International Plant Genetic Resources Institute

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IPGRI newsletter for Europe

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About this Newsletter

The International Plant Genetic Resources Institute (IPGRI) is one of the 15 Centres of the Consultative Group on International Agricultural Research (CGIAR). IPGRI's vision is that: "People today and in the future enjoy greater well-being through increased incomes, sustainably improved food security and nutrition, and greater environmental health, made possible by conservation and the deployment of agricultural biodiversity on farms and in forests."

IPGRI's Regional Office for Europe provides the Coordination Secretariats for the European Cooperative Programme for Crop Genetic Resources Networks (ECP/GR) and for the European Forest Genetic Resources Programme (EUFORGEN).

IPGRI publishes two issues of the Regional Newsletter for Europe a year. This Newsletter is intended to serve as an informal forum for the exchange of news and views, and to create closer ties within the genetic resources community in Europe. Previous issues are available from the IPGRI Web site: www.ipgri.cgiar.org/regions/europe/news.asp

A Russian version of this Newsletter is being produced and disseminated in collaboration with the N.I. Vavilov Research Institute of Plant Industry (VIR) in St. Petersburg.

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 33 by **16 October 2006.**

EVOLTREE grows in Europe

Information on the evolutionary history of forests can help to predict how they might respond to future climate changes (also see article page 4). However, forests are complex ecosystems and interdisciplinary research approaches are needed to gain a detailed understanding of how they function. With this aim, a new Network of Excellence - EVOLTREE (Evolution of trees as drivers of terrestrial biodiversity) was launched in Pessac, near Bordeaux, France on 27 April 2006.

The three-day kick-off meeting brought together 25 research groups from 15 European countries for detailed discussions on the planned activities for the next four years. The meeting was organized by the National Institute for Agricultural Research (INRA), which is also coordinating EVOLTREE. The European Commission has granted 14.3 million euros to this project under its Sixth Framework Programme for Research.

The different research teams are working together to identify and study genes of adaptive significance in order to evaluate the contribution they make to the evolution of tree species and forest communities. Research will also be carried out on organisms that interact with trees such as insects and mycorrhizal fungi.

EVOLTREE brings together renowned experts in genomics and ecology to understand the factors that contribute to the evolution of terrestrial biodiversity. Through this project, a new discipline is emerging: 'ecosystem genomics' that combines genetics, genomics, ecology and evolution to study gene-level responses to biotic and abiotic selection pressures.

The work will analyze climate change from an evolutionary perspective: the adaptive capacity of tree species, ultimately determined by the genetic diversity of tree populations, will be assessed using sophisticated genomic tools. Predictive methods, including modelling, will be developed to forecast the adaptive responses of forest trees to environmental changes.

More in detail, the main research contents of the network of excellence are to:

- Identify genes of adaptive significance with regard to global change in three model genera of trees (*Pinus, Populus* and *Quercus*), phytophagous insects (*Lymantria*) and mycorrhizal fungi (*Laccaria* and *Glomus*);
- Assess the level and distribution of nucleotide diversity in genes of adaptive significance in trees, insects and mycorrhizal fungi;
- Assess the impact of trees on the composition of communities by studying interactions between trees and their associated species;
- Investigate the evolutionary rate of trees by reconstructing their past history and predicting their future response to global change.

EVOLTREE is expected to have a strong impact on several scientific disciplines, including ecology, genetics, ecophysiology, palaeobiology and conservation biology. It seeks to reduce the fragmentation of European research by providing a platform for research in ecosystem genomics, encouraging excellence in terrestrial biodiversity studies and improving mobility and training of researchers. The project will have impacts beyond its official duration by integrating research groups from various disciplines into multidisciplinary teams and enabling them to share facilities and infrastructures.

The ultimate aim of EVOLTREE is to ensure that research findings influence policies and benefit practical work on sustainable use and conservation of forest genetic resources. Specific activities within the project are designed to ensure that technical outputs are translated into practical recommendations and disseminated to stakeholders. For example, EVOLTREE will develop new guidelines for the management of woodlands.

More specifically, the activities planned within EVOLTREE will make available tools that will enable to:

- Implement independent certification of origin and identity of reproductive material (seeds, cuttings, plants) based on genetic fingerprints;
- Redefine and reshuffle national and international units of source-identified forest reproductive material ('regions of provenance') and revise utilization guidelines;

(*continued on page 19*)

Letter from the Regional Director for Europe

Dear Reader,
In an effort to offer you up-to-date information and views about plant genetic resources in Europe, we have added four new pages to this issue of the Newsletter. We also introduce a new "letter" section, which will bring you our views on how we see major strategic developments in the European Region. This first letter, and the current issue, highlight the crucial link between plant diversity and healthy lives, as well as the opportunities that the plant genetic resources community in Europe has in conducting conservation and research in the most rational way.

Latest reports of the World Health Organization indicate that the lost national income associated with coronary heart disease, stroke and diabetes will be enormous over the next decade, particularly in developing countries and in economies in transition. Simplification of human diets due to increased accessibility of inexpensive refined food leads to nutrient deficiencies as well as excessive caloric consumption. The incidence of chronic diseases linked to diets and lifestyle is growing worldwide. The figures for Europe are no less alarming. To reverse these trends, agricultural biodiversity has been recognized as a crucial resource that can be used better to underpin more diverse diets that contribute to good health, productive lives and greater well-being.

With the launch of IPGRI's new strategy "Diversity for Well-Being: Making the most of Agricultural Biodiversity" (see Newsletter No. 29, December 2004), emphasis has been placed on supporting the link between agricultural biodiversity, dietary diversity and health by putting this topic firmly on our research agenda. Issues 30 and 31 of the Newsletter have reported on two major global events on biodiversity for food and nutrition, and you will find a brief follow-up report of an important Nutrition Stakeholder meeting on page 17 of this issue.

Successful food systems effectively draw on locally-available foods, food variety and traditional food cultures. There is a growing awareness among consumers in European countries about the link between healthy and diverse foods. National Plant Genetic Resources Programmes in European countries recognize the importance of this crucial link and "plant diversity and healthy lives" will also be on the agenda of an upcoming workshop in November. The Workshop in Luxembourg will aim at exchanging views and experiences among all stakeholders of National Programmes (see Announcement on page 3). Europe is playing a leading role in generating scientific knowledge on the nutritional quality and health functions of the genetic diversity in plant species. As this topic grows in importance, there is now an opportunity to demonstrate how research institutions and genebanks can contribute to a better understanding and use of nutritional and health properties contained in plant diversity.

This Newsletter usually reports about the recent outcomes of collaborative networking on Plant Genetic Resources among European countries. Networking is a mechanism that brings together partners with different interests, needs and capacities. The spirit and the experience of collaboration in Europe show that networks add value to the efforts made by individual countries. IPGRI's reliance on – and further support for – networking at the Regional level will be a critical factor in implementing our new strategy. However, networking for the sake of just getting together, without ensuring sustainability of efforts, is not an option for the future.

In this issue, pages 9, 12 and 13 highlight some positive and promising outcomes of a two-year feasibility study on creating a European Genebank Integrated System (AEGIS), undertaken in the context of the ECP/GR Networking Programme. An Integrated System would enable managing the Plant Genetic Resources stored in European genebanks in the most rational way, leading to their safe conservation, availability and easy accessibility for users. If adopted and implemented, AEGIS provides the European Region with a unique opportunity to contribute to the implementation of the International Treaty, especially now that it has gained momentum after the first meeting of the Governing Body. We bring the latest update about this global, legally-binding agreement on Plant Genetic Resources on page 20. The forthcoming ECP/GR Steering Committee meeting in September is expected to make a decision on the way to proceed for the implementation of the AEGIS concept (page 11).

We start this issue of the Newsletter with a lead article on EVOLTREE, a new "network of excellence", financially supported by the EU and aiming at a durable integration of research efforts on ecological genomics in Europe – enabling the partners involved to share facilities and infrastructures in the most rational way. This project has been very closely associated with EUFORGEN, the Regional Networking Programme on forest genetic resources. One of the ultimate goals of EVOLTREE is to ensure that the knowledge generated by scientists effectively influences policies. EUFORGEN will play a major role in providing a sustainable link between EVOLTREE and the European policy process on forests, the Ministerial Conferences on the Protection of Forests in Europe. A recent update on this policy process can be found on page 7 of this issue.

As always, we welcome your contributions about the various initiatives and events taking place in the Region. We therefore encourage you to send us your stories for the December issue of the Newsletter by 16 October 2006.

Council Regulation (EC) 870/2004 - proposals for funding announced

Alnus glutinosa *stand. Meteliai, Lithuania.*
Photo: A. Pliura, Lithuanian Forest Research Institute, Lithuania

Podgorska red cattle breed, Poland.
Photo: W. Kugler, SAVE, Germany

Lactuca *Cellia, a greenhouse butterhead lettuce.*
Photo: H. de Fontanges, GEVES Brion, France

Wine barrels. Bordeaux, France.
Photo: J. Koskela, IPGRI

The European Commission, Directorate-General for Agriculture and Rural Development, announced the results of the first call for proposals for the "Community Programme on the Conservation, Characterisation, Collection and Utilisation of Genetic Resources in Agriculture" established by Council Regulation (EC) 870/2004 (see NL 30, June 2005). According to Commission sources, a total of 27 eligible proposals were received, out of which six were short-listed on the basis of an independent expert assessment. Three further proposals were placed on a reserve list. The announcement was made at the beginning of June, more than eight months after the proposals were submitted to the Commission.

The successful, short-listed proposals are:

- Forest Genetic Resources: European Information System on Forest Genetic Resources (EUFGIS), proposed by IPGRI, Rome, Italy;
- Regional Cattle Breeds: Towards self-sustainable European regional cattle breed (EURECA), Stichting Dienst Landbouwkundig Onderzoek, Wageningen, The Netherlands;
- Animal Gene Bank Databases: An integrated network of decentralized country biodiversity and genebank databases, European Association for Animal Protection, Rome, Italy;
- Genetic resources of Saffron and allies (*Crocus* spp.), Universidad de Castilla-La Mancha, Ciudad Real, Spain;
- Management and Conservation of Grapevine Genetic Resources, Institut National de la Recherche Agronomique (INRA), Paris, France;
- Leafy vegetables germplasm, stimulating use, Stichting Dienst Landbouwkundig Onderzoek, Wageningen, the Netherlands.

The EUFGIS project involves partners from six institutes in Austria, Denmark, France, Slovakia, Slovenia and UK. The project will be implemented in close collaboration with the European Forest Genetic Resources Programme (EUFORGEN).

The major goal of the project is to establish a Web-based, permanent and easily accessible information system on forest genetic resources (FGR) to link national FGR inventories at pan-European level. For this purpose, the project will create a network of national FGR inventories to provide data for the information system and develop minimum requirements for dynamic gene conservation units of forest trees, as well as common information standards for these units. The project will also provide training on FGR documentation to national focal points responsible for the inventories.

Once operational, the new information system will support practical implementation of gene conservation of forest trees and sustainable forest management in Europe. It will help to identify gaps and overlaps in FGR conservation at pan-European level and ease various reporting and monitoring efforts at national level. The project also supports the work of the Ministerial Conferences on the Protection of Forests in Europe (MCPFE) and the SEBI2010 (Streamlining European Biodiversity Indicators) process.

The second, last call for proposals was launched on 28 April 2006 with a deadline for submission of proposals of 30 June 2006. In the budget of 2006, 3.82 million euros are foreseen for grants and an increase of up to 2 million euros may be granted by the budgetary authorities of the Commission.

For details about the Community Programme, please visit: http://ec.europa.eu/comm/agriculture/envir/index_en.htm#genres

Saffron crocuses under cultivation.
Photo: Anna Tatti, Italy

2nd European Workshop on National PGR Programmes

The second European Workshop on National PGR Programmes will take place in Luxembourg on 15-18 November 2006 and will facilitate a discussion to increase the understanding of different approaches, priorities, limitations and needs of National Programmes in Europe. The workshop will be participatory, with stimulating examples presented by representatives of various stakeholders. The workshop builds upon the momentum of Alnarp, where around 100 participants from 39 countries met in 2003 to exchange experiences in designing and implementing national programmes.

Workshop objectives: Exchange information and experiences in building national programmes, as a key framework for communication between experts, policy makers and other stakeholders; Discuss opportunities and benefits of networking at national, sub-regional, regional and inter-regional levels; Encourage mutual learning from experience gained in different countries; Discuss progress made in Europe following the Alnarp Workshop.

Workshop themes: National Programmes – an integrated policy approach; Policy and legal developments on plant genetic resources in Europe; Research perspectives and opportunities; Future roles of stakeholders in conservation and use of PGR in Europe; Role of collaborative networking.

Further information and registration: http://pgr2006.lippmann.lu/

Climate change and forest genetic diversity - implications for sustainable forest management

Climate change is predicted to increase average temperatures by 2–4°C in Europe over the next 50 years and cause considerable changes in regional and seasonal patterns of precipitation. This will alter the environmental conditions to which forest trees in Europe are adapted and create additional challenges for forest management, with consequent impacts on the economic and social benefits derived from forests.

IPGRI and the International Union of Forest Research Organizations (IUFRO) organized a workshop in Paris on 15-16 March 2006 to discuss the role of forest genetic diversity in improving the adaptability of forests to climate change. The workshop was hosted by the French Ministry of Agriculture and Fishery and attended by nearly 80 participants from 25 countries. It was also part of the European forest policy process (Ministerial Conferences on the Protection of Forests in Europe, MCPFE).

The workshop recognized that the impact of climate change on forests will vary in different parts of Europe, bringing with it both threats and opportunities. Forest genetic diversity has an important role in maintaining the resilience of forest ecosystems to the threats (new pests and diseases) and in taking advantage of the opportunities (e.g. longer growing seasons in northern Europe). Policy-makers, managers and forest owners must inevitably make decisions in the face of great uncertainty. Genetic diversity and its appropriate use provide flexibility with respect to forest management and help to reduce the risks associated with climate change.

Widely-distributed tree species in Europe are unlikely to face extinction at the species level due to climate change, but local tree populations are likely to decline, especially at the margins of the distribution ranges. Tree species with scattered or limited distribution are more vulnerable to climate change than widely-distributed tree species and they may face serious threats also at species level. In addition, climate change is also likely to alter competition between tree and other plant species. This may have significant effects on the survival of tree species and even the existence of the present forest habitats in Europe. Subsequently, climate change can have significant impacts on the European forest sector.

The workshop recommended that management of forest genetic diversity should be better linked with national forest programmes. These programmes are already in place in most countries to facilitate continuous dialogue on forest-related issues between various stakeholders within and outside the forest sector. The workshop further recommended that forest management practices that maintain evolutionary processes of forest trees and support natural regeneration should be promoted, especially in areas where long-term natural regeneration is self-sustainable despite climate change.

The discussions also stressed that forest tree adaptation to climate change can be accelerated through tree breeding and transfer of potentially suitable reproductive material. Subsequently, the workshop recommended that the MCPFE process should endorse the development of pan-European guidelines for the transfer of forest reproductive material in Europe on the basis of scientific knowledge. This investigation could be carried out through EUFORGEN which already provides an operational platform for regional collaboration in this field. EUFORGEN should then collaborate with various IUFRO research groups which have established and maintain networks of provenance trials.

The workshop also concluded that the impacts of climate change need to be analyzed in a holistic manner. The European forest research community was urged to carry out more interdisciplinary studies (e.g. tree physiology, forest genetics, pests and diseases, forest management and economics, and modelling) on climate change impact on forests, with the support of policy-makers.

The outcomes of the workshop were reported to the MCPFE Round Table meeting, in Wroclaw, Poland on 24-25 April 2006. The full summary report of the workshop is available at www.euforgen.org

View from Koli National Park, Finland.
Photo: J. Koskela, IPGRI

MCPFE Round Table meeting

Representatives from 25 European countries, the European Commission and 15 observer organizations attended the Round Table meeting of the Ministerial Conference on the Protection of Forests in Europe (MCPFE) in Wroclaw, Poland on 24-25 April 2006. The purpose of the meeting was to exchange views on the future direction of the MCPFE process and discuss issues to be addressed at the next Ministerial Conference in 2007.

Strengthening regional collaboration between MCPFE and other forest-related processes and initiatives in Europe was stressed as an important area for future work. The discussions highlighted that the MCPFE process has been acknowledged by the United Nations Forum on Forests (UNFF) as a model for international dialogue on forests at regional level. There is also a need to strengthen the linkage between the MCPFE work and the EU Forest Action Plan, which is currently being finalized.

As a result of increasing energy prices and oil prices in particular, the use of wood for biomass and energy was raised during the meeting as another priority area. The EU Biomass Action Plan and ongoing efforts on biofuels identify wood resources as one of the important means to increase the use of renewable energy in Europe. Wood is also a carbon-neutral source of energy that does not contribute to climate change.

Adaptation of forests and forest management practices to climate change is expected to remain high on the MCPFE agenda. Forest genetic diversity plays a fundamental role in adaptation of forest trees to climate change and thus adaptation measures should pay particular attention to the use of this diversity. IPGRI reported the outputs of the recent workshop on climate change and forest genetic diversity to the meeting. The discussions concluded that climate change is a cross-sectoral issue, which calls for a more holistic analysis for future actions.

Many countries proposed forests and water, as well as other non-wood goods and forest services, as an important area for further discussion at the next Ministerial Conference. It was emphasized that economic values of the non-wood goods and services provided by forests should be better highlighted. This would also help to demonstrate the multiple benefits for the environment and society, particularly for policy-makers.

A larch stand in Punkaharju, Finland. Photo: J. Koskela, IPGRI

The issue of forest law enforcement and governance with special focus on illegal logging was also raised as an area where the ongoing efforts need to be continued. These efforts were initiated based on the decisions of the fourth MCPFE conference in Vienna, Austria in 2003 and the more recent Europe and North Asia Ministerial Conference on Forest Governance and Law Enforcement (ENA FLEG), held in St. Petersburg, Russian Federation in November 2005.

The discussions will continue during the MCPFE Expert Level meeting in Warsaw, Poland on 9-10 October 2006. This meeting will then also make decisions regarding the future direction of the MCPFE process and the agenda of the next Ministerial Conference.

For more information on the MCPFE process, please visit www.mcpfe.org

Strengthening the science-policy interface

On 26 April 2006, back-to-back with the MCPFE Round Table meeting, the European Forest Institute (EFI), the International Union of Forest Research Organizations (IUFRO) and IPGRI organized a seminar on strengthening the science-policy interface as part of the MCPFE process. The aim of the seminar was to discuss how the scientific community could support pan-European forest policy deliberations and elaborate how to develop further actions and mechanisms to strengthen the interface. The seminar was attended by representatives from 13 countries and eight international or regional organizations.

The discussions stressed that a cross-sectoral approach is needed when strengthening the dialogue between scientists and policy-makers. It was also noted that rather than just disseminating research results, the scientific community should actively "translate" their findings into layman's terms for the benefit of policy-makers. Contributions of the scientific community to capacity building and support for implementation of various policies were acknowledged and the continuation of these efforts was welcomed. Several participants also requested that the formal role of the scientific community in the MCPFE process should be clarified and the "interface" better defined.

EFI, IUFRO and IPGRI are currently developing a discussion paper based on the outputs of the seminar that will be presented to the Expert Level meeting in Warsaw, Poland in October 2006.

Further details of the seminar can be found at www.efi.fi

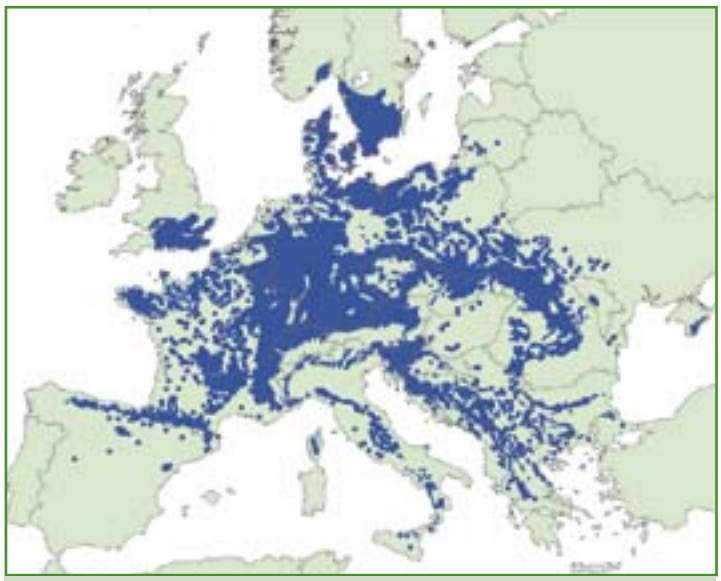
COST Action E52 on beech

Georg von Wühlisch
Federal Research Centre for Forestry and Forest Products
Institute for Forest Genetics and Forest Tree Breeding
Großhansdorf
Germany
Email: wuehlish@holz.uni-hamburg.de

Straight-stemmed highly productive beech of Sihlwald, Switzerland.
Photo: A. Zingg, WSL, Birmensdorf, Germany

On 27-28 March 2006 a four-year COST Action E52 "Evaluation of Beech Genetic Resources for Sustainable Forestry" was inaugurated at the first Management Committee meeting in Brussels. The main objective of COST Action E52 is to study the adaptive and structural traits and to predict the future distribution range of beech forest ecosystems under the assumption of certain climate change scenarios. This requires a multi-disciplinary approach mainly among forest genetics, ecophysiology, climatology and other sciences like pedology.

European beech (*Fagus sylvatica* L.) is a major stand-forming forest tree species with a wide distribution throughout Europe, ranging from the oceanic west Europe to the more continental south-central Europe. Beech forests cover roughly 14 million ha of forest land. The species is important for both economic and ecological reasons, since it produces valuable hardwood and beech forests constitute stable ecosystems especially beneficial for ground water production and regeneration of depleted soils.



Distribution map of European beech compiled by EUFORGEN Stand-forming Broadleaves Network, based on an earlier map published in: Pott, R. 2000. Palaeoclimate and vegetation - long-term vegetation dynamics in central Europe with particular reference to beech. Phytocoenologia 30 (3-4): 285-333.

Due to climate change, a shift in the distribution of beech is expected, that would endanger considerable parts of the present beech forests. Subsequently, the conservation of beech genetic resources and safeguarding the continued procurement of high quality reproductive material need more attention. However, the role of genetic diversity in the long-term response of forest ecosystems in the face of a changing climate is not yet well understood. Provenance trials provide a rich source of information that can be utilized to evaluate adaptive potential of forest trees.

For this reason, a large network of beech provenance trials was established using a total of 202 seed sources representing most of the species' distribution range. In 1995 and 1998 a total of 47 field trials were established in 21 European countries under different environments within the beech distribution range. At each field trial a subset of 30-100 provenances are being tested. The collection of the seed samples, raising and distribution of plants, as well as maintaining the field trials was funded by the European Commission (AIR3 CT94-2091), the German Federal Government and numerous national forest organizations. The COST Action E52 will provide the means to evaluate all 47 beech provenance trials of the network for the first time since their establishment.

Although still in the early stages after only 11 years, the beech provenance trials are considered to have been exposed sufficiently to reflect in their growth reactions under each of the differing environments. The use of comparative provenance trials allows the observation of, for example, a Swedish provenance in Italy, in the Ukraine or in France and several other locations in between. This experimental set-up is, in effect, simulating changes in the climate. Since provenances from most regions are included, the growth of trees can be observed in as many as 21 different locations throughout Europe.

This data will show how well populations have adapted to certain site-specific environmental conditions, e.g. late frost occurrence, temperature ranges, water availability, acidic or calcareous soil, as well as how non-native populations react to such situations and how successfully they will cope with them. These reactions of beech provenances enable predictions on the existence of beech ecosystems in a given European region within a given climate scenario. This is of great significance for formulating evaluation criteria for assessing the value of a given population with respect to the conservation of beech genetic resources.

All 21 countries where the provenance trials are located, including Ukraine as a COST non-member country, have either joined COST Action E52 or have signalled their interest to join it. Additionally, universities and scientific institutions, as well as organizations like IPGRI with its EUFORGEN Programme, will provide inputs to meet the objectives of this COST Action. The results of the COST Action will facilitate the joint evaluation of the genetic resources of beech for better economic and ecologic utilization as part of sustainable forest management.

The Web site for COST Action E52 is under preparation and can be found at: www.bfafh.de/inst2/mehr.htm

Rich genepool of vegetatively propagated *Allium* L. in Europe

Joachim Keller
Leibniz Institute of Plant Genetics and Crop Plant Research (IPK)
Gatersleben
Germany
Email: keller@ipk-gatersleben.de

Dave Astley
Genetic Resources Unit
Warwick HRI
Wellesbourne, Warwick
United Kingdom
Email: dave.astley@warwick.ac.uk

The meeting of the vegetatively propagated *Allium* subgroup of the ECP/GR *Allium* Working Group in Prague, Czech Republic on 20-21 January 2006, highlighted the needs, but also the tremendous opportunity, for concerted actions being discussed in the framework of the ECP/GR AEGIS project (www.ecpgr.cgiar.org/AEGIS/AEGIS.htm). Brief conclusions from the Prague meeting are published in this issue on pages 10-11.

In support of the recommendations of the Prague meeting, we present a brief survey of the vegetatively propagated *Allium* collections in European genebanks. The survey demonstrates the richness of the genepool collected over many years in Europe and maintained for the benefit of the user community.

The European *Allium* Database (EADB) is being updated to underpin the identification of duplicate accessions and the rationalization process in the AEGIS project. Currently there are passport data for 13 142 accessions in the EADB2006, but the total number will change as the data for other national programmes are added. The general picture is the result of a consolidation process that has been evolving since the start of the *Allium* Working Group in 1982, as one of the pioneer Working Groups within ECP/GR. Figure 1 gives an indication of the size of the garlic collections in ECP/GR countries as a percentage of the total garlic accessions within the EADB2006.

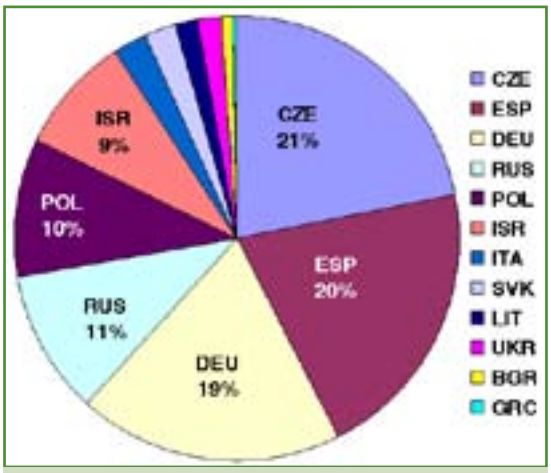


Figure 1. Surveys on the garlic collections (total 2836 accessions) as represented in the EADB (present state).
Chart: J. Keller, IPK, Germany

The richness of the collections is not only quantitative, it is also qualitative. Thus, a representative profile of the genetic diversity of the respective crop is held in the collections, this being especially well documented in garlic. In some of the larger collections, e.g. the garlics held in IPK, Gatersleben, Germany, analyses have been performed by means of molecular markers demonstrating that all the main groups relevant for temperate and Mediterranean climates are well represented (Maass and Klaas 1995). An infra-specific grouping was developed showing that garlic can be divided into clearly distinguishable groups, namely the *longicuspis, sativum, ophioscorodon* and *pekinense* groups. Genetic resources of garlic of tropical origin are not so well represented in the IPK collection. There have been other approaches to grouping garlic diversity, e.g. Messiaen in France in 1993 produced a comparable breakdown. One of the most interesting novel findings is the possibility to get fertile material within the most basic group of garlic, the *longicuspis* group. This *longicuspis* material is present in many collections (in IPK it is 38% of 300 accessions examined by isozymes and RAPDs). In various analyses, a high proportion of fertile material has been found, e.g. 18 of 38 accessions tested in IPK (Etoh *et al.* 2001) and 27 of 120 tested accessions in Israel (Kamenetsky *et al.* 2005), the latter in the recently completed EU Garlic and Health Project (see Newsletter No. 31 page 9).

A rich diversity is also present in shallot (*A. cepa* Aggregatum group). Shallot

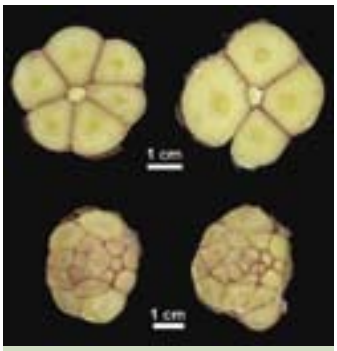


Figure 2. All 1279 (above), a longicuspis *type, and All 1507, a* sativum *type, demonstrating the diversity of bulb structures in garlic.*
Photo: J. Keller, IPK, Germany

represents a special part of the complex onion genepool, which is traditionally propagated vegetatively. There are 653 shallot accessions present in 13 European countries, the main collections being in Poland (179), Germany (133) and Czech Republic (122). There are also several minor vegetatively propagated *Allium* groups present in the European collections, such as top onion, great-headed garlic and others.

This overview shows clearly that the European *Allium* collections are ideal candidates for involvement in the collaboration and task sharing strategies proposed by AEGIS in order to rationalize material in the collections, thus establishing an accessible modern European-based genepool of these high value crops.

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Canary Islands set the scene for *Beta* work

European Cooperative Programme for Crop Genetic Resources Networks
ECP/GR

Thanks to the hospitality of the Instituto Canario de Investigaciones Agrarias, the third joint meeting of the Working Group on *Beta* and the World *Beta* Network (WBN) took place in the Jardín de Aclimatación de La Orotava, Puerto de la Cruz, Spain, in close contact with the lush vegetation of the Canary Islands and their numerous (nearly 600) endemic species. These islands also host at least five wild species of *Beta* and this meeting was the occasion to summarize the status of knowledge on the distribution area and status of conservation of these important wild relatives of beet crops.

The meeting focused on scientific and technical aspects of *in situ* management. A presentation by B. Ford-Lloyd, UK confirmed that, on the basis of objective criteria for prioritizing conservation efforts, priority is justified for most wild species of *Beta*, considering their limited occurrence and the importance of the related food, fodder and industrial crops. The evolutionary history of the *Beta* section was reconstructed on the basis of molecular data by S. Villain, France. Her results indicate glacial refugia of *B. vulgaris* subsp. *maritima* in the eastern part of the Mediterranean basin and in the Moroccan area or the southern Iberian Peninsula from where the postglacial colonization of the Atlantic coast started.

Wild Beta *population site in Tenerife. Photo: L. Maggioni, IPGRI*

A. Santos, Spain gave an account of the taxonomy, distribution, ecology and conservation of Macaronesian *Beta* and indicated a number of taxonomic issues still to be resolved, e.g. the likelihood that the legitimate name for *B. procumbens* should be *B. hastata*. G. Aleksidze, Georgia shared information on the biodiversity of *Beta* species in the Caucasus and Iran, indicating the high diversity and the increasing commitment for conservation in this region. A recent survey of *Beta nana* populations growing in Greece was described by L. Panella, USA, reconfirming the survival of this species believed to be extinct. Rich populations of *B. vulgaris* subsp. *maritima* also grow on the coasts of Ireland, as presented by D. Grogan, Ireland.

Wild Beta *population site in Tenerife. Photo: L. Maggioni, IPGRI*

The Group took stock of progress made in recent years, such as the development of new features (pictures and interactive maps) in the International Database for *Beta* (http://idbb.bafz.de), maintained at the Federal Centre for Breeding Research on Cultivated Plants (BAZ), Braunschweig, Germany.

New lines of collaboration and plans for further joint research were made at the meeting, including improving the identification of target populations for *in situ* conservation, focusing on Greece, Morocco, Spain and the Caucasus, and developing a model for collection of data for *in situ* management. The Group considered it desirable to ensure some commitment from breeding companies for genetic resources collaboration and for funding, especially for pre-breeding competitive research.

On the last day the Group, including 17 participants from 12 countries, visited important sites with populations of wild *Beta* species along the coasts of the Island of Tenerife. It was reassuring to ascertain that most populations were well preserved, often within protected areas. The monitoring methodology was put into practice through this exercise and several observations were made that are likely to contribute to the improvement of the theory of wild population assessment. L. Frese, Germany was reconfirmed as Chair of the ECP/GR Working Group and G. Aleksidze, Georgia, was elected as Vice-Chair. B. Ford-Lloyd and E. Ober, UK, were reconfirmed as sub-working group moderators for “genetic diversity” and “evaluation and breeding”, respectively. E. Ober will serve the Group as editor of the recently launched WBN Newsletter and represent the interests of the *Beta* germplasm user community. D. Grogan was elected as member of the *Beta* Coordinating Committee of the WBN. The proceedings of this meeting will be printed by IPGRI and made available from the ECP/GR Web site.

Network Coordinating Groups meet in Bonn

As Phase VII of ECP/GR reaches its mid-term point, the Network Coordinating Groups (NCGs) had the opportunity to meet in Bonn, Germany, on 29-31 March 2006, to review progress, readjust the Networks' plans and budgets for Phase VII of ECP/GR and to start looking into plans for Phase VIII (2009-2013).

The NCGs are groups of 5-7 people, established within each Network (Crop and Thematic) and composed of the Working Group or Task Force leaders plus a number of other co-opted Network members. Responsibilities of the NCGs are to formulate proposals for the attention of the ECP/GR Steering Committee (SC) on priorities and activities. The Bonn meeting, hosted by the Federal Agency for Agriculture and Food (BLE), was attended by 37 representatives of the ECP/GR Networks, who were able to discuss inter-Network cross-cutting issues and to strengthen joint activities. IPGRI staff and observers from the European Seed Association and the Global Crop Diversity Trust also attended.

Participants of the NCG meeting in Bonn. Photo: S. Harrer, IBV/BLE, Bonn, Germany

During the first part of the meeting, several presentations pointed out recent changes in the operating environment. The audience was updated on the status of the International Treaty on PGRFA, with its Governing Body meeting for the first time in June 2006, aiming at the endorsement of the standard Material Transfer Agreement for the exchange of germplasm within the Multilateral System (see article on page 18).

An update was also given on strategies and opportunities for collaboration with the Global Crop Diversity Trust, an independent fund with the goal of supporting the long-term conservation of key crop diversity collections.

A possible scenario for how A European Genebank Integrated System (AEGIS) could be imagined in the future was presented in a role play: three people representing a Steering Committee member, a Crop Working Group member and an ECP/GR Secretariat member, imagined the ideal situation to ensure conservation and management of plant genetic resources in the year 2015. All the presentations are available from each Network's Web site (see: www.ecpgr.cgiar.org/Introduction/Networks.htm).

An important session of the meeting consisted of the presentation of the Thematic Networks' activities by the respective Network Coordinators. This was the occasion for the Crop Networks' representatives to get a clear picture of the Thematic Networks' activities and to strengthen collaboration. Each Network produced a progress report and made specific plans for the future. These are included in the report of the meeting, which is available from the Secretariat.

The meeting concluded with the endorsement of a number of general recommendations which were addressed to the SC. Among these, the concept of AEGIS received a broad appreciation and support for its implementation was recommended. Support for global initiatives on PGR conservation was also considered important. Strengthening inter-Network relationships with other regions was encouraged. EURISCO was appreciated as a central platform, which in the future will cover *ex situ*, *in situ* and on-farm data on PGR. It was recommended that the Steering Committee consider broadening the range of crops covered by the Network (including for example rice, cotton, currant, strawberry, etc.). Increasing communication with the relevant European Commission services was suggested. Finally, it was recommended that the SC should not only maintain the current budget level, but also consider an increase based on the priorities outlined above, for Phase VIII. A recommendation for a certain amount of funds to be reserved to target *ad hoc* actions was made and attention to a fund-raising role was also recommended.

Announcing the Mid-term ECP/GR Steering Committee meeting

The ECP/GR Phase VII Mid-term Steering Committee meeting will be held in Riga, Latvia on 5-8 September 2006. Review of progress made by the Networks during the first part of Phase VII will be followed by the evaluation of proposals made by the Network Coordinating Groups (NCGs) for the current and the next Phase of ECP/GR. Broad priorities and objectives for Phase VIII of ECP/GR (2009-2013) will be established, including definition of the funds attributed to each Network/Working Group.

One of the highlights of the meeting will be the review of the results and recommendations arising from the AEGIS feasibility project. A decision is expected to be taken on the way to proceed for the implementation of the AEGIS concept on a broad scale. The future mode of operation of ECP/GR is also likely to be reviewed and re-discussed in light of the recommendations made by the NCGs in their Bonn meeting (see article above).

AEGIS discussions for *Allium* and *Brassica* subgroups in Prague

www.ecpgr.cgiar.org/AEGIS/AEGIS.htm

Dave Astley
Genetic Resources Unit
Warwick HRI
Wellesbourne, Warwick
United Kingdom
Email: dave.astley@warwick.ac.uk

Noortje Bas
Centre for Genetic Resources,
The Netherlands (CGN)
Wageningen, The Netherlands
Email: noortje.bas@wur.nl

Joachim Keller
Leibniz Institute of Plant
Genetics and Crop Plant
Research (IPK)
Gatersleben, Germany
Email: keller@ipk-gatersleben.de

Eduardo Rosa
Departamento de Fitotecnica
Univ. Tras-os-Montes e Alto Douro
Vila Real Codex, Portugal
Email: erosa@utad.pt

Subgroups of the ECP/GR *Allium* and *Brassica* Working Groups met at the Research Institute of Crop Production, Prague, Czech Republic, 20-21 January 2006 to discuss the recommendations of their respective AEGIS project crop groups for the development of European collections.

The *Allium* group concentrated their discussions on the vegetatively propagated crops, garlic and shallot.

Brief conclusions:

- The European *Allium* Database (EADB) has been rebuilt (currently 13 142 accessions from 32 institutions in 20 countries, plus the Nordic Gene Bank) as a tool underpinning the elements of the proposed strategy.
- Existing safety-duplicate collections are based on ECP/GR inputs-in-kind and have no formal status.
- The group outlined their strategy for a two-stage process: i) an assessment of duplicates in the EADB2006. ii) fingerprinting of all accessions using SNP analysis by a commercial company and the interpretation of the results by the partners of the vegetative *Allium* subgroup.
- *In vitro* technology is not suitable for long-term conservation, but is an essential tool for virus elimination.
- Cryopreservation is the preferred method for the long-term conservation of European garlic and shallot collections and their safety-duplicates. The group proposed a strategy and an expandable tripartite model (Czech Republic, Germany, Poland) to achieve these goals. The model does not impinge on the rights of European national programmes to maintain their own collections of material (field, *in vitro* or cryo) for their own interest.
- Quality Standards and regular audit will be essential elements for the long-term maintenance of European collections.
- The group concluded that the main constraint on development is lack of funds and asked for clarification on the legal status of proposed AEGIS collections.

A model for a duplicate screening could be as proposed in Figure 1.

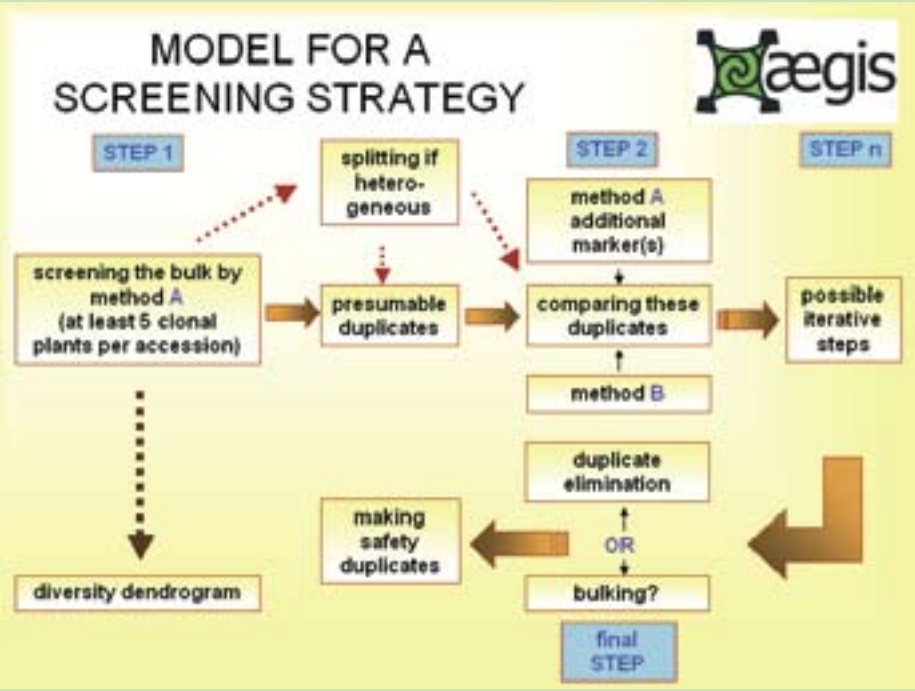


Figure 1. A possible model for a duplicate screening strategy. Chart: J. Keller, IPK Gatersleben, Germany

The *Brassica* group concentrated their discussions on standards in the management of cultivated *Brassica* collections, models for a European *Brassica* collection and how to approach the Most Appropriate Accession concept. In preparation for the discussions, a survey had been carried out on present practices in collection management procedures and present arrangements for safety-duplication of 16 collections in 11 countries (see table 1 page 11 for a summary of the results).

Brief conclusions:

- The group welcomed the idea of AEGIS and is willing to participate in AEGIS on the basis of a decentralized system.
- A prerequisite for a collection holder to join AEGIS is that AEGIS accessions are managed according to common minimum standards, that protocols written in English must be available and that there must be a regular audit.
- The group agreed on a set of minimum standards (table 1) and did not see constraints in meeting the crop-specific standards. Meeting institutional (generic) standards will need financial support. There is also a need for scientific input for setting standards for germination and the monitoring of germination capacity.
- It is recommended to start the European *Brassica* collection with the core collections of two species (*B. napus* and *B. oleracea*) developed in RESGEN CT99 109-112. From this point, collection holders/countries offer other unique accessions, based on different criteria: national material, unique material from other countries and material with special properties.
- There is still a need for clarification of many aspects of AEGIS, including the legal status of AEGIS collections.

Cyprus hosts the seventh ECP/GR *Prunus* WG meeting

A very warm and dry Mediterranean wintertime, close to the beaches where the myth of Aphrodite has its origin, set the scene for the seventh meeting of the ECP/GR Working Group (WG) on *Prunus*, in Larnaca, Cyprus, on 1-3 December 2005. Although Cyprus has been a member of ECP/GR since its foundation in 1980, this was the first time a meeting of the Programme had been hosted by Cyprus. The meeting was attended by representatives from 23 countries, by one representative of the European NGOs and three members of the ECP/GR Secretariat.

The new *Prunus* database (DB) manager, Emilie Balsemin, based at INRA in Bordeaux, France was able to show the progress of the DB, specifically the Cherry component, which was made accessible and searchable on-line in September 2005. Harmonization of the database with EURISCO was discussed and agreed and plans were made to further improve the DB with additional features, including photographs, and to extend this model to the other *Prunus* crops with the possibility of eventually increasing harmonization of all the fruit databases. The possibility of using the DB in the identification of duplicate groups was also shown. However, the full coverage of relevant passport data is the key element in this case.

Hedelfinger *mutant*.
Photo: David Szalatnay, Agroscope FAW Wädenswil, Switzerland

Progress made by the *Prunus* sub-group within the AEGIS (A European Genebank Integrated System) project was presented to the entire Working Group. The long-term vision for AEGIS was also presented by the ECP/GR Secretariat. General support was expressed by the WG for this initiative and suggestions were made for the specific implementation of AEGIS for *Prunus*. The possible use of the DB to identify unique accessions for AEGIS was also shown and a flow chart for decision-making was tested. The inclusion of specific descriptors related to the establishment of AEGIS were also agreed for inclusion in the DB. The Group made plans to identify cherry accessions in 2006 that could be designated for AEGIS.

Opportunities offered by microsatellite markers for managing *Prunus* collections were explained. A proposal for inclusion of SSR markers into the European *Prunus* DB (EPDB) will be prepared and circulated by the DB manager. The organization of a workshop on fingerprinting, involving the *Prunus*, *Malus*/*Pyrus* and *Vitis* representatives, is planned for 2006 in East Malling, UK. A list detailing *Prunus* crop expertise readily available to participants was compiled and circulated to all the WG members.

The intention to submit a project proposal to the second call of EU Regulation 870/04 was reconfirmed. The project, entitled "Sustainable management of European Fruit Tree Biodiversity and Enhancement of its Utilization (BIODIFRUIT)", would cover *Prunus avium* (sweet cherry) and *Pyrus communis* (European pear). The project foresees, *inter alia*, the harmonization of the fruit tree central databases, establishment of a common methodology for the use of molecular markers, implementation of the European collection concept according to the AEGIS strategy framework and the improvement of utilization of fruit tree genetic resources on the basis of case studies. *Ad hoc* workshops on synonymy and on *in situ* and on-farm conservation of *Prunus*, *Malus*/*Pyrus* and *Vitis* were planned for 2007 and 2008, respectively.

The Group thanked the Fruit Growing Research & Extension Station of Valcea, Romania for the production of Issue 5 of the *Prunus* Genetic Resources Newsletter, with inputs from several WG members. About 300 copies of this product were distributed by IPGRI in September 2005. The production of issue 6 is planned for 2007.

Ken Tobutt, UK, was reconfirmed as Chair of the Working Group and Daniela Benediková, Slovakia as Vice-Chair. The proceedings of the sixth (Budapest 2003) and seventh (Larnaca 2005) meetings of the WG will be printed by IPGRI in 2006.

AEGIS for *Allium* and *Brassica* cont.

Table 1. Summary of present practices of 16 European collection holders and minimum standards in collection management procedures for AEGIS *Brassica* accessions (cultivated species)

Procedure	Present practice	Minimum standards
Documentation of germination in database	60% of collection holders	Yes
Documentation of seed quantity in database	90% of collection holders	Yes
Number of seeds used in germination test	50 - 200	2 x 100
Interval monitoring germination	2 – 30 years	Depending on initial germination, ask experts
Criteria regeneration	Low germination 50 – 85%	Germination < 65%
Number of plants in regeneration	20 - 80	30, less when individual harvesting
Isolation criteria	Cages or 50 – 500 m distance	Cages or 800 m distance
Checking identity next generation	Morphology by 30% of collection holders	Yes, morphological 5 plants of 2 generations
Moisture content of seed base and active	3 – 10%	3 - 7%
T. storage base samples	85% of collection holders: ≤ -18ºC	≤-18ºC
T. storage active samples	Most: -5 to +5ºC	≤+4ºC
Monitoring storage conditions and alarm system	Most monitor, 50% alarm system	Both: yes
Backup power unit tested regularly	70% have unit of which 60% test regularly	Both: yes
Protocols of all collection management activities	33% yes, 33% in preparation, 33% no	Yes, in English
Safety-duplication	10 – 100% of collections	All accessions in another location, recomm: other country
Quality Management System	30% yes/developing/planned; 70% no	Yes, audited externally or by ECP/GR WG

Farmers' rights and seeds: what's at stake for Europe?

Robert Ali Brac de la Perrière,
BEDE
Montpellier
France
Email: brac@bede-asso.org

Participants from 15 European countries and 20 countries in other continents gathered at the European Seminar on Seeds, held in Poitiers, France on 25-26 November 2005. They expressed their deep concern for international recognition of the inalienable right of farmers to choose, produce, reproduce and exchange their seed.

Two French farmer organizations, Coordination Nationale de Défense des Semences Fermières (CNDSF) and Réseau Semences Paysannes (RSP) launched the initiative to gather 150 committed stakeholders involved in the promotion and defence of agrobiodiversity and farmers' rights, including: national development or trade-union organizations involved in the support of organic and peasant agriculture, small producers of farmers' varieties, craftsmen, nurserymen, seed cleaners and organizations generally committed to the development and preservation of biodiversity.

In western Europe, reviving farmers' varieties is a huge task. Farmers, for the most part, have lost traditional knowledge on conserving, using or breeding their seed varieties. Membership of east European countries in the European Union is tantamount to signing the "death warrant" of the farmers' varieties still cultivated on family farms which are in the majority in some of the new Member States.

This is a call for urgent common action. The more time passes, the more it becomes apparent that seed firms are at the service of industrial agriculture and not of small farmers. On the contrary, they are partly responsible for the disappearance of small farms and make those that remain dependent on seed supplies. As research is geared toward standard varieties, biodiversity is severely threatened.

The seminar in Poitiers focused on four themes – biodiversity, norms, research and contamination. Farmers and the civil society are in the process of organizing the rescue of cultivated biodiversity, but their action remains limited if there is no recognition for their fundamental rights to use and exchange self-conserved, harvested grain and to collectively protect and manage cultivated biodiversity. That was the theme discussed at the first workshop.

"Liberate Diversity. The European Seminar on Seeds, November 2005"
Photo: BEDE, Montpellier, France

Farmer-baker, Berthellot, presenting several from the 200 wheat variety collection he is currently growing in southwest France.
Photo: BEDE, Montpellier, France

The second workshop dealt with the issue of norms, contracts and constraints of catalogue registration, which represent obstacles for farmers' rights. Faced with the question of intellectual property rights, the participants expressed their concern that the UPOV 1991 convention totally denies the right of farmers to use self-conserved seeds. In the opinion of the participants, the right is now only an optional, special dispensation of breeders' rights. This dispensation is granted in return for the payment of a tax on farm seeds.

The third workshop discussed aspects of agronomic research which will determine the seeds of tomorrow. The high specialization of varieties to satisfy the needs of the agri-food industry is not satisfying the current needs of many farmers and consumers. This observation is all the more true for types of agriculture that can be characterized as family-based, small-farm, organic, using a low level of input, or food-crop producing, as well as for amateur farmers or for new markets. Research on participatory plant breeding for different types of agriculture is needed and proposals were made to transform agricultural research in a direction more in accordance with the needs of small farmers and with equitable control over innovation.

The fourth workshop focused on GMO contamination. Among the many controversies fuelling GMO current events in Europe, coexistence is a major one. It is a crucial topic for farmers producing their seeds on the farm: it threatens their freedom and their rights. Through Directive 2001/18, the European Commission has chosen to apply the principle of subsidiarity and lets the Member States take care of setting up coexistence measures, if they wish to do so. However, coexistence appears impossible: GMO contamination of seeds, which leads to alteration of cultivated varieties is being increasingly observed in Europe and elsewhere in the world. This alteration is found as much at the biological and agronomic level as in qualitative and economic values. Furthermore, the legal status of contaminated varieties can change dramatically along with claims of intellectual property rights to crops grown from polluted farm-saved seeds. A resolution to call for a ban on Terminator technology, because of its European and global impacts on farmers, food sovereignty and the environment was adopted.

NGB and Nordic/Baltic cooperation on plant genetic resources

Bent Skovmand
Nordic Gene Bank
Alnarp, Sweden
Email: bent.skovmand@nordgen.org

Liv Lønne Dille
Nordic Gene Bank
Alnarp, Sweden
Email: liv@nordgen.org

The Nordic countries have joined forces to conserve the biological and cultural heritage of the region. In 1979 the Nordic Gene Bank (NGB) was established as an institution under the Nordic Council of Ministers and forms the core of Nordic cooperation on plant genetic resources. It is a centre for the conservation, characterization and utilization of plant genetic resources in the Nordic countries. The Nordic Gene Bank was set up to save the past, maintain the present and work for the future.

The Nordic Gene Bank conserves and documents the genetic variation of Nordic plant species useful for agriculture and horticulture. The material stored in the bank is available for plant breeding, research and any other *bona fide* use. Its activities also foster rational cooperation between the Nordic countries in their efforts to use plant genetic resources for plant breeding and crop improvement research. The Nordic Gene Bank participates in international cooperation on the conservation and use of plant genetic resources. NGB can also serve as a technical advisor for the Nordic countries in connection with international negotiations.

NGB has a seed store containing more than 32 000 seed samples. About 7000 of these are breeding varieties, old landraces and wild populations of cultivated crops that have been collected over the years in the Nordic countries. The rest are special research collections developed by Nordic plant scientists over the last century. Since NGB's mandate has been Nordic PGR, it should not have any duplicates in common with other European PGR collections and can be considered to have been rationalized from its beginning. In order to minimize the risk of loosing material, NGB has established a safety base collection in the permafrost of Svalbard.

Financed by funds from the Nordic development agencies, a programme for establishing a regional genebank operation in Southern Africa was initiated in 1988. This has led to a similar effort, funded by the Nordic Council of Ministers, in the three Baltic States since 1994. The Nordic standard documentation format facilitates information exchange between the Baltic States and the neighbouring Nordic region. The future documentation cooperation in the Nordic/Baltic region is still open and several approaches could be imagined. Each genebank could develop individual PGR documentation systems based on a local database structure, where proper data dictionaries would handle the translation from one database structure to another. We can also continue to develop common PGR genebank database structures and data exchange routines, but with separate national documentation systems. At the moment, we continue the work on one shared common documentation platform hosted by NGB.

The Nordic Gene Bank, the Nordic Gene Bank Farm Animals and the Nordic Council for Forest Reproductive Material have been focusing on cooperation for the last three years. The directors have at least four meetings a year where they discuss how to optimize cooperation. This has resulted in different common projects, one of the first visible results of these efforts being the introduction of a new Web site and Email addresses from 1 January 2006.

www.nordgen.org/ngb

Seednet update

Eva Thörn
Swedish Biodiversity Centre
Swedish University of
Agricultural Sciences
Alnarp, Sweden
Email: eva.thorn@cbm.slu.se

Since the beginning of 2006, SEEDNet has extended its regional scope to include three new member partners, Bulgaria, Moldova and Romania, bringing the total number of partners to twelve.

A meeting of the twelve-strong SEEDNet Regional Steering Committee (RSC) was held in Pristina on 15-16 March 2006. During the meeting Gordana Djuric, Republika Srpska, Bosnia and Herzegovina was elected as the new Chair of the RSC for the coming two years, with Gordana Popsimonova, Macedonia (FYR) as Vice-Chair.

A workshop connected to the RSC meeting was also carried out during which a draft regional conservation strategy was discussed and drafted.

The SEEDNet regional working groups are in the process of planning new meetings and other activities. The Fruit and *Vitis* working group organized a workshop on 30-31 May in Sarajevo, Bosnia & Herzegovina with the theme "Conservation of Fruit and *Vitis* in field genebanks". Experts from the Swedish Biodiversity Centre and the Norwegian University for Life Science were responsible for the scientific part of the workshop. The workshop will be followed by a working group meeting and study tour to Swedish fruit genebanks later on this year.

The Nordic Gene Bank organized a two-week course in genebank management and operation in May 2006 in Sweden for representatives of all SEEDNet partners, providing both theoretical and practical training. The course will be followed by a series of training workshops on special topics depending on needs and interest.

Current information about SEEDNet is available on the SEEDNet information and documentation portal at http://seednet.geminova.net/

Workshop on Inventorying European Cultivated Plant Species

Helmut Knüpffer
Institut für Pflanzengenetik und Kulturpflanzenforschung - Genbank
Gatersleben, Germany
Email: knupffer@ipk-gatersleben.de

Zofia Bulinska-Radomska
National Center for Plant Genetic Resources
Plant Breeding and Acclimatization Institute (IHAR)
Radzików, Poland
Email: z.bulinska@ihar.edu.pl

Eliseu Bettencourt
Genebank - Genetics, Dept of Genetic Resources and Breeding
Estação Agronómica Nacional EAN/INIAP
Oeiras, Portugal
Email: e.bettencourt@meganet.pt

The National Centre for Plant Genetic Resources in Poland hosted a workshop from 12 to 14 January 2006 in Warsaw, Poland entitled "Inventorying European Cultivated Plant Species".

The workshop was funded in full by the Fifth EU Framework Programme for Research, Technological Development and Demonstration Activities, Centre of Excellence "Crop Improvement Centre for Sustainable Agriculture", and was held in collaboration with the ECP/GR Documentation and Information Network.

The workshop brought together 36 invited participants from 16 European countries, among which nine from the host country. They represented genebanks, botanical gardens, universities, research and scientific institutions, including IPGRI. Most of the participants were invited because of their involvement or interest in various initiatives to inventory the cultivated floras of their countries. The workshop aimed at establishing a cooperation network towards an inventory of cultivated plant species in Europe, with a view to compiling a European flora of cultivated species.

Altogether 27 presentations were delivered. In the introductory section "Background and aims of the workshop", presentations were given about compiling country inventories of cultivated plant species, the EU project proposal EPGRIS-2 and the Global Biodiversity Information Facility (GBIF) and its relation to plant genetic resources documentation.

Workshop participants in Lazienki Krolewskie Park, Warsaw, Poland.
Photo: M. Zaczynski, IHAR, Poland

In the section "Inventorying national floras of cultivated plants – ongoing projects", 17 presentations illustrated different approaches to inventorying cultivated plant species in 13 European countries, with additional views on Iran and the PROTA (Plant Resources of Tropical Africa) project. The presentations described inventories of cultivated plant species or of crop landraces, including planned or recently started activities. Reports were given on an encyclopaedia of food plants in France and a legal framework for common names of plants, including cultivated ones, was described by Lithuania. In spite of the multiplicity of approaches, common methodologies were identified.

Several presentations highlighted the national catalogues of plant varieties both as important sources of information on cultivated plant species and as a tool for identifying them.

The importance of the anthropologic view was highlighted, incorporating traditional and modern knowledge from the perspective that knowledge is dynamic and evolving over time.

Ethnobotany, economic botany, agrobotany, ethnobotany tourism and the movement of people and seeds are important aspects to be taken into consideration when collating data for inventorying. Home gardens, including those of immigrant populations, were mentioned as rich repositories of agrobiodiversity, thus an important but still much neglected source of information and crop diversity.

The third section "Databases and information resources" focused on existing databases, information systems, projects and technical solutions that could be considered complementary to the aims of the workshop. Topics included both taxon-based information systems (Mansfeld Database and Checklists of cultivated plants at IPK Gatersleben), and accession-based ones (EURISCO, European databases on wheat, *Dactylis* and *Festuca*), the IPGRI/GEF/GTZ project on *in situ* conservation of crop wild relatives and the "Potential Taxon Concept" (Botanical Garden Berlin) designed to handle alternative taxonomies in federated taxon-oriented databases. It was suggested to use the Mansfeld Database as a starting point and backbone for compiling a European inventory of cultivated plant species.

The presentations were followed by parallel discussions about the aims, scope and possible approaches to compiling national inventories and a European flora of cultivated plant species. It was agreed that such inventories would be of both national and international importance. They should focus on cultivated plant species, i.e. crop species as defined in "Mansfeld's Encyclopedia" and for the time being should not include ornamental and forestry plants, nor useful wild plants or crop wild relatives. Scientific names (accepted ones and synonyms) and common names in European languages should be documented. Information on the distribution, history of cultivation, growing conditions, uses and end products should be included and basic references, both printed and electronic, should be linked.

The results of these discussions were presented to the plenary. The participants agreed that national and European inventories of cultivated plants would be a useful tool for a number of purposes and a wide user community and that it is a worthwhile task to start compiling these inventories. Consequently, it was agreed that these recommendations would need to be worked out into a more structured cooperation network.

Nutrition stakeholder meeting

*Sea-buckthorn (*Hippophae rhamnoides*) berries are packed with antioxidants (e.g. vitamin E) and various flavonoids. They contain more vitamin A than carrots.*
Photo: D. Maghradze, Research Institute of Horticulture, Viticulture and Wine-making, Georgia

A cross-cutting initiative on biodiversity for food and nutrition has the potential to deliver great benefits, especially in the context of helping the world to address several of the Millennium Development Goals in a fully sustainable manner. Efforts to work in the nexus of agricultural biodiversity, dietary diversity, nutrition and health require a multisectoral, multidisciplinary approach at a range of geographic scales from the local to the international. Local communities are essential components of this approach, which empowers them to change from passive recipients of aid to active sources of wisdom, knowledge and natural resources.

In 2004, the 7th Conference of the Parties (COP7) to the Convention on Biological Diversity (CBD) invited its Executive Secretary, "in collaboration with the Food and Agriculture Organisation of the United Nations and the International Plant Genetic Resources Institute to undertake the necessary consultations and bring forward options for consideration by the Conference of the Parties at its eighth meeting (COP8) for a cross-cutting initiative on biodiversity for food and nutrition within the existing programme of work on agricultural biodiversity of the Convention on Biological Diversity, to achieve target 2 of Millennium Development Goal 1 and other relevant Millennium Development Goals."

IPGRI, in collaboration with the Secretariat of the Convention on Biological Diversity (CBD) and the Food and Agriculture Organization of the United Nations (FAO) convened a Global Stakeholder meeting to discuss the implementation of the CBD's cross-cutting initiative and to provide inputs for delegates to COP8 in their deliberations on the initiative. Support for the meeting came from the International Development Research Centre (IDRC, Canada) and IPGRI. Almost 60 experts from 25 countries came together at IPGRI Headquarters in Maccarese, Italy, on 16 and 17 February 2006 to contribute to this process.

While great strides have been made in satisfying the chronic hunger for protein and calories, the hidden hunger caused by missing micronutrients remains of great concern. One in three people worldwide, mostly women and children, suffer diseases associated with malnutrition and the lack of vital nutrients. At the same time, diseases previously associated with affluence, such as obesity, type 2 diabetes and heart disease, are on the rise among the poor in developing and developed countries.

The causes of malnutrition are complex, but chief among them is a general simplification of the diet.

Agricultural biodiversity has formerly been seen predominantly as a source of traits for improving crops and livestock. But its contributions go wider and deeper. Agricultural biodiversity, and the knowledge and wisdom to use it, are two of the vital assets of poor people and their communities, assets that should be more widely used to meet nutritional needs. Diverse diets deliver good health, more productive lives and greater well-being.

Diverse farming systems, especially in marginal and fragile areas, are more resilient and recover more rapidly from damage. Their yields are more stable from year to year. Agricultural biodiversity also has a role to play in restoring and rehabilitating damaged ecosystems, for example in controlling soil erosion and enhancing soil fertility.

The challenge is to link food security, good nutrition, health and long-term sustainability. That is why any initiative has to be cross-cutting, and why experts from several different disciplines took part in this consultation.

The meeting divided into three working groups of stakeholders to consider in depth a series of activities under three, mutually supportive headings: research, policy, and public awareness. Among their recommendations:

- Research - to strengthen the links between dietary diversity and health outcomes. Generate nutritional data on varieties and incorporate this diversity and food preparation information in databases of food composition. Study agricultural biodiversity in markets and its relationships to livelihoods. Consolidate and curate existing knowledge.
- Policy - to incorporate agricultural biodiversity and nutrition into existing national and international policy instruments. Study existing efforts to mainstream agricultural biodiversity into policy for approaches and lessons learned. Ensure that policies do not inadvertently penalize the use of agricultural biodiversity for food and nutrition. Examine trade-related policy and facilitate access to markets for the products of agricultural biodiversity.
- Public Awareness - to formulate effective campaigns to change behaviour and work with diverse agents of change to implement them. Recruit opinion shapers and celebrity role models to assist in campaigns. Work with multipliers such as civil society leaders and local suppliers of health information to promote diversity for well-being. Boost pride in local and indigenous foods and diets in support of cultural identity. The full working papers from the consultation will contain further details of all the recommendations.

News from the Regions...

APFORGEN meeting in India

Hong L.T.
FGR Specialist and
APFORGEN Facilitator
IPGRI, APO, Malaysia
Email: l.hong@cgiar.org

Sim Heok Choh
Asia Pacific Association of
Forestry Research Institutions
(APAFRI)
Selangor, Malaysia
Email: sim@apafri.org

Markku Larjavaara
Associate Scientist
Forest Genetic Resources
IPGRI, APO, Malaysia
Email: m.larjavaara@cgiar.org

Tropical rainforest near the Cameron Highlands, Malaysia. Photo: J. Koskela, IPGRI

The Asia Pacific Forest Genetic Resources Programme (APFORGEN) held a two-day workshop in Dehradun, India on 15-16 April 2006. This workshop was organized by the Asia Pacific Association of Forest Research Institutions (APAFRI) and IPGRI, in collaboration with the Indian Council of Forestry Research and Education (ICFRE), as a pre-session of the Asia-Pacific Forestry Commission's 21st Session (APFC) on 17-21 April 2006.

The objectives of the APFORGEN workshop were: to discuss recent updates of national forest genetic resources conservation and management (FGR C&M) in the region; to discuss the development of national FGR programmes in the participating countries; to revisit the draft APFORGEN Action Plan; to explore more effective means for information dissemination between the participating organizations and countries in the region; to explore resource generation strategies or ideas; and to identify other areas of common interest for collaboration.

Representatives from 12 of the 14 countries currently participating in the Programme present at the workshop were from Cambodia, China, India, Indonesia, Lao PDR, Malaysia, Myanmar, Nepal, Philippines, Sri Lanka, Thailand, and Vietnam. Bangladesh and Pakistan were unable to participate. Several Indian scientists and individual researchers from Malaysia, Thailand and Vanuatu also attended the workshop as observers.

The major achievements of APFORGEN during the past three years included the publication of the inception workshop proceedings (2003), nine priority species information sheets, APFORGEN brochures, establishment and updating of the APFORGEN Web site (www.apforgen.org) and two sub-regional meetings of the National Coordinators. An important recent activity is a project funded by the International Tropical Timber Organization (ITTO) entitled "Strengthening national capacity and regional collaboration for sustainable use of forest genetic resources in tropical Asia" that started in February 2006, directly involving seven of the 14 APFORGEN countries (Cambodia, India, Indonesia, Malaysia, Myanmar, Philippines and Thailand).

At the workshop the National Coordinators presented updates on policies, organizations, scientific projects, conservation strategies and international collaboration in FGR in their respective countries. There were numerous newly introduced policies and research initiatives relevant to FGR C&M. In addition, the National Coordinators explained what kind of new initiatives would be needed from their perspective, such as: establishment of national FGR conservation networks; training of scientists; joint research/conservation projects among member countries; development of uniformly applicable guidelines for FGR conservation; integrated conservation and tree improvement programmes; and facilitation of exchange of genetic materials.

Draft action plans proposed during previous meetings were reviewed. Several of the proposed actions have already been initiated by participating countries. It was agreed that these action plans would need to be updated as the situation in many countries had changed during the past years. The National Coordinators will review, provide updates and submit the revised versions to the APFORGEN Secretariat.

The workshop decided that the APFORGEN Web site will play a key role in information dissemination between member countries. To accomplish this, regular efforts should be made to update the Web site and a suggestion was also made to post success stories in FGR C&M on it for dissemination.

The workshop also discussed the role of genetic diversity in forest rehabilitation. This discussion revealed that several APFORGEN countries have ongoing reforestation and rehabilitation activities and these efforts are likely to be strengthened in the future. The understanding of the importance of genetic diversity in forest rehabilitation varies between the countries. However, the level of scientific knowledge on genetic diversity in rehabilitation is low throughout the countries. There is a strong need for a project to assist countries to increase genetic diversity of rehabilitated forests through scientific activities.

The Indonesian National Coordinator, Dr Nur Masripatin, with some support from the Indonesian government, established a national APFORGEN secretariat shortly after the Inception Workshop of 2003. This successful Indonesian effort could be replicated and Indonesia has volunteered to assist other countries in this task. In addition, Indonesia has volunteered to host the next APFORGEN National Coordinators' meeting scheduled for 2007.

Training Workshop on Forest Biodiversity

A two-week training workshop with emphasis on conservation and management of forest genetic resources, was just concluded in Kuala Lumpur, Malaysia, sponsored by the Austrian Government and organized by IPGRI in collaboration with the Austrian Federal Office and Research Centre for Forests (BFW), the Asia Pacific Association of Forest Research Institutions (APAFRI) and Forest Research Institute Malaysia (FRIM).

Twenty-eight young scientists from nine developing Asian countries participated. They attended lectures by 23 eminent lecturers from overseas and local universities and research institutions. The workshop provided the participants with an overview of the basic principles of conservation genetics and their practical application in forest management.

This was the second training workshop in a series of five. In 2005 a similar workshop was organized in Russia (see NL 31).

Marketing underutilized species (laurel and caper)

Alessandra Giuliani
Socio-economist of NUS Diversity for Livelihoods Programme
IPGRI
Email: a.giuliani@cgiar.org

Stamping of traditional laurel soap in a factory in Aleppo, Syria.
Photo: A. Giuliani, IPGRI

A pilot study on the market chain analysis of products derived from wild underutilized species in Syria, using concrete cases of how communities are developing markets for local products, was carried out between June 2003 and December 2004. It involved interactions with collectors, processors, traders, government officers and cultivation specialists to identify ways to generate market value to make a contribution to the livelihood security in communities in difficult environments with unique resources.

Laurel (*Laurus nobilis* L.), an extremely resilient forest tree growing on coastal areas in Syria, has been used for centuries in traditional products, such as laurel oil and laurel soap. Age-old methods handed down through generations are used to produce unique cosmetic products that are sold in local markets, in particular the "ghar" (laurel) soap, renown for its unique perfume and skin caring properties. Although local demand has remained stable for decades, export demand has grown recently, in particular for European natural/herbal shops, generating new sources of income for Syrian traders. Mountain villagers collect the laurel berries. They extract the oil by boiling the berries in water for eight hours over a wood fire. As the oil rises to the surface, it is skimmed off and manually filtered. This labour-intensive process is carried out by women and children in home gardens. The oil is sold to soap makers and traders for city markets. Since the oil produced in Syria is insufficient for soap production, it is also imported from Turkey.

More than 50 traditional small-scale soap factories are located mainly around Aleppo and the mountain region. The soap is manually cut into square bars, stamped and stored for 6 months, later to be sold at the factories or in herbal shops. For generations the livelihoods of many communities have depended heavily on the production of laurel products. Collection and processing of laurel berries accounts for about one third of total yearly income. The pilot study highlighted the potential of improved management and use of laurel trees, increased quality control and working conditions. A major constraint, however, is the misapplication of the regulations on the protection and use of forest species, limiting the sustainable economic exploitation. Local niche and export market demand should be captured by developing new and high quality products, using different market channels (including fair-trade).

Caper (*Capparis spinosa* L.) is a spiny heat-resistant shrub, cultivated and consumed in many Mediterranean countries. In Syria, however, caper flower buds are only collected from the wild and are for export only. The product is processed mainly in Turkey and consumed in Europe. Caper is collected mainly by women and children (6-14 years old) and is a source of additional income for the resource-poor nomadic communities living in desert areas. A chief is responsible for a group of collectors in each area and liaises with a food company that defines the price. The capers are sorted by size with a rudimental tool, salted and stocked in plastic containers. They are collected by the food company and sold to foreign traders. Foreign factories process, bottle and brand the capers for subsequent sale on the European market with a high mark-up. Collection constitutes about 20 percent of the collectors' yearly income and represents an unexploited economic potential. During a final workshop held in Roweheb village (a caper collection area in northern Syria) in August 2005, the major constraints recognized to further developing the caper market were: lack of cultivation and machinery, harsh working conditions, high fluctuation of demand, unstable supply, poor market transparency and lack of trust among the actors. To enhance the market, horizontal and vertical integration through cooperatives and involvement of the business sector to benefit the rural communities, together with the development of caper cultivation practices should be pursued. Important first steps towards the improvement of the market chain were taken during the workshop through the open discussion on the reasons for mistrust among the actors and the perception of Government officials and researchers on what it is needed to improve the quality and quantity of the supply.

Children collecting caper buds in the Aleppo province, Syria.
Photo: A. Giuliani, IPGRI

For more information, IPGRI brochures on 'building the market chain', can be downloaded from www.ipgri.cgiar.org/publications/pubfile+.asp?ID_PUB=1064 and www.ipgri.cgiar.org/publications/pubfile+.asp?ID_PUB=1075

International Treaty: Standard Material Transfer Agreement adopted

The first session of the Governing Body of the Treaty took place from 12-16 June 2006, in Madrid. The session gathered over 400 participants, ranging from Contracting Parties to the Treaty, other governments, intergovernmental and non-governmental organizations and industry.

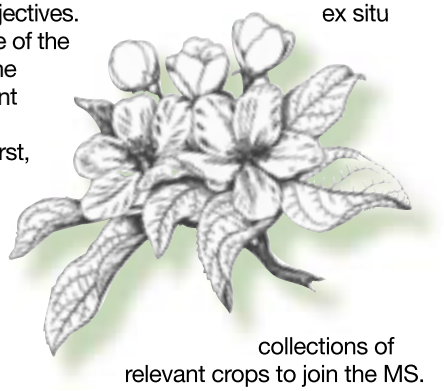
The session successfully addressed a number of issues that the Governing Body was required by the Treaty to consider at its first meeting to make the Treaty fully operational. Among these, the most prominent was the standard Material Transfer Agreement (MTA), which is the instrument for implementing the Multilateral System of facilitated access and equitable benefit-sharing (MS). It will be used by all for future exchanges of germplasm of the specified list of PGRFA species of the Treaty. The Governing Body adopted a standard MTA that includes provisions on: the UN Food and Agriculture Organization as the third party beneficiary; a fixed percentage of 1.1% that a recipient shall pay when a product is commercialized yet not available without restriction to others for further research and breeding; and 0.5% for the alternative payments scheme (see below).

The Governing Body further adopted: the rules of procedure, including decision making by consensus; financial rules with bracketed text on an indicative scale of voluntary contributions; the funding strategy; a resolution establishing a compliance committee; the relationship agreement with the Global Crop Diversity Trust; the model agreement with the Centers of the Consultative Group on International Agricultural Research; the budget and other operational issues.

Serving as a contract between providers and recipients of PGRFA, the standard MTA is the basis of the Multilateral System, laying out the conditions for access to genetic materials in the MS and specifying the modalities and levels of payment for benefit-sharing. Thus, the MTA is not only indispensable to making the Treaty operational, it also acts as one of the sources of funding for programmes and projects for the implementation of its objectives.

An interesting feature of the newly adopted MTA is the possibility for the recipient to choose between two types of payment. The first, originally proposed by the European Region, is based on a broad definition of products and requires benefit-sharing payments of 1.1% of sales of all PGRFA products that incorporate material from the Multilateral System and to which access is restricted by intellectual property rights, such as plant variety protection. Alternatively, recipients can opt for making payments on all commercial products of a certain crop, regardless of whether access to these is restricted and whether they incorporate material from the MS into one or more varieties. With this option, recipients will enjoy a discounted payment rate of 0.5%, which seems more attractive to those recipients who will require large amounts of material from the System. The second option will likely generate revenues in the near future, since it will also apply to products that are already on the market, while the first option applies only to new products that will not be ready for commercialization for another 7-15 years.

Having worked for years to create the Treaty and ensure its rapid entry into force, delegates arrived in Madrid determined to put the Treaty into motion. This required putting into place its core components – the standard MTA, the funding strategy and a compliance mechanism. In this context, the meeting has been widely acknowledged as a success. However, it has also shown that one of the key challenges remaining is to raise the visibility and political profile of the Treaty, as well as the parties' understanding of its technical and legal complexities and implications. Governments will need to promote the standard MTA as a key tool for benefit-sharing and to persuade those private actors holding ex situ collections of relevant crops to join the MS.



Concluded in the framework of the UN Food and Agriculture Organization (FAO), the Treaty is a legally binding instrument that targets the conservation and sustainable use of plant genetic resources for food and agriculture (PGRFA) and equitable benefit-sharing, in harmony with the Convention on Biological Diversity. The Treaty establishes a Multilateral System for facilitated access to a specified list of PGRFA species, balanced by benefit-sharing in the areas of information exchange, technology transfer, capacity building and commercial development. The Treaty entered into force on 29 June 2004, ninety days after the deposit of its 40th instrument of ratification. One hundred and two countries and the European Community have now ratified the Treaty.

Convention on Biological Diversity (CBD)

The 8th Conference of the Parties (COP) to the CBD took place in Curitiba, Brazil from 23–30 March 2006. Access and benefit-sharing, protected areas, implementation of the Cartagena Protocol on Biosafety, the moratorium on genetic restriction use technologies (GURTS) and deep water genetic resources were among the high level issues that most occupied the Parties.

The COP endorsed the proposed cross-cutting Initiative on Biodiversity's Contribution to Food and Nutrition being lead by FAO and IPGRI. However, there was a general concern with the issues of implementation and the importance of translating decisions on the ground. Interestingly, the idea of a proposed Partnership on Biodiversity met with opposition from a number of Parties and was dropped. The Earth Negotiations Bulletin provides an exhaustive day-by-day summary of the COP at www.iisd.ca/biodiv/cop8/

EVOLTREE grows in Europe

(*continued from page 1*)

- Track wood products. The identification of the origin of any product of trees will be made available at different levels (species, geographic areas, forest management units and single trees). These tools can be implemented on a large scale in the framework of different ongoing certification methods;
- Explore the applicability of molecular tracing methods to the detection of illegal logging. Such methods could be used by public agencies of exporting and importing countries, as well as by the private sector, as one element against illegal logging and related trade, particularly in tropical countries.

In addition, by focusing on major intra and interspecific mechanisms that shape genetic diversity, Evoltree will contribute to establishing new guidelines, criteria and indicators for maintaining diversity, to be used for the everyday management of woodlands, and/or to be specifically adapted to special purpose forest stands (seed stands, conservation stands).

IPGRI is leading the dissemination work package that will disseminate the project's results and increase awareness among scientists and other stakeholders. In particular, IPGRI will help to organize two major scientific conferences and to establish a stakeholder group. IPGRI will also assist in developing science-based contributions to policy processes and a public awareness campaign and products. The dissemination activities will be carried out in collaboration with EUFORGEN (European Forest Genetic Resources Programme).

More information is available at: www.international.inra.fr/press/inra_coordinates_evoltree

Publications and announcements

Annotated bibliography addressing the international pedigrees and flows of plant genetic resources for food and agriculture. Information document submitted by the System-wide Genetic Resources Programme of the CGIAR to the Eighth Conference of the Parties to the Convention on Biological Diversity (COP 8) and the *Ad Hoc* Open-ended Working Group on Access and Benefit-sharing 2006. 16 pages. A4. www.ipgri.cgiar.org/publications/pubfile.asp?ID_PUB=1087

Cereal Genetic Resources in Europe. Report of a Cereals Network. First Meeting, 3-5 July 2003, Yerevan, Armenia. Report of a Working Group on Wheat. Second Meeting, 22-24 September 2005, La Rochelle, France. E. Lipman, L. Maggioni, H. Knüpffer, R. Ellis, J.M. Legget, G. Kleijer, I. Faberová and A. Le Blanc, compilers. 2005. A4. 318 pages. www.ipgri.cgiar.org/publications/pubfile.asp?ID_PUB=1085

Descripteurs du Palmier dattier (*Phoenix dactylifera* L.) 2005. B5. 71 pages. www.ipgri.cgiar.org/publications/pubfile.asp?ID_PUB=1086

Global e-Learning Program: The IFPRI Virtual Learning Room is now launching a Global e-Learning Program designed to provide free e-learning opportunities for professionals around the world. IFPRI's Virtual Learning Room is where you can access a number of e-learning courses related to writing proposals and scientific research. The modules under each course are presented in a user-friendly and easy-to-follow manner suitable for self-learning. For further information and registration for the courses, please visit IFPRI Virtual Learning Room at http://learning.ifpri.org/

Europe's first biodiversity press centre, International Press Centre Biodiversity Research (IPCB), has been launched by ALTER-Net (a partnership of 24 research organizations from 17 European countries developing durable integration of biodiversity research capacity at a European level). IPCB provides information on biodiversity and biodiversity related research events, press releases on recent findings etc. www.biodiversityresearch.net

FAO/IPGRI Plant Genetic Resources Newsletter No. 144, December 2005. A4. 68 pages. Copies available upon request: www.ipgri.cgiar.org/publications/pubfile.asp?ID_PUB=1093

FAO/IPGRI Plant Genetic Resources Newsletter No. 145, March 2006. A4. 70 pages. Copies available upon request: www.ipgri.cgiar.org/publications/pubfile.asp?ID_PUB=1111

Farm animal genetic resources: technical considerations for policy-makers concerning conservation and use. Policy brief - March 2006. 4 pages. A4. Only available electronically at www.ipgri.cgiar.org/publications/pubfile.asp?ID_PUB=1089

One Community's Story. Back by popular demand: The benefits of a traditional vegetables. 2006. 48 pages. Available for downloading at: www.ipgri.cgiar.org/publications/pubfile.asp?ID_PUB=1090

Seed systems and crop genetic diversity on-farm. Proceedings of a Workshop, 16-20 September 2003, Pucallpa, Peru. 2005. A4. 154 pages. Copies available from IPGRI Regional Office for the Americas. www.ipgri.cgiar.org/publications/pubfile.asp?ID_PUB=1078

Valuing Crop Biodiversity. On-Farm Genetic Resources and Economic Change. 2006. B5. 336 pages. Hard copies for sale from www.cabi-publishing.org/bookshop/BookDisplay.asp?SubjectArea=&Subject=&PID=1893 or can be downloaded free of charge at www.ipgri.cgiar.org/publications/pubfile.asp?ID_PUB=1079

REGIONAL OFFICE FOR EUROPE
c/o IPGRI Headquarters
Via dei Tre Denari 472/a
00057 Maccarese
Rome, Italy
Fax: +39-0661979661
www.ipgri.cgiar.org/regions/europe/home.htm

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

Jozef Turok
Regional Director
Tel: 39-066118250
Email: j.turok@cgiar.org

Michele Bozzano
Programme Specialist
Tel: 39-066118221
Email: m.bozzano@cgiar.org

Aixa Del Greco*
Scientific Assistant
Tel: 39-066118224
Email: a.delgreco@cgiar.org

Sónia Dias
Programme Specialist
Tel: 39-066118204
Email: s.dias@cgiar.org

Katy Elphinstone*
Programme Assistant
Tel: 39-066118229
Email: k.elphinstone@cgiar.org

Lidwina Koop
Programme Assistant
Tel: 39-066118251
Email: l.koop@cgiar.org

Jarkko Koskela
EUFORGEN Coordinator
Tel: 39-066118223
Email: j.koskela@cgiar.org

Elinor Lipman*
Scientific Assistant
Tel: 33-467611302
Email: e.lipman@cgiar.org

Lorenzo Maggioni
ECP/GR Coordinator
Tel: 39-066118231
Email: l.maggioni@cgiar.org

Olga Spellman*
Programme Specialist
Tel: 39-066118411
Email: o.spellman@cgiar.org

Barbara Vinceti*
Associate Scientist
Tel: 39-066118412
Email: b.vinceti@cgiar.org
(*part-time)

Editing & layout
Olga Spellman
Email: o.spellman@cgiar.org

Forthcoming meetings

8-10 August 2006
IUFRO: Forest and Water in a Changing Environment.
Beijing, China.
www.caf.ac.cn/newcaf

22-26 August 2006
First European Congress of Conservation Biology (ECCB) "Diversity for Europe".
Eger, Hungary.
www.eccb2006.org

29-30 August 2006
VIII Annual BIOECON conference on the economic analysis of policies for biodiversity conservation.
Cambridge, UK.
www.bioecon.ucl.ac.uk

3-7 September 2006
XXVI EUCARPIA Fodder Crops and Amenity Grasses Section meeting & XVI meeting of the EUCARPIA *Medicago* spp. Group: "Breeding and seed production for conventional and organic agriculture".
Perugia, Italy.
www.eucarpia2006.net

4-7 September 2006
AGROENVIRON-2006 International Symposium on Agriculture Constraints within the Soil-Plant-Atmosphere Continuum.
Ghent, Belgium.
www.soilman.ugent.be/agroenviron/index.html

10-16 September 2006
Forests Under Anthropogenic Pressure-Effects of Air Pollution, Climate Change and Urban Development.
Riverside, California, USA.
www.fs.fed.us/psw/rfl

2-4 October 2006
6e colloque national des ressources partagées.
La Rochelle, France.
www.brg.prd.fr

16-17 October 2006
First International Symposium on Pomegranate and Minor Mediterranean Fruits.
Adana, Turkey.
Email: ahsen@cu.edu.tr

13-17 November 2006
EUCARPIA Cereal Science and Technology for Feeding Ten Billion People: Genomics Era and Beyond.
Lleida, Spain.
www.eucarpia.org

14-18 October 2006
2006 AAIC (Association for the Advancement of Industrial Crops) Annual meeting and VI New Crops Symposium. Creating Markets for Economic Development of New Crops and New Uses.
San Diego, California, USA.
www.aaic.org; www.hort.purdue.edu/newcrop

05-10 November 2006
Second International Seminar on "Biotechnology and Quality of Olive tree Products around the Mediterranean Basin".
Marsala-Mazara del Vallo, Italy.
www.unipa.it//olivebioteq

Introducing

Barbara Vinceti joins the Europe Regional Team in August 2006 to work as part of the Evoltree project (see pages 1 and 19 of this issue). She will be responsible for coordinating and facilitating IPGRI's contributions to this new Network. Barbara Vinceti's knowledge of forest ecology and management originates from studies at the University of Florence, Italy (B.Sc. Forestry). She collaborated with the Institute of Silviculture, University of Florence and later specialized in tropical forest ecology at the Institute of Ecology and Resource Management, University of Edinburgh, Scotland.

She has gained field experience participating in the research component of the FAO project "Country capacity strengthening for National Forest Action Plan in Vietnam".

Her international experience includes participation in activities of the European Forest Ecosystem Research Network (EFERN), based in Vienna, Austria. She holds a PhD from the University of Edinburgh, carrying out a study based on long-term forest plot data, looking at the impacts of global change on the ecology and dynamics of tropical rainforests in the Amazon basin. She has been coordinating *ad interim* since March 2005 IPGRI's global project on the conservation and sustainable use of forest genetic diversity.

Farewell

The Regional Team bid a fond farewell to **Birgitte Lund,** a Danish national, who joined IPGRI in August 2004 in the position of AEGIS Project Manager. During her time with IPGRI, Birgitte has effectively developed, in close coordination with partners, a feasibility study addressing future arrangements for A European Genebank Integrated System.

Birgitte holds a PhD degree in plant genetic resources from the Department of Agricultural Sciences (KVL), Denmark, as well as a M.Sc. in Agriculture from the Section of Plant Pathology, KVL. Birgitte worked for eight years as Section Leader at the Nordic Gene Bank (NGB) in Alnarp, Sweden, involved in conservation and use of crop genetic resources, database management and documentation, administration, coordination and management of research projects. She also participated in the Nordic and Baltic networks as well as in the European collaborative activities.

Birgitte leaves IPGRI to start a new assignment at the Danish Plant Directorate in Denmark.

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