

BULLETIN No. 34

# EUCARPIA

EUROPEAN ASSOCIATION FOR RESEARCH ON PLANT BREEDING  
EUROPÄISCHE GESELLSCHAFT FÜR ZÜCHTUNGSFORSCHUNG  
ASSOCIATION EUROPÉENNE POUR L'AMÉLIORATION DES PLANTES

January 2007

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Valenciana  
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<http://www.eucarpia.org>



**EUCARPIA** aims to promote scientific and technical co-operation in the field of plant breeding in order to foster its further development. To achieve this purpose, the Association arranges and sponsors meetings of its members to discuss general or specific problems. Each year, **EUCARPIA** organizes open conferences and colloquia throughout Europe. Founded at Wageningen (The Netherlands) in 1956 as a non profit organization, **EUCARPIA** has made considerable contributions to improving international contacts in plant breeding research for almost fifty years. **EUCARPIA** has 10 sections and a number of working groups active in specific fields of interest.

**EUCARPIA** has individual members (scientists qualified in the field of plant breeding) and corporate members (research institutes, breeding stations, associations, societies etc.). A corporate membership is a collective membership for at most 10 persons.

<b>Membership fees*:</b>	individual members	€ 40.--
	individuals younger than 30 years or retired	€ 30.--
	corporate members	€ 300.--

\*Special reduced rates apply for members from some countries

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## **PRESIDENTIAL ADDRESS**

Year 2006 has been marked by the celebration, on the 2<sup>nd</sup> of July, of the 50<sup>th</sup> Anniversary of EUCARPIA. During these 50 years plant breeding has experienced many advances and developments, and we can proudly affirm that EUCARPIA has made important contributions in promoting the scientific and technical co-operation in this field. EUCARPIA is expanding and intensifying its activities, and I foresee a future in which the role of EUCARPIA to the development of plant breeding will intensify, in such a way that the contributions of EUCARPIA to stimulating and promoting plant breeding in the next 50 years will even be more important than those made in the last 50 years. I hope that by the one hundred anniversary of EUCARPIA in July 2056 it will be possible to say that my prediction was correct!

Last year was especially intense in the number of events organized by EUCARPIA. There were 6 section meetings (Potato, Cereals, Fodder Crops and Amenity Grasses, Biometrics in Plant Breeding, Maize and Sorghum, and Ornamentals) and 2 working group meetings (Rye, and *Medicago* spp.). I could attend four of the section meetings and I also received first hand reports from the others. In all cases I have been extremely pleased of confirming how these EUCARPIA events contributed to the development of the science of plant breeding. Not only new scientific information of high level in the scope of each section was shared among the attendants to the meetings, but also many contacts, new projects, and new ideas, which will bring new advances, sprouted in each of these meetings. Despite being in the Information Technology Era and having an increase in the circulation and access to information, celebration of symposia, meetings, workshops and congresses, like those organized by EUCARPIA, is essential for the presentation and discussion of new developments.

This year will also be a year with great activity for EUCARPIA. There are 7 planned events, which include 4 section meetings (Fodder Crops and Amenity Grasses, Genetic Resources, Fruit, and Oil and Protein Crops) and 3 working group meetings (Capsicum and Eggplant, Leafy Vegetables, and Organic Plant Breeding). At this respect it is important to notice that one of these events corresponds to the First Meeting of the Organic Plant Breeding working group, which was newly formed in 2004 during the XVIIth General Congress in Tüln, Austria. This shows how EUCARPIA is expanding its activities and also adapts to the new

challenges and demands of the society. Also, the “Oil and Protein crops” section, which had passed through a long period of inactivity, will again begin to be active and will hold a section meeting in Budapest. Given the present and future importance of oil and protein crops in Europe, it is a satisfaction to see that this EUCARPIA section will return to activity and ready to make contributions of interest for the breeding of these crops. I invite you all to look at the programmes of these meetings in our web page (<http://www.eucarpia.org>). I recommend those of you having an interest in the crops or topics to be treated to attend in the next EUCARPIA meetings to attend them. I’m sure you will not regret!

Coming back to the changes and developments during these last 50 years, EUCARPIA has also undergone many changes. One of them is the dimension of the society. During the first years after its constitution EUCARPIA counted with around 200 members. Nowadays, we count with almost 1200 active members, the greatest number ever of members in EUCARPIA. And more importantly, the trend in the last years, which I expect will continue in the coming years, is to have a sustained increase of more than 100 new members per year: 135 in 2005, which at the time represented a record mark since the times of the constitution of EUCARPIA, and a new ground-breaking record mark of 160 new members in 2006). At the moment of writing these lines (January 2007), we already have 30 new applications for membership, which indicates that we will also have an important increase in the number of members during this year. The increase in the number of members shows that EUCARPIA is growing as a vigorous society and that its activities are of increasing interest to the broad community of plant breeders.

The XVIIIth EUCARPIA General Congress has been scheduled to take place from the 11th to the 14th of September 2008 in Valencia (Congress Hall of the Universidad Politécnica de Valencia), Spain. Valencia has a long agricultural history, and there are several institutions, like the Instituto de Conservación y Mejora de la Agrodiversidad Valenciana (COMAV) or the Instituto Valenciano de Investigaciones Agrarias (IVIA) , which have a long tradition and strong groups in plant breeding. Therefore, we think that Valencia is a convenient place for hosting the General Congress of EUCARPIA. The general subject will be “Modern Variety Breeding for Present and Future Needs” and will include all steps necessary for the development of new cultivars (the ultimate objective of breeders), from the conservation and enhancement of genetic resources, to the last steps of breeding programmes. All of this will be focused to satisfying the present and foreseeable needs requested to the plant material

(resistance to biotic and abiotic stresses, quality, increased yields, new uses, etc.). In the coming months the first announcement with more information will be issued.

My last words are to send you a warm salute and to remind that myself, as well as the other members of the Executive Committee, are open to your proposals and suggestions for the improvement of EUCARPIA and its functioning. You can easily contact with me through my e-mail address ([jprohens@btc.upv.es](mailto:jprohens@btc.upv.es)).

Valencia, Spain  
January 2007

Jaime Prohens  
President of EUCARPIA

## EUCARPIA EXECUTIVE COMMITTEE

Name	Function	Nominated in:
<b>J. Prohens Tomás</b>	<b>President – Spain</b> Tel./Fax: +34 963879 424 / 422 E-mail: jprohens@btc.upv.es	2001
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<b>Z. Bedö</b>	<b>Vice-President - Hungary</b> Tel./Fax: +36 22 569500 / 460213 E-mail: bedoz@penguin.mgki.hu	2004
<b>M.L. Badenes</b>	<b>Secretary General - Spain</b> Tel./Fax: +34 963424 049 / 106 E-mail: eucarpia.secretariat@ivia.es	2004
<b>P. Ruckebauer</b>	<b>Past President - Austria</b> Tel./Fax: +43 227266280 201 / 203 E-mail: peter.ruckebauer@boku.ac.at	1998

## EUCARPIA BOARD

Name	Country represented	Name	Country represented
<b>P. Ruckebauer</b>	Austria	<b>I. Rashal</b>	Latvia
<b>E. van Bockstaele</b>	Belgium	<b>A. Sliesaravicius</b>	Lithuania
<b>A.N. Tsenov</b>	Bulgaria	<b>E. Jacobsen</b>	Netherlands
<b>J. Gunjaca</b>	Croatia	<b>S.H. Hjeltnes</b>	Norway
<b>V. Sip</b>	Czech Republic	<b>J. Krzymanski</b>	Poland
<b>A. Jahoor</b>	Denmark	<b>M. Balan</b>	Romania
<b>T.S. Aronen</b>	Finland	<b>D. Skoric</b>	Serbia
<b>M. Rousset</b>	France	<b>J. Prohens-Tomás</b>	Spain
<b>H.H. Geiger</b>	Germany	<b>P.C.G. Weibull</b>	Sweden
<b>A. Katsiotis</b>	Greece	<b>M.W. Humphreys</b>	United Kingdom
<b>L.C. Marton</b>	Hungary	<b>B. Boller</b>	Switzerland
<b>A. Blanco</b>	Italy	<b>M.L. Badenes</b>	All other countries

## EUCARPIA SECTIONS AND THEIR CHAIRPERSONS

SECTION	CHAIRPERSON	
<b>a. Potatoes</b>	<b>J.E. Bradshaw</b> (UK)	Tel./Fax: +44 1382 568524 / 568587 E-mail: jbrads@scri.sari.ac.uk
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<b>m. Oil and Protein Crops</b>	<b>F. Viranyi</b> (Hungary)	Tel./Fax: +26 28522 000 / 077 E-mail: viranyi.ferenc@mkk.szie.hu

## SECTION REPORTS

### SECTION POTATOES

The joint meeting with the EAPR Section Breeding and Varietal Assessment took place from 20 to 22 November 2006 at the Seven Oaks Hotel, Carlow, Ireland. It was attended by 84 delegates from 17 European Countries together with participants from Africa, Asia and North America. The theme of the meeting was “The Science of Selection: Potato Breeding Methodology for the 21<sup>st</sup> century”. The programme started with nine papers on prospects for markers in breeding followed in the afternoon by four on selection and breeding. It was encouraging to see that practical breeders are starting to think seriously about how they can use markers in their programmes. Delegates then had ample time to view the 26 posters on display before a most enjoyable conference dinner in the hotel.

The second morning was devoted to eight papers on diversity, genetic resources and introgression. New molecular data are providing fresh insights into species relationships, domestication and the genetic base of potato breeding. After lunch we visited the new research facilities at Oak Park, Crops Research Centre where we split into smaller groups to allow ease of visiting laboratories. This worked well and promoted a lot of lively discussion which continued on into the evening at restaurants and pubs in Carlow.

The final morning was spent on six papers covering transgenic potato and genomics. The president of the Community Plant Variety Office, Bart Kiewiet, gave an authoritative talk on plant variety rights and patent legislation in Europe and the USA. GM potato issues are clearly back on the agenda in Europe with plans to test potatoes with resistance to late blight conferred by the *RB* gene from the wild Mexican species *Solanum bulbocastanum*. Finally, Richard Visser gave an update on The Potato Genome Sequencing Consortium. This is an international consortium coordinated by Wageningen University and Research Centre that aims to sequence the complete genome of potato which is about 840 Mb in size. The target is to have all funding in place by early 2007 and a first draft of the sequence by the end of 2008, although a final draft will take longer. The project builds on the Ultra High Density genetic map of potato composed of 10,000 AFLP markers and a potato genomic DNA library of 75,00 BAC clones averaging 130 kb in size developed by Wageningen University. A BAC-by-BAC sequencing strategy will be used. The availability of the annotated data should assist

breeders in their efforts to fully exploit the genetic potential of potato. However, it was clear from this meeting of practical breeders and those engaged in genomics research that the dialogue must continue and that much ingenuity and endeavour will be required to turn dreams into reality.

The local organisers, Dan Milbourne, Leslie Dowley and Denis Griffin, the staff of the Seven Oaks Hotel and Jim Burke the Director of Oak Park, Crops Research Centre all deserve our thanks for a most enjoyable and worthwhile meeting. A number of PhD students were funded to allow them to present their results at the conference, something that I think is very important for our future well being. Lastly, at the business meeting, it was proposed to hold the next joint meeting in the Czech Republic in 2009, possibly in June. Both the Scottish Crop Research Institute and Wageningen University were prepared to be reserves.

John Bradshaw  
Section Chairman  
December 2006

## **SECTION CEREALS**

The meeting of the EUCARPIA Cereals Section was very successfully carried out at Lleida (Spain) from 14 to 17 November 2006, with more than 200 scientists attending it. The keynote lectures were given by top specialists from all around the world.

The conference was divided into the following sections:

1. Biodiversity.
2. Marker assisted selection.
3. Biotic stresses.
4. Abiotic stresses.
5. Quality.
6. Sustainable production.
7. Gene expression.

Very important advances in the different areas considered were apparent, but the new molecular techniques proved to offer more reliable tools for the progress of both cereal genetics and breeding, with the final goal, expressed in the theme of the meeting of feeding ten billion people, as a likely one to be attained.

Professor Wayne Powell, Director of the National Institute of Agricultural Botany (Cambridge, UK), was nominated and accepted as the new chairman of the EUCARPIA Cereals Section, thus the next meeting will take place in Cambridge, at a date to be determined in the coming future.

The social events, including a classical music concert, proved to be very appreciated by the delegates.

Jose Luis Molina-Cano  
Section Past-Chairman  
December 2006

### **EUCARPIA Rye Meeting**

The 8th International Symposium of Rye Breeding and Genetics was organized by the Federal Centre for Breeding Research on Cultivated Plants (BAZ), Gross Luesewitz, and took place in the hanseatic town of Rostock, Germany, on June 28-30, 2006. In total, 83 participants from 13 countries registered for this meeting.

At the beginning of the conference, the rye community appreciated the outstanding work of Prof. Hartwig H. Geiger (Hohenheim, Germany) which he contributed in the field of rye breeding and genetics during the last 4 decades.

The symposium was organized in four plenary sessions, namely

Session 1: Breeding & Breeding Methods, Genetic Resources & Diversity

Session 2: Nutritional & Technological Quality

Session 3: Disease Resistance & Stress Tolerance

Session 4: Cytogenetics & Molecular Breeding

There were separate poster sessions dedicated to each of the above-mentioned research fields. In addition, a closing lecture by Niels Stein, Gatersleben, provided an overview on genomic synteny among cereals. With its 24 oral presentations and 31 poster contributions, as well as a well-balanced participation of the public and private sectors, the symposium constituted a platform for exchanging information on recent progress in breeding research and practical plant breeding in rye.

The scientific programme of the conference was complemented by a social programme and excursions, including an opening reception, a harbour tour to the ports of Rostock and Warnemünde, as well as visiting tours to the experimental station of the private rye breeding company HYBRO GmbH & Co. KG in Kleptow and to the BAZ research location in Gross Luesewitz where a farewell dinner took place on 30 June.

The next international EUCARPIA symposium on rye breeding and genetics was announced to be held in 2010 in Minsk, Belarus. This meeting will be organized by the Institute of Arable Farming and Plant Breeding of The National Academy of Sciences of Belarus (S. Hardzei).

Peter Wehling

Organizer of the Rye Meeting

December 2006

## **SECTION FODDER CROPS AND AMENITY GRASSES**

The 26th meeting of the section was held from September 3 – 7, 2006, at Perugia, Italy. The 16<sup>th</sup> meeting of the Medicago Working Group was fully integrated into the scientific programme.

The meeting, attended by 110 researchers and breeders from 25 countries, had as its topic:

**"Breeding and seed production for conventional and organic agriculture".**

The conference was opened by Prof. Bistoni, Rector of the University of Perugia, the Vice Dean of the Faculty of Agriculture, the Agricultural Counselor of Umbria, and Ulrich K. Posselt, Section Chairman.

The meeting consisted of 4 sessions, each starting with an invited lecture:

- conventional and organic forage and seed markets
- breeding and variety progress for conventional and organic agriculture
- genetic resources and diversity utilization
- genetic, physiological and molecular aspects of forage and turf breeding

Besides 7 invited lectures, 22 oral presentations as well as 70 posters were presented and discussed. The conference excursion included a visit to the company CGS Sementi and field visits to the research farm of the University of Perugia.

#### Information from the business meeting:

After the resignation of U.K. Posselt who will remain on the board as past-Chairman, Beat Boller, Switzerland, was elected as new Chairman of the Section.

F.X. Schubiger was appointed new Group Chairman of the Working Group disease resistance.

The Medicago Working Group terminates its activities.

#### Next section meeting

The next (27<sup>th</sup>) meeting of the section will be held from August 19 to 23 2007 in Copenhagen/Denmark.

The program will be under the title:

#### **“Improvement of Forage Crops and Amenity Grasses”**

The three scientific sessions will deal with seed production (1), applied genomics (2), and forage quality & bioenergy (3). Integrated poster sessions and workshops will be on: a) GMO and coexistence, b) Genetic resources: optimal management & quality assessment, c)

Conventional versus molecular breeding, d) Variety registration – implementation of molecular markers?

Visits to DLF-TRIFOLIUM A/S and Research Centre Flakkebjerg, as well as post congress tours will be organized.

Copenhagen is a modern city offering numerous cultural and leisure attractions.

The tentative programme is the following:

19.8.2007      Registration & Reception  
20.8.2007      Sessions 1, 2a, Social Dinner  
21.8.2007      Session 2b, Workshops, Free Evening / Copenhagen Tour  
22.8.2007      Excursion, Conference Dinner  
23.8.2007      Session 3, Postcongress tours

The Organizing Committee is formed by:

Thomas Lübberstedt (chairman), DJF, Denmark  
Birte Boelt, DJF, Denmark  
Preben Bach Holm, DJF, Denmark  
Bruno Studer, DJF, Denmark  
Camilla Bruhn Kristensen, DJF, Denmark  
Henrik Wrem, DJF, Denmark  
Niels Roulund, DLF-TRIFOLIUM A/S  
Sven Bode Andersen, LIFE, Denmark  
Ulf Feuerstein, EUROGRASS, Germany

The Scientific Committee is formed by:

Niels Roulund (chairman), DLF-TRIFOLIUM A/S  
Klaus K. Nielsen (chairman), DLF-TRIFOLIUM A/S  
Thomas Lübberstedt, DJF, Denmark  
Birte Boelt, DJF, Denmark  
Sven Bode Andersen, LIFE, Denmark  
Anne Mette Dahl, LIFE, Denmark

Peder Weibull, SLU, Sweden

Odd Arne Rognli, UMB, Norway

Beat Boller, ART, Switzerland

Ulrich Posselt, University of Hohenheim, Germany

Christian Huyghe, INRA, France

Registration Fees will be Euro 300 for EUCARPIA members and Euro 350 for non-members. Accompanying person fee will be Euro 200. Fees will include all official documentation and proceedings, social dinner, coffee-breaks, lunches, and the technical tour.

The venue will be the Marble Hall and auditorium 3-13 of the Faculty of Life Sciences of Copenhagen University, which is located in Frederiksberg / Copenhagen.

Further information can be obtained under the web address: <http://www.eucarpia.org>. – Meetings.

U.K. Posselt

and

B. Boller

Section Past-Chairman

Section Chairman

December 2006

## **SECTION BIOMETRICS IN PLANT BREEDING**

The Biometrics in Plant Breeding Section of EUCARPIA celebrated this year its XIII-th meeting in Zagreb, Croatia, from August 30 - September 1. The meeting was hosted by the Faculty of Agriculture, University of Zagreb. The local organizing committee did a splendid job with regard to all aspects meriting attention, like venue, transport, hotels and excursions. The local committee was coordinated by Jerko Gunjača. Members of the local organizing committee were Vinko Kozumplik, Marija Pecina, Ivan Pejić and Zlatko Šatović. Technical support was provided by Jasna Bajan, Sanja Suić and Toni Safner. The scientific committee with coordinator Fred van Eeuwijk and members Alain Charcosset, Jesus Moreno-González, Christine Hackett, Pawel Krajewski and Hans-Peter Piepho presented a highly interesting program. The scientific committee had been able to contract a number of well known leading scientists in the area (see below). Financial support from a number of sponsors that made it

possible to invite these speakers was gratefully acknowledged: Monsanto, Pioneer, Syngenta, Limagrain, Rijk Zwaan, Keygene, Doriane, Hrvatski duhani, Podravka, BC Institute, and ZET (the local transport company).

The program comprised 7 invited lectures, 22 oral presentations, and 9 short (poster) presentations. Topic for the first day of the meeting was "Linkage and LD based QTL mapping methodology", and it was divided into morning and afternoon session. Second day morning session topic was "Computer science, bioinformatics and analysis of large data sets", while the last day morning session was "Crop growth modelling / modelling GxE". Afternoon program of the last day started with a poster session, where in total 22 posters were presented. The last session topic was "Collaborative breeding". There were 81 participants from 22 countries all over the world.

Some more details about the sessions showing the invited lectures are given now, for a full program see *Agriculturae Conspectus Scientificus* 71, supplement 1 (<http://www.agr.hr/smotra/index.htm>).

#### Session 1: Linkage and LD based QTL mapping methodology I

- Invited lecture 1: A ruby in the rubbish: Searching for Signatures of Selection using molecular data  
Bruce Walsh. Professor of Ecology and Evolutionary Biology, University of Arizona, Tucson
- Invited lecture 2: Adjusting for population structure in genetic association studies  
David Balding. Professor of Statistical Genetics, Imperial College, London

#### Session 2: Linkage and LD based QTL mapping methodology II

- Invited lecture 1: QTL by Genetic Background Interaction: Application to Predicting Progeny Value  
Jean-Luc Jannink. Assistant Professor, Iowa State University
- Invited lecture: Bayesian analysis of complex traits in pedigreed plant populations  
Marco Bink. Senior Scientist, Biometris, Wageningen UR

### Session 3: Computer science, bioinformatics and analysis of large data sets

- Invited lecture: The importance of GCA and SCA in a context of gene expression  
Marnik Vuylsteke. VIB – University Ghent

### Session 4: Crop growth modelling / modelling GxE

- Invited lecture: Evaluating plant breeding strategies by gene based crop growth simulation  
Scott Chapman. Principal Research Scientist, CSIRO Plant Industry, St. Lucia

### Session 5: Collaborative breeding

- Invited lecture: Genotype by environment correlation and genotype by environment interaction: statistical aspects of collaborative breeding  
Johann Sölkner. Professor at the Division of Livestock Sciences, BOKU, Wien

The proceedings will be published as a special issue of *Euphytica* for most of the oral contributions (expected publication September-December 2007), while a limited number of the oral contributions and the posters will be published in *Agriculturae Conspectus Scientifica*.

In the members' meeting on Friday morning September 1, the place of the next meeting in 2009 was decided to become Dundee, Scotland, hosted by the Scottish Crop Research Institute. The lead in the organization will be taken by Bill Thomas and Christine Hackett. Suggested topics for this meeting were:

1. Systems biology (use of model systems/bioinformatics/candidate genes/linking levels of information/genetics of gene expression)
2. Association mapping (LD/haplotype sharing/phenotyping approaches)
3. Selection responses (MAS/multitrait selection)
4. Design (connected crosses/breeding by design/hybrid prediction)
5. Statistical methods (meta analysis/GxG/GxE/algorithms/QTL)

We are confident that the next meeting will be equally successful as this one and we invite anyone interested in the quantitative aspects of plant breeding to join us in Scotland in 2007.

Fred Van Eeuwijk

and

Jerko Gunjača

Section Chairman

Organizer of the Section Meeting 2006

December 2006

## **SECTION GENETIC RESOURCES**

We are pleased to inform that the next section meeting will take place from 23 to 26 May 2007 in Piešťany (Slovak Republic) with the subject of “Plant Genetic Resources and their Exploitation in the Plant breeding for Food and Agriculture” (Towards innovations and progress in management and utilization of plant genetic resources to meet the current needs and future challenges of plant breeding, food and agriculture and industry).

The meeting will be held at the lecture rooms in the congress rooms of Social Centre in the Slovak Health Spa Piešťany. The town of Piešťany is situated in the western part of the Slovak Republic (just 80km from Bratislava). The coordinator of the organizing committee is Dr Pavol Hauptvogel: [hauptvogel@vurv.sk](mailto:hauptvogel@vurv.sk); fax: +421-33-7726306.

The reply to the 1<sup>st</sup> circular has been a big surprise for us; over 250 preliminary registrations have been received until now. From this amount, 92 are interested in offering oral presentations and 134 want to contribute to the poster sessions. Since the working agenda can only accommodate about approximately 45 presentations, the Scientific Committee will proceed to make the necessary selection.

Scientific Programme Committee:

Karl Hammer, University of Kessel, Germany – Section Chairman

Jaime Prohens-Tomás, Universidad Politecnica de Valencia, Spain – President of EUCARPIA

Michael Ambrose, John Innes Centre Norwich, UK

Andreas Börner, Institute of Plant Genetics and Crop Plant Research Gatersleben, Germany

Ladislav Dotlačil, Research Institute of Crop Production, Praha, Czech Republic

Jean Koenig, INRA Clermont Ferrand, France

Vladimir Meglic, Agricultural Institute of Slovenia, Ljubljana, Slovenia

Jan Nedelník, Research Institute for Fodder Crops, Ltd., Troubsko, Czech Republic

Pietro Perrino, Consiglio Nazionale delle Ricerche, Bari, Italy

Tentative programme:

Tuesday, 22 May

Registration, Poster set-up

Wednesday, 23 May

10:00 Official opening

Plenary lecture (soon)

14:00 Session I. Invited and voluntary papers:

Plant genetic resources conservation and use: an overview

18:00 Welcome Reception

Thursday, 24 May

8:30 Session I. Invited and voluntary papers:

Plant genetic resources conservation and use: an overview

14:00 Session II. (Invited and voluntary papers)

Plant genetic resources enhancement for breeding

Friday, 25 May

8:30 Session III. Invited and voluntary papers:

Molecular and information technologies for plant genetic resources –  
challenges and opportunities

13:00 Technical visits, historical and cultural sightseeing

Saturday, 26 May

8:30 Session IV. Invited and voluntary papers:

Plant genetic resources in context of climatic changes

14:00 Workshop of GB, Business Meeting, General Discussion, Closing of meeting

20:00 Gala dinner

Sunday, 27 May

7:00 Departure for post-meeting tour

A social programme for accompanying persons will be organized. This will include guided tours of Piešťany and surroundings.

Young Researchers Fellowships will be available. The selection will be made by the EUCARPIA committee and Scientific Committee, amongst young researchers (PhD students) registered at the meeting on a scientific basis (scientific relevance of the abstract and C.V.).

Accommodation and travel:

Accommodation and transportation from Vienna airport and Bratislava airport for 18<sup>th</sup> meeting EUCARPIA Genetic Resources Section is managed by IVCO travel (Fax: +421-33-7743355; E-mail: [ivcotravel@ivcotravel.com](mailto:ivcotravel@ivcotravel.com)). The Organizing Committee will be not able to assist you with hotel reservation and transportation. After the hotel confirmation, please send a message also to the meeting secretary [eucarpia.pgr@vurv.sk](mailto:eucarpia.pgr@vurv.sk). Bratislava can be easily reached by air through Prague and Vienna or direct. Regularly scheduled flights come to international The M.R. Štefánik Airport Bratislava. For more details on flights and time tables click [www.letiskobratislava.sk](http://www.letiskobratislava.sk). Most countries in Europe are connected with Slovak destinations by regular service, usually direct (Eurolines provides service from 21 European towns). Many of Europe's busiest train routes pass through or very near Slovakia. It is especially simple to travel from neighbouring countries. There are also regular trains directly to and from key cities in Germany, Italy and Russia. Generally, the train fares are low. There are good connections by highway from Vienna and from Prague to Bratislava and to Piešťany.

Post-meeting tour:

High Tatras: 27 May 2007. All-day trip with an English speaking guide. This is a travel to the smallest high mountains in the world. You will visit Štrbské Pleso, Starý Smokovec and Tatranská Lomnica – museum of national park.

Carpathian Round Trips: 27 May 2007, All-day trip around Slovakia with an English speaking guide: Bojnice - Castle, Cicmany – wooden village - museum visiting, Rajecká Lesná – Bethlehem and Trenčín.

For applications or further informations about the meeting are on web-site Eucarpia: <http://www.eucarpia.org> and in the meeting site <http://www.eucarpia.vurv.sk> or contact Pavol Hauptvogel e-mail: [hauptvogel@vurv.sk](mailto:hauptvogel@vurv.sk) or fax: +421-33-7726306.

Karl Hammer  
Section Chairman  
December 2006

and

Pavol Hauptvogel  
Chairman of the Organizing Committee

## **SECTION MAIZE AND SORGHUM**

The 20th International Conference of the Maize and Sorghum Section was held in Budapest, Hungary, on June 20-24, 2006. Around 150 participants from 20 countries registered for the conference. A total of 51 speakers from universities, research institutes and private companies presented the most recent results of their research.

At the Opening Ceremony the subregional representative of FAO sketched a comprehensive picture of the importance of maize in the world economy, after which she presented FAO medals to outstanding members of the European maize breeding community:

Hartwig H. Geiger	(Hohenheim, Germany)
István Kovács	(Martonvásár, Hungary)
Semenovits V. Sotchenko	(Pytigorsk, Russia)
Roberto Tuberosa	(Bologna, Italy)

During the Plenary Session, presentations were made on the 50-year history of EUCARPIA and on the most significant results achieved in maize and sorghum research in recent decades.

The scientific papers were presented in four consecutive sessions:

Session I: Genetic resources of maize and sorghum

Session II: Unification of variety test methods, production, utilization

Session III: Adaptation to stress

Session IV: Strategies and methods in maize and sorghum breeding

During the breaks between oral presentations, more than 60 posters were presented in the poster section. The oral presentations and posters covered a wide range of topics in maize breeding and related fields, and were followed with great interest.

The public and private sectors were both well represented in the oral presentations. The scientific programme of the conference was complemented by a number of social and accompanying persons programmes, including visits to the Agricultural Research Institute of

the Hungarian Academy of Sciences in Martonvásár, sightseeing in Budapest and the Danube Bend, and a post-conference trip to the beautiful countryside around Lake Balaton.

The Meeting of the Section Members at the close of the conference voted on the date and place of the next international conference (Northern Italy, 2009). The organisation will be undertaken by two universities, in Bologna (Roberto Tuberosa) and Bergamo (Mario Motto). The location of the conference will be announced by the organisers at a later date.

The Chairman of the Organising Committee of the present conference in Budapest, Csaba L. Marton (Martonvásár, Hungary) was elected in the Meeting of the Section Members as the new Chairman of the Maize and Sorghum Section, while János Berenji (Novi Sad, Serbia) was re-elected as coordinator of the Sorghum group.

Csaba L. Marton  
Section Chairman  
July 2006

## **SECTION VEGETABLES**

The year 2006 was a quiet one for our section: none of the working groups convened but plans for future meetings abound!

For 2007 we have two meetings in the planning and another two for 2008. In the spring of 2007 all leafy vegetable specialists are invited to Warwick UK, by David Pink and his crew, dates are April 18-20, see the provisional programme below and on <http://www.go.warwick.uk/eucarpia/provprog>. Richard Michelmore of UC Davis, USA, has been specially invited to present a lecture and there will be a satellite meeting of the Intern. Bremia Evaluation Board. This promises to be a not-to-be-missed conference!

In the fall (Sept. 5-7) the working group on Capsicum and Eggplant has been invited to meet at Warsaw, Poland, for which Katarzyna Niemirowicz-Szczytt and her colleagues have already put out a first announcement, see <http://www.eucarpiaCapsicum07.sggw.pl>. I am convinced

that the venue of the modern facilities of Warsaw Agricultural University will draw many specialists to this conference and I am looking forward to meeting many of you there.

In the year 2008 we anticipate the meeting of the working group on cucurbitaceous crops, in May, in Avignon, France. Michel Pitrat of INRA-Montfavet has agreed to organize the meeting as (one of the) last highlights in his long career in breeding and genetics of vegetable crops, notably cucurbits. In the same year a meeting of the working group on Tomato is scheduled, to be held in the Netherlands, probably in early Spring. This meeting will be organized by Sjaak van Heusden of the Plant Breeding group of Wageningen UR, together with Plantum, the Dutch organisation of Plant Breeding companies. Sjaak has gracefully taken over this burden from Pim Linhout who left WAGUR for one of the vegetable breeding companies.

Finally I have to report that our efforts to bring new life to the carrot working group have failed due to miscommunications. Thomas Nothnagel of BAZ Quedlinburg had accepted my plea to organize this meeting in September 2007, and he had already made all arrangements, even sent out the first circular. But then it transpired that at exactly that same time a meeting was already planned in France: the International Carrot Conference. As this will be the first of such meetings in Europe, and we were not aware of it, we have decided after some hefty discussions to postpone our EUCARPIA meeting to a later year, depending on the possibilities for the BAZ-group to organize it. I am very sorry for this and I wish to express my sincere gratitude and apologies to Thomas and his colleagues. Hopefully we can give it another try in the near future.

Ton den Nijs  
Section Chairman  
December 2007

Provisional programme EUCARPIA Leafy Vegetables Working Group Meeting (April 18<sup>th</sup>-20<sup>th</sup>, Warwick, United Kingdom)

The first two days of the meeting will be held at the main campus of the University of Warwick. The final day will include an optional tour of the Warwick HRI site.

### Wednesday, 18 April 2007

8:00 – 9:00	Registration Poster Set Up	
9:00 – 9:15	Welcome	Prof Dave Pink ( <i>Warwick HRI, Warwick, UK</i> ) Dr Ton den Nijs (Section Chairman)
9:15 – 9:30	Introduction	( <i>Plant Research Int. BV, Wageningen, The Netherlands</i> ) Dr James Monaghan
9:30 – 10:30	Keynote Speaker	( <i>Harper Adams University College, UK</i> ) Leafy Vegetables - where next?
10:30 – 11:00	Coffee Break	

#### *Session 1. Market Development and Quality Traits*

11:00 – 11:30	Improving the shelf life and phyto-nutrition of baby salad leaves using genomic approaches	Prof Gail Taylor ( <i>University of Southampton, UK</i> ) Miss Isabelle M François ( <i>KU Leuven, Belgium</i> )
11:30 – 12:00	Relationship between sensory analysis, destructive measurements and Vis-NIR spectroscopy for chicory ( <i>Cichorium intybus</i> L.)	Dr Mihail Tsiunel ( <i>Research Institute of Greenhouse Vegetable Production, Moscow, Russia</i> )
12:00 – 12:30	Trends in dill breeding	
12:30 – 14:00	Lunch	
14:00 – 14:30	Analysis of the need for biotechnology research on African indigenous leafy vegetables	Dr Ben Ubi ( <i>Ebonyi State University, Abakaliki, Nigeria</i> ) Dr Ivan Tarakanov ( <i>Russian State Agrarian University, Moscow Timiryazev Agricultural Academy, Moscow, Russia</i> )
14:30 – 15:00	Bolting resistance in leafy crops: physiological design of the breeding process	Dr Sylvie Jenni ( <i>Horticultural Research and Development Centre, Agriculture and Agri-Food Canada, Quebec, Canada</i> )
15:00 – 15:30	Screening for resistance to heat stress disorders in lettuce with biplot analysis	
15:30 – 16:00	Coffee Break	
16:00 – 17:30	Poster Session	
17:30 – 19:30	Dinner	

19:30 – 22:30 Meeting on *Bremia lactucae*  
International Bremia Evaluation Board (IBEB)

**Thursday, 19 April 2007**

*Session 2. Genetics and Breeding*

- 9:00 – 9:30 Prof James Correll  
(*University of Arkansas, Fayetteville, Arkansas, USA*)  
Races of the downy mildew pathogen on spinach, genetics of resistance, and efforts to develop molecular markers linked to disease resistance loci  
Dr Beiquan Mou
- 9:30 – 10:00 (*USDA-ARS, Salinas, California, USA*)  
Leafminer (*Liriomyza langei*) resistance in lettuce and spinach  
Dr Alex Beharav  
(*University of Haifa, Haifa, Israel*)
- 10:00 – 10:30 Variation in response to *Bremia lactucae* through natural populations of *Lactuca saligna* collected in Israel
- 10:30 – 11:00 Coffee Break
- 11:00 – 11:30 Oswaldo Ochoa  
(*The Genome Center, University of California, Davis, California, USA*)  
Status of lettuce breeding program at UC Davis: disease resistance  
Prof Dr Ales Lebeda  
(*Palacky University, Olomouc, Czech Republic*)
- 11:30 – 12:00 Race-specific resistance to *Bremia lactucae* in European populations of *Lactuca serriola*  
Dr Paul Hand  
(*Warwick HRI, Warwick, UK*)
- 12:00 – 12:30 Lettuce crop improvement research at Warwick HRI
- 12:30 – 14:00 Lunch
- 14:00 – 14:30 Dr James McCreight  
(*USDA-ARS, Salinas, California, USA*)  
New sources of resistance to lettuce aphid in wild lettuce  
Dr Brigitte Maisonneuve  
(*INRA, Centre d'Avignon, France*)
- 14:30 – 15:00 Screening of genetic resources for resistance to *Xanthomonas axonopodis* pv. *vitians*  
Dr Krishna Subbarao  
(*University of California, Davis, California, USA*)
- 15:00 – 15:30 Verticillium wilts and management with special emphasis on lettuce
- 15:30 – 16:00 Coffee Break
- 16:00 – 16:30 Dr Ryan Hayes  
(*USDA-ARS, Salinas, California, USA*)  
Variation for big vein resistance in *Lactuca virosa* L. and introgression of resistance into cultivated lettuce (*Lactuca sativa* L.)  
Prof Dr Borut Bohanec  
(*University of Ljubljana, Ljubljana, Slovenia*)
- 16:30 – 17:00 Haploid induction in rocket (*Eruca sativa* Mill.)

18:30 Depart University of Warwick  
 19:00 – 23:00 Arrive at The Royal Pump Rooms, Royal Leamington Spa, Warwickshire  
 Dinner @ Conference Dinner  
 20:00 (to include pre-dinner tour of The Art Gallery & Museum)

**Friday, 20 April 2007**

8:00 Depart University of Warwick

8:30 Arrive Warwick HRI

*Session 3: Genetic Resources and Diversity*

8:45 – 9:45 Keynote Speaker Ms Ietje Boukema  
 (*Centre for Genetic Resources, Wageningen University and Research Centre, Wageningen, The Netherlands*)  
 Leafy vegetable genetic resources (title to be confirmed)

9:45 – 10:15 Dr Valerie Cadot  
 (*GEVES, Brion, France*)  
*Cichorium* genetic resources in France: structuration of the collection by phenotypic and ISSR markers

10:15 – 10:45 Dr Rob van Treuren  
 (*Centre for Genetic Resources, Wageningen University and Research Centre, Wageningen, The Netherlands*)  
 Comparison of acquisition strategies of new varieties to extend the genetic diversity of a lettuce collection

10:45 – 11:15 Coffee Break

11:15 – 11:45 Prof Dr Ales Lebeda  
 (*Palacky University, Olomouc, Czech Republic*)  
 Identification of duplicates in *Lactuca* germplasm collections

11:45 – 12:15 Dr Jelka Šuštar-Vozlic  
 (*Agricultural Institute of Slovenia, Ljubljana, Slovenia*)  
 Genetic diversity studies of Slovene autochthonous lettuce (*Lactuca sativa* L.) germplasm by morphological and AFLP markers

12:15 – 12:30 Meeting Closure Prof D Pink  
 (*Warwick HRI, Warwick, UK*)

12:30 – 13:30 BEWLEY LECTURE - Prof Richard Michelmore  
 (*The Genome Center, University of California, Davis, California, USA*)  
 Comparative genomics of disease resistance in plants, particularly lettuce

13:30 – 14:30 Lunch

14:30 Early coach departs for University of Warwick (arrive 15:00)

14:30 – 16:00 Tour of the Site and Gene Bank

16:00 Coach departs Warwick HRI

16:30

Arrive University of Warwick

XIIIth EUCARPIA Meeting on Genetics and Breeding of Capsicum and Eggplant (September 5-7, Warsaw, Poland)

Two days of this three day meeting will be held on the main campus at the Warsaw Agricultural University, in the south part of Warsaw. The meeting will include a one day technical trip. Accommodation will be provided on the main University campus and optionally at the Warsaw downtown hotels.

The scientific programme includes oral and poster presentations on:

- Genetic resources and diversity
- Genetics and breeding for resistance to biotic and abiotic stresses
- Genetics and breeding for quality traits
- Marker development

Abstracts of the presentations will be published in the conference proceedings and on the Internet at the time of the event.

More information on this meeting is available in the web page <http://www.eucarpiacapsicum07.sggw.pl> or from the organizers of the meeting (eucarpiacapsicum07@sggw.pl).

## **SECTION FRUIT**

The twelfth meeting of the Fruit section will be held from September 16 to 20 in 2007 at the Centro de Investigación y Tecnología Agroalimentaria de Aragón (CITA), Zaragoza, Spain.

The aim of this meeting is to bring together scientists from a broad range of disciplines related to fruit breeding and genetics in order to present and discuss the latest achievements in the following topics:

- genetic resources and breeding
- breeding for fruit quality

- breeding for resistance to biotic and abiotic factors
- early selection
- new cultivars

Both oral and poster sessions are planned as well as invited lectures by Drs. Gerardo Llácer, Asaph Arahoni, Philip Forsline and Daniel Esmenjaud to open the different working sessions.

The tentative programme of the meeting is the following:

- Sunday 16 Sept.: Registration in the afternoon and welcome reception at a hotel in downtown Zaragoza
- Monday 17 Sept.: Official inauguration. Oral and poster sessions. Visit to experimental fields. Cocktail party in the open air.
- Tuesday 18 Sept.. Morning and afternoon oral sessions. Evening visit to Aljaferia palace.
- Wednesday 19 Sept. Field visit to Calatayud orchard and nurseries and Monasterio de Piedra.
- Thursday 20 Sept. Morning and afternoon oral sessions. Closing ceremony. Evening Banquet.

The registration fee for is 450 euro for EUCARPIA members and 500 euro for non members. A one day attendance fee of 200 euro also is available. Students have a reduced fee of 250 euro for all the meeting. The fee for accompanying persons is 200 euro. The registration fee will cover admission to all sessions, welcoming reception, social events, symposium lunches, closing banquet, shuttle services Zaragoza-Aula Dei, field excursion, documentation and one copy of the proceedings (excluded students and accompanying persons. The one day attendance fee will cover documentation, attendance, closing banquet and a copy of the proceedings.

More information of the meeting is available at the EUCARPIA web page (<http://www.eucarpia.org>). Queries can be directed to the chairman of the organizing committee Dr. Rafael Socias i Company ([rsocias@aragon.es](mailto:rsocias@aragon.es)).

Rafael Socias

Organizer of the Meeting

January 2007

## **SECTION ORNAMENTALS**

The XXII International Symposium of EUCARPIA – Section Ornamentals was held in Sanremo, Italy (11-15 September 2006). The meeting title was: “Breeding for Beauty”. Local organiser was the CRA-Experimental Institute for Floriculture of Sanremo.

The Symposium brought together about 200 people of breeding companies, science and administration from all over the world. This gave the opportunity to exchange and discuss new results and approaches with the common concern to promote research and practical work in ornamental plant breeding.

Four topics were selected for the Symposium: Exploitation of biodiversity, In vitro manipulation, Molecular methods in genetic improvement, Breeders’ rights: molecular and phenotypical characterization. Nine invited speakers provided state of the art information of these topics, while 18 oral communications, selected by the Scientific Committee, dealt with special aspects. About 80 posters were presented and 17 of them were selected for a short oral presentation. Moreover during the technical visits, some ornamental plant breeding companies from Italy and France gave an insight into their breeding activities.

The International Scientific Committee was composed by:

- T. Schiva CRA - Experimental Institute of Floriculture, Sanremo - Italy (Chairman)
- A. Mercuri CRA - Experimental Institute of Floriculture, Sanremo – Italy (Secretary)
- G. Forkmann Technical University of Munchen, Freising - Germany
- A. Vainstein The Hebrew University of Jerusalem – Israel
- A. Cassells National University of Ireland, Cork – Ireland
- A. Cadic INRA – C.R., Angers – France
- J. van Tuyl Plant Research International, Wageningen – The Netherlands
- E. Van Bockstaele ILVO - Institute for Agriculture and Fisheries Research, Merelbeke - Belgium

We thank the Organizing and the Scientific Committees, who kindly took charge for the running of this Symposium, and the staff involved in preparing the various Symposium



Sunday, 7 October 2007	Arrival, registration and welcome reception
Monday, 8 October 2007	Opening ceremony, Keynote papers, General Assembly
Tuesday, 9 October 2007	Contributed papers, Poster session, Conference dinner
Wednesday, 10 October 2007	Contributed papers, Closing ceremony

The meeting will take place at the Hotel Benczur ([www.hotelbenczur.hu](http://www.hotelbenczur.hu)) in the heart of Budapest. Conference rooms, poster panels, as well as space for exhibitions will be available at site.

Registration fees (before 1<sup>st</sup> June 2007) will be 280 € for EUCARPIA members, 320 € for non-members and 100 € for PhD students. Late/On-Site registration (after 1<sup>st</sup> June 2007) will have an additional fee of 50 €. The registration fees will cover admission to all sessions, conference documents, book of abstracts, welcome party, lunches and refreshments during the meeting. The registration fee excludes conference dinner (50 €) and accommodation.

More information can be obtained from the Conference website (<http://www.altagra.hu/eucarpia>).

Queries on the meeting can be directed to the scientific secretariat or to the conference secretariat:

*Scientific Secretariat:*

Prof. Dr. F. Viranyi  
 Szent István University, Department of Plant Protection,  
 H-2103 Godollo, Pater Karoly u. 1. Hungary  
 e-mail: [viranyi.ferenc@mkk.szie.hu](mailto:viranyi.ferenc@mkk.szie.hu)  
 Fax: +36 28 522 077  
 Phone: +36 28 522 000 ext. 1785

*Conference Secretariat*

For general information or conference registration please contact the Conference Secretariat:  
 Altagra Business Services  
 H-2100 Godollo, Isaszegi ut Pf. 417. Hungary

Phone: +36 28 432 985  
Fax: +36 28 419 647  
e-mail: office@altagra.hu

Ferenc Virányi  
Convener of the Oil and Protein Crops Meeting  
December 2006

### **WORKING GROUP ORGANIC PLANT BREEDING**

The availability of organically produced seed of a selected assortment of ‘conventional’ varieties is increasing. An international workshop on the Organic Seed Regulation organised by the European Consortium for Organic Plant Breeding from 28-29 September 2006 and hosted by Bejo Seeds in Warmenhuizen (NL) showed the progress and the challenges. From 11-13 June 2006 the approaches for organic plant breeding were discussed at a workshop on *Participatory Plant Breeding: relevance for organic agriculture?*, organised by INRA (France) and ECO-PB. From both meetings the proceedings are available online, see <http://www.eco-pb.org>.

The first Meeting of the EUCARPIA Working Group Organic Plant Breeding is planned for 2007, November 7-9 in Wageningen, the Netherlands under the title: *Plant breeding for organic and sustainable, low-input agriculture: dealing with genotype-environment interactions*. The topic areas that will be covered are: Genotype-Environment interaction, Breeding strategies, Genetic diversity, Selection criteria and methods, Participatory approaches. Further details for registration and call for papers are available on the EUCARPIA website.

Edith Lammerts van Bueren  
Working Group Chairperson  
December 2006

## **NEW SECTION CHAIRPERSONS**

Some new Section Chairpersons have been appointed during 2006. Below there is a brief introduction to each of them:

### **Wayne Powell (Cereals)**

Dr. Wayne Powell is currently Director and Chief Executive Officer of the National Institute Agricultural Botany (NIAB), Cambridge UK. Previously he was Professor and Foundation Head of the School of Agriculture and Wine, University Adelaide, Australia. He was Deputy Director of the Scottish Crop Research Institute (SCRI), Dundee, UK, from 2000-2004 and was responsible for leading and facilitating the development of the Institute's scientific vision, with overall responsibility for the Institute's research programmes. Between 1998 and 2000 Professor Powell worked at the DuPont Company in Wilmington, Delaware, USA, where he gained exposure and experience of operating in a global private sector organisation. Most recently he has been involved in reviewing crop science research sponsored by the Consultative Group for International Agricultural Research (CGIAR) in Latin America, Africa and the Near East. He has also been a member of the external review teams for VIB (Belgium), Rothamsted (UK), INRA (France) and CSIRO (Australia). Recent appointments include: Chairman Program Advisory Committee for the Generation Challenge Program of the Consultative Group International Agriculture and Honorary Research Fellow, CIMMYT, Mexico. Professor Powell is an Honorary Professor at Heriot-Watt University, Edinburgh, UK and has served as an external examiner in genetics for the University of Wales and the University of Birmingham. His personal research interests are at the interface of plant genetics, genome science, plant breeding and conservation of genetic resources with a strong emphasis on the delivery of 'public good' outcomes. He has published over 225-refereed scientific papers, presented numerous invited papers at international meetings and successfully supervised 20 PhD students and numerous visiting workers. He maintains an active research group, continues to write grants to support his research from a diverse range of funding sources and has an extensive international network of collaborators and contacts.

### **Beat Boller (Fodder Crops and Amenity Grasses)**

Dr. Beat Boller is a forage grass and clover breeder. Since 1989, he leads the fodder crop breeding group of Agroscope Reckenholz-Tänikon, a federal research station located in Zurich, Switzerland. The Reckenholz breeding programme covers a wide range of temperate forage

grasses and clovers, with a focus on ryegrasses and red clover. Until 2006, Beat Boller registered 47 new varieties from 10 forages species, most of which are listed in several European countries. His breeding programmes are based almost exclusively on Swiss genetic material, ecotypes and landraces. Recurrent selection is focussed on disease resistance and benefits from strong natural disease pressure in the breeding nurseries at Reckenholz, as well as from systematic inoculation with important diseases, such as *Xanthomonas translucens* pv. *graminis* causing bacterial wilt in ryegrasses and fescues. The varieties are often characterized by particularly strong spring growth and rapid regrowth under an intensive cutting regime. Besides his activity as a practical plant breeder, Beat Boller conducts research in the field of forage plant genetic resources and leads the ECP/GR working group on forages. He initiated the EUCARPIA multisite rust evaluation trial in which a wide range of cultivars is tested in three year intervals at over 30 sites throughout Europe, with the aim of monitoring spatial and temporal patterns of resistance against races of crown rust.

#### **Csaba L. Marton (Maize and Sorghum)**

Dr. Csaba L. Marton has been the head of Maize Breeding Department since 1987 and the scientific deputy director of the Agricultural Research Institute of the Hungarian Academy of Sciences in Martonvásár, Hungary since 2004. He has 28 years' experience in maize breeding with special regard to tolerance of maize to both biotic and abiotic stresses. His group is dealing also with utilization of genetic markers in maize breeding. He is co-author of 77 scientific articles and co-breeder of 95 registered maize hybrids. He was the coordinator of the FAO Breeding Maize for Disease Resistance Subnetwork and contributed to the activity of the Coordination Center of the Joint Breeding Program of COMECON Countries in the 80's.

#### **Jaap M. van Tuyl (Ornamentals)**

Dr. Jaap Van Tuyl is a breeder/geneticist of bulbous and ornamental plants who directs the bulbous program at the Plant Research International Wageningen University and Research Center, the last 30 years. He has experience in the commercial ornamental industry as a flower breeder and a specialist in interspecific hybridization. His areas of expertise include interspecific hybridization, polyploidisation, in vitro pollination and embryo rescue techniques, development of molecular marker techniques in lily and tulip, resistance breeding, flower longevity and genetic resources of bulbous plants. Ornamental breeding projects are carried out in cooperation with many Dutch and international companies. His research

program is focused on interspecific hybridization disease resistance chromosome painting and molecular marker techniques of flower bulbs.

### **Ferenc Virányi (Oil and Protein Crops)**

Dr. Ferenc Virányi is a full professor at the Szent István University, Gödöllő, Hungary. He has been leading the Plant Pathology Group within the Department of Plant Protection since 1995 and he is also acting as head of the Crop Sciences PhD School (incl. Plant Genetics, Breeding and Biotechnology, Plant Protection, as well as Plant Production). Dr. Virányi's scientific career began in 1966 when he was appointed as researcher at the Plant Protection Institute, Hungarian Academy of Sciences, where he held various positions over the 29 years. He has a 40 years' experience in fungal plant pathogens in general and more than 30 years in sunflower pathology in particular. Dr. Virányi has been the active member of the FAO European Research Network on Sunflower, leading the sub-working group Sunflower Diseases for many years. Among his scientific interests are the nature and mechanisms of plant resistance to fungal pathogens in the focus. He is actively involved in sunflower resistance tests and breeding against fungal pathogens, especially the downy mildew, *Plasmopara halstedii*. Thus, he and his group are actively taking part in the official resistant tests of sunflower breeding materials (hybrids, lines) to be registered in Hungary.

## BIOEXPLOIT INTEGRATED PROJECT

EUCARPIA participates as a partner in the EU Framework 6 Integrated Project BIOEXPLOIT (Exploitation of natural plant biodiversity for the pesticide-free production of food). This project commenced in October 2005 and comprises 45 laboratories from 12 countries and is led by Professor Jaap Bakker from Wageningen University, The Netherlands.

### The BIOEXPLOIT objectives

The aim of the Integrated Project BIOEXPLOIT is to force a break-through in exploiting natural host plant resistance by developing efficient and rational breeding strategies using genomics and post-genomics tools. Two strategies are followed to design new resistant varieties: i) marker-assisted breeding and ii) genetic engineering. In the shade of the discussions on GMOs, marker-assisted breeding has gone through a silent revolution and has become a realistic option for developing new varieties with multiple resistances. The development of high through-put technologies for selecting plants at the seedling stage will shorten the time between the first cross involving wild species and introduction on the market considerably, for some crops even with 50%. Genetic variation in wild accessions of crop species and in their wild relatives is still largely unexplored.

The BIOEXPLOIT integrated project addresses four strategic objectives:

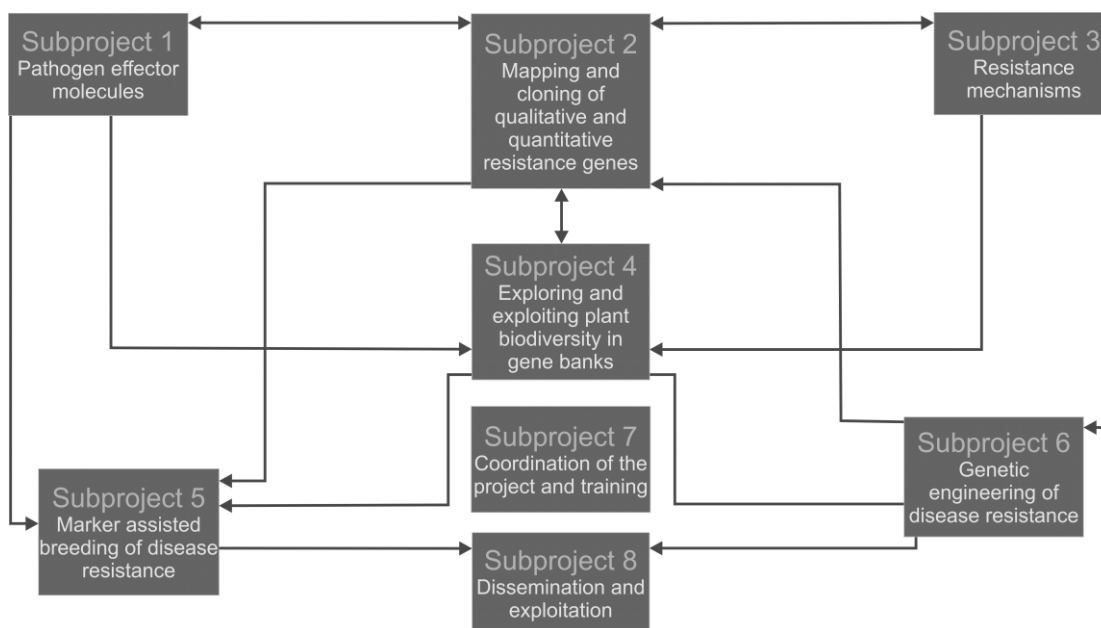
- 1) To understand the molecular components involved in durable disease resistance
- 2) To explore and exploit the natural biodiversity in disease resistance
- 3) To accelerate the introduction of marker-assisted breeding and genetic engineering in the EU plant breeding industry
- 4) To coordinate and integrate resistance breeding research, to provide training in new technologies, to disseminate the results, and to transfer knowledge and technologies to industry

BIOEXPLOIT focuses on wheat and potato - the two most important staple crops for all consumers in the EU - for which pesticides, mainly fungicides, are indispensable at the moment. Despite their importance as food crops for Europe, investments in genomics and post-genomics research on wheat and potato have been severely lagging behind when compared with rice or even tomato. In addition, wheat and potato have not been the favourite plant species of the scientific community to unravel disease resistance, and, as a consequence, basic knowledge and tools to design new resistances are often poorly developed. The coming years a critical mass on genomics research in wheat and potato will be essential to strengthen the competitiveness of European SMEs.

BIOEXPLOIT has translated the strategic objectives into eight research objectives, which represent the subprojects in the integrated project:

- **Subproject 1** identifies targets for durable resistance by analysing effector molecules from the oomycete *Phytophthora infestans* in potato and from the fungal mildew and rust pathogens in wheat;
- In **Subproject 2** mapping, isolation and characterisation of genes responsible for qualitative and quantitative disease resistance in potato and wheat is taking place;
- **Subproject 3** is unravelling the molecular mechanisms underlying innate resistance to plant pathogens;

- In **Subproject 4** the natural biodiversity on genetic loci associated with disease resistance in wheat and potato accessions (and identified in subproject 2) is being explored in European genebanks;
- All subprojects mentioned above feed into **Subproject 5** in which disease resistance in potato and wheat is being increased through marker-assisted breeding (MAB);
- In **Subproject 6** knowledge from upstream subprojects is integrated to increase disease resistance in potato and wheat through genetic engineering;
- In **Subproject 7** a programme is being developed to provide training and workshops for researchers, breeders, research managers, industrial executives and other potential users of the innovative disease resistance breeding technologies;
- The activities in **Subproject 8** are focussed on the dissemination and exploitation of project results, and to transfer technology to industry.



This diagram describes the work flow between the subprojects in the BIOEXPLOIT integrated project

### The BIOEXPLOIT consortium:

The BIOEXPLOIT project integrates the effort of 43 organizations from 15 different countries. From these organizations, 68 research laboratories are active in BIOEXPLOIT making up a unique assembly of scientific and technological specializations (e.g. plant pathologists, population geneticists, molecular biologists, molecular and classical plant breeders from academia, research institutes, SMEs and industry).

### What's news and noteworthy from BIOEXPLOIT's first year: work performed and results achieved

#### Subproject 1: Fungal effector molecules

In the first year of the project useful resources and systems have been developed towards isolation and characterization of fungal and oomycete effector genes particularly avirulence genes. In the potato pathogen *Phytophthora infestans* avirulence genes were identified by

association genetics and by combining data obtained by genetic mapping, marker landing on BAC contigs and transcriptional profiling. For two proteins functional characterization using co-bombardment, binary PVX expression, agroinfiltration and/or complementation of virulent strains was successful. From the tobacco pathogen *Phytophthora parasitica*, the barley pathogen *Blumeria graminis* and the wheat pathogen *Mycosphaerella graminicola* EST libraries were generated. By applying various bioinformatics tools the EST data were analysed and compared to ESTs obtained from pre-infection stages of the pathogen. All together these EST libraries are valuable resources for selection of putative effectors.

The most current theory predicts that virulence which is not required for infection of the host plant will reduce the fitness of the pathogen. Tests were done to determine whether or not there are fitness costs associated with unnecessary virulences in fungal pathogens. The effects of environmental conditions (temperature and inoculation density) on costs of virulence were also studied.

### **Subproject 2: Mapping, isolation, and characterization of R genes and QTLs**

The key to the characterisation of disease resistance from novel germplasm sources is first, is to identify resistance in the germplasm chosen for study and the spectrum of pathogen isolates against which it is effective and second, is to genetically dissect the resistance to determine whether it is likely to be unique or novel. The first largely involves pathogen screening, the second, much more time consuming component involves making crosses between different parents, generating some form of inbred or immortal progeny (clones for potato, DH, RILs or ILLs for wheat and barley), distributing these populations to the relevant partners and the parallel activities of testing the progeny for reaction to the chosen pathogen while genotyping all of the individuals with molecular markers to allow the resistance phenotype to be linked to the genetic map. In the first 12 months of the project activities have largely focussed on these two activities and completing the genetic analysis of the populations that were brought to the project by the individual partners.

Disease resistance (*R*) genes have been identified in different plant species and belong to several classes and subclasses of multigene families; the most important being the NBS-LRR class of *R* genes. The research in the first year also aimed to study the organization and evolution of homologs of *R* genes (RGA) in potato and wheat. The strategy used consists of data mining of RGA from available sequence data (in both species), analysis of RGA sequence data and resolving genetic and physical organization of these RGA. This is of particular interest as it allows comparison of the organization and evolution of RGA between a monocot (wheat) and a dicot (potato) species, representing important corps. It facilitates identification of specific genes of interest (RGA-based genetic markers and identification BAC clones containing RGA).

RGA clusters include members with high structural similarity but with totally different recognition specificity. To resolve the evolution of recognition specificities in R proteins we used computer aided modelling of domains in the R protein structures. In the first year, BIOEXPLOIT focussed on the LRR domain for structure analysis.

### **Subproject 3: Disease resistance mechanisms**

In BIOEXPLOIT's first year, useful resources and systems have been developed towards identification and characterization of the molecular components in pathogen recognition complexes and disease resistance signalling. Some candidate interactors with the model R-

and Avr-proteins have been already isolated in pilot experiments, suggesting the robustness and feasibility of our approaches. Further screening of such interactors is being extensively performed in different systems at present. The biological significance of these interactions will be subsequently examined. The results will provide the knowledge about the constitution of the pre-recognition R protein complexes and the role of pathogen effectors in pathogen recognition and the activation disease signalling pathways.

#### **Subproject 4: Exploring natural biodiversity**

For the genotypic analyses in order to be able to define customised core collections in European genebanks the activities in the first year was mainly focused at the screening for allelic variance of cloned R genes, the definition of the preliminary core collections of wheat and potato and the assembly of marker data linked to resistance loci. Furthermore, phenotypic analyses and functional characterisation of allelic variance in customised core collections the work was divided into the development of efficient screening methods for fungal disease resistance and evaluation of new resistance sources in potato, wheat and barley.

Preliminary core collections for potato and wheat are currently being prepared. The integrated database, based upon the Germinate database, is under construction.

#### **Subproject 5: Marker-assisted breeding**

The aim of this subproject is to develop and validate high throughput marker technologies and molecular markers associated with disease resistance loci for commercial marker-assisted breeding and to select molecular markers linked to resistance gene loci for conversion into simple PCR markers to be used by breeding companies. The BIOEXPLOIT project has selected a 'starter set' of easily accessible, promising markers for the early stage of the project, representing various marker types. These will be tested for segregation in the germplasm, before being converted to high throughput (HTP) format.

With the aim to accelerate the introduction of marker-assisted breeding in the EU plant breeding industry, the project specifically focuses on pyramiding major *R* genes and QTL by marker assisted breeding approaches, as opposed as by genetic engineering (SP6), into elite materials. First, the project focussed on resistance sources already identified in other projects, while sources identified and genes mapped in upstream subprojects are expected to be integrated at a later stage.

#### **Subproject 6: Genetic engineering**

Intra- and intermolecular interactions within larger complexes of R proteins and other interactors determine the disease recognition specificity. The activities in subproject 6 in the first year aimed to modify R gene recognition specificities by in vitro mutagenesis to generate broader spectrum effectiveness by genetic engineering. Most of the R proteins found to date belong to the so-called CC-NB-LRR class and with the work done in this subproject, we successfully modified the recognition specificity of an R protein through random mutagenesis of the LRR domain from this class of R proteins. It was the first finding of an induced shift in recognition specificity of *R* proteins. The finding – as a proof of concept - will have significant impact on the potential to engineer new disease resistance specifically tuned towards the recognition of effector proteins that are essential for the fitness of a pathogen..

**For the latest information on Subproject 7: Training and Subproject 8: Dissemination**

**and exploitation** see the project website at <http://www.bioexploit.net>.

### **Perspectives:**

The first step towards the major goal to push breeding for resistance in potato and wheat from traditional breeding to breeding by design has been made. Detailed molecular analysis of pathogens (SP1) and plants (SP2, SP3) will provide insight in the mechanisms that lead to “boom and bust” cycles in modern agriculture and will without doubt eventually lead to a more effective exploitation of resistance sources (SP4, SP6). Together with a major investment in developing high throughput marker technologies for genome characterisation and molecular breeding in diploid and polyploid genotypes, BIOEXPLOIT will not only accelerate ongoing breeding programs, but also streamline the screening of the genetic resources of wheat and potato stored in gene banks. A unique feature of BIOEXPLOIT is that a wide range of specialists (breeders, plant pathologists, geneticists, molecular biologists, SME’s, etc) are brought together in a single project. During the first year it already became clear that there will be a substantial benefit from the synergy between these different “worlds”.

## NEWS FROM THE EUCARPIA SECRETARIAT

### New EUCARPIA members

The executive committee is pleased to welcome the following new members (since January 2006) in our association:

#### List of new individuals:

<b>ALBANIA</b>	<b>ELEZI F.</b>	Tirana
<b>ARGENTINA</b>	<b>DAORDEN M.E.</b>	San Pedro - Buenos Aires
<b>AUSTRIA</b>	<b>GRAUSGRUBER H.</b>	Vienna
<b>BELARUS</b>	<b>HARDZEI S.</b>	Zhodino
	<b>URBAN E.</b>	Zhodino
<b>BELGIUM</b>	<b>GEELEN D.</b>	Gent
	<b>MAENHOUT S.</b>	Gent
	<b>OPRINS J.</b>	Rijkevorsel
	<b>RAES R.</b>	Destelbergen
	<b>VAN LABEKE M.C.</b>	Gent
	<b>VELLE R.</b>	Oedenburg
	<b>ZWART R.</b>	Melle
<b>BOSNIA AND HERZEGOVINA</b>	<b>KNEZOVIC Z.</b>	Mostar
<b>BRAZIL</b>	<b>LOGES V.</b>	Recife
	<b>NASCIMENTO JUNIOR A.D.</b>	Passo Fundo
<b>BULGARIA</b>	<b>KRASTEVA L.</b>	Sadovo, Plovdiv
	<b>TSANEV V.</b>	Sofia
<b>CANADA</b>	<b>SOLEIMANI V.</b>	Ottawa
<b>CROATIA</b>	<b>BARIC M.</b>	Zagreb
	<b>CUPIC T.</b>	Osijek
	<b>KERESA S.</b>	Zagreb
	<b>SAFNER T.</b>	Zagreb
	<b>SARCEVIC H.</b>	Zagreb
	<b>TUCAK M.</b>	Osijek
<b>CZECH REPUBLIC</b>	<b>KUCHTOVA P.</b>	Lednice
	<b>MATISKA P.</b>	Prague
	<b>MORAVCOVA H.</b>	Troubsico
	<b>VYMYSLICKY T.</b>	Troubsico
<b>DENMARK</b>	<b>LANGE M.</b>	Slagelse
	<b>STORGAARD M.</b>	Valby
	<b>VAERBAK S.</b>	Marslev
	<b>VINCZE E.</b>	Slagelse
<b>ECUADOR</b>	<b>QUIÑONES A.M.</b>	Quito
<b>ESTONIA</b>	<b>TUPITS I.</b>	Jogeva Alevik
<b>ETHIOPIA</b>	<b>AYANA NEGASH G.</b>	Bako
<b>FRANCE</b>	<b>BAULAND C.</b>	Gif sur Yvette
	<b>BURSTIN J.</b>	Bretenieres
	<b>CHARMET G.</b>	Clermont Ferrand
	<b>CILAS C.</b>	Montpellier
	<b>LADSOUS O.</b>	Mont de Marsan
	<b>PELTIER D.</b>	Angers
	<b>PERNET A.</b>	Beaucozé
	<b>SEGURA V.</b>	Montpellier

<b>GERMANY</b>	<b>COUPLAND G.</b>	Köln
	<b>DAVIS S.</b>	Köln
	<b>GEBHARDT C.</b>	Köln
	<b>GERTZ A.</b>	Einbeck
	<b>HARTL L.</b>	Freising
	<b>KOORNNEEF M.</b>	Köln
	<b>LOHWASSER U.</b>	Gatersleben
	<b>MÜNSTER T.</b>	Köln
	<b>PEROVIC D.</b>	Aschersleben
	<b>SAEDLER H.</b>	Köln
	<b>SCHMIDT T.</b>	Erfurt
	<b>SCHOOOF H.</b>	Köln
	<b>SOMSSICH I.</b>	Köln
	<b>VAN DER HOORN R.</b>	Köln
	<b>WEBER G.</b>	Stuttgart
	<b>WILLNER E.</b>	Malchow
	<b>GHANA</b>	<b>AMEYAW BOATENG Y.</b>
<b>GREECE</b>	<b>BEBELI P.</b>	Athens
	<b>KAPAZOGLOU A.</b>	Thermi-Thessaloniki
	<b>KARAYIANNIS I.</b>	Naoussa
	<b>KATSIOTIS A.</b>	Athens
<b>HUNGARY</b>	<b>BORONKAY G.</b>	Budapest
	<b>JAMBOR-BENCZUR E.</b>	Budapest
	<b>PINTER J.</b>	Martonvásár
	<b>VIRANYI F.</b>	Gödöllő
	<b>CHAUDHARY H.K.</b>	Palampur
<b>INDIA</b>	<b>GUPTA PUSHPENDRA K.</b>	Meerut
	<b>RAO G.P.</b>	Gorakhpur
<b>IRAN</b>	<b>EBRAHIMI M.</b>	Karaj
	<b>GHAREYAZIE B.</b>	Karaj
	<b>HABASHI A.A.</b>	Karaj
	<b>HOSSEINI SALEKDEH G.</b>	Karaj
	<b>MAJIDI-HERVAN E.</b>	Karaj
	<b>MARDI M.</b>	Karaj
	<b>MOFID M.R.</b>	Isfahan
	<b>SALEHI JOUZANI G.R.</b>	Karaj
	<b>SHAKIB A.M.</b>	Karaj
	<b>TOHIDFAR M.</b>	Karaj
	<b>VATANPOUR AZGHANDI A.</b>	Karaj
<b>IRELAND</b>	<b>GRIFFIN D.</b>	Carlow
	<b>MILBOURNE D.</b>	Carlow
<b>ITALY</b>	<b>AVERSANO R.</b>	Portici
	<b>CARPUTO D.</b>	Portici
	<b>FAEDI M.</b>	Forli
	<b>MASCI S.</b>	Viterbo
	<b>MERCURI A.</b>	San Remo
<b>KAZAKHSTAN</b>	<b>ABDULLAYEV K.</b>	Astana
<b>KOREA</b>	<b>HYE KYUNG R.</b>	Suwon
<b>LATVIA</b>	<b>ROSTOKS N.</b>	Riga
	<b>SJAKSTE T.</b>	Salaspils
<b>MALAYSIA</b>	<b>ABDUL AZIZ F.</b>	Kuala Lumpur

<b>MEXICO</b>	<b>NOORDIN N.</b>	Kajang
<b>NEPAL</b>	<b>BARBA GONZÁLEZ R.</b>	Guadalajara, Jalisco
<b>NETHERLANDS</b>	<b>SARAD BABU G.C.</b>	Kathmandu
	<b>DE HAAS-VAN DIJK M.J.</b>	De Lier
	<b>D'HOOP B.</b>	Wageningen
	<b>MALOSETTI M.</b>	Wageningen
	<b>SCHUT J.W.</b>	Wouw
<b>NIGERIA</b>	<b>ADETUMBI J.A.</b>	Ibadan
	<b>ALIYU B.</b>	Yola
<b>NORWAY</b>	<b>BUNDGAARD K.</b>	Ilseeng
<b>P.R. CHINA</b>	<b>CHEN LONGQING</b>	Wuhan
	<b>HU ZAN-MIN</b>	Beijing
	<b>YU JINGJUAN</b>	Beijing
<b>PAPUA NEW GUINEA</b>	<b>OKPUL T.</b>	Lae
<b>POLAND</b>	<b>KUBICKA H.</b>	Warsaw
	<b>MARCZEWSKI W.</b>	Młochów
	<b>SIODMIAK J.</b>	Stupia Wielka
<b>PORTUGAL</b>	<b>REIS MENDES MOREIRA P.M.</b>	Coimbra
<b>ROMANIA</b>	<b>ANTOHE I.</b>	Branesti
	<b>GAVAT C.</b>	Constanta
	<b>MARTURA T.</b>	Fundulea
	<b>STRAJERU S.</b>	Suceava
	<b>KATIC S.</b>	Novi Sad
<b>SERBIA</b>	<b>KLOPPER J.</b>	Potchefstroom
<b>SOUTH AFRICA</b>	<b>MIENIE C.M.S.</b>	Potchefstroom
	<b>ALVARO SANCHEZ F.</b>	Lleida
	<b>ARNEDO ANDRÉS M.S.</b>	Zaragoza
	<b>CABALLERO L.</b>	Córdoba
	<b>CAMARA HURTADO M.</b>	Madrid
	<b>DELEU W.</b>	Cabrils
	<b>GARCÉS CLAVER A.</b>	Zaragoza
	<b>GODAY A.</b>	Barcelona
	<b>JAMILENA M.</b>	Almeria
	<b>LEON L.</b>	Córdoba
	<b>MARTIN CUEVAS A.</b>	Córdoba
	<b>SANCHEZ MATA M.C.</b>	Madrid
	<b>SANDOYA-MIRANDA G.V.</b>	Pontevedra
	<b>SOLIS MARTEL I.</b>	Sevilla
<b>SWITZERLAND</b>	<b>HUND A.</b>	Zurich
<b>SYRIA</b>	<b>SARKER A.</b>	Aleppo
<b>TUNISIA</b>	<b>GHARIANI S.</b>	El Manar
	<b>RAIES A.</b>	Tunis
	<b>TRIFI-FARAH N.</b>	El Manar
<b>TURKEY</b>	<b>ARI E.</b>	Antalya
	<b>BUDAK H.</b>	Istanbul
<b>UK</b>	<b>AMBROSE M.</b>	Norwich
	<b>GRIFFITHS S.</b>	Norwich
	<b>HACKETT C.A.</b>	Dundee
	<b>HARWOOD W.</b>	Norwich
	<b>INGELBRECHT I.L.</b>	Croydon
	<b>MACKAY I.J.</b>	Cambridge

<b>USA</b>	<b>MORGAN C.</b>	Norwich
	<b>OSTERGAARD L.</b>	Norwich
	<b>THOMAS W.Y.B.</b>	Dundee
	<b>ABBOTT A.G.</b>	Clemson
	<b>GREENE S.</b>	Washington
	<b>MACKAY W.</b>	Dallas
	<b>MORAGUES CANELA M.</b>	New York
	<b>WALSH B.</b>	Tucson
	<b>ZHEBENTYAYEVA T.</b>	Clemson

#### **New corporate members:**

<b>BELGIUM</b>	<b>OPRINS PLANT NV</b>	Rijkevorsel
<b>CROATIA</b>	<b>DEP. PLANT BREEDING, GENETICS AND BIOMETRICS (UNIV. ZAGREB)</b>	Zagreb
<b>FRANCE</b>	<b>MAISADOUR SEMENCES</b>	Mont de Marsan
<b>GERMANY</b>	<b>MAX PLANCK INSTITUTE FOR PLANT BREEDING RESEARCH</b>	Köln
<b>IRAN</b>	<b>AGRICULTURAL BIOTECHNOLOGY RESEARCH INSTITUTE OF IRAN</b>	Karaj
<b>ITALY</b>	<b>C.R.A. ISTITUTO SPERIMENTALE PER LA FRUTTICOLTURA</b>	Forli

#### **Membership fees**

Invoices for the 2007 membership will be issued in April. The membership fee for individual members is € 40 for members of Western Europe and developed countries from elsewhere outside Europe, € 30 for EU members of Eastern Europe and € 20 for members of other Eastern Europe countries (this special rate may also applied to some developing countries outside geographical Europe). The fee of corporate members is € 300.

In face of increasing bank costs, payment of membership fees by credit card (Visa/JCB, Eurocard/Mastercard) is strongly encouraged, as this is cheapest both for members and for EUCARPIA. Now the EUCARPIA membership fee can be also paid with a credit card through the Secure online system. For bank transfers, please use the following details, which corresponde to the EUCARPIA account in Spain: **IBAN:** ES67 2013 1122 0802 0019 9729  
**BIC:** CESCESBBXXX

#### **Membership privileges**

##### *Individual membership*

Among others, advantages of being member of EUCARPIA include:

-Reduction ( $\geq 40$  €) in the registration fee for events (General congress, symposia, meetings, etc.) organized by EUCARPIA.

-Reduced rates for the annual subscriptions to plant breeding journals: *Euphytica* (95 €), *Plant Breeding* (77 €), *Molecular Breeding* (105 €), *Theoretical and Applied Genetics* (264 €) and *Genetic Resources and Crop Evolution* (105 €) and discounts in the publications edited by EUCARPIA.

-Participation in the EUCARPIA sections of your interest (or in all if you wish).

-Reception of the EUCARPIA Bulletin, with information on EUCARPIA activities, publications, dates and information of symposia, meetings and events related to plant breeding, etc.

-Membership certificate issued by the EUCARPIA Secretariat

-Other advantages, like the facilitation of the international cooperation, exchange of methods and plant material, etc.

### *Corporate membership*

Apart from the privileges entitled to individuals, Corporate members (Institutes, Departments, Companies, Associations, Societies, etc.) have the following additional privileges:

-Possibility of enlisting up to 10 individual members associated to the corporate membership for free.

-A link to the web page of the Institution can be posted in the web page of EUCARPIA (<http://www.eucarpia.org>). This web page is visited mainly by breeders and receives many hits per day.

### **EUCARPIA Bulletin**

The EUCARPIA Bulletin No. 35 will probably be printed in January 2008. If you would like to publish information about congresses, meetings, publications, section news or any other information relevant to other members, please send in your contribution to the Secretariat by **December 1, 2007**.

### **Scientific journals at reduced rates for individual members of EUCARPIA**

Agreements between EUCARPIA and two publishers (Springer and Blackwell) have been reached offering individual members of EUCARPIA a personal subscription to the scientific journals *Euphytica*, *Plant Breeding*, *Molecular Breeding*, *Theoretical and Applied Genetics* and *Genetic Resources and Crop Evolution* at very special reduced rates. Subscription prices of these journals for 2007 for EUCARPIA members are the following:

Springer Journals:

*Euphytica*: 95 €

*Molecular Breeding*: 105 €

*Theoretical and Applied Genetics*: 264 €

*Genetic Resources and Crop Evolution*: 105 €

New subscriptions to these journals can be made by contacting Mrs. Claudia Kern (Claudia.Kern@springer.com) and requesting the special prize for EUCARPIA members. Members already subscribed will receive a renewal form from Springer.

Blackwell Journals:

*Plant Breeding*: 77 €

New subscriptions to this journal can be made in the journal's web page (<http://www.blackwellpublishing.com/journal.asp?ref=0179-9541>) using the special subscription for EUCARPIA members. Members already subscribed will receive a renewal form from Blackwell.

**<http://www.eucarpia.org>**

The web-site of EUCARPIA (<http://www.eucarpia.org>) is updated on a regular basis. Information on all the forthcoming EUCARPIA events, on EUCARPIA publications, as well as on its Sections is included in the web page. The web page also includes an online payment system which can be used as an alternative to the traditional system of making a bank transfer or sending the credit card details by regular mail or fax. Also, there is a section with links to the web pages of EUCARPIA Corporate members. For contributions, updates, suggestions or comments please contact the Secretariat (E-mail: [eucarpia.secretariat@ivia.es](mailto:eucarpia.secretariat@ivia.es)). The web-site is the most cost-efficient tool to deliver up-to-date information about EUCARPIA both to members as well as to non-members of the association.

**Address of EUCARPIA Secretariat**

The address of the EUCARPIA Secretariat is: Dr. María L. Badenes, Instituto Valenciano de Investigaciones Agrarias, Apartado Oficial, E-46113 Moncada (Valencia), Spain (Tel.: +34 963424049; Fax: +34 963424106; e-mail: [eucarpia.secretariat@ivia.es](mailto:eucarpia.secretariat@ivia.es)).

María L. Badenes

EUCARPIA Secretary General

# MINUTES OF THE EXECUTIVE COMMITTEE MEETING

**Budapest, Hungary, 20 June 2006**

Participants: Prof. J. Prohens Tomás, Prof. E. Jacobsen, Dr. B. Boller, Prof. Z. Bedö, Dr. M.L. Badenes, and Prof. P. Ruckebauer. Prof. Virányi Ferenc was invited as observer.

1. Welcome and opening by the president
2. Section affairs and in particular the programmed section activities have been discussed. It was concluded that almost all activities for 2006 and 2007 were in the right time schedule and in a good shape with respect of (planning) announcements and more details. In total 7 section meetings were scheduled for 2006 and in addition one working group meeting. For 2007 two section meetings and 3 working group meetings are foreseen at present. The first working group meeting on Organic Breeding in Wageningen, the Netherlands was shortly discussed. In 2008 the General Congress will take place and it is foreseen that no other section or working group meetings that might interfere with the General Congress will be organized.

A suggestion by Dr Ton de Nijs to stimulate the initiation of a small working group on strawberry with researchers from at least Spain, France, Netherlands and UK was discussed; the viability and convenience of establishing this working group will be evaluated. The need of a working group on Forestry has been discussed in relation to the new EU energy policy on biomass production. Homework will be made to stimulate researchers from countries like Switzerland, Spain, Portugal, Finland and Germany. The problem of some section meetings of 2005 which are still missing proceedings has got attention, the chairman will keep contact with the organizers in order to solve this problem. A lot of attention has been paid to the present situation in the Oil and Protein Crops Section. The last section meeting was held in 1998 and despite a lot of contacts, no section meeting was held until today. A few months ago, a section meeting was suddenly announced for June 2006, but a few weeks ago the section meeting was postponed because of lack of participants. In May, Prof. Prohens, in consultation with the past president Prof Ruckebauer, has decided to ask Prof Viranyi to take over the leadership of the section in order to organize for 2007 a scientific section meeting. Given that no election of chairman of this section has taken place since 2001, and this contravenes the statutes, it was decided unanimously to nominate Prof. Viranyi as acting chairman until the next meeting of the section in

which an election can take place. This proposal has been thoroughly discussed in the executive committee. The conclusion was that it is very important to start as soon as possible the activities of the section. One of the reasons is that at the moment biofuels and biobased economy in the EU is highly stimulated and that it is important that this type of new scientific activities has to be discussed in this section. Prof Viranyi was present during this part of the meeting and he accepted the request from the executive committee to act as a chairman this year and the coming year in order to organize the next scientific section meeting including the election of a new chairman.

3. Prof Boller gave an overview of the current financial situation by showing the results of 2005 and the developments of the running year 2006. Most important conclusion is that the incomes are bigger than the costs because of the low costs of the secretariat in Valencia. The financial situation is, therefore, very healthy.
4. The requests of subsidies have shortly been discussed. It was decided that in the case of the joint Potato section meeting with EAPR the subsidy can be used for sponsoring young EUCARPIA members.
5. The recruitment of new members was discussed. It was decided that non-member participants of EUCARPIA meetings will be invited to be a member for free for one year. Thereafter, they can decide to go on as paying member or not. This way of recruitment appears to be very fruitful in other scientific associations.
6. The secretariat is running very well. It is at the moment so organized that e-mails are answered at a very regular base and that the website is updated every two weeks if needed. Member fee payments are also made at a very regular base and every year more members are paying on line. There were until June 2006 57 new individual members and 4 new corporate members registered. The number of cancellations was 34. At the moment 1049 active members are registered. There are more and more new members coming from outside Europe. A new source of recruitment of new members is contacting authors of scientific papers in breeding journals. Last year over 2000 persons were contacted by mail. Another new source of members is the subscription of scientific journals based on the agreements with Springer, Blackwell and CABI. At the moment, agreements for 6 journals has been developed. The newest one is with Springer about Genetic Resources and Crop Evolution.
7. The 50<sup>th</sup> anniversary of EUCARPIA will be at the 2th of July 2006. The original idea to come to a special issue on Modern Developments in Plant Breeding in *Euphytica* failed. It was decided to come to a special Bulletin containing the history of

EUCARPIA and to prepare a new list of all members of EUCARPIA. Both booklets will be sent to all members. The draft of the special Bulletin will first be sent to the executive committee and the section chairmen for additional input of information and visualization.

8. The Congress of 2008 has shortly been discussed. It will be organized in September at the facilities of the University of Valencia. Reservations will be made for 450 participants. In September 2007 the Spanish congress on Plant Breeding will be organized in the same conference facilities, which are for free available. Over 200 participants are expected and this occasion is a good test the effectiveness of the organization body and travel agency involved in both occasions. The theme of the 2008 EUCARPIA Congress is “Modern Variety Breeding for the Present and the Future”.
9. The EU BioExploit project in which EUCARPIA for the feedback is involved in one of the working packages has been discussed including some financial questions that have to be answered.
10. EUCARPIA has been invited to be represented in a round table discussion during the 5<sup>th</sup> Plant GEMS meeting in Italy. It was decided that Prof. Rückenbauer will be representing EUCARPIA in this round table discussion.
11. Other business. The position of EPSO in connection with other scientific organizations like EUCARPIA has been subject of discussion. It was decided that a more regular contact is needed.

The minutes of the June 2006 Executive Committee Meeting were approved by E-mail in July 2006.

## EUCARPIA MEETING CALENDAR FOR 2007 AND LATER

More information and updates on these meetings can be obtained in the web page of EUCARPIA (<http://www.eucarpia.org>)

**Potatoes**            The next Section Meeting probably will take place in the Czech Republic in 2009  
Info: John Bradshaw (Section Chairman Potatoes)  
e-mail: [jbrads@scri.sari.ac.uk](mailto:jbrads@scri.sari.ac.uk)

**Cereals**            The next Section Meeting will take place in Cambridge (United Kingdom) at a date to be determined  
Info: Wayne Powell (Section Chairman Cereals)  
e-mail: [wayne.powell@niab.com](mailto:wayne.powell@niab.com)

The next Rye Working Group Meeting will take place in Minsk (Belarus) in 2010  
Info: S. Hardzei  
e-mail: [hardzei@me.by](mailto:hardzei@me.by)

**Fodder Crops and Amenity Grasses**    **XXVII Meeting of the Fodder Crops and Amenity Grasses Section. Copenhagen, Denmark**  
19 - 23 August 2007  
Info: Thomas Lübberstedt  
Chairman of the Organizing Committee  
Faculty of Agricultural Sciences (DJF)  
Århus University  
Research Centre Flakkebjerg  
Forsoegsvej 1; 4200 Slagelse  
Denmark  
Tel.: +45-89993684  
Fax: +45-89993501  
e-mail: [Thomas.Luebberstedt@agrsci.dk](mailto:Thomas.Luebberstedt@agrsci.dk)  
web-page: <http://www.eucarpia.org>

**Biometrics in Plant Breeding**    The next Section Meeting will be organized by the Scottish Crop Research Institute, Dundee, Scotland and will take place in 2009  
Info: Bill Thomas  
e-mail: [Bill.Thomas@scri.ac.uk](mailto:Bill.Thomas@scri.ac.uk)

**Genetic Resources**            **XVIIIth Meeting of the Genetic Resources Section. Piešťany, Slovakia**  
“Plant Genetic Resources and Their Exploitation in the Plant Breeding for Food and Agriculture”  
Info: P. Hauptvogel  
Research Institute of Plant Production Piestany  
Bratislavská 122; 92168 Piest’any  
Slovakia  
Tel.: +421 33 7722311  
Fax: +421 33 7726306  
e-mail: [eucarpia.pgr@vurv.sk](mailto:eucarpia.pgr@vurv.sk)  
web-page: <http://www.eucarpia.vurv.sk>

## Vegetables

### **Leafy Vegetables Working Group Meeting. Warwick, United Kingdom**

18-20 April 2007

Info: David Pink / Denny Croft

Warwick HRI (Wellesbourne)

Wellesbourne

Warwick

Warwickshire

CV35 9EF

United Kingdom

Tel.: +44 (0) 24 76574982

Fax: +44 (0) 24 76574500

e-mail: leafyveg2007@warwick.ac.uk

web-page: <http://www.go.warwick.ac.uk/eucarpia>

### **Capsicum and Eggplant Working Group Meeting. Warsaw, Poland**

5-7 September 2007

Info: Katarzyna Niemirowicz-Szczytt

Department of Plant Genetics, Breeding, and Biotechnology

Warsaw Agricultural University

Nowoursynowska 159

02-776 Warszawa

Poland

Tel.: +48 22 5932151

Fax: +48 22 5932152

E-mail: eucarpiaCapsicum07@sggw.pl

web-page: <http://www.eucarpia.org>

The next meeting of the Tomato working group is planned for the spring of 2008 and will be organized by Dr. Sjaak van Heusden, Wageningen UR, The Netherlands. Updated information will be posted in the web page of EUCARPIA (<http://www.eucarpia.org>)

The next meeting of the Cucurbits working group is planned for May 2008 and will be organized by Dr. Michel Pitrat, INRA-Montfavet, France. Updated information will be posted in the web page of EUCARPIA (<http://www.eucarpia.org>)

## Fruit

### **Section Meeting. Zaragoza, Spain**

16-20 September 2007

Info: Rafael Socias

Unidad de Fruticultura

CITA

Apartado 727

50080 Zaragoza

Spain

Tel.: +34 976 716313

Fax: +34 976 716335

e-mail: rsocias@aragon.es

Web-page: <http://www.eucarpia.org>

- Ornamentals**      **Section Meeting. Wageningen, The Netherlands**  
31 August - 4 September 2009  
Info: Jaap M. van Tuyl  
Chairman of the Organizing Committee  
Plant Research International  
P.O. Box 16  
NL-6700 AA Wageningen  
The Netherlands  
Tel.: +31 317477329  
Fax: +31 317418094  
e-mail: Jaap.vantuyl@wur.nl  
Web-page: <http://www.eucarpia.org>
- Oil and Protein Crops**      **Section Meeting. Budapest, Hungary**  
7 - 10 October 2007  
Info: Ferenc Virányi  
Chairman of the Organizing Committee  
Plant Pathology Group  
Szent Istvan University  
Pater k. u. 1  
2103 Gödöllo  
Hungary  
Tel.: +36 28522000  
Fax: +36 28522077  
e-mail: viranyi.ferenc@mkk.szie.hu  
Web-page: <http://www.eucarpia.org>
- Organic Breeding Working Group**      **Organic Breeding Working Group Meeting. Wageningen, The Netherlands**  
7-9 November 2007  
Info: Edith Lammerts van Bueren  
Louis Bolk Institute  
Hoofdstraat 24  
NL-3972 LA Driebergen  
The Netherlands  
Tel.: +31 343 523869  
Fax: +31 343 515611  
e-mail: e.lammerts@louisbolk.nl  
Web-page: <http://www.eucarpia.org>

**General  
EUCARPIA  
Congress**

**XVIIIth EUCARPIA General Congress. Valencia, Spain  
“Modern Variety Breeding for Present and Future Needs”**

11-14 September 2008

Info: Jaime Prohens

Instituto de Conservación y Mejora de la Agrodiversidad Valenciana

Universidad Politécnica de Valencia

Camino de Vera 14

46022 Valencia

Spain

Tel.: +34 963879424

Fax: +34 963879422

e-mail: [jprohens@btc.upv.es](mailto:jprohens@btc.upv.es)

Web-page: <http://www.eucarpia.org>

## **MEETINGS AND CONFERENCES OF RELATED ORGANISATIONS**

### **VI International Symposium on New Floricultural Crops, Funchal, Portugal**

11-15 June 2007

Further information: <http://www.sra.pt/nfc2007>

e-mail: [joaodragovic.sra@gov-madeira.pt](mailto:joaodragovic.sra@gov-madeira.pt)

### **XIIIth European Association for Potato Research Virology Section Meeting, Scotland, United Kingdom**

17-22 June 2007

Further information: <http://www.eapr.net>

e-mail: [eaprvirology2007@sasa.gsi.gov.uk](mailto:eaprvirology2007@sasa.gsi.gov.uk)

### **III International Symposium on Acclimatization and Establishment of Micropropagated Plants, Faro, Portugal**

12-15 September 2007

Further information: <http://www.ualg.pt/aemp2007/>

e-mail: [aromano@ualg.pt](mailto:aromano@ualg.pt)

### **XVIth International Plant Protection Congress, Glasgow, United Kingdom**

15-18 October 2007

Further information: <http://www.bcpc.org/iapps2007/>

e-mail: [becky.dyer@bcpc.org](mailto:becky.dyer@bcpc.org)

### **V International Symposium on Taxonomy of Cultivated Plants, Wageningen, The Netherlands**

15-19 October 2007

Further information: <http://www.istcp2007.wur.nl>

Web site: [info.istcp2007@wur.nl](mailto:info.istcp2007@wur.nl)

### **5th International Crop Science Congress, Jeju, Korea**

13-18 April 2008

Further information: <http://www.cropscience2008.com>

e-mail: [icsc2008@snu.ac.kr](mailto:icsc2008@snu.ac.kr)

### **XVI Congress of the Federation of European Societies of Plant Biology, Tampere, Finland**

17-22 August 2008

Further information: <http://www.fespb2008.org>

e-mail: [fespb2008@congrex.fi](mailto:fespb2008@congrex.fi)

### **American Society of Agronomy - Crop Science Society of America - Soil Science Society of America International Annual Meeting, New Orleans, Louisiana, USA**

4-8 November 2007

Further information: <http://www.acsmeetings.org/2007/>

e-mail: [headquarters@agronomy.org](mailto:headquarters@agronomy.org)

## RECENT EUCARPIA PUBLICATIONS

- General**     **Genetic Variation for Plant Breeding. Selected Papers Presented at the 17th EUCARPIA General Congress, Tulln, Austria, 8-11 September 2004**  
Published as a Special Issue of Euphytica: Euphytica 146 No. 1-2 2005  
Obtainable from: Springer Netherlands  
Abstracts available at: <http://www.springerlink.com/content/1573-5060/>
- Genetic Variation for Plant Breeding**  
Proceedings of the 17th EUCARPIA Congress, Tulln, Austria, 8-11 September, 2004  
ISBN 3-900962-56-1  
Editors: **J. Vollmann, H. Grausgruber and P. Ruckenbauer**  
Published: 2004 by BOKU – University of Natural Resources and Applied Life Sciences, Vienna, Austria  
Price: € 45.- (EUCARPIA members) or € 65.- (non-EUCARPIA members)  
Obtainable from: Johann Vollmann  
BOKU / Pflanzenbau und Pflanzenzuechtung  
Gregor Mendel Strasse 33  
A-1180 Vienna, Austria  
Fax: +43 1 47654-3342  
e-mail: [hans.vollmann@iname.com](mailto:hans.vollmann@iname.com)
- Potatoes**     **The Science of Selection: Potato Breeding Methodology for the 21<sup>st</sup> Century.**  
Abstracts of the 2006 Joint Conference of the EAPR Section Breeding and Varietal Assessment and the EUCARPIA Section Potatoes, Carlow, Ireland, 20-22 November, 2006  
Compilers: **Dan Milbourne and Dennis Griffin**  
Teagasc, Crops Research Centre  
Oakpark, Carlow, Ireland  
E-mail: [dan.milbourne@teagasc.ie](mailto:dan.milbourne@teagasc.ie)
- Cereals**     **Cereal Science and Technology for Feeding Ten Billion People: Genomics Era and Beyond**  
Abstracts, EUCARPIA Cereals Section Meeting, Lleida, Spain, 13-17 November 2006.  
Editor: **José Luis Molina-Cano**  
Centre IRTA-UdL  
Av. Rovira Roure 177, 25198 Lleida, Spain  
E-mail: [jose Luis.molina@irta.es](mailto:jose Luis.molina@irta.es)  
Publisher: Edicions de la Universitat de Lleida
- International Symposium on Rye Breeding & Genetics**  
Abstracts, Rye Working Group Meeting, Groß Lüsewitz, Germany, 28-30 June 2006  
Editor: **Peter Wehling**  
Publisher: Federal Centre for Breeding Research on Cultivated Plants  
Institute of Agricultural Crops, Rudolf-Schick-Platz 3a  
D-18190 Groß Lüsewitz, Germany  
Fax: +49 3820945222  
E-mail: [bafz-lk@bafz.de](mailto:bafz-lk@bafz.de)
- From Biodiversity to Genomics: Breeding Strategies for Small Grain Cereals in the Third Millennium**  
Proceedings, EUCARPIA Cereal Section Meeting, Salsomaggiore, Italy, 21-25 November 2002  
Publisher: Experimental Institute for Cereal Research, Fiorenzuola d'Arda (PC), Italy  
Editors: C. Marè, P. Faccioli and A.M. Stanca  
Published: December 2003
- Proceedings of the 5th International Triticale Symposium**  
**Radzików, Poland, 30 June - 5 July 2002**  
Volume 1 (ISBN 83-89172-01-1), Volume 2 (ISBN 83-89172-02-X), Supplement (ISBN 83-89172-03-8)  
Editor: **E. Arseniuk**  
Published: June 2002

Total price: € 50.--  
Obtainable from: Plant Breeding and Acclimatization Institute, Radzików  
05-870 Blonie, Poland  
Fax: +48 22 7254714  
E-mail: e.arseniuk@ihar.edu.pl

**Proceedings of the EUCARPIA Rye Meeting**

**Radzików, Poland, 4-7 July 2001**

ISBN 83-89172-00-3

Editor: **Plant Breeding and Acclimatization Institute**

Published: March 2002

Obtainable from: Plant Breeding and Acclimatization Institute, Radzików

05-870 Blonie, Poland

Fax: +48 22 7254714

E-mail: postbox@ihar.edu.pl

**Fodder  
Crops and  
Amenity  
Grasses**

**Breeding and Seed Production for Conventional and Organic Agriculture**

XXVI EUCARPIA Fodder Crops and Amenity Grasses and XVI *Medicago* spp. Group Joint Meeting, Perugia, Italy, 3-7 September 2006

Compilers: **Fabio Veronesi and Daniele Rosellini**

Dipartimento di Biologia Vegetale e Biotecnologie Agroambientali e Zootecniche  
Faculty of Agriculture

Università degli Studi di Perugia

Perugia, Italy

E-mail: roselli@unpg.it

**International Symposium on Grass Breeding**

Meeting of the EUCARPIA Section Fodder Crops and Amenity Grasses, 22-25 September 2002, Bundesforschungsanstalt für Landwirtschaft (FAL) Braunschweig, Germany.

Editors: **U.K. Posselt and J.M. Greef**

Published in: *Vorträge für Pflanzenzüchtung*, Issue 59 (ISSN 0723-7812), 2003.

**Biometrics  
in Plant  
Breeding**

**XIII EUCARPIA Biometrics in Plant Breeding Meeting Section**

Abstracts, EUCARPIA XIII Biometrics in Plant Breeding Section Meeting, Zagreb, Croatia, 30 August - 1 September 2006

Published: *Agriculturae conspectus scientificus*

Volume 71 (2006) Supplement 1; Croatia, 2006

Editors: **Jerko Gunjaca, Fred van Eeuwijk and Zlatko Satovic**

Obtainable from: Dr. Jerko Gunjaca

Faculty of Agriculture

University of Zagreb

Svetosimunska 25

10000 Zagreb (Croatia)

E-mail: jgunjaca@agr.hr

**Proceedings of the XII EUCARPIA Biometrics in Plant Breeding Conference, held in A Coruña, Spain, 3-5 September 2003 Selected Papers**

Published as a Special Issue of *Euphytica*: *Euphytica* 137 No. 1 2004

Obtainable from: Springer Netherlands

Abstracts available at: <http://www.springerlink.com/content/1573-5060/>

**Genetic  
Resources**

***Plant Genetic Resources of Geographical and Other Islands. (Conservation, Evaluation and Use for Breeding). Book of Abstracts.***

Book of Abstracts of the XVII Genetic Resources Section Meeting, Castelsardo, Italy, 30

March-2 April, 2005

ISBN 88-9011771-0-1

Published: Italy, 2005

Editor: **Simoneta Bullitta**

Obtainable from: Dr. Simonetta Bullitta

Centro Miglioramento Pascoli CNR

Via Enrico de Nicola I-07100 Sassari (Italy)

E-mail: bullitta@cspm.ss.cnr.it

**Broad Variation and Precise Characterization - Limitation for the Future  
XVIth EUCARPIA Section Genetic Resources Workshop Poznan, Poland, 16-20 May  
2001**

ISBN 83-88518-47-X

Editors: **W. Swiecicki, B. Naganowska and B. Wolko**

Published: 2001

Obtainable from: Institute of Plant Genetics

Polish Academy of Sciences

Strzeszynska 34, PL-60-479 Poznan, Poland

Fax: +48 61 8233671

E-mail: office@igr.poznan.pl

**Maize and  
Sorghum**

**XXth International Conference of the EUCARPIA Maize and Sorghum Section. Book of Abstracts.**

Book of Abstracts of the XXth International Conference of the EUCARPIA Maize and Sorghum Section, Budapest, Hungary, 20 - 24 June, 2006. Published: Hungary, 2006

Editor: **Csaba L. Marton**

Obtainable from: Dr. Csaba L. Marton

Maize Breeding Department

Agricultural Research Institute of the Hungarian Academy of Sciences

Brunsvik u. 2

H-2462 Martonvásár (Hungary)

E-mail: martoncs@mail.mgki.hu

**Vegetables**

**EUCARPIA Cucurbitaceae 2004.**

Progress in Cucurbit Genetics and Breeding Research. Proceedings of Cucurbitaceae 2004, the 8th EUCARPIA Meeting on Cucurbit Genetics and Breeding.

Olomouc, Czech Republic, 12-17 July, 2004

ISBN 80-86636-04-6

Price: € 50.-

Published: Palacký University Olomouc, Czech Republic

Obtainable from: A. Lebeda, Palacky University, Faculty of Science

Department of Botany, Slechtitelu 11, CZ-783 71 Olomouc, Czech Republic

Fax: +420 68 5241027

E-mail: lebeda@prfholnt.upol.cz

**EUCARPIA Capsicum and eggplant 2004**

*Proceedings of the XIIth Meeting on Genetics and Breeding of Capsicum and Eggplant*

Noordwijkerhout, The Netherlands, 17-19 May, 2004

Editors: R.E. Voorrips

Published: Noordwijkerhout, 2004

Obtainable from: R.E. Voorrips

Plant Research International, Wageningen UR, P.O. Box 16, 6700 Wageningen

E-mail: re\_voorrips@yahoo.com

**EUCARPIA Leafy Vegetables 2003.**

**Proceedings of the EUCARPIA Meeting on Leafy Vegetables Genetics and Breeding,**

Noordwijkerhout, The Netherlands, 19-21 March 2003

Editors: Th.J.L. van Hintum, A. Lebeda, D.A. Pink and J.W. Schut

Published: Centre for Genetic Resources, The Netherlands (CGN), Wageningen, The Netherlands

Online-access of full papers: <http://www.leafyvegetables.nl/papers.htm>

**Proceedings of the XIth Meeting on Genetics and Breeding of Capsicum and Eggplant,  
Antalya, Turkey, 9-13 April, 2001**

ISBN 975-487/085-3

Editors: **K. Abak, S. Büyükalaca and Y. Dasgan**

Published: Adana, 2001

Proceedings are no more available.

**Capsicum and Eggplant Newsletter No. 20, 2001**  
**Capsicum and Eggplant Newsletter No. 21, 2002**  
**Capsicum and Eggplant Newsletter No. 22, 2003**  
**Capsicum and Eggplant Newsletter No. 23, 2004**

ISSN 1122-5548

Editor: **P. Belletti**

Price: € 30.-- or € 150.-- (supporters)

Obtainable from: P. Belletti, University of Turin

DI.VA.P.R.A. - Agricultural Genetics

Via Leonardo da Vinci, 44, I-10095 Grugliasco TO, Italy

Fax: +39 011 6708826

E-mail: capsicum@unito.it

Web site: <http://www.capsicum.unito.it/>

**Cruciferae Newsletter No. 23, April 2001**

**Cruciferae Newsletter No. 24, July 2002**

ISSN 0263-9459

Editor: **INRA Rennes**

Obtainable from: The Editor Cruciferae Newsletter

INRA - Station d'Amélioration des Plantes

BP 29, F-35650 Le Rheu, France

## **Fruit**

**EUCARPIA Fruit Breeding Section Newsletter No. 5, 2001**

Obtainable from: Genbank Obst

Bergweg 23, D-01326 Dresden, Germany

Tel./Fax: +49 351 2615010/ 2615011

E-mail: fischer@ipk-gatersleben.de

## **Orna- mentals**

**Breeding for Beauty.**

Proceedings of the XXIIth International EUCARPIA Symposium Section Ornamentals,  
Sanremo, Italy, 11 - 15 September, 2006

ISBN 90-6605-549-9

Editors: **A. Mercuri and T. Schiva**

Published: Acta Horticulturae 714, September 2006

Price: EUR 63.-- (for non-members of ISHS)

Obtainable from: Secretariat ISHS

P.O. Box 500, B-3001 Leuven, Belgium

Fax: +32 16 22 94 50

E-mail: ishs@ishs.org

**Breeding for Beauty.**

Book of Abstracts of the XXIIth International EUCARPIA Symposium Section Ornamentals,  
Sanremo, Italy, 11 - 15 September, 2006

Editors: **A. Mercuri and T. Schiva**

Obtainable from: Antonio Mercuri

C.R.A. Istituto Sperimentale per la Floricoltura

Corso degli Inglesi 508

18038 Sanremo, Italy

Fax: +39 0184 694856

E-mail: a.mercuri@istflori.it

**Classical versus Molecular Breeding of Ornamentals.**

**Proceedings of the 21st International Symposium on Classical versus Molecular Breeding  
of Ornamentals, EUCARPIA Section Ornamentals, ISHS Section Ornamental Plants,  
München, Germany, 25-29 August 2003**

Editors: **G. Forkmann, B. Hauser & S. Michaelis**

Price: € 55.-- (for non-members of ISHS)  
Obtainable from: Secretariat ISHS  
P.O. Box 500, B-3001 Leuven 1, Belgium  
Fax: +32 16 22 94 50  
E-mail: info@ishs.org

**Strategies for New Ornamentals .**

**Proceedings of the Twentieth International Symposium Section Ornamentals,  
Melle, Belgium, 3-6 July, 2001**

Editors: **J. Van Huylenbroeck, E. Van Bockstaele and P. Debergh**

Volume 1: Acta Horticulturae 552, July 2001, ISBN 90-6605-834 X

Price: € 53.-- (for non-members of ISHS)

Volume 2: Acta Horticulturae 572, February 2002, ISBN 90-6605-825 0

Price: € 55.-- (for non-members of ISHS)

Obtainable from: Secretariat ISHS

P.O. Box 500, B-3001 Leuven 1, Belgium

Fax: +32 16 22 94 50

E-mail: info@ishs.org

**Oil and  
Protein  
Crops**

**International Symposium on Breeding of Protein and Oil Crops.**

**Proceedings of the Meeting of the Section Oil and Protein Crops, Pontevedra, Spain, 1-4  
April, 1998**

Published: MBG-CSIC, Pontevedra, Spain 1998

Obtainable from: A.M. De Ron

Head of Plant Breeding Department

Mision Biologica de Galicia, CSIC

P.O. Box 28, E-36080 Pontevedra, Spain

Fax: +34 86 841362

E-mail: csgpoarp@cesga.es

## Application for EUCARPIA membership

(please fill out with capital letters)

1. Family name \_\_\_\_\_
2. First name(s) \_\_\_\_\_
3. Nationality \_\_\_\_\_ Date of birth \_\_\_\_\_
4. Titles \_\_\_\_\_
5. Functions \_\_\_\_\_
6. Institution \_\_\_\_\_

Address: \_\_\_\_\_  
Street / P.O. Box \_\_\_\_\_  
Postal code - City \_\_\_\_\_  
Country \_\_\_\_\_  
Telephone \_\_\_\_\_ Fax \_\_\_\_\_  
E-mail \_\_\_\_\_

7. I, the undersigned Mrs. / Mr.

apply as an individual member of EUCARPIA.

apply on behalf of \_\_\_\_\_  
as a corporate member of EUCARPIA.

8. I / We would like to participate in the following section(s):

- |  |   |
|--|---|
| <input type="checkbox"/> a. Potatoes                         | <input type="checkbox"/> i. Maize and Sorghum     |
| <input type="checkbox"/> b. Cereals                          | <input type="checkbox"/> j. Vegetables            |
| <input type="checkbox"/> c. Fodder Crops and Amenity Grasses | <input type="checkbox"/> k. Fruit                 |
| <input type="checkbox"/> d. Biometrics in Plant Breeding     | <input type="checkbox"/> l. Ornamentals           |
| <input type="checkbox"/> h. Genetic Resources                | <input type="checkbox"/> m. Oil and Protein Crops |

Date: \_\_\_\_\_

Signature: \_\_\_\_\_