

Thermal Comfort and Stress

Heat Index or Apparent Temperature

One measure of thermal comfort which is commonly used is the Apparent Temperature. This is dependent on the temperature, relative humidity and wind speed as well as the clothing worn by a person. We can issued thermal comfort and stress advised for the community to drink plenty of water when this index exceeded 38C.

A table showing the dependence of the Heat Index on temperature and relative humidity is shown below.

Heat Index Table (degrees C)

Relative Humidity(%)	Environmental temperature (C)										
↓	26	28	30	32	34	36	38	40	42	44	↓
0%	25	27	28	30	32	33	35	36	37	38	
10%	25	27	28	30	32	33	35	37	39	41	
20%	24	27	28	30	32	34	37	39	42	46	
30%	26	27	29	31	33	36	39	43	47	52	
40%	26	28	30	32	35	39	43	48	54	60	
50%	27	28	31	34	38	43	49	55	62		
60%	27	29	33	37	42	48	55	62			
70%	27	31	35	40	47	54	63				
80%	28	32	38	44	52	61					
90%	28	34	41	49	58						
100%	28	36	44	56							

At an apparent temperature of: ↓

- 32-40** **Heat cramps or heat exhaustion possible**
- 41-54** **Heat cramps or heat exhaustion likely,**
- 41-55** **Heatstroke possible**
- 54-more** **Heatstroke highly likely**