



**ECPGR Activity Grant Scheme – First Call, 2014**

**Activity Report**

# **Report of the EURISCO Training Workshop 2015**

**National Focal Points Regional Training Workshop for Southeast Europe**

**19–21 May 2015, Tirana, Albania**

**Stephan Weise, Alban Ibraliu, Helmut Knüpffer (compilers)**



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# Summary report of the meeting

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# 1. Introduction

A workshop of the Documentation and Information Working Group (Doc&Info WG), titled EURISCO Training Workshop 2015, was held 19–21 May 2015 in Tirana, Albania. Its purpose was to revive the series of regional training workshops of the European Plant Genetic Resources Catalogue (or European Internet Search Catalogue, EURISCO), starting with Southeast Europe, focussing on the South East European Development Network on Plant Genetic Resources (SEEDNet) member countries which include the ECPGR members Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Hungary, FYR Macedonia, Montenegro, Romania, Serbia and Slovenia.

The workshop, organised in collaboration with the Agricultural University of Tirana, Department of Plant Sciences and Technology, brought together 20 participants, amongst them 16 National Focal Points (NFPs) and National Coordinators (NCs). The participation of 12 NFPs/NCs was funded by a grant from the 2014 ECPGR Grant Scheme, project application from the Doc&Info Working Group.

## 1.1 Background

Between April and September 2014, the responsibilities for operation and development of EURISCO were transferred from Bioversity International, Italy, to its new host, the Leibniz Institute of Plant Genetics and Crop Plant Research (IPK) Gatersleben, Germany. The adaptation of the system to the new IT infrastructure required both the actual EURISCO web application (public search interface) and the EURISCO intranet (module for uploading national data sets by the National Focal Points, NFPs) to be largely revised. Moreover, the last EURISCO training workshops for NFPs were conducted in 2009.

Besides the training for technical data uploading, it was also considered essential to include data quality and completeness. All NFPs were invited to test uploading their National Inventory (NI) datasets, to receive responses from the system, and to get guidance on interpreting and utilizing

these responses to improve their data. It was considered essential to discuss both recent and future developments with the users.

A short-term goal of EURISCO is the extension by characterization and evaluation (C&E) data. Thus, the presentation of the EURISCO C&E data exchange templates, the submission of C&E data to EURISCO, and the discussion of use-cases for visualizing and searching/filtering of C&E data were also included in the training.

## 1.2 Opening of the meeting

The meeting was opened by Stephan Weise. Alban Ibraliu, Head of the Department of Plant Sciences and Technology, Agricultural University of Tirana, welcomed the participants. Thanks were expressed to ECPGR for funding the workshop, and to Lorenzo Maggioni and Lidwina Koop (ECPGR Secretariat) for their assistance in the logistics of the workshop. Stephan Weise thanked the local hosts for their kind and efficient organization. The meeting would be structured in two days of plenary sessions and one day of hands-on session, in which the involvement of participants was expected.

All participants were asked for a short self-introduction. Stephan Weise then introduced the agenda of the meeting as well as the expectations from the organizers' point of view, and asked for the expectations of the participants. The expectations can be summarized as follows:

- Provision of training of the users for the new system
- Solving of problems with data formatting
- Obtaining feedback from the users
- Strengthening of cooperation through personal interaction
- Discussion of strategies for increasing update frequency and completeness of data
- Discussion of C&E data inclusion as a major step forward.





## 2. Plenary presentations

The following presentations were given and are available online (<http://www.ecpgr.cgiar.org/working-groups/documentation-information/eurisco2015/>). The main points addressed in the presentations are listed below each title.

### 2.1 Albanian active collections with focus on documentation

by Belul Gixhari

- Description of Albanian active collections
- Storage conditions, documentation system including passport and C&E data, germplasm distribution
- Currently, no public information system existing, passport data publicly available via EURISCO

### 2.2 Development and status of the National Inventories of the participating countries

In preparation for this meeting, all National Focal Points attending the meeting were asked to prepare some slides for a short overview about the development and status of their respective National Inventories. The presentations included:

- **Albania:** *Albanian National Inventory Development and Status* by Belul Gixhari
- **Azerbaijan:** *Azerbaijan National Academy of Sciences, Genetic Resources Institute* by Ilhama Mirzaliyeva

- **Baltic countries (Estonia, Latvia, Lithuania):** *National inventories of the Baltic countries* by Külli Annamaa
- **Bosnia and Herzegovina:** *Bosnia and Herzegovina* by Marina Antić
- **Bulgaria:** *National Inventory Bulgaria* by Nikolaya Velcheva
- **Croatia:** *National Inventory of Plant Genetic Resources in Croatia* by Mirta Culek
- **Germany:** *The German National Inventory on Plant Genetic Resources (PGRDEU)* by Sarah Sensen
- **Italy:** *The Italian National Germplasm database – PlantA-Res* by Maria Antonietta Palombi
- **FYR Macedonia:** *National Inventories, Development and Status – Macedonia* by Mirjana Jankulovska
- **Montenegro:** *EURISCO Training Workshop 2015* by Miroslav Čizmović
- **NordGen:** *Status of NI for NordGen (Nordic Countries)* by Jonas Nordling
- **Portugal:** *Portugal National Inventory (NI) development and status* by Filomena Rocha
- **Serbia:** *National PGRFA Inventory of Serbia* by Milena Savić Ivanov
- **Slovenia:** *Slovene Plant Gene Bank and Genetic Resources Programme* by Lovro Sinkovič
- **Spain:** *Spanish Plant Genetic Resources Centre, The National Institute for Agricultural and Food Research and Technology* by Lucía De la Rosa Fernandez
- **Turkey:** *National Inventory for the ex situ Conservation of Plant Genetic Resources in Turkey* by Abdullah İnal

The comprehensive overview which was given by these presentations was highly appreciated both by the new EURISCO Coordinator and the participants of the workshop.

### 2.3 EURISCO catalogue – Status quo and planned developments

by Stephan Weise

- Background information about EURISCO (history, overall architecture, statistical information)
- Information about the transfer to the new host and the re-engineering
- Introduction of the new public web application
- Introduction of the new EURISCO intranet for data providers (new procedure, new tools, incremental updates)
- Future of EURISCO (existing challenges, planned developments)

## 2.4 Live demo of the EURISCO information system

by Stephan Weise

- Demonstration of the public web interface of the EURISCO catalogue
- Demonstration of the EURISCO intranet for National Focal Points

## 2.5 Data quality checks

by Helmut Knüpfner

- Short evaluation of the completeness of passport descriptors in EURISCO
- Possibilities for checking the correctness of scientific plant names
- Possibilities for checking the correctness of geographical data

## 2.6 Regional Management of National Inventories and Relation to EURISCO in the Nordic Countries and Introduction to Svalbard Global Seed Vault for Depositors

by Jonas Nordling

- Organization and history of NordGen as a cooperation of the Nordic Countries
- Introduction to the SESTO information system and its use in the Nordic Countries and beyond
- Overview of the Svalbard Global Seed Vault

## 2.7 The German National Inventory PGRDEU in the national, European and international contexts

by Sarah Sensen

- Description of the policy framework for PGRFA in Germany
- Overview about *ex situ* conservation and documentation
- *In situ* and on-farm conservation in Germany
- PGRDEU in the European (ECPGR, EURISCO) and in the international (CBD, ITPGRFA, MLS, Variety for Diversity) contexts

## **2.8 C&E data templates – Presentation and discussion**

by Stephan Weise

- Background information about the development of the C&E data exchange format
- New data model and detailed information about certain fields of each sub-template and their usage
- Data upload procedure

## **2.9 C&E data in EURISCO – Discussion about use-cases for visualization and search of C&E data**

by Stephan Weise

- Examples from two information systems, which already provide C&E data to the public
- User requirements for utilizing C&E data in EURISCO (examples of possible implementations, discussion)



### 3. Hands-on session

On the second day of the meeting, a hands-on session was performed, which was aiming at

- uploading of NI datasets,
- running integrity checks,
- interpreting check results and
- discussing improvements.

In order to prepare the hands-on session, an isolated test environment was created, which comprised the full database structures of the EURISCO intranet including all import routines, the web-based intranet application and the new passport data importer for MS-Excel files. In general, the update procedure consists of the four consecutive steps of (i) uploading a data file to the EURISCO server, (ii) parsing and importing this file into a staging area, (iii) applying the integrity checks, and (iv) finally deciding on publishing or withdrawing the new dataset (Fig. 1).

In preparation for the workshop, the participants were asked to bring their National Inventory datasets in order to practice the upload and to apply the EURISCO data integrity checks onto this data.

The upload of data files as well as the creation of import set-ups was demonstrated. In this context, the different validation profiles were explained. In the course of the session, datasets of several participants were used for demonstrating EURISCO updates. The datasets were parsed and imported into the staging area by the new MS-Excel importer. The records were then checked for integrity.

The participants were provided assistance in formatting of data files correctly as well as in interpreting integrity errors. Besides formatting problems, the main errors comprised incorrect FAO-WIEWS codes (INSTCODE, DONORCODE, OTHERNUMB fields) and geographical coordinates (LATITUDE, LONGITUDE fields).

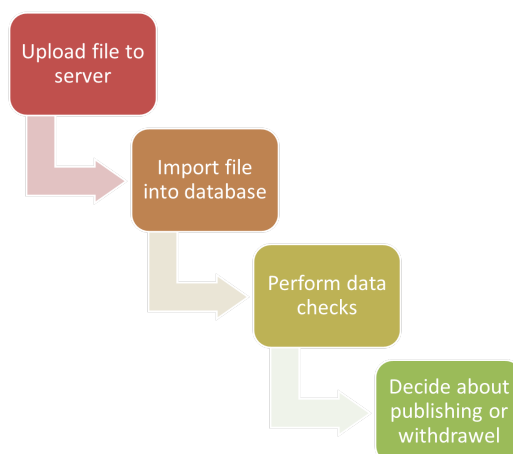


Figure 1: Procedure of inserting/updating data in the EURISCO intranet.

Once again, it was made clear that the new EURISCO intranet now supports incremental updates. Thus, it should be distinguished between inserting new data and updating existing data. In the previous system, no incremental updates of EURISCO data took place. Instead, only full replacements on National Inventory level were performed. This means that in case of an update the whole dataset of a National Inventory was first deleted and then replaced by the reworked whole data set of this National Inventory. Besides performance issues, also the extension of EURISCO for the inclusion of C&E data (under implementation) required to make the change to incremental updates with the new system. Since C&E data are directly connected with passport data, deleting and reimporting of passport data would cause serious problems with referential integrity in the EURISCO database. Henceforward, National Focal Points should only send data which were really changed – additional accessions and existing accessions with modified content. New accessions will then be inserted while existing accessions will be updated. If necessary, the update will of course also work with the full dataset of a National Inventory. Moreover, with the incremental updates it will now be possible to perform selective updates of individual collections. This was welcomed by the participants.

It was explained that following this procedure, no accessions will be deleted automatically. In the future, National Focal Points will explicitly have to name accessions to be deleted by a simplified EURISCO format. Occasionally, this may be necessary for different reasons, e. g. if an accession is not maintained anymore or if the accession number changed, to name a few. It was shown that this process is supported by EURISCO. During each data update, the newly uploaded dataset is automatically compared with the current dataset in EURISCO; a list with the difference of accessions (deletion candidates) is created. It was shown how this list, which is grouped by holding institutes, can be filtered. This list should only be understood as a hint; the final decision about deletion should be made by the respective National Focal Points.

During the hands-on session, the update procedure was tested with data of the National Inventories of Croatia, Italy, Montenegro, Portugal, Slovenia and Turkey.

The participants commented very positively about the user-friendly operation of the presented data import tools.

Shortly after the training workshop, productive updates have been made for the National Inventory datasets of Albania, Croatia, Estonia and Spain.



## 4. Discussions and conclusions

### 4.1 Discussions

All participants engaged in vivid discussions, which are summarized below, grouped by topic.

#### 4.1.1 EURISCO intranet

During the discussion of the EURISCO intranet, it was suggested to make update histories visible. This should include both the dates on which the updates were performed and the provided error reports. Currently, this information is shown after finishing the data integrity checks, but becomes invisible as soon as the final decision about publishing or withdrawing the new dataset is made. However, the information remains available in the database and can be made visible again.

In order to strengthen the cooperation between National Focal Points, it was proposed to set up a discussion platform. This platform should become part of the EURISCO intranet. It was suggested that beside the National Focal Points all members of the ECPGR Doc&Info WG should have the possibility to use this platform.

It was requested to provide a manual for updating EURISCO data. This manual should comprise short descriptions and screenshots of all necessary steps.

It was discussed how to increase the update frequencies of EURISCO datasets. The participants considered it to be realistic to perform data updates once a year at least. It was suggested to remind National Focal Points for updating EURISCO at regular intervals. In the event that there are no changes in a dataset, it was suggested to make an appropriate note and to consider the dataset as updated.

### 4.1.2 EURISCO passport descriptors

Possibilities of extending the EURISCO passport descriptors were discussed. It was stated that currently the passport data exchange of EURISCO is based on an extended version of MCPD v1 only. Currently, there is no firm timetable for the implementation of MCPD v2.

The possible extension of the passport descriptor list by a descriptor HISTORIC was discussed. This descriptor could be used to label accessions which are not maintained anymore in a certain collection, but which nevertheless may be of interest for users of plant genetic resources data. This could especially be the case if there are valuable C&E data available for these accessions. For this descriptor, a formal proposal will be sent to the Doc&Info WG by the EURISCO coordinator shortly.

It was suggested to introduce a descriptor for flagging accessions of crop wild relatives. It was noted that the biological status of an accession should be indicated by the existing SAMPSTAT descriptor instead. In case the status codes are not fine-grained enough, it would be more effective to add an additional status code “crop wild relative” under “wild”.

Furthermore, the introduction of an additional descriptor FAMILY was discussed. Since the plant family depends on the genus, it was suggested to take this into account when the taxonomic backbone will be developed.

The possibility of adding a descriptor “crop group” was also discussed. It was suggested to solve this problem in connection with the development of the taxonomic backbone.

It was mentioned that the provision of geographic latitudes and longitudes is often hampered by the fact that there are different formats existing (decimal degrees, degrees decimal minutes, degrees minutes seconds). It was discussed whether it would be possible to store latitude/longitude values in different formats in EURISCO. It was clarified that internally EURISCO already stores this information in two different formats (degrees minutes seconds, decimal degrees). However, the EURISCO Coordinator preferred to stick with the present approach for the time being. Additional descriptors for geographic latitudes and longitudes were already added to MCPD v2. As soon as this standard will be adopted by EURISCO, these descriptors will also be available.

### 4.1.3 Upload of C&E data

With regard to the standardization of phenotypic traits, it was clarified that there will be no standardization at the beginning. It was suggested to provide more comprehensive examples of the trait template. It was promised to provide such examples on the basis of the IPGRI/Bioversity descriptor lists for some major crops.

It was clarified that according to the existing Data Sharing Agreement, the National Focal Points are responsible for uploading C&E data. However, the data uploads might be delegated to third persons<sup>1</sup>. It was then discussed if in the latter case the data should be approved by the National Focal Points before or after publication. It was unanimously agreed that data should be approved by the National Focal Points before publication.

### 4.1.4 Utilization of C&E data

The utilization of C&E data for the public web interface of EURISCO was discussed, especially different possibilities for searching/filtering as well as analysing/comparing data. There was a broad

<sup>1</sup> Currently being checked by the ECPGR Secretariat.



consensus that in a first step the main goal should just be the availability of C&E data in EURISCO for download. Furthermore, the selection of C&E data by experiment was considered important.

Since the traits will not be standardized, it was suggested to try grouping traits by category. This should be attempted as soon as a critical mass of data will be reached. It was suggested to use a specific flag (additional descriptor) to indicate whether the C&E data set conforms to a published Bioversity crop descriptor list.

#### 4.1.5 Miscellaneous

Regarding future EURISCO training workshops it was suggested to schedule more time for the matter of C&E data, as well as for discussions.

It was asked whether C&E data should be submitted both to EURISCO and Genesys. The recommendation was that such data should be submitted to EURISCO only, since EURISCO and Genesys will develop tools for exchange of, or mutual access to, C&E data.

With respect to geographical data (collecting site), some participants reported that they use more fields to reflect administrative subdivisions of the country, and asked whether it would be possible to extend the EURISCO MCPD by two levels of such subdivisions (e.g., Province, County).

It was asked whether it would be possible to add accession-related genetic data to EURISCO too. It was clarified that this will not be feasible with the current funding. It was then suggested to think about linking to external resources on accession level.

Several participants reported that they have institutions (genebanks, donors, etc.) in their documentation system that do not have FAO-WIEWS codes, and asked how to obtain/create new codes. This occurs, for example, when a country was split in several new countries. Stefano Diulgheroff (FAO-WIEWS) was contacted, and he sent an Excel template that should be filled in with information about the “new” institution for which an FAO-WIEWS code is requested, and sent to Stefano or the address [wiews@fao.org](mailto:wiews@fao.org). It is suggested that this Excel template also be stored on the EURISCO website for download by NFPs.

Some participants would consider using GRIN-Global for their genebank data management, but they were unaware whether training possibilities for GRIN-Global exist. This question was forwarded to the Crop Trust<sup>2</sup>.

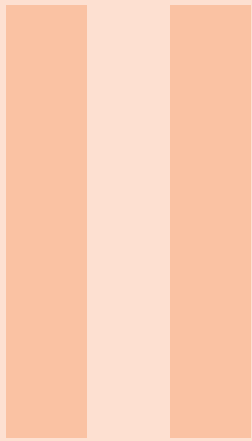
The German National Inventory PGRDEU contains also *in situ* conservation data (report by Sarah Sensen). This could be a use-case when it comes to the development of an *in situ* extension of EURISCO.

## 4.2 Closing of the meeting

Stephan Weise, Alban Ibraliu and Helmut Knüpfger closed the meeting. Together, they thanked all participants for the lively participation and interesting discussions. The organizers expressed the hope that future cooperation would be improved based on the established personal contacts. This was unanimously agreed. Furthermore, this workshop will be used as a template for future EURISCO training workshops.

<sup>2</sup>Training materials for GRIN-Global are available from <http://www.grin-global.org/index.php/Training>.





# Appendices

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## A. Acronyms and abbreviations

C&E	Characterization and evaluation
CBD	Convention on Biological Diversity
ECPGR	European Cooperative Programme for Plant Genetic Resources
EURISCO	European Internet Search Catalogue
FAO	Food and Agriculture Organization of the United Nations
GRIN	Genetic Resources Information Network ( <i>of the United States Department of Agriculture – Agricultural Research Service, USDA-ARS</i> )
IPK	Leibniz Institute of Plant Genetics and Crop Plant Research, Gatersleben, Germany
ITPGRFA	International Treaty on Plant Genetic Resources for Food and Agriculture
MCPDs	Multi-crop passport descriptors
MLS	Multi-lateral system
NC	National Coordinator
NFP	National Focal Point
NI	National Inventory
NordGen	Nordic Genetic Resource Center, Alnarp, Sweden
PGR	Plant genetic resources
SEEDNet	South East European Development Network on Plant Genetic Resources
WG	Working Group
WIEWS	World Information and Early Warning System ( <i>of the FAO</i> )



## B. Agenda

<b>Day 1 (19 May 2015) – Venue: Hotel Villa Tafaj</b>		
8.30 – 9.00	Workshop registration	
9.00 – 9.45	Welcome and introduction	A. Ibraliu, F. Elezi, N. Kadiasi
9.45 – 10.05	Self-introduction of the participants	All participants
10.05 – 10.15	Introduction of the agenda and expectations	S. Weise
10.15 – 11.00	Country NI development and status (10 min each)	NFPs ( 10 min each)
<b>11.00 – 11.30</b>	<b>Tea/coffee break</b>	
11.30 – 13:00	Country NI development and status (10 min each)	NFPs ( 10 min each)
<b>13.00 – 14.30</b>	<b>Lunch at hotel</b>	
14.30 – 15.00	EURISCO catalogue (status quo + planned developments)	S. Weise
15.00 – 15.30	EURISCO information system	S. Weise
<b>15.30 – 16.00</b>	<b>Tea/coffee break</b>	
16.00 – 17.00	Data quality checks	H. Knüppfer
17.00 – 17.15	Discussion and wrap up	All participants
	No dinner has been organized	

<b>Day 2 (20 May 2015) – Venue: Mrizi I Zanave Hotel</b>		
8.00	Departure from the hotel to Mrizi I Zanave	
9.15 – 10.30	Hands-on session (bring your own data)	S. Weise and NFPs
<b>10.30 – 11.00</b>	<b>Tea/coffee break</b>	
11.00 – 12.30	Hands-on session continued	S. Weise and NFPs
12.30 – 13.00	Albanian active collections with focus on documentation	B. Gixhari
<b>13.00 – 15.00</b>	<b>Lunch at restaurant “Mrizi I Zanave”</b>	
15.40 – 17.00	Excursion to Kune Vain Lagoon National Park <sup>3</sup>	
18.30	Visit to Durrës amphitheatre	
20.00	Social dinner at restaurant “Dy Kitarat”, Durrës	
23.00	Departure to the hotel (arrival after 24.00)	

<b>Day 3 (21 May 2015) – Venue: Hotel Villa Tafaj</b>		
10.00 – 10.30	Regional Management of National Inventories and Relation to EURISCO in the Nordic Countries and Introduction to Svalbard Global Seed Vault for Depositors	J. Nordling
10.30 – 11.00	The German National Inventory PGRDEU in the national, European and international contexts	S. Sensen
<b>11.00 – 11.30</b>	<b>Tea/coffee break</b>	
11.30 – 12.00	Presentation and discussion of C&E data templates	S. Weise and NFPs
12.00 – 12.30	Including C&E data into the public web interface – discussion about use-cases for visualization and search	S. Weise and NFPs
12.30 – 13.00	General discussion and conclusion	All participants
<b>13.00 – 14.30</b>	<b>Lunch at hotel</b>	
End of workshop		
	Specific topics in smaller groups if requested	

<sup>3</sup>Due to weather and road conditions, the excursion was redirected to Lake Skadar (Liqeni i Shkodrës) and the Castle of Rozafa.





## C. List of participants

### ECPGR-funded participants

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