New Estonian Commission on PGR

Estonia is a country of extreme climatic conditions with an average annual temperature of 5°C, a vegetation period of 170-185 days and an annual precipitation which exceeds evaporation twofold. Due to these conditions the PGR of the country are particularly well adapted to marginal areas. These include a wealth of Boreal tree species such as Scots pine, spruce, birch, alder, oak and ash, hardy forage species from genera including; Agrostis, Festuca, Koeleria, Phleum, Poa, Lotus and Medicago, and a number of indigenous berry bearing species such as cranberry (Vaccinium oxyccoccus), of which a field collection of 760 accessions is maintained in the Nigula Nature Reserve.

Estonia also has a long tradition of breeding, particularly of cereals and fruit crops. Despite this, the difficult economic situation of Estonian agriculture has brought about new interest for locally adapted cultivars which are better adapted to extensive farming than new, frequently foreign high yielding varieties.

The Minister of Agriculture has recognized the strategic value of Estonian PGR and is committed to implementing international agreements such as the Convention on Biological Diversity (CBD) which was ratified in May 1994, and the Global Plan of Action (GPA) adopted in Leipzig in June 1996. He recently established a National Commission for PGR for Agriculture chaired by the Chancellor of the Ministry of Agriculture.

The Commission includes experts from the country’s principle institutions involved in the conservation and utilization of crop genetic resources, as well as representatives of other biodiversity related fora such as the national committee for the implementation of the CBD.

The main tasks of this Commission will be to oversee the conservation and utilization activities and advise the government on setting priorities in areas related to crop genetic resources. It will also advise on policy issues related to international PGR negotiations and national legal frameworks which have an impact on PGR, such as national seed legislation and plant breeders rights regimes. It is expected that the new Commission will also maintain close contacts with Estonia’s very active forest genetic resources programme, headed by Prof. Ülo Tamm of the Estonian Agricultural University.

News from the Nordic Gene Bank

On 1 January 1997, Dr Gert B. Poulsen started his employment as Section Leader at the Nordic Gene Bank. Gert, a Danish national, was educated in horticulture at the Royal Danish Veterinary and Agricultural University, where he also acquired his PhD in plant physiology and biochemistry. Gert’s main research experience is in the area of biotechnology, specifically for Brassica species, and his previous position was at the Biotechnology group of the Danish Institute of Plant Science. Gert’s area of responsibility at NGB will include vegetables, root and oilseed crops.

Together with NGB’s working groups for vegetables, root and oilseed crops, he will assist in planning the national activities regarding collection, characterization and evaluation, multiplication and regeneration. He will also be responsible for the information aspects and documentation of the conserved material of concerned species. Due to his professional experience in biotechnology Gert is also now the leader of a newly formed project group at NGB which will ascertain the requirements and possibilities of using various in vitro and molecular methods in the work with PGR. Gert can be contacted directly on Email at gert@ngb.se.

Dr E. Thörn
Nordic Gene Bank
Alnarp, Sweden

Unique old cultivars, such as the rye (Secale cereale) cultivar 'Sangaste' which is 120 years old, have shown extraordinary winter hardiness in Estonia, Canada and other northern countries.
RES GEN 88 Maize genetic resources coordination meeting

On 4-6 March 1997, the first coordination meeting of the European Union project RES GEN 88 was held by representatives of the EU programme partners (France, Germany, Greece, Italy, the Netherlands, Portugal and Spain) at the INRA Unité de Formation et de Recherches Génétique et Amélioration des Plantes in Montpellier, France. The objective of the programme is to constitute a network for the conservation, evaluation and utilization of European maize landraces. The first step is to obtain a general survey on the status of these landraces and to constitute a database (EUMLDB) with passport data, morphological and molecular descriptors. The second step is to sort and create national representative collections by the use of agromorphological descriptors and then a European core collection (EUMLCC) by the use of the molecular descriptors. The third step is to evaluate this collection according to Common Agricultural Policy criteria. Within the project, landraces are regenerated and exchanged, thus promoting utilization of this type of genetic resource by European breeders.

Within the framework of ECP/GR a group on maize genetic resources met on an ad hoc basis in Rome, Italy from 28-29 May 1996 (see Issue 8, page 4). All partners of the RES GEN 88 Project participated in the Rome meeting, as a result of which a comprehensive European Maize Database (EMDB) is being developed at the Maize Research Institute, Zemun Polje, Fed. Rep. Yugoslavia. The EUMLDB to be created by the RES GEN 88 Project will form a particularly intensively documented subset of the EMDB. During the Montpellier meeting, a general survey of maize production, genetic diversity and a presentation of the maize landraces status were given by each partner. Common rules were defined in order to maintain variability of the landraces during regeneration phases and to promote intensive exchange of seeds among the project partners.

The group also discussed the progress made in the development of the EMDB. Dr. D. Jelovac, EMDB manager, presented an advanced version of this database system using Access software. This version integrates the FAO/IPGRI Multicrop Passport Descriptor List recently adopted during the ECP/GR documentation workshop in October 1996 in Budapest, Hungary. In addition to the revision and approval of a list of 19 common passport descriptors, a list of six primary morphological descriptors was adopted for maize landraces. These descriptors were chosen because they are expressed in all environments and are straightforward to collect. Two fields have been added to record the quantity/quality of seed obtained during the last year of regeneration.

The exchange of information between the members of the GENRES 88 Project and the manager of the database will be made as dbf files. The EU Maize Landraces DataBase (EUMLDB) will be elaborated by INRA in Montpellier in close relation with CGN in Wageningen, the Netherlands and with Zemun Polje in Beograd, Fed. Rep. Yugoslavia.

The second coordination meeting of RES GEN 88 will be held during the last week of November 1997.

Dr A. Boyat
INRA, France

Coordination meeting of the EC 1467/94 potato project

Participants of the EU funded project RES GEN CT95-34 on the ‘Genetic Resources of Potato’, including the ‘Conservation, characterization and utilization of secondary potato varieties for ecological production systems in Europe’ met in Edinburgh, UK 18-19 February 1997 for an annual review.

The main result following one year of work is the advanced development of two European Central Potato databases, one for varieties, based at the Scottish Agency for Science and Agriculture (SASA), Edinburgh, UK, and the other for wild species, based at the Centre for Genetic Resources (CGN), Wageningen, the Netherlands. These two institutes receive the relevant data from all the project partners. A revised list of descriptors to be used for documenting the varieties in the central database was discussed and the final version will include multi-crop passport descriptors from the standardized list approved in 1996 by the Central Crop Database managers in Budapest, Hungary (see Issue 9, page 3).

The involvement of non-EU countries in this project was facilitated by ECP/GR by inviting representatives of national potato collections of the Czech Republic, Hungary, Poland, Russian Federation and Ukraine to the meeting. These countries will all contribute to the EU project by sending available data to the Central Databases, by undertaking additional characterization and evaluation of quality and disease resistance traits for original accessions, as well as carrying out some virus-indexing and virus cleaning. Funds from ECP/GR will partially cover these costs. The next meeting of the potato project will be held 11-12 February 1998, INRA, Ploudaniel, France.

http://www.cgiar.org/ecpgr
The Sixth meeting of the ECP/GR Forages Working Group was held in Beitostølen, Norway, from 6-8 March 1997. The meeting was organized in collaboration with Planteforske, Løken Research Station, Heggenes.

An update on the status of the European Central Forages databases was given, and opportunities for their standardization were discussed. A list of forage passport descriptors was approved, based on the FAO/IPGRI Multi-Crop Passport Descriptors List prepared in 1996 in Budapest, Hungary.

During the meeting, a possible workplan for the establishment of a decentralized European Forage Collection was prepared. A crucial step of this plan would be the definition of a ‘primary collection’ for each original accession. National commitment would then be sought for the long-term conservation under international standards, to ensure that an appropriate safety duplicate is deposited in a genebank (preferably within another ECP/GR member country) and to make these accessions available. Discussions on the best procedure to determine the ‘home’ of each accession will proceed further within the Forage Working Group, including the possibility of repatriating material to the country of origin.

Draft guidelines for the regeneration of perennial forage species were presented by Dr R. Sackville Hamilton of the Institute of Grassland and Environmental Research, Wales. A taskforce will revise this document further to prepare guidelines that all the institutes can follow. It was recommended that project applications be resubmitted to the next call for proposals from the European Commission under Council regulation EC 1467/94, and one of these, a project on Lolium, will be coordinated by Dr D. Reheul of Rijksstation voor Plantenveredeling in Belgium. Interest was expressed in submitting projects on Medicago and on the in situ conservation of forages in marginal and mountainous areas.

The continuation of the Forages group within the framework of ECP/GR was strongly recommended, and the next meeting is planned for spring 1999.
Efforts by IPGRI to ensure the short-term security of important collections in eastern Europe and to assist in the establishment and development of national PGR programmes continued in 1996. Securing the germplasm collections held by the N.I. Vavilov Institute of Plant Industry (VIR) was the highest priority within the framework of the three year USAID funded project of assistance implemented by IPGRI, which came to a close in 1996. Extensive equipment has been provided to maintain the long-term viability of these collections, including field equipment required for seed processing and multiplication, and in vitro equipment to enable the storage of species which cannot be stored by orthodox methods.

Additionally, a number of urgent needs arose during the year, which needed to be met immediately to ensure the continued security of the collections. In early 1996 collections held in cold rooms at some VIR sub-stations were under threat since the electricity supplies could no longer be guaranteed. To counteract this, emergency generators were supplied to provide these stations with an autonomous power supply. Emergency pruning was undertaken in March 1996 to save the Malus collection at Maikop in southern Russia (see issue 8, page 3). This work was essential to enable the survival of the collection and for it to be of sufficient quality for regeneration, since previous attempts at locating funds for regeneration of the collection were unsuccessful. As a follow-up to these efforts, an agreement has been signed between VIR and IPK to carry out the regeneration and to grow out a duplicate of the material in Germany. This work is scheduled to be carried out in June 1997.

In addition to seeking the immediate security of the collections, efforts have also been invested in developing new modes of collaboration between VIR and its former stations now located outside the USSR. Bilateral agreements have been reached between VIR, Kazakhstan, Turkmenistan and Uzbekistan for the regeneration of accessions which cannot be regenerated in Russia due to the lack of suitable climatic conditions. These agreements are also beneficial for the countries undertaking the regeneration, enabling repatriation of the material originally collected in these countries and stored at VIR. Central Asia was also the focus of a meeting held in Tashkent, Uzbekistan in October 1996 to develop a concrete plan for collaborative activities on PGR in the sub-region (see Issue 9, page 10 for details).

This USAID project has been successful in securing the immediate needs of the valuable VIR germplasm collections. Material previously stored in metal boxes and paper bags at room temperature is currently being transferred to laminated foil bags for storage at sub-zero temperatures. Regeneration activities are also being facilitated by the new field equipment, and their in vitro laboratory is preparing to host larger proportions of the vegetatively propagated crops. What now needs to be addressed is the long-term vision of the Institute, and VIR is considering the restructuring of its modus operandi. In this regard, IPGRI has been requested to establish an international advisory group to analyse the situation at VIR and make suggestions for the possible restructuring of the Institute.

The new political geography of Europe demands new currencies. Croatia’s currency is kuna, each divided into 100 lipa. The lipa coins mostly depict important cultivated plants including tobacco, olive and maize or corn. However, on the 50 lipa coin a wild plant, Degenia velebitica is illustrated. The name of this genus commemorates the Hungarian botanist, Arpad von Degen (1866-1934), who discovered it in 1907. This narrowly endemic plant is a small, silvery-haired, Alyssum-like perennial found only on a few scree in the Velebit mountains. It is a relict species in its own genus of the family Brassicaceae or Cruciferae.

The plant’s habitat is changing, due to the less extensive grazing practice now than in the past. The scree are also becoming more and more overgrown by other plants, which compete with the highly specialized Degenia. The few remaining populations are in decline, and the species is regarded as globally vulnerable. It is being conserved off-site - and is sometimes grown in European gardens, but habitat management is needed for the remaining wild populations.

This plant which is well known to botanists has found its way into everyday life, effectively raising public awareness, and drawing attention to the importance of endemic plant genetic resources. Croatians now feel that Degenia is important even if it occurs on such a small coin!

Mr P. Skoberne
Ministry of the Environment
Ljubljana, Slovenia

Reproduced by permission from Plant Talk, PO Box 500, Kingston KT2 5XB, UK.
The Republic of Slovenia has a surface area of 20,251 km² and population of 2066 inhabitants. In the northern and north-western direction are the Alps, to the east the Pannonian Plain, in the southwest the Adriatic Sea and in the south the Dinaric Mountains. Slovenia has three main climatic areas; alpine, Pannonian, and the Mediterranean, which consists of eight pedoclimatic regions.

The diversity of the Slovenian flora is due to the variety of pedoclimatic characteristics. There are four different types of flora: Central European - Alpine (31%) in the north; Pannonian in the east (30%); Illyric-Dinaric in the south (30%) and the Mediterranean in the southwest (10%). The richness of the flora has been described by many authors, and for the first time in the 15th century by Mattioli and more recently in 1995 by Trpin and Vreš. The lists of ferns and flowering plants includes 3300 indigenous species, of which approximately 120 genera are indigenous trees, shrubs and other woody species (Mayer 1958).

Slovenia belongs to the Mediterranean and European gene centres. Many autochthonous populations and old cultivars of cultivated crops are named according to where they originate, such as Ljubljana, the capital of Slovenia, which has been used to name the lettuce Ljubljanska ledenka, the cabbage Ljubljansko, Kašeljsko, Bološka, Zaloško, the corn lettuce Ljubljanski and the carrot Ljubljansko.

In the past and also more recently, PGR have been used for breeding new cultivars of lettuce, onion, shallot, cabbage, bean, potato, grasses, clover, hop, buckwheat, wheat, maize, apple trees and clones of grape. After the Second World War, PGR were collected, evaluated and used by researchers at the Agricultural Institute of Slovenia, the Agronomy Department of the Biotechnical Faculty at the University of Ljubljana and the Institute for Hops and Brewery in Zalec. With the exception of maize, seed collected during the first collecting missions were not stored adequately, but data collated 40 years ago has enabled the extent of genetic erosion to be assessed. In 1989 the Yugoslav Programme of PGR was initiated. After the independence of Slovenia in 1991, PGR research was uncoordinated and only partly funded.

In November 1995, the Commission for the preparation and operation of a national PGR programme and a country coordinator were nominated by the Minister of Agriculture, Forestry and Food. There are five members in the Commission, including the national coordinator who is from the Agricultural Institute of Slovenia. The other members are from the Agronomy Department of Biotechnical Faculty, University of Ljubljana; the Institute for Hop and Brewery in Zalec; the Slovenian Forestry Institute and the Ministry of Agriculture, Forestry and Food.

One of the first tasks of the Commission was the preparation of the country report on agricultural and forest genetic resources, which was sent to FAO and IPGRI in March 1996. In 1996, curators were appointed by the Commission for each crop and for medicinal, aromatic, grass and clover collections held at two institutions. The Commission reviewed the programmes prepared at three institutions for agricultural plants, and funds were designated to work on the evaluation and regeneration of buckwheat, maize, lettuce, onion, cabbage, bean, grasses, clover, potato, medicinal and aromatic plants and to the evaluation of apple, pear, small fruits, grapevine and hop. No money was allocated for forest genetic resources in 1996, but it was proposed to include these activities in the 1997 budget.

The main objective of the Slovenian national programme is the collection, characterization, evaluation, regeneration and conservation of autochthonous germplasm, Slovenian cultivars, and endangered, vulnerable or rare forest tree species.

The programme includes ex situ, in situ and in vitro conservation strategies, and promotes the sustainable use of PGR. It is proposed that core collections be developed and the long-term storage of seeds is undertaken in a central genebank at the facilities of the Agricultural Institute of Slovenia. Important tasks include the development of a documentation and information service, and to increase international collaboration, Slovenia intends to join phase V of EC/GR and EUFORGEN.

In June 1996, the Slovenian Parliament ratified the Convention on Biological Diversity, and in light of this, there is hope that the indigenous resources which are an integral part of the Slovenian national heritage will be preserved for future generations.

Dr M. Cerne
Assistant Professor &
National Coordinator
Agricultural Institute of Slovenia
Since the Noble Hardwoods Network meeting held one year ago, gene conservation activities have expanded in European countries. This was the feeling among the participants from 22 European countries attending the second Network meeting 22-25 March 1997 held at Centro de Investigaciones Forestales in Lourizán, Spain. Contacts among national institutions have been strengthened and tree breeding activities have particularly intensified. This may be as a result of the steadily increasing economic importance of autochthonous Noble Hardwoods with high quality timber in European markets. Network members stressed that advantage should be taken of this momentum in order to promote the conservation of the genetic resources through their active use. In this context, gene conservation and management of wild populations in situ should be combined with tree improvement activities ex situ. Besides the growing economic interest, this integrated approach is needed due to the scattered distribution patterns and biological characteristics of Noble Hardwoods (e.g. insect pollination). Despite the positive trends, the conservation of genetic resources of Noble Hardwoods still depends to a great extent on the enthusiasm and initiatives of individuals in many countries.

Following the agreed workplan of the Network, strategies for the conservation and sustainable use of genetic resources of elms (Ulmus), maples (Acer), ashes (Fraxinus), rowan trees (Sorbus) and wild fruit trees were discussed and endorsed. These strategies, developed by the Network members, particularly highlighted the need for carrying out inventories, since reliable data are needed regarding the ecogeographic distribution of the resources. Forestry inventories are in place in many countries but utilization of the existing information needs to be improved. Inventories of the distribution range of each species should be complemented by the assessment of genetic structures. Developing basic requirements for these inventories at the level of populations continues to be a major task of the Network. A principal and common objective of the strategies is to create good conditions for future evolution and so to ensure the long-term genetic adaptability of species in Europe. The strategies will be included in the report of the meeting.

Besides an overview of the current gene conservation activities in countries and the strategies, the report will also cover other outputs provided by the Network so far, including: a minimum list of descriptors; common guidelines for the evaluation of genetic resources; a public awareness leaflet and a list of research projects. A literature review will be published later this year and will include important ‘grey literature’ from all countries, often unknown to a wider international community.

The changing ownership of forests in the transition countries of central and eastern Europe was mentioned as an important issue related to the conservation of genetic resources of forest stands with high proportions of Noble Hardwoods. Once acquired by new private owners, these may become subject to excessive logging due to the high timber value and lack of legislation. The practical outputs developed by the Network should contribute to providing guidance and raising awareness of forest owners about the importance of these genetic resources. Compared to the previous meeting, the increased magnitude of activities initiated in central and eastern Europe indicates an increasing commitment of these countries to their genetic resources.

Most of the Noble Hardwood species are not covered by legal regulations on the transfer of forest reproductive material. The insufficient legislative coverage and the resulting use of seed material from unknown sources for afforestation purposes and for landscaping is a common concern to all participating countries. It was emphasized that only material with known origin and recognized properties should be used in the increasing afforestation activities with Noble Hardwoods. The Network recommended that minimum standards for source identified reproductive material be implemented in trade with reproductive material.

http://www.cgiar.org/ipgri/euforgen
European research on human aspects of PGR

Many PGR programmes now recognize the central role that local communities and their agricultural knowledge play in safeguarding the crop diversity existing around the world. The biodiversity they maintain within traditional farming systems is inextricably linked to social and economic conditions. Documentation and conservation of PGR, whether in a genebank or on-farm, must incorporate the farmer’s perspective on the maintenance and use of diversity.

A global project on ethnobotany and the human aspects in the conservation and use of PGR has been initiated by IPGRI to address these issues. The project aims to bring together scientists, national programmes, NGOs and farmers on equal terms in PGR activities for maintaining agricultural diversity and sharing their benefits. The experience and scientific resources of European research institutions have been important in fostering multidisciplinary efforts to support locally maintained genetic diversity and its associated knowledge within ecosystems and communities in developing countries. The experience gained is of practical use to European PGR programmes as well.

In implementing this global project, IPGRI and its national and local partners benefit from the input of European Universities, government institutes, and international organizations according to their respective areas of expertise.

Economists at the Centre for Social and Economic Research on the Global Environment (CSERGE), Cambridge University, UK are developing methods to determine the economic values of PGR, recently published in the IPGRI/FAO PGR Newsletter and leading economic journals. Researchers at Oxford University, UK have focused on Traditional Resource Rights (TRR), Intellectual Property Rights (IPR), and the ethics involved in the maintenance and use of biodiversity.

The support of the Netherlands government and its technical institutions has been crucial to a project on the ‘Biodiversity of Leafy Green Vegetables in Africa’. The project involves partners in Botswana, Cameroon, Kenya, Senegal, and Zimbabwe, and combines research on indigenous knowledge (IK), gender roles, nutrition and socio-economic factors, with the genetic diversity in these neglected species. Future inputs from both the Centre for Genetic Resources the Netherlands (CGN) and the Natural Resources Institute (NRI), UK, will complement this work through their focus on the improvement and promotion of traditional vegetables.

Ethnobotanical guidelines in the second People and Plants Handbook have been published jointly by the United Nations Educational, Scientific and Cultural Organization (UNESCO), France, World Wide Fund for Nature (WWF), UK and the Royal Botanical Gardens, Kew, UK. A number of prominent scientists, including G. Martin of the People and Plants Initiative, have developed ethnobotanical methods which IPGRI is adapting to the specific requirements of PGR research. In addition, J. Schneider of the University of Bern, Switzerland has provided expertise on farmer developed diversity of sweet potato (Ipomoea batatas) in southeast Asia and the contribution of home gardens to in situ conservation.

Researchers from University College, London, UK and the University of Wageningen, the Netherlands are studying the effects of war on crop genetic resources in West Africa. IPGRI is also collaborating with the Cooperazione Italiana Nord Sud (CINS), an Italian NGO, to return local germplasm to farmers in Somalia. This work may be expanded to other war-torn areas, including eastern Europe and Central Asia.

Mainstreaming gender analysis into PGR research is being addressed jointly by IPGRI and FAO. M. Fernandes of the Institute for Low External Input Agriculture, the Netherlands was a key participant in the recent FAO/IPGRI workshop ‘Incorporating gender-sensitive approaches into PGR conservation and use.’

The Institute for Plant Genetics and Crop Plant Research (IPK), Germany has collaborated in a pilot study with the Cuban PGR programme on the biodiversity maintained within Cuban home gardens (conucos). Similar studies, aimed at a better understanding of the role of home gardens in the in situ conservation of PGR, are planned in collaboration with a variety of institutions including the Ethnobiology Laboratory of the University of Western Hungary.

The Centre for Development Research, Denmark has assisted in developing guidelines for participatory approaches to PGR conservation and use, which are linked to IPGRI’s in situ conservation programme. This project is developing methods to facilitate the two-way flow of information, resources and benefits between formal sector research bodies and rural communities developing and maintaining intra-specific diversity.

In many cases, these collaborators have helped to conduct field research, in conjunction with national or local organizations. Elsewhere, European groups and IPGRI are working together to shape the course of future research designs. The expertise provided by European research institutions is an integral part of ongoing socio-economic and cultural research in PGR.

A future challenge for the programme will be to adapt these successful partnerships to research priorities within Europe. To date, IPGRI’s ethnobotanical and socio-economic research has focused primarily on Africa, the Americas and Asia. The free circulation of people and goods across the EU, the globalization of the economy, and the specific problems encountered by the countries with economies in transition, all demand attention in terms of their impact on PGR conservation and use, as will the growing interest across the region in the revival of traditional crop varieties. With these new challenges come new cultural and economic issues which must be addressed to ensure the success of ongoing PGR programmes.

Dr P. Eyzaguirre & Mr L. Myer
IPGRI HQ, Rome, Italy
On 13-14 December 1996 the second international workshop and meeting on rocket was held in Padova, Italy, organized within the UMS project in collaboration with the University of Padova, the Germplasm Institute of Bari and the Rural Development Agency for the Veneto region (ESAV). Padova, the main city of the Veneto region, was chosen as the venue for the meeting due to the vicinity of the largest Italian rocket growing area. On an estimated cultivation area of 120 ha (90% of which is in greenhouse conditions), Veneto produces up to 2400 tonnes of rocket leaves, the majority of which are marketed in Italy, while a small amount is exported. Other important producers of rocket in Italy are the Campania, Latium, Apulia, Lombardy, Abruzzi and Sardinia regions. The second most important rocket producer in the Mediterranean region is Turkey, which produced 190 tonnes in 1993. Both for Italy and Turkey, however, rocket cultivation figures are underestimated due to the widespread home garden production and wild harvesting (particularly Diplotaxis species) which are not included in official statistics.

Rocket cultivation is a rapidly growing activity. This becomes evident by comparing data presented at this Workshop with those given in November 1994 at the first Rocket Workshop held in Lisbon, Portugal. Today, greater knowledge is available in agronomic techniques used for field and greenhouse cultivation, and the cultivation of Diplotaxis species is now far more advanced than a few years ago. This is seen as a particularly positive development, as it will lead to a reduction in harvesting from natural populations and so reduce the risk of genetic erosion of these species. As well as providing an update on the marketing and cultivation techniques of rocket, the Workshop also dealt with the taxonomy, genetic resources, cytogenetics and traditional uses of rocket species. Invited speakers from Egypt, Israel, India, Portugal, Spain and Turkey provided information on the level of national conservation activities of rocket, which is the ultimate goal of the UMS Rocket Genetic Resources Network. In India rocket is cultivated mainly for its oil ('taramira'), which is used as a lubricant, as an ingredient in soap making, as an illuminating agent and for various pharmaceutical purposes. In the Rajasthan region in India alone, in 1993-94, some 95,632 ha of rocket were planted.

During the Network meeting which followed the Workshop, the draft of the Eruca Descriptors list was revised. Discussions focused on concerted actions to promote the conservation of rocket germplasm in genebanks and future collecting missions in the Mediterranean region aiming at both cultivated and wild species. Further information on the Network is available from S. Padulosi at IPGRI or directly from the IPGRI web site (URL: http://www.cgiar.org/ipgri).

Ressources Génétiques Forestières

In order to stimulate Mediterranean agronomic and forest research, the National Institute of Agronomic Research (INRA) in France has initiated Mediterranean Agronomic Research Groups (GRAM). Exchange of information between scientists from the Mediterranean basin and elaboration of research projects to submit to international calls for proposals are the two main objectives of these groups.

Among the 15 GRAM already created, three are concerned with forest research, including ‘Santé des forêts’ (Forest Health), ‘Création et gestion des peuplements forestiers’ (Creation and Management of Forest Populations) and ‘Ressources Génétiques Forestières’ (Forest Genetic Resources).

The main subjects of GRAM ‘Ressources Génétiques Forestières’ are genetic variability (population genetics, markers, resource management) and selection and breeding (variation of adaptive traits involving ecophysical traits, quantitative genetics, breeding strategies, marker aided selection). This group met for the second time in Avignon, France in mid-April 1997. More information on this group is available from Mr Christian Pichot, Coordinator of the Ressources Génétiques Forestières GRAM, INRA, Avenue A. Nivaldi, 84000 Avignon, France, Tel: +33-4-90135900, Fax: +33-4-90-135959 or Email: pichot@avignon.inra.fr.
European Phleum Database

There seems to be no limit as to what can be done with information systems when local machines and networks are linked to the Internet, one of the most spectacular technical innovations of the 20th century. Although the Internet has existed for a long time as a text-only bridge between client and server, computers connected to universities, governmental and military networks, and the development of graphic and multimedia programs have now recently extended the network capabilities even further.

Many genebanks in Europe are now putting searchable databases on the Internet. Interestingly, the approaches taken so far form a cross section of different methods available for database publishing on the Internet, including extension modules to local database systems, combined HyperText Transfer Protocol (HTTP) and database servers, and general HTTP servers linked to general Wide Area Information Server (WAIS) servers.

The ECP/GR Phleum database, published by the Nordic Gene Bank (NGB) on the Internet in October 1996, is an example of a WAIS database. It can be searched with any WAIS client program running on a computer connected to Internet. The usual and most convenient way to connect directly to the Phleum database is through the pages of the HTTP server at NGB (http://www.ngb.se/Material/Phleum). It may also be accessed via the ECP/GR home page (http://www.cgiar.org/ecpgr). The ECP/GR Phleum database contains passport and environmental data of about 4200 accessions from 32 different countries or regions. Most of the accessions originate from Europe, but some accessions from Canada, Japan, New Zealand and the USA are also included. Altogether 18 different European genebanks have so far contributed data on their accessions to the database.

The NGB URL (Universal Resource Locator) address will bring the user to the ‘home page’ for the Phleum database, and from here the user can select a search page for a specific taxon within the genus. All subsequent searches will be made on that taxon only, and so if the user selects the ‘Phleum sp.’ search page, subsequent searches will be made on all taxa in the database. All fields in the database are indexed and can be searched in any combinations. However, simple searches, involving one or a few fields generally give a better overview of the existing material. A search will produce a list of accessions matching the selected criteria, and clicking on an item on this resulting list will bring up the details of the corresponding accession. The resulting pages are virtual web pages and only exist while the user views the results, or while the client browser has them in its buffers. On the server side, for each detail page, values are extracted from the corresponding record in the database, decoded (if necessary) and inserted into a template page that is then sent to the user’s browser.

The current version of the Phleum database should be regarded as experimental. Several improvements will have to be made, and those contributing data should also get a chance to check and update their data. Upcoming crop working group meetings and technical workshops within the ECP/GR Documentation Network will provide excellent opportunities to discuss further standardization of European central crop databases in theory and in practice.

Dr M. Hulden
Nordic Gene Bank
Alnarp, Sweden

Update on Vavilov-Frankel Fellowships

As mentioned in previous issues of the Newsletter for Europe, the Vavilov-Frankel Fellowships Programme was established by the IPGRI Board of Trustees to commemorate the unique contributions to plant science by Academician Nikolai Ivanovich Vavilov and Sir Otto Frankel. The first two Fellowships were awarded in 1993 to scientists from the Netherlands and Russia to examine and record the work of scientists in the plant genetic resources community, including those after whom the Fund is named. In subsequent years the Fellowships have been awarded to outstanding young scientists from developing countries (Bolivia, Cameroon, Ethiopia and India) to travel outside their own country to carry out innovative research relevant to plant genetic resources for a period of three months to one year.

The Vavilov-Frankel Fellowships for 1997 have been awarded to:

- Ms Ksenija Gašić of the Institute for Fruitgrowing and Viticulture, Fed. Rep. Yugoslavia to carry out a study entitled ‘Evaluation and utilization of vineyard peach populations of the former Yugoslavia’. The work will be undertaken at Horticulture Research International, United Kingdom;
- Ms Marina A. Gritsenko of the N. I. Vavilov Institute of Plant Industry, Russia to carry out a study entitled ‘Assessing patterns of genetic diversity and ecological adaptation at inter-regional and intra-regional scales in Dactylis glomerata’. The work will be undertaken at Washington State University, USA; and
- Mr Baohong Guo of the Institute of Crop Germplasm Resources, Chinese Academy of Sciences, China to carry out a study entitled ‘AFLP evaluation of the geographical divergence of large naked oat (Avena sativa var. Nuda) for developing in-situ conservation’. The work will be undertaken at North Carolina State University, USA.

Full details on the 1998 Fellowships including the applications procedure will be announced in the next issue of this Newsletter.
Meetings

NGOs look back at 1996

Fifty people from 30 different local, national, regional and international organizations from seven different European countries, met 21-23 February 1997 in Hamburg, Germany at a workshop organized by the German NGO Buko Agro Coordination. The purpose of this conference, entitled ‘1996 - The Year of Agricultural Biodiversity’, was to evaluate the impact of NGO activities on the outcomes of the past year, and to discuss further cooperation on agricultural biodiversity.

During 1996, numerous activities were organized by NGOs in conjunction with international events related to agricultural biodiversity. These activities ranged from the participation of observers to international meetings who then reported back to the wider NGO community and the media, to specific NGO conferences held in parallel with the formal sector negotiations. Most significant examples of the latter include the NGO Conference entitled ‘In Safe Hands: Communities Safeguard Biodiversity for Food Security’ organized in Leipzig in June 1996; several NGO meetings held in Buenos Aires before the Third meeting of the Conference of the Parties to the CBD in November 1996; and the Sustainable Agriculture/ Biodiversity Caucus, organized as part of the NGO Forum in Rome - ‘Una Tierra para Vivir’ during the World Food Summit also in November 1996.

Participants at the Hamburg workshop agreed that these activities had consolidated NGO positions on agricultural biodiversity, assured their competence in the relevant areas and has created momentum providing the ideal base for further activities. It has become increasingly clear that NGOs have a valuable contribution to make to agricultural biodiversity, the central focus of their activity being in situ conservation and sustainable utilization, including the technical, social and cultural aspects of such work and the legal and policy framework within which farmers are able to conserve, develop and sustainably utilize their varieties.

With regard to their outcome, the international events that took place during 1996 were evaluated as either ‘positive’ (e.g. Leipzig conference in June and COPIII in Buenos Aires in November), as having ‘little to no impact’ (e.g. World Food Summit in Rome), or as having an ‘alarmingly threatening impact’ (Ministerial Conference of the World Trade Organization (WTO) held in Singapore in December 1996). With regard to the work of the Commission on Genetic Resources for Food and Agriculture (CGRFA), NGOs hoped that there would be renewed effort to consult widely with farmers’ organizations and NGOs to achieve an agreed international undertaking which would include full implementation of farmers’ rights.

In order to make the best use of the opportunities arising in 1997 and the following years, the participants of the workshop agreed to establish an informal European Coalition of NGOs concerned with agricultural biodiversity in Europe. This coalition should facilitate collaboration among NGOs in promoting practical conservation initiatives, addressing legal and policy issues and raising public awareness. Further information on this workshop and follow-up activities can be requested from BUKO Agro Coordination, Hamburg, Germany, Fax: +49-40-3907520, Email: agros@cl-hh.cl.sub.de.

Ms U. Gröhn-Wittern,  
Buko Agro Coordination,  
Hamburg, Germany  
& Mr P. Mulvany,  
Intermediate Technology  
Development Group (ITDG),  
Rugby, UK.

Baltic countries get into searchable databases on the Internet

In February 1997 the Nordic Gene Bank (NGB) hosted a technical training course for staff members from PGR institutes in Estonia, Latvia and Lithuania. Sponsored by the Baltic Development Project of NGB, this enabled eight participants from the three Baltic countries to spend ten days learning network and information system theory, Hypertext Markup Language (HTML) design, and setting up systems on private workstations.

One of the main objectives of the course was to provide an affordable solution for small and medium sized offices, with a special emphasis on PGR information systems and Internet access. All software installed and used during the course, including the Linux 2.0.27 operating system, was free software, mainly GNU General Public License releases.

The hardware used for the mini-systems was a standard PC. Installations were made on new hard disks that the users took back to their respective institutes. The main obstacle in gaining full access to Internet in the Baltic countries (and other countries) seems to be the acquisition of a leased link to a service provider. The participants should, however, be able to set up their course hard disk at home and run mail, telnet, ftp, HTTP and WAIS services at least locally.

Dr M. Hulden & Dr J. Weibull  
Nordic Gene Bank  
Alnarp, Sweden
**Forthcoming Meetings**

4 - 8 May 1997  
Third International Triticeae Symposium, Aleppo, Syria.

9 - 15 May 1997  
International symposium on crop domestication in the Fertile Crescent, Aleppo, Syria.

12-16 May 1997  
The Second International Conference on Seed Science and Technology (ICSST), Guangzhou, China.

15 - 16 May 1997  
*Crambe abyssinica*: production and utilization. A comprehensive programme, San Miniato, Italy.

19 - 23 May 1997  
FAO Commission on Genetic Resources for Food and Agriculture, Rome, Italy.

25 - 27 May 1997  
Plant biotechnology as a tool for the exploitation of mountain lands, Torino, Italy.

26 - 30 May 1997  
Consultative Group on International Agricultural Research (CGIAR) Mid-term Meeting, Cairo, Egypt.

26 - 31 May 1997  
ISHS Apricot Symposium, Naoussa, Greece.

3 - 8 June 1997  
IVth International Safflower Conference. Safflower: A multipurpose species with unexploited potential and world adaptation, Bari, Italy.

4 - 5 June 1997  
3rd ENOF workshop: 'Resource use in organic farming', Ancona, Italy.

8 - 19 June 1997  
Grasslands 2000 XVIII International Grassland Congress, Winnipeg, Manitoba and Saskatoon, Saskatchewan, Canada.

9 - 20 June 1997  

18 - 21 June 1997  
Tree Physiology and Genetic Resources of Chestnut, Torino, Italy.

22 - 28 June 1997  
Sustainable Agriculture for Food, Energy and Industry, Braunschweig, Germany.

23 - 26 June 1997  
ISHS Peach Symposium, Bordeaux, France.

25 - 27 June 1997  
European Bio '97. First European Bioindustry Congress, Amsterdam, the Netherlands.

7 - 12 July 1997  
Forest Products for Sustainable Forestry, Pullman, USA.

13 - 19 July 1997  
Women, science and development: from indigenous knowledge to new information technologies, Suva, Fiji.

15 - 18 July 1997  
Conference on future forest policy in Europe, Joensuu, Finland.

23 - 29 July 1997  
ISHS Cherry Symposium, Denmark and Norway.

8 - 9 August 1997  
Chronological problems in the European Flora (VIII Meeting of the Committee for Mapping the Flora of Europe), Helsinki, Finland.

9 - 16 August 1996  
7th International Congress of Plant Pathology, Edinburgh, Scotland.

13 - 16 August 1997  
Molecular genetics of forest trees and somatic cell genetics, Quebec, Canada.

17 - 21 August 1997  
8th European Congress on Biotechnology, Budapest, Hungary.

18 - 23 August 1997  
ISHS Plum and Prune Symposium, Warsaw, Poland.

24 - 29 August 1997  
Second International Symposium on Pistachio and Almond, Davis, USA.

1 - 5 September 1997  
V Meeting of the EUCARPIA Carrot Working Group, Krakow, Poland.

1 - 5 September 1997  
Third Meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA), Montreal, Canada.

1-7 September 1997  
IUFRO Working Party S2.02.11. Norway Spruce breeding and genetic resources, Stará Lesná, Slovakia.

23 - 27 September 1997  
ISHS Symposium on Brassicas/Tenth Crucifer Genetics Workshop, Rennes, France.

12 - 17 October 1997  
IUFRO Working Party S2.08.05. Genetics of *Quercus*, Pennsylvania, USA.

22 - 26 October 1997  
Nature from East and West - From Politics to Practice, Basel, Switzerland.

27 - 31 October 1997  
Consultative Group on International Agricultural Research (CGIAR) International Centers Week, Washington, USA.

10 - 13 November 1997  

13 - 22 November 1997  

16 - 20 February 1998  
International Conference on Medicinal Plants, Bangalore, India.
Publications of Interest


Researchable Constraints in the Seed Sector in Developing Countries. Wright, M. 1996. Natural Resources Institute, Chatham Maritime, Kent, UK.


This newsletter is produced by the staff of the Regional Office for Europe

Thomas Gass,  
Regional Director  
Tel: 39-6-51892 221  
Email: t.gass@cgnet.com

Helen Ager, Scientific Assistant  
Tel: 39-6-51892 244  
Email: h.ager@cgnet.com

Muriel Colas,  
Senior Programme Assistant  
Tel: 39-6-51892 229  
Email: m.colas@cgnet.com

Elinor Lipman, Scientific Assistant  
Tel: 39-6-51892 251  
Email: e.lipman@cgnet.com

Lorenzo Maggioni,  
ECP/GR Coordinator  
Tel: 39-6-51892 231  
Email: l.maggioni@cgnet.com

Stefano Padulosi, Scientist,  
Underutilized Mediterranean Species  
Tel: 39-6-51892 243  
Email: s.padulosi@cgnet.com

Olga Spellman, Programme Assistant  
Tel: 39-6-51892 411  
Email: o.spellman@cgnet.com

Jozef Turok, EUFORGEN Coordinator  
Tel: 39-6-51892 250  
Email: j.turok@cgnet.com

About this Newsletter

The International Plant Genetic Resources Institute (IPGRI) is one of the 16 Centres of the Consultative Group on International Agricultural Research (CGIAR). IPGRI's goals are to further the study, collection, preservation, documentation, evaluation and utilization of the genetic diversity of useful plants for the benefit of people throughout the world. From its Headquarters in Rome, Italy and its Regional Offices in Benin, China, Colombia, India, Kenya, Malaysia and Syria, IPGRI promotes and coordinates the action needed for the conservation of genetic resources of these plants.

IPGRI publishes 5 Regional Newsletters covering the different regions of the world. They are intended to serve as an informal forum for the exchange of news and views, and to create closer ties between national programme scientists, researchers and other genetic resources workers.

We invite you to send your ideas and contributions for this newsletter to IPGRI's Regional Office for Europe. Please send all contributions for Issue 11 by 4 July 1997.

REGIONAL OFFICE FOR EUROPE  
Via delle Sette Chiese 142  
00145 Rome, Italy  
Fax: (39-6)5750309  
http://www.cgiar.org/ipgri

Printed on environmentally friendly paper