eurisco
Finding seeds for the future

A window to Europe's plant diversity

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The use of crop diversity broadens the crop product availability, promoting rural development and economic growth

Thanks to EURISCO, anyone interested in plant genetic resources can now access information on more than 1 million samples of cultivated plants and wild species in ex *situ* collections in 40 countries in Europe.

EURISCO, "I find" in ancient Greek, is a Web-based catalogue that provides information about *ex situ* plant collections across Europe. It currently contains so-called passport data for more than 1 million samples of plant diversity held in nearly 297 European institutes in 40 countries. The samples cover some 5407 genera and 34556 species, including crops, forages, wild and weedy species, farmers' varieties and breeding lines. These samples represent more than half of the *ex situ* accessions – or genebank samples - maintained in Europe and roughly 19% of total worldwide holdings - an invaluable resource to researchers, plant breeders and others seeking to use this diversity to support agricultural development. Users can search by crop, taxonomy, origin, geography, acquisition, sample status and other criteria.

EURISCO is the first regional catalogue of plant genetic resources, and is already being used as a model for the development of similar initiatives outside Europe.

The origins of EURISCO

Biodiversity is increasingly recognised as a vital resource for economic, social and environmental development. Several international conventions and agreements in recent years have called for better conservation and sustainable use of this diversity. The Convention on Biodiversity (CBD) calls on countries to facilitate exchange of information on the conservation and sustainable use of biological diversity. The International Treaty on Plant Genetic Resources for Food and Agriculture and in the Global Plan of Action for the Conservation and Sustainable Utilization of Plant Genetic Resources for Food and Agriculture highlight the need for information systems to manage and make accessible information about the genetic diversity of crops on which the world's food supply depends. Many initiatives, such as the Pan-European Biological and Landscape Diversity Strategy, require access to such information if they are to succeed.

In 2000, the European Union approved funding for a project to help European countries respond to these demands, EPGRIS, the European Plant Genetic Resources Information Infra-Structure, for the development of national inventories of plant genetic resources (PGR) and for the creation of a searchable catalogue of *ex situ* collections in Europe - EURISCO. The EURISCO catalogue was publicly launched in September 2003, at the end of the project, and up to now, during

Today's demand for more diverse food products, strengthens the use of a wider variety of crop genetic diversity

ECP/GR

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Traditional knowledge and cultural diversity, promotes crop diversity being used in different ways for different purposes

its first phase, the information increased up to, today, near one million accessions, bedsides the constant development and maintenance of the network.

Genebank accessions represent a repository of actual and potential useful genetic material for breeding, research and training, thus promoting food security

How it works and who participates

EURISCO has several key elements. The first was the adoption of common data standards. Genetic resources information specialists from participating countries contributed to the development and refinement of a standard set of descriptors for germplasm, the FAO/IPGRI Multicrop Passport Descriptors (MCPD). Adopting and adhering to data standards is a prerequisite for sharing and searching data across information systems. The second key element was the development of national inventories of genetic resources in the participating countries meeting CBD commitments. Each country has full responsibility and sovereign rights to decide on the data availability, accuracy and uploads of its national inventories. The third key element is the network of national focal people, who provide the link between the national inventories and the EURISCO Catalogue. They ensure that agreed information in their national inventories is uploaded to the EURISCO catalogue. Finally, there is the technical infrastructure of EURISCO itself, also reflecting in a similar way what it has been done for SINGER – System-wide Information Network for Genetic Resources, provide access to information on PGR collections maintained in trust by the Future Harvest Centres (network of 15 centers supported by the Consultative Group on International Agriculture Research).

Looking to the future

In its second phase, EURISCO will focus on providing support to national inventories and their focal people, continuing to improve the accuracy and range of information available, and enriching functionalities. It will also tackle the challenge of establishing a European information system that brings together *ex situ* and *in situ* information through a global entry point with links to other information sources through web services.

Initiatives to start similar activities in other regions of the world are currently underway.

The future is being built by ensuring all those who need it have access to information about the genetic diversity of the plants on which we depend for our well-being and by raising awareness of the value of plant genetic resources for future generations.

Photos courtesy of: E. Bettencourt and S. Dias

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