



AGROMETEOROLOGICAL CONDITIONS

Expert group for the common organisation of agricultural
markets, Arable crops

25 July 2024



European
Commission

JRC MARS Bulletin

Crop monitoring in Europe

July 2024

Water excess in the west; hot and dry in the east Yield forecasts revised further downwards

At EU level, yield forecasts for almost all crops were revised downwards; but remain close to the 5-year average. The most distinct downward revisions were for sunflowers, grain maize and field peas. The forecasts for spring barley and durum wheat were revised slightly upwards.

The main reasons for the worsened yield expectations are hot and dry conditions in south-eastern Europe, whereas large areas in the west continued to present unfavourable wet conditions.

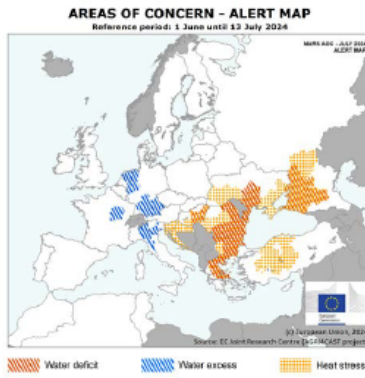
In large parts of southern-central and south-eastern Europe, June and July were exceptionally hot, with several days with maximum temperatures above 35°C, negatively affecting summer crops around flowering. Notably in eastern Hungary, eastern Romania, Bulgaria, and Greece the high temperatures were coupled with a persistent rain deficit, exacerbating these negative impacts. Winter- and spring cereals were less affected in these regions, as they had already reached the end of the growth cycle.

An exception to the overall mediocre yield outlook is spring barley for which the yield forecast is comfortably above the 5-year average, and was further revised upwards, thanks to continued favourable conditions in Spain as well as in northern Europe.

Contents:

1. Agrometeorological overview
2. Remote sensing – observed canopy conditions
3. Grassland and fodder monitoring
4. Country analysis
5. Crop yield forecast
6. Atlas

Covers the period from 1 June until 13 July



Crop	Yield t/ha				
	Avg 5yrs	June Bulletin	MARS 2024 Forecasts	%24/5yrs	% Diff June
Total cereals	5.48	5.59	5.50	+0	-2
Total wheat	5.64	5.64	5.65	+0	+0
Soft wheat	5.86	5.86	5.87	+0	+0
Durum wheat	3.45	3.30	3.35	-3	+2
Total barley	4.95	5.14	5.09	+3	-1
Spring barley	4.08	4.39	4.44	+9	+1
Winter barley	5.91	5.96	5.76	-2	-3
Grain maize	7.35	7.55	7.24	-2	-4
Rye	4.15	4.30	4.26	+3	-1
Triticale	4.33	4.47	4.43	+2	-1
Rape and turnip rape	3.17	3.16	3.10	-2	-2
Potatoes	35.4	35.8	35.1	-1	-2
Sugar beet	73.1	74.4	73.4	+0	-1
Sunflower	2.15	2.20	2.09	-2	-5
Soybeans	2.73	2.91	2.86	+4	-2
Field beans	2.72	2.83	2.83	+4	+0
Field peas	2.35	2.45	2.30	-2	-6
Green maize	41.7	—	42.7	+3	—

Issued 22 July 2024

Content

1. Agrometeorological overview
2. Remote sensing - arable land
3. Grasslands
4. Areas of Concern
5. Crop yield forecast

JRC [MARS Bulletin](#).

1. Agrometeorological overview

Rain surplus in parts of the Iberian Peninsula and E France, most of N Italy, parts of Germany and the Netherlands, Denmark, S Sweden, parts of Poland, and the border between Czechia and Slovakia.

Particularly high rainfall surplus in parts of the Alps.

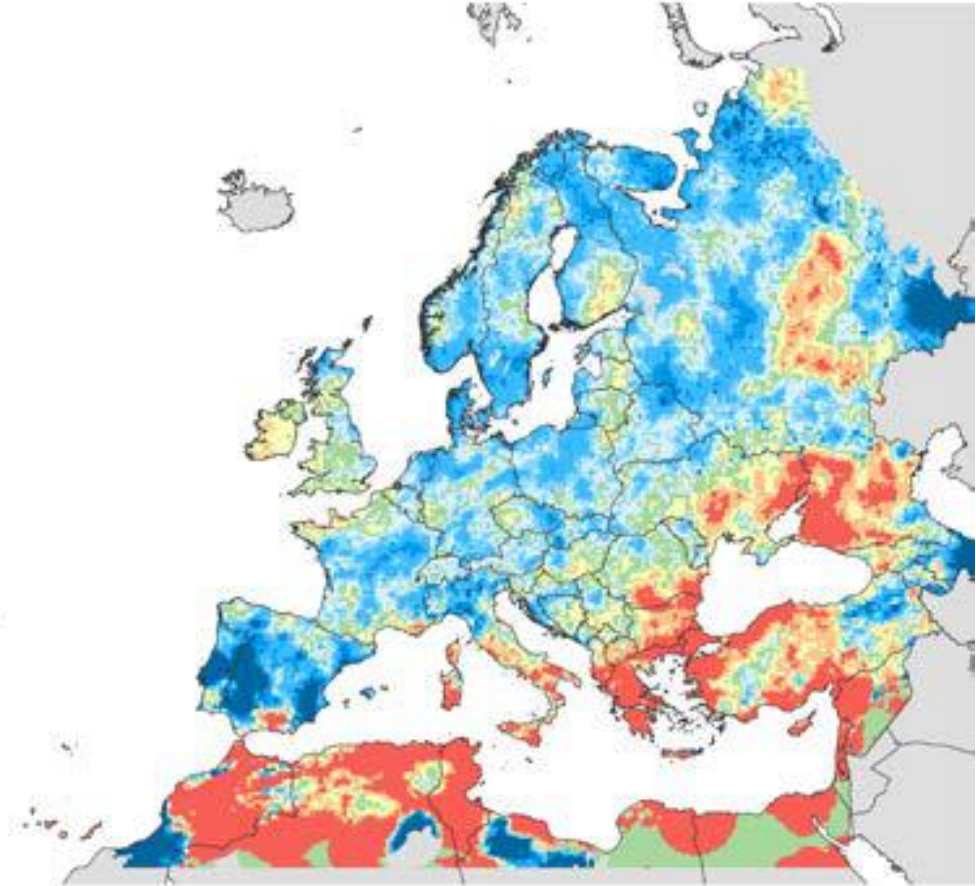
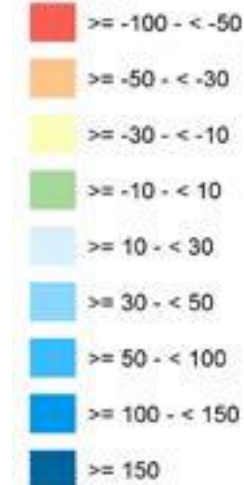
A marked **rain deficit** in large parts of the Black Sea region and some parts of Greece.

RAINFALL Cumulative values

from: 01 June 2024
to: 13 July 2024

Deviation:
Year of interest - LTA

Units: %



15/07/2024
Resolution: 10 x 10 km



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Source: EC Joint Research Centre (AGRI4CAST project)

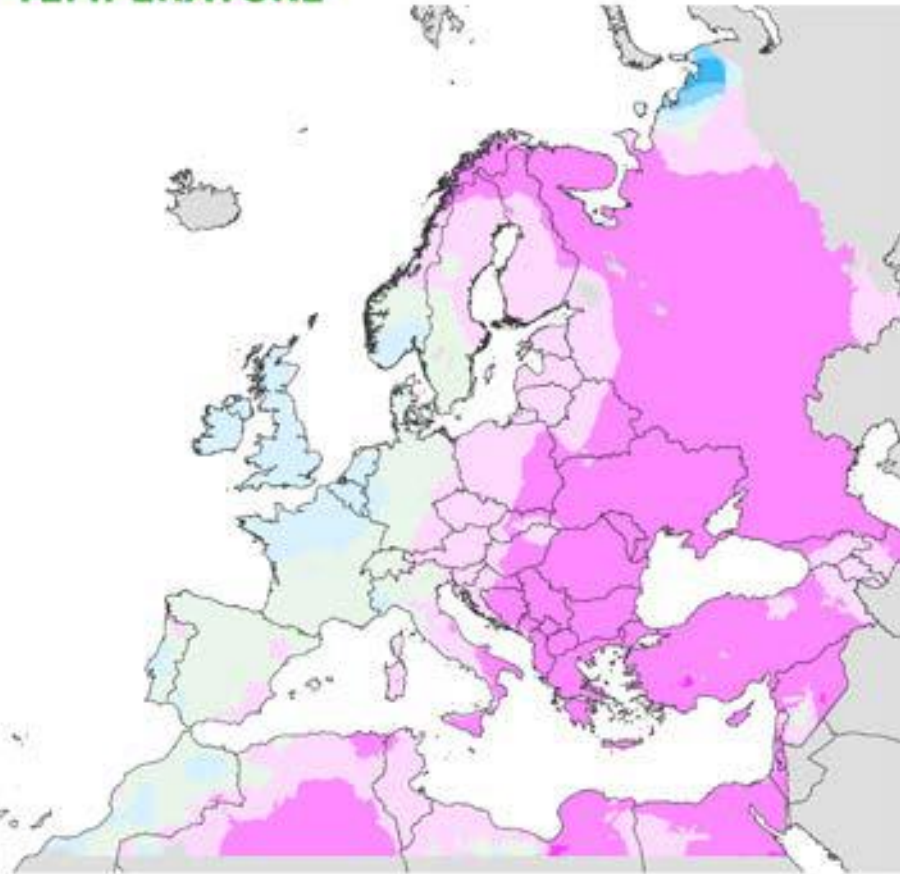
1. Agrometeorological overview

AVERAGE DAILY TEMPERATURE

Averaged values

from: 01 June 2024
to: 13 July 2024

Deviation:
Year of interest - LTA



15/07/2024
Resolution: 10 x 10 km

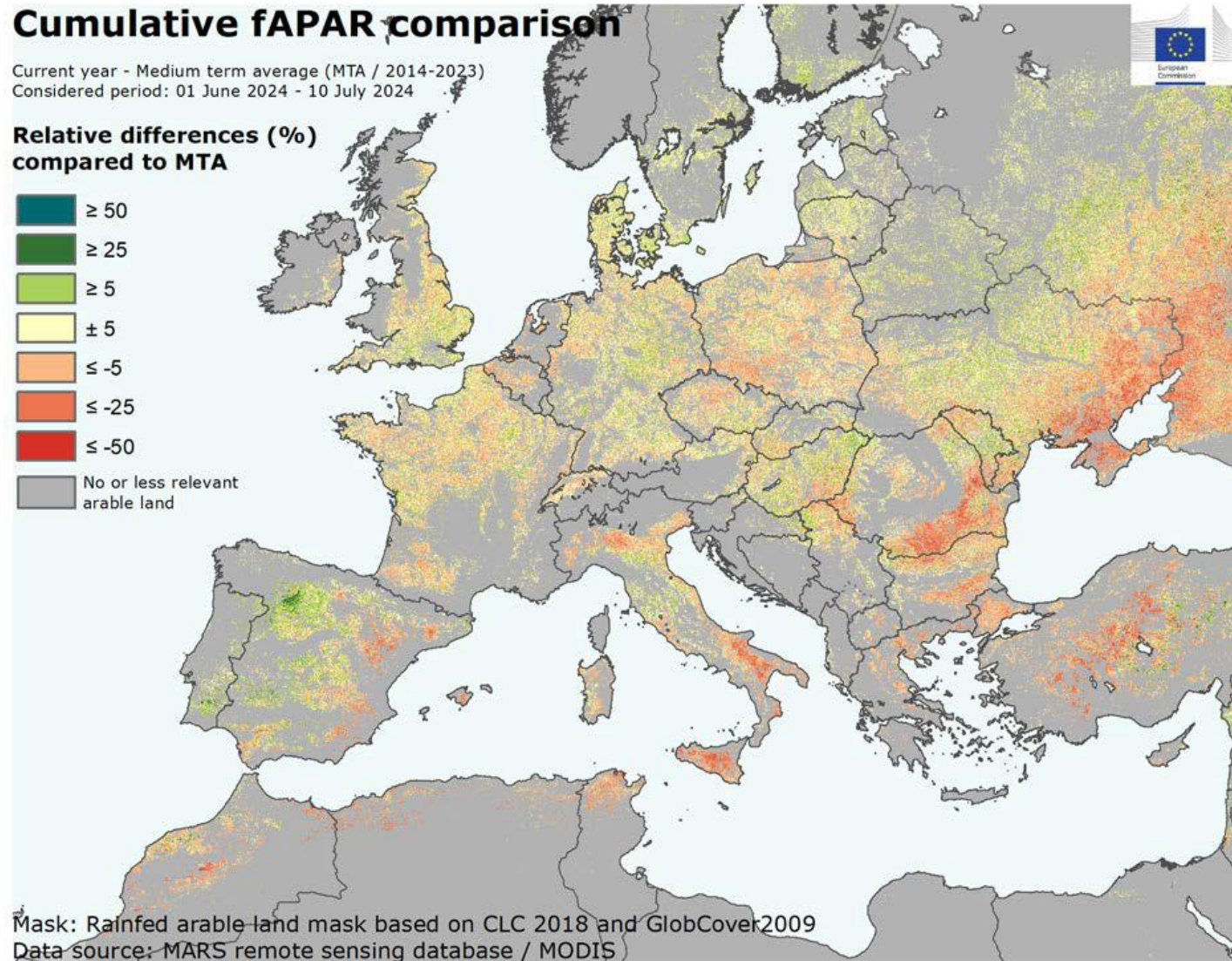


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Source: EC Joint Research Centre (AGRI4CAST project)

Warmer-than-usual conditions in the Black Sea region.

Warm spells - with daily temperatures exceeding the 90th percentile of the long-term average (LTA – 30 years) - observed in Poland, Czechia, Austria, and Italy, eastwards into the continent.

2. Remote sensing - arable land

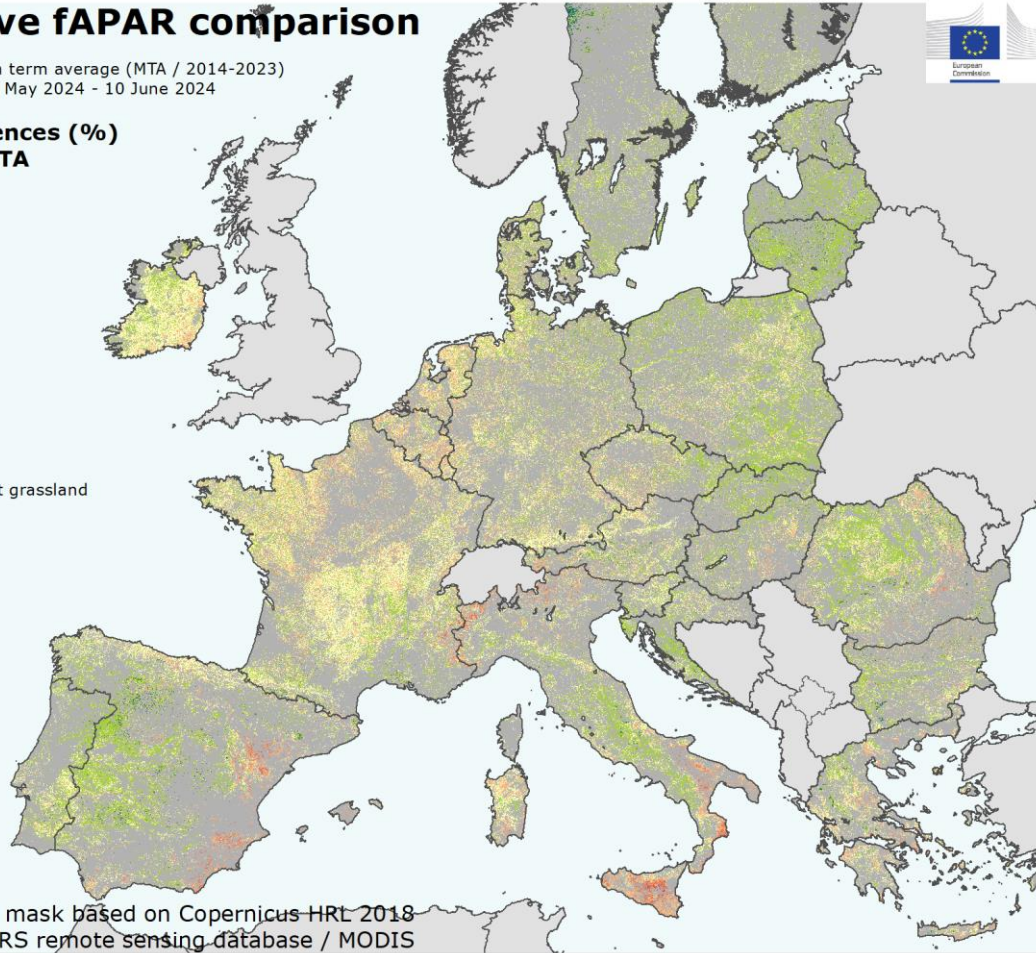


3. Grasslands

Cumulative fAPAR comparison

Current year - Medium term average (MTA / 2014-2023)
Considered period: 01 May 2024 - 10 June 2024

Relative differences (%)
compared to MTA



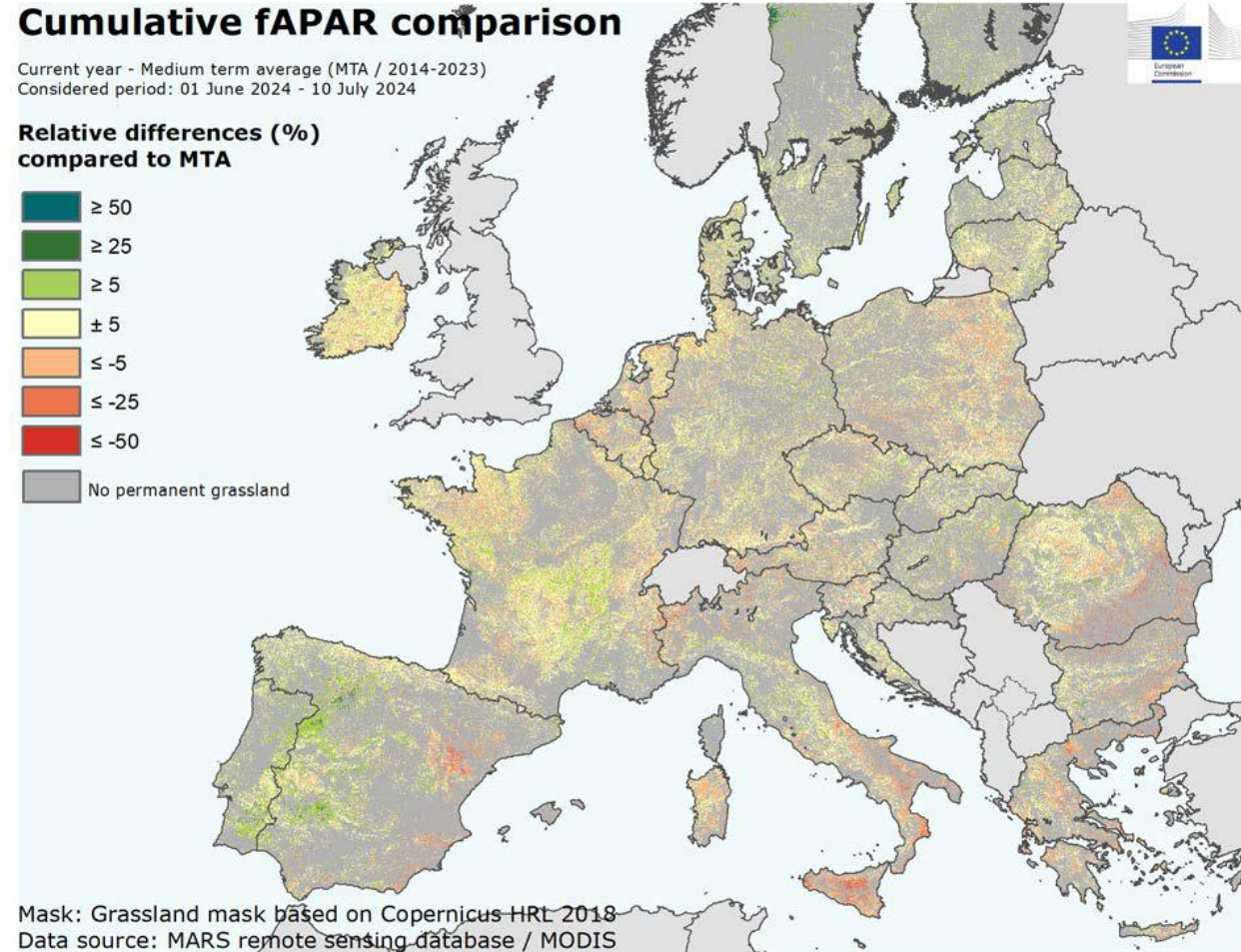
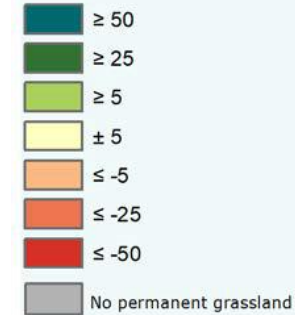
Mask: Grassland mask based on Copernicus HRL 2018
Data source: MARS remote sensing database / MODIS



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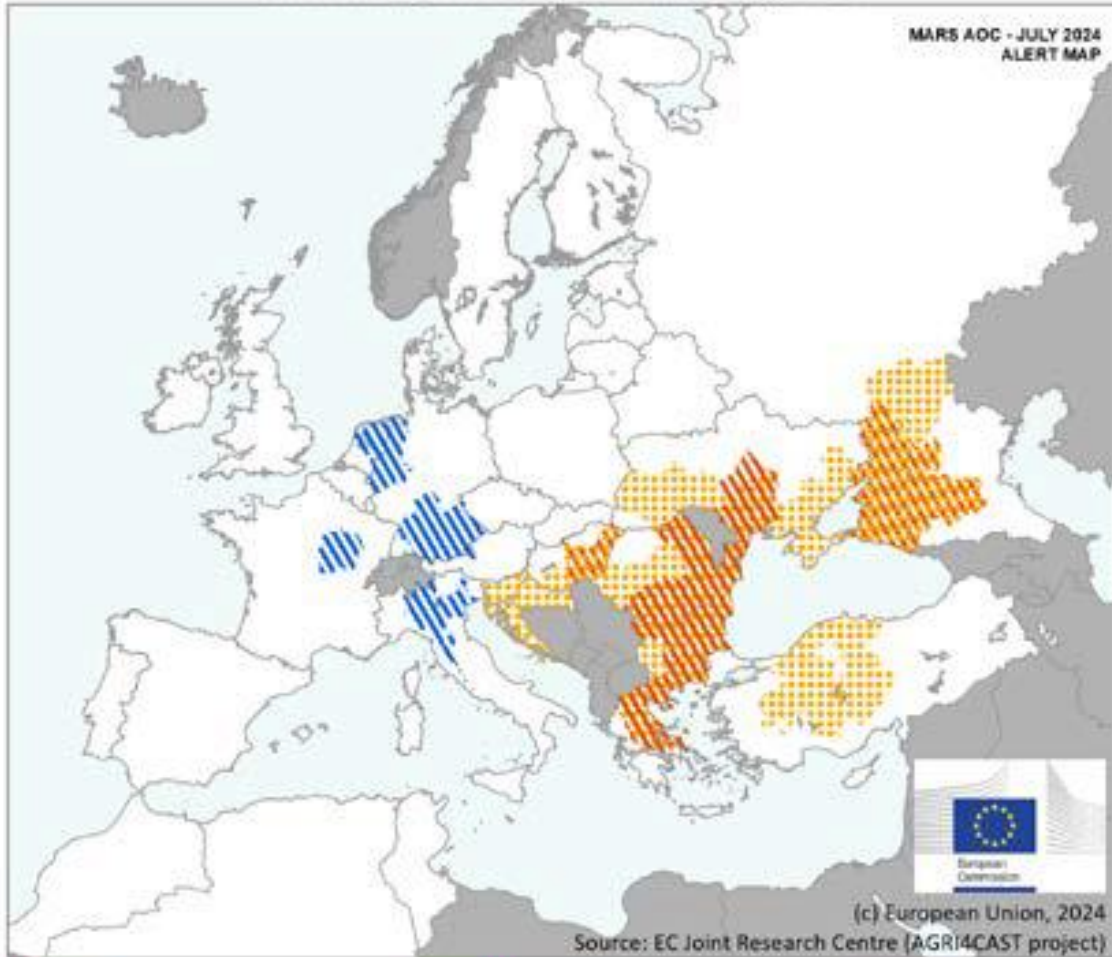
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4. Areas of concern

AREAS OF CONCERN - ALERT MAP

Reference period: 1 June until 13 July 2024



Water deficit

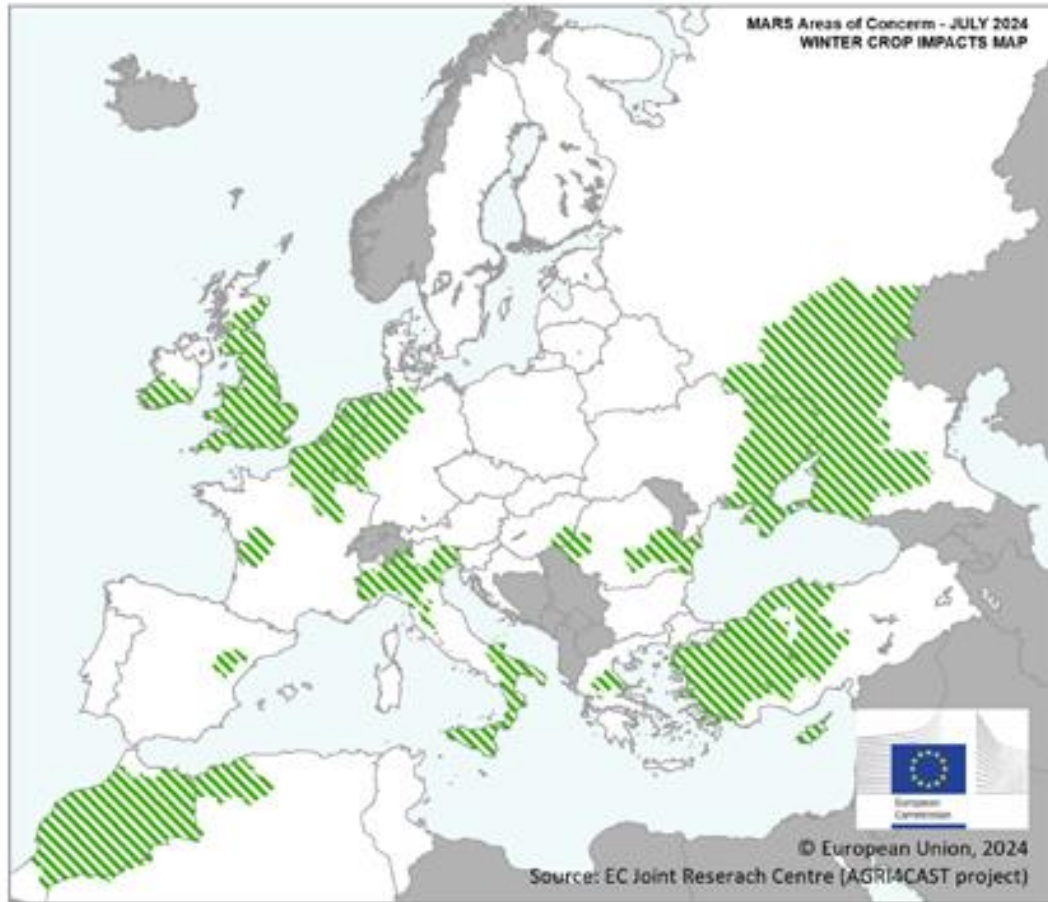
Water excess

Heat stress

- **Water excess:** in the Netherlands, S Germany, E France, and N Italy, which negatively affected crop sowing and field operations.
- **Water deficit:** in E Germany, Poland, E Hungary, S and E Romania, Bulgaria, and Greece.
- **Heat stress:** in Slovenia, Croatia, E Hungary, Romania, Bulgaria, and Greece.

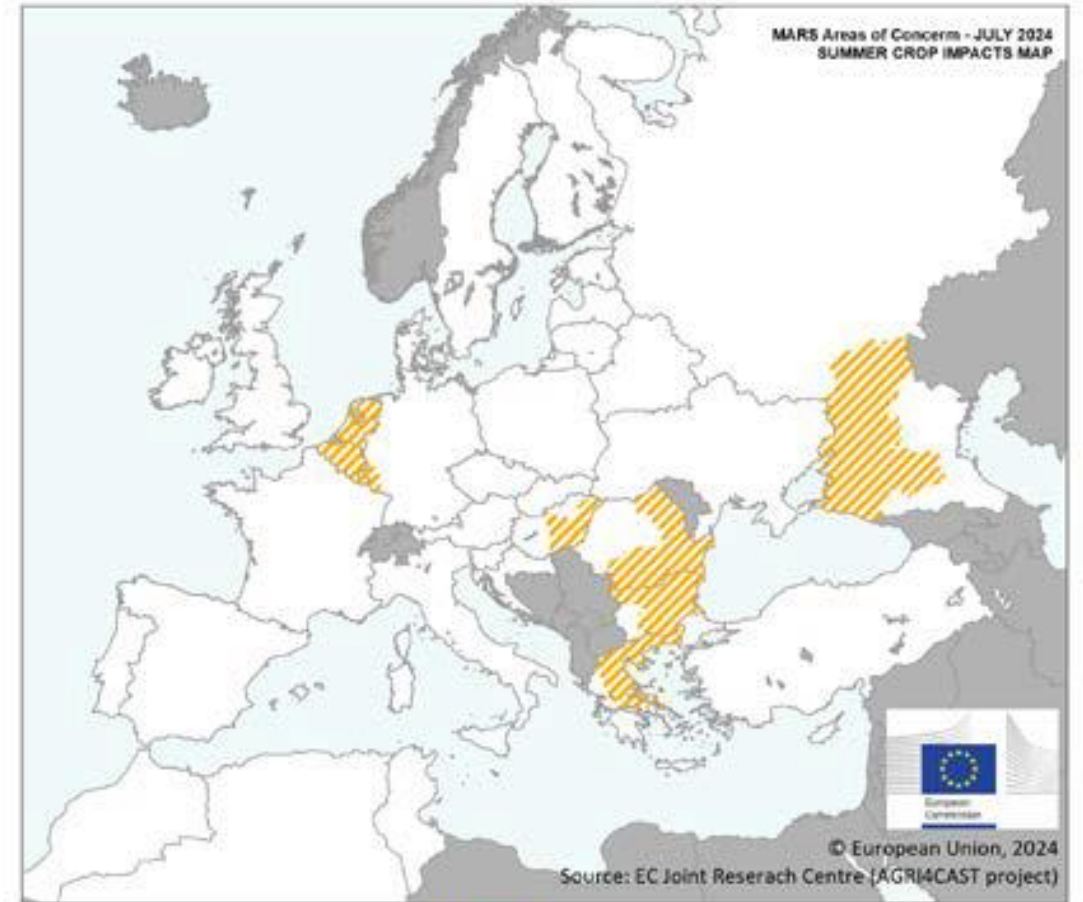
4. Areas of concern

WINTER CROP IMPACTS
Reference period: until 13 July 2024



 Winter crops

SUMMER CROP IMPACTS
Reference period: until 13 July 2024



 Summer crops

5. Crop yield forecast

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- Yield forecasts are down for most products at EU level vs last month's Bulletin.
- Total cereals yield forecasts now at the five-year average.
- NB five-year average is mediocre.

Please send us your national ag-meteo data 'on the ground' (i.e. areas, yields, significant meteo events and consequences)

→ Your data are useful to improve accuracy of JRC analysis (i.e., vs JRC satellite and other observations).

During GREX or any time to

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Thank you



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