

Agenda Item 2 - B

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**A collection of mechanisms proposed by the different Working Groups
to share responsibilities for conservation**

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Allium Working Group

From the draft report of the ECP/GR *ad hoc* meeting on vegetatively propagated *Allium* genetic resources in Europe, held in Gatersleben 21-22 May 2001:

Proposal for a conservation network

According to this proposal, all the different vegetative *Allium* accessions currently conserved in Europe should be identified in order to become part of a “European collection”. The responsibility for maintaining crop subsets of this collection could be accepted by two or more genebanks, designated on the basis of climatic requirements of the different crops and of existing conservation expertise. Therefore, each accession would be maintained in more than one location as a measure of safety-duplication.

A possible subdivision of the responsibility was suggested as follows:

- Long day garlic: Czech Republic, Germany, Poland, Spain
- Short day garlic: Israel
- Shallot: Czech Republic and Nordic Gene Bank
- Vegetative Leek + Mediterranean (oceanic) wild species: Greece, Israel, Netherlands, Spain and United Kingdom
- Continental wild species, cold requiring: Czech Republic and Germany
- Chives and Chinese chives: Netherlands Nordic Gene Bank and United Kingdom

Recommendations and workplan

Having considered the examples offered by other Working Groups, such as Beta and Potato, the following mechanism for the operation of the network was proposed:

- 1) Collection holders, once verified the level of commitment that can be ensured at national level, will make a list of the samples that they would accept responsibility for and send this list to the EADB manager.*
- 2) Collection holders will inform the EADB manager about their availability to accept the responsibility for additional samples to be conserved as safety-duplicates.*
- 3) On the basis of available information, the EADB manager will mark as belonging to the “European collection” all the accessions accepted under specific institutes’ responsibility. On the basis of available information, the EADB manager will identify samples for which no one or only one institute offered to accept responsibility for maintenance. The matter will be brought to the attention of the Working Group.*
- 4) Accepting responsibility for maintenance of a given sample as part of the “European collection” implies that the institute will maintain it until further notice and will make it available upon request. Maintenance conditions will be in compliance with the quality standard procedures agreed within the Allium Working Group.*
- 5) The institute that at any point should decide not to continue the maintenance of given samples will inform the ECP/GR Working Group sufficiently in advance to identify another institute to take over the responsibility.*

Barley Working Group

From the Report of a Working Group on Barley, Sixth meeting, 3 December 2000, Salsomaggiore, Italy:

The Group agreed to the recommendations listed below, corresponding to the outcome of the Cereals Network Coordinating Group meeting:

Recommendations

Step 1. The Chairperson of the Working Group on Barley informs the Working Group members and genebank curators of the initiative and encourages its implementation.

Step 2. The genebank curators offer to take responsibility, for maintenance and distribution to bona fide users, of a list of accessions and inform the CCDB manager of their detailed offer. This exercise should start from: (i) recent European cultivars released since 1950; (ii) material of local origin; (iii) unique material of each genebank; and (iv) all other material.

Step 3. The CCDB manager combines the lists received from curators and identifies gaps in the responsibility net.

Step 4. The Cereals Network Coordinating Group reviews the progress made and makes further recommendations.

Cereals Network

From the report of a Network Coordinating Group on Cereals, *Ad hoc* meeting, 7-8 July 2000, Radzików, Poland:

Sharing of responsibilities

W. Podyma summarized the status of the debate on sharing responsibilities within the ECP/GR Networks and gave an account of the different proposals made by the Working Groups. He invited the Cereals Network to proceed a step further in the implementation of an agreed mechanism (full presentation in Part II).

In the **discussion** that followed, concern was expressed that the mechanism proposed would require too heavy a workload for the Central Crop DB managers.

The approach proposed by the *Prunus* Working Group was mentioned as an option that could reduce the workload of the DB managers. In this approach, the curators offer to take responsibility for a list of accessions and it is not the DB manager's task to suggest that each curator accepts responsibility for a list of primary accessions.

The essential role of the DB manager in any mechanism of shared responsibility was, however, stressed. The DB manager was said to be in the best condition to analyse the data and pinpoint gaps or duplications remaining after the curators have assumed responsibility for their own list of accessions. It was therefore proposed that this sharing of responsibility exercise start from both ends (curators and DB managers).

The importance that eventually the same agreements be reached for all crops was stressed, in order to avoid genebanks dealing with many crops having to follow different mechanisms depending on the crop.

The importance that the National Coordinators be involved in the process of accepting responsibility was also stressed and the Group was made aware that in some cases countries will be waiting for the outcome of the international negotiations before taking any decision.

Finally, it was mentioned that descriptors for the identification of primary accessions and the corresponding maintainers would have to be included in the EURISCO catalogue.

Recommendation

Step 1) Chairs of the Working Groups on Avena, Barley and Wheat and Database managers of the Maize, Secale and Triticale Databases inform the respective Working Group members and genebank curators of the initiative and encourage its implementation.

Step 2) The genebank curators offer to take responsibility, for maintenance and distribution to bona fide users, of a list of accessions (suggested criteria: material of local origin, unique material) and inform the DB manager of their detailed offer.

Step 3) DB managers combine the lists received from curators and identify gaps in the responsibility net.

Step 4) The Network Coordinating Group reviews the progress made and makes further recommendations.

Working Group on Potato

From the report of the First meeting, 23-25 March 2000, Wageningen, The Netherlands:

Maintenance responsibilities and rationalization of collections

In the framework of the EU potato genetic resources project, an attempt was made to create criteria for designating two institutes to be primary holders of a variety. With the start of the ECP/GR Working Group, however, the number of collections involved has expanded considerably and the criteria may need to be redefined. For example, where a variety has been bred outside of Europe, e.g. in the United States, it may be felt unnecessary to maintain it at two sites in Europe.

Accepting the responsibility for the maintenance of a certain clone means that the institute will maintain it until further notice and will make it available upon request. If an institute at any point does not want to continue the maintenance of a clone, then the ECP/GR Working Group will be informed and another institute would be identified to take over the responsibility. Collections other than the two primary ones may also maintain the clone for different reasons, but are free to remove the clone from their collection. This strategy will ensure that the clone will be maintained at least in two different sites, and gives other holders the opportunity to rationalize their collection on the basis of specific priorities.

It was agreed that all collections will make a list of which clones they would accept responsibility for in the first place, and send this list to SASA. SASA will identify the clones where no one or only one institute offered to accept responsibility for maintenance.

For accessions of wild and primitive species, the collection holding the most original sample of a certain accession will be determined.

Safety-duplication

The central database will identify unique material. Although a number of institutes, e.g. SASA, keep their collections at two sites within a country, it was felt that it would be preferable to maintain each clone in two different countries. However, it may be difficult to find another collection willing to maintain a safety-duplicate sample. As a temporary solution, M. Veteläinen suggested that material may be kept at two sites within a country.

For true seeds of wild and primitive species, safety-duplication can easily be implemented through black box arrangements¹. The need for additional safety-duplication will be determined.

¹ Under “black box” arrangement, the safety-duplicate seed sample is stored in long-term conditions according to international standards; it is not used, tested, regenerated or distributed to a third party.

Forages Working Group

From the report of a Forages Working Group, Seventh meeting, 18-20 November 1999, Elvas, Portugal:

The Group agreed on a mechanism whereby responsibility would be accepted for the maintenance of the Most Original Samples (MOS) identified in the Forages collections. The completion of this exercise would allow all the collections holders to focus their priorities on the MOS for characterization, evaluation and multiplication for distribution.

The proposed mechanism is the following:

Thanks to data analysis with the algorithm described in Appendix I, all accessions will be provisionally marked as either MOS or "one step away from MOS", "two steps away from MOS", "with MOS", or "unknown". The Database managers of the Central Crop Databases will provide to all the Forages collection curators the information on their accessions including the provisional status, by the end of April 2000. Curators will be asked to check the validity of these categories and to provide comments and corrections by the end of November 2000.

Whenever the provisional MOS status is accepted, curators will also be asked to provisionally accept the accompanying responsibility for the maintenance of those accessions.

Specific responsibilities for the MOS maintainer, the DB manager and the genebank hosting safety duplicates are agreed as follows:

The responsibility of the maintainer of a MOS is defined as follows:

- ensure that the accession is maintained under long-term conservation condition in compliance with the international standards and that seed increase guidelines standards agreed within the Forages Group (see report of Sixth meeting, page 162) are followed;*
- ensure that an appropriate safety-duplicate is deposited in a genebank preferably within another ECP/GR member country;*
- facilitate access to the accessions to bona fide users;*
- in case of impossibility to honour the commitment for long-term conservation and regeneration, inform the database manager.*

The responsibility of the Central Crop database manager would be:

- facilitate the repatriation of material by distributing relevant information about accessions conserved in countries other than the country of origin;*
- update the database when informed of changes by the national information systems and make the database available to the collection holders, both as a searchable and downloadable DB on the Internet, and as a diskette upon request;*
- forward to MOS maintainers any request of seeds;*
- provide the collection holders and the Forages Working Group with information about the degree of safety duplication of the collection.*

The responsibility of the genebank hosting safety-duplicate:

- Maintain the safety-duplicated germplasm in long-term storage in compliance with international standards and under a 'black box ' arrangement (i.e., not distribute the germplasm and the related*

information; immediately notify the MOS maintainer in case of any problem with the safety-duplicate; not carry out viability tests; not regenerate the safety-duplicated germplasm).

Prunus Working Group

Towards a definition and implementation of a European *Prunus* Collection

Document approved by the *Prunus* Working Group , 7 November 1999 (revised October 2001)

Purpose

To coordinate efforts of individual European countries to conserve, and make available for propagation and research, *Prunus* accessions originating in Europe or otherwise important to European horticulture, silviculture, cultural heritage or science.

Composition

The European *Prunus* Collection should be a decentralized *ex situ* collection comprising appropriate accessions held by participating genebanks and available for distribution.

Accessions to be regarded initially as European Collection accessions are those held in various European countries and accepted as European Collection accessions, by the ECP/GR *Prunus* Working Group.

Accessions should be accepted as European Collection accessions if they are:

- important accessions from the wild, collected in Europe;
- cultivars or certain selections raised in Europe.

In addition there may be included:

other wild accessions, cultivars and selections important for horticulture, silviculture, cultural heritage or research in one or more European countries.

Cultivars protected by Plant Breeders' Rights and virus-infected items should be included even if they cannot be distributed freely at present.

Subsequently, if several accessions of the same genotype are held, a limited number may have the European Collection designation confirmed by the ECP/GR *Prunus* Working Group, to reduce duplication of efforts.

Implementation of decentralized collection

Curators, to offer accessions by sending a list to the Central Database manager.

Central Database manager analyzes the offers and, with agreement of the *Prunus* Working Group, notifies the participating genebanks concerned of the accessions that will be regarded as European Collection accessions.

Central Database Manager identifies European accessions held at only one site that need to be safety-duplicated in a second site and provides the list to the Working Group and the ECP/GR Secretariat for action.

Responsibilities of participating genebanks

To provide the names (i.e. species, cultivar etc.) of the accessions they are offering as European accessions, with identification numbers where appropriate, to the European *Prunus* Database Manager.

To endeavour to provide additional passport data, such as country of origin and virus status.

For accessions accepted into European *Prunus* Collection:

Also to maintain the trees, ideally at least two per accession, or give at least two years' notice *via* the European *Prunus* Database Manager before grubbing.

To endeavour to provide characterization data to European *Prunus* Database in accord with agreed descriptors.

To make scion wood (e.g. two sticks) available in response to reasonable requests from within Europe, subject to restraints of Plant Breeders' Rights and Plant Passports.

Responsibilities of European *Prunus* Database Manager

To obtain the lists of available *Prunus* accessions and location from participating genebanks, together with passport data, and make them available in a computerized version.

To produce a list showing the number and location of accessions of each genotype. To draw attention to genotypes held at only one site (needing safety duplication).

To cross check and confirm with the ECP/GR *Prunus* Working Group and the participants which accessions are regarded as European Collection accessions and to annotate the database by inserting 'yes' in the field 'European *Prunus* Collection'.

To seek characterization data of accepted accessions.

To notify each country of any genotypes originating in that country but not held there so that country can consider acquiring them.

To receive and disseminate information about European Collection accessions threatened by grubbing with a view to arranging propagation and replanting.

To update database when informed by holders.

Beta Working Group

From the report of a Working Group on *Beta*, First meeting, Broom's Barn, United Kingdom, 9-10 September 1999:

The Group agreed on the usefulness of finding an acceptable mechanism whereby responsibility could be accepted for the maintenance of the Most Original Samples identified in the IDBB. The completion of this exercise would allow all the collections holding duplicates to safely reduce the commitment for the maintenance of redundant samples.

The proposed mechanism is the following:

By the end of March 2000, the Database manager of the IDBB will provide the database in DBase format to all the Beta Network curators by the end of March 2000. All accessions will be marked as either MOS or probable duplicates. Curators will be asked to check the validity of these categories and to provide comments and corrections by the end of October 2000.

Whenever the MOS status is accepted, curators will also be requested to accept the accompanying responsibility for the maintenance of those accessions. Specific responsibilities for the MOS maintainer, the DB manager and the genebank hosting safety duplicates are agreed as follows:

The responsibility of the maintainer of a MOS is defined as follows:

- ensure that the accession is maintained under long-term conservation condition in compliance with the international standards and the quality standard procedures agreed within the WBN;*
- ensure that an appropriate safety duplicate is deposited in a genebank preferably within another WBN country;*
- provide unrestricted access to the accessions to bona fide users from the WBN;*
- in case of impossibility to honour the commitment for long-term conservation and regeneration, inform the database manager.*

The responsibility of the IDBB manager would be:

- facilitate the repatriation of material by distributing relevant information about accessions conserved in countries other than the country of origin;*
- update the database when informed of changes by the national information systems and make the database available to the collection holders, both as a searchable and downloadable DB on the Internet, and as a diskette upon request;*
- forward to MOS maintainers any request of seeds;*
- provide the collection holders and the WBN with information about the degree of safety duplication of the collection.*

The responsibility of the genebank hosting safety duplicates:

- Maintain a sufficient quantity of safety duplicated germplasm in long-term storage in compliance with international standards and under a 'black box' arrangement;*
- not distribute the germplasm and the related information;*
- immediately notify the MOS maintainer in case of any problem with the safety-duplicate;*
- not carry out viability tests;*

-not regenerate the safety duplicated germplasm.