

Information and update on ECPGR

Lorenzo Maggioni ECPGR Secretary

SafeAlliDiv Workshop 11-12 July 2017, Tallinn, Estonia



What is ECPGR

ECPGR is a collaborative Programme among most European countries, aiming at ensuring the long-term conservation and facilitating the utilization of plant genetic resources in Europe.

www.ecpgr.cgiar.org/



Phase IX (2014-2018)

- Annual budget ca. € 520k from 38 countries
- Letters of Agreement signed by 33 countries





ECPGR objectives (Phase IX)

Long-term Goal:

National, Sub-regional and Regional Programmes in Europe rationally and effectively conserve *ex situ* and *in situ* PGRFA and increase their utilization





Executive Committee Steering Committee Coordinating Secretariat Crop Working Groups -Thematic Working Groups -Leafy Vegetables Allium Wild Species Conservation in Genetic ŀ Malús/Pyrus Avena Reserves Medicinal and Aromatic Plants On-farm Conservation and Management
Documentation and Information Barley • Beta Potato l. Prunus Brassica Cucurbits Solanaceae Fibre Crops (Flax and Hemp) Umbellifer Crops Vitis Forages Grain Legumes Wheat



New Operational Structure

- 21 Working Groups (18 crop and 3 thematic WGs)
- WGs, composed of pools of experts proposed by NCs, carry out activities mandated by the SC or proposed by the WG (through the Chair) and approved by the SC –> Grant Scheme
- Revised Terms of Reference of Chairs



Composition of WGs

Nominations to become WG members must be made by National Coordinators Size of WGs: between 43 and 92 members (average 72 members) (total: 1514)

Allium WG: 66 members

Genebank curators: 18 Policy and law: 8 Info/Doc specialist: 13 Plant breeders: 10 Crop specialists: 25 Other: 3



Terms of Reference of Crop Working Groups

- Contribute to management of the European Collection:
 - Identify gaps or redundancies
 - Monitor implementation of conservation standards
 - Setting priorities for C&E
 - Setting priorities for rejuvenation
 - Sharing responsibilities on above-mentioned tasks
- Undertake Activities in line with ECPGR objectives



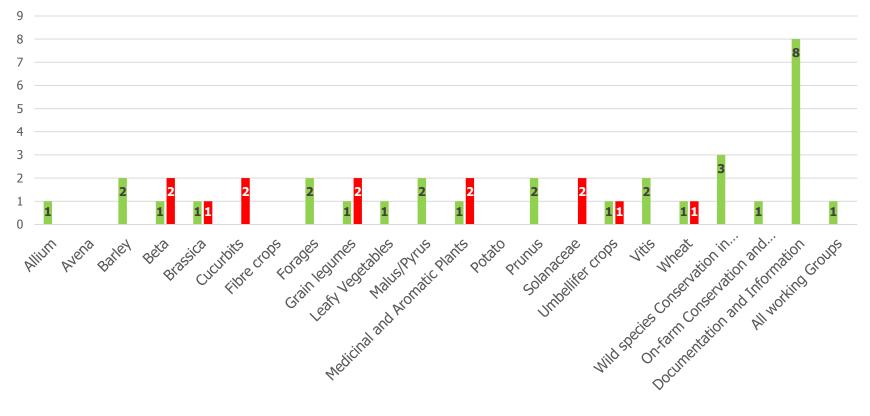
ECPGR Activity Grant Scheme

- Working Group activities (meetings and other actions) are carried out on the basis of a competitive scheme.
- Participation in these activities of technical experts from all the member countries are guaranteed by a country quota.
- Depending on funding availability, the Secretariat will regularly open calls for ECPGRfunded actions.



• 26 Activities funded through 4 Calls (ca. €430 000)

Working Groups involved in the Activity Grant Scheme





- 1. **AEGIS** is operational and accessions are characterized and evaluated
- 2. Functionality of **EURISCO** ensured (data quality & quantity + in situ data)
- 3. **In situ and on-farm conservation and management** of priority crop wild relative (CWR) and landrace (LR) populations are implemented throughout Europe
- 4. Relations with **users** of germplasm are strengthened
- 5. Commitment and regular resources from donors are increased
- 6. Secretariat support is adequate to sustain operations of ECPGR

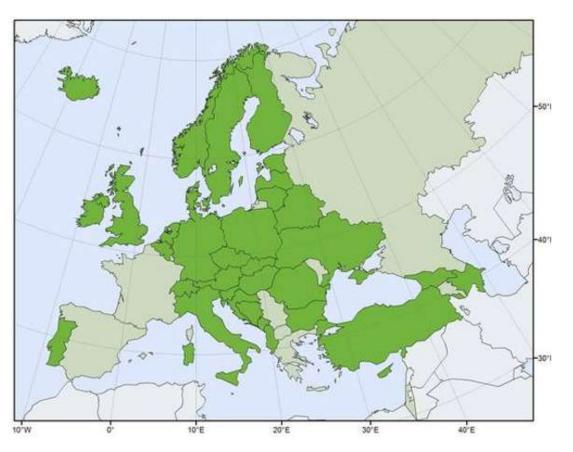


1- AEGIS is operational

 To create A European Genebank Integrated System for PGRFA, aimed at conserving the genetically unique and important accessions for Europe and making them available for breeding and research. Such material will be safely conserved under conditions that ensure genetic integrity and viability in the long term



AEGIS membership



34 Member countries61 Associate Members' Agreements

1. Albania (05 May 2009) - Associate Members 2. Austria (04 December 2012) - Associate Members Azerbaijan (15 July 2009) - Associate Members 4. Belarus (01 November 2011) - Associate Members 5. Belgium (31 May 2012) - Associate Members Bosnia and Herzegovina (18 May 2010) 7. Bulgaria (01 December 2009) - Associate Members 8. Croatia (01 December 2009) - Associate Members 9. Cyprus (15 September 2009) - Associate Members 10. Czech Republic (22 July 2009) - Associate Members 11. Denmark (21 February 2010) - Associate Members 12. Estonia (21 May 2009) - Associate Members Finland (01 December 2009) - Associate Members 14. Georgia (17 May 2009) - Associate Members 15. Germany (04 November 2009) - Associate Members 16. Hungary (21 November 2011) - Associate Members 17. Iceland (21 October 2010) - Associate Members 18. Ireland (21 July 2009) 19. Italy (02 March 2014) - Associate Members 20. Latvia (31 May 2012) - Associate Members 21. Lithuania (11 October 2010) Montenegro (15 December 2010) 23. Netherlands (27 May 2009) - Associate Members Norway (16 August 2009) - Associate Members 25. Poland (16 May 2010) - Associate Members 26. Portugal (19 November 2009) - Associate Members Romania (13 April 2010) - Associate Members 28. Slovakia (16 June 2009) - Associate Members Slovenia (20 September 2009) - Associate Members Sweden (30 May 2011) - Associate Members Switzerland (26 July 2009) - Associate Members Turkey (13 November 2011) - Associate Members Ukraine (29 April 2009) United Kingdom (17 June 2010) - Associate Members



The European Collection

Through signing the MOU countries accept responsibility for European Accessions:

- Long-term conservation according to quality standards
- Availability through Standard Material Transfer Agreement (SMTA)
- Safety-duplication

Working Groups are responsible for:

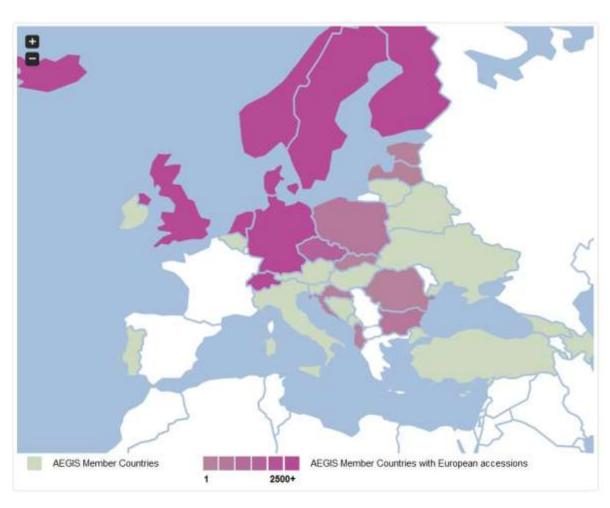
- Oversight over the Selection of European Accessions
- Establishment of crop-specific quality standards
- Preparation of crop conservation/management strategies



The European Collection

32 791 accessions included in the European Collection

Country		No of accessions	
Albania		8	
Bulgaria		261	
Croatia		90	
Czechia		1285	
Estonia		89	
Germany		14193	
Latvia		21	
Netherlands		5853	
Nordic Countries		3708	
Poland		303	
Romania		194	
Slovakia		299	
Switzerland		4838	
United Kingdom		1659	
Total		32 791	





Perceived Benefits of AEGIS

- Improved security of germplasm through long-term commitment and systematic safety-duplication
- Facilitated access to and **availability** of germplasm
- Improved **quality standards** of conserved material
- Cost efficient conservation activities
- Reduced unwanted duplication of germplasm material
- Improved **sharing of knowledge** and information



Allium accessions in AEGIS (630 vs. 12 264 in EURISCO)

Allium altaicum	3	Allium lusitanicum	1
Allium altyncolicum	4	Allium nutans	4
Allium ampeloprasum	77	Allium porrum	73
Allium angulosum	2	Allium ramosum	6
Allium carolinianum	4	Allium sativum	143 (5.7% of EURISCO: 2491)
Allium cepa	231 (4.5% of EURISCO: 5082) Aggregatum = 0 In EURISCO = 92	Allium schergianum	1
Allium cepa x fistulosum	1	Allium schoenoprasum	46
Allium fistulosum	23	Allium scorodoprasum	1
Allium hymenorrhizum	1	Allium sphaerocephalon	3
Allium karelinii	1	Allium tuberosum	1
Allium kermesinum	1	Allium vavilovii x cepa	2



AQUAS – Quality system

- Transparency: operational genebank manuals
- Agreed common conservation standards (FAO + crop-specific)
- Safety-duplication policy
- Distribution guidelines
- Monitoring system: voluntary peer review



Homepage / AEGIS / AQUAS: Quality Management System for AEGIS / Genebank standards / Agreed standards

Agreed standards

Note: these standards will be sent to the Steering Committee for endorsement.

Allium - Crop-specific genebank standards for field genebanks

• A Crop-specific standards for field genebanks (agreed by the Allium WG, May 2015) (80 KB)



New AEGIS initiatives

1. Pilot study led by CGN: Creation of a **peer review system** amongst *ex situ* genebanks in Europe (based on voluntary participation)

Expected result: Exchange of knowledge; Basis for fund raising

 Multiplication and Safety-duplication to Svalbard of AEGIS accessions, funded by the Crop Trust (to be confirmed)
Expected result: First example of ability of AEGIS to priorit

Expected result: First example of ability of AEGIS to prioritize use of donor funds



Online catalogue, with information on the European *ex situ* collections: passport and C&E data



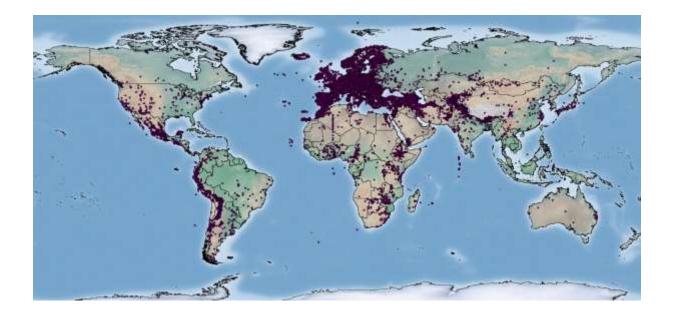
http://eurisco.ecpgr.org





Online catalogue of accessions in European genebanks: EURISCO

- Data gathered from 43 national inventories
- 1.96 M accession data from 376 institutions throughout Europe
- Largest PGR data provider at the accession level
- Register for MLS (413k) and AEGIS (32.8k) European accessions





EURISCO development planned for 2017

- Adoption of MCPD v.2.1 including additional descriptors
- Instructions for National Focal points regarding C&E datasets
- Uploading of C&E datasets via Grant Scheme Activities
- An improved user interface to increase the searching performance via taxonomic names (project funds offered by Germany)



3- In situ conservation and management

 National and regional conservation strategy planning

(checklists -> priorities -> inventories -> action plans)

 Designation and management of Most Appropriate Wild
Populations (genetic diversity and traits of interest) in genetic reserves



ECPGR Concept for *in situ* conservation of crop wild relatives in Europe

Nigel Maxted, Alvina Avagyan, Lothar Frese, José Iriondo, Joana Magos Brehm, Alon Singer and Shelagh Kell

Endorsed by the ECPGR Steering Committee in March 2015





3- On farm conservation and management

- European Inventory of on-farm genetic diversity
- Developing indicators for monitoring diversity and threat
- Promoting good practices for on-farm management
- Concept of European agro-diversity sites
- Addressing issues of ownership, access, availability, marketing, etc.



ECPGR Concept for on-farm conservation and management of plant genetic resources for food and agriculture

Endorsed by the ECPGR Steering Committee in January 2017





4- Relations with users

Private Public Partnerships for the use of PGRFA

- Dedicated ECPGR webpages providing examples of public private partnerships on use of PGRFA:
- http://www.ecpgr.cgiar.org/resources/private-publicpartnerships/ppp-knowledge-base/
- Workshop, June 2017, Bonn, Germany
- Towards a European Evaluation Network





Upcoming events – ECPGR

- 16-18 October 2017: Meeting of all WG Chairs, Ljubljana, Slovenia
 - Discussion of ECPGR objectives and Mode of operation for Phase X
 - Evaluation of proposals under Fifth Call
- November 2017: Expected launch of H2020 Call for Coordination and Support Action (3M)

Joining forces for GenRes and biodiversity management

• May 2018: End-of-Phase Steering Committee meeting, Greece: decisions on Phase X of ECPGR (2019-2023) European Cooperative Programme for Plant Genetic Resources

Thank you for your attention!



Allium ampeloprasum, Roma, May 2014