

ECPGR Activity Grant Scheme – Second Call, 2015

**Activity Report** 

## **Report of the EURISCO Training Workshop 2016**

## National Focal Points Regional Training Workshop for Western Europe

## 12–14 October 2016, Angers, France

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Participants in the workshop

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## INTRODUCTION

The EURISCO Training Workshop 2016, a workshop of the Documentation and Information Working Group (Doc&Info WG), was held 12–14 October 2016 in Angers, France. Its purpose was to continue the series of regional training workshops of the European Plant Genetic Resources Catalogue (or European Internet Search Catalogue, EURISCO), which was revived in 2015 by means of the first workshop in Tirana, Albania. The 2016 workshop focused on Western Europe.

The workshop, organized in collaboration with the French National Institute for Agricultural Research (INRA), brought together 13 participants. The focus of this workshop was on newly appointed National Focal Points (NFPs) and those who could bring characterization and evaluation (C&E) data in the proposed format for upload onto EURISCO.

Stephan Weise opened the workshop. Anne-Françoise Adam-Blondon, Deputy Director of the Plant Biology and Breeding Department of INRA, welcomed the participants. Thanks were expressed to ECPGR for funding the workshop through its Activity Grant Scheme (Second Call, 2015), and to the 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 plenary sessions and hands-on sessions, 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 for the new system for importing both passport data and C&E data
- Obtaining feedback from the users (new system, desirable support, additional use-cases)
- Discussion about strategies for increasing update frequency and data completeness
- Strengthening of cooperation through personal interaction

## **PLENARY PRESENTATIONS**

The following presentations were given during the workshop. The main points addressed are listed below each title. The presentations are available online <u>here</u>.

## **Biological resources in the Plant Biology and Breeding division of INRA**

by Anne-Françoise Adam-Blondon

- >1000 permanent staff, 23 research units, 15 experimental units, 2 platform units
- Both fundamental research and economically important crops
- Management of genetic resources; distribution of >30 000 samples per year
- Plant genetic resources portal GnpIS-Siregal

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

All National Focal Points attending the workshop had been asked in advance to prepare some slides for a short overview about their respective National Inventories:

- Czech Republic: Plant Genetic Resources and Information System in the Czech Republic, by Ludmila Papoušková
- France: French National Focal Point, by Anne-Françoise Adam-Blondon & Audrey Didier
- Lithuania: Plant Genetic Resources in Lithuania, by Raimondas Baltrenas
- Poland: The development and status of the National Inventory Poland, by Marcin Zaczyński

 Switzerland: National Plan of Action for the Conservation and Sustainable Use of Plant Genetic Resources for Food and Agriculture, by Christian Eigenmann

The comprehensive overview of these presentations was highly appreciated.

## EURISCO catalogue

by Stephan Weise

- Background information about EURISCO
- Overview about the data composition
- Transfer to the new host and reengineering
- Extension for C&E data
- Challenges and future developments

## Data quality checks

by Helmut Knüpffer

- Overview about challenges with regard to completeness of passport data
- Completeness index of passport data in EURISCO by descriptor and National Inventory
- Introduction of tools for matching scientific plant names and for checking geographic coordinates

## New organization about plant genetic resources conservation in France

by Audrey Didier

- Historical summary of PGR conservation in France and recent developments
- New regulation with regard to biodiversity
- National coordination structure will involve PGRFA including crop wild relatives except forest plants

## **UK Plant Genetic Resources**

by lan D. Thomas

- Overview about PGR conservation in the UK
- Importance of including authority information in scientific names and standardizing common names
- Challenges with regard to data quality

## The National Inventory (NI) of the Netherlands

by Frank Menting

- Uploading of National Inventory data to EURISCO is part of the quality management system
- Not much change in the size of the collection between 2003 and 2016, but the composition changed
- Data quality improved
- 427 282 phenotypic data points uploaded in EURISCO

## HANDS-ON SESSIONS

During the workshop, two hands-on sessions were performed. Therefore, an isolated test environment was developed, which comprised the full functionality of the EURISCO intranet (database structures, web-based intranet application, Java-based import tools). The aim of the hands-on sessions was to train the National Focal Points for:

- uploading National Inventory datasets,
- running integrity checks, and
- interpreting the results.

Thus, 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.

### Passport data

The hands-on session started with a presentation about the new EURISCO intranet. The procedure of updating National Inventory passport data was explained step by step. Special emphasis was put on the new Java-based import tool, thus allowing to directly upload data from MS Excel<sup>™</sup> files. It was demonstrated how data integrity checks are performed and how their results should be interpreted.

In the course of the session, passport datasets of several participants were used for demonstrating EURISCO updates. The participants received assistance in correctly formatting data files as well as in interpreting integrity errors. Once again, it was pointed out that the new EURISCO intranet now supports incremental updates.

## Characterization and Evaluation (C&E) data

In a presentation, the participants were provided with background information about the development of the C&E data exchange format. The new data model as well as detailed information about the fields of each of the five sub-templates (genotype, dataset, experiment, trait and score) and their usage were explained. The procedure of uploading C&E data to EURISCO was demonstrated by successively showing the individual steps of importing and checking data, followed by the interpretation of the check results.

Afterwards, C&E datasets of several participants were used to demonstrate the upload process. Occurring errors (syntactic and semantic) were explained; solutions were proposed.

## **DISCUSSIONS AND CONCLUSIONS**

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

### Workshop feedback

The workshop was assessed positively by the participants. Furthermore, they expressed the hope that future cooperation will improve based on the established personal contacts.

The new EURISCO upload mechanisms were appreciated. In order to further increase the usability, it was proposed to enable the selection of several data sheets from the same MS Excel<sup>™</sup> file.

Furthermore, new requirements/improvements for future workshops were discussed. Participants requested the possibility of simultaneously uploading test data during the hands-on sessions. Due to

technical restrictions of the test environment, during the workshop test data sets could only be uploaded one by one. It was suggested to put an additional focus of the hands-on sessions on checks of data quality, taxonomic names and geo-references. So far, this was only treated in the form of a talk. In this context, test datasets containing errors should be provided as training materials. Moreover, participants asked for tools for checking the data quality before uploading. In addition, another focus of future workshops could be on the standardization of phenotypic traits.

## Phenotypic data

Another topic was the standardization of traits (names, scales, methods). It was discussed if a mapping of traits to CropOntology (CO) terms would be feasible. Theo van Hintum informed that the plan to transform existing Bioversity descriptor lists into ontologies has not been implemented so far. It was concluded to add a new field for an ontology term (in general, not only for CO) to the trait template. Furthermore, it was suggested to separate method and scale in the trait template, whereat scale and method should be mandatory fields.

## EURISCO intranet and public web interface

It was suggested to improve the error reports of the EURISCO intranet by showing NICODE, INSTCODE, GENUS and ACCENUMB in addition to the line number of the import file.

The search functionality of the public web interface should be extended by enabling the users to also search for subtaxa and subtaxa authority. Furthermore, it was requested to enable users to apply filters on a specific National Inventory dataset and to schedule the development of additional reports.

It was discussed how the accession details page could be improved. It was asked to put the ACCEURL field at a more prominent position to improve the ordering of accessions via the respective genebank information systems. In this context, information about the holding institutes (according to the FAO-WIEWS database) should be added. In addition, the date of last update of accession passport data and the date of publication of phenotypic datasets, respectively, should be shown.

## Crop and cultivar names

The issue of crop names in EURISCO was discussed. Searches are hampered by free-text entries provided by the data owners. So far, no standardization took place. It was discussed whether standardization would be possible at all. A starting point for improvement could be to take the crop names from GRIN taxonomy and to add this information to the EURISCO accessions as an added value (to improve the search interface). This was considered a good idea, but was not given highest priority.

The introduction of an additional field "Cultivar name" was discussed, and rejected by the majority of the participants since the issue of synonymy of variety/cultivar names was considered more to be a task of variety registers. The EURISCO MCPD format, however, enables to provide multiple cultivar and/or crop names.

## Update frequency

It was discussed whether an upload of data to EURISCO could be performed via GBIF's Integrated Publishing Toolkit (IPT). After a short discussion the proposal was rejected.

This was followed by a discussion about GRIN-Global, which could be a useful tool helping for the upload to EURISCO, especially for smaller holding institutes which do not use an own management system yet. The Crop Trust supports GRIN-Global which is increasingly used in Africa and Latin America. In Europe, the use of GRIN-Global is only known from Portugal and the Czech Republic so far. Ludmila Papoušková and Theo van Hintum will evaluate whether an application for a GRIN-Global workshop under the ECPGR Activity Grant Scheme would be possible.

## Coverage of EURISCO

In order to increase the coverage, it was suggested to prepare an overview of collections which do not provide data to EURISCO yet. Therefore, a survey should be made amongst National Focal Points asking for collections providing/not providing data to EURISCO (compare with WIEWS). Countries with large proportions of missing data are, e.g., Russian Federation (VIR online DB has ca. 100 000 more accessions than EURISCO), Italy (Bari missing, ca. 45 000 accessions) and France (gradually adding).

## Extension of EURISCO passport descriptors

First, the introduction of a descriptor "Availability" was discussed. The idea was withdrawn; instead, a stronger use of the ACCEURL descriptor should be encouraged (provides direct links to accessions in the respective ordering systems).

It was suggested to add a new descriptor "Historic". For users, it is important to know if an accession is no longer active and maintained. Therefore, different statuses should be defined.

Furthermore, the additional descriptor "PUID" was discussed. Guidelines for using PUIDs were issued by ITPGRFA on 17 October 2016<sup>1</sup>. Thus, it was suggested to extend the EURISCO passport descriptors in connection with the upgrade to MCPD V.2. In addition, the ITPGRFA should be approached for the inclusion of descriptors which are so far used by EURISCO only (e.g. AEGISSTAT).

## Miscellaneous

The status of subscriptions to the EURISCO newsletter was discussed and it was concluded to add list servers to the newsletter subscriptions. Therefore, list server administrators should be addressed.

The EURISCO coordination would be interested in receiving additional use cases, especially how EURISCO could better support the breeders' community, e.g. by serving specific requests on phenotypic data. Right now, EURISCO is not well known among breeders. Thus, it was suggested to use conferences (e.g. EUCARPIA), workshops and newsletters (breeders') for promotion.

http://www.fao.org/3/a-bq554e.pdf

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## 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 (of the United States Department of Agriculture – Agricultural Research Service, USDA-ARS)
INRA	French National Institute for Agricultural Research, France
IPK	Leibniz Institute of Plant Genetics and Crop Plant Research, Gatersleben, Germany
ITPGRFA	International Treaty on Plant Genetic Resources for Food and Agriculture
MCPD	Multi-crop passport descriptors
MLS	Multi-lateral system
NC	National Coordinator
NFP	National Focal Point
NI	National Inventory
PGR	Plant genetic resources
WG	Working Group
WIEWS	World Information and Early Warning System (of the FAO)

## Agenda

DAY 1 (12 OCTOBER 2016) – VENUE: INRA, 42 RUE GEORGES MOREL, 49071 BEAUCOUZÉ, SALLE AUTHION			
13.00 – 13.30	Registration of participants		
13.30 – 14.00	Welcome and introduction	AF. Adam-Blondon and/or hosting institution	
14.00 – 14.15	Self-introduction of the participants	All participants	
14.15 – 14.30	Introduction of the agenda and expectations	S. Weise	
14.30 – 15.15	Country NI development and status	NFPs (~10 min each)	
15.15 – 15.45	Tea/coffee break		
15.45 – 16:30	EURISCO catalogue (Status quo + planned developments)	S. Weise	
16.30 – 16:45	Demonstration of the EURISCO web information system	S. Weise	
16:45 – 17.15	Discussion and wrap up	All participants	
Dinner on your ov	vn		

9.00 – 9.30	Data quality checks	H. Knüpffer
	<ul><li>Scientific plant names</li><li>Geographical data</li></ul>	
9.30 – 10.30	<ul> <li>Hands-on session passport data (bring your own data)</li> <li>Upload of NI datasets (test environment)</li> <li>Run integrity checks</li> <li>Interpret results</li> <li>Discuss improvements</li> </ul>	S. Weise & NFPs
10.30 – 11.00	Tea/coffee break	
11.00 – 12.30	Hands-on session passport data continued	S. Weise & NFPs
12.30 – 13.00	New organization about plant genetic resources conservation in France	AF. Adam-Blondon/ A. Didier
13.00 – 14.30	Lunch	
14.30 – 15.00	C&E data in EURISCO <ul> <li>Templates</li> <li>Implementation</li> <li>Data uploads</li> </ul>	S. Weise
15.00 – 16.00	Hands-on session C&E data (bring your own data)	S. Weise & NFPs
16.00 – 16.30	Tea/coffee break	
16.30 - 17.30	Hands-on session C&E data continued	S. Weise & NFPs

DAY 3 (14 OCTOBER 2016) – VENUE: INRA, 42 RUE GEORGES MOREL, 49071 BEAUCOUZÉ, SALLE AUTHION			
9.00 - 9.30	UK National Plant Inventory and EURISCO	I. Thomas	
9.30 - 10.00	The National Inventory (NI) of the Netherlands	F. Menting	
10.00 - 10.30	Tea/coffee break		
10.30 – 12.00	<ul> <li>General discussion &amp; conclusion</li> <li>Strategies for increasing the update frequency</li> <li>Increasing the coverage of EURISCO</li> <li>Strengthening the network</li> <li>Extension of EURISCO descriptors</li> <li>Additional use-cases for C&amp;E data</li> <li>Further expectations</li> </ul>	All participants	
12.00 – 13.30	Lunch		
End of workshop			

## List of participants

### **ECPGR-funded participants**

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