

## **BENEFIT OF OLD PHENODATA SERIES - EVALUATION AND DECLARING ABILITY**

### **VECCHIE SERIE STORICHE DI DATI FENOLOGICI: CARATTERISTICHE E UTILITÀ**

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### **Introduction**

On 6-7 November 2008, the Working Group 1 (Inventory of Data and Metadata) of the COST action 725 held a workshop entitled “Benefit of old phenodata series – evaluation and declaring ability”. The workshop took place in Rome, at CRA-CMA (Agriculture Research Council, Research Unit for Climatology and Meteorology applied to Agriculture). During the four sessions of the workshop, 22 scientific contributions were presented. Now, most of the works of that workshop are published here, thanks to the hospitality of the Italian Agrometeorological Association and to the activity of the editorial board of its Journal.

### **COST**

COST the acronym for European COoperation in the field of Scientific and Technical Research- is the oldest and widest European intergovernmental network for cooperation in research. Established by the Ministerial Conference in November 1971, COST is presently used by the scientific communities of 35 European countries to cooperate in common research projects supported by national funds. The funds provided by COST - less than 1% of the total value of the projects- support the COST cooperation networks (COST Actions) through which, with EUR 30 million per year, more than 30.000 European scientists are involved in research having a total value which exceeds EUR 2 billion per year. This is the financial worth of the European added value which COST achieves. A “bottom up approach” (the initiative of launching a COST Action comes from the European scientists themselves), “à la carte participation” (only countries interested in the Action participate), “equality of access” (participation is open also to the scientific communities of countries not belonging to the European Union) and “flexible structure” (easy implementation and light management of the research initiatives) are the main characteristics of COST. As precursor of advanced multidisciplinary research COST has a very important role for the realisation of the European Research Area (ERA) anticipating and complementing the activities of the Framework Programmes, constituting a “bridge” towards the scientific communities of emerging countries, increasing the mobility of researchers across Europe and fostering the establishment of “Networks of Excellence” in many key scientific domains such as: Biomedicine and

Molecular Biosciences; Food and Agriculture; Forests, their Products and Services; Materials, Physical and Nanosciences; Chemistry and Molecular Sciences and Technologies; **Earth System Science and Environmental Management (ESSEM)**; Information and Communication Technologies; Transport and Urban Development; Individuals, Societies, Cultures and Health. It covers basic and more applied research and also addresses issues of pre-normative nature or of societal importance.

Web pages are given in: [www.cost.esf.org](http://www.cost.esf.org).

### **COST action 725**

COST action 725 “Establishing a European Data Platform for Climatological Purposes” (Domain Committee ESSEM part) started, according to Draft Memorandum of Understanding 281/03, by approval of Commission of Senior Officers (CSO) on 03/10/2003. The action entered into force on 29/01/2004 and it will finish next 04/04/2009. 27 member countries and Croatia took part in this action.

Objectives of the action are as follows:

Plant development is driven mainly by weather and other environmental factors. Phenological phases reflect among other things the environmental characteristics of the climate in the region where they occur. Consequently, long series of phenological observations may be used for the detection of climate variability or climate change. The **main objective** of the Action is to establish a European **reference data set** of phenological observations that can be used for climatological purposes, especially climate monitoring, and detection of changes. **Secondary objectives** lie in the harmonisation of techniques for:

- The definition of species and phases, that shall be observed in a harmonised way
- Developing recommendations for monitoring and collection procedures (methodologies, sampling density and frequency, etc.)
- Selection criteria of data for further consideration
- The quality control of observations
- Commonly used formats of archiving and distribution of data
- Mapping techniques of phenological information and other application methods

- Increasing the knowledge concerning relations between climate and phenological phases.

**Action 725** Web Site: <http://topshare.wur.nl/cost725>

### **Working Group 1**

Working Group 1 (Inventory of Data and Metadata) has already prepared and issued its result book (Nekovar *et al.*, 2008). Rome workshop finished WG1 activity: workshop participants, including COST action 725 Management Committee members, have discussed and evaluated very old phenological data series; phenodata were compared with climatic data and in several cases phenological series resulted longer than climatic ones (mainly air temperature). The utility of old phenodata

series for present applications came out clearly. The situation about old phenological data in Italy has been illustrated by several invited experts.

Both the organizers and the editorial board of the Journal agree to spread the workshop results by this special issue of Italian Journal of Agrometeorology.

This IJAM special issue is supported by COST.

### **Reference**

*Nekovář J. et al. (Ed.), 2008 - The history and current status of plant phenology in Europe. COST Office & METLA Muhos. Vammala, Finland. ISBN 978-951-40-2091-9, 182 pp.*