Report of an *Ad hoc* meeting of the Chairs, Vice-Chairs and Central Crop Database Managers of the Solanaceae and Cucurbits Working Groups 11-12 April 2013, Valencia, Spain

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Introduction

The scope of this two-day ad hoc meeting was to explore the possibility to abandon Central Crop Databases (CCDBs) and focus on EURISCO, in order to avoid duplication of data and working efforts. The main facilities of both systems were discussed.

Current progress concerning the selection of Most Appropriate Accessions (MAAs) was reviewed for Solanaceae and Cucurbits and possible plans for the new phase of ECPGR (Phase IX, 2014-2018) were discussed.

1. CCDBs and EURISCO

CCDBs managed by both Working Groups (WGs) were presented and discussed. All databases include online searchable passport data and limited searchable characterization data. Their online interface is quite similar and offers easy access to detailed passport data. Each database includes additional information for end-users, which should not get lost (e.g. photographs, taxonomic information, search for probable duplicates, core collection, list of contributors, list of non-governmental organizations (NGOs) practising on-farm conservation, links to sites of related interest, etc.).

It was stated that the number of online visits to the CCDBs seems to be limited, on the basis of the number of annual hits (e.g. 350 per year for tomato) and the small number of seed requests via this portal.

EURISCO was presented and discussed via the website. It was accepted that EURISCO is:

- the centralized access to passport information of plant genetic resources (PGR) held in Europe;

- the European database where the MAAs will be flagged; and
- the network that should be the platform for cooperation between PGR holders in Europe.

Therefore, the benefit of concentrating efforts on EURISCO was recognized by all participants in the meeting. At the moment, for Solanaceae and Cucurbits, the passport data coverage (number of accessions), completeness (empty fields) and quality (inadequate or wrong data) in EURISCO is less than in the CCDBs. Strong efforts have been made in the past for filling in the CCDBs with data directly provided by the germplasm holders, resulting in a higher coverage.

The quality of passport data was improved for instance for taxonomy and donor. Many missing data were completed directly by the CCDB Manager.

EURISCO is filled with data from National Inventories (NIs) provided by the National Focal Points (NFPs). Data quality improvements have been made in the NIs upon request of the EURISCO Coordinator. Those improvements must be made on the local source data otherwise they will be lost when a new NI is compiled.

Actions to be taken in cooperation with the EURISCO managing team and CCDB Managers to upgrade EURISCO (and stop input in CCDBs)

- Check the coverage of passport information in both CCDBs and EURISCO. Inform the data donors, NFPs and the EURISCO Coordinator when data currently present in the CCDBs are lacking in EURISCO. Send an overview of missing accessions to all parties. Support transfer of missing data from CCDBs into EURISCO via data donor and NIs.

- Improve understanding and interpretation of EURISCO descriptors at the data donor level.

- Improve data quality via direct and personal interaction with local DB Managers. This aspect is essential (also for the selection of MAAs). The group advises EURISCO to organize strong data quality management. It is suggested to appoint a data quality manager at EURISCO. Secondly, capacity building can be organized by sending data experts to colleague genebanks who need help in organizing data to be uploaded in their NI. CCDB managers could play a role here.

- Facilitate the ordering of accessions via EURISCO, e.g. by a list of collection holders and their contact details (website, email). Also, the field (ACCEURL) leading to detailed description of an accession at the collection holder's website must be filled where possible.

- Improve taxonomy in EURISCO, like misspelled taxon and obsolete species name.

- Standardize crop names in order to facilitate crop selections. For instance *Solanum lycopersicum* is named: tomato, tomatoes, tomate, garden tomato, ground tomato, dwarf tomato, hairy tomato, etc.

- Incorporate the new *Multi-crop Passport Descriptors* (MCPD V.2) in EURISCO, in particular geographical coordinates. These fields can be used to identify gaps in collections and areas of potential interest for collecting.

- A field indicating seed availability is needed because many accessions listed in EURISCO are not available.

- EURISCO is poorly known by end-users. The disappearance of the CCDBs must be compensated with a powerful promotion of EURISCO being the most important entry point of PGR passport data in Europe.

- Transfer all additional information in a CCDB, beside passport data, to the webpage of the corresponding ECPGR WG. A way of preserving and enhancing this information might be the development of crop portals for each crop.

- Characterization and Evaluation data (C&E) available in the CCDBs cannot be transferred to EURISCO yet. Until C&E data can be entered in EURISCO these data can be made available directly on the germplasm holders' websites where possible. The loss of the available C&E data in the CCDBs is limited given the modest amount of data and limited use of the CCDBs by end-users. Support should be provided for those having no C&E data available online. Transferring C&E data from the source to EURISCO will be a minor step once these data are locally available online.
  The group stressed the importance of C&E data for end-users, and awaits the implementation of (searchable) C&E data in EURISCO.

- It is essential for PGR providers to understand the needs of the PGR users. The outcome of the EU '*PGR Secure'* project (http://www.pgrsecure.org) might provide some clues.

- The cooperation of the CCDB Managers with EURISCO Managers will work only if EURISCO strongly upgrades its level of activity and interaction with CCDB Managers and NFPs. Otherwise efforts will end in frustration and stagnation.

2. Most Appropriate Accessions

The current achievements of selecting MAAs in the Solanaceae and Cucurbits CCDBs were presented. Some MAAs were identified but difficulties were encountered, mainly due to insufficient quality of passport data.

- For Cucurbits, MAAs were identified per crop and germplasm holder and listings are ready to be sent by the DB Manager to National Coordinators (NCs) for refinement, in collaboration with their national germplasm holders.

- For Solanaceae, MAA selection criteria were experimented by the WG during its meeting held in Izmir in February 2012, and although difficulties were encountered, putative MAAs were identified.

- All solanaceous crops from Germany and The Netherlands and all Hungarian landraces were proposed by Germany, Hungary and The Netherlands to be listed as AEGIS accessions. Duplicates were eliminated between these three groups, using the “Duplicate Finder” developed at CGN. Flagging by each country is still pending.

- The above-described procedure of selecting MAAs coincides with an alternative way applied by Germany and The Netherlands for most crops of both WGs. Material originating or developed in these countries as well as material collected during official collection missions have been selected and are already flagged in EURISCO.

There is a consensus that the whole process of identifying AEGIS accessions and MAAs is still difficult and often not clear. Guidance and instructions by AEGIS promoters are needed to improve and speed up the process.

3. Plans for next phase

3.1. Merging the Solanaceae and Cucurbits WGs?

Reviewing recent ECPGR correspondence on the topic of WG merging, the group agreed with the opinions of several NCs to keep the current situation because ECPGR is already facing many changes in the next phase. Further, the group does not see any added value in merging the Solanaceae and Cucurbits WGs because the new phase is based on submitting targeted small project proposals.

The group is clearly opposed to merging all vegetable WGs into a large single Working Group.

3.2. Listing of possible projects

The group agreed that the principle of supporting targeted projects would strongly increase the outputs of the WGs. Such projects can concern crop-specific projects as well as generic topics (e.g. data quality improvement). Possible project topics were proposed:

- Adapting WG webpages for displaying useful information about the crops in order not to lose information entered in the CCDBs (species identification keys, taxonomic information, etc.) including a link to EURISCO. Exploring the possibility to transform these webpages into a crop portal.

- Upgrading EURISCO passport data via analyzing EURISCO data and improving data quality at the source level. Capacity building can be implemented via direct interaction with crop and/or DB experts visiting each other.

- Making local passport and characterization data available online to compensate for data loss due to abandoning CCDBs and to stimulate accessibility of new data.

- Identification of gaps in collections and areas of potential interest for collecting. Use of Geographical Information Systems (GIS) for graphic representation of the worldwide distribution of the accessions held in European genebanks.

- Characterization and evaluation of collections that are not well characterized.

- Making an inventory of the use of minimum descriptors by germplasm holders.

- Setting up evaluation projects for traits of interest in cooperation with private breeding companies, across collection holders.

- Finalizing local safety duplication.

- Identifying and securing endangered local collections.

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