

EURISCO Newsletter, No. 14

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The EURISCO Newsletter is a series of electronic bulletins that provide feedback to National Focal Points (NFPs) and serve as a dissemination vehicle for NFPs and other partners to put forward their contributions regarding plant genetic resources issues/themes. The EURISCO Newsletter is the successor of the previous EURISCO e-bulletin. In order to ensure that the EURISCO Catalogue is sustainable and meets the NFPs' and other users' needs, everyone is invited to contribute to this newsletter. Thematic papers, ideas, comments, suggestions and questions are all welcome.

Coverage of EURISCO

In keeping with our tradition at the end of each year, it is time to provide an overview of current and future EURISCO developments.

In 2024, the number of accessions documented in EURISCO increased by 8,218, reaching 2,100,605 on 11 December 2024. These accessions are managed in 418 ex situ and 18 in situ CWR collections comprising 2,095,988 and 4,617 accessions, respectively. The number of AEGIS accessions increased significantly last year by 48,915 to a total of 119,343, while the number of phenotypic data records rose only moderately by 6,286 to a total of 2,736,066. In total, phenotypic data is available for 91,779 accessions from 21 countries. Further data is always welcome and can be made available to EURISCO with the involvement of the National Inventory Focal Points.

Extension for in situ CWR data

As part of the project 'Extension of EURISCO for Crop Wild Relatives (CWR) in situ data and preparation of pilot countries' data sets', the EURISCO infrastructure has been extended for the management of in situ CWR data.

After four countries from the pilot group had already provided the first production data at the end of last year, data from five more countries was added in 2024 and more is in the pipeline.

| Country | In situ CWR populations |
|----------------|-------------------------|
| Albania | 610 |
| Bulgaria | 243 |
| Cyprus | 391 |
| Germany | 66 |
| Italy | 12 |
| Netherlands | 1,912 |
| Poland | 111 |
| Spain | 24 |
| United Kingdom | 1,248 |
| _ | 4.617 |

EURISCO development

After some delay, we were able to fill the position of the EURISCO software developer on 1 September. The new colleague has used the past few weeks to familiarise himself with the existing IT infrastructure. At this year's EURISCO Advisory Committee meeting, it was decided to focus on strengthening synergies between EURISCO and Genesys. The most urgent task is therefore to revise the EURISCO web interface accordingly and to integrate Genesys features. A design proposal has already been drawn up and implementation is currently being planned. This also includes dedicated search options for *in situ* CWR data.

In addition, the Documentation & Information Working Group (WG) of ECPGR developed a proposal for handling phenotypic data collected from single-seed descent (SSD) lines (see below) and a revised exchange format for phenotypic data. Implementation of both is planned for 2025.

The EURISCO-EVA Information System as the infrastructure for the European Evaluation

Network (EVA) was continuously operated and maintained. This system is implemented as an extension of EURISCO and enables the partners of the respective EVA networks to bring together their phenotypic data in a standardised form at a central location. Once the embargo period has expired, the data will then be made available in EURISCO.

Input from the Doc&Info WG

A meeting of the ECPGR Documentation & Information Working Group took place <u>18-19</u> September 2024 in Tallinn, Estonia, and provided important impetus for the future development of EURISCO.

One important point was the discussion on a concept for handling data collected on SSD lines. As SSDs, especially for heterogeneous material such as landraces, do not reflect the entire diversity of an accession, there was consensus that such data cannot be mapped directly to the original genebank accessions. Furthermore, SSD lines often cannot be permanently preserved in PGR collections, which is why they are usually not documented in EURISCO. A technical solution has therefore been proposed that will make it possible to incorporate the valuable data on SSD lines into EURISCO while at the same time separating it from the original accessions. A dedicated search for SSD lines will not be implemented. Instead, when phenotypic data sets are displayed, it will be explicitly pointed out that this data was collected from individual lines selected from genebank accessions.

EURISCO-related activities

The EURISCO coordination was also involved in various projects in 2024. Special attention was

again paid to the HORIZON 2020 project AGENT, in which EURISCO plays a central role in managing new data from European wheat and barley collections. This project, which will run until April 2025, serves as a sandbox to test ways of expanding EURISCO. A particular focus, for example, is on improving the FAIRness of the data. In addition, solutions for linking traditional genebank data with genotyping data are being evaluated.

In addition, the EURISCO coordination has been involved in the HORIZON Europe project PROGRACE since last year. The aim of this project is to develop a concept and proof-of-concept measures for the establishment of a large European research infrastructure for plant genetic resources. In this context, the EURISCO coordination focusses on information standards and the interaction of different information systems.

We will continue to actively participate in preparing further project proposals to acquire additional funding for developing certain aspects of EURISCO.

Dissemination

An article about the EURISCO-EVA Information System was published in *Genetic Resources* (Kumar et al., 2024). It describes the extension of EURISCO, which was developed to facilitate standardised data collection, sharing and analysis for multi-site evaluations of different crops within the European Evaluation Network (see above).

The activity report for 2024 and the work plan for 2025 are in progress and will be published early next year.

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