



GLOBAL YIELD GAP ATLAS

An agronomic database platform with local and global relevance to support your decision on yield optimisation

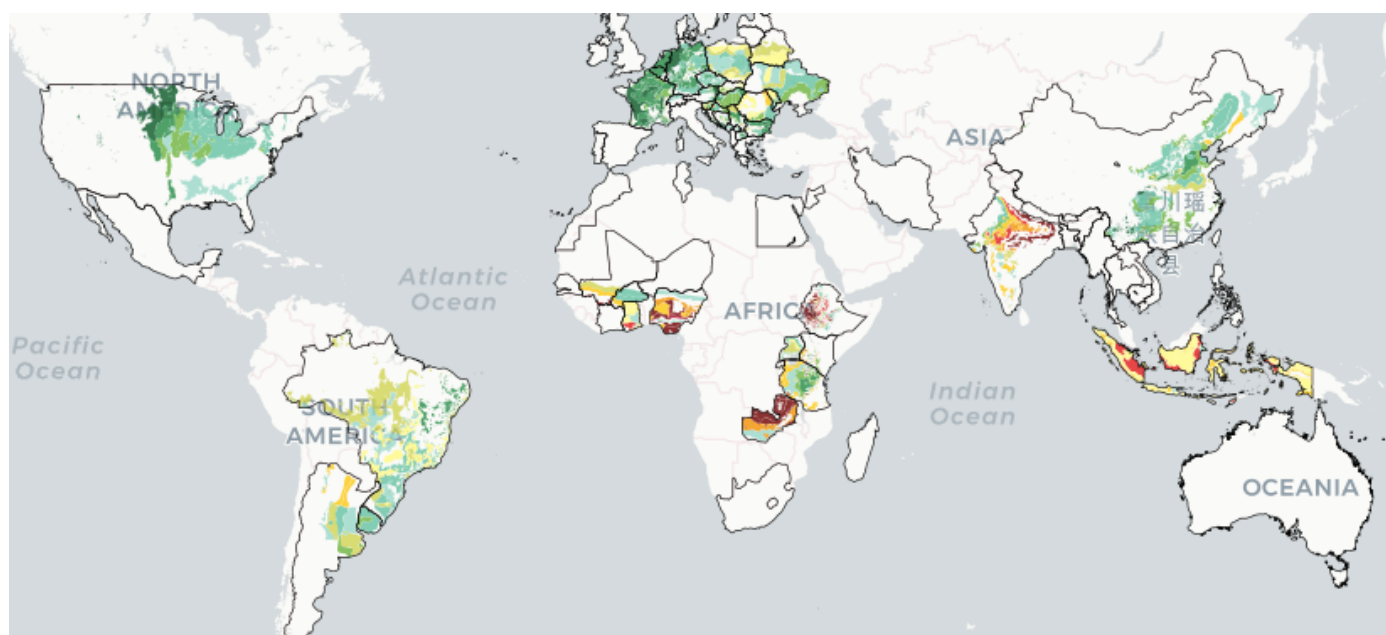


Figure 1: The world's overview of the yield gap for rainfed maize with spatial resolution at 'climate zones' level (see also Figure 3 for the map settings and legend)

WHAT IS GLOBAL YIELD GAP ATLAS (GYGA)?

Global Yield Gap Atlas (GYGA - www.yieldgap.org) offers **high-quality and locally relevant data** on yield gap and potential, water productivity, nutrient requirement, and other agronomic data such as weather, soil, and crop management system. GYGA has now coverage of **up to 13 food crops** across **70 countries** and **six continents** with the possibility of expansion.

Since 2011, the platform has achieved almost **25,000 data downloads by private/public/non-profit sectors** including agricultural input companies (e.g. seeds, agrochemicals, biostimulants), consultancy companies, financial agencies, governments, donors, research institutions, and NGOs as reference points for strategic decision making and research on yield optimisation.

What makes GYGA unique in comparison to other data sources?

1. Offers **high-quality and locally relevant data** that are collected by following a **"bottom-up" global protocol** to organise soil, climate, and cropping system data. Learn more about our [GYGA protocol](#).

WHAT ARE THE POTENTIAL APPLICATIONS OF GYGA?

1. Market identification and selection of priority areas for investment, field trials, or scaling out of products.
2. Impact assessment of agricultural investment by measuring progress of indicators (e.g. yield gap, water productivity).
3. Locally relevant data for crop modelling
4. R&D and product development
5. Foundation for research on how to close yield gaps and analysis on food security, land use, and climate change.

2. Follow a leveled approach for data source selection with **a preference for use of primary data** and the need for local knowledge of agronomic practices **by collaborating with leading agronomists** in the countries.
3. Offers data that is available at **different spatial levels**: a) Location, b) Climate zones, and c) National. Check out [GYGA Map Viewer](#).
4. GYGA has established **scientific credibility** since it was founded as its methods and applications have triggered hundreds of well-cited scientific publications. Learn more about [GYGA publications](#).



Want to extend GYGA's benefits to your organisation? Learn more about [GYGA license and sponsorship subscription](#). Become one of the first 15 sponsors and annual licensees to get your 10% early bird discount! Our current sponsors and annual licensees include Bill & Melinda Gates Foundation, Yara, and a number of world's leading agro-chemicals, biostimulant, renewable energy, and consultancy companies.

Get on board together on our journey towards a climate-positive food future through data-driven agronomy! **Got questions or see scope of partnership?** Contact us at gyga.support@wur.nl.

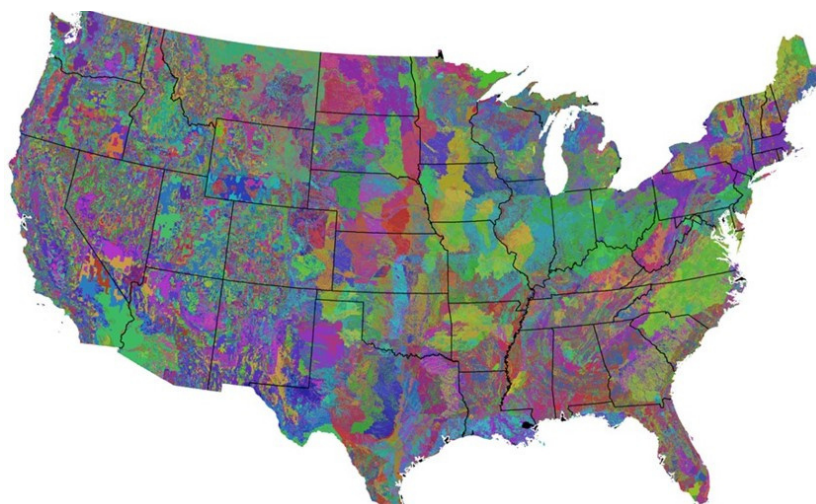


Figure 2: Technology Extrapolation Domains (TEDs) is a tool developed by the GYGA team that delineates geographic domains based on similar climate and soil (currently available for USA and Sub-Saharan Africa). Learn more [here](#).

Map settings

Yield indicator Map view

Resolution: Climate zones

Crop & Water regime: Cereals Rainfed
 Grain legumes Irrigated
 Other crops

Rainfed maize

Indicator: Potential yield (Yw) Actual yield (Ya)
 Yield gap (Yg) Nutrients
 Water productivity (WP)

Absolute yield gap (Yg) Yw-Ya

Variable: Mean value

Apply SPAM crop mask No Yes

Legend:

tonnes/harvested ...	tonnes/harvested ha
up to 1	6 - 7
1 - 2	7 - 8
2 - 3	8 - 9
3 - 4	9 - 10
4 - 5	10 - 11
5 - 6	more than 11

Figure 3: Map settings of yield gap for rainfed maize with spatial resolution at 'climate zones' level (see Figure 1 above)

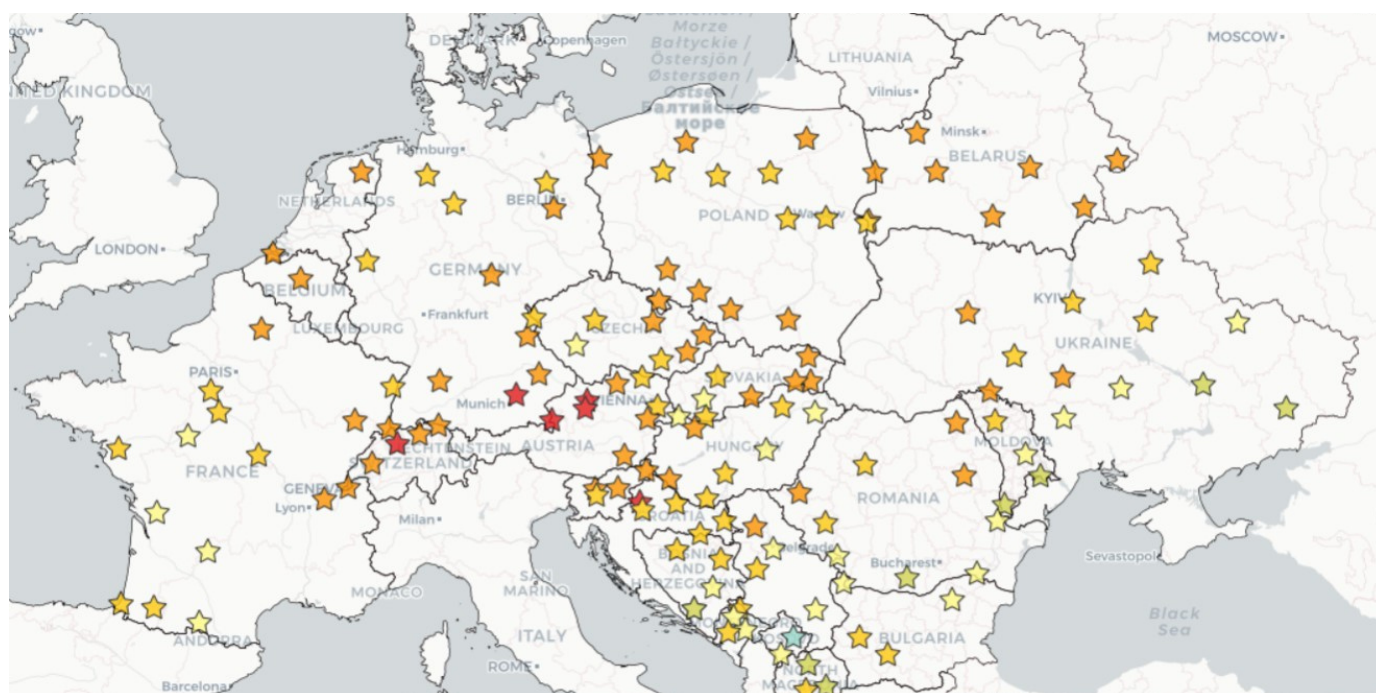


Figure 4: Minimum nitrogen input requirement for a target yield of 80% of yield potential for rainfed maize in Europe (kg N/harvested ha) . Learn more [here](#).