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Forecasting the weather
- ensemble techniques
in probabilistic weather prediction

Fitting Agrometeorological component into a Pest and Pathogen Monitoring and Forecasting Service

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Agrometeorological analysis and forecasts along with phenology dynamics (including monitoring of most important pests under field conditions) are one of the key elements of the integrated plant protection management. From that reason the main goal of newly established Pest and Pathogen Monitoring and Forecasting Service in Province of Vojvodina is permanent measuring and observing of all relevant meteorological elements and biological parameters in order to provide the best possible estimation of current and future states of harmful organisms. The Service operates using data derived in part from the automatic weather stations and partly from field observation and using tools such as pheromone and light traps. Set of 45 meteorological stations is spatially distributed by the criteria taking into account dominant crops and selected pests. For each location detailed information about soil type and canopy structure are provided in order to form a comprehensive data base which can be used for wide range of applications: a) micrometeorological simulations, b) mapping of diseases, pests and weeds, c) calibration and validation of biometeorological models, d) assessment of climate change impact on diseases, pests and weeds appearance, e) off-line application of numerical weather prediction model outputs for agrometeorological and plant protection purposes. Activities of the Pest and Pathogen Monitoring and Forecasting Service in Province of Vojvodina are focused on two main directions. One of them is building and verifying tight connections between biology and the environmental parameters by using it for making phenological models. The other one is building strong data service directed towards meeting the requirements of experts and end-users. Organization of the Pest and Pathogen Monitoring and Forecasting Service in Province of Vojvodina is based on 12 regional centers with 24 plant protection specialists who implement process at 150 observation points with additional support of 60 observers.