General status of AEGIS

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Tenth Meeting of the ECPGR Working Group on Forages
28-29 April 2010; Poel, Germany
Content of presentation

1. Historical background
2. Establishment, milestones and key components of AEGIS
3. Perceived benefits of AEGIS
4. The European Collection
5. AQUAS – development of a quality management system

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Background ECPGR

#### Worldwide

- 1,750 genebanks/collections
- Approx. 7 million accessions
- Estimated 2 million unique
- Example: approx. 25,000 Allium accessions (SoW Report II)

#### Europe

- App. 625 genebanks/germplasm coll.
- > 2 million accessions
- 30-40% unique (estimate)
- Example: approx. 13,000 Allium accessions; held in 32 genebanks in 20 countries

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Historical background

ECPGR:

- Reported difficulties in PGR maintenance:
  - lack of long-term conservation facilities
  - insufficient safety-duplication
  - regeneration backlogs
  - inhomogeneous quality of material
- Discussed options for sharing conservation responsibilities in Europe already in 1998
- SC decided in 2003 to initiate an integrated European genebank system feasibility study (4 model crops, incl. vegetatively propagated *Allium* and *Brassicas*) in 2004
Selection of Model Crops

- **Seed propagated** material – annual
- Annex I crops of ITPGRFA

- **Avena**
  - selfing

- **Brassica**
  - outcrossing

- **Vegetatively propagated** material – biennial and perennial
- Non Annex I of ITPGRFA

- **Allium**
  - (Veg. propag.)

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AEGIS Objective

To create a European Genebank Integrated System for plant genetic resources for food and agriculture, aimed at **conserving** the genetically unique and important accessions for Europe and **making them available** for breeding and research.

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Establishment and milestones of AEGIS

1. ECPGR SC decision to initiate establishment of AEGIS in 2006

2. ECPGR Secretariat to coordinate; AEGIS Coordinator appointed


5. Memorandum of Understanding (MOU) developed and sent for signature to all ECPGR member countries in 1st half of 2009

6. Currently 18 countries have signed MOU

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AEGIS Member Countries

The following countries have signed the MoU:

1. Albania (6 May 2009)
2. Azerbaijan (16 July 2009) - Associate Members
3. Bulgaria (2 December 2009) - Associate Members
4. Cyprus (15 September 2009) - Associate Members
5. Czech Republic (23 July 2009)
6. Denmark (22 February 2010)
7. Estonia (22 May 2009)
8. Finland (2 December 2009)
9. Georgia (18 May 2009) - Associate Member
10. Germany (9 September 2009) - Associate Members
11. Ireland (22 July 2009)
12. The Netherlands (28 May 2009) - Associate Members
13. Norway (17 August 2009)
14. Portugal (20 November 2009)
15. Slovakia (16 June 2009)
16. Slovenia (21 September 2009)
17. Switzerland (27 May 2009) - Associate Member
18. Ukraine (20 April 2009)

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Establishment and milestones of AEGIS

7. Agreement on development of AQUAS; discussion paper (has been sent)

8. Agreement on requirements and criteria to select MAAs (details in later presentation)

9. Competitive Small Grant Scheme launched (to facilitate establishment/operation process); 18 proposals received; 3 awarded. New Call foreseen for Autumn 2010!

9. Topic on AEGIS included in FP7 Research Infrastructure Call; proposal developed and submitted; met the threshold but were not selected for funding; consideration to re-submit for 2012 Call

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Key components of AEGIS


2. Formal agreement with countries (MOU) and institutions within countries (Associate Membership) – i.e. 18

3. European Collection (contains identified and agreed MAAs for each crop; in public domain; readily available) (to be developed)

4. Generic and crop specific standards (to be developed)
Key components of AEGIS

5. Quality management system (reporting; monitoring; capacity building) (under development)

6. EURISCO as information portal for European Collection (to be further developed)

7. Dedicated AEGIS website (new version developed)
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 duplication of germplasm material
- Improved sharing of knowledge and information

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AEGIS and the European Collection

• European Collection will consist of dispersed accessions (MAAs), i.e. a virtual European genebank
• Through signing the MOU countries accept responsibilities for long-term conservation and availability of EA, and to
• Conserve/manage according to quality standards
• Conservation/management strategies for each crop are prepared by respective Crop WG/NCG and approved by SC
AQUAS – AEGIS quality system

• Development of a quality management system, including generic and crop operational standards, reporting and monitoring
• Discussion paper endorsed by SC; on the AEGIS website (has been distributed)
• Brassica, Forages and Grain legumes WGs are invited to test the template for an operational genebank manual
• Draft of generic genebank standards by Secretariat

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Thank you for your attention!

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