





## Supplementary material


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Additional information and declarations  
can be found on page 11

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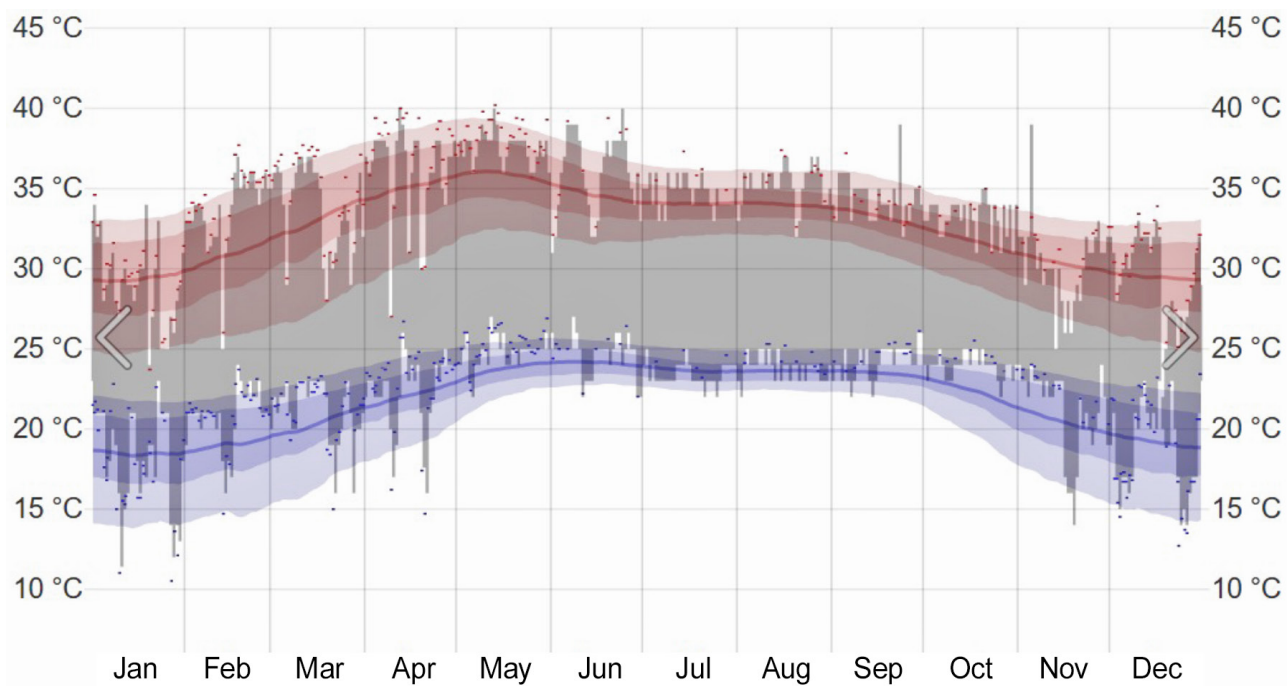
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## Genome-wide association study for heat stress resistance in Brown Swiss cattle in Yucatan, Mexico

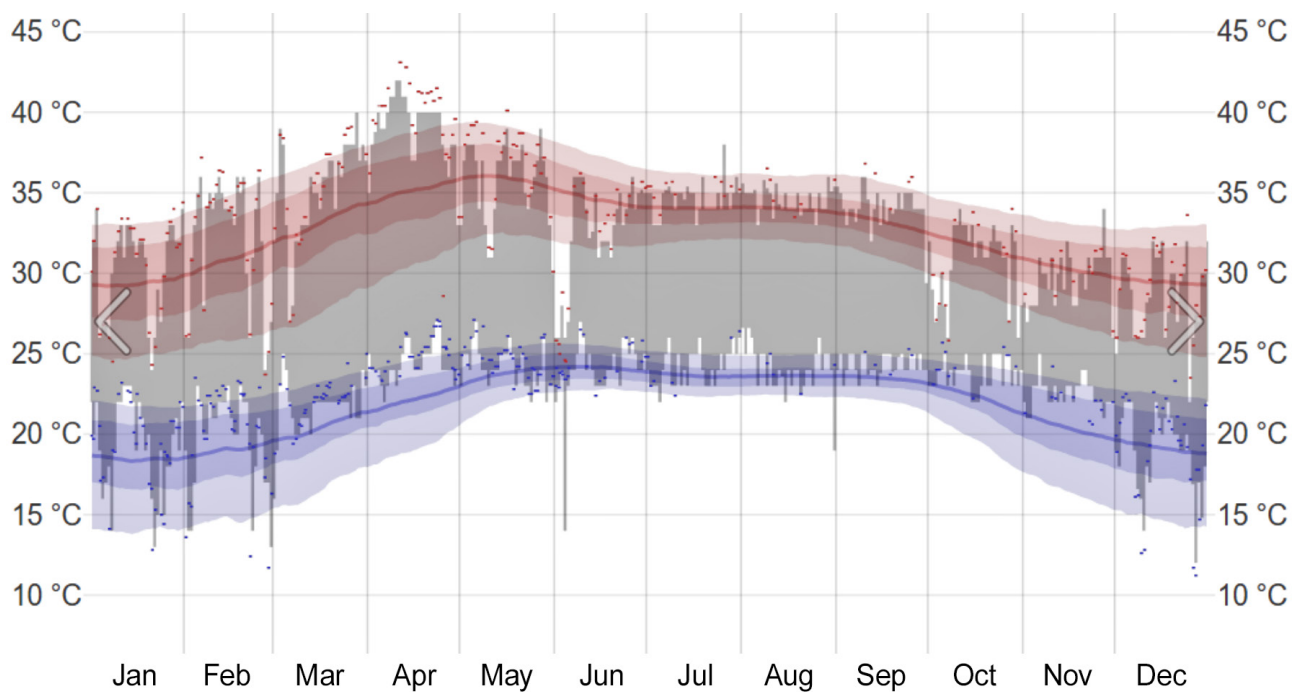
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# Supplementary material

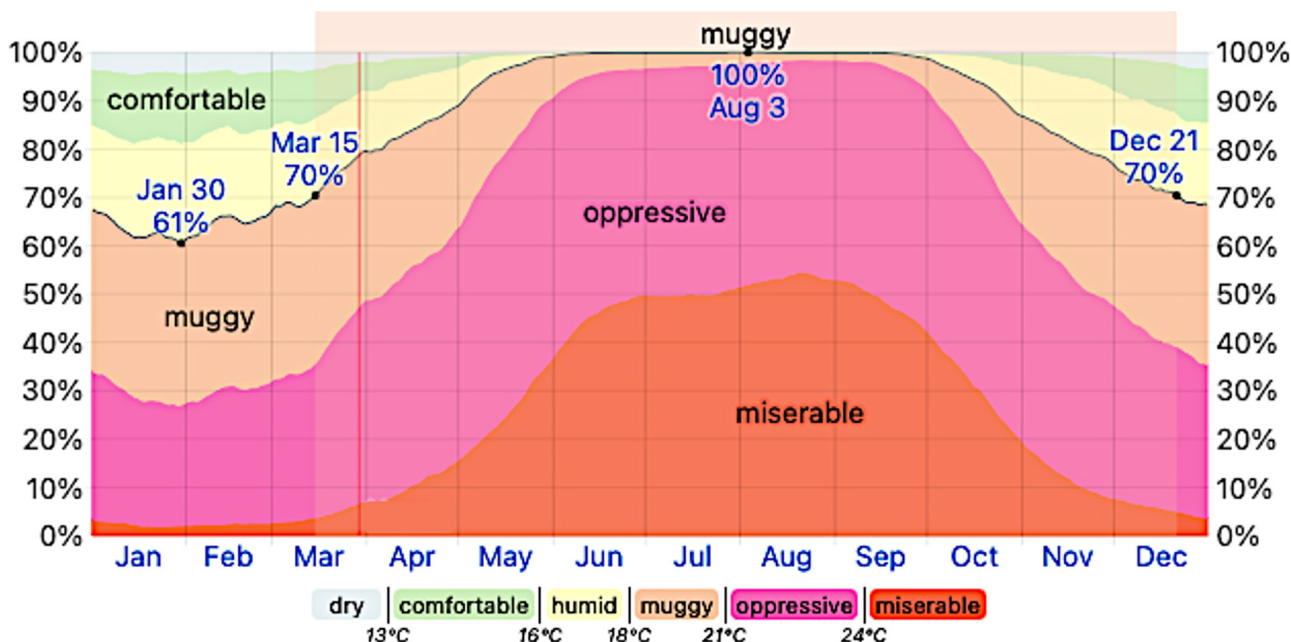


**Figure S1A.** Monthly minimum and maximum temperatures recorded in the community of the port of Progreso, Mérida, Yucatán in 2019



**Figure S1B.** Monthly minimum and maximum temperatures recorded in the community of the port of Progreso, Mérida, Yucatán in for 2020

# Supplementary material



**Figure S2.** Average relative humidity recorded in the community of the port of Progreso, Merida, Yucatan in 2019 and 2020

**Table S1.** Classification of heat stress according to the temperature humidity index (THI) in the herd studied located in the port of Progreso, Merida, Yucatan

HR/ T (°C)	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
37	62	63	64	65	66	68	69	70	71	72	73	75	76	77	78	79	81	82	83	84	85	86	88
38	62	63	64	65	66	68	69	70	71	72	74	75	76	77	78	80	81	82	83	84	85	87	88
39	62	63	64	65	67	68	69	70	71	73	74	75	76	77	79	80	81	82	83	85	86	87	88
40	62	63	64	65	67	68	69	70	71	73	74	75	76	77	79	80	81	82	84	85	86	87	88
41	62	63	64	65	67	68	69	70	72	73	74	75	76	78	79	80	81	83	84	85	86	87	89
42	62	63	64	66	67	68	69	70	72	73	74	75	77	78	79	80	81	83	84	85	86	88	89
43	62	63	64	66	67	68	69	71	72	73	74	75	77	78	79	80	82	83	84	85	87	88	89
44	62	63	64	66	67	68	69	71	72	73	74	76	77	78	79	81	82	83	84	86	87	88	89
45	62	63	64	66	67	68	69	71	72	73	75	76	77	78	80	81	82	83	85	86	87	88	90
46	62	63	65	66	67	68	70	71	72	73	75	76	77	78	80	81	82	84	85	86	87	89	90
47	62	63	65	66	67	68	70	71	72	74	75	76	77	79	80	81	82	84	85	86	88	89	90
48	62	63	65	66	67	68	70	71	72	74	75	76	77	79	80	81	83	84	85	86	88	89	90
49	62	63	65	66	67	69	70	71	72	74	75	76	78	79	80	82	83	84	85	87	88	89	91
50	62	63	65	66	67	69	70	71	73	74	75	76	78	79	80	82	83	84	86	87	88	90	91
51	62	63	65	66	67	69	70	71	73	74	75	77	78	79	81	82	83	85	86	87	88	90	91
52	62	64	65	66	67	69	70	71	73	74	75	77	78	79	81	82	83	85	86	87	89	90	91
53	62	64	65	66	68	69	70	72	73	74	76	77	78	80	81	82	84	85	86	88	89	90	92
54	62	64	65	66	68	69	70	72	73	74	76	77	78	80	81	82	84	85	86	88	89	90	92
55	62	64	65	66	68	69	70	72	73	74	76	77	79	80	81	83	84	85	87	88	89	91	92

The columns indicate the ambient relative humidity (%) and the rows, the ambient temperature (°C). The green color indicates the absence of stress (THI < 72 units); the yellow color indicates the beginning of stress to a moderate one (72 < THI < 78 units); the orange color indicates severe stress (79 ≤ THI < 88 units) and, the red color indicates stress that can cause death (89 ≤ THI ≤ 99 units).