



AgroMetInfo : a climate service for real time monitoring of agroclimatic conditions in France

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AgroMetInfo is a climate service developed at INRA Agroclim laboratory after the heat wave of 2003.

It's goal is to study the impact of the climate on main crops in France. It is an operational real time tool daily updated delivering spatial maps and plots of agroclimatic indices (currently 24) and also outputs of STICS crop model (5 variables).

Climatic data come from the SAFRAN re-analysis provided daily by Météo-France day over the whole of France with a 8x8 km spatial resolution. Only pixels below an altitude of 800 m are printed. We use the last 30 years to make statistics and characterize the current year compared to previous years. Agroclimatic indices characterize the temperature conditions (sum of temperature, number of day with frost or high temperature...), situation of rain (sum, number of wet/dry days...) and hydrological parameters (around P-ET).

AgroMetInfo use also the STICS soil-crop model to simulate growing and development of wheat and maize. AgroMetInfo, via STICS, predicts phenological stages (flowering, maturity and harvest date) and informations about production (1000-grain weight and yield). During the agricultural season, climatic data from previous years are used to complete the crop cycle. The closer we get to the end of cycle, better are predictions while uncertainties are decreasing. For simulations, we use a simplified protocol with the same varieties and/or sowing date for all the pixels and only one soil. With this protocol, it is possible to evaluate the direct effect of the climate because AgroMetInfo does not have the vocation to present exactly what happening in the field. End-users are not farmers, but rather agricultural advisers, services of the ministry of agriculture or/an researchers...

AgroMetInfo results are accessible through a open website daily updated. It proposes maps at the scale of France but also offers the ability to zoom in each pixel. All displayed information (maps, plots) can be downloaded but not data themselves.