

# MED-GOLD DASHBOARD

for durum wheat sector users

## WHEAT SECTOR & CLIMATE CHANGE

Durum wheat and pasta production are highly affected by weather and climate conditions. Climate change is increasing the incidence of extreme weather events, such as heatwaves and droughts. As the climate continues to change in the future, anticipating such events is key for the adaptation of the durum wheat sector.

Climate variability and climate change pose diverse challenges in the decision-making processes of durum wheat producers, such as in agro-management (e.g. planning of fertilisation and crop protection), stock management and strategic decisions in the long term (e.g. selection of new varieties and cultivation areas). Climate services, particularly predictions of climate variables and bioclimatic indices, can support critical decisions along the durum wheat food chain.

Read more on [Climate Services for the Durum Wheat and Pasta Sector](#) in the MED-GOLD infosheet.

## MED-GOLD DASHBOARD FOR THE DURUM WHEAT SECTOR

The MED-GOLD dashboard is an easy-to-use visualisation tool that provides access to information on past climate and predictions of future climate at different time scales. Currently, durum wheat sector users can explore past observations and seasonal forecasts on the hydrological balance during the crop cycle. The tool has been co-developed with users to ensure that it addresses their needs and expectations.

You can access the dashboard on the MED-GOLD website, and by visiting: [dashboard.med-gold.eu](https://dashboard.med-gold.eu)

## ABOUT MED-GOLD

MED-GOLD is a 4-year European project on "Turning climate-related information into added value for traditional MEDiterranean Grape, OLive and Durum wheat food systems". MED-GOLD aims to make European agriculture and food systems more resilient, sustainable and efficient in the face of climate change by using climate services to minimize climate-driven risks and costs.



**1** Timescale\*

- **Historical Climate:** past and near-present information
- **Seasonal Forecast:** predictions for the next months

**2** Type of variables\*

- **Bioclimatic indicators:** indicators taking into account the climate and phenology of durum wheat, e.g. crop cycle

**3** Region of interest  
(for durum wheat, the defined region of interest is "Italy")

**5** Variable of interest  
(for durum wheat, the available variable is HybICyc - Hydrological balance during the crop cycle)

**7** Other options/filters that change according to selected timescale, e.g. forecast skill

**4** Location  
(search by geographic coordinates, city or country)

**6** Time period of interest

**8** Export data

\*Note that the timescales, types of variables etc. discussed in this user guide are those developed for the durum wheat sector in Italy. Users can also explore other regions and variables relevant for agriculture but not directly developed for this sector through the dashboard.

# USE CASE

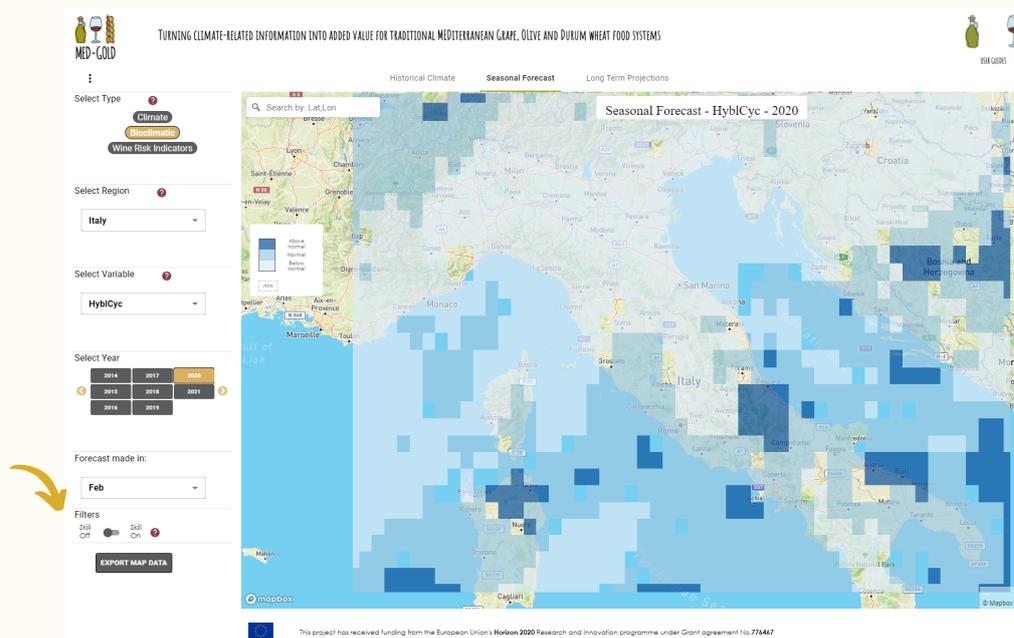
You are a farmer growing durum wheat in different fields close to Ravenna, Italy. You are currently at the beginning of the crop season. Fertiliser application has a direct impact on grain yield and quality, so you want to make sure that you apply the correct amount and type of nitrogen fertiliser when the crop has the highest nutrient demand. You need to know the climate conditions to plan accordingly.

*Is it going to be specially wet or dry during the fertiliser application?*

1. First, choose the Seasonal Forecast functionality.
2. Select the "Bioclimatic" option.
3. Set the region to "Italy" (the variable is automatically set to HyblCyc, the hydrological balance during the crop cycle).
4. Next, select the current year and set the current month as the date in which the forecast is issued, relevant to your case (e.g. *February*).
5. To see how good the predictions were in the past, click at your region of interest on the map. A chart will appear where circles correspond to the observations in past years, and squares show model predictions (above normal, normal and below normal).

## HOW ACCURATE IS THE PREDICTION?

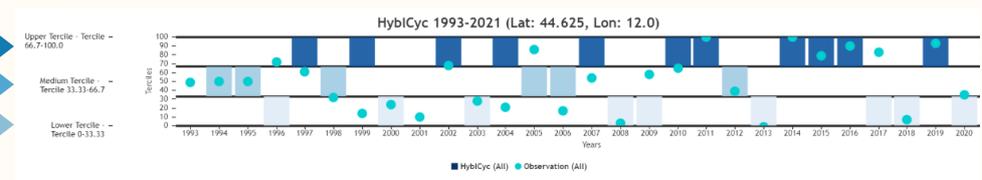
Turn on the "Skill" filter option to hide areas where the prediction is not reliable enough for decision-making.



**Wetter than normal**  
(upper tercile, 66.7-100)

**Normal**  
(medium tercile, 33.3-66.7)

**Drier than normal**  
(lower tercile, 0-33.3)



You can export the map and chart, and use them to plan the fertiliser application based on the seasonal forecasts and their prediction accuracy in your area in the past (seen in the chart). Based on the expected conditions during the fertilisation period, you can plan to distribute the right amount of fertiliser so that your crop will not have nutrient deficits.