Information and update on ECPGR

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ECPGR Secretary
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
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.
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  Plant breeders: 10
Policy and law: 8      Crop specialists: 25
Info/Doc specialist: 13 Other: 3
• 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
• 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 ECPGR-funded actions.
Activity Grant Scheme

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

### Working Groups involved in the Activity Grant Scheme

<table>
<thead>
<tr>
<th>Working Group</th>
<th>Awarded</th>
<th>Rejected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allium</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Avena</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Barley</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Beta</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Brassica</td>
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<td>1</td>
</tr>
<tr>
<td>Cucurbits</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Fibre crops</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Forages</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Grain legumes</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Leafy Vegetables</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Malus/Pyrus</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Potato</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Prunus</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Solanaceae</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Umbellifer crops</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Vitis</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Wheat</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>On-farm Conservation and Information Documentation and Information All working Groups</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
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 countries
61 Associate Members’ Agreements
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

<table>
<thead>
<tr>
<th>Country</th>
<th>No of accessions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albania</td>
<td>8</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>261</td>
</tr>
<tr>
<td>Croatia</td>
<td>90</td>
</tr>
<tr>
<td>Czechia</td>
<td>1285</td>
</tr>
<tr>
<td>Estonia</td>
<td>89</td>
</tr>
<tr>
<td>Germany</td>
<td>14,193</td>
</tr>
<tr>
<td>Latvia</td>
<td>21</td>
</tr>
<tr>
<td>Netherlands</td>
<td>5,853</td>
</tr>
<tr>
<td>Nordic Countries</td>
<td>3,708</td>
</tr>
<tr>
<td>Poland</td>
<td>303</td>
</tr>
<tr>
<td>Romania</td>
<td>194</td>
</tr>
<tr>
<td>Slovakia</td>
<td>299</td>
</tr>
<tr>
<td>Switzerland</td>
<td>4,838</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>1,659</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>32,791</strong></td>
</tr>
</tbody>
</table>
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)

<table>
<thead>
<tr>
<th>Allium altaicum</th>
<th>3</th>
<th>Allium lusitanicum</th>
<th>1</th>
</tr>
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<tbody>
<tr>
<td>Allium altyncomicum</td>
<td>4</td>
<td>Allium nutans</td>
<td>4</td>
</tr>
<tr>
<td>Allium ampeloprasum</td>
<td>77</td>
<td>Allium porrum</td>
<td>73</td>
</tr>
<tr>
<td>Allium angulosum</td>
<td>2</td>
<td>Allium ramosum</td>
<td>6</td>
</tr>
<tr>
<td>Allium carolinianum</td>
<td>4</td>
<td>Allium sativum</td>
<td>143</td>
</tr>
</tbody>
</table>

(5.7% of EURISCO: 2491)

**Allium cepa**

231

(4.5% of EURISCO: 5082)

Aggregatum = 0

In EURISCO = 92

<table>
<thead>
<tr>
<th>Allium cepa x fistulosum</th>
<th>1</th>
<th>Allium schoenoprasum</th>
<th>46</th>
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<tbody>
<tr>
<td>Allium fistulosum</td>
<td>23</td>
<td>Allium scorodoprasum</td>
<td>1</td>
</tr>
<tr>
<td>Allium hymenorrhizum</td>
<td>1</td>
<td>Allium sphaerocephalon</td>
<td>3</td>
</tr>
<tr>
<td>Allium karelinii</td>
<td>1</td>
<td>Allium tuberosum</td>
<td>1</td>
</tr>
<tr>
<td>Allium kermesinum</td>
<td>1</td>
<td>Allium vavilovii x cepa</td>
<td>2</td>
</tr>
</tbody>
</table>
AQUAS – Quality system

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

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

Allium  - Crop-specific genebank standards for field genebanks

- 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

2. 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 prioritize use of donor funds
2- Quantity and quality of data in EURISCO

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
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.
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:

• 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)
Thank you for your attention!

Allium ampeloprasum, Roma, May 2014