

Securing the future of food is one of our greatest challenges. Too many people go to bed hungry. Meanwhile, the land, soil and water we use to grow food are under increasing pressure. Agriculture relies on these resources but also contributes to their depletion. Conflict, biodiversity loss and climate change make the situation worse. But there is still reason for optimism.

Crop diversity is the answer. It offers a way to produce more – and more nutritious – food, in a sustainable way, so the growing global population can thrive. Through collaboration, innovation and effective conservation and use of crop diversity, we can build resilient food systems that ensure food security in the face of any challenge.

# **Crop Diversity is the Solution**

Crop diversity exists both between species and within species. Protecting this diversity is crucial for the future of agriculture and food security. Yet, today's food systems are alarmingly uniform. Wheat, maize and rice dominate. They occupy over half of global cropland and supply nearly two-thirds of the calories that the world eats. And a recent survey revealed a decline in the diversity of many crops over time in 80% of studies.

This uniformity is bad for the future of food. Growing a wide range of crops would improve resilience and nutrition, and the genetic diversity within crops allows us to develop more resilient, higher-yielding and nutritious varieties.

However, to harness these benefits, we must first conserve crop diversity – before it is lost forever. That means growing more diversity in farmers' fields, but also safeguarding seeds in genebanks. This is a race against environmental degradation, the changing climate, pests, diseases and socio-economic pressures.

It's a race we cannot lose. Without crop diversity – without genebanks – we lose our ability to transform agriculture to create resilient food systems while improving nutrition and taste. The time to act is now – before this irreplaceable resource disappears forever.



## The Crop Trust Can Deliver the Solution

Genebanks are like libraries. They store seeds safely and make them accessible to all who need them, under agreed rules. But just like libraries, genebanks need funding, skilled staff and data systems to find and share what's inside.

The **Global Crop Diversity Trust (Crop Trust)** is the only international organization solely focused on securing crop diversity in genebanks over the long term, so researchers, breeders and farmers can use it. We support key genebanks in collecting, regenerating, conserving, backing up and distributing seeds.

Our mission is more urgent than ever. Crop diversity is under threat in nature, on farms and even in genebanks themselves, which face risks like chronic underfunding, natural disasters and armed conflict. Losing crop diversity means losing the ability to adapt agriculture to future challenges – forever.

The Crop Trust strengthens the global network of genebanks, which together safeguard over 5.9 million samples. Most of these samples are seeds that can be stored at -18°C for decades, which ensures their availability for future generations. For crops that do not produce seeds or have seeds that cannot be dried and frozen, cryopreservation can freeze plant samples at ultra-low temperatures until needed.

Like libraries, genebanks also share their contents. Through the International Treaty's Multilateral System (MLS), over 800,000 seed samples are exchanged annually to develop resilient new crops. Tools like Genesys help researchers find the samples they need, helping science overcome today's challenges and ensure we can meet future food needs.



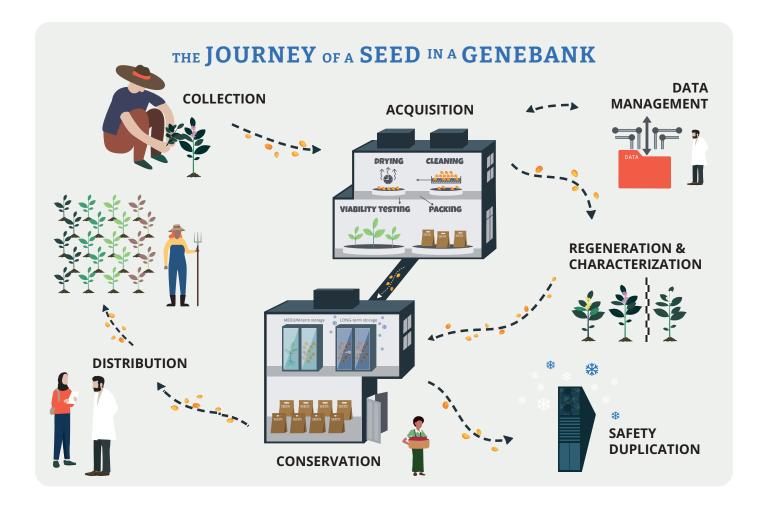
### A Great Start ...

Since its founding in 2004, the Crop Trust has provided over USD 425 million in financial support to genebanks from our Endowment Fund and projects.

Our **Endowment Fund** ensures stable, long-term support for key genebanks, helping secure a global public good. It is an essential element of the funding strategy of the International Treaty on Plant Genetic Resources for Food and Agriculture. Income from investing in the Endowment Fund currently supports:

- CGIAR genebanks 11 international genebanks conserving 750,000+ samples of crops, some of the most studied and used in the world.
- Centre for Pacific Crops and Trees Based in Fiji, CePaCT conserves taro, yam and other Pacific staples.
- World Vegetable Center Holds 65,000+ varieties of numerous vegetables in two genebanks, including Africa's only dedicated vegetable facility.
- **Svalbard Global Seed Vault** The world's ultimate backup seed storage facility deep in the Arctic permafrost in Norway.





The Endowment Fund also supports the development of essential digital tools to enhance the management and accessibility of crop diversity:

- **Genesys** is a global online platform that enables data sharing by genebanks worldwide.
- GRIN-Global Community Edition (GGCE)
   offers a flexible, tailored system for managing
   genebank operations.

These tools ensure efficient information flow, strengthening conservation efforts and driving agricultural innovation.

The Crop Trust also raises project funds. In 2024 alone, USD 18 million supported efforts to strengthen the infrastructure of national genebanks, document crop diversity, back up collections in Svalbard, and promote the use of wild relatives and opportunity crops. Current projects include:

**Global Crop Conservation Strategies** – Since 2007, the Crop Trust has coordinated the development of 41 global crop conservation strategies. We are currently mainstreaming these strategies into International Plant Treaty processes to support evidence-based decision-making and track conservation progress.

**Seeds for Resilience** – Since 2019, this project has supported five national genebanks in Africa with funding and expert guidance to ensure their seed collections are secure and accessible.

**BOLD** – The Biodiversity for Opportunities, Livelihoods, and Development project helps national genebanks safeguard crop diversity and make it available. BOLD also supports researchers developing new crop varieties and strengthens seed systems. This helps smallholder farmers and enhances food security and nutrition. The BOLDER initiative of BOLD promotes opportunity crops. These crops can change farmers' lives but have been largely neglected in research, policy and development.

**Power of Diversity Funding Facility** – Launched in 2024, this transformative initiative promotes the use of opportunity crops across Africa, Asia, the Pacific, and Latin America and the Caribbean.

### ... But Far More Needs to Be Done

Despite these efforts, much of the world's crop diversity remains at risk. Now is the time to invest in securing it for future generations. The Crop Trust stands ready as a committed partner in the global effort to achieve food security.

A resilient global genebank system requires sustained investment in quality management, knowledge sharing, digital tools and improved genebank facilities.

To meet our mandate, the Crop Trust's Endowment Fund must more than double in size, even as demand for targeted, time-bound projects continues to grow.

# **Giving Opportunity Crops a Chance**

Staple crops like rice, wheat, and maize provide a huge share of the world's calories. However, there are thousands of edible plant species – many just waiting to be rediscovered, and they can transform agriculture, nutrition and livelihoods.

Harnessing the diversity of these lesser-known crops brings countless benefits. Many are naturally more tolerant to rising temperatures and water scarcity, more resilient to emerging pests and diseases, and require fewer chemical inputs. They are productive, mitigate risks through intercropping, and create new economic opportunities.

Beyond practical advantages, these crops enrich our culinary traditions and help define cultural identities. Their cultivation and preparation are deeply rooted in local heritage, preserving flavors and food traditions across the generations.

We call them opportunity crops – plant species with immense but unfulfilled potential to strengthen food and nutrition security. Despite their promise, they remain under-researched and underfunded, leaving farmers, investors and policymakers without the data needed to scale their use. We must invest in these crops and unlock their potential for a more resilient food future. The Crop Trust is doing through this our BOLDER initiative, the Power of Diversity project and support for the WorldVeg's global vegetable biodversity initiative, Vegetables4Life.

and nutritional security for all generations to come.



# Tip of the Iceberg

The Svalbard Global Seed Vault is the world's ultimate backup facility for the crop diversity conserved in genebanks. The Seed Vault is an essential insurance policy for our food supply. It accepts three seed deposits a year from genebanks around the world and currently holds over 1.3 million seed samples. Located in the Arctic permafrost, the Seed Vault was established in 2008 and is owned by Norway. It is operated in partnership by the Norwegian Government, the Nordic Genetic Resource Center (NordGen) and the Crop Trust – working together for the future of agriculture.

# The Crop Trust cannot achieve its mission on its own. To secure the future of food, we partner with all kinds of genebanks, other scientific institutions, governments and the development community. Meeting the challenges we face requires collaboration. We are in this together. We are committed to engage widely to advance our mission. Together with our partners, we can tap the power of crop diversity to ensure food



