

**P.3.11. MONITORING CROP GROWTH AND
DEVELOPMENT THROUGH THE USE OF
CLIMATE INFORMATION FROM AUTOMATIC
WEATHER STATIONS**

Gh. Olteanu^{1*}, G. Pristavu², I. Puiu¹, A. Ghinea¹, I. Luca³

¹NCDCSZ Brasov

²Drift Data Systems Bucuresti

³NEC Eastern Europe Ltd., Sucursala Bucuresti

* *olgeo@potato.ro*

Continuous tracking of phyto-climate conditions has become very important to areas like improved management of crops and promotion of precision farming. However, it has remained difficult to get correct interpretation of their influence on the growth and development of plants and crops.

This paper presents a computational model of browsing phenological phases of plant growth and potato crop phyto-climate using data from automatic weather station. The model is based on monitoring data destined for the phyto-climate (minimum and maximum air temperature, soil temperature, solar radiation, the relative humidity of the air, soil moisture dynamics, wind speed and direction, evapotranspiration potential, etc.) and accumulation over time. The amount of useful temperature degrees (8 - 28 degrees C) is essential to the physiology of plant growth and production accumulation. The dynamics of accumulation of degrees of temperature in conjunction with the main phenological phases covers potato. It suggests the possible use of this information in decision support systems related precision crop management (phased fertilization, disease and pest control, irrigation, weather and more accurate production optimal timing of harvest).

Acknowledgments: The paper was partial finance from the PN-II-PT-PCCA-2013-4-1629 project



Transilvania
University of Brasov,
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ISBN 978-973-131-328-3



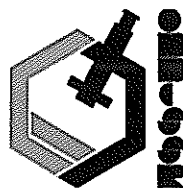
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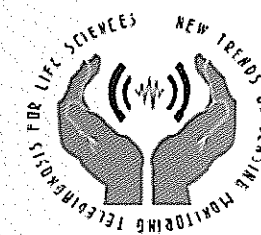
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New Trends on Sensing- Monitoring- Telediagnosis for Life Sciences

NT SMT-LS 2015

Brasov, Romania, Sept. 3-5, 2015

BOOK OF ABSTRACTS



Editors

Mihaela BADEA
Laura FLOROIAN
Patrizia RESTANI
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