

Interactive comment on “Heat stress risk in European dairy cattle husbandry under different climate change scenarios – uncertainties and potential impacts” by Sabrina Hempel et al.

alsailed habeeb (Referee)

dr_alnaimy@yahoo.com

Received and published: 15 August 2019

Dear Svenja Lange We accept for publication that attached paper with some notices in revised paper With respect you Prof. Dr. alsailed alnaimy habeeb

Please also note the supplement to this comment:

<https://www.earth-syst-dynam-discuss.net/esd-2019-15/esd-2019-15-RC2-supplement.pdf>

Interactive comment on Earth Syst. Dynam. Discuss., <https://doi.org/10.5194/esd-2019-15>, 2019.

C1

Earth Syst. Dynam. Discuss., <https://doi.org/10.5194/esd-2019-15>
Manuscript under review for journal Earth Syst. Dynam.
Discussion started: 8 May 2019
© Author(s) 2019. CC BY 4.0 License.



Earth
Dy
l

Heat stress risk in European dairy cattle husbandry under different climate change scenarios - uncertainties and potential

Sabrina Hempel¹, Christoph Menz², Severino Pinto¹, Elena Galán³, David Janke¹, Theresa Müschner-Siemens¹, Xiaoshuai Wang⁵, Julia Heinicke¹, Guoqiang Zhang⁵, Agustín del Prado^{3,6}, and Thomas Amon^{1,7}

¹Leibniz Institute for Agricultural Engineering and Bioeconomy (ATB), Max-Eyth-Allee 100, 14469 Potsdam, Germany

²Potsdam Institute for Climate Impact Research (PIK), Telegrafenberg A 31, 14473 Potsdam, Germany

³Basque Centre for Climate Change (BC3), Sede Building 1, 1st floor, Scientific Campus of the University of the Basque Country, 48940 Leioa, Spain

⁴Institute of Animal Science and Technology, Universitat Politècnica de València, (UPV), Camino de la Ciencia, s/n, 46022 Valencia, Spain

⁵Aarhus University (AU), Department of Engineering, Blichers Allé 20, P.O. Box 50, 8830 Tjele, Denmark

⁶Basque Center for Applied Mathematics (3BCAM), Alameda de Mazarredo 14, 48009 Bilbao, Spain

⁷Free University Berlin (FUB), Department of Veterinary Medicine, Institute of Animal Hygiene and Pathology, Berlin, Germany

Correspondence: Sabrina Hempel (shempel@atb-potsdam.de)

Abstract. In the last decades, an exceptional global warming trend was observed. Along with the temperature increase, changes in the humidity and wind regime amplify the regional and local impacts on livestock husbandry.