EUROPEAN COMMISSION Joint Research Centre
ipsc Institute for the Protection and Security of the Citizen
MARS AGROMETEOROLOGICAL Monitoring Agriculture with Remote Sensing Bulletin

# CLIMATIC UPDATE

Situation between 15 December 2004 – 15 January 2005

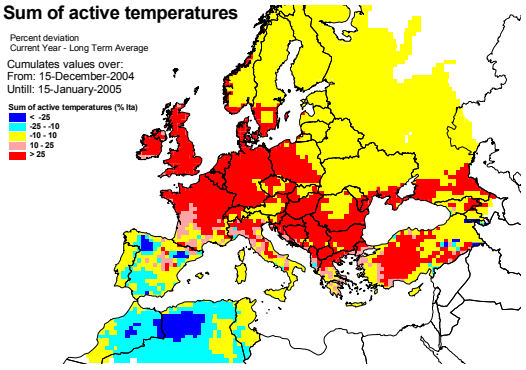
**Date:** 17/01/2005
**Report Number:** CU2005/01

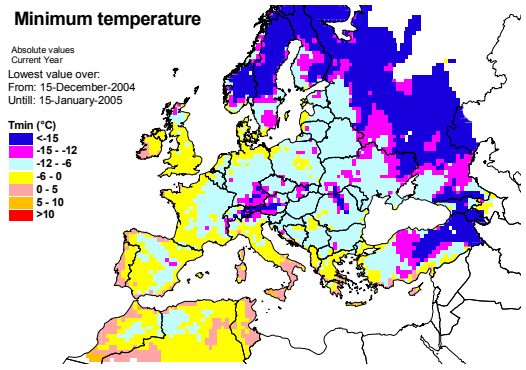
## Persistent warmer conditions in Central Europe. Dry condition in the Iberian Peninsula, over wet in Scotland Norway and northern Ireland

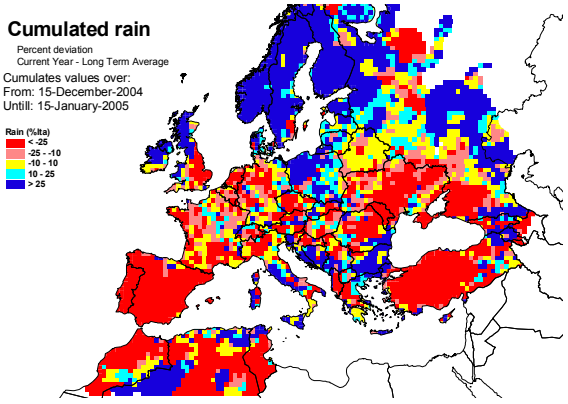
### OBSERVED TEMPERATURE AND RAINFALL

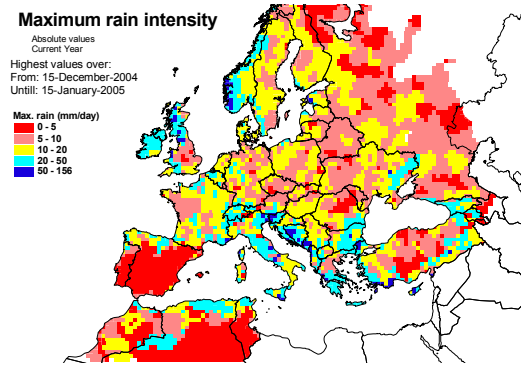
The considered period was **warmer** (more than 25% from long term average) for central Turkey, West-Central Europe (areas in red in the map of sum of active temperatures) with the exception of the Iberian peninsula. All these areas (except France, Benelux and Turkey) were, also similarly warmer in the first half of December, and one may expect an **advanced vegetation stage for winter crops** but also **an accelerated dehardening process** (i.e. increased sensibility to a sudden frost). This means **an increased frost risk**, especially in the eastern parts of the mentioned areas where the snow cover is insufficient to offer a real protection against the low temperatures usually occurring at end of January-February.

Large areas in Spain and Maghreb were cooler than usual. In some spot areas in **central Spain**, the crops could have been affected by the **unusual low temperatures** (below -12°C) combined with poor snow layer. Temperatures below -15°C were reported for southern Germany and eastern Turkey. The eastern border of the continent was concerned by usual frosty temperatures (<-15°C). The southern part of the area of interest was drier than normal (excepting northern Tunisia and large areas from Italy and Balkans). **Very dry** conditions are observed for **Spain**, meanwhile **heavy and intense rains** were reported for northern part of the **Irish republic, northern UK** and Scandinavia (especially Norway).

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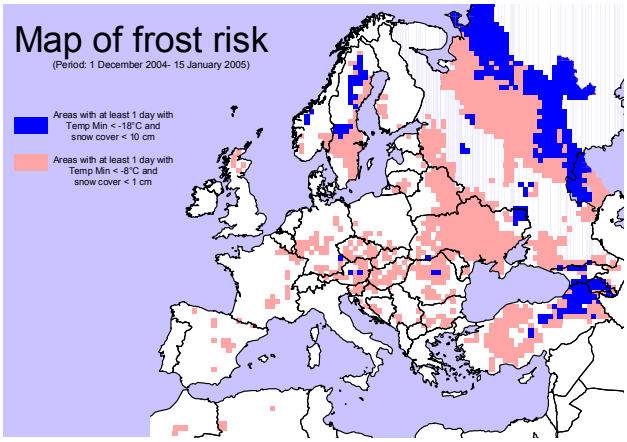
**Data production**: AGRIFISH Unit, JRC and Alterra, (NL), Meteoconsult (NL).

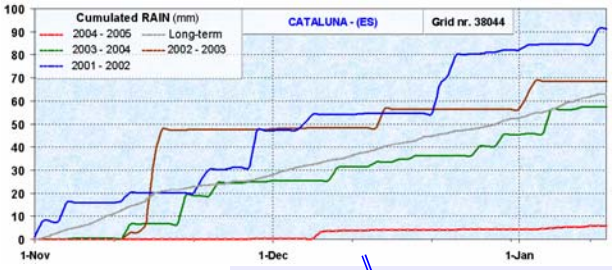


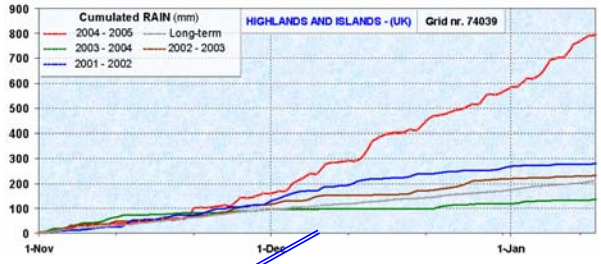

## FROST RISK Analysis:

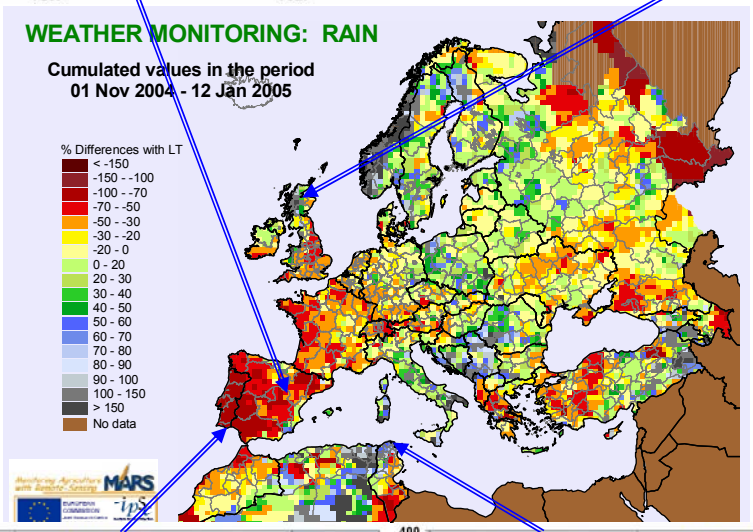
In general, in the whole continent relatively low risks appear and mainly concentrated in the second part of December and beginning of January.
In Ukraine and Byelorussia where the analysis shows a relative larger risk, considering the crop stages of development and the reduced number of days with frost conditions, it is likely to suppose an absence of impacts on active crops.
Also in some scattered areas in Check Republic, Hungary, western Germany and northern Austria risky conditions appear. That happened between 10 and 15 of December and persisted only for a very few days.

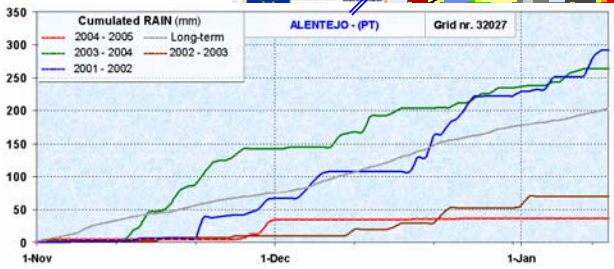
## Time series analysis of RAINFALLS during early stages of winter crops:

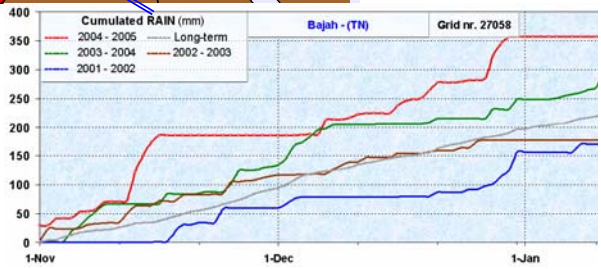
The analysis of the rain distribution between 1 November 2004 and the 15 January 2005 shows two wet belts (one covering Algeria, Tunisia, Italy, and Balkans; the second concerning the extreme northern part of the continent: Scotland, Norway) interspaced by two dry areas (the first concerning Morocco, Iberian Peninsula, France, Southern England; the second on Libya, Greece, Turkey, Black sea). Currently, particularly dry conditions are present in Spain, Portugal and western France were the current campaign is the driest of the last four years (only 10-20 % of the expected cumulated rains were recorded) and on the contrary in Scotland where very abundant and persistent rainfalls in December and January caused temporary floods (+150/170% compared with LTA)

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