MED-Amin
Mediterranean Agricultural Market Information Network

MED-Amin Bulletin 2025 – 1

Winter crops outlook at 10 March 2025

Rather favourable conditions despite contrasting rainfall across the MED-Amin region

The start of the 2025 cereal campaign has been primarily impacted by conditions that were sometimes too dry, particularly in the western Maghreb (Morocco, western Algeria) and the Near East (Lebanon, Türkiye), and sometimes too wet, especially in northern France and Italy. In some regions, these conditions delayed sowing and slowed crop development. Elsewhere, conditions are generally favourable. In several countries (Spain, Tunisia), cereal areas have rebounded compared to the previous campaign, but they remain below the five-year average.

The present **bulletin** gives an outlook about the progress of cereal crops in the Mediterranean region. It provides **early qualitative forecasting** of the **2024-2025 campaign**, with particular focus on soft wheat, durum wheat and barley. This **first outlook** reviews crop conditions from the sowing up to **10 March 2025**, with a specific **focus on the 1 October - 10 March period**.

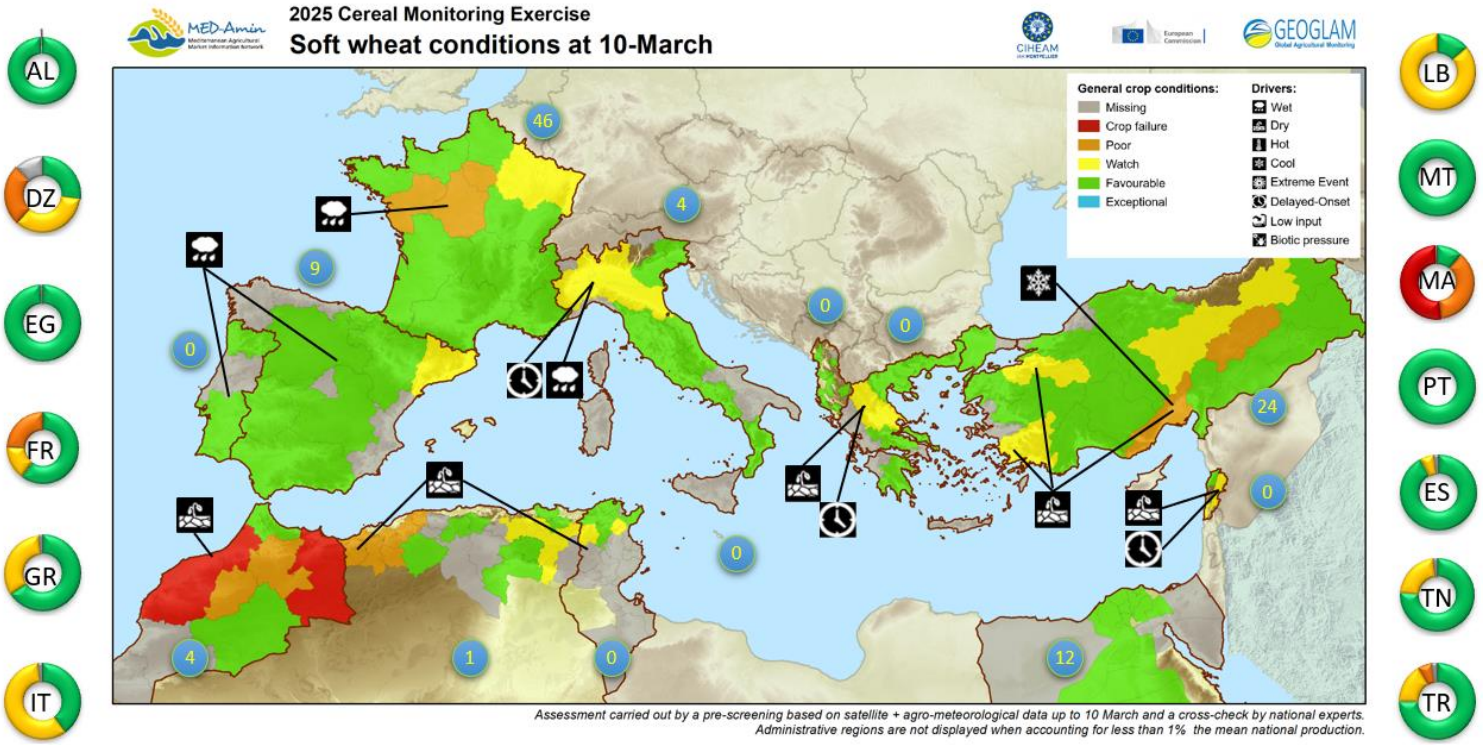
This crop monitoring and early warning initiative was progressively **developed since 2016 by the MED-Amin network in collaboration with the Joint Research Centre (JRC) of the European Commission**, providing an **early qualitative** assessment of crop condition and yield potential of **three winter cereals** (soft wheat, durum wheat, barley) based on a GEOGLAM-like approach but with a **two-steps methodology** using remote sensing and feedback from national Focal Points which enabled to identify **hot-spots** of concerns at **subnational** level using nomenclature and pie-charts similar to GEOGLAM for AMIS (Agricultural Market Information System) and to disseminate corresponding **warnings.**[1]

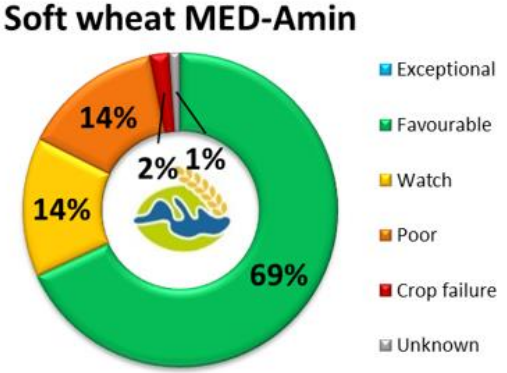
[1] MED-Amin network, gathering 13 Mediterranean countries and coordinated by the CIHEAM (International Centre for Advanced Mediterranean Agronomic Studies), aims to reduce prices volatility in agricultural markets. This initiative lays the foundation for an early warning system strengthening food security in the region. For more info: http://www.med-amin.org, http://ec.europa.eu/jrc/en/mars and http://cropmonitor.org .

The regional outlook for Soft Wheat is generally positive overall, though regionally contrasted, with 69% of the cultivated area in 'favourable' conditions (lower than last year's 74% at the same period). Soft wheat is developing well in **Egypt** (EG, 12% of MED-Amin production), **Spain** (ES, 9% of MED-Amin production), **Portugal** (PT), **Albania** (AL), and in southern regions of **France** (FR) and **Italy** (IT). However, a significant share of the cultivated areas remains under 'watch' (14%) or even 'poor' conditions (14%), particularly in some key cereal-producing regions of the MED-Amin zone, including northern **France** and **Italy**, as well as several regions in **Türkiye** (TR). The outlook for soft wheat in **Morocco** (MA) and, to a lesser extent, western **Algeria** (DZ) is already rather poor due to the exceptionally dry conditions that persisted until March.

In several countries (**France**, **Spain**, **Tunisia**), the sown areas have rebounded compared to 2024 but remain below the five-year average.

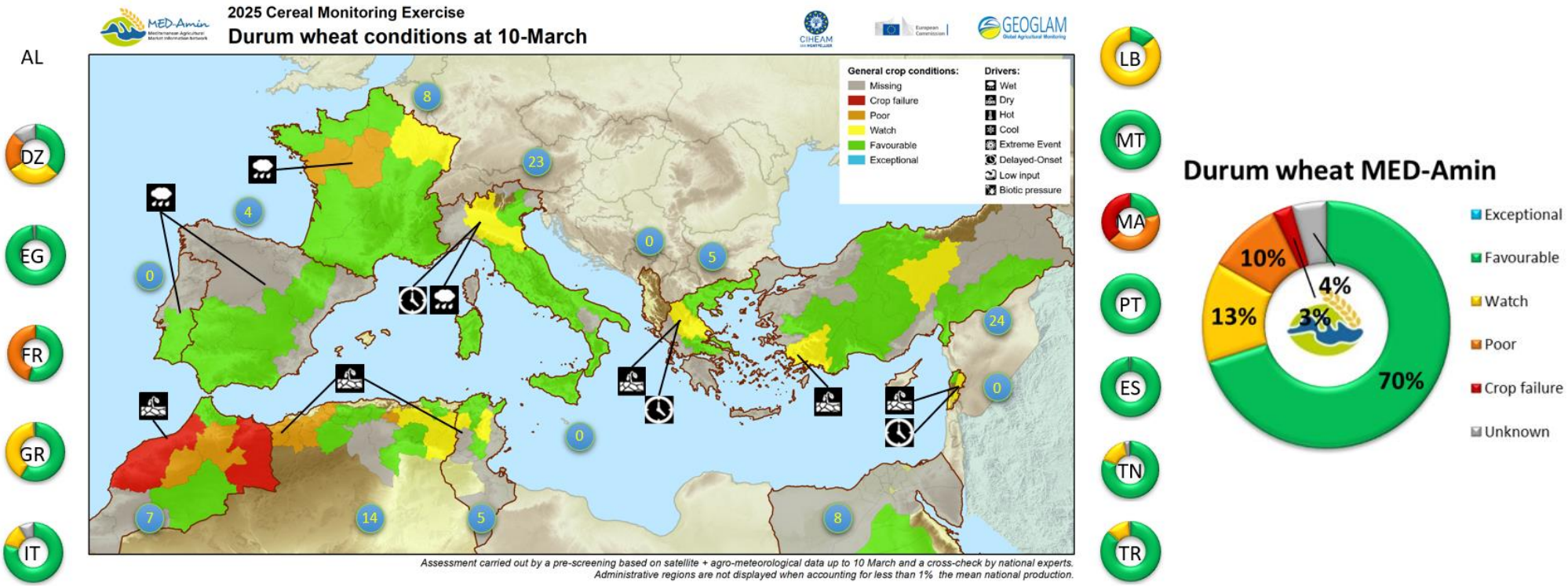
Please see the National Highlights section of this bulletin.





Durum Wheat is a typical Mediterranean commodity and crop (accounting for nearly half of global production). The outlook is similar to that of soft wheat, with 70% of the cultivated area in 'favourable' conditions (lower than last year's 76% at the same time). Conditions vary significantly across regions, particularly in the main producing countries (except for **Egypt**, where conditions remain very stable from year to year). The outlook is relatively positive for **Greece** (GR), **Italy**, **Tunisia** (TN), and **Türkiye**, which account for respectively 5%, 23%, 5%, and 24% of MED-Amin production, though several regions are still under 'watch' conditions. In **Lebanon** (LB) and, more notably, in **Algeria** and **Morocco** (representing 14% and 7% of MED-Amin production), crops are under 'watch' conditions, with some regions already facing poor prospects due to dry conditions. Conversely, major producing regions in **France** have been affected by excessively wet conditions. Additionally, a significant decline in durum wheat acreage has been observed in France.

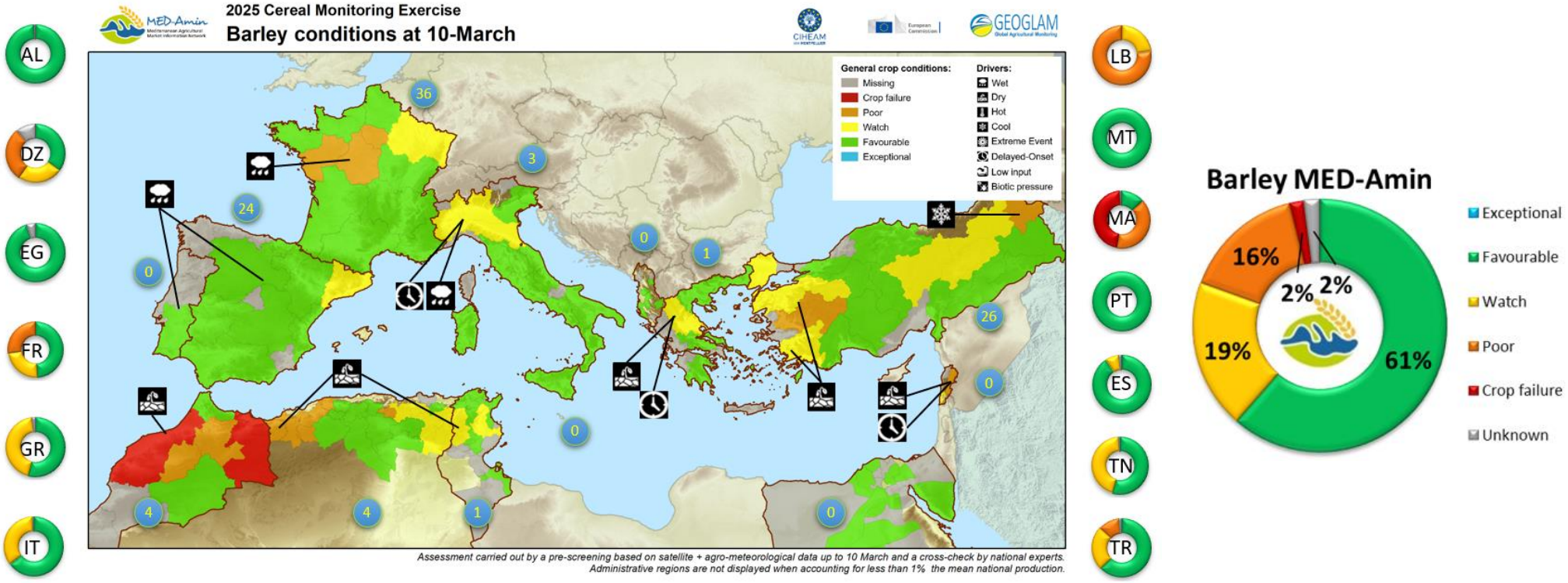
Please refer to the National Highlights section of this bulletin.



Barley is the most affected winter crop at this early stage in the season, with only 61% of planted areas in the MED-Amin region developing under 'favourable' conditions, compared to 74% at the same time in 2024. Moreover, 18% of the cultivated area is facing 'poor' prospects. Barley has been particularly impacted by climatic conditions in **Türkiye** (26% of MED-Amin production) and **Lebanon**. A large share of the crop remains under 'watch' conditions, due to overwet conditions in northern **France** (36% of MED-Amin production) and **Italy**, or dry conditions in **Greece** and **Tunisia**. The outlook is rather poor in the western **Maghreb**, whereas conditions are favourable in **Spain** (24% of MED-Amin production).

An increase in sown areas has been observed in Spain and Tunisia, while in contrast, French acreage has declined compared to 2024.

Please refer also to the National Highlights section.



National highlights

Albania: The October-March period has been characterised by favourable agrometeorological conditions, with temperatures and accumulated rainfall close to the average, and well-distributed rainfall events. Consequently, the outlook is positive with biomass accumulation levels above both the average and last year in all the main crop-growing districts of the country (e.g. *Fier*), according to satellite data analysis.

Algeria: Satellite data show contrasting conditions across the country. The western wilayas (*Tlemcen*, *Mascara*, *Sidi Bel Abbès*) experienced drought, which, combined with above-average temperatures throughout the observation period, caused irreversible damage to crops. In some areas (*Aïn Témouchent*), February rains enabled a slight recovery in terms of biomass accumulation. In the eastern wilayas (*Sétif*, *Mila*, *Constantine*), February rainfall enabled winter crops to recover after a delayed and disrupted start to the season, with biomass accumulation levels close to average. The central and northern wilayas (*Tiaret*, *Aïn Defla*, *Médéa*) benefited from a more favourable seasonal rainfall distribution, and crops are approaching the reproductive stage and biomass accumulation levels are near or above average, exceeding last year's figures.

Egypt: Warmer-than-usual thermal conditions have characterized the season in Egypt so far. Satellite imagery indicates slightly above-average crop conditions, indicating sufficient water supply from irrigation to support adequate crop growth during the vegetative and reproductive stages of development.

France: The period from October to March was characterised by near-average temperatures (+0.6°C) and precipitation at the national level, with no cold snap, but with significant regional disparities. Excessive rainfall (+30 to 40%) and a lack of sunshine (up to -20%) affected a large north-western quarter of the country (*Centre*, *Île-de-France*, *Pays de la Loire*), leading to generally deteriorated crop conditions compared to 2024 and the five-year average. The risk of crop loss increased, with challenging establishment conditions (waterlogged soils), slow emergence, and slower development (three-leaf tillering stage). Conversely, the southern regions (*Occitanie*) recorded relatively high temperatures and good sunshine. Despite localized precipitation deficits, conditions remain generally favourable, surpassing both last year's performance and the five-year

average. Additionally, the first nitrogen applications were carried out under good conditions. The *Grand Est* region experienced mostly favourable conditions, despite high slug pressure and frost episodes in *Champagne-Ardenne* that necessitated spring barley reseeding, along with some localized weed control issues. Groundwater levels are in surplus overall, except in the southeast (*PACA*, *Corse*) and in *Roussillon* (*Occitanie*).

At national level, soft wheat sown areas reached 4.57 M ha, rebounding from last year (+10.0%) and aligning closely with the five-year average. In contrast, barley and durum wheat areas have declined, standing at 1.21 M ha (-2.1% vs. 2024, -3.5% vs. the five-year average) and 198,000 ha (-5.7% vs. 2024, -16.6% vs. the five-year average), respectively. Crop development conditions are rated 'good' to 'very good' for 74% of soft wheat areas (compared to 68% in 2024 and 81% on average over the past five years), for 70% of winter barley areas (68% in 2024, 80% over five years), and for 82% of durum wheat areas (72% in 2024, 81% over five years). As of March 10, on average, soft wheat, winter barley, and durum wheat have reached the "1 cm ear" stage, while spring barley is at the early tillering stage.

Greece: The country has experienced mixed conditions over the October-March period. Agrometeorological conditions have been favourable in the eastern regions of the country (i.e. *Central Macedonia* and *Eastern Macedonia*), where crops are performing well despite some late sowing and occasional cold spells, for example in *Xanthi* (*Eastern Macedonia*). Mild temperatures in the February-March period have further supported crop growth in these areas. Conversely, dry conditions have adversely affected all winter crops in *Western Macedonia*, delaying crop sowing and crop growth. In *Kastoria* (*Western Macedonia*) dry conditions also constrained fertilization efficiency. Crop yields will largely depend on rainfall in the coming weeks. In *Thessalia*, dry conditions delayed sowing in some areas (*Magnisia*, *Sporades*), while excessive rainfall hampered and slowed germination and growth in approximately 30% of total sown areas in *Karditsa*. However, overall conditions in *Thessalia* are close to average, thanks to winter rainfall followed by favourable temperatures in February and March.

As of March 10, crops are on average in the vegetative growth stage (tillering or stem elongation). It should be noted that durum wheat is replacing irrigated crops, such as cotton, in several areas of *Karditsa* (*Thessalia*).

Italy: Frequent and intense rainfall events occurred in northern Italy around mid-December, causing delays in germination and the emergence of winter cereals in January. This impact was particularly pronounced in the regions of *Piedmont*, *Lombardy*, and *Emilia-Romagna*, which account for approximately 55% of the country's soft wheat production and 33% of its barley production. However, crops are expected to recover in the coming weeks.

In southern Italy, crops have benefited from favourable weather conditions, with well-distributed rainfall close to or slightly above average and generally suitable temperature profiles. As a result, winter cereals have developed well, with above-average biomass accumulation according to satellite data, particularly in *Sicily*, which accounts for nearly 20% of the country's durum wheat production.

Lebanon: The period from October to March was marked by delayed sowing, very low and irregular rainfall—below seasonal averages—and above-average temperatures across much of the country, particularly in the *Bekaa* region, the country's main cereal-producing area. These unfavorable conditions affected soil moisture and slowed vegetative growth. Additionally, unusual cold spells further hindered crop development during winter, while milder temperatures from late February allowed for some recovery. In *northern Lebanon* (*Akkar*), conditions were more favorable thanks to higher rainfall levels.

As a result, soft wheat and durum wheat are one to two weeks behind normal in their vegetative growth (sometimes at the early tillering stage). In northern *Bekaa*, barley growth has stalled, and the harvest is likely to be poor if rainfall remains low.

Malta: No or very low cereal production.

Morocco: On 10 March 2025, a large part of the country was still affected by particularly warm and dry conditions. These conditions, which are unfavourable to the growth and development of cereals, have led to levels of biomass accumulation that are well below average in most parts of the country, according to satellite data. The prospects for catching up are low, despite the recent heavy rainfall in March. Conditions have been more favourable in the north of the country (*Tangier - Tetouan - Al Hoceima*), where biomass accumulation levels are close to average.

Portugal: Rainfall has been abundant, well-distributed, and moderately above seasonal averages. As a result, sowing conditions and vegetative crop development have been generally favourable across most of the country. However, excess soil moisture is beginning to impact the regions of *Entre Douro e Minho*, *Trás-os-Montes*, and *Lisboa e Vale do Tejo*. Crops are generally ranging from the late tillering stage (in the south of the country) to the start of vegetative growth.

Soft wheat and barley acreage are estimated to have declined compared to last year and the five-year average, with 20 000 ha (-10% vs. 2024, -16% vs. the five-year average) and 12 000 ha (-5% vs. 2024, -20% vs. the five-year average), respectively. This is due to economic factors (declining prices for soft wheat and barley), agro-meteorological challenges (low productivity in previous seasons), and strategic decisions (crop substitution, particularly for forage production). Durum wheat areas are close to average, with 4,000 ha. In *Alentejo*, the country's main cereal-producing region, soft wheat sowing areas are lower than last year, while barley acreage remains stable.

Spain: Overall, agrometeorological conditions have been favourable. Although the early months of the campaign were particularly warm and dry, rainfall during the second part of the reviewed period increased soil moisture, with cumulative precipitation even exceeding average. This supported good tillering and vegetative development. The extreme weather event in October (DANA) mainly affected the Mediterranean coast, which is not a key grain-producing region. Consequently, the outlook for winter crops is positive, with accumulated biomass levels above average (taking into account that some previous years were marked by severe droughts). Overall, the crops are at the vegetative development stage. In some regions (e.g. *Andalusia*), barley may be less developed, due to delayed sowing. As of December 2024, soft wheat sowing areas estimations for 2025 reach 1.73 M ha, slightly above the previous campaign (+1,3%) but below the five-year average (-2,0%). The same trend applies to durum wheat, though more pronounced, with 245 300 ha (+3.9% vs. 2024, -5.1% vs. the five-year average). Barley follows a similar pattern, reaching 2.29 M ha (+1.0% vs. 2024, -6.8% vs. the five-year average). Notably, six-row barley has seen a significant increase (+26.8% vs. 2024).

Furthermore, some areas of *Castilla la Mancha* experienced emergence issues, and wildlife damages were reported in *Castilla y León* and *Castilla la Mancha*. Additionally, due to excess moisture in certain areas, fungal diseases are likely to be more prevalent this season.

Tunisia: Agrometeorological conditions have been generally favourable in the north and along the east coast (*Beja*, *Bizerte*, *Sousse*), with substantial and well-distributed rainfall between October and March, leading to cumulative precipitation levels close to or slightly above average. Conditions have been particularly favourable in *Sfax*, *Mahdia*, *Sousse*, and *Monastir* regions. In contrast, the west and parts of the central region (*Le Kef*, *Kasserine*) experienced moderately dry conditions, with winter cereal sowing delayed by 20 to 30 days. However, crops in these areas are currently catching up rapidly, although conditions remain to be monitored. Overall, conditions are above the five-year average, as several recent seasons have been marked by exceptionally dry conditions. Durum wheat sowing areas have reached 546,000 ha, slightly below the 2024 campaign (-5.4%) but slightly above the five-year average (+1.5%). Conversely, soft wheat (32,000 ha) and barley (410,000 ha) areas have increased compared to the 2024 campaign (+32.7% and +9.5%, respectively) but remain below the five-year average (-40.3% and -8.4%, respectively).

Additionally, several fungal diseases (*Helminthosporiosis, Oidium, Septoria*) have been detected and require monitoring due to favourable climatic conditions. Preventive and curative measures have been recommended by the Ministry of Agriculture, Fisheries and Hydraulic Resources. Crops are approaching the flowering stage.

Türkiye: Over the October-March period, rainfall was generally lower and temperatures higher than average. As a result, crop development has been delayed, with most fields still at the tillering stage. In some regions, cold spells have affected crops, particularly barley. However, the primary factor influencing yield variability in the context of climate change remains the use of poorly adapted varieties. High temperatures during heading or grain filling, for instance, can severely impact both yield and grain quality, especially for varieties with high vernalization requirements.

In Central Anatolia (*Konya*), conditions have been relatively favourable for crop development, although growth is slower than last year. Cold spells have really affected the wheat but have caused yellowing in barley. In Southeastern Anatolia (*Diyarbakır*), rainfall have been significantly below the long-term average, while temperatures have been higher, leading to delays in emergence and vegetative development. Spring rainfall will be crucial for yields. Crops are at the tillering stage. In Eastern Anatolia (*Erzurum*), sowing conditions were favourable, but subsequent low rainfall hindered emergence. The winter was particularly cold, but snow cover was generally sufficient to protect crops. Since March, rising temperatures have accelerated snowmelt, threatening yields of cold-sensitive varieties, particularly winter barley, where yellowing has been observed. In the Aegean region (*Izmir*), barley sowing was postponed due to initial insufficient rainfall, followed by excessive rainfall. March has

been exceptionally warm and dry, which could negatively impact crop development. In the Central Black Sea region (*Samsun*), crop development is progressing normally. Cold spells in February and March had a slight negative impact, likely delaying heading. Currently, crops are at the early stem elongation stage. In the Marmara region (*Edirne*), below-average rainfall combined with above-average temperatures has led to delays in germination and crop development. Cold waves have not significantly affected crops. In the Mediterranean region (Adana), conditions have been particularly dry, with rainfall well below average, causing damage to rainfed crops (reduced tillering, smaller ears, etc.). In late February, frost compounded the effects of drought, particularly affecting crops that had already reached the stem elongation stage. Later-sown crops (December) were less affected thanks to their less advanced development. Overall, the region could experience yield losses of 20 to 35% due to these unfavourable conditions. Where possible, farmers are attempting to mitigate damage through irrigation and top-dress fertilization. However, with limited March rainfall, drought risks persist. Crops sown before mid-November are currently at the heading stage, while those sown in December are at the stem elongation stage. In some areas, barley is also affected by aphid infestations.

General methodology: *The forecasting methodology is based on the monitoring of crop conditions using indicators derived from Earth observation (e.g. fAPAR or NDVI), carried out jointly by the CIHEAM-IAMM and the Joint Research Centre of the European Commission (EC-JRC). Reflecting out-of-average biomass accumulation vs the medium-term average (2014-2023) allows us detecting areas of concern, which are characterized using the GEOGLAM scale and nomenclature (see below). These pre-screened areas of concern, defined at a sub-national level, are then analyzed, validated or completed by each National Focal-points of the MED-Amin network, taking into account feedbacks from field observation and local experts.*

Crop conditions legend (GEOGLAM scale and nomenclature):

- *Exceptional: Conditions are much better than average at the time of reporting. This label can only be used between the grain-filling stages to the harvest stage.*
- *Favourable: Conditions range from slightly below to slightly above average at the time of reporting.*
- *Watch: Conditions are not far from average but there is a potential risk to final production However, at this time it is considered that crops might still recover if conditions improve. This label may only be used between planting/early-vegetative stage and vegetative/reproductive stages.*
- *Poor: Conditions are well below average and are very likely to impact production with a harvest clearly below average.*
- *Crop failure: Crops have been strongly damaged, low yield and area reduction will strongly impact the production.*

Crop conditions Drivers (adapted from GEOGLAM nomenclature):

- ***Wet:*** *Above-average accumulated total precipitation;*
- ***Dry:*** *Little or no rainfall period;*
- ***Hot:*** *Unusually above-average temperatures;*
- ***Cold:*** *Unusually below-average temperatures;*
- ***Extreme events:*** *Occurrence of extreme weather events;*
- ***Delayed onset:*** *Delayed onset and operations of the crop year;*
- ***Biotic stress:*** *Crop impact caused by living organisms, specifically viruses, bacteria, fungi, nematodes, insects, and weeds;*
- ***Low Input:*** *limited use of inputs (fertilizers, pesticides, etc.) that could end in moving the outlook for the future harvest (yield, quality).*

Disclaimer

The geographic borders in the present bulletin are purely a graphical representation and are only intended to be indicative. The boundaries do not necessarily reflect the official position of CIHEAM-IAMM and of the European Commission.

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Authors:

Timothée HERVIAULT (CIHEAM Montpellier)
contact@med-amin.fr

Giacinto MANFRON and Pierre TODOROFF (EC-JRC, Ispra)
giacinto.manfron@ec.europa.eu

European Commission

CIHEAM
International Center for Advanced Mediterranean Agronomic Studies

MED-Amin

Coordination
CIHEAM at CIHEAM Montpellier
↪ contact@med-amin.org

Site Web
↪ http://www.med-amin.org