EUROPEAN COMMISSION
Joint Research Centre

MARS AGROMETEOROLOGICAL Bulletin

CLIMATIC UPDATE

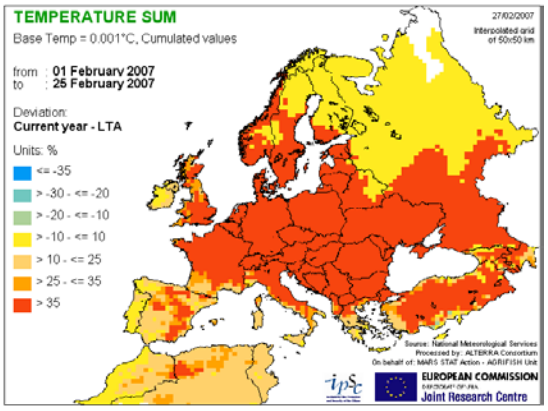
Situation between 01 – 25 February. 2007
Forecast until 8 March 2007

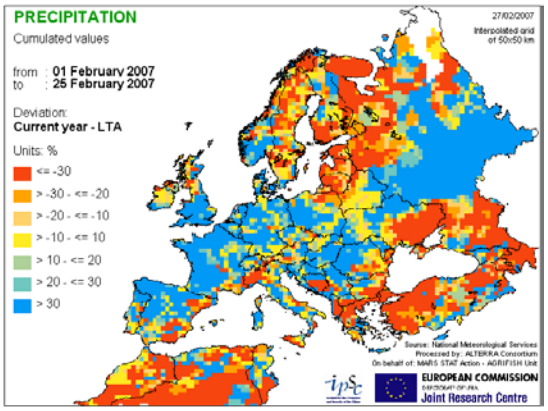
Date: 27/02/2007
Report Number: CU2007/02

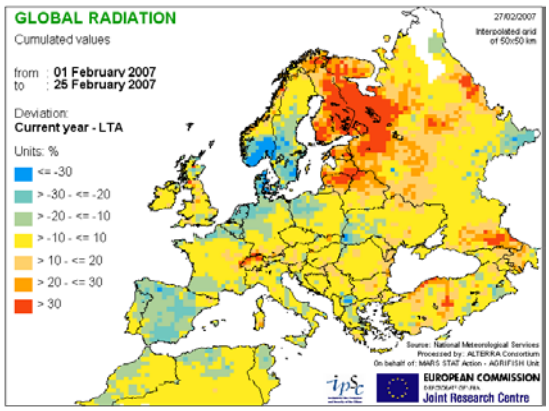
Warmer and wetter than usual for most of Europe. For the next days still dry in Med areas

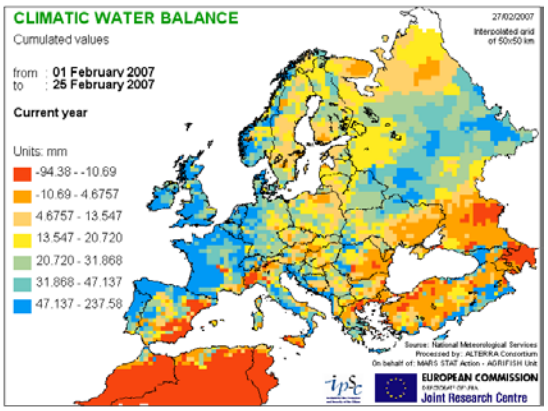
OBSERVED TEMPERATURE AND RAINFALL

Thermal conditions for most of Europe were warmer than usual (>+35% as compared to LTA). In the case of central Europe and the Baltic Sea the mild days are continuing the warming trend noticed from the beginning of the year. In Ireland, large areas of Spain, Morocco and Turkey the thermal resources exceeded by 10% to 20% the long term average.
The sum of temperatures for Portugal, Finland and northern areas of Russia were close to normal.
The minimum temperatures dropped below -20°C in northern Romania, -22°C in Ukraine and below -25% in Russia. In the northern Ukraine were counted more than 5 days with -15°C. A thick, protective snow layer reduced partially the impact of the frost.
Most of the continent was also wetter than usual, excepting some areas around Mediterranean Basin (especially southern Spain and northern Italy), Turkey, eastern Ukraine, eastern Romania, southern Bulgaria and Baltic Sea areas. Some parts of previous "too dry" concern areas like Hungary and western Romania received significant precipitation but the local climatic water balance is still close to zero.
For Portugal, most of France, UK, Ireland and Benelux the climatic water balance exceeded +40 mm.
The solar radiation was lower than usual (<-20% LTA) in the Iberian Peninsula, Benelux and southern of Scandinavian Peninsula, most of France, northern Italy, and Eastern Ukraine. In the eastern areas of the Baltic Sea, the available solar radiation was higher than normal.





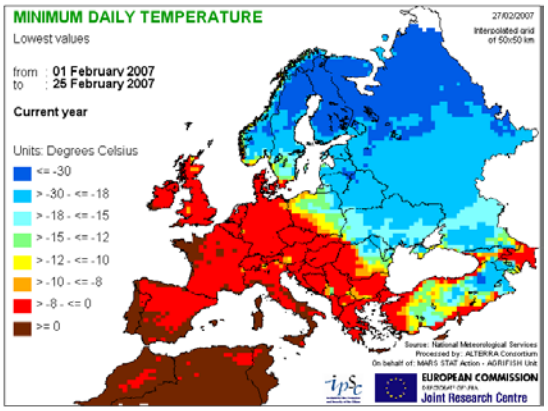


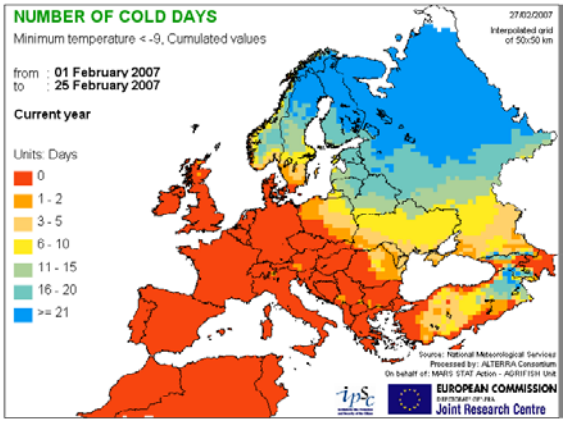


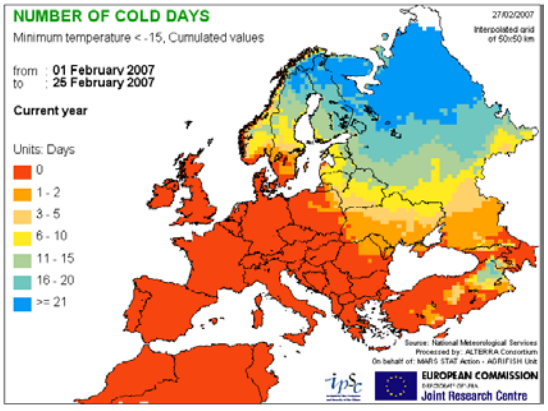
Editorial staff: C. Lazar, F. Micale, G. Genovese; AGRIFISH Unit – MARS STAT Action /JRC.
Data production: AGRIFISH Unit – MARS STAT Action /JRC and Alterra (NL), Meteoconsult (NL), MeteoFrance (Fr).

FROST RISK ANALYSIS

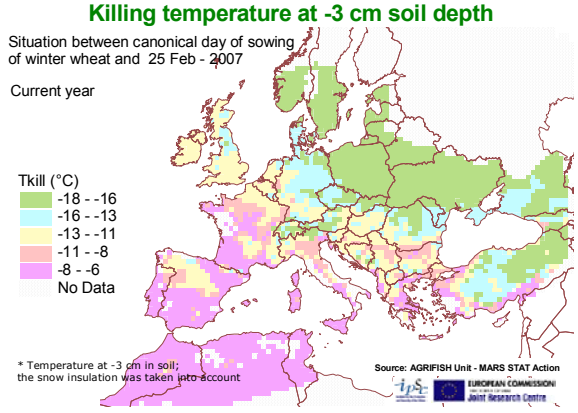
Very low temperatures were recorded only for traditional frost areas Russia, Baltic States, Ukraine and Romania (especially in north eastern).
A good hardening index (maximum resistance) was estimated in Ukraine for the winter wheat crops and the good snow layer minimised the damages. This will not exclude other source of winter killing (e.g. ice encasement, early spring diseases), but for the moment no extreme frost damages may be identified.
A vulnerable area (low hardening index) may occur in Balkans (southern Romania included).



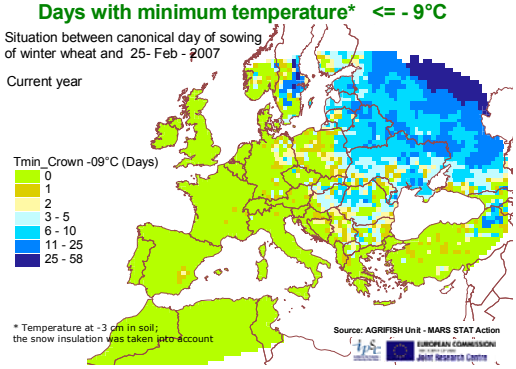




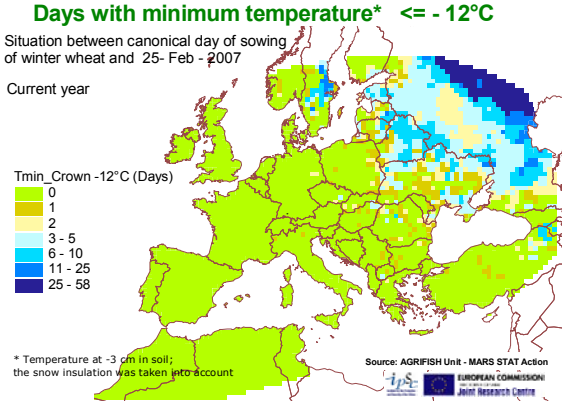
Killing temperature at -3 cm soil depth



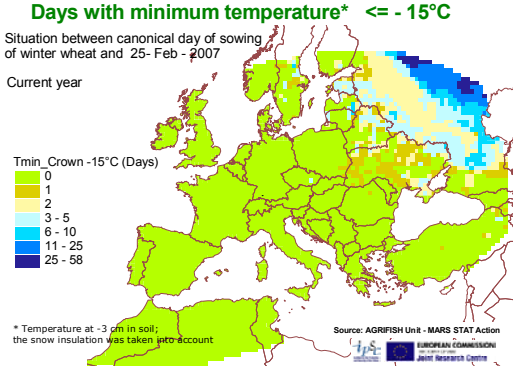
Days with minimum temperature* <= - 9°C



Days with minimum temperature* <= - 12°C



Days with minimum temperature* <= - 15°C



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NEXT DAYS' SITUATION

(ECMWF 10-day weather forecasts: February 27 – March 8)

Still unseasonable warmer conditions mainly in western EU and Mediterranean regions. Frosting temperatures are expected in eastern countries. Rain will occur only in exposed Atlantic areas. Persistent dry conditions in Mediterranean.

For the next 3-4 days, the synoptic circulation will be characterized by a large high pressure system set on the Western Mediterranean basin and a low pressure centred on the Baltic Sea. Therefore **mild conditions will be present in the western EU areas and cooler in the eastern and northern parts**. Due to the same reason, the Atlantic rainy fronts will be pushed between the two synoptic systems and the **rain will be mainly present in France, Benelux, British Islands, Galicia and Alpine regions**. Up to the 4th of March, the temperatures will progressively increase mainly in the western and central EU: in the Mediterranean areas the maximum values will be also largely above 20°C, while at higher latitude will likely remain below 10°C. In the following days the warm front will move toward Central countries. Consequently, a temperatures reduction will be experienced in the western Europe. The mild temperatures will again push the active crops developments. **Frost events**, however with light impacts on crops, will be possible only in Ukraine, Belorussia and Baltic states.

The trajectories of the Atlantic rainy fronts will concentrate the rain in most exposed Atlantic areas (Galicia, northern Portugal France, Benelux, GB and Ireland) up to the Alps, which prevent the rain to reach southern slopes.
All the Mediterranean and eastern countries will not receive significant rain or will remain completely dry.