MED-Amin
Mediterranean Agricultural Market Information Network

MED-Amin Bulletin 2026 – 1

Winter crops outlook at 14 March 2026

Abundant rainfall supports a strong winter cereal outlook despite localised adverse impacts

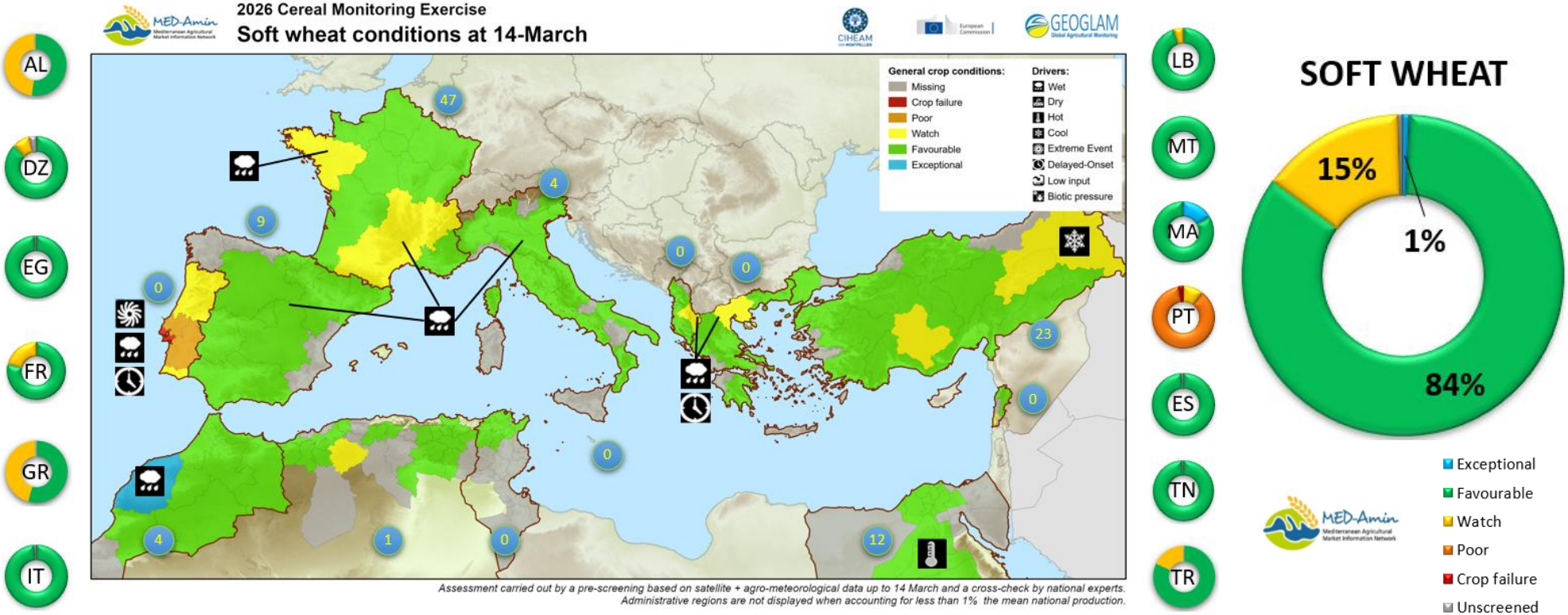
Warmer-than-average conditions and abundant rainfall have generally supported favourable winter cereal conditions across MED-Amin countries, although localised adverse impacts have occurred, including delayed sowing, uneven crop development, delayed field operations, and damage from waterlogging and flooding. Despite regional disparities, the overall outlook is very positive, particularly in water-scarce regions, where winter rainfall has significantly improved both yield potential and water reservoir levels.

1. Crop outlook

Soft Wheat

Outlook remains very positive across MED-Amin countries, with 85% of areas in "favourable" conditions or better, well above the 69% observed at the same time last year. Soft wheat is developing well across most of the region, with the exception of **Portugal** (PT), which has been severely affected by adverse weather, though without significant impact at MED-Amin scale. Elsewhere, conditions are generally homogeneous. Rainfall has supported crop development, despite some localised negative impacts (waterlogging, flooding), leading to delays in crop growth and field operations. As a result, a share (12%) of the cultivated area remains under "watch" conditions, particularly in **France** (FR, 47% of MED-Amin production), **Albania** (AL), **Greece** (GR) and **Türkiye** (TR, 23% of MED-Amin production). A reduction in areas is expected in **Portugal**, **Albania**, **Spain** (ES) and locally in **Greece** compared to 2025. Conversely, sown areas are increasing in **France** and, more markedly, in **Morocco** (MA).

Please see the National Highlights section of this bulletin.

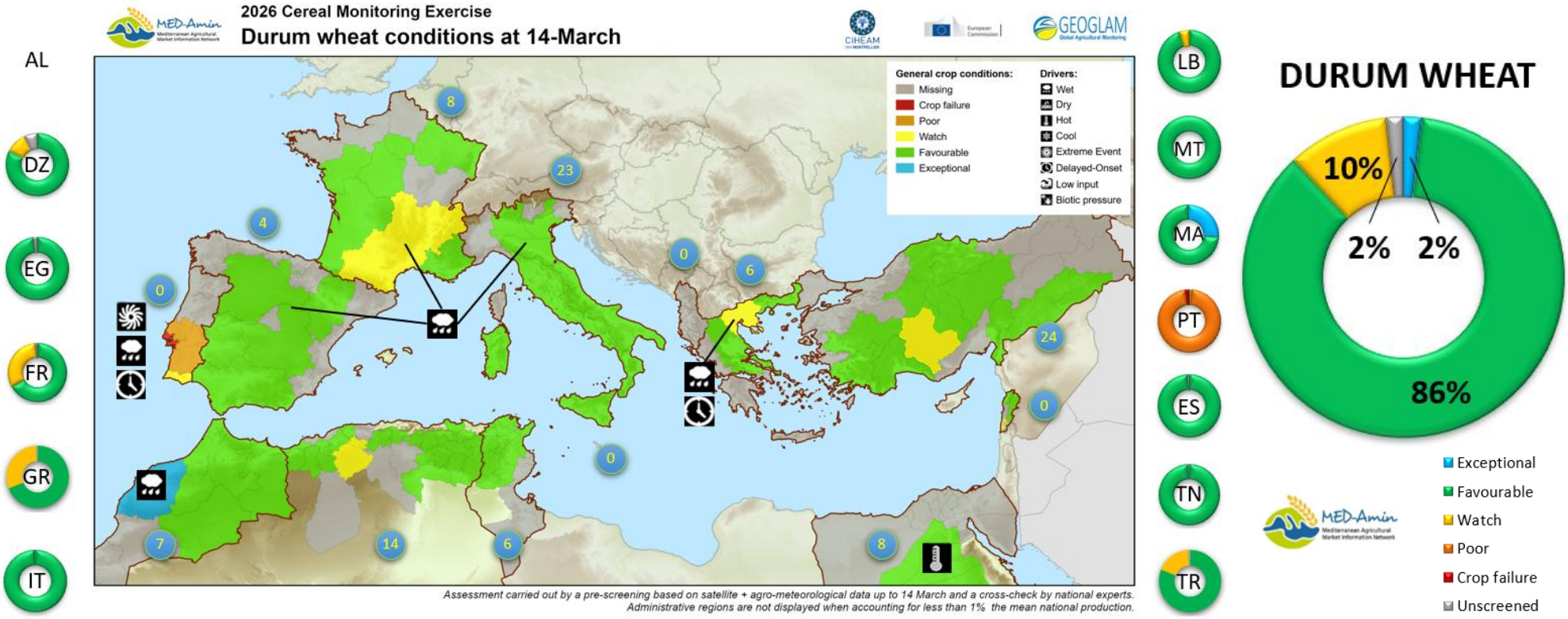


Durum Wheat

Durum wheat is a typical Mediterranean crop, with MED-Amin countries accounting for nearly half of global production. The outlook is excellent, with trends similar to – but stronger than – those observed for soft wheat. As such, 88% of areas are in "favourable" or "exceptional" conditions, well above the 70% at the same time last year. Conditions are highly homogeneous overall, with the notable exception of **Portugal**, where the outlook is poor.

Some areas of concern remain in **France** (8% of MED-Amin production) and **Algeria** (DZ, 14% of MED-Amin production) due to locally excessive wet conditions, and in **Lebanon** (LB) for geopolitical reasons. In contrast, **Morocco** (MA, 7% of MED-Amin production) stands out with an outlook well above previous years, potentially reaching exceptional levels in some regions. Combined with a significant increase in sown areas, and barring adverse weather, a strong production rebound is expected. Conditions are also favourable in **Türkiye**, **Italy** (IT) and **Tunisia** (TN) (accounting for 24%, 23% and 6% of MED-Amin production respectively), despite some local disparities.

Please see the National Highlights section of this bulletin.

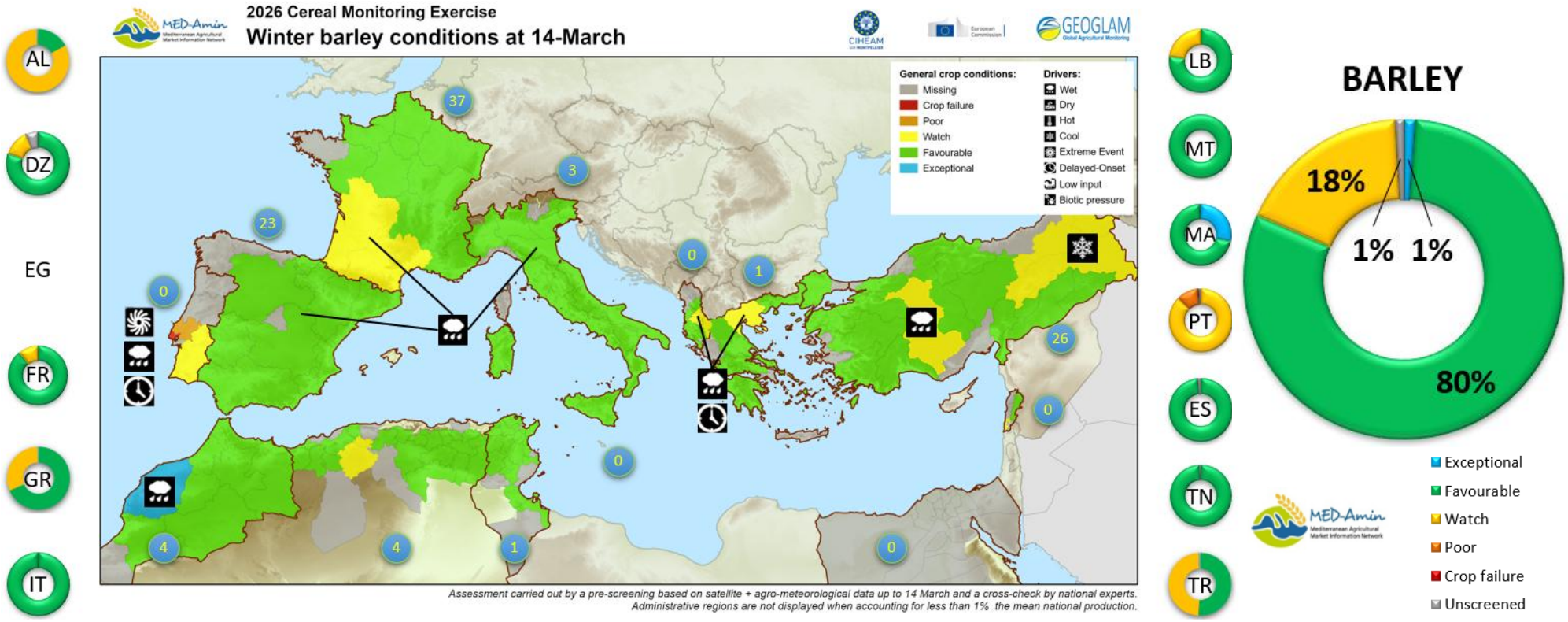


Barley

Barley conditions are close to those of soft wheat, but less pronounced, and the outlook is likewise very positive across MED-Amin countries. As such, 81% of areas are in “favourable” or “exceptional” conditions, significantly above the 61% observed at the same time last year.

With the exception of some areas under “watch” conditions and localised delays in crop development — notably in Albania, Algeria, Greece, France, Lebanon and Türkiye — conditions are favourable elsewhere. In Portugal, barley appears to be the least affected crop by adverse weather. A rebound in sown areas is also observed in Morocco. In addition, a limited share of soft wheat areas could shift towards spring barley in Spain (23% of MED-Amin production).

Please see the National Highlights section of this bulletin.



2. National Highlights

Albania - Excess rainfall delays sowing and weakens winter cereal outlook - Watch

The October-March period has been characterized by wet conditions and mild temperatures. However, excessive rainfall has severely disrupted sowing operations and early crop establishment, leading to challenging conditions.

Excessive rainfall delayed sowings by up to one month, particularly in *Fier* (*Myzeqe* plain) and *Elbasan*, while part of the early sowings failed due to waterlogged soils. As a result, crop establishment is generally weak and uneven, with underdeveloped plants and reduced biomass accumulation. Intense rainfall and flooding events further exacerbated the situation, causing notable damage in lowland areas, notably in *Myzeqe* plain where fields were flooded, and in *Elbasan* where excess moisture significantly limited crop growth. In contrast, more favourable outcomes are reported in *Berat* and *Durrës*, where improved agronomic practices (seed selection, fertilization, proper crop rotation, etc.) supported better crop conditions despite the challenging context.

At the national level, the outlook is rather negative, with a decline expected in both sown area (39 000 ha) and production compared to average and last year, due to delayed sowing, adverse winter conditions and structural constraints (rising input costs, mechanization expenses, fluctuation in selling prices, etc.). Agronomic constraints, including limited access to suitable cultivars, limited fertiliser applications and inadequate crop rotation, are further weighing on yield potential. Winter cereals are currently at the stem elongation stage.

Algeria - Very favourable outlook thanks to abundant precipitation - Favourable

Crop conditions are generally very favourable. Widespread and above-average rainfall from December onwards has substantially replenished water reservoirs and supported crop growth nationwide.

Following a dry autumn that delayed sowing in western wilayas (e.g., *Aïn Témouchent*, *Tlemcen*, *Relizane*) and caused an initial lag in crop development, the heavy precipitation observed since December, often exceeding the long-term average, has promoted crop recovery. Some episodes of intense rainfall and localized flooding were reported. In eastern and southern regions (e.g., *Skikda*, *Constantine*), well-distributed rainfall supported uniform crop establishment and contributed to reservoir replenishment. Satellite-derived indicators show biomass accumulation well above the medium-term average, reaching record levels in some irrigated areas where growth exceeds normal conditions. Nevertheless, regional disparities persist, particularly in the High Plateaux (*Tiaret*, *Tissemsilt*), where biomass accumulation remains below average despite abundant rainfall.

Overall, yields are anticipated to be above the five-year average and in some areas markedly higher than those of the previous season.

Egypt - Irrigation supports average outlook despite warmer and drier-than-usual conditions - Favourable

The 2025/26 season has been characterised by above-average temperatures and low rainfall. However, these conditions have limited impact on cereal

development thanks to widespread irrigation, particularly in the Nile Valley and Delta, where water availability is sufficient.

Crop conditions are generally stable, with normal development across most regions. In the main irrigated areas (e.g. *Sharkia*, *Dakahlia*, *Kafr El Sheikh*), crops are performing at or slightly above average, while marginal rainfed areas (e.g. *Matruh*, *North Sinai*) show slightly below-average conditions due to limited rainfall. Wheat is developing normally nationwide, whereas barley is slightly delayed in rainfed areas but remains on track in irrigated area. At the national level, conditions are broadly unchanged compared to the previous campaign, with yield anticipated to be close to average. No major adverse events or significant pest and disease pressures have been reported. Although higher input costs may have led to reduced fertiliser use in some areas, no substantial impact on crop conditions has been observed.

Sown areas are stable, and phenological development is overall in line with the average, ranging from flowering to early grain filling in the Delta regions (e.g. *Sharkia*, *Dakahlia*) and Middle Egypt (e.g. *Menia*, *Beni Suef*), with more advanced stages in Upper Egypt (e.g. *Assiut*, *Sohag*).

France - Favourable early-season conditions with good yield potential despite regional excess moisture - Favourable

Winter cereals in France have benefited from a very wet and mild winter, resulting in a generally favourable start of the campaign. Conditions have been particularly positive in northern regions (*Hauts-de-France*) for soft wheat and barley, and in the south-west (*Nouvelle-Aquitaine*) for durum wheat. Abundant precipitation—making it one of the wettest winters in recent years—has supported crop establishment and early development. However, local moisture excess has hampered field operations and affected crop development in western (*Bretagne*, *Pays-de-la-Loire*) and southern regions (*Occitanie*). Despite a moderate deterioration since December, notably linked to intense rainfall events in February 2026, crop conditions remain overall good at the national level and are generally better than both last year's and the five-year average. According to *Céré'Obs*, as of 16 March, 84% of soft wheat, 81% of durum wheat and 81% of winter barley areas are rated in good or very good condition.

Sowing conditions were overall favourable, with winter cereal areas increasing by 2.3% year-on-year to reach 6.4 million hectares, although remaining slightly below the five-year average. Soft wheat area is estimated at 4.6 million hectares (+2.3% year-on-year), while durum wheat remains stable at around 0.2 million hectares, supported by public policy measures.

Mild temperatures have accelerated phenological development, with most crops entering tillering earlier than usual and a significant share already reaching early stem elongation stages as of 02 March. Overall, crop development is slightly ahead of both last year (by up to 10 days) and the five-year average (by 2 to 7 days). Spring barley sowing is in progress, although some delays have been reported due to wet soil conditions.

Despite a challenging economic context marked by low cereal prices and high input costs, the current outlook is positive. Following last year's production rebound, and provided no major adverse weather events occur during spring, national cereal production is expected to be around average.

Greece - Favourable overall outlook with regional contrasts due to excess rainfall - Favourable

Winter cereal conditions are generally favourable, supported by mild temperatures and frequent rainfall. However, significant regional disparities persist, mainly driven by excess rainfall and local temperature conditions.

In *Western Macedonia* (*Grevena*, *Kozani*), prolonged wet conditions combined with low temperatures have led to sowing delays, uneven emergence and waterlogging. While early and timely sowings are developing relatively well, late sowings are more affected with some areas reporting

plant losses or poor establishment, particularly in *Grevena* prefecture. The situation is more favourable in *Florina*, with a better outlook than last year. Overall, winter cereal area is expected to decrease year-on-year in the region. A similar but slightly better situation is observed in *Central Macedonia*, where crops have recovered to generally satisfactory condition despite earlier excess rainfall and local frost events, particularly affecting early sowings. A reduction in winter cereal area of 10–15% is expected. The outlook is positive and above average in *Serres* and *Thessaloniki*, while conditions remain more moderate in *Pella*, where heavy rainfall has caused fertiliser leaching, chlorosis and increased disease pressure. In *Eastern Macedonia & Thrace*, (e.g. *Kavala*) conditions are overall favourable, with good establishment, normal development and a slight increase in sown areas. However, the northeastern part (*Evros*) remains affected by flooding, waterlogging, delayed development and disease incidence, resulting in a negative local outlook. In contrast, regions of *Thessaly* and *Sterea Ellada* (*Central Greece)* benefit from mild and wet conditions, ensuring good emergence, uniform and healthy crop development, and positive yield expectations, particularly for durum wheat (*Larissa*, *Trikala*), despite locally delayed fertiliser applications (*Fthiotida*).

Overall, the outlook is positive, with crop development often 1-2 weeks ahead of normal. As of 10 March, winter cereals are generally at the vegetative growth stage, and in some cases at the stem elongation stage. High soil moisture combined with rising temperatures may increase disease risks in the coming weeks.

Italy - Positive crop conditions despite localised rainfall excess - Favourable

The cereal campaign is progressing under generally favourable conditions, supported by a mild and wet winter. Crop establishment was overall successful, with sowings completed within the usual calendar despite frequent rainfall, particularly in northern regions. Adequate soil moisture and mild temperatures ensured uniform emergence and good early tillering, with crop development broadly in line with or slightly ahead of the seasonal norm.

Abundant precipitation has significantly replenished soil water reserves in southern regions, creating favourable moisture conditions for crop growth, despite low solar radiation and episodes of intense rainfall. Durum wheat and barley show generally regular development, although some delays in sowing and early growth were reported in *Basilicata* and *Sicily*. Initial stress linked to excessive rainfall and, locally, low temperatures has eased, and crops are recovering. In *Puglia*, crop conditions are particularly favourable, with expectations exceeding last year's levels, although fungal pressure requires monitoring. In northern regions (*Veneto*, *Piemonte*, *Emilia-Romagna*), heavy rainfall led to temporary water excess, delaying fertilisation and field operation, though without major impact on crop development.

Overall, crop conditions are positive and slightly above-average across the country, despite regional variability. Soft wheat is currently performing best overall, while barley remains more sensitive to adverse conditions, with some limited signs of disease (e.g. rust, powdery mildew), although no significant phytosanitary concern have been reported at this stage.

Lebanon - Crop recovery underway but constrained by geopolitical disruptions - Watch

The October–March period in Lebanon was characterised by initially dry and warm conditions until December, followed by a return of significant rainfall from January onwards, leading to more favourable agrometeorological conditions. This irregular rainfall distribution resulted in delays in sowing, but subsequently contributed to a gradual improvement in crop conditions across the country. By early February, early phenological stages were generally assessed as satisfactory, reflecting the positive impact of the precipitation.

As of 14 March, satellite indicators show that biomass accumulation, initially delayed, is progressively catching up and is now approaching the five-year average, reflecting a compensatory effect of the late but beneficial precipitation.

The overall outlook is constrained by the ongoing geopolitical situation, which continues to disrupt agricultural activities and weigh on production prospects. Repeated attacks in southern regions, particularly in *South Lebanon* and *Nabatieh*, have affected agricultural land and infrastructure. While perennial crops are the most impacted, an estimated 20,000 ha of field crops, including cereals, are also affected, according to a report published by the Lebanese Ministry of Agriculture on 27 March.

Morocco - Strong rebound expected following consequent rainfall after prolonged drought - Favourable

The campaign initially started under dry autumn conditions, resulting in delayed sowing that extended until January. Widespread and substantial rainfall from late December onwards restored soil moisture and significantly replenished reservoir levels (56 % in early February; 73 % by late March, compared with only 38 % at the same period last year). The second wave of rainfall improved germination and emergence conditions, supporting crop establishment. Localized flooding nevertheless temporarily affected some fields, particularly in coastal areas and in the north-west (e.g., Safi, Gharb Plain), though without significant impact on the national outlook.

These wet conditions have been overall highly beneficial for crops, supporting rapid growth. In western regions (*Casablanca-Settat*, *Marrakech-Safi*), conditions are particularly favourable to exceptional, with vigorous vegetative development and biomass levels often above average. Performance is slightly more moderate in the south-west (*Souss-Massa*). In the north, centre and east, conditions are also favourable, albeit more heterogeneous and at a slightly lower level. Rainfall has been generally satisfactory in the north-west (*Rabat-Salé-Kénitra*, *Tanger-Tétouan-Al Hoceima*), while more pronounced disparities persist in the *Oriental* region, where irregular precipitation and locally delayed sowing have resulted in more variable crop development.

Regarding phenological development, winter cereals are mostly between advanced vegetative growth and stem elongation stages, with slightly earlier development in the most favourable western areas (reaching early heading), while conditions remain broadly in line with the average overall, with some localised delays in the east. No major water stress or significant pest and disease pressure has been reported during the period under review. Sown areas have increased markedly (+43% year-on-year), reaching 3.6 million hectares (32% durum wheat, 33% barley, 44% soft wheat).

Overall, the campaign shows a positive dynamic, with conditions well above the five-year average, particularly in western regions. Provided favourable weather conditions persist until the end of the cycle, prospects are very positive, with a strong production rebound expected following several years of severe drought.

Portugal - Unfavourable outlook following excessive rainfall - Poor

Winter cereal conditions in Portugal are overall poor, reflecting the strong impact of excessive rainfall. While water reservoirs have been significantly replenished, successive storms in January and February brought exceptionally high precipitation (locally up to 300–400% of average) resulting in widespread flooding and soil saturation across most of the country (75% of mainland Portugal was classified under the PDSI[1] as "*extreme wet conditions*" and the remaining 25% as "*severe wet conditions*"). State of

[1] Palmer Drought Severity Index

"calamity" has been declared in several municipalities of *Alentejo*, Centro, *Oeste e Vale do Tejo* and *Algarve*.

These conditions conducted to saturated soil, severely hampering field operations, delaying and in some cases preventing sowing, particularly in central and southern regions, with some areas experiencing irreversible losses. Crop establishment is generally poor and uneven, with late sowings and heavy soils most affected, while early sowings and well-drained areas are comparatively better, though still below-average. Regional differences remain limited, although slightly more favourable conditions are observed in *Trás-os-Montes* (*Norte*), where fertilisation operations have begun. In contrast, *Alentejo* and *Oeste e Vale do Tejo* report major constraints and significant area reductions, with a shift towards barley in some zones. Waterlogging and root asphyxia have negatively impacted crop growth, while the inability to apply fertilisers and carry out field operations has increased the risk of weed infestation. As a result, sown areas have sharply decreased. In *Alentejo*, the main producing region, reductions are estimated at around 60% for soft and durum wheat and 70% for barley. Similar declines are expected in *Centro*, and even more pronounced in *Oeste e Vale do Tejo*. Crop development remains delayed, with cereals generally at the vegetative stage and lagging behind seasonal norms.

Overall, the outlook is clearly below average and worse than last year, with yield potential significantly compromised by prolonged excess moisture and disrupted crop management.

Spain - Positive outlook despite localized excessive moisture - Favourable

Winter cereal conditions are overall favourable, following a dry autumn that delayed sowing, subsequently offset by generally beneficial winter conditions. Above-average precipitation has significantly improved soil moisture and replenished water reserves, supporting crop establishment across most regions.

However, persistent rainfall in early 2026 has caused localised waterlogging and temporary flooding in southwestern areas, particularly in *Andalucía* and *Extremadura*, leading to root asphyxia, increased fungal disease pressure and delays in field operations, including fertilisation and crop protection treatments. In northern regions such as *Castilla y León*, sowing was delayed due to both autumn dryness and subsequent wet conditions, resulting in slightly delayed crop development, while *Castilla-La Mancha* and *Aragón* remain broadly in line with average. In the south, crop development is more heterogeneous, with phenological stages ranging from tillering to heading due to uneven sowing conditions.

Despite these constraints, impacts remain moderate at this stage, with generally good crop establishment and favourable yield potential. At the national level, crop development is slightly delayed compared to average but does not currently raise major concerns, although reductions in sown area are reported due to difficult sowing conditions. While this may be partially offset by spring crops (particularly barley), this is less the case in *Andalucía*, where constraints are more pronounced.

Tunisia - Strong recovery following late rainfall, supporting above-average yield expectations - Favourable

The cereal campaign started under unfavourable conditions, marked by warm and dry weather that hampered germination, particularly in central and southern regions. In contrast, rainfall close to the long-term average in the north supported early crop development. From January onwards, a marked increase in precipitation triggered rapid recovery and accelerated growth across the country, significantly improving soil moisture, and replenishing reservoir levels to over 70%, ensuring sufficient water availability for irrigation in the main northern production areas. Combined

with persistently above-average temperatures, these conditions have promoted above-average biomass accumulation.

Crop conditions are currently good to very good across most regions, with satisfactory homogeneity in stands. Around 60% of crops are rated in good condition nationwide, rising to over 80% in key northern production areas. Phenological development ranges from late stem elongation to heading. The widespread availability of certified seeds—double that of last season—and adequate fertilizer supplies are further supporting yield potential. Some localised pest pressure (beetle larvae) has been observed, and humid conditions have increased monitoring for fungal diseases and weeds, but impacts remain limited.

Overall, winter cereal conditions are assessed as above the five-year average, and the outlook is positive. Sown areas reached approximately 964,000 ha (including 72,000 ha irrigated), mainly located in the north. Provided favourable conditions persist through the spring, national yield prospects are expected to be above average.

Türkiye - Winter rainfall underpin positive outlook amid heterogeneous crop development - Favourable

The winter cereal campaign began with scarce precipitation in December, following the prolonged 2025 drought, leading to initial delays in sowing. From January onwards, precipitation became abundant, exceeding the long-term average in eastern *Mediterranean* (e.g., *Adana*) and *South-eastern Anatolia* (e.g. *Şanlıurfa*), and remained high throughout February. Increased cloud cover in February reduced radiation, delaying phenological development, particularly in *Eastern Anatolia* (e.g., *Erzurum*, *Van*) which also experienced lower temperatures, delaying crop growth.

Regional conditions vary. Early varieties in south-central and southeastern *Anatolia* (e.g. *Konya*, *Şanlıurfa*, *Mardin*), and *Mediterranean* regions (e.g. *Adana*) show generally positive development, although intense rainfall locally caused waterlogging, yellowing, and delays in fertilisation and weed control. Nevertheless, overall rainfall is expected to have a positive impact on crops, with yields likely to exceed those of previous years. In coastal Mediterranean zones, crops are at the stem elongation stage, slightly ahead of the seasonal calendar, with heading already observed at low elevations, while southern *Anatolia* shows stages ranging from end of tillering to heading depending on altitude. In the *Aegean* (e.g., *Manisa*, *İzmir*), conditions are favourable and the outlook is positive. If heavy rainfall in January–February have caused localised flooding, waterlogging and temporary yellowing; recovery has been observed following fertilisation. In the *Aegean* and *Marmara* regions (e.g. *Tekirdağ*), crop development is slightly ahead, with stem elongation ongoing and early heading observed. By contrast, in western *Central Anatolia* and high-altitude *Aegean* areas, crops are less advanced, with winter varieties requiring higher vernalisation. Final yields will depend on rainfall and temperature conditions during pre-heading and grain-filling stages. In *Central Anatolia* (e.g., *Ankara*, *Kırıkkale*, *Yozgat*, *Kırşehir*, *Çorum*), the outlook is positive despite some yellowing observed in barley. Crop development is heterogeneous, and the mild winter favoured varieties with low vernalisation requirements. Phenological differences between spring and winter varieties are noted, with spring wheat and barley developing faster than winter wheat. In *Eastern Anatolia*, crop development is delayed, with crop generally at the tillering stage.

Crop development is expected to accelerate during spring. Biotic stress factors, including early infections and enhanced weed pressure, have been reported in *Marmara*, *Aegean*, and coastal *Mediterranean* regions, driven by high humidity and variable rainfall distribution. Rising fuel and fertilizer prices may also negatively affect farming practices.

Overall, the combination of replenished soil moisture, mild winter conditions, and sufficient reservoir levels supports a positive national outlook, despite

regional disparities in phenological development. Winter cereal yields expected to be close to or above the five-year average, provided that no adverse climatic events occur during the critical late growth stages.

3. Quantitatives forecasts

Quantitative yield forecasts are being tested for the first time this campaign within MED-Amin network framework (see section *4. Methodology* for further details). Greece, Spain and Turkey are participating in this trial as pilot countries. As the methodology is still under development, the results should be interpreted with caution.

The forecasts represent the expected crop yield (t/ha) at harvest. They are calculated using weather data and satellite observations from **20 March 2026**. The deviation from the five-year average and the model error are shown in the two right-hand columns. The results for this first bulletin are likely to underestimate yields in regions that have experienced a phenological delay.

Greece

Region	Crop	5-years avg (t/ha)	Forecast & error (t/ha)	± Error (%)	Diff 5-years avg
Anatoliki Makedonia Kai Thraki *Eastern Macedonia & Thrace*	Soft wheat	3,46	**3,26** *±0,45*	*10,7%*	-6%
	Durum wheat	3,23	**3,29** *±0,72*	*18,8%*	+2%
	Winter barley	3,67	**3,71** *±0,41*	*10,6%*	+1%
Kentriki Makedonia *Central Macedonia*	Soft wheat	3,12	**2,71** *±0,45*	*15,9%*	-13%
	Durum wheat	2,63	**2,27** *±0,43*	*18,0%*	-14%
	Winter barley	3,16	**2,96** *±0,54*	*17,4%*	-6%
Dytiki Makedonia *Western Macedonia*	Soft wheat	2,52	**2,73** *±0,48*	*13,8%*	+8%
	Durum wheat	2,16	**2,06** *±0,68*	*31,0%*	-5%
	Winter barley	2,90	**3,06** *±0,61*	*17,7%*	+6%
Thessalia *Thessaly*	Soft wheat	3,05	**3,30** *±0,43*	*10,9%*	+8%
	Durum wheat	3,35	**3,58** *±0,55*	*14,3%*	+7%
	Winter barley	3,41	**3,28** *±0,40*	*11,0%*	-4%
Sterea Ellada *Central Greece*	Soft wheat	3,22	**3,76** *±4,98*	*46,0%*	+17%
	Durum wheat	3,21	**3,43** *±0,41*	*12,1%*	+7%
	Winter barley	3,48	**3,35** *±0,56*	*12,1%*	-4%

Soft Wheat

Durum Wheat

Barley

First estimates indicate a national yield of 2.88 t/ha for soft wheat, 2.91 t/ha for durum wheat and 2.87 t/ha for winter barley.

4. Methodology

This **bulletin** provides an overview of crop conditions and yield potential for three winter cereals (soft wheat, durum wheat, and barley) in the Mediterranean region for the **2025–2026 season**. It covers the period from sowing up to **14 March 2026**.

This crop monitoring and early warning system has been gradually developed since **2016 by the MED-Amin network[2], in collaboration with the Agri4cast team of the *Food Security* at the European Commission's Joint Research Centre (JRC)[3]**. It provides **early qualitative forecasts** based on a GEOGLAM[4]-inspired approach, using a **two-step methodology**: 1) remote sensing and meteorological data analysis; 2) field feedback through a network of national Focal Points. This approach allows the identification **hot-spots** of concerns at the **subnational** level, relying on nomenclature and diagrams similar to those developed by GEOGLAM for AMIS (*Agricultural Market Information System*), and to disseminatef corresponding alerts.

For the first time this year, **quantitative yield forecasts** based on ***machine learning*** techniques are being experimented for several regions in Spain, Greece, and Türkite. Combining agricultural statistics at the NUTS 2 level over periods ranging from 10 to 25 years with 25 potential yield predictors (meteorological and satellite data, crop model outputs), **three algorithms** are implemented to estimate the potential yields of each crop in each region: PLS (Partial Least Squares Regression), RF (Random Forests), and SVM (Support Vector Machine). The choice of the most relevant estimate is left to the national Focal Points based on field feedback.

The maps presented in Section 3. were created using the boundaries of the **NUTS** (European Commission) and **GAUL 2** (FAO) regions:

- *FAO. 2024. Global Administrative Unit Layers (GAUL). [Accessed on 08 April 2026]. https://data.apps.fao.org/?lang=en. Licence: CC-BY-4.0.*[5]
- *European Commission, Eurostat, GISCO. 2024. Nomenclature of Territorial Units for Statistics (NUTS) 2024 - Statistical Units - Data set, https://gisco-services.ec.europa.eu/distribution/v2/nuts/, [Accessed on 08 April 2026]. Licence: CC-BY-4.0.*

[2] The MED-Amin network, which brings together 13 Mediterranean countries and is coordinated by the CIHEAM (International Centre for Advanced Mediterranean Agronomic Studies), aims to strengthen transparency in agricultural markets and improve food security across the Mediterranean region (https://www.med-amin.org/en/)
[3] http://ec.europa.eu/jrc/en/mars
[4] http://cropmonitor.org
[5] Creative Commons Attribution 4.0 International (CC BY 4.0) licence.

The forecasting methodology is based on the monitoring of crop conditions using remote sensing indicators (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 (2015-2024) allows us detecting areas of concern, which are characterized using a GEOGLAM based 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 and field observation from local experts.

Crop conditions legend (adapted from 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 stage to the harvest stage. Yields are anticipated to be ***more than 10% above average****.*

- Favourable: Conditions are close to or slightly better than average at the time of reporting. From the grain-filling stage to harvest, it indicates yields anticipated to range ***from average to 10% above average****.*

- Watch / Moderate: Conditions are close to average, but there is a potential risk to final production. From the planting/early vegetative stages to reproductive stages, the "Watch" label indicates that crops may still recover if conditions improve. From the grain-filling stage to harvest, the "Moderate" label indicates that yields are anticipated to be ***slightly to moderately below average, down to 10% below average****.*

- Poor: Conditions are well below average and are very likely to impact production, resulting in a harvest clearly below average. From the grain-filling stages to harvest, yields anticipated ***between 10-25% below average****.*

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- Crop failure: Crops have been severely damaged, with low yield and reduced area expected to strongly impact the production. This label is generally used from the grain-filling stages to harvest. Yields are anticipated to be ***less than 25% below average****.*

Crop conditions Drivers (adapted from GEOGLAM nomenclature)

*- **Wet:** précipitations totales accumulées significativement supérieures à la moyenne.*
*- **Dry:** sécheresse et/ou période de pluie faible ou inexistante.*
*- **Hot:** températures inhabituellement supérieures à la moyenne.*
*- **Cold:** températures inhabituellement inférieures à la moyenne.*
*- **Extrem events:** survenance d'événements météorologiques extrêmes (tempêtes, gel, grêle, dégâts causés par le froid ou le vent, etc.).*
*- **Delayed onse :** début de la saison tardif ou retard important des opérations culturales.*
*- **Biotic stress:** impact sur les cultures causé par des organismes vivants (virus, bactéries, champignons, nématodes, insectes, adventices, etc.).*
*- **Low input:** utilisation réduite d'intrants (engrais, pesticides) pouvant avoir des répercussions sur les futurs rendements et la qualité des grains.*

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.

Follow the evolution of the harvest forecasting throughout the campaign

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Authors

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

Pierre TODOROFF (EC-JRC, Ispra)
Pierre.TODOROFF@ec.europa.eu

European Commission

CIHEAM
International Center for Advanced Mediterranean Agronomic Studies

MED-Amin
Coordination
CIHEAM Montpellier