

Genesys

For genebanks

Raise the visibility of your collection and conservation efforts

Genesys is an online portal where genebanks share information about their crop diversity with users around the world. As of January 2023, Genesys includes:

4 million+
Accession records

500+
Genebanks

440+
Characterization & evaluation datasets

By including your accession data in Genesys, you will:

- Have an online presence along side other genebanks around the world
- Reach a global and diverse audience
- Take the quality of your data to the next level

Genesys is built for discovery

It lets you explore accession data in different ways, across hundreds of genebanks. For example, you will be able to use our tools to find accessions in other genebanks that are similar to material in yours.

Save your staff the task of double reporting

Genesys is linked to FAO WIEWS, Easy-SMTA, and the DOI Registration Service, as an important part of the Global Information System of the International Treaty on PGRFA, and is connected to other key databases. Data in Genesys is used by FAO for their reporting on the Sustainable Development Goals. Genesys automatically informs the DOI Registration Service about any updates to your data.

Our team's support begins before going online

The Genesys team helps you organize, validate and clean your data before publication. Reach out to us for more information on our tools for validation of taxonomic names and geographic coordinates, for guidance on acquiring accession DOIs, and more.

Want to know more?
Visit Genesys at www.genesys-pgr.org
Want to join Genesys?
Send an email to helpdesk@genesys-pgr.org

Genesys is operated and developed by the Crop Trust.

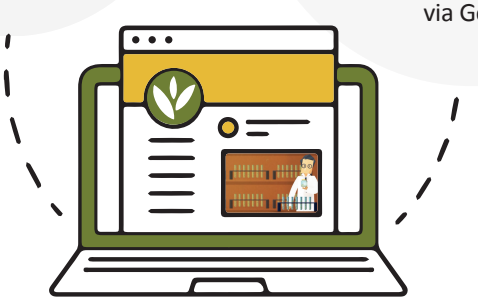
Genesys is intended to provide public access to the information on your collection. You can decide exactly what data you wish to make public, and you retain ownership over it.

Your online starter pack

With these Genesys services, you can reach more potential users of the germplasm in your genebank, and of the data associated with it.

Our team puts out regular information products

You can allow users to request germplasm from your genebank via Genesys



Your genebank has its own landing page in Genesys, maintained by our team, but managed by you

You can integrate your Genesys data and functions in your own institute's website

Our **Embedded Genesys** can save you time and money by integrating data from Genesys directly into your own website. Many genebanks use this option as a simple alternative to hosting and maintaining separate public databases.



Genesys

For users of genebanks and their data

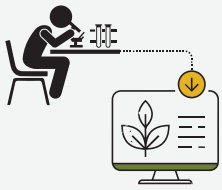
Your one-stop-shop for the crop diversity conserved around the world



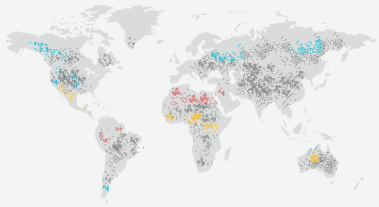
Access standardized data from more than 500 genebanks, ready to explore online or download.



Use advanced tools to search through more than four million accessions using a rich mix of data.



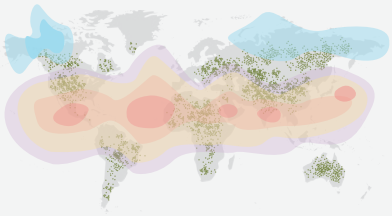
Search 440+ datasets of characterization & evaluation to find the accesions with the traits you need.



Create your own subsets of accessions collected from the field based on the climate and soil variables of your choice.



Find similar accessions held in different genebanks with the help of our Similarity Search tool.



Identify accessions with specific adaptations by analysing the climate where they were collected.

In search of lost seeds

Genesys can help you identify the crops that are under-represented in genebanks, and the geographical locations that collecting missions may have missed, or only visited a long time ago, which can guide future collecting missions.

Ramirez-Villegas, J., Khoury, C.K., Achicanoy, H.A. *et al*. State of ex situ conservation of landrace groups of 25 major crops. *Nat. Plants* **8**, 491–499 (2022). https://doi.org/10.1038/s41477-022-01144-8

From little seeds...

Passport data from Genesys has been used to develop and update global strategies that will guide the conservation of key-crop diversity. You can access these strategies at: https://www.croptrust.org/pgrfa-hub/ex-situ-conservation-strategies/

Solberg, S., van Zonneveld, M., Rakha, M. T. , Taher, D. I. , Prohens, J., Jarret, R. van Dooijeweert, W., and Giovannini, P., 2022. Global strategy for the conservation and use of eggplants. Global Crop Diversity Trust. Bonn, Germany.

Seeds for all seasons

With the help of Genesys Climate Search tool, scientists have identified a set of accessions collected from environments with extreme weather conditions, with the aim to produce crops that withstand a changing climate.

Humphries, AW., Ovalle, C., Hughes, S., et al. Characterization and pre-breeding of diverse alfalfa wild relatives originating from drought-stressed environments. Crop Science. 2021; 61: 69–88. https://doi.org/10.1002/csc2.20274

You can request material from some genebanks through Genesys. If you found an accession that you like, but that is not available for distribution from one genebank, you can use our Similarity Search tool to look for an alternative accession in another genebank.

Want to know more?
Visit Genesys at www.genesys-pgr.org
Want to access advanced features?
Go to https://www.genesys-pgr.org/registration

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