Report of the Technical Consultative Committee

ECP/GR

Sixth meeting 21-23 September 1995 Nitra, Slovakia







TABLE OF CONTENTS

INTRODUCTION1
Opening remarks1
Election of officers
Adoption of the Agenda1
Report of the ECP/GR Coordinator2
REVIEW OF THE OBJECTIVES OF ECP/GR3
STRUCTURE OF THE PROGRAMME, NEW INITIATIVES AND ROLE OF THE STEERING COMMITTEE
Activities currently foreseen within the organizational structure of ECP/GR 6
Programme for working group meetings and ad hoc actions during Phase V 7
REPRESENTATION OF COUNTRIES WITHIN ACTIVITIES8
COLLABORATION WITH NGOS AND WITH THE PRIVATE SECTOR9
INTERACTION WITH INTERNATIONAL AND REGIONAL INITIATIVES 9
CROP-SPECIFIC COORDINATION AT NATIONAL LEVEL10
COMMUNICATION BETWEEN IPGRI AND THE NATIONAL COORDINATORS10
PROMOTING PUBLIC AWARENESS AT NATIONAL AND REGIONAL LEVELS10
EUROPEAN COMMITMENT TO CONSERVING PLANT GENETIC RESOURCES
INPUT OF ECP/GR TO THE FOURTH INTERNATIONAL TECHNICAL CONFERENCE ON PLANT GENETIC RESOURCES11
REVISION AND APPROVAL OF THE REPORT11
Appendix I Agenda12
Appendix II Report of the ECP/GR Coordinator13
Appendix III Proposal for a Malus/Pyrus working group16
Appendix IV Proposal for a Daucus working group21

Appendix V Proposal for activities on documentation	25
Appendix VI Recommendation made by the TCC to the European Meeting on Plant Genetic Resources (Nitra, 24-27 September 1995)	
Appendix VII List of delegates	31

Introduction

Opening remarks

The sixth meeting of the Technical Consultative Committee of ECP/GR was opened by Ing. Gabriela Hanáková, Director of the Agroinštitút, Nitra. She welcomed the delegates, expressed her satisfaction in hosting the Technical Consultative Committee and wished the delegates a successful meeting.

The Group was then welcomed by Dr A. Zofajova, Head of the Slovak Genetic Resources Programme. She mentioned that this TCC meeting is taking place in Nitra at a time when Slovakia celebrates the 1000th day of its sovereignty. Nitra itself is located at the heart of the agronomic area of Slovakia and its University which was established in 1942 focuses on agricultural research. Dr Zofajova also introduced the National Programme of Slovakia. The lead institute is located at Pieštany and strong collaborative links exist with the University of Nitra in the area of collection and documentation. Dr Zofajova expressed her wish to see a successful meeting taking place in the Agroinštitút in Nitra.

Dr E. Frison then addressed the delegates on behalf of the International Plant Genetic Resources Institute (IPGRI). He thanked the Slovak Ministry of Agriculture for accepting to host this important meeting, thereby showing the increasing commitment of Slovakia to plant genetic resources. He also thanked the Agroinštitút for their assistance in organizing the meeting and for their warm hospitality.

Dr Frison reminded the delegates that ECP/GR was at a turning point when the Committee last met in Bulgaria in 1993. Following the unanimous recommendation to implement Phase V of the Programme, much effort was expended by National Coordinators and by IPGRI to transform this personal commitment into national commitments to the Programme. While previously the TCC met once per Phase of the Programme, it was recommended at the last meeting in 1993, that a mid-phase meeting be organized in 1995 to discuss the scope of the working groups and address issues regarding the *modus operandi* of the programme.

Dr Frison reaffirmed IPGRI's strong commitment to ECP/GR which it values as a model for collaboration. He expressed his satisfaction that all but one participating country was represented at this meeting.

The TCC expressed its regrets that Dr I. Byrne from Ireland, Dr G. Apostolatos and Dr R. Hardwick from the European Commission were unable to attend the meeting.

Election of officers

Dr G. Kleijer from Switzerland was elected to Chair the meeting and Dr M. Waldman from Israel was elected as Vice Chairperson.

Adoption of the Agenda

In consideration of the importance of the questions related to the structure of ECP/GR in several items on the agenda, it was suggested that the agenda be modified to regroup these at the beginning of the discussions. This suggestion was accepted by the Committee and the revised agenda presented in Appendix I was adopted.

Report of the ECP/GR Coordinator

Dr T. Gass presented a report of the activities carried out within the framework of ECP/GR during the first part of Phase V (the report is included in Appendix II). He described the efforts undertaken to secure the continuation of the Programme after the decision of the TCC in 1993 to implement Phase V. Currently 30 countries participate in the Programme and several more have expressed their interest in joining.

Dr Gass went on to describe the activities carried out within the working groups of which four have held meetings since the beginning of the Phase. In addition, *ad hoc* meetings on documentation and on *Malus* genetic resources have been held in close collaboration with ECP/GR. A new working group dealing with grain legumes held its first meeting in July 1995.

The Programme has also played an important role in facilitating the preparation of projects to be submitted to the EU Programme on Plant Genetic Resources (EC) 1467/94. Projects were submitted by members of each of the ECP/GR working groups existing at the time of the call for proposals of (EC) 1467/94.

Dr Gass then described the role ECP/GR had played in the preparatory process leading to the Fourth International Technical Conference on Plant Genetic Resources (Leipzig, June 1996). He expressed his satisfaction at the excellent response of countries to FAO's request for country Reports and emphasized the role ECP/GR had played as an information platform in the preparatory process.

Finally, Dr Gass presented the financial summary of Phase IV (Appendix II).

The report was adopted by the TCC.

Review of the objectives of ECP/GR

The TCC reviewed the objectives established for ECP/GR by the TCC in 1993. These are:

- first and foremost to ensure the long-term conservation and to facilitate and encourage the increased utilization of plant genetic resources in Europe;
- to increase the planning of joint activities;
- to strengthen links between east and west European plant genetic resources programmes;
- to develop joint project proposals to be submitted to funding agencies;
- to contribute to monitoring the safety of plant genetic resources collections and take appropriate action when required, and
- to increase public awareness at all levels of the importance of plant genetic resources activities.

Recognizing:

- the role played by ECP/GR for the last 15 years in developing a pan-European collaboration on PGR;
- the experience gained in coordinating collaborative efforts in a cost effective way;
- the significant results obtained by the Programme;
- the entry into force of the Convention on Biological Diversity and the adoption by many countries of Agenda 21;
- the existence of various national, bilateral and regional activities in the European Region;
- the importance of international, regional and bilateral cooperation in the area of plant genetic resources, and
- the potential role of ECP/GR in implementing the Global Plan of Action in the European region as part of the FAO Global System on Plant Genetic Resources,

the group agreed that these objectives are still appropriate and that no changes are required. It was also noted that they formed part of the agreement signed by countries participating in Phase V of ECP/GR.

Structure of the Programme, new initiatives and role of the Steering Committee

ECP/GR has operated for 15 years on the basis of crop-specific working groups. It was recognized that this had allowed the establishment of a strong basis for collaboration throughout Europe.

The TCC felt that regional collaboration needs to be extended beyond a limited number of crops and that ECP/GR should adapt its operational structure to allow activities on other

crops or themes to be carried out. Three proposals for new working groups were put forward:

- Malus and Pyrus (Appendix III)
- Daucus (Appendix IV)
- ECP/GR PGR documentation (Appendix V).

To respond to these requests and to allow more flexibility to extend beyond a limited number of crops, a new programme structure was agreed upon. This new structure was subsequently modified further after decision of the Committee during an extraordinary meeting on 25/9/95. The structure finally agreed upon is the following:

ECP/GR is overseen by a **Steering Committee**, consisting of National Coordinators nominated by participating countries. The EC and MAB are invited to nominate a representative as full member of this Committee. FAO, IPGRI, the Nordic Gene Bank and ASSINSEL are invited as observers. The Programme operates through broad networks in which activities are either carried out in the framework of **working groups** or as *ad hoc* actions.

The Steering Committee has the overall responsibility of the Programme, approves its budget and provides technical and policy guidance to the programme. It takes decisions regarding the general scope of the networks and the establishment or termination of working groups. The Steering Committee provides guidelines for and approves *ad hoc* activities. The Steering Committee mandates the Coordinating Secretariat to carry out decisions of the Steering Committee and reviews the progress made by the networks. The steering committee can also make recommendations regarding *ad hoc* activities which are funded from other sources.

The Coordinating Secretariat is currently provided by IPGRI as appointed by the Steering Committee.

The responsibilities of the Coordinating Secretariat are:

- to ensure the implementation of the programme in accordance with the mandate given by the Steering Committee;
- to coordinate the activities carried out in the framework of the programme;
- · to be responsible for the financial management of the Programme;
- to provide technical and financial reports to the Steering Committee for approval;
- to provide support to working groups and ensure that the agreed workplans are carried out;
- to initiate ad hoc activities in accordance with guidance provided by the Steering Committee;
- to gather and distribute information;
- to assist in the formulation of project proposals for joint activities;
- to search for donors to support particular elements of workplans and ad hoc activities;
- · to link with other regions, and
- to contribute to raising public awareness.

The **networks** are broad organizational structures that accommodate different types of activities contributing towards the general objectives of the Programme. The networks are crop or theme oriented. The networks are the structural elements through which progress of the Programme is reported and priorities are set.

The following networks are established:

- 1. Cereals network
- 2. Forages network
- 3. Grain legumes network
- 4. Industrial crops and potato network
- 5. Vegetables network
- 6. Fruits network
- 7 Minor crops network
- 8. Documentation and information network
- 9. In situ and on-farm conservation Network
- 10. Technical cooperation Network

The subject matter of networks and their number will be reviewed periodically and modified as required.

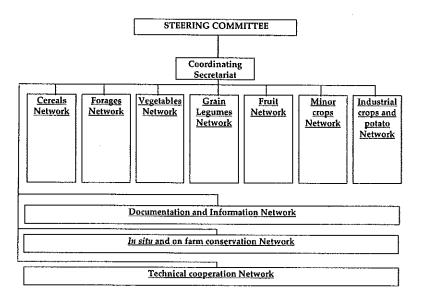
Working groups focus their activity on specific crops, crop groups or thematic areas. They are initiated following the approval of the Steering Committee. ECP/GR provides funding for the organization of working group meetings and the publication of the resulting reports. National Coordinators are invited to nominate an Attending or a Corresponding Member to represent the country's interest in the genetic resources activities that the working group focuses on. The working groups are expected to meet once or twice during Phase V of the Programme. Ideally the number of Members attending a specific meeting will not exceed 16. The actions carried out by the members of the working groups, for example, the management of European Crop Databases or the hosting of European Collections, are not a priori funded by the Programme. They are considered as an input in kind by participating institutions to the European cooperation on plant genetic resources. During Phase V a budget of USD 336,000 is foreseen for the organization of working group meetings. The continuation of a working group is decided on by the Steering Committee.

Ad hoc actions are initiated by the Secretariat, following the guidance of the Steering Committee. Ad hoc actions contribute towards the general objectives of the Programme and are carried out in the framework of the Programme's networks. Ad hoc actions can be inter alia:

- meetings of small groups dealing with specific technical issues or with crops not yet covered by existing working groups;
- technical symposia dealing with methodological aspects of plant genetic resources conservation;
- collaborative actions with other international and regional programmes and projects, and
- facilitate the participation of institutions from non-EU countries of the region in projects submitted to and accepted by the European Commission.

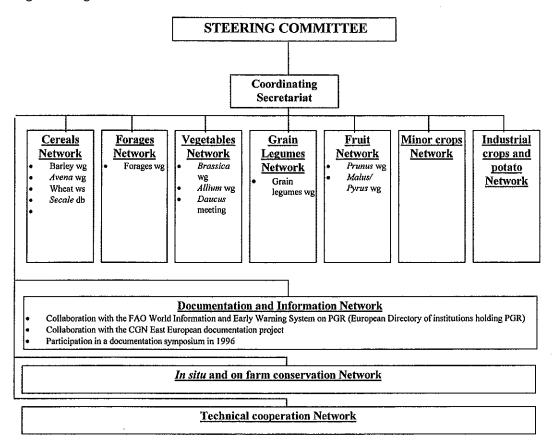
In Phase V, a budget up to USD 96,000 can be used for ad hoc actions.

Figure 1: Operational structure of EC/GR



Activities currently foreseen within the organizational structure of ECP/GR

Figure 2. Organizational structure of ECP/GR with current activities



Programme for working group meetings and ad hoc actions during Phase V

	1994	1995	1995	1996	1996	1997	1997	1998	1998
	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd
	sem.	sem.	sem.	sem.	sem.	sem.	sem.	sem.	sem.
Steering Committee			Х						X
Cereals Network									
Barley wg "				1				X	
Avena wg	.								Х
Wheat ws ²⁾				Х					
Forages Network									
Forages wg		X				X			
Vegetables Network									
Brassica wg	Х	1			Ιx	T		T	T
Allium wg	^	 x	†		1		X		
THIRM WE		1 ^				.1	17	1	
Grain legumes Network									
Grain legumes wg			X				Х		
Fruit Network					THE STATE OF THE STATE OF				.=.
Prunus wg				Х				Х	
Malus/Pyrus wg						Х			
Minor crops Network									
Industrial crops & potato Network									
In situ and on-farm conservation Network									
	ļ								
Technical cooperation Network									
Documentation and information Network									

¹⁾ wg: Working groups 2) ws: Workshop

Ad hoc actions

Cereals Network:

Documentation Network:

Ad hoc actions on wheat, rye and triticale Collaboration in organizing a Documentation Symposium

in 2nd semester 1996

Vegetable Network:

A Daucus ad hoc meeting in 2nd semester 1996

The TCC recommends that:

- the proposed framework does not imply a commitment by countries to fund activities which could be included in the framework;
- in addition to existing bilateral and subregional activities, subregional activities be encouraged;
- in addition to existing links with NGOs and breeders, a closer collaboration at a regional level be encouraged, and
- priorities for funding proposals by other bodies such as the EU be encouraged to complement and add value to the activities of ECP/GR.

Representation of countries within activities

In the past, participation in working groups depended on the country's interests and the level of activity in the country on the crop concerned. During Phase IV, most working group meetings had between 10 and 14 countries participating.

During the first year of Phase V, several new countries have joined the Programme, bringing the number of ECP/GR countries to 30. In recent years, plant genetic resources have been given more attention and several countries have expressed an interest in being involved in the activities of working groups in which they were not previously represented. In addition, IPGRI has received requests directly from scientists who wished to attend particular working group meetings.

The resources available for Phase V would allow the participation of about 15-16 participants in each working group meeting but not more. This group size is generally about the maximum to allow effective interaction during meetings, which is essential for the development and successful implementation of the group's workplan.

In March 1995, a fax sent by IPGRI to the National Coordinators addressed individual countries' participation in the ECP/GR working groups. It suggested that participation in the working groups would occur as an **Attending Member** whose participation in the meetings will be fully funded as before, or as **Corresponding Member** who would keep a high level of interaction with the group without, however, attending the meeting.

This arrangement offers the following advantages:

- · it helps maintain the costs of meetings within the budget frame;
- it promotes the crop specific coordination within each country as the Attending or Corresponding Member has a representative role for the particular crop and is charged with 'taking home' the recommendations and the workplan agreed upon during the meeting, and
- it contributes towards maintaining groups at a size which is conducive to a dynamic discussion and the elaboration of practical workplans.

The TCC recognized that it was necessary to agree on a mechanism to determine the number of participants attending working group meetings in order to ensure the efficiency of these meetings. It was suggested that, whenever possible, some flexibility should be applied to allow the attendance of some specialists who would otherwise not be invited.

Considering the fact that activities in Phase V have been agreed upon for an additional working group on *Malus* and *Pyrus* and to hold a workshop on wheat, it was agreed that the following guideline should be used:

Yearly contribution	Number of working groups to which Attending Members can be nominated		
2,000	3		
5,000	4		
10,000	5		
30,000	7		

In the case of the Nordic countries it has been agreed that the Nordic Gene Bank will nominate two **Attending Members** to each working group to represent all the Nordic countries.

It is understood that these guidelines would have to be modified if additional groups were established or existing ones reorganized.

Collaboration with NGOs and with the Private Sector

In recent years, NGOs and the private sector are playing an increasingly important role in conservation and prebreeding activities of plant genetic resources. This is why the TCC recommends that:

- members of the working group address relevant organizations within the country and be informed about their recent activities to be able to present this information to the working group;
- a representative of the private sector be nominated as a member of the working group when relevant, and
- invitation of observers to working group meetings be considered if the number of attending members is not too high. This will only be possible after consulting with the chairmen of the working group and the National Coordinator.

Interaction with International and Regional Initiatives

The TCC recognizes the need for complementarity with other bodies, programmes or collaborative projects addressing plant genetic resources, such as EUCARPIA, ESCORENA, the Italian-funded project of Conservation and Use of Underutilized Mediterranean Species (UMS), the EU programme (EC) 1467/94, ICPPGR and the World Information and Early Warning System on Plant Genetic Resources of FAO.

In order to strengthen the collaboration with such bodies the TCC recommends the participation of representatives of these organizations in ECP/GR working group meetings and *ad hoc* actions when relevant.

The TCC recommends that within the EU programme (EC) 1467/94, the participation of scientists from non-EU members countries.

Crop-specific coordination at national level

The TCC emphasized the importance of promoting, within countries, the interaction of persons concerned with genetic resources of each crop (including breeders, researchers and others) and of coordinating all relevant activities. The TCC recognized that different structures of national programmes exist in Europe. Each structure has advantages and disadvantages. The TCC noted that IPGRI is currently carrying out a study of the coordination structures in Europe, based on the country reports. The TCC recommends that IPGRI produce an overview of these different models of national coordination structures.

Communication between IPGRI and the National Coordinators

The TCC noted with satisfaction the increase in activities and potential of ECP/GR following the nomination of a full-time coordinator for the Programme. The improvement of the close contacts between the Secretariat and the National Coordinators has increased the involvement of national institutes and relevant ministries in most countries.

The TCC congratulates IPGRI for the good quality of the Newsletter for Europe, launched in March 1994. All the five issues were found to be very informative and succeeded in serving the need for exchange of information and views within the plant genetic resources community in Europe.

Additional possibilities for exchange of information were discussed. To further increase the efficiency of communication within the programme and to provide a rapid access to information related to funding possibilities and international negotiations concerning plant genetic resources, the TCC strongly recommends that all national coordinators take the necessary steps to have access to electronic mail facilities, if possible.

The TCC recommends that IPGRI inform national coordinators about requests that were forwarded to different institutes or organizations within their country.

In addition to the very useful Quarterly Report to the National Coordinators, the TCC requests an annual report covering also financial aspects.

Promoting Public awareness at national and regional levels

Promoting the public awareness of the importance of crop genetic resources is one of the objectives of ECP/GR for its Phase V. This topic was presented by Ruth Raymond, IPGRI's public awareness officer. In her presentation, she mentioned different methodological aspects of promoting public awareness and the importance of adapting the strategies to different situations. A few examples were given of experiences within national programmes. The success of IPGRI's new poster series was also noted.

European Commitment to conserving plant genetic resources

The topic was introduced by Dr Gass who mentioned that the participation of 30 countries in ECP/GR illustrates the formal committment to plant genetic resources within the region. European collaboration has yielded positive examples of regional solidarity such as the quick response to the emergency situation faced by the field genebank in Olomouc (financial aid

from Oversees Development Agency, ODA), the Dutch-funded documentation project in eastern Europe, the Nordic Baltic cooperation and the numerous agreements for safety duplication of collections. Dr Gass also mentioned the less positive example of the Vavilov Institute, where needs for assistance in reorganization, regeneration and duplication of collections still exist.

The TCC noted that a true commitment to the long-term conservation of PGR is still lacking in many countries and that an effort has to be made in order to achieve this.

Input of ECP/GR to the Fourth International Technical Conference on Plant Genetic Resources

The TCC agreed that the most significant input it could make to the Regional Meeting on Plant Genetic Resources was to adapt ECP/GR to enable it to serve as the platform for cooperation on crop genetic resources in Europe.

A recommendation was prepared by the TCC for the Regional Meeting on Plant Genetic Resources and later revised during an extraordinary meeting of the Committee on 25/9/95. (The revised version of the recommendation is included in Appendix VI).

Revision and approval of the report

After revision by the TCC, the report of the meeting was adopted.

Appendix I Agenda

Sixth Meeting of the Technical Consultative Committee of the European Cooperative Programme for Crop Genetic Resources Networks (ECP/GR)

- Opening of the meeting Introductory statements by representatives of the host country and IPGRI Election of the Chair Adoption of the Agenda
- ECP/GR Mid-Phase report
 Presentation of the report by the ECP/GR Coordinator
 Discussion and adoption of the report
- 3. Review of the objectives of ECP/GR
- 4. Structure of the Programme, new initiatives and role of the Steering Committee
- 5. Representation of countries within activities
- 6. Collaboration with NGOs and with the private sector
- 7. Interaction with international and regional initiatives
- 8. Crop-specific coordination at national level
- 9. Communication between IPGRI and the National Coordinators
- 10. Promoting public awareness at national and regional levels
- 11. European commitment to conserving plant genetic resources
- 12. Input of ECP/GR to the Fourth International Technical Conference on Plant Genetic Resources
- 13. Review and approval of the report.

Appendix II Report of the ECP/GR Coordinator

Following the recommendation of the TCC to implement Phase V of ECP/GR the two tasks that IPGRI had to carry out as a priority were to ensure countries participation in Phase V of the Programme and to recruit a full-time coordinator. In close collaboration with National Coordinators, the participation of 30 countries was secured. While a large majority of countries have asserted their participation in the Programme through signing a Letter of Agreement (LOA) with IPGRI, in a few countries the signing of the LOA is still pending. Those countries have, however, started contributing to the Programme in accordance with the indications in Appendix XII of the Report of the fifth TCC Meeting, Bulgaria 1993. Thomas Gass, a Swiss national, was appointed as ECP/GR Coordinator on 1 July 1994.

Since the appointment of the new ECP/GR Coordinator, the following working groups have met:

Brassica Working Group meeting in Lisbon, Portugal in November 1994; Forages Working Group meeting in Hissar, Bulgaria in March 1995; Allium Working Group meeting in Skierniewice, Poland in May 1995; Grain Legumes Working Group meeting in Copenhagen, Denmark in July 1995.

The Coordinator presented the most important results of these working groups to the Committee. More detailed information has been published in the respective working group reports.

In addition to the above-mentioned working group meetings, the ECP/GR Coordinator closely collaborated in *ad hoc* meetings of a group on documentation in Bonn, Germany in September 1994 and a group on *Malus* genetic resources in Wye, UK in June 1995. Both of these groups have recommended that activities related to their activity be initiated within the framework of ECP/GR.

With the publication of the Commission Regulation (EC) 1467/94 of 20 June 1994 on the conservation, characterization, collection and utilization of genetic resources in agriculture, the European Union has established an action programme on genetic resources. During the first part of Phase V, ECP/GR has served as a forum for many groups preparing projects for this programme. The ECP/GR Coordinator has maintained close contacts with these groups, has given advice on formulation and scope of proposals and has provided drafting groups with information about the programme. In doing this, he suggested ways in which institutions from non-EU countries could be included in the projects. Projects for submission to the EU programme (EC) 1467/94 were prepared within all the working groups existing within ECP/GR at the time of the call for proposals.

The close collaboration of FAO and IPGRI in the preparatory process to the Fourth International Technical Conference on Plant Genetic Resources to be held in Leipzig in June 1996 has provided an opportunity for ECP/GR to play a significant role in the part of this process dealing with Europe. IPGRI's Europe Group has been involved in facilitating communication and information flows relating to this process and has been a resource to countries during the drafting of the Country Reports. IPGRI and ECP/GR are closely associated in the organization of the Regional Meeting on Plant Genetic Resources, held in Nitra following the Mid-Phase TCC meeting.

Financial Report for Phase IV of ECP/GR - Including 1993

Table 1. ECP/GR Contributions received

Country	Contributions	Contributions	Contributions	
Example of a conversion of Example of States	received ('90-'92)	received (193)1	for '93 still due	
Austria	20,000		5,000	
Belgium	20,000	5,000		
Bulgaria	10,000	2,500 ²		
Cyprus	5,000	1,250		
Czechoslovakia	10,000	n/a		
Czech Republic	n/a	1,250		
Denmark	20,000	5,000		
Finland	10,000	2,500		
France	50,000	12,500		
Germany	50,000	12,500		
Greece	10,000	2,500		
Hungary	10,000	2,500		
Ireland	n/a	2,500		
Israel	10,000	2,500		
Italy	50,000	12,500		
Netherlands	20,000	5,000		
Norway	10,000	2,500		
Poland	10,000	2,500		
Portugal	10,000	2,500		
Slovakia	n/a	1,250		
Spain	20,000	5,000		
Sweden	20,000	5,000		
Switzerland	20,000	5,000		
Turkey	10,000	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	2,500	
UK	50,000	12,500		
Yugoslavia	10,000	2,500		
Total	455,000	108,750	7,500	

Total contributions Phase IV	
(received and expected)	US\$ 571,250

¹ A reduced contribution was requested for 1993 equal to 25% of the total contribution for Phase IV. ² Contribution in kind (excess cost of TCC).

Table 2. Expenditures during Phase IV of ECP/GR

	Total US\$	1990 US\$	1991 US\$	1992 US\$	1993 US\$
1/4 Time IBPGR Crop Network Coordinator	77,435	18,345	19,785	21,731	17,574
Direct administration support 1/4 time IBPGR secretary	18,055	6,296	6,225	5,534	0
Official travel	25,626	86	7,555	4,795	13,190
Crop meetings/Consultations ³	99,441	1,322	57,678	15,875	24,566
Technical Consultative Committee ⁴	28,772	0	0	0	28,772
Publications and distribution	68,503	6,356	22,080	15,672	24,395
Contingencies (including communications)	0	0	0	0	0
Overhead (indirect support) 13% 5	39,044	4,213	14,732	8,269	11,830
TOTAL	356,875	36,618	128,055	71,876	120,327

Total contributions received and expected	571,250
Total expenditures 1990-1993	356,875
Secretarial support and contingencies to be recovered during Phase V	30,000
Emergency Fund ⁶	25,000
Support to institutions from non EU countries to participate in EC funded projects ⁷	159,375
Balance	0

³ One meeting each of working groups on *Allium*, Forages, *Prunus*, Sunflower and *Brassica* and preparation meeting on Barley Core Collections. The figures for 1991 and 1993 include \$10,000 and \$5,000 respectively, as inputs from Hungary and the Czech Republic in covering local expenses of working group meetings.

⁴Includes a contribution equivalent to \$12,500 from Bulgaria in hosting the TCC meeting and covering local expenses.

⁵This includes provision of space in IBPGR Headquarters, the overhead of 5% which IBPGR has to pay to FAO, the input and time of IBPGR, Professional staff, etc. Note the overhead is not taken on inputs in kind.

⁶ As decided by the last meeting of the TCC in Bulgaria

⁷ As decided by the last meeting of the TCC in Bulgaria and pending the results of the first call for proposals of the EC 1467/94 Programme.

Appendix III Proposal for a Malus/Pyrus working group

See next two pages
Letter addressed to the Committee Members
from
Ms Helen Case
Wye College, University of London
National Fruit Collections
Brogdale Road
Faversham, Kent ME13 8XZ, UK
Tel/Fax: +44-1-795 590 272

16 August 1995

WIE COLLEGE, UNIVERSITY OF LONDON NATIONAL FRUIT COLLECTIONS, BROGDALE ROAD, FAVERSHAM, KENT ME13 8XZ UK TELIFAX: 01795 590272 (+441795 590 272) E-Mail: H. Case@wye.lon.ac.uk

Dear Committee Members,

Proposal to the ECP/GR Technical Consultative Committee for the Establishment of an ECP/GR Malus and Pyrus Working Group

Wye College, University of London hosted a European *Malus* Germplasm Workshop, from 21 - 25 June 1995. The meeting was convened in response to a need to promote the exchange of information and methodologies, and facilitate the common European objectives of *Malus* germplasm conservation and sustainable utilisation. Seventeen countries were represented by fourteen delegates at the Workshop, and a further five countries, delegates of whom were unable to attend, expressed the wish to be part of this group for future collaboration (Appendix 1). Delegates for each country were nominated by National PGR Co-ordinators. We hope that taking the initiative to host what was in effect, the first informal meeting of a *Malus* Group, and the excellent response of other countries, all of whom had to seek their own funds to attend the Workshop, demonstrates our need and committment to establish a WG under the ECP/GR.

The Workshop consisted of six sessions:

- 1 Review of Country Collections: Problems, Policies and Opportunities
- 2 Networks and Database Management
- 3 Alternative Conservation Strategies
- 4 Breeding Aims and Objectives
- 5 Characterisation, Evaluation and Identification
- 6 Future Requirements

The above programme was drawn up to enable identification of needs, capabilities and opportunities of national *Malus* programmes, with a view to highlighting the collaborative requirements of the *Malus* Group. These may be summarised as follows:

- * To provide a forum for the continued exchange of information and methodologies relating to the conservation and sustainable utilisation of germplasm from the European *Malus* cultivars and species, both *ex-situ* and *in-situ*. This is essential to facilitate collaboration within Europe, and ensure Eastern and Central European countries, who maintain important *Malus* collections, are given equal opportunities to participate in and benefit from EC projects
- * Database developments and networks
- * Revision of the 1982 IBPGR (now IPGRI) *Malus* descriptor list, essential to the harmonisation and rationalisation of the European collections
- * Development of harmonised methodologies and descriptors for the evaluation of cultivars, with particular regard to pest and disease resistance and susceptibility

- * Development and implementation of a strategy to increase the genetic diversity available to breeding programmes, which are currently subject to a narrow genetic base, most new cultivars being derived from a few commercial cultivars
- * Development of a European strategy for collecting of germplasm, in particular from regions within Europe where there are known to be unevaluated wild *Malus* populations.

During the final session, delegates were requested to nominate which of three potential options for a Working Group (WG) they felt would optimally fulfil the above stated requirements. The options and number of delegates voting for each are shown below:

1 A Malus WG

(2)

2 A Malus and Pyrus WG

(9)

3 A Fruit Tree WG (incorporating the existing ECP/GR Prunus WG)

The establishment of a Malus and Pyrus WG was favoured for the following reasons:

(1)

It was generally accepted that those responsible for *Malus* germplasm collections, are also responsible for *Pyrus* germplasm, also a pome fruit, but not always for *Prunus*, which is a stone fruit. In addition, this situation may be further complicated when the collections of respective pome and stone fruit are held at different institutions, such as is the case for France. Delegates from such countries expressed the concern that their country would be at risk of having either stone or pome fruits poorly represented should the Attending member of a Fruit Tree WG be a specialist in one and not the other tree fruit type. Whilst this risk could to some extent be avoided by ensuring good national collaboration prior to WG meetings, it was noted that it would be difficult to prepare in advance for topics arising from discussion at the meetings, which may require executive on-the-spot decisions.

Furthermore, some delegates who would be nominated the Attending members for all genera, also felt it would be preferable to separate the pome and stone fruits. This was due to the specialist nature of some of the topics which were highlighted for further collaborative action. An example is the development of descriptors, both for morphology and evaluation. Combining the pome fruits would be acceptable, as far more characters are shared than between pome and stone fruits.

It was acknowledged by the *Malus* Workshop delegates however, that there are limitations upon the number of ECP/GR WGs. Should the TCC feel the only available option would be to merge a *Malus and Pyrus* WG with the existing *Prunus* WG, this would be preferable to not having *Malus* and *Pyrus* represented at all. Should a Fruit Tree WG prove to be the only option available to us, we would request that the feasibility of dealing separately with issues of a specialist nature to respective fruit types, or genera, within the WG, be given serious investigation.

We hope that you accept our proposal for the establishment of a *Malus* and *Pyrus* WG, and look forward to hearing your response in the near future.

Yours most sincerely
Ms. Helen Case
European *Malus* Germplasm Workshop Organiser

Appendix IV Proposal for a Daucus working group

See next pages document prepared by Dr David Astley, Research International Wellesbourne Warwick CV35 9EF UK Tel: 44-789-470382 Fax: 44-789-470552

Proposal to further genetic resources work for carrot and wild *Daucus* in all countries in the ECP through the development of a Crop Working Group

D. Astley, Horticulture Research International, United Kingdom

Background

There has been no coordinated effort in Europe, or indeed elsewhere, to collect, conserve, document and make available to users the genetic resources of carrot and related wild taxa.

Carotene carrot originated in Europe (likely in the Netherlands) in the 17th Century as selections from yellow-rooted forms. Purple- and yellow-rooted carrot were well established throughout Europe in the 14th Century having been introduced during the expansion of the Arabian Empire via Syria and Turkey (I 1th & 12th Centuries) in the eastern Mediterranean, and to the Iberian Peninsular (12th Century) in me west. Also in the 17th Century, white-rooted carrot forms were selected in various regions. There are still remnant populations of white and yellow carrots in surviving traditional agricultural systems where mese forms were developed for animal feed.

Carrot is an important vegetable crop in European countries in terms of horticultural economy and for nutrition and health. It is a rich source of sugars, vitarnins A and C, and fibre. Riggs (1995) reports the world production of carotene carrot as 14 Mt, with the annual European production about 4Mt. The major crop producers in Europe are Poland (0.7Mt), the UK (0.6Mt) and France (0.SMt), these production totals not including smallscale horticulture and garden production. In EU countries > 2.S Mt of carrots per annum are grown on > 0.75 million ha.

The development in European agriculture and marketing with associated legislation, such as variety testing, has led to changes in the cultivars grown with atten, dant loss of traditional landraces and Open Pollinated varieties. Wild *Daucus* taxa, 12 species including *D. carota* with 13 subspecies, are centred on the Mediterranean countries. Some taxa are spread widely through Europe, while others are very localised. In all taxa populations are threatened with erosion of their habitat potentially reducing the ecogeographic range and therefore genetic variation.

Institutes, individual research workers and seed companies have developed working collections, generally for very specific purposes, such as pest and disease resistance (Smim & Crowther 1991; Ellis 1991), and male sterility (Nothnagel & Steinborn 1991; Nieuwhof 1993). These genetic resources and working collections are being utilized by public and private sectors. However, data relating to passport, characterization, evaluation and utilization are held by collection curators and researchers in their own formats, and to date are not readily available.

An ad hoc group of workers interested in carrot/Daucus correspond within Europe and with others in USDA and Japan. The EU correspondents in this group have developed a carrot/Daucus project proposal for the EU Genetic Resources Programme. The objectives of this EU proposal were listed as:

- * to draw up a list of minimal descriptors for carrot and wild taxa based on existing formats, e.g. IPGRI/UPOV, and agree a common format for data exchange,
- * to design and build a database for Daucus,
- * coordinate the Genetic Resources Centres for Daucus in the EU,
- * to collate data from these centres to establish the European Daucus Database (EDDB),

- * to characterize germplasm collections for agreed minimal descriptors and incorporate data in EDDB.
- * develop a preliminary core collection using passport and characterization data,
- * evaluate collections for characters important to growers, processors and consumers, such as pest and disease resistance and chemical composition,
- * use characterization data to rationalize collections to increase the efficiency of conservation and utilization,
- * to identify gaps in existing genetic resources collections using the EDDB and organize the collection of cultivated and wild material to expand the available genepool.

Current Status

Institutions in 17 ECP countries (see attached) have responded positively to the suggestion of the development of a *Daucus* Working Group. In addition, carrot collections exist in other ECP countries including Italy, Spain and the major collection in the Vavilov Institute in Russia. There has been no attempt to compare the contents of collections or coordinate their management. A proportion of these seed accessions may well be duplicates, while other unique material will require regeneration in order to be available for continued conservation, and characterization and utilization. In addition, there are other collections, such as those used in conjunction with official cultivar testing regimes, and material maintained by Non-Governmental Organisations. There has been no discussion of descriptors for carrot/*Daucus* in any international genetic resources forum.

Future

With or without funds from the EU, it is important to initiate the work above on a European-wide scale incorporating all countries in the ECP with an interest in carrot and wild taxa, in association with other interested groups e.g. USDA.. This can be achieved by the development of a new crop working group or through the expansion of an existing group, such as the *Allium* WG. The latter suggestion assumes that the same people work with onion, garlic, leek etc. as with carrot. Although this may be true for some of the genetic resources personnel, it is less likely for individuals in the larger gene banks and other scientific disciplines. To ask Attending or Corresponding members of one crop specialisation to represent the views and work of a different crop and taxonomic Family would make the structure of such a group a compromise at best.

The ad hoc group wish to propose:

- a meeting of carrot/Daucus specialists in ECP countries to fagree a standard list of descriptors
 for a European database and to assess the current status of collections, research projects and
 overall knowledge base for this group in order to develop a coordinated work programme;
- 2) that an European database be established to evaluate how well current collections represent the Daucus genepool and use this infommation to direct the collection, conservation, characterisation and utilisation of carrot and associated wild taxa.

Corresponding Institutes in the ad hoc group:

- -Horticulture Research International, Wellesbourne, United Kingdom
- -Institut für Genetik und Kulturpflanzenforschung, Gatersleben, Germany
- -Institut für Zuchtungsmethodik bei Gemuse, Bundesanstalt für Zuchtungsforschung an Kulturpflanzen, Quedlinburg, Germany
- -Greek Gene Bank, Thessaloniki, Greece
- -Nordic Genebank, (Sweden, Denmark, Norway, Finland & Iceland)
- -Scottish Agricultural Science Agency, East Craigs, Edinburgh, United Kingdom
- -Institut National de la Recherche Agronomique, Monfavet, France
- -AKVO-DE HAAFF, Centre for Plant Breeding & Reproduction Research, Netherlands
- -Research Centre for Agrobotany, Tapioszele, Hungary
- -Aegean Agricultural Research Institute, Menemen, Izmir, Turkey
- -Institute of Plant Genetic Resources, Sadovo, Plovdiv, Bulgaria
- -Research Institute of Crop Production, Prague & Olomouc, Czech Republic
- -Research Institute of Biological Husbandry, Oberwil/BL, Switzerland
- -Hebrew University of Jerusalem, Rehovot, Israel
- -Research Institute of Vegetable Crops, Skierniewice, Poland
- * carrot work will cease in INRA, but several commercial companies in France have active carrot programmes and maintain reference collections.

Refelences:

Ellis, P.R. (1991). Sources of resistance to carrot fly, *Psila rosae*, in carrots and wild umbelliferae. Umbelliferae Improvement Newsletter 1, 14-15.

Nieuwhof, M. (1993). Research on maintainers of male sterile lines in carrot (Daucus carota L.). Umbelliferae Improvement Newsletter 3, 1-6.

Nothnagel, T. & Steinborn, R. (1991). New source of male sterility in the genus *Daucus*. Eucarpia Carrot 91, Proceedings of the IVth meeting on Breeding Carrots. Avignon -Montfavet. Smith, B.M. & Crowther, T.C. (1991). Carrot breeding work at HRI Wellesbourne. Umbelliferae Improvement Newsletter 1, p7.

Appendix V Proposal for activities on documentation

See next pages document prepared
by
Dr Theo J.L. van Hintum, Centre for Genetic Resources, The Netherlands (CGN)
P.O.Box 16
6700 AA Wageningen, The Netherlands
Tel: +31-371-477078 Fax: +31-317-418094
and
Dr Frank Begemann
Information Centre for Genetic Resources (IGR)
ZADI
Villichgasse 17
53177 Bonn, Germany
Tel: +49-228-9548 212 Fax: 49-228-9548 140

Establishment of an ECP/GR PGR Documentation activity

Introduction

It is generally recognized that documentation is vital for making germplasm collections more accessible, and thus also for improving the coordination between PGR programmes. For this reason all ECP/GR working groups include, or are even centered around, a database containing passport data of the accessions held in the collaborating institutes. It can be argued that a bottle-neck in the collaboration within ECP/GR is currently the low quality and bad accessibility of these central crop databases, but also the local databases of the national programmes.

At the same time international computer networks are becoming increasingly available (Internet, World-Wide-Web). Within Europe there is no platform available to use these new possibilities in an efficient way, following the USA example. There are several options for ECP/GR to improve this situation.

Option 1: ECP/GR Documentation Working Group

An ECP/GR working group could be established concentrating on documentation. This group could increase the knowledge in the European PGR community by exchanging ideas and experiences. It could also set standards, arrange the availability of information on Internet, etc. A problem might be the number of members of this group. All institutions collaborating in the ECP/GR can be expected to be interested in joining this working group since documentation is an activity in all these institutions. A very large working group would not be efficient. Selecting member would have the danger of making it elite, which is not desirable.

Option 2: Regular ECP/GR symposia on documentation

A task force could be established to organize bi- or triennial conferences on PGR documentation. Such symposia would increase the knowledge in the European PGR community by presenting state of the art knowledge on documentation. A disadvantage might be that besides increasing the knowledge, little direct action would come out of these symposia.

On the basis of a project submitted to the European Union, ECP/GR could support this project to include all of Europe. The project would:

Option 3: An ECP/GR funded project on documentation

and the creation of central crop databases, thereby facilitating the establishment and increasing the quality and level of standardisation of these databases

- support, when asked, the PGR institutions in the documentation of their collections,

created within ECP/GR and the current Programme, on request of the local database administrators, available in a standardized format

- make the databases of the PGR institutions, including the central crop databases
- create points of entry for users looking for PGR information via regular mail, Email
 or Internet and establish ways for electronic data transfer
- establish links to other databases that are of relevance to the plant breeding industry, i.e., database holding information on DNA-sequences, genomes, taxonomy, utilization aspects of crops and potential crops.

Dr. Theo J.L. van Hintum

(coordinator for documentation and methodology)

Centre for Genetic Resources, The Netherlands (CGN)

Dr. Frank Begemann

(head of Information Centre for Genetic Resources, IGR))

Centre for Agricultural Documentation and Information (ZADI), Germany

Appendix VI Recommendation made by the TCC to the European Meeting on Plant Genetic Resources (Nitra, 24-27 September 1995)

(Revised version as agreed in an extraordinary meeting of the Committee on 25/9/95)

Recognizing:

- the role played by ECP/GR for the last 15 years in developing a pan-European collaboration on plant genetic resources;
- the experience gained in coordinating collaborative efforts in a cost-effective way;
- · the significant results obtained by the Programme;
- the entry into force of the Convention on Biological Diversity and the adoption by many countries of Agenda 21;
- the existence of various national, bilateral and regional activities in the European region;
- the importance of international, regional and bilateral cooperation in the area of plant genetic resources;
- the potential role of ECP/GR in implementing the Global Plan of Action in the European region as part of the FAO Global System on Plant Genetic Resources;

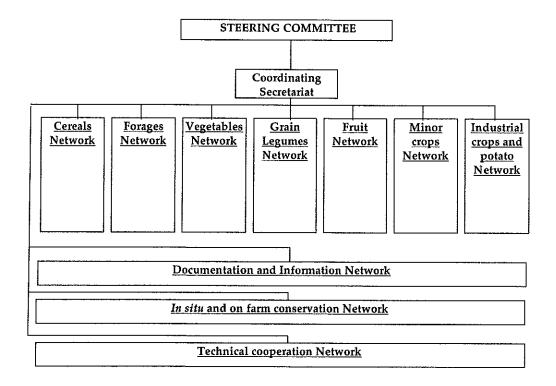
And considering that the objectives of ECP/GR are:

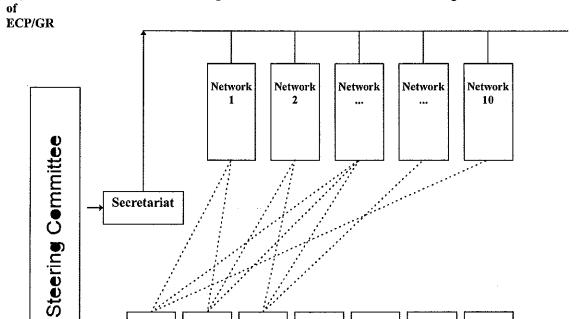
- first and foremost to ensure the long-term conservation and to facilitate and encourage the increased utilization of plant genetic resources in Europe;
- to increase the planning of joint activities;
- to strengthen links between east and west European plant genetic resources programmes;
- to develop joint project proposals to be submitted to funding agencies;
- to contribute to monitoring the safety of plant genetic resources collections and take appropriate action when required;
- to increase public awareness at all levels of the importance of plant genetic resources activities,

And also considering that the operational structure of ECP/GR is as described in Figures 1 and 2,

The Committee recommends that the European Cooperative Programme for Crop Genetic Resources Networks, the basis of which is active national programmes, be used as the platform to facilitate the implementation of the Global Plan of Action in the European region as part of the FAO Global System on Plant Genetic Resources.

Figure (I): Operational structure of EC/GR





National

Programme

National

Programme 3 National

Programme

National

Programme

National

Programme 30

National

Programme 1

Observers: FAO

· ASSINSEL · NGB

- IPGRI

 \mathbf{EC}

MAB

National

Programme

Figure (ii): Interaction of National Programmes with the networks and the Steering Committee of

Appendix VII List of delegates

Note: (*) after a name stands for 'unable to attend'

Mr Rudolf Schachl Federal Office for Agrobiology Wieningerstrasse 8 4020 Linz Austria

Tel. +43-732 81261-259 Fax + 43-732 385 482

Email: 100444.3502@compuserve.com

Mr Charles Populer Station de Phytopathologie Centre de Recherches Agronomiques de l'Etat Chemin de Liroux 5030 Gembloux Belgium Tel. + 32-81 612099

Fax + 32-81 613511

Ms Rada Koeva Institute of Plant Introduction and Genetic Resources "K. Malkov" Sadovo 4122 Plovdiv Bulgaria

Tel. +359-32 2221 Fax +359- 32 270 270

Mr Ivan Kolak Croatian Bank of Plant Genes Faculty of Agriculture University of Zagreb Svetosimunska 25 10 000 Zagreb Croatia

Tel.+385-1 23 35 777 Fax +385-1 21 53 00 Email: ikolak@magr.agr.hr

Ms Athena Della CYPARI Genebank National Herbarium Agricultural Research Institute Ministry of Agriculture, Natural Resources and Environment P.O. Box 2016 Nicosia Cyprus Tel. +357-2 305 101

Fax +357-2 316 770 Email: ari@athena.cc.ucy.ac.cy

Mr Ladislav Dotlacil

Research Institute of Crop Production (RICP)

Drnovská 507 161 06 Praha 6 - Ruzyne Czech Republic Tel. +42-2 360 851 Fax +42-2 365 228

Mr Arent B. Josefsen Danish Institute of Plant and Soil Science P.O. Box 23 8830 Tiele Denmark Tel. +45-89 99 16 00 Fax +45-89 99 16 19

Email: kbm%dir%plante1@foulum.min.dk

Ms Leena Hommo Agricultural Research Centre Institute of Crop and Soil Science 31600 Jokioinen Finland

Tel. +358-16 4188 452 Fax +358-16 4188 437 Email: leena.hommo@mtt.fi

Ms Marianne Lefort Bureau des Ressources Génétiques 57 rue Cuvier 75231 Paris Cedex 05 France

Tel. +33-1-44 08 83 10 Fax +33-1-45 35 70 15 Email: lefort@versailles.inra.fr

Mr Frank Begemann Information Centre for Genetic Resources (IGRI/ZADI) Villichgasse 17 53117 Bonn Germany Tel. +49-228 9548 212

Fax +49-228 9548 149 Email: begemann@zadi.de

Mr Nikolaos Stavropoulos Greek Gene Bank Agricultural Research Centre of Makedonia and Thraki P.O. Box 312

57001 Thermi-Thessaloniki

Greece

Tel. +30-31 471 544 Fax +30-31 471 209

Mr Lasló Holly Institute for Agrobotany Külso mezo 15 2766 Tapiószele Hungary Tel. +36-53 380 016

Fax +36-53 380 072 Email: hollyl@mars.iif.hu

Mr Hólmgeir Björnsson Agricultural Research Institute Keldnaholti IS 112 Reykjavík Iceland Tel. +354-577 10 10

Fax +354-577 10 20 Email: holmgeir@rala.is

Mr Ignatius Byrne (*) Department of Agriculture, Food and Forestry Agriculture House Kildare Street Dublin 2 Ireland Tel. +353-1 607 2031 Fax +535-1 661 6263

Ms Miriam Waldman Life Sciences Division Ministry of Science and Technology P.O. Box 18195 91181 Jerusalem Israel Tel. +972-2 819 098 Fax +972-2 815 595 Email: waldman@ilncrd.bitnet

Ms Rosa Rao Department of Agronomy and Plant Genetics University of Naples Via dell'Université 100 80055 Portici (NA) Italy

Tel. +39-81 776 1646 Fax +39-81 775 3579

Email: rao@vm.cised.unina.it

Ms Alma Budvytyte **PGR Coordinating Centre** Lithuanian Institute of Agriculture Dotnuva Akademija 5051 Kedainiai district Lithuania Tel. +370-57 37289 Fax +370-57 56996 Email: alma@agromokslas.ccmail.compuserve.com

Mr Th. van Hintum Centre for Genetic Resources, The Netherlands (CGN) CPRO-DLO PO Box 16 6700 AA Wageningen The Netherlands Tel. +31-8370 77078 Fax +31-8370 18094 Email: th.j.l.van.hintum@cpro.agro.nl

Mr Even Bratberg Department of Horticulture Agricultural University of Norway Postboks 5022 N 1423 As Norway Tel. +47-64 94 78 04 Fax +47-64 94 78 02 Email: even.bratberg@ipf.nlh.no

Mr Wieslaw Podyma Plant Breeding and Acclimatization Institute (IHAR) 05 870 Blonie, Radzikow near Warsaw Poland Tel. +48-22 725 45 36 Fax +48-22 725 47 14

Mr Luis Gusmão Estação Agronomica Nacional Quinta do Marques 2780 Oeiras **Portugal** Tel. +351-1 441 68 55 Fax +351-1 442 08 67

Mr Mihai Cristea Gene Bank Suceava Bulevardul 1 Decembrie 1918 nr.17 5800 Suceava Romania Tel. +40-30 227 087

Fax +40-30 227 087

Mr Sergey M. Alexanian N.I. Vavilov Research Institute of Plant Industry Bolshaya Morskaya Street 42-44

190000 St Petersburg

Russia

Tel. +7-812 314 48 48 Fax +7-812 311 87 62 Email: vir@glas.apc.org

Mr Alzbeta Zofajová Research Institute of Plant Production Bratislavská 122 921 01 Piestany Slovak Republic Tel. +42-838 223-11 Fax +42-838 263 06

Mr J. M. Bolivar Instituto Nacional de Investigacion y Tecnología Agraria y Alimentaria (INIA) c/ José Abascal 56 28003 Madrid **Spain** Tel. +34-1 347 39 49 Fax + 34-1 347 39 31

Mr Roland von Bothmer Swedish University of Agricultural Sciences Department of Plant Breeding Herman Ehles v 24 S 268 31 Svalöv Sweden Tel. +46-418 67072 Fax +46-418 67081 Email: roland.von.bothmer@vf.slu.se

Mr Gert Kleijer Station Fédérale de Recherches Agronomiques de Changins Route de Duillier - BP 254 CH 1260 Nyon Switzerland Tel. +41-22 363 47 22 Fax +41-22 361 54 69

Mr A. Ertug Firat Aegean Agricultural Research Institute (AARI) P.O. Box 9 Menemen 35661 Izmir Turkey Tel. +90-232 846 1009 Fax +90-232 8461107

Mr John C. Suich Research Policy Coordination Division Ministry of Agriculture, Fisheries and Food Nobel House, 17 Smith Square SW1P 3JR London United Kingdom Tel. +44-171 238 5613 Fax +44-171 238 5597

Mr Milutin Pencic Maize Research Institute S. Bajica 1 11080 Belgrade F. R. of Yugoslavia Tel. +381 11 617 434 Fax +381 11 197 890

Mr Thomas Gass
International Plant Genetic Resources
Institute (IPGRI)
Via delle Sette Chiese 142
00145 Rome
Italy
Tel. +39-6 518 92 231
Fax +39-6 575 0309
Email: t.gass@cgnet.com

Mr Emile Frison
International Plant Genetic Resource
Institute (IPGRI)
Via delle Sette Chiese 142
00145 Rome
Italy
Tel. +39-6 518 92 221
Fax +39-6 575 0309
Email: e.frison@cgnet.com

Observers

Mr Zlatko Šatovic Croatian Bank of Plant Genes Faculty of Agriculture University of Zagreb Svetosimunska 25 10 000 Zagreb Croatia Tel.+385-1 23 35 777 Fax +385-1 21 53 00 Email: satovic@magr.agr.hr

Mr Bertalan Szekely Ministry of Agriculture Kossuth L. tér 11 H-1055 Budapest **Hungary** Tel. +36-1 111 6452

Fax +36-1 153-0518

Mr Fartais Liviu Gene Bank Suceava Bulevardul 1 Decembrie 1918 nr.17 5800 Suceava Romania Tel. +40-30 227 087 Fax +40-30 227 087

Mr Jurek Serwinski UN Food and Agriculture Organization (FAO)

Via delle Terme di Caracalla 00100 Rome Italy Tel. 39-6 5225767 Fax 39-6 522 531 52 Email: jerzy.serwinski@fao.org

Mr Gerasimos Apostolatos (*)
(EC) Directorate General VI - Agriculture
Rue de la Loi 200
B 1049 Brussels
Belgium
Tel. +32-2 296 49 10
Fax +32-2 296 59 63

Mr Richard Hardwick (*)
(EC) Directorate General VI - FII3
Agriculture
Rue de la Loi 200 (L130, 6-238)
B 1049 Brussels
Belgium
Tel. +32-2 295 06 51
Fax +32-2 296 30 29
Email: r.hardwick@mhsg.cec.be

Ms Helen Ager
International Plant Genetic Resources
Institute (IPGRI)
Via delle Sette Chiese 142
00145 Rome
Italy
Tel. +39-6 518 92 244
Fax +39-6 575 0309
Email: h.ager@cgnet.com