

Data description sheet for CH2014-Impacts, Chapter 9: Agricultural production, heat stress in cattle

Variable

Name	Number of days with THI > 72
Units	unit-free index (formal unit is °C)
Description	Long-term average number of days per year with Temperature-Humidity Index (THI) greater than 72. Absolute values.

Climate data input

Data set

CH2011 data set SEASONAL-REGIONAL

CH2011 scenario cube coverage

time period	GHG scenario	climate uncertainty
2035	A1B	medium
2060	A2	upper
2085	RCP3PD	lower

Reference period

1980-2009 (standard)

Climate variables considered

Temperature

Domain

spatial

coverage	Study sites Changins, Wädenswil, and Magadino, representing CH2011 regions CHW, CHNW, and CHS, respectively
resolution	point location

time

coverage/resolution	CH2011 time periods
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Impact Model

Name	-
Description	Empirical THI equation (Thom, 1958) and critical threshold (Johnson, 1994)

Impact uncertainty coverage

Uncertainty provided	no
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Data structure

Annotated Excel tables.

How to cite

Calanca, P., et al. (2014), Implications of changes in seasonal mean temperature for agricultural production systems: three case studies; Chapter 9 in CH2014-Impacts, Toward Quantitative Scenarios of Climate Change Impacts in Switzerland, published by OCCR, FOEN, MeteoSwiss, C2SM, Agroscope, and ProClim, Bern, Switzerland, 136 pp.

Thom, E. C. (1958). The discomfort index. *Weatherwise* 12:57-60.

Johnson, H. C. (1994). Animal Physiology. In Griffiths, J. F. (ed.) *Handbook of agricultural meteorology*, 256-263. New York: Oxford University Press.