Greek leafy vegetable plant genetic resources

National collection • conservation • documentation • use

Leafy Vegetables Working Group

ECPGR / EVA Lettuce Network meeting

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ELGO-DIMITRA



Institutional framework

ELGO-DIMITRA

Public agricultural research organization

Supervised and mainly financed by the Ministry of Rural Development and Food.

Institute of Plant Breeding & Genetic Resources

IPB&GR

Research, breeding and conservation of plant genetic resources.

Greek Gene Bank

Established 1981

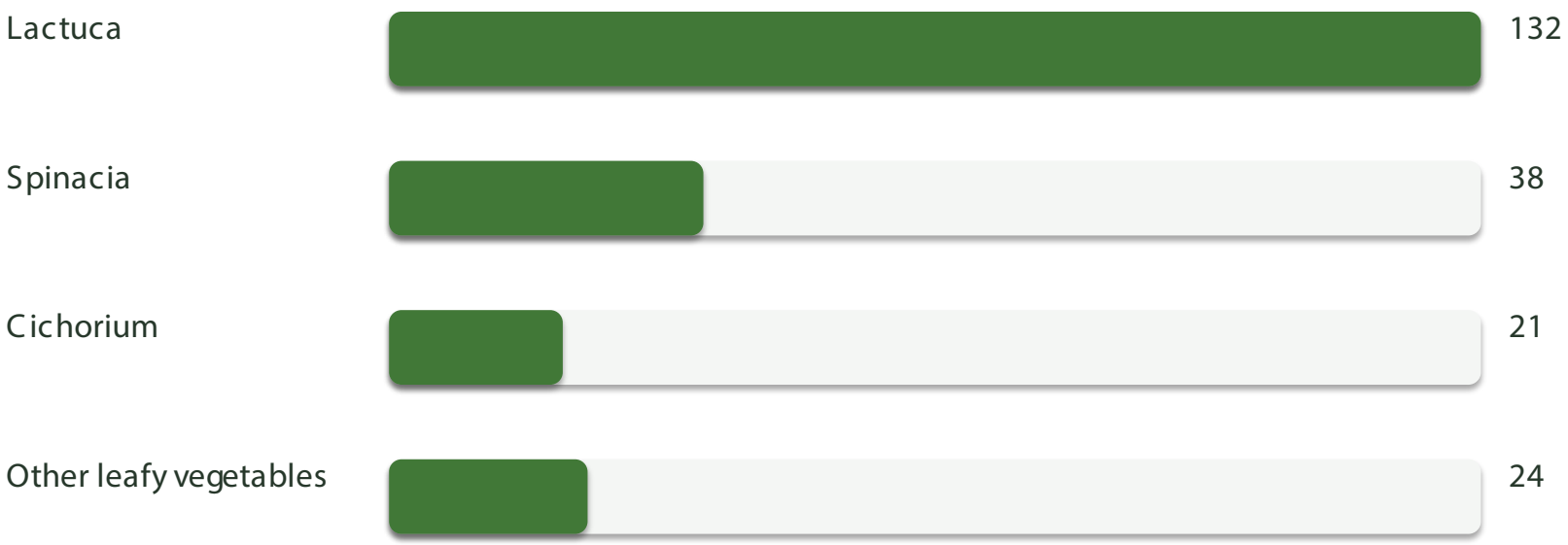
>15,000 samples representing 280 species; mainly conserved as seed in cold rooms.

- Collection, propagation, conservation, evaluation and utilization of plant genetic resources.
- Documentation and exchange of plant genetic material and information.
- Support for breeding programmes and sustainable agriculture.
- Identification of areas for in situ conservation of CWR and on-farm conservation of threatened landraces.

National leafy vegetable collection

215

accessions



Lactuca

132

Main component of the collection.

Spinacia

38

Spinach accessions.

Cichorium + others

45

Chicory and minor leafy vegetables.

Source: Leafy vegetables_PR.xlsx, Sheet 3

https://www.fao.org/wiews/data/ex-situ-sdg-251

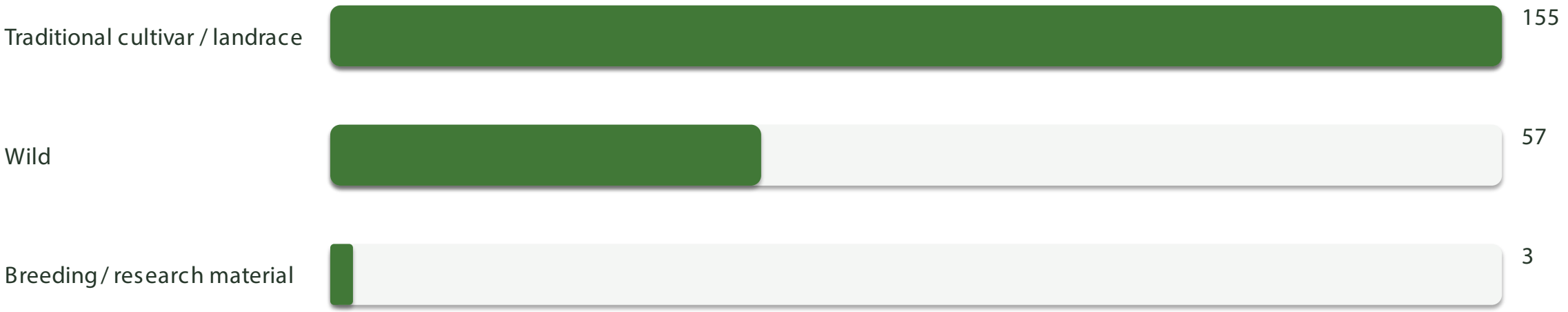
Diversity within the collection

Lactuca
132
Lactuca spp.

Spinacia
38
S. oleracea.

Cichorium
21
Cichorium spp.

Other taxa
24
Eruca, Cynara, Asparagus, Rumex, Chenopodium.



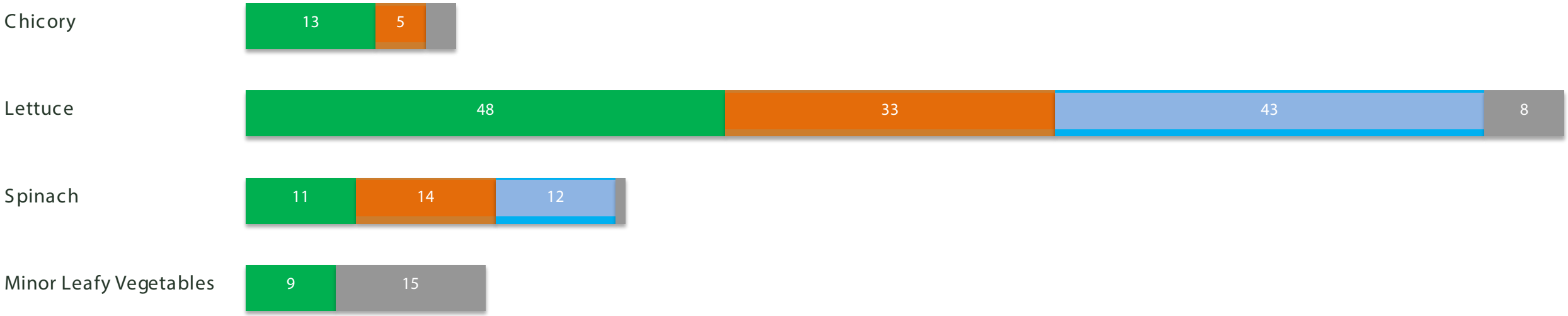
The collection includes a substantial CWR component, particularly within Lactuca.

Source: Leafy vegetables_PR.xlsx, Sheet 3; biological status codes in the dataset

Availability of accessions

Current dataset

Available	Not available	Not enough seeds	Not specified
72	61	55	27
Y = Yes	N = No	NE	No availability code entered



Priority: clarify availability status and regenerate / update records where needed.

Source: Leafy vegetables_PR.xlsx, Sheet 3

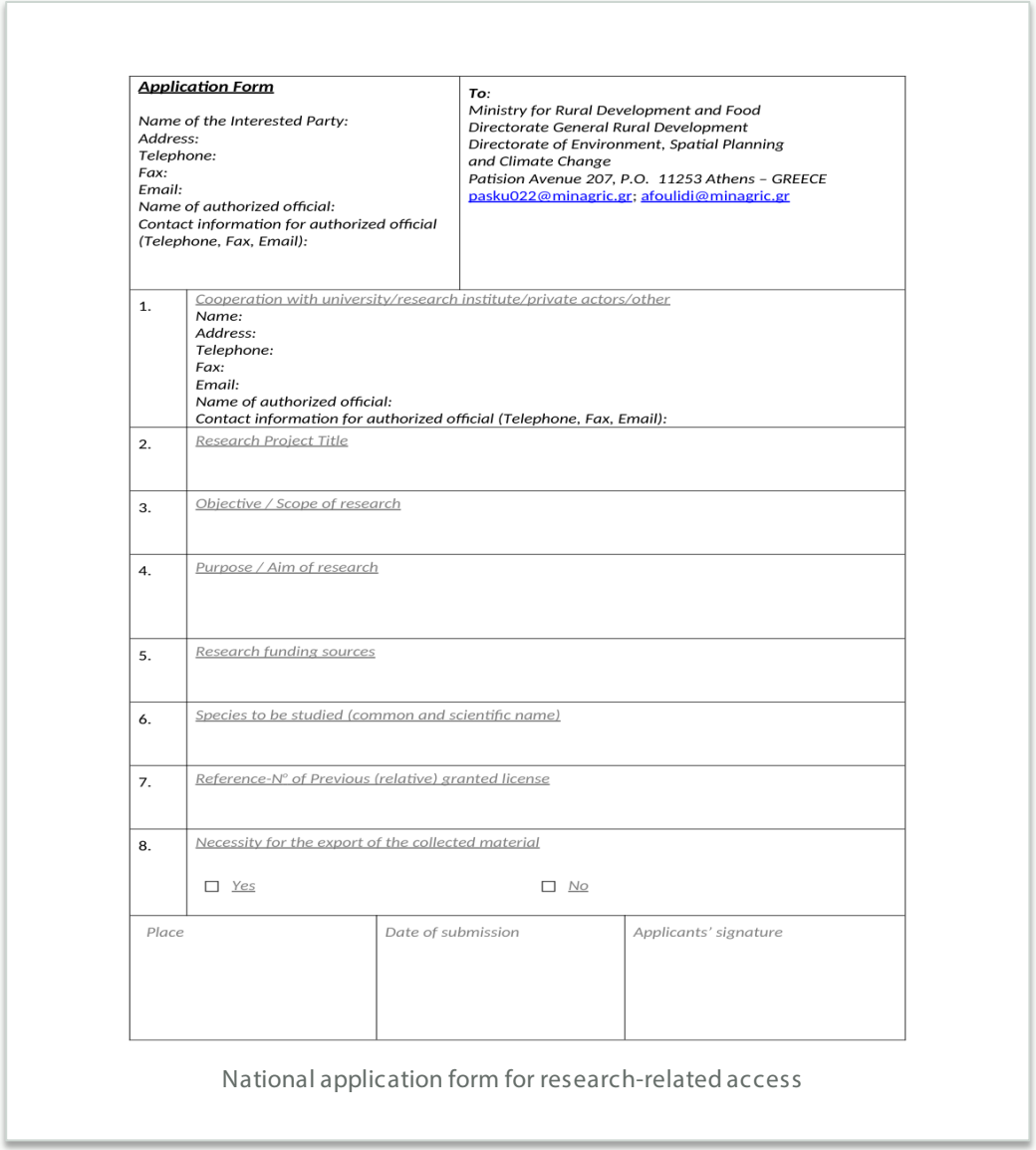
Access to Plant Genetic Resources

National administrative procedure for research-related access

The application requires:

- Research institution / partners
- Research project title
- Objectives, scope and purpose of the research
- Funding source
- Plant species to be studied
- Reference to any previous relevant license
- Whether export of collected material is required

Access therefore depends not only on collection availability, but also on the applicable administrative procedure.



Application Form *Name of the Interested Party:* *Address:* *Telephone:* *Fax:* *Email:* *Name of authorized official:* *Contact information for authorized official (Telephone, Fax, Email):*		***To:*** *Ministry for Rural Development and Food* *Directorate General Rural Development* *Directorate of Environment, Spatial Planning and Climate Change* *Patision Avenue 207, P.O. 11253 Athens – GREECE* pasku022@minagric.gr; afoulidi@minagric.gr
1.	*Cooperation with university/research institute/private actors/other* *Name:* *Address:* *Telephone:* *Fax:* *Email:* *Name of authorized official:* *Contact information for authorized official (Telephone, Fax, Email):*	
2.	*Research Project Title*	
3.	*Objective / Scope of research*	
4.	*Purpose / Aim of research*	
5.	*Research funding sources*	
6.	*Species to be studied (common and scientific name)*	
7.	*Reference-N° of Previous (relative) granted license*	
8.	*Necessity for the export of the collected material* ☐ *Yes* ☐ *No*	
Place	*Date of submission*	*Applicants' signature*

National application form for research-related access

Source: Ministry of Rural Development and Food – Application Form

Documentation and EURISCO

Current constraint

EURISCO Data Sharing Agreement

Pending signature

National Focal Point

Required coordination

The agreement assigns responsibility for coordinating and uploading Greece's National Inventory.

Annual data provision

At least once per year

The agreement specifies annual provision of non-confidential national inventory data to EURISCO.

- EURISCO is the European entry point for information from National Inventories of Plant Genetic Resources.
- The current pending signature is a practical constraint to regular national data updating.
- Finalization of the agreement would strengthen European visibility and accessibility of Greek genetic resources.
- For the leafy vegetable collection, improving passport documentation and regular data updates should be a priority.

Sources: EURISCO Data Sharing Agreement; ELGO-DIMITRA document no. 21484/22-05-2026

Conservation, use and valorization

- Collection and conservation of Greek landraces and crop wild relatives.
- Regeneration and maintenance of conserved accessions.
- Characterization and evaluation using morphometric, agronomic, physiological, biochemical and molecular approaches.
- Use of genetic resources in plant breeding programmes and sustainable agriculture.
- Documentation of information in a national database.
- Exchange of plant genetic material and information with genebanks, official organizations and research institutions.

Core value

Conservation → characterization → use

Moving from stored material to usable genetic resources.

Main opportunity

Pre-breeding

Especially relevant for diverse Lactuca and wild relatives.

Main gap

Evaluation data

Further characterization and evaluation can increase practical value.

CWR, in situ conservation and access

CWR in the collection

Lactuca

Wild relatives are represented alongside cultivated lettuce.

In situ / on-farm

Genebank objective

Identify areas of high diversity and support conservation of CWR and threatened landraces.

Research access

MRDF application

Research projects/species and supporting documentation are part of the administrative application framework.

- The collection provides an ex situ safeguard for wild and traditional leafy vegetable diversity.
- A future priority is to connect ex situ accessions with their original collecting sites and populations.
- For CWR, monitoring, targeted collection and evaluation can strengthen their value for pre-breeding.
- Access and research activities are coordinated within the national administrative framework.

Sources: Greek Genebank presentation; Ministry application form

Ongoing national project

Project

AgriGenRe

Conservation of Plant Genetic Resources for Food and Agriculture

Duration

2025–2029

Official project duration

Budget

€1.1 million

National project

Partners

MRDF + ELGO-DIMITRA

Implemented through ELGO-DIMITRA institutes

- Protects Greek plant genetic resources, with emphasis on traditional and rare varieties.
- Strengthens ex situ conservation through the Greek Gene Bank and the field Collections.
- Supports regeneration and the strengthening of the national genetic resource pool.
- Provides a framework directly relevant to leafy vegetables within the national collections.
- Supports sustainable agriculture and resilience of Greek farming.

Source: General Directorate of Agricultural Research, ELGO-DIMITRA — AgriGenRe

Greek Genebank vs. National Catalogue

A clear gap between conserved diversity and formally registered varieties

Greek Genebank

215 accessions

19 taxa represented in the leafy-vegetable dataset

Traditional / landrace material

155 accessions

Classified as traditional cultivar / landrace

National Catalogue

6 varieties

Only 2 species represented: Lactuca sativa (1) and Spinacia oleracea (5)

Taxon / group	Accessions	Landrace accessions	National Catalogue
Lactuca sativa	101	98	1
Spinacia oleracea	38	37	5
Cichorium endivia	15	9	0
Cichorium intybus	5	2	0
Eruca sativa	4	4	0
Cynara cardunculus	6	4	0
Wild Lactuca taxa	30	1	0
Other minor leafy taxa	16	0	0

Key message: the Genebank conserves substantially more diversity than is represented in the National Catalogue.

Sources: Greek Genebank leafy-vegetable dataset (Sheet 3); National Catalogue of Horticultural Varieties, 14.11.2025.

Access and transfer of plant genetic resources

National procedures and the emerging ELGO-DIMITRA MTA framework

1 Research access	• National application submitted to the Ministry of Rural Development and Food (MRDF) for research purposes. • The application identifies the research project, objectives, species and relevant supporting documents.
2 Material Transfer Agreement (MTA)	• A draft ELGO-DIMITRA MTA was developed under the AgriGenRe project as a standard agreement for transfers of plant genetic material. • It is intended for transfers outside the scope of the International Treaty.
3 International Treaty / SMTA	• Material falling within the Treaty framework is handled under the applicable Treaty mechanism, including the SMTA where appropriate. • For the leafy-vegetable material considered here, Asparagus is the relevant Annex I case identified in the working correspondence.
4 Current status	• The MTA document is a completed draft submitted as part of the 2026 action milestone. • Its final approval and current operational use are not confirmed by the documents reviewed.

Sources: MRDF research application form; ELGO-DIMITRA 2026 draft MTA; Directorate General of Agricultural Research correspondence.

Expectations from the Working Group

1. Documentation

Harmonized standards

Improve passport data, data quality and regular EURISCO updates.

2. Conservation

Regeneration & priorities

Identify priority accessions for regeneration and safety duplication.

3. Use

Characterization & pre-breeding

Joint evaluation and better links with breeders and users.

- Strengthen cooperation and exchange of germplasm and information among European genebanks.
- Develop joint characterization and evaluation activities for priority leafy vegetable accessions.
- Improve integration of CWR and in situ / on-farm conservation.
- Develop collaborative European projects and training opportunities.
- Increase the visibility and practical use of leafy vegetable genetic resources.

Greek priority: finalize the EURISCO agreement and establish regular data updating.