



The European Cooperative Programme for Plant Genetic Resources

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Summary of presentation

- Introduction (brief history)
- Objectives and structure
- ECPGR and Ireland
- AEGIS
- EURISCO
- Working Groups' activities (relevant for Ireland)
- Outlook

Introduction

(Brief history)

Mid-1970s: Preparatory process

- UNDP project to **ensure free exchange of germplasm** and related data and to **coordinate the collection, conservation and evaluation** of European germplasm (At the service of plant breeders)
- Principle: cooperation and coordination among genebanks and governments; contributing in-kind would ensure more effective conservation and use of PGR
- Erna Bennet, FAO, Acting Coordinator of the preparatory process

1980: ECPGR starts operations



Eight Phases (1980-2013)

- Phase I (1980-1982) UNDP-funded, based in Geneva - 8 Working Groups
- Phase II (1983-1986) 50% UNDP-funded - based at IBPGR in Rome - Ireland joins – Creation of the first European crop databases
- Phase III (1987–1989) Self-funded
- Phase IV (1990–1993) (24 databases – collecting missions, descriptors, training , national programmes’ development)
- Phase V (1994–1998) Crop and Thematic Networks - Joint project proposal (EC Regulation) – The Platform to implement GPA in Europe
- Phase VI (1999–2003) Expanded scope - EURISCO
- Phase VII (2004–2008) Priorities – AEGIS as a model project
- Phase VIII (2008–2013) AEGIS enters into force – External review

Phase VIII (2009-2013)

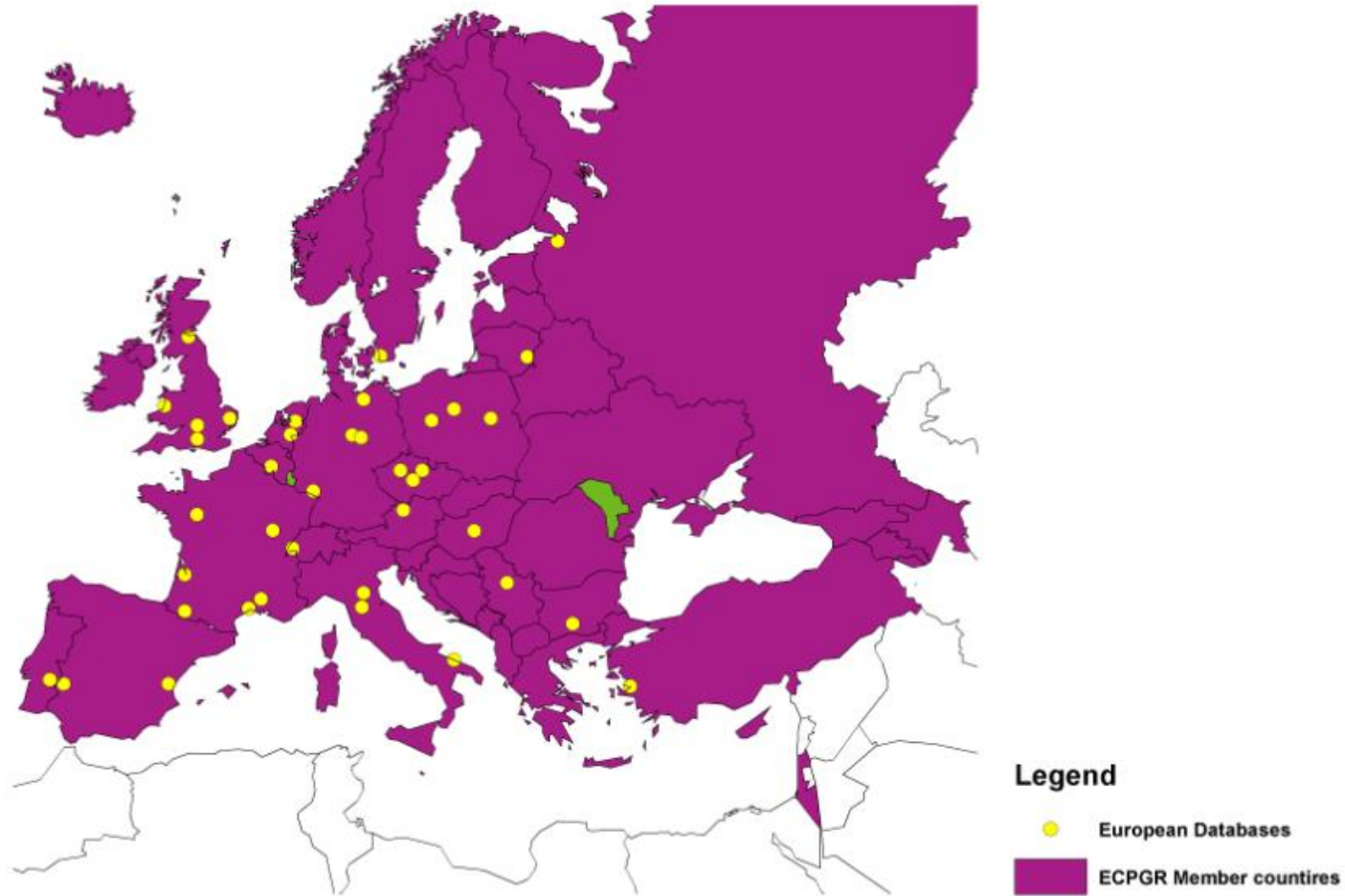
- 5-year budget: € 2.76 M
 - Network operations
 - Coordination
 - AEGIS coordination and activities
 - Contribution to EURISCO
- 4 priority areas
 - Task sharing and capacity building (AEGIS) (top priority)
 - Documentation and Information
 - Characterization and evaluation
 - *In situ* and On-farm conservation and management

ECPGR independent external review (2010)

- **Executive Committee**
- **Options paper** to be discussed in 2012
- **New 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.

Status of membership 2012

43 Members



ECPGR Structure

Steering Committee

Coordinating Secretariat

Cereals Network	Forages Network	Fruit Network	Oil and Protein Crops Network	Sugar, Starch and Fibre Crops Network	Vegetables	Documentation and Information Network	<i>In situ</i> and On-farm Conservation Network	Inter-regional Cooperation Network
NCG	NCG	NCG	NCG	NCG	NCG	NCG	NCG	NCG
Working Groups	Working Group	Working Groups	Working Group	Working Groups	Working Groups		Working Groups	
<ul style="list-style-type: none"> • <i>Avena</i> • Barley • Wheat 	<ul style="list-style-type: none"> • Forages 	<ul style="list-style-type: none"> • <i>Malus/Pyrus</i> • <i>Prunus</i> • <i>Vitis</i> 	<ul style="list-style-type: none"> • Grain Legumes 	<ul style="list-style-type: none"> • <i>Beta</i> • Fibre Crops (Flax and Hemp) • Medicinal and Aromatic Plants • Potato 	<ul style="list-style-type: none"> • <i>Allium</i> • <i>Brassica</i> • Cucurbits • Leafy Vegetables • Solanaceae • Umbellifer Crops 	<ul style="list-style-type: none"> • National Inventory Focal Points • European Central Crop Database Managers 	<ul style="list-style-type: none"> • Wild Species Conservation in Genetic Reserves • On-farm Conservation and Management 	<ul style="list-style-type: none"> • Inter-regional Cooperation Task Force

Crop Networks

Thematic Networks

Ireland in ECPGR



- National Coordinator: Gerry Doherty (DAFM)
- National Inventory Focal Point (EURISCO and *In situ*): Noel Collins (DAFM)
- Annual contribution: € 11 000
- WG members:
 - ***Avena***: Noel Collins (DAFM)
 - **Barley**: George Garland (Lissadel)
 - **Wheat**: Barry O'Reilly (DAFM)
 - **Forages**: Susanne Barth (Teagasc)
 - ***Malus/Pyrus***: James Choiseul (DAFM)
 - ***Beta***: Dermot Grogan (DAFM)
 - **Potato**: Dennis Griffin (Teagasc)
 - **Wild species and On-Farm**: Tom Curtis (Genetic Heritage Ireland)



European Internet Search Catalogue:

- Passport data
- Data from 42 National Inventories and 318 collection holdings
- The total number of accessions is **1 097 554** (February 2012) (1421 from Ireland)
- Multilateral System accessions: **246 910** from 17 countries (1418 from Ireland)

<http://eurisco.ecpgr.org>

Irish institutes in EURISCO (1421 accessions)

✔ Holding Institute Reports

Institute FAO code	Holding Institute	Country	NO. ACC.
IRL029	Department of Agriculture, Fisheries and Food, National Crop Variety Testing Centre	Ireland	368
IRL012	Department of Agriculture	Ireland	386
IRL001	Oak Park Research Centre	Ireland	667

Forages: 717

Potato: 386

Cereals: 165

Vegetables: 153

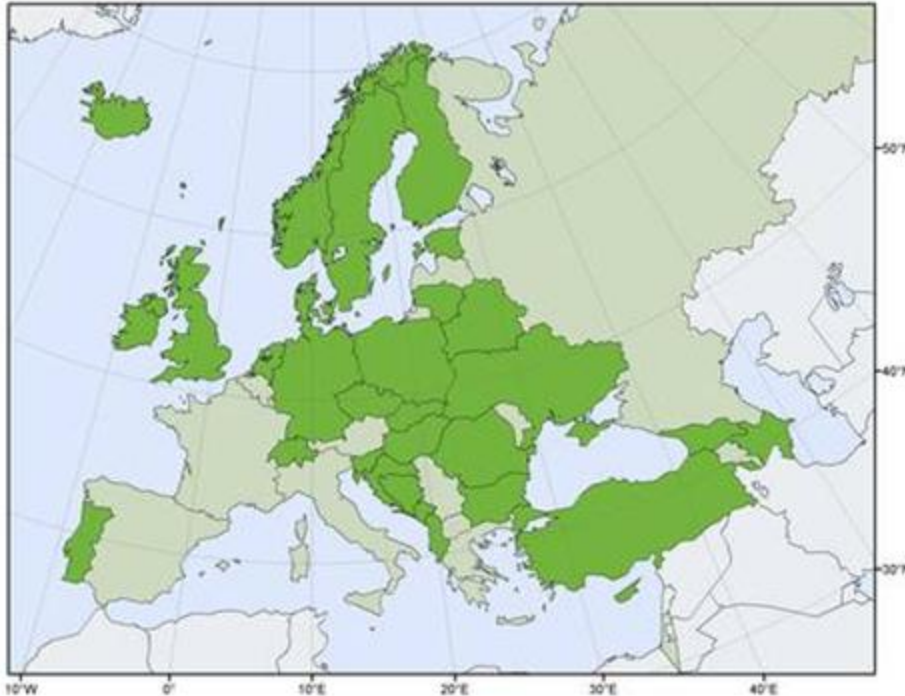
2277 Irish accessions in European genebanks (1282 outside of Ireland)

National Inventory	NO. ACC.
Bulgaria	6
Czech Republic	53
Germany	588
Hungary	1
Ireland	995
Italy	3
Netherlands	12
Nordic Countries	9
Poland	29
Romania	26
Russian Federation	64
Slovakia	10
Spain	1
Ukraine	27
United Kingdom	453

Forages: 863
Cereals: 153
Flax: 98
Brassica: 57
Other: 111

- Establishment of a decentralized **European Collection** of unique accessions
- Conservation commitment secured through a **Formal Agreement** (MoU) among members
- Quality standards adequately defined and applied → **Quality System**
- **Access to PGRFA** and related information guaranteed → Use of SMTA for all crops
- Implementation of the **International Treaty**

AEGIS member countries



1. **Albania** (6 May 2009)
2. **Azerbaijan** (16 July 2009) - Associate Members
3. **Belarus** (2 November 2011) - Associate Members
4. **Bosnia and Herzegovina** (19 May 2010)
5. **Bulgaria** (2 December 2009) - Associate Members
6. **Croatia** (2 December 2009) - Associate Member
7. **Cyprus** (15 September 2009) - Associate Member
8. **Czech Republic** (23 July 2009) - Associate Members
9. **Denmark** (22 February 2010)
10. **Estonia** (22 May 2009) - Associate Members
11. **Finland** (2 December 2009)
12. **Georgia** (18 May 2009) - Associate Member
13. **Germany** (9 September 2009) - Associate Members
14. **Hungary** (22 November 2011) - Associate Member
15. **Iceland** (22 February 2010)
16. **Ireland** (22 July 2009)
17. **Lithuania** (12 October 2010)
18. **Montenegro** (16 December 2010)
19. **The Netherlands** (28 May 2009) - Associate Members
20. **Norway** (17 August 2009)
21. **Poland** (17 May 2010)
22. **Portugal** (20 November 2009)
23. **Romania** (14 April 2010) - Associate Member
24. **Slovakia** (16 June 2009) - Associate Member
25. **Slovenia** (21 September 2009) - Associate Members
26. **Sweden** (31 May 2011) - Associate Member
27. **Switzerland** (27 May 2009) - Associate Member
28. **Turkey** (14 November 2011) - Associate Member
29. **Ukraine** (30 April 2009)
30. **United Kingdom** (18 June 2010) - Associate Members

The European collection

Under development:

The European Collection

Species	European accessions	Holding genebanks	Countries of origin
<i>Allium sativum</i> L.	143	IPK, Germany (61) CRI, Czech Rep. (82)	16

<http://aegis.cgiar.org>

Working Groups' activities

- *Malus/Pyrus*
- *Avena*
- Barley
- Wheat
- Forages
- *Beta*
- Potato

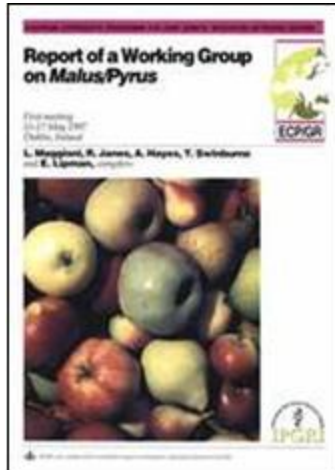
Malus/Pyrus WG

EUROPEAN COOPERATIVE PROGRAMME FOR CROP GENETIC RESOURCES NETWORKS (ECP/GR)

Report of a Working Group on *Malus/Pyrus*

First meeting
15-17 May 1997
Dublin, Ireland

L. Maggioni, R. Janes, A. Hayes, T. Swinburne
and E. Lipman, compilers



• LOST •

Abraham
Aherne Beauty
April Queen
Blood of the Boyne
Burlington
Buttermilk Russet
Clack-Melon
Coccagee
C... ..



• FOUND •

Ard Cairn Russet	Brogdale Horticultural Trust
Balinora	Armagh Orchards Trust
Ballyfatten	Brogdale Horticultural Trust
Ballyvaughn -	
Seedling	Genieve Tenthomey
Barhill Pippin	Brogdale Horticultural Trust
Bloody Butcher	Brogdale Horticultural Trust
Brown Crofton	Brogdale Horticultural Trust
Clearheart	Sonsaite National Ecological Center
Dockney	Brogdale Horticultural Trust

4th meeting in March 2012, Switzerland – Focus on synonyms, descriptors, *Malus* and *Pyrus* databases, definition of European Collection

Avena WG

- Sixth meeting in 2010 (Romania)
- Collaboration with EC **AVEQ** project (evaluation of oats genetic resources for nutritional quality in human consumption and for cold tolerance) <http://aveq.jki.bund.de/aveq/>
- Collaboration with EC **AEGRO** project (identify suitable sites for the establishment of genetic reserves) <http://aegro.jki.bund.de/aegro/>
- Protocols for **regeneration of wild species**
- Definition of **European Collection**



Avena flava (Photo: C. Germeier)

Barley WG

- 7th Meeting in 2011 (Cyprus)
- Plans to coordinate **genetic stocks** collections
- Workshops on **pre-breeding** in 2009 – status, challenges, needs, collaboration - concept note.
- Analysis of **wild species** distribution towards a conservation strategy
- European **Barley Database** and International Barley Core collection
- **European collection** and crop-specific protocols for conservation

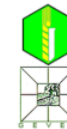
Seventh Meeting, 10-12 May 2011, Nicosia, Cyprus
H. Knüpffer, L. Maggioni, M. Jali, A. Kolodinska Brantestam, D. Fasoula
and E. Lipman






Wheat WG

- Third meeting planned in May 2012, Slovakia
- European **Wheat Database** (C&E data, alleles, pedigree)
- **European Collection** to be defined



ECPGR Wheat Database

Research Institute of Crop Production (RICP)
 Dřívěvská 507, 161 06 Praha-Ružyně, Czech Republic
 Tel: ++(420-2) 33022111 (Operator), ++(420-2) 33022478 (Direct);
 Fax: ++(420-2) 33022286

Groupe d' Etude et de Contrôle des Variétés et des Semences
 Saint Pierre d'Amilly, SP52, 17700 Surgères, France
 Tel: ++(33-546) 683093; Fax: ++(33-546) 683024
 Database manager:  Iva Faberová (RICP)



The European Wheat database (EWD6) consists of data compiled by two management centres. Data of wheat collections stored in EC member countries have been collected in GEVES Le Magny and data from institutions located in non EC-member countries have been gathered in RICP Prague. The EWD6 is searchable on-line at the Internet server of the Research Institute of Crop Production Prague (Czech Republic).

Database access	Further information
On-line - search	Contributors
Off-line - download	Database description
Off-line - hardcopy  on request	Species Content

Forages WG

- 10th meeting held in 2010, Germany
- **European Forages Collection**
- **Regeneration standards**
- ***In situ*** conservation experiences



The ECPGR *Minor Grasses*
Database

[Nordic Genetic Resource Center](#)
PO Box 41, S-230 53 Alnarp, Sweden
Tel: +(46-40) 536640; Fax: +(46-40) 536650

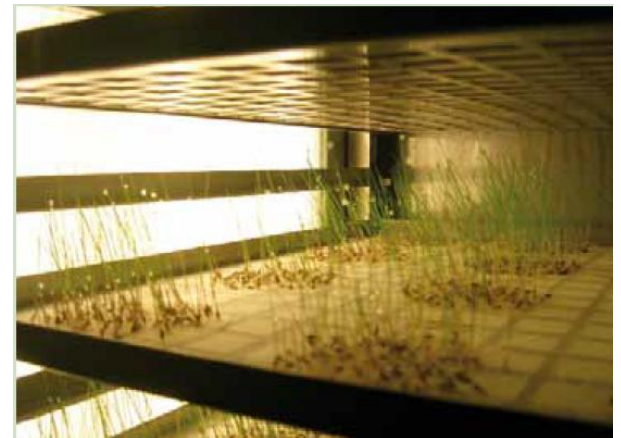
Database manager: [Gert Paulsen](#)



In the 10th meeting of the ECPGR Working Group On Forages, April 2010, island of Pele, Germany, it was agreed to establish a common database for *Minor Forage Grasses*, including *Agropyron*, *Agrostis*, *Alopecurus*, *Arrhenatherum*, *Bromus*, *Phalaris* and *Trisetum*. Nordic Genetic Resource Center (NordGen), takes the responsibility to establish and maintain the database. The passport data in this database is mainly downloaded from EURISCO, and crop specific data will subsequently be added. Seed requests should be sent directly to the holding institutes. The holding institute is identified by the instcode from the downloadable version of the *Minor Grasses* database. The contact info of the institutes is found in the list of contributors. Further contact info can be found by querying the [WIEWS institute database](#).

Database access	Further information
On-line - search	Contributors (holding institutes)
Off-line - download	Database description

Page last updated by Magdalena Svardh August 24, 2010.

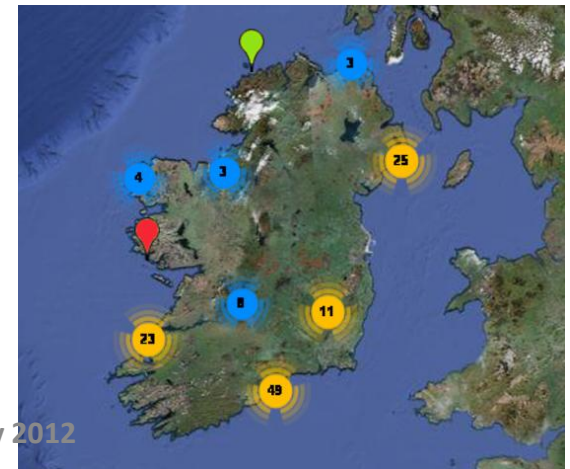


Beta WG



Beta maritima (Photo: D. Grogan)

- 4th meeting planned in June 2012, France, jointly with **World Beta Network**
- Collaboration with **AEGRO** project (case study on Beta) – establishment of genetic reserves and "Population Level Information System" (PLIS)
- **Seed production procedures**



Potato WG



Potato varieties (Photo: R.Vogel)

- AEGIS grant for **SSR fingerprinting** of 500 old potato clones having unreliable variety name to assist in setting up the European collection for potato cultivars
- **Potato cultivars Database**
- **Potato wild species Database**



The ECPGR Cultivated Potato Database

Scottish Agricultural Science Agency
East Craigs, Edinburgh EH12 8NU, United Kingdom
Tel.: ++(44-131) 2448858; Fax: ++(44-131) 2448940

Database manager: Dr Stuart Carnegie



The ECPGR Wild Potato Database

Plant Research International,
Centre for Genetic Resources, the Netherlands (CGN)
PO Box 16, 6700 AA, Wageningen, The Netherlands
Tel: ++(31-317) 480912; Fax: ++(31-317) 423110

Database manager: Mr Roel Hoekstra



The database contains over 11 600 entries, covering 4000 potato cultivars and 1400 breeding lines which are held in over 15 collections. Varieties can, thus, be sourced and their health status established. Amongst the 101 data fields, information is also provided on pedigree; resistance to pests and diseases; botanical, agronomic and quality characteristics. The full list of descriptors and their states is detailed in the descriptor dictionary which also shows how the data was transformed to create the database. The European Cultivated Potato Database is the result of a 5 year collaboration between participants in 8 European Union countries and 5 East European Countries. The participants included national genebanks, research institutes, private breeders and Non-Governmental Organizations (NGOs).

Database access
On-line - search

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The European Central Wild Potato Database has been developed by the network of the EU project RESGEN - CT95 - 34/45: Genetic Resources of Potato including conservation, characterization and utilization of secondary potato varieties for ecological production systems in Europe. The database is maintained by the Plant Research International, Centre for Genetic Resources, The Netherlands (CGN) since 1996. The database contains passport data of 11 845 accessions representing the wild potato (*Solanum* sp.) collections from 6 European contributors. The structure of the database follows the principles of the FAO/IPGRI Multi-Crop Passport Descriptors list. .

Database access	Further information
On-line - search	Contributors
Off-line - download	Database description

In situ and On-farm Conservation Network

- EC-funded projects
 - **PGR Forum** (CWR Information System and conservation strategy) <http://www.pgrforum.org/>
 - **AEGRO project** (CWR Population Level Information System)
 - **PGR Secure** (Conservation strategies for European crop wild relative and landrace diversity) <http://pgrsecure.org/>
- Technical bulletin on European landraces conservation



Outlook

- Applied for **FP7 project proposal** “Plant Gene Access”
 - 10 M Euro; 34 partners; Implementation of AEGIS (Coordination, Documentation, Research: genotyping and phenotyping, Capacity building, Partnership with industry)
- “**Options paper**” for the future of ECPGR – Steering Committee meeting in November 2012
- Ways to strengthen the **collaboration with the EU**

Thank you
for your attention!

