

European Cooperative Programme for Plant Genetic Resources (ECPGR)

Minutes of the Third EURISCO Advisory Committee meeting

7 July 2021, online

Participants

Anne-Françoise Adam-Blondon, INRAE Kjell-Åke Lundblad, NordGen José María Iriondo Alegría, URJC Lorenzo Maggioni, ECPGR (ex officio) Paul Olson, KWS Theo van Hintum, CGN (Chair)

Observers

Stephan Weise, IPK (EURISCO Coordinator) Pragna Kotni, IPK Francisco Lopez, ITPGRFA

Unable to attend

Ludmila Papoušková, CRI Matija Obreza, Crop Trust

The Agenda for this meeting is available online (here).

1. Welcome and introduction

The Chair of the EURISCO Advisory Committee (AC) welcomed all the participants, including the observers Francisco Lopez from ITPGRFA and Pragna Kotni, new EURISCO developer. Participants introduced themselves briefly. The agenda was reviewed and adopted.

2. Report on EURISCO activities since previous AC meeting

S. Weise, EURISCO Coordinator, presented progress, main activities and developments of EURISCO (PPT available here).

A few points raised by AC members were then discussed/clarified:

- It was noted and appreciated that the data quality within EURISCO had improved.
- Feedback received on training was very positive and perceived as a good service to the community.
- Although some of the newly developed features of EURISCO (such as flexible use of additional descriptors not contained in the Multi-Crop Passport Descriptors) were not taken up by the crop Working Groups, the reason could be that trainings were not carried out since 2019, and not necessarily that these are not useful.
- It was clarified that EURISCO does not define or restrict which taxonomy the National Focal Points (NFPs) should use. Taxonomic names in EURISCO are internally mapped to the GRIN and Mansfeld taxonomies. This facilitates searches, since all the mapped terms are retrieved after each given search.

- Data providers receive automatic communications advising about taxonomic misspellings, but only they can decide to correct the data. Unfortunately, in most cases these advices are not followed up.
- The review of the EURISCO functionalities is prioritized by keeping into account which ones are most used and need improvement. Also requests directly received from the users are added to a 'waiting list'.

The AC was impressed by the very good job made by the EURISCO team and thanked S. Weise for the clear and comprehensive report.

3. Scope of EURISCO: what should be included?

Currently, there is no policy defining what kind of material should be included in the catalogue and the NFPs can autonomously decide on this matter. There are two data domains that are currently not included in EURISCO, but deserve attention in the near future, i.e. data related to *in situ* material and material under development (e.g. lines within accessions, often with their own DOI). Searches in the catalogue for this material would not generate any result.

In situ material - Crop Wild Relatives (CWR) and on-farm landraces (LR)

A technical prerequisite for inclusion of data is the existence of a suitable data exchange standard. A proposal for a data exchange standard for *in situ* CWR was recently developed by FAO (Alercia et al. 2021), with German funding. Additionally, it is necessary to establish an infrastructure for data flow (appointing either the existing NFPs that are engaged in the exchange of *ex situ* data, or different NFPs). Originally, it was easy to establish a network of NFPs providing *ex situ* data, since genebanks were already used to collect and manage this type of data. It is less evident to determine who should collect *in situ* data. There are several types of actors (including governmental and non-governmental) that are working with this type of data.

F. Lopez clarified that the data standards developed by FAO can still be adapted/aligned to existing needs and can thus be used as a starting point.

Regarding the opportunity to integrate CWR data into the existing EURISCO database schema or to create a separate one, this is an issue that needs to be looked at in detail and a working meeting might need to be called for this discussion. The effort required to expand the user interface also depends on this.

J. Iriondo pointed out that there are similarities between the descriptors proposed by FAO and those proposed by the Farmer's Pride project. Some descriptors are missing in the Farmer's Pride version. The link to the *ex situ* 'accession number' is very important (FAO descriptor number 21). Also, FAO descriptor number 22 ("Conservation actions in place") is important. In fact, it is necessary to establish criteria to decide which populations become "*in situ* accessions". It is not practical to include all populations that are within protected areas, since already more than 500 thousand populations are present in Natura 2000 areas. What is important is that some active conservation is in place (it could be just periodical monitoring, and having an institution taking responsibility for each population). Data should be provided by National Coordinators or NFPs. This type of information is not yet available, but EURISCO should be prepared to enable the first countries to start feeding data. For example, Spain is working in the direction of setting a register with requirements to become official genetic reserve for CWR conservation. Tv Hintum stressed that the addition of *in situ* data should strengthen the role of EURISCO as providing a starting point for PGR users, and certainly not dilute it.

Another critical information that EURISCO should convey is related to the availability of the material in principle, which is something that for example the Global Biodiversity Information Facility (GBIF) catalogue is not providing. Also, the data entering GBIF are not cleared by any

national authority and thus this catalogue is not suitable to gather information that is selected based on specific quality requirements.

It was also noted that the expansion of EURISCO to include *in situ* data might subtract resources to the ongoing work to maintain and improve the *ex situ* component of the catalogue and thus additional work should be planned according to well-thought priorities.

The Committee agreed to recommend the use of the "Descriptors for Crop Wild Relatives conserved in situ, Alercia A, López F, Marsella M and Cerutti AL" published in 2021 as the standard for in situ data. It was concluded that the EURISCO Coordinator should draft a memo (by the end of August 2021), including a proposal for the extension of EURISCO to host in situ data, also clarifying what would be needed in terms of staff time, as well as the options for establishing a specific data flow mechanism. This memo should be circulated to the EURISCO AC and to F. Lopez for approval before bringing it to the attention of the ECPGR Steering Committee.

Single Seed Decent lines and other 'derived material'

Information related to special collections derived from genebank accessions is increasingly being generated as often as the derived single seed descent lines of test crosses are being used in science. Therefore, it would be very useful to enable access to such information, which helps to define which accessions are more valuable.

DOIs are increasingly assigned to each individual line and technically it is feasible to link accession-level information with its specific derived lines information. The solution might be to simply use pointers to the various DOIs, especially if the material is not available. At the same time, it might be preferable to keep the available data in EURISCO, rather than in various projects' portals. In fact, it would be useful to adopt a standard that clearly distinguishes derived lines from the original accessions. This is often not done by researchers in publications and creates confusion.

It is understood that derived materials are not necessarily conserved in perpetuity by the genebanks and that they are also not always accessible in the same way as ordinary accessions, but in some case they are made accessible at a cost or under specific conditions. It might be reasonable to include derived lines in EURISCO if they were also accessible. However, at the moment, genebanks and NFP autonomously decide what is the local policy. It would be good though to present a policy to avoid different NFPs developing their own policies independently. The Chair therefore thought that how special collections are handled is something that we need to collectively think about, although coming up with a solution might be too early.

The issue is debated in ongoing projects, such as in AGENT, where a proof of concept is being elaborated, and in the EVA network, where these data will be kept as part of an extension of EURISCO.

It was concluded that the issue of information related to SSD lines and other derived material is an urgent matter and that the EURISCO AC should be able to give guidance. It is necessary to explore the various possibilities and better define the issue, also developing possible scenarios to be evaluated before making a recommendation. It was agreed that the first step would be to write a paper for 'Genetic Resources' (authors A.-F. Blondon, S. Weise and Th. Van Hintum), which will also be used for discussion within the AGENT project. On the basis of this paper, the EURISCO AC will be solicited to develop a recommendation to the attention of the ECPGR Steering Committee.

4. Phenotypic data in EURISCO: status and plans

S. Weise gave an overview of the situation (PPT available here), indicating that the current pragmatic approach for collecting phenotypic data as-is in EURISCO, without standardization, is increasingly accepted, but it has limitations of comparability and reproducibility. The approach that is currently experimented through the AGENT project involves the separation of the data into two types, i.e. historical and new. For the existing 'historical' data, the current simplified templates are in use. For new experimental data, new templates are under development, aiming at a more extensive collection of meta-data, increased user-friendliness and full MIAPPE compliance.

The developments experimented through the AGENT project, moving towards full MIAPPE compliant data formats for new data, while maintaining the traditional simplified data format for historical data, was supported by the Advisory Committee.

5. Standardized ordering system

Differently from Genesys, EURISCO does not have an ordering system. Several genebanks have their own ordering system and do not wish to receive orders through different channels. However, it is nowadays possible to implement an API that allows Genesys, EURISCO or other aggregator systems to place selected accessions directly into the shopping cart of an existing genebank ordering system.

It was considered worthwhile to test this type of system-to-system communication, already prepared by M. Obreza, and then promote the implementation of the ordering system via EURISCO for those genebanks that have sufficient IT capacity and willingness to implement an online ordering system.

S. Weise, M. Obreza and F. Lopez were invited to develop a prototype API to connect EURISCO with the ordering systems initially of CGN and Nordgen. This test might eventually develop into an FAO-Crop Trust standard which could be promoted as part of the Global Information System (GLIS).

6. Operation of Advisory Committee

The ECPGR Secretary reported about the recently revised <u>ToRs of the EURISCO Advisory Committee</u>. Th. van Hintum expressed the wish to step down from the position of Chair of the Advisory Committee as he has been in this position since 2003. However, it was not possible to identify a volunteer for this replacement, therefore the issue was postponed to a later decision.

P. Olson informed the Committee that in October he was changing role in his organization and that he would raise the point with Euroseeds that a representative from the private sector need to be maintained in this Committee. The Committee confirmed the importance of such representation and thanked Paul for his contribution to this AC and wished him success for his new role.

The meeting was closed with an agreement to try to hold virtual meetings of the Committee at least every 18 months.