1</sup>AT = Air ambient temperature; RH = Relative humidity; WS = Wind speed; SR = Solar radiación; CCI = Comprehensive climate index; and  
4 VT = Vaginal temperature.

5 <sup>2</sup>Mean values in the same column with different superscripts differ (P < 0.05) for dates. Differences in weather variables were not analyzed.