

Data description sheet for CH2014-Impacts, Chapter 9: Agricultural production, pest phenology

Variable

Name	Risk of 3rd codling moth generation
Units	%
Description	Long-term average risk of a 3rd codling moth generation (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
---------------------	---------------------

Impact Model

Name	SOPRA
Description	Seasonal pest phenology model (Samietz et al., 2008; Stoeckli et al., 2012)

Impact uncertainty coverage

Uncertainty provided	no
----------------------	----

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.

Samietz, J., B. Graf, et al. (2008). SOPRA: phenology modelling of major orchard pests – from biological basics to decision support. *Acta Horticulturae* 803: 35–42.

Stoeckli, S., M. Hirschi, et al. (2012). Impact of climate change on voltinism and prospective diapause induction of a global pest insect – *Cydia pomonella* (L.). *PLoS ONE* 7: e35723.