

Period of analysis: 7th November – 11th December 2011

Issue date: 13th December 2011

HIGHLIGHT

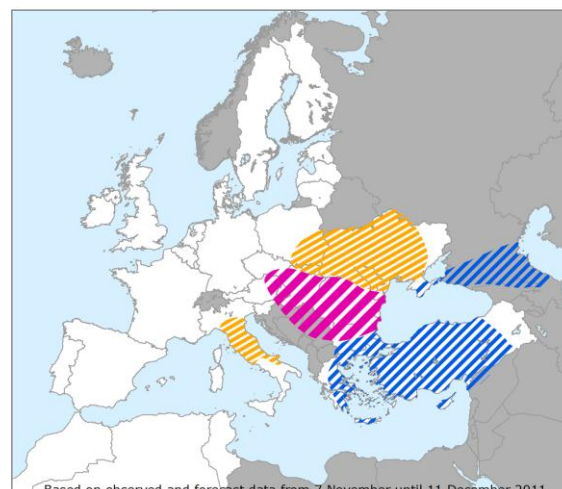
Mild thermal conditions occurred in the major area of western and northern Europe. Colder than average weather conditions characterized in most of the Balkan Peninsula and Turkey. November proved to be one of the driest in several countries. The long lasting water deficiency affects adversely the winter crops from East-Germany to Ukraine.

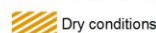

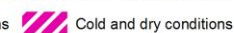
Weather forecast: Warmer than usual in majority of Europe except British Isles. High amounts of precipitation in France and Germany, scarce amounts for Poland and Spain.

CONTENT

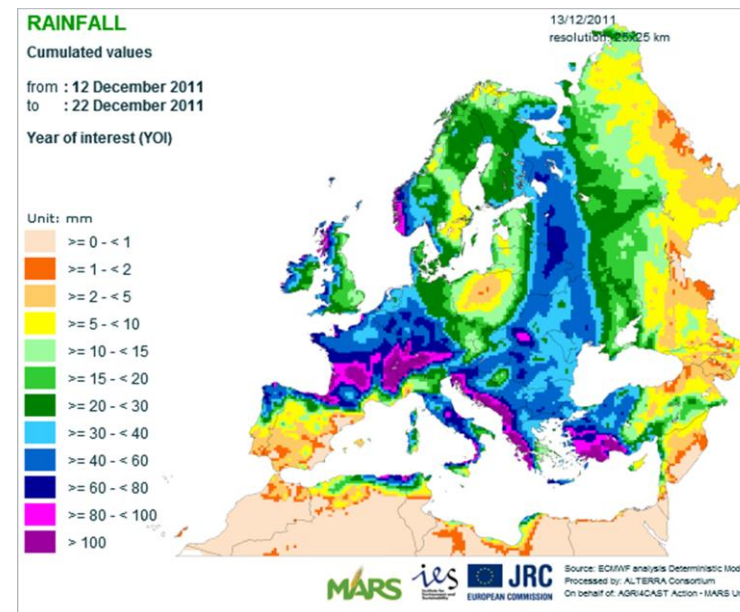
1. Agrometeorological analysis
2. Weather forecast

AREAS OF CONCERN



 Dry conditions
  Cold conditions
  Cold and dry conditions

Data source: MARS crop yield forecasting system 13.12.2011 



1. Agrometeorological analysis

OBSERVED TEMPERATURES

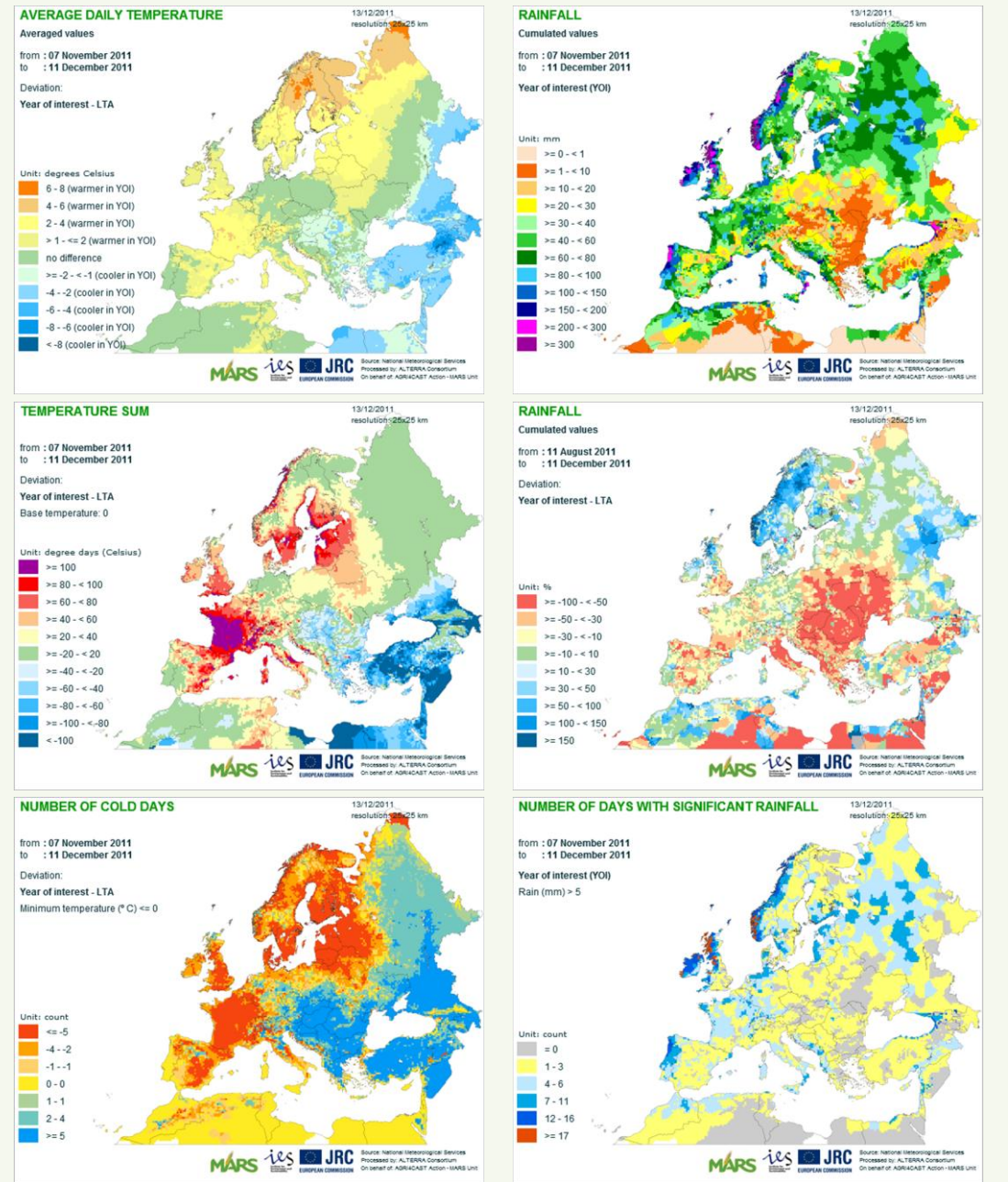
The considered period can be characterized by colder than average weather conditions in most of the Balkan Peninsula, Turkey, Crimean Peninsula and southern regions of Russia. The cumulated active temperature (Tbase=0°C) map depicts more than 40 GDD deficiency below the LTA in areas south-east of Hungary, and the situation was even less favourable in Western Turkey and Crimea where the thermal-time sums accumulation misses 100 and more GDD. The cold weather in this region delayed the crop development. Mild thermal conditions occurred in the major area of western and northern Europe. The temperature was higher than normal with more than 3°C warmer than on average in France, Scandinavian and Baltic countries, Belarus and North-Russia.

Spain, Portugal, France, British Isles, South-Italy and Mediterranean coastal areas experienced no or some light frosts events. Severe frosts events (Tmin<-10°C) were recorded in some spots of Romania, Scandinavia, Turkey, East-Ukraine and Russia. South-east Europe experienced significantly more cold days (Tmin<0°C) than usual while in the wide strip from Spain to Finland the frosts showed below average frequency.

OBSERVED RAINFALL and SNOWFALL

The precipitation remained below the average in the south half of Europe, southward of Baltic and North Sea. The number of days with significant rainfall (>5 mm) were characteristically below 3-4. This November proved to be the driest for the last 80-100 years in several countries (e.g. in Czech Republic, Hungary). Primarily anticyclone systems ruled south-eastern Europe during November resulting in very dry weather conditions. The precipitation didn't exceeded 10-20 mm in the countries of Black Sea and Carpathians region and Central Italy, which are suffering from a lack of rain since mid-August. The water deficiency exceeds 100 mm in this region until now. The dry soil and weather conditions hampered the field preparation works and decreased the quality of the seed bed in eastern and central Europe. The sowing was delayed or detained in Poland, Slovakia, Hungary, Romania, Bulgaria, Moldavia and Ukraine. At several places the soil moisture content was not sufficient for the germination of rape-seed resulting in very gappy fields. The winter cereals are mostly underdeveloped from East-Germany to Ukraine. A mild and moist winter would be favorable, since the weakened crops are more vulnerable to sudden drop in temperature and harsh weather conditions. Significant decrease in grain acreage and production is possible in this region.

Slight snowfall events were recorded in this period in the eastern half Europe developing thin and scattered snow-cover until now. Extreme precipitation (>200 mm) were only recorded along the Atlantic shore (in Norway, Ireland, United Kingdom, Portugal and western part of Spain) as well as in South Italy and Georgia.



2. Weather forecast (period of analysis: 12 – 22 December 2011)

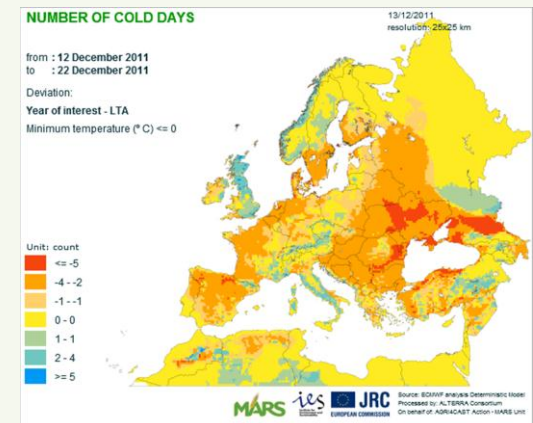
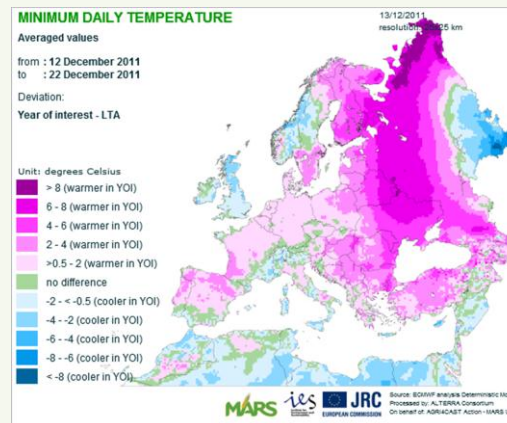
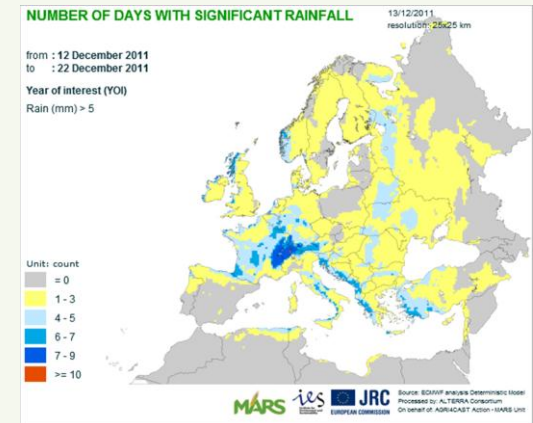
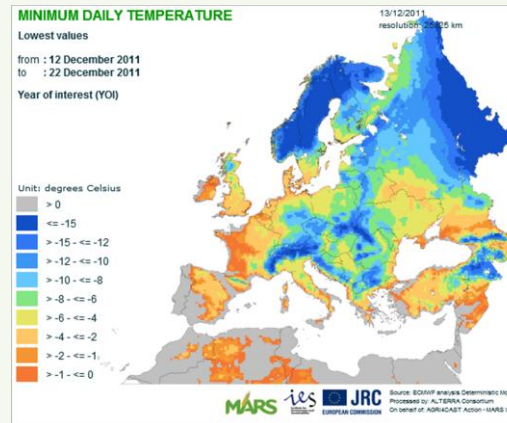
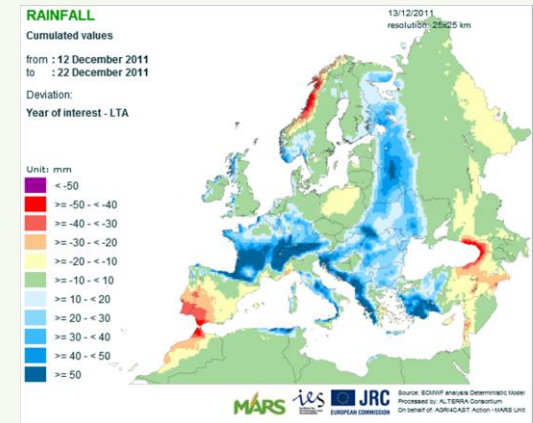
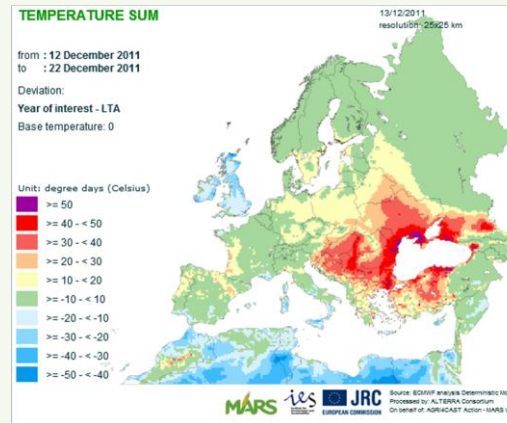
TEMPERATURES

In the next ten days mild temperatures are foreseen for the majority of the continent. The areas around Black Sea will experience active temperature sums above the long term average (by 30 GDD), whereas in United Kingdom, Ireland and Maghreb countries and locally in Mediterranean areas slightly lower than usual accumulation of temperatures is foreseen. Maximum temperature will be above 0°C within the whole period of analysis, except in north and north-east Europe. Minimum temperatures will be slightly above the long term average in Germany, Denmark, Poland, and the majority of France and Spain. Eastern Europe (eastward from Poland) will experience temperatures higher than usual at least by 2°C. Nevertheless at the end of the period in central Europe, mainly in Slovakia and some areas around the border between Germany and Czech Republic minimum temperature will drop below -8°C. In eastern Europe and around Baltic Sea (mainly Bulgaria) temperatures will also decrease. In Sweden and eastern Russia, minimum temperature will be below -15°C, which is in seasonal range.

RAINFALL and SNOWFALL

At the beginning of the period precipitation will be concentrated in north-western and western areas of the continent. Later rainfall will likely be present in the Mediterranean and Adriatic areas impacting southern Italy and coastal areas of Balkan Peninsula and finally in Aegean Sea areas – Greece and western Turkey. Abundant precipitation is forecast for Germany and France; in southern areas even above 80 mm are expected. In general western Europe will experience high precipitation amounts within 3-4 days. In Alpine region, south Germany and France daily precipitation will likely exceed 30 mm and locally even 40 mm. Beneficial rain (>20 mm) for agriculture areas is expected in Slovakia and Hungary and in the area between Slovenian and the Italian border. Scarce precipitation is forecast for eastern Germany, Poland and the Czech Republic, southern Sweden and the Baltic countries. No rain is foreseen for the majority of Spain, southern Portugal and Maghreb.

Snow cover all over agriculture areas in EU will be very thin, because of persisting maximum temperatures above 0°C.



The current MARS* Bulletin is an EC publication from AGRI4CAST action (JRC/IES MARS Unit)

Analysis and reports A. Bussay, W. Kasperska-Wolowicz

Edition B. Baruth, M. El Aydam, S. Niemeyer

Data production

MARS unit Agri4cast/JRC and ALTERRA (NL), Meteoconsult (NL), VITO (BE)

Further information can be found in the website. All MARS Bulletin are available under:

<http://mars.jrc.it/mars/About-us/AGRI4CAST/MARS-Bulletins-for-Europe>

MARS agrometeorological data and data elaboration is available at <http://www.marsop.info>.

Contacts

JRC-IES-MARS / AGRI4CAST Action

I-21027 Ispra (VA)

Fax +39-0332-783033

Info-agri4cast@jrc.ec.europa.eu

Legal Notice

Neither the European Commission nor any person acting on behalf of the Commission is responsible for the use which might be made of this publication.

Disclaimer

The geographic borders are purely a graphical representation and are only intended to be indicative. The boundaries do not necessarily reflect the official EC position.

*MARS stands for **M**onitoring **A**griculture **R**esources **S** Unit

JRC 68047 – EUR 24736,

EUR - Scientific and Technical Research series – ISSN 1831-9424 (online), ISSN 1018-5593 (print)

© European Union 2011

2011 MARS Bulletin

8 Feb	Agrometeorological analysis and weather forecast	Vol. 19 No. 1
8 Mar	Agromet. analysis, remote sensing and yield forecast	Vol. 19 No. 2
22 Mar	Agrometeorological analysis and weather forecast	Vol. 19 No. 3
12 Apr	Crop yield forecast	Vol. 19 No.4
12 Apr	Agrometeorological analysis and weather forecast	Vol. 19 No. 5
24 May	Agromet. analysis, remote sensing and yield forecast	Vol. 19 No. 6
14 Jun	Agrometeorological analysis and weather forecast	Vol. 19 No. 7
28 Jun	Agromet. analysis, remote sensing and yield forecast	Vol. 19 No. 8
28 Jun	Pasture monitoring in Europe	Vol. 19 No. 9
12 Jul	Agrometeorological analysis and weather forecast	Vol. 19 No. 10
26 Jul	Agromet. analysis, remote sensing and yield forecast	Vol. 19 No. 11
26 Jul	Rice monitoring in Europe	Vol. 19 No. 12
9 Aug	Agrometeorological analysis and weather forecast	Vol. 19 No. 13
23 Aug	Crop yield forecast	Vol. 19 No.14
6 Sep	Agrometeorological analysis and weather forecast	Vol. 19 No. 15
20 Sep	Agromet. analysis, remote sensing and yield forecast	Vol. 19 No. 16
4 Oct	Agrometeorological analysis and weather forecast	Vol. 19 No. 17
4 Oct	Rice monitoring in Europe	Vol. 19 No. 18
18 Oct	Pasture monitoring in Europe	Vol. 19 No. 19
25 Oct	Crop yield forecast	Vol. 19 No. 20
8 Nov	Agrometeorological analysis and weather forecast	Vol. 19 No. 21
15 Nov	Agromet. analysis, remote sensing and yield forecast	Vol. 19 No. 22
✓ 13 Dec	Agrometeorological analysis and weather forecast	Vol. 19 No. 23

Special issues are planned for crop monitoring outside EU27

LB-AM-11-023-EN-C