

## Report on the outcomes of a presentation and participation in a Dissemination Conference<sup>1</sup>

**Action number: CA20108 - FAIR NETwork of micrometeorological measurements (FAIRNESS)**

**Grantee name: Sabina Thaler**

### **Conference Details**

Conference title: Annual Meeting of the European Meteorological Society (EMS 2024)

Conference web-page: <https://www.emetsoc.org/ems-annual-meeting-2024-programme-is-live/>

Conference venue<sup>2</sup>: Historical University of Barcelona, Spain

Conference start and end date: 02/09/2024 to 06/09/2024

### **Accepted oral contribution details**

Title of the presentation: Use of climate change scenarios for pest algorithms in Austria.

Co-authors: Kerstin Kolkmann, Sylvia Blümel, and Josef Eitzinger

Other details of the presentation: specify here any additional details related to the contribution (e.g. title of the session / track of the conference programme in which the contribution is accepted)

Abstract is accepted as oral presentation: EMS Annual Meeting Abstracts, Vol. 21, EMS2024-311, 2024, updated on 05 Jul 2024, <https://doi.org/10.5194/ems2024-302>, EMS Annual Meeting 2024, © Author(s) 2024. This work is distributed under, the Creative Commons Attribution 4.0 License

Scheduled as *Oral | Thursday, 05 Sep, 12:00–12:15 (CEST) | Lecture room A-112*

Session: OSA2.2: Agricultural and Forest Meteorology

Presentation online: <https://meetingorganizer.copernicus.org/EMS2024/EMS2024-302.html>

### **Outcome of the conference participation**

Description of the outcome of the conference presentation, including contacts made and potential for future collaborations.

*(max. 500 word)*

The Annual Meeting of the European Meteorological Society (EMS) is an important meeting place for all Meteorologists and Climatologists as well as for researchers who work interdisciplinary with weather and climate. As an agro-meteorologist, I was particularly interested in the session OSA 2.2 “Operational

<sup>1</sup> This report is submitted by the grantee to the Action MC for approval and for claiming payment of the awarded grant. The Grant Awarding Coordinator coordinates the evaluation of this report on behalf of the Action MC and instructs the GH for payment of the Grant.

<sup>2</sup> For an online conference, specify virtual participation; for hybrid conferences, specify whether it is an in-person or virtual participation.

Systems and Applications: Agricultural and Forest Meteorology”, where I gave my presentation “Use of climate change scenarios for pest algorithms in Austria”. Populations of thermophilic pest insects can be observed for a long time, providing important information for the development of pest models that anticipate changes in pest risk in the future within the framework of climate change. For validation and calibration, these models need meteorological data specific to the area. To estimate the range of potential pest risks in Austria’s crop growth regions, an ensemble of downscaled Austrian climate scenarios (ÖKS15) of two emission scenarios, RCP 4.5 and RCP 8.5, is used for the future (2021–2050; 2071-2100). Using verified pest algorithms on a site-specific and grid-based application reveals variable-sized shifts in pest phenology, depending on the climate region and the specified future time periods. The presentation touches on important objectives that align with the Science Communication Plan of the COST FAIRNESS Action, such as involving different stakeholders, promoting interdisciplinary collaboration, and advancing scientific understanding. Participation in the conference provided an excellent opportunity to connect with fellow researchers, experts, and stakeholders in the field of agriculture and climate change. During the conference there were enough opportunities to exchange ideas with colleagues and discuss current as well as potential future work. Several notable contacts were made. The outcome of the conference participation holds significant potential for future collaborations:

During EMS 2024, I also participated in the FAIRNESS Workshop 05/09/2024 - 06/09/2024, Barcelona (Spain) “Exploitation of Mapping, Modeling, and Micrometeorological Data-Based Applications”, where I gave an oral presentation on “Microclimatic conditions within apple trees of different canopy structure”. My presentation included first analysed datasets on the course and differences of microclimatic conditions in two different canopy structures (a plantation apple tree and a free-standing apple tree with significantly different structure and size) with a focus on leaf temperature, canopy air temperature and canopy air humidity in high spatial and temporal resolution. The dissemination of the results has raised awareness of the importance of publicly available micrometeorological data. The FAIRNESS workshop was an ideal place to network and talk to different scientists from all over Europe.

In summary, it was a fulfilling experience to take part in the EMS 2024 and COST Workshop. The COST FAIRNESS framework was well received, and the valuable connections formed open up opportunities for future cooperation and the ongoing advancement of micrometeorological measurements in the agricultural sector, which will support more sustainable and resilient agricultural practices in the face of climate change.

### **Acknowledgement of inclusion of necessary supporting documents to claim the grant**

I confirm that the following documents have been uploaded on e-COST as an integral part of this report:

- the certificate of conference attendance.
- the programme of the conference or book of abstracts / proceedings indicating the oral presentation of the grantee.
- copy of the given presentation.