

# CUCURBITS WG REPORT (2024–2025)

In preparation for the 18th Steering Committee Meeting, Tbilisi, Georgia, 2-4 June 2026

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Date of compilation: 4 February 2026

## 1. CONTRIBUTION TO ECPGR OBJECTIVES

### 1.1. Achievements and success stories

- To efficiently conserve and provide access to unique germplasm in Europe through AEGIS and the European Collection  
A survey of the local genetic germplasm of *Cucurbita* was conducted through the Cucurbitlocal project.
- To provide passport and phenotypic information of actively conserved European PGRFA diversity ex situ and in situ through the EURISCO catalogue  
Existing *Cucurbita* local genetic resources at IPK, UPV, SVG have been reviewed to promote the rational and effective conservation and management of PGRs in European collections
- To improve *in situ* conservation and use of crop wild relatives  
A study on the adaptation potential of local Cucurbit germplasm to different agroclimatic and stress conditions was conducted, with the aim of improving the use of these materials in local agricultural systems, and made available in the EURISCO repository.
- To promote on-farm conservation and management of European PGRFA diversity  
Morphological and agronomic characterization of local Mediterranean germplasm was performed under low-input conditions in collaboration with farmers. The results achieved promoted the visibility of genetic resources and their sustainable use by the related communities.
- To promote use of PGRFA  
A germplasm exchange was conducted within the Cucurbitlocal project, facilitating the sustainable use of *Cucurbita* resources.

### 1.2. Gaps or constraints identified

- Key gaps in germplasm collection include significant under-representation of specific, locally adapted varieties and wild relatives in genebanks, limited resources for collecting, and loss of stored seeds
- Many countries lack the funding, capacity and coordination needed to collect, characterize and maintain germplasm

- The characterization of genetic resources adapted to climate change is slow or inconsistent.

## 2. GRANT SCHEME ACTIVITIES, WG MEETINGS AND EVA ACTIVITIES

- **Grant Scheme proposals (submitted:1; approved:1)**
  - [Cucurbitlocal](#) (Exploitation of Cucurbita local germplasm for sustainable agriculture)
- **Total number of partners involved in Grant Scheme: 5 from 5 countries**
  - ECPGR-funded: 3 from 3 countries
  - Self-funded: 2 from 2 countries
- **Meetings held**
  - None
- **Total number of partners involved in WG Meeting: n/a**
- **Reports and related data**
  - [Cucurbitlocal final report](#)
- **Funds mobilized (Phase X)**
  - ECPGR granted funds: €19,800
  - Inputs in-kind declared in Grant activities: €1,000

## 3. OTHER ACTIVITIES (CROSS-WORKING GROUP ACTIVITIES, LINKS WITH OTHER NETWORKS, PROJECTS AND INITIATIVES)

- **Cross-Working Group activities:** The XIII EUCARPIA Meeting on Cucurbit Genetics and Breeding, held from November 3–6, 2024, in Vico Equense, Italy, provided a key forum for sharing advancements on conservation of genetic resources, genomics approaches, plant responses to biotic and abiotic stress and strengthening networks among international researchers: <https://eucarpiacucurbits2024.org/>
- **Others:** A *Euphytica* special issue was released to describe the state of the art on cucurbit genetic resources conservation and use in plant breeding: <https://link.springer.com/collections/ggqiecbijc>

## 4. WORKING GROUP DOCUMENTS AND PUBLICATIONS

- Chikh-Rouhou H, Lohwasser U, Pico-Sirvent B, León AF, García-Martínez S, Guadagno A, Amoroso C, Ercolano M. 2023. Cucurbitlocal – A collaborative initiative to strengthen valorization of *Cucurbita* local germplasm for sustainable agriculture.

*Cucurbit Genetics Cooperative Report 46: 33-34.* url: [https://cucurbit.info/wp-content/uploads/2023/07/CGC46\\_complereport.pdf](https://cucurbit.info/wp-content/uploads/2023/07/CGC46_complereport.pdf)

## **5. EXPECTED ADDITIONAL ACHIEVEMENTS AND FUTURE ACTIVITIES**

Sustainable cucurbit conservation should be based on strengthening Europe's largest *ex situ* germplasm banks, focusing specifically on wild species to counter genetic erosion, and integrating advanced molecular tools to monitor the genetic base. Conversely, the rapid loss of traditional and genetically diverse landraces requires urgent conservation strategies focused on the *in situ* cultivation of underutilized genetic material at the European level.