EMS Annual Meeting Abstracts,
Vol. 6, EMS2009-504, 2009
9th EMS / 9th ECAM

9th EMS Annual Meeting
9th European Conference on Applications of Meteorology
High resolution meteorology
- applications and services

Assessment of climate change impact on phenology dynamic in Vojvodina region

B. Lalic and D.T. Mihailovic

Faculty of Agriculture, Department for Field & Vegetable Crops, Novi Sad, Serbia (branka@polj.ns.ac.yu, +381 21 6350 552)

Global climate change is a continuous process that needs to be taken seriously, even though there are large uncertainties in its spatial and temporal distribution. One important bio tracer of climate change presence and magnitude is plant phenology dynamic. However, response of different plant communities to changing climate will vary across the regions and ecosystems but it will never fail. Therefore, on regional or farm level, observed phenology dynamic can be exploited as a measure of climate change impact, or expected climate change can be used in order to assess possible changes in plant growth dynamic. Nevertheless, phenology doesn't provide only date of flowering or emergence but also implies timing of farm operations as well as pest and disease dynamic.
As an element of climate change impact study for Northern Serbia region in the framework of ADAGIO project, trend of plant phenology dynamic has been calculated. Climate data series of further climate were obtained using HadCM3, ECHAM5 and NCAR-PCM climate models. Statistical downscaling to smaller temporal scale was provided using Met&Roll weather generator. Time of phenological stages appearance was calculated for wheat and selected fruit varieties.