

have to be filled in by the genebanks of Associate Members so that they can complete their operational genebank manuals.

2. **Generic operational standards.** The standards will be drafted by the Secretariat based on the operational manuals and suggestions by the WGs. This activity will also take into account the ongoing revision of the international genebank standards by the FAO.
3. **Agreed minimum crop-specific technical standards.** All WGs will need to agree on the standards for their respective crops, which will complement the generic standards.
4. **Quality management system procedures.** The WGs, in consultation with the AEGIS Advisory Group, will need to organize a system for record keeping and reporting, and to implement a monitoring system.

Discussion

H. Knüpfner offered the services of the Leibniz Institute of Plant Genetics and Crop Plant Research (IPK), Germany, for testing the template; this was later re-confirmed by Andreas Graner.

I. Thomas also offered to test the template on behalf of the Forages Working Group.

Most Appropriate Accessions – the selection process

J. Engels explained that no definite procedures had been fixed, nor was there any precise definition of Most Appropriate Accessions (MAAs). The process for identifying MAAs among sets of duplicates requires the WG's agreement on the "selection criteria" for each crop or crop group. This process can start from two sides: a proposal from the WG on the basis of its knowledge of existing unique and most appropriate accessions; and a selection of "candidate" accessions at the national level based on the selection requirements and offers for long-term maintenance. The two need to come to an agreed conclusion in an iterative manner. The process is, however, not yet completely defined as it requires empirical testing, and alternatives to the above approach can be considered.

It is proposed that the WG take the following actions:

1. Proceed with formulating the final list of selection criteria;
2. Strive to ensure that missing data are provided to EURISCO as soon as possible;
3. Assist countries and their Associate Member institutes in identifying "candidate" MAAs in their collections;
4. Develop a crop-/genepool-specific list of MAAs on the basis of the candidate accessions, using the selection criteria;
5. Where necessary, suggest any additional accessions to countries;
6. Establish a final list of European Accessions for a given crop genepool and confirm the final decision with National Coordinators.

Discussion

M. Veteläinen informed that the Forages WG has started with an analysis of the CCDBs. This approach gives a general overview of all the existing material, which would otherwise be lost if the process is based on bilateral approaches.

Selection of Forages MAAs

P. Marum summarized the progress made over the years by the Forages WG towards defining a European Forage Collection. At its sixth meeting in Beitostølen, Norway (1997), the WG defined the objectives and scope of the collection, as well as the type and status of

material to be included. Responsibilities of the Database Managers, WG members and hosting genebanks were also defined. In the seventh meeting in Elvas, Portugal (1999), a procedure to identify Most Original Samples was proposed and an algorithm to identify them was developed. The WG agreed on a mechanism for handing over responsibility for the maintenance of MOSs identified in the forage collection. In the eighth meeting in Linz, Austria (2003), the WG noted that little progress had been made with the proposed mechanism because of problems in the application of the algorithm and due to missing data in the CCDBs and EURISCO. CCDB Managers were invited to make a proposal for "Holder of primary collection" (PRIMCOLL), with focus on the priority crops *Dactylis*, *Festuca*, *Lolium*, *Medicago*, *Phleum*, *Poa* and *Trifolium*. In the ad hoc meeting of the NCG in Lindau, Switzerland (2005), progress was made in defining MOS of the priority crops; it was suggested that the "Primary holder" should be the genebank in the country where the accession was bred or collected. Forage-specific descriptors were revised. In the ninth meeting of the WG in Piešťany, Slovakia (2007), work advanced mainly for *Poa* and *Phleum* and only partially for the other crops.

The establishment of AEGIS raises the need to define selection criteria for Forage MAAs. Equating the MOSs with MAAs has been suggested. Other selection criteria could be:

- Maintained in "Country of origin"
- A known origin
- Comprehensiveness of passport information
- Number of regeneration cycles
- Health status
- Existence of morphological/molecular characterization data.

It would be preferable to use EURISCO for the selection procedure, but it does not contain descriptors for MOS, while the Forage CCDBs have descriptors for ORIGINALITY (MOS), PRIMCOLL and EFC. A few descriptors could, however, be added in the CCDBs. ORIGINALITY and PRIMCOLL are already partly registered in CCDBs.

The assignment of PRIMCOLL could take place as follows:

1. Post the CCDBs as a simple spreadsheet on a server to which WG members and DB Managers have access;
2. WG members, on behalf of their national programmes, flag the accessions they offer to maintain;
3. DB Managers flag accessions they suggest for inclusion in a European Collection;
4. Steps 2 and 3 could be carried out simultaneously;
5. Where WG members and DB Managers agree, the accessions are flagged as European Accessions.

Discussion

B. Boller suggested that if the PRIMCOLL descriptor were assigned to all accessions of a set of quasi-duplicate accessions, it would indicate that the accession already has a primary collector; a column could be added to link each accession to the primary accession.

I. Thomas, B. Boller and E. Willner fully supported the idea of equating MAA with MOS as the basis for choosing the MAAs for AEGIS, and the Group agreed.

B. Boller further suggested that the proposed additional criteria should also be considered to facilitate selection from among groups of probable duplicate accessions, such as a set of populations from the Rhodopi Mountains.

I. Thomas remarked that in any case, samples that are not suggested for the European Collection would not be lost.

Workplan

6. P. Marum and I. Thomas agreed to use a "Google Fusion Map" and test the methodology proposed by P. Marum in his presentation for the identification of European Accessions.

Safety-duplication

M. Veteläinen presented a table with the storage conditions (as of 2005) of institutes conserving forage accessions and the respective percentages of safety-duplication. An updated version will be uploaded on the ECPGR Web site.⁷

Discussion

The role of the Svalbard Global Seed Vault (SGSV) as a valid location for primary safety-duplicates was discussed. B. Boller thought that it was better to also keep the material in a place where it could be easily retrieved; Svalbard could therefore not be the primary safety-duplication site. M. Veteläinen thought that the main consideration should be that the material is stored at a different site for safety-duplication.

S. Kratovalieva reported that the South East European Development Network on Plant Genetic Resources (SEEDNet) planned to use both a different genebank in the region and Svalbard for the second safety-duplication.

M. Veteläinen concluded that AEGIS allowed different arrangements to accommodate different views. What prevails is that the material is safety-duplicated.

Introduction to the Leibniz Institute of Plant Genetics and Crop Plant Research (IPK)

The presentation by A. Graner is available online.

Research activities linked to the IPK forage collections

The presentation by K. Dehmer is available online.

Reports on national collections and collecting activities

National reports were received from Austria, Belarus, Bosnia and Herzegovina, Bulgaria, Czech Republic, Estonia, France, Germany, Italy, Macedonia FYR, Poland, Turkey and the United Kingdom. They included information about genebank infrastructure and quality management, collection status, documentation, characterization and evaluation, regeneration and research. Very few concerns were mentioned. More than 4000 new accessions were collected in the past few years; a summary of the collecting activities (Austria, Bosnia and Herzegovina, Bulgaria, Czech Republic, Estonia, Germany, Macedonia FYR, Norway and Poland) was presented.

Reports of national activities are available online.

⁷ http://www.ecpgr.cgiar.org/networks/forages/forages_wg_germany_2010.html