

BULLETIN No. 47



# EUCARPIA

European Association for Research on Plant Breeding  
Europäische Gesellschaft für Züchtungsforschung  
Association Européenne pour l'Amélioration des Plantes

December 2021

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European Association for Research on Plant Breeding  
Europäische Gesellschaft für Züchtungsforschung  
Association Européenne pour l'Amélioration des Plantes

**EUCARPIA** aims at promoting 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. EUCARPIA has 11 sections and a number of working groups active in specific fields of interest.

**EUCARPIA** has individual members (qualified scientists 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 or 20 persons.

To become a member of EUCARPIA, visit our website and register online.

<b>Membership fees*:</b>	Individual members	40.-- €
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	Corporate members (max. 10 delegates)	300.-- €
	Corporate members (max. 20 delegates)	450.-- €
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## PRESIDENTIAL ADDRESS

Dear Section Leaders, Working Group Leaders and Members,

2021 was the second year strongly influenced by the Covid-19 pandemic. All of us, some more severely than others, were affected. The work of EUCARPIA was disturbed. Some of the planned Section meetings have been postponed. Others, however, were successfully held online. Details you will find in the Section Reports. I would like to thank all Section and Working Group leaders for their dedication and efforts organizing the events under such unforeseen conditions.

The General Congress, originally planned for 2020 by following the four years interval rule, took place in August 2021 as a virtual meeting as well. Great thanks to Richard Visser and his team organizing this conference entitled: 'Breeding - The Key to Innovative Solutions' in such a difficult time. It should be mentioned here already that the 22<sup>nd</sup> General Congress will be held after a three years period from 18 – 23 August 2024 in Leipzig, Germany.

I also would like to draw your attention to our new website which became active in April 2021. We had to change the address from former 'www.eucarpia.org' to '[www.eucarpia.eu](http://www.eucarpia.eu)'. A feedback for further improvements from your side will be very welcome.

A whole lot of actions is in preparation for 2022 and 2023. I would like to remind the local organisers that EUCARPIA provides subsidies for hosting Section and Working Group meetings. For the application, please contact the EUCARPIA secretariat. We hope very much that these events may take place again in presence in order to re-activate the personal scientific communication.

Together with all members of the Executive Committee I am looking forward to the time coming to continue the successful activities of our association.



Prof. Dr. Dr. h.c. Andreas Börner  
President of EUCARPIA



## REPORT OF GENERAL CONGRESS

The General Congress took place in August 2021 in Rotterdam as a virtual meeting organized by Richard Visser and his team. The preparations for the conference started already in 2019 and continued in 2020 when we had to decide (in May 2020) to postpone the conference to 2021. At that time the idea was that it could be held physically but finally due to the continued Covid pandemic we decided to keep an online only conference in August 2021. We had to make costs already in 2019 (venue reservation, logo etc.), and 2020, but luckily most commitments could be revoked without (high) costs. We did send out several calls and updates about the conference both within the Eucarpia community as well as outside it. The number of registrations went very slow and one month before the event we had less than 100 participants (including the board and all speakers). Luckily this number increased and at the start of the conference 225 participants were registered (including invited speakers, the board and the organizing committee) supported by 17 sponsors.

We had a diverse program with a few opening addresses by the director of Plantum, the president of Eucarpia and the president of the executive board of Wageningen University & Research followed by four afternoons of invited keynote lectures, oral presentations, selected poster pitches, presentations of four diamond sponsors followed with ample time for Q&A and a question of the day (QoD) which was debated on in breakout sessions. On the last day we had three parallel sessions of three sections of Eucarpia. Throughout the conference we had an attendance of 180 people which went down to around 60-80 for the QoD.

We also offered the attendants the possibility throughout the conference and one month after the conference to visit the posters. During the conference attendants could vote for the best poster prize. ~350 votes were cast to select the best poster and three prize winners were selected.

1<sup>st</sup> prize: Mark Timothy Rabanus-Wallace; 'The human history of chili peppers told by 10.000 gene bank samples'

2<sup>nd</sup> prize: Silvia Vezzulli; 'DAMAGE: Dissection of black rot resistance towards Marker-Assisted breeding in Grapevine'

3<sup>rd</sup> prize: Xuexue Shen; 'Identification of SIRPE1 as a downstream gene required for Ty-1 conferred TYLCV resistance in tomato'

All in all, the conference was rated very positive (an 8.6 on a scale of 1 to 10, 1 being bad 10 being good) and people gave feedback to our questionnaires. The professional company LiveOnline Events had arranged everything very well and Gerrit Heijkoop was an excellent and very entertaining host and moderator. This all contributed to the very good evaluation we received from the participants.

Scientifically and for an online conference, things went well and ratings were good, financially it was not a success because Eucarpia suffered a loss of around 40.000 euro. But given the fact that we were already busy for two years and in the end were able to deliver a good conference this is okay (a loss of 8.000 euro per year over the past five years).

Finally, I want to thank the board for their trust in me and the local organizing committee and of course I want to thank the other members of the local organizing committee (Trees Overkamp, Monique van Vegchel, Thijs Simons, Stefan van der Heijden and Ellen Vintges) for the pleasant and efficient collaboration over the last two years.

Richard Visser, Past President of Eucarpia, [richard.visser@wur.nl](mailto:richard.visser@wur.nl)

## SECTION REPORTS

### a. Biometrics in Plant Breeding

The Section "Biometrics in Plant Breeding" had its next meeting planned for September 2021 in Paris. Due to the fact that the General Meeting was postponed and the general Corona situation, we decided to postpone our section meeting by one year. The new data will be 7-9 September 2022.

Hans-Peter Piepho, Section Chairperson, [Hans-Peter.Piepho@uni-hohenheim.de](mailto:Hans-Peter.Piepho@uni-hohenheim.de)

### b. Cereals

There was no periodical Section Meeting in 2021. However, a Rye Working Group Conference as well as one Conference on Cereal Biotechnology and Breeding jointly organised with the Cereals Section of EUCARPIA.

International Symposium on Rye Breeding and Genetics

The Conference was organized by the Leibniz Institute of Plant Genetics and Crop Plant Research in Gatersleben but held online from June 21-22, 2021. It was attended by 161 participants from 31 countries. Recent developments on rye genetics and breeding were discussed. Five plenary lectures were supplemented by 23 oral presentations and 11 posters and presented in the following four sessions:

- Rye genetic resources and diversity
- Breeding methods and molecular tools
- Disease resistance and stress tolerance
- Rye for food, feed & fuel

The next meeting of the Rye working group is planned for 2025.

Sixth International Conference of Cereal Biotechnology and Breeding (CBB6)

The CBB6 conference jointly organised with the EUCARPIA Cereals Section took place from November 3-5, 2021. Although, this 6th CBB conference was an online event due to the COVID pandemic, it appeared to be an excellent platform to exchange new results and ideas in cereals research and breeding. Ninety-eight participants from 28 countries did attend the conference, divided into eight sessions:

- Natural diversity for genetic improvement
- Environmental adaptation
- Biotic stress response
- Quality for food and industrial use
- Bioinformatics and genomic selection
- Genomic and genetic manipulation
- Phenotyping technologies
- Future challenges and innovations

A broad spectrum of subjects on cereals breeding and biotechnology was covered by outstanding plenary lecturers (12), oral speakers (32) and poster presenters (20). Due to the great success, the organisers decided to continue of the CBB conference series in the usual two years intervals.

The CBB7 conference is planned to be held in Budapest in early November 2023.

Andreas Börner, Section Chairperson, [boerner@ipk-gatersleben.de](mailto:boerner@ipk-gatersleben.de)

## C. Fodder Crops and Amenity Grasses

Periodical Section Meeting was organized online by Dr. Stephan Hartmann and his colleagues (Bavarian State Research Center for Agriculture (LfL), Freising, Germany) from September 6 to September 8, 2021 (website: <https://eucarpia-forage-crops-2021-bayern.de/index.html>). The title of the meeting was 'Exploiting genetic diversity of forages to fulfil their economical and environmental roles'. In total, there were 111 participants, mostly from Europe, but also from New Zealand. The conference was divided into four sessions with keynote speech provided by Prof. Johannes Isselstein, 8 invited talks, 13 regular talks and 11 flash presentations. A Festulolium Working Group Workshop was introgressed into the program of the section meeting (Tuesday afternoon, September 7) and included one invited talk and three regular oral presentations and broad non-formal discussion afterwards. Four sessions nicely covered all aspects of grass and legume breeding and (mainly applied) research, with special attention paid to genetic diversity. Despite the online format, fruitful discussions followed each session and many interactions between participants could be seen during the meeting. All contributions were peer-reviewed and published in Proceedings of the 34th Meeting of the EUCARPIA Fodder Crops and Amenity Grasses Section in cooperation with the EUCARPIA Festulolium Working Group. The publisher (Palacky University Press, Olomouc, Czech Republic) provided ebook and pdf version (downloadable from the section webpage) and hard-cover books, delivered to all participants during September, 2021. During the conference, Board meeting and Business meeting were organized to discuss the management of the group and to inform all members of the group about news and upcoming activities organized by Board. The Board was renovated: Roland Kölliker, Marc Ghesquiere and Danny Thorogood stepped down and were replaced by Kristina Jaškune, David Lloyd and Bernadette Julier. Hilde Muyle was pleased to accept the proposition of being Secretary of the Section for upcoming period.

Besides Section meeting and Festulolium WG Workshop, there were few other activities within the Section:

- Special issue „Festulolium – from nature to modern breeding“ of *Biologia Plantarum* with 14 papers was published as a book in June 2021 and was delivered to all authors and also to the participants of the Section meeting.
- New website of the section has been released and is available at <https://www.forages-eucarpia.org>. It serves as a platform for distribution of the information about upcoming meetings, newly released publications and genetic resources for our FCAG section.
- Next Section meeting will be organized in Brno, Czech Republic on September 10-14, 2023.

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## d. Fruit

As in other EUCARPIA groups, our activities of Fruit section have been negatively affected by the ongoing pandemic COVID-19 during the whole year 2021. Most supposed meetings had to be cancelled and group-level communication continued through online video calls, on line meetings and e-mail communication.

In the beginning of 2021, there have been mostly activities related to the publication of the proceedings of our last group meeting The XV EUCARPIA Fruit Breeding and Genetics Symposium, which was held in Prague from June 3 to 7, 2019.

The reviewing process and editorial work continued until March 2021. These proceedings were finally published in *Acta Horticulturae* in the framework of cooperation with ISHS as *Acta Horticulturae* 1307.

Citation:

Acta Horticulturae. 1307. Leuven, Belgie: ISHS, Eds.: J. Sedlak and M. Kellerhals, 2021. ISBN 978-94-62613-06-5. ISSN 0567-7572. XV EUCARPIA Symposium on Fruit Breeding and Genetics.

<https://www.actahort.org/books/1307/>

I would like once again thank the reviewers from EUCARPIA Fruit section, who provided reviews and thus contributed to increasing the quality of the published works.

In this regard, special thanks belong to the team of Agroscope (Wädenswil, Switzerland) and co-editor Markus Kellerhals, who played a significant role during the finalisation of the proceedings.

EUCARPIA fruit section members are currently active in preparation and planning new projects dealing with fruit genetic resources under the framework of European Cooperative Programme for Plant Genetic Resources (ECPGR).

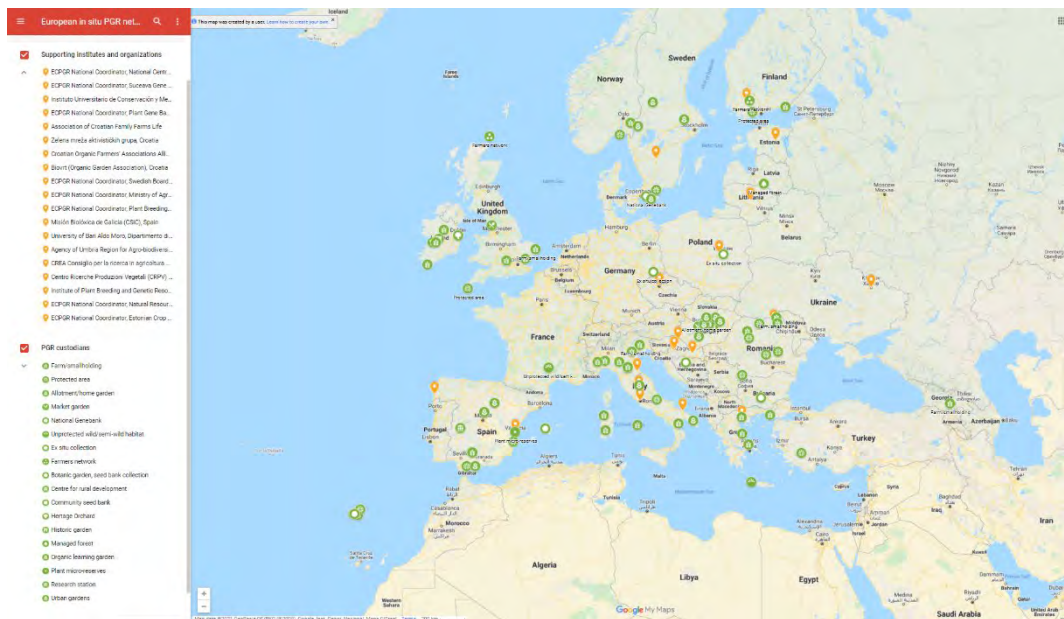
Together with the Julius Kühn-Institut, Bundesforschungsinstitut für Kulturpflanzen in Dresden-Pillnitz, preparations for the next XVI EUCARPIA Fruit Breeding and Genetics Symposium, which is planned in Germany in 2023, have begun.

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## e. Genetic Resources

### Establishment of a European *in situ* PGR network

As reported in the 2020 Bulletin, one of the aims of the recently concluded Farmer's Pride project, funded under the EU Horizon 2020 Framework Programme ([farmerspride.eu](http://farmerspride.eu)), was the establishment of a European network for *in situ* conservation and sustainable use of plant genetic resources (PGR). The aim was to create a permanent system for Europe-wide *in situ* conservation of PGR (on-farm and in the wild), including associated complementary conservation *ex situ*, and critically, to promote and facilitate the use of more diversity by plant breeders and farmers for the benefit of society. The establishment of the network was central to the project from start to finish, with public stakeholder surveys, workshop discussions, the development of best practices for network establishment and operation, a web page to encourage participation in, and promotion of the network ([farmerspride/network/](http://farmerspride/network/)), and a dedicated session of the project's final dissemination conference. The project was successful in planting the seed and nurturing the growth of the network, but fell short within the timeframe of the project in its actual formal establishment. Nonetheless, a strong coalition of support for continuing with the formal establishment and development of a European *in situ* network was formed (Figure 1), and advancements are expected to continue under the auspices of the European Cooperative Programme for Plant Genetic Resources (ECPGR).



**Figure 1.** Interactive and dynamic map showing expressions of interest in establishing a European network for *in situ* conservation and sustainable use of plant genetic resources. Available at: <https://tinyurl.com/d34n3dpp> (Accessed 26 October 2021).

### **‘ENSURING DIVERSITY FOR FOOD AND AGRICULTURE: Plant genetic resources – *in nature and on-farm*’**

The Genetic Resources section conference, ‘ENSURING DIVERSITY FOR FOOD AND AGRICULTURE: Plant genetic resources—*in nature and on-farm*’ took place as a virtual event over four days, 28 June – 01 July 2021 in association with the final dissemination conference of the Farmer’s Pride project and ECPGR ([farmersprideconference.org/](http://farmersprideconference.org/)). The event attracted 170 registrants and was organized across four themed sessions: 1) Realizing the public and private benefits of *in situ/on-farm* PGR conservation; 2) Enhancing the use of PGR conserved *in situ/on-farm*; 3) Optimizing *in situ/on-farm* PGR population management; and 4) Establishing a European network for *in situ* conservation and sustainable use of plant genetic resources. Session 4 included a policy roundtable (see [D3.6 Policy dialogue workshop to enhance in situ maintenance.pdf](#)) and a stakeholder workshop (for the key workshop outcomes, see [D4.4 European in situ PGR conservation network.pdf](#)).

The conference sessions are available on demand at [farmersprideconference.org/programme/](http://farmersprideconference.org/programme/). The proceedings will be published in 2022 by CABI ([cabi.org/](http://cabi.org/)), both in print version and open access.

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### **f. Maize & Sorghum**

Last section meeting was held October 7-9, 2019 chaired by Prof. Chris-Carolin Schoen at Technical University of Munich. Next meeting, which will be the 25th, will be held May 30th-June 2nd, 2022 in Belgrade, chaired by Dr. Violeta Andjelkovic at Maize Research Institute Zemun Polje. All Eucarpia members are kindly invited to attend.

Alain Charcosset, Section Chairperson, [alain.charcosset@inrae.fr](mailto:alain.charcosset@inrae.fr)

## g. Oil & Protein Crops

After the initial plan to celebrate our Section Meeting in 2021, it had to be postponed because of the restriction's measures on COVID-19. The current uncertainty about the evolution of the pandemic and the development of new variants recommended moving the meeting date to the second half of 2022 or the first half of 2023. For the meeting organization, we are open to receiving applications. Please, contact the Section Chairperson if your institute or university is interested in organizing the meeting. In the meanwhile, we have received information about the 20<sup>th</sup> International Sunflower Conference, to be held from 20-23 June 2022 in Novi Sad, Serbia ([www.isc2020.com](http://www.isc2020.com)), the 4<sup>th</sup> International Legume Society Conference, which will be held between 18-21 October 2022 in Granada, Spain ([www.legumesociety.org](http://www.legumesociety.org)), and the 16<sup>th</sup> International Rapeseed Congress that will take place from 24-27 September in Sydney, Australia ([www.irc2023sydney.com](http://www.irc2023sydney.com)).

Leonardo Velasco, Section Chairperson, [lvelasco@ias.csic.es](mailto:lvelasco@ias.csic.es)

## h. Organic & Low-input Agriculture

This section addresses the issues that are relevant to breeding for organic and low-input agriculture.

**The Section Board** since March 2021 consist of Dr. Pedro Mendes Moreira (chair, IPC-ESAC, PT), Dr. Linda Legzdina (AREI, LV), Prof. Dr. Gunter Backes (vice-chair, University of Kassel, DE), Vladimir Meglic, Dr. Monika Messmer (FiBL, CH), Dr. Pierre Hohmann (IRTA, ES), and Edith Lammerts van Bueren (em.prof. Wageningen University, NL). Dr. Pierre Hohmann is the chair of the working group on plant microbe interaction supported by Friederike Trognitz (AIT, AT) and Monika Messmer (FiBL, CH).

The **last section meeting** was held during the conference “BREEDING INNOVATIONS FOR ORGANIC FOOD SYSTEMS” organized by EUCARPIA Section Organic and Low Input Agriculture jointly with LIVESEED, BRESOV, ECOBREED, FLPP and ECO-PB on 8-10 March 2021 was hosted ONLINE by AREI (Latvia).

### Activities

**The conference “BREEDING INNOVATIONS FOR ORGANIC FOOD SYSTEMS”** organized by EUCARPIA Section Organic and Low Input Agriculture jointly with LIVESEED, BRESOV, ECOBREED, FLPP and ECO-PB on **8-10 March 2021** was hosted ONLINE by AREI (Dr. Linda Legzdina, **Latvia**).

Invited keynote speakers were: Louise Luttikholt (IFOAM-ORGANICS INTERNATIONAL), Julie Dawson (University of Wisconsin, USA), Micaela Colley (Organic Seed Alliance, USA), Gabriele Berg (TU Graz, Austria) and Nicolas Enjalbert (Seedlinked, USA).

Book of abstracts:

<https://www.eucarpia.eu/organic-and-low-input-agriculture/523-2021-eucarpia-liveseed-abstract-e-book>

During this conference, ten sessions covering broad aspects (e.g. Exploring underutilized genetic resources, Breeding for diversity, Breeding for culinary and nutritional quality, Living soil – plant interactions, Organic production of high quality & healthy seed, Multi-actor & participatory approaches, Socio-economic analysis of seed systems, Market & consumers aspects, Regulatory & policy opportunities, Sustainability of seed and breeding innovations) in which 49 presentations took place (9 key note speakers, 49 Posters with flash presentations, 4 Breakout session) 186 participants of 30 countries were present and 57 potential publications for special issue of «Sustainability» were presented.

**EUCARPIA General congress** online from 23-26 August 2021. A two-hour meeting (from 16:00 – 18:00) was dedicated to Section Organic and Low Input Agriculture. The topics included “Boosting organic seed and plant breeding efforts across Europe – Main achievements of LIVESEED. Monika Messmer”, “From Cereal Populations to Organic Heterogeneous Material: success stories and lessons learned in Italy. Matteo Petitti), “Breeding for Crop Mixtures and Agroforestry in Organic and Low-Input. Pedro Mendes-Moreira”, “Assessing mixing ability from incomplete designs in binary or higher order variety mixtures and application to wheat.: Jérôme Enjalbert”, “Highlights on recent heterogeneous population research results. Linda Legzdina”, “Legal framework and temporary experiment on Organic Varieties. Monika Messmer” and finally there was a general discussion and a presentation of the Outlook of future activities of Section Organic and Low Input Agriculture.

**Organic World Congress 6th to 10th Sept 2021 in Rennes** had special focus on organic seed and plant breeding and several contributions were made by EUCARPIA members during main conference and the two-day pre-conference on Seed Ambassadors organized by ECO-PB, Organic Seed Alliance, IFOAM Seed Platform, INRAE, ITAB, Chovanal and the Horizon2020 projects LIVESEED, ECOBREED and BRESOV. Ten sections of the conference were organized related to seed and plant breeding for Organic Agriculture

Preconference:

Seed Ambassadors: Onsite Program (Part 1) on September 6, 2021 8:00 AM to 7:00 PM. Physical event and online program

Seed Ambassadors: Onsite Program (Part 2) on September 7, 2021 8:00 AM till 5 PM hybrid event <https://owc.ifoam.bio/2021/pre-conferences/seed-ambassadors>

Conference:

- Taste the innovation of seed ambassadors. Wednesday, September 8, 2021 11:00 AM to 12:30 PM. Physical
- Plant breeding and food quality. Wednesday, September 8, 2021 3:30 PM to 3:57 PM. Virtual
- Plant breeding for organic cereals. Wednesday, September 8, 2021 5:30 PM to 6:20 PM. Hybrid
- Collaborative approach for resilient food systems: Seeds. Thursday, September 9, 2021 9:00 AM to 9:34 AM. Virtual
- How to increase production and use of organic seed? State of the art and best practices
- Thursday, September 9, 2021 11:00 AM to 12:30 PM. Virtual
- Collaborative approach for resilient food systems: Seeds. Thursday, September 9, 2021 11:00 AM to 11:27 AM. Hybrid
- Organic plant breeding and participatory approaches. Thursday, September 9, 2021 3:30 PM to 4:15 PM. Virtual
- Genetic diversity. Thursday, September 9, 2021 3:30 PM to 4:08 PM. Virtual
- Seeds and other farm inputs: Challenges and Innovation. Thursday, September 9, 2021 5:30 PM to 6:14 PM. Hybrid
- Organic plant breeding and systems approaches. Thursday, September 9, 2021 5:30 PM to 6:13 PM. Virtual

**2022, 14<sup>th</sup> July Tulln, AT: 3rd EUCARPIA Workshop on Implementing Plant-Microbe Interactions in Plant Breeding (attached to miCROPe) <https://www.micrope.org/>** preparation in progress

Most probable session conference will be on **April 2025**, provisional title: «Breeding for ecological and societal interactions», Coimbra, PORTUGAL, hosted by ESAC, Instituto Politécnico de Coimbra

Pedro Mendes Moreira, Section Chairperson, [pmm@esac.pt](mailto:pmm@esac.pt)

## i. Ornamentals

For the section ornamentals there were no activities in 2021, also no new publications.

As already announced in the Bulletin 2020 the next ornamental symposium will be organized in Italy in 2023.

The title for the meeting is: XVII International Eucarpia Symposium Section Ornamentals - From Nature to Culture: Breeding Ornamentals for Sustainability

Location: Genoa (Italy)

Begin date: July 2, 2023 - End date: July 5, 2023

Hashtag#EucarpiaOrnam2023

Convener:

Mauro Mariotti

DISTAV - University of Genoa

Corso Europa 26, 16132 Genova

Italy

m.mariotti@unige.it

Johan van Huylbroeck, Section Chairperson, [johan.vanhuylenbroeck@ilvo.vlaanderen.be](mailto:johan.vanhuylenbroeck@ilvo.vlaanderen.be)

## j. Potatoes

During the EUCARPIA General Congress in August 2021, section 'Potatoes' hosted a 2 h session on "Innovations in Potato Breeding". Five talks were given by potatoologists from Ireland, The Netherlands, Turkey, and Germany. Topics covered novel potato breeding methods (FixRes breeding, hybrid breeding), a novel genome-wide marker system, a genetic study on tuber periderm thickness, as well as screening of potato genetic resources for phosphorus stress tolerance. The session was well received by congress participants.

Since two major potato events will be held in 2022, the EAPR Triennial Meeting (Poland) and the World Potato Congress (Ireland), it was decided that, although originally planned for 2022, the 20<sup>th</sup> Joint Meeting of EUCARPIA Section 'Potatoes' and EAPR Section 'Breeding & Varietal Assessment' will not be organized before 2023.

Vanessa Prigge, Section Chairperson, [vanessa.prigge@saka-pflanzenzucht.de](mailto:vanessa.prigge@saka-pflanzenzucht.de)

## k. Vegetables

In 2021, the EUCARPIA Section Vegetables has organized the 12th Eucarpia Meeting on Cucurbit Genetics and Breeding (<https://www.cucurbitaceae2020.com/index>). It was held online with a great success, thanks to the tremendous efforts of the organizing committee: Prof. Manuel Jamilena (University of Almería), Prof. Marisa Gómez Guillamón (the Institute for Mediterranean and Subtropical Horticulture "La Mayora" in Málaga), Prof. Belén Picó and Prof. Ana María Pérez de Castro (the Polytechnic University of Valencia). The meeting has provided a platform for about 200 participants to actively discuss the advances in nine scientific areas related to Genetics and Breeding of Cucurbit species. The impact and meaning of scientific research have been shown through seed industries via Virtual excursion to Syngenta and company presentations in the Session 9-new cultivars.



Moreover, this meeting provided opportunity for one-week reunion of the cucurbits 'family' members (both academia and breeding companies) worldwide. We heard stories that young PhD students and breeders of this family were inspired by seniors during their very first meeting and grew into independent researchers/breeders along with the meetings held every 4 years. During the meeting, three senior family members, Dr. Jim McCreight (USDA-ARS Salinas, California, USA), Dr. Roni Cohen (Agricultural Research Organization (ARO)), Israel and Dr. Nebahat Sari (Çucurova University, Adana, Turkey (retired)), were honoured for their great contribution to Cucurbit Genetics and Breeding. Two young researchers were priced for their posters: Lorena Areco (Centre for Research in Agricultural Genomics, CSIC-IRTA-UAB-UB, Barcelona Spain) and Biplab Kumar Bhowmick (Department of Botany, Scottish Church College, India).

The next reunion of the EUCARPIA Cucurbits family will be in Naples of Italy, organized by Dr. Mara Ercolano (University of Naples Federico II, Italy) in 2024.

Additional to the Cucurbits family, we have three other working groups: Tomato, Capsicum and Eggplant, Leafy Vegetables. Each working group organizes meetings once every three or four years. Here I list these meetings for a clear message:

1. The 20th EUCARPIA meeting of the Tomato Work Group: this meeting is planned on May 31 to June 3rd in 2022 (<https://eucarpia2022.webs.upv.es/>). It will be organised in Valencia, Spain by Prof. Jaime Prohens (Universitat Politecnica de Valencia) and Prof. Antonio Granell (CSIC).
2. The 18th EUCARPIA Meeting on Genetics and Breeding of Capsicum and Eggplant: this meeting will be held in Bulgaria (Plovdiv) in 2023.
3. The 10th EUCARPIA meeting of Leafy Vegetables: this meeting is planned in 2023 in the Netherlands.

Here, I would like to take this opportunity to thank all organisers for their commitment and efforts. I really look forward to seeing our old and new EUCARPIA members in next EUCARPIA meetings!

Yuling Bai, Section Chairperson, [bai.yuling@wur.nl](mailto:bai.yuling@wur.nl)

## RECENT EUCARPIA PUBLICATIONS

a. Biometrics in Plant Breeding	
b. Cereals	<p>1) Akadémiai Kiadó: Book of Abstracts. 6<sup>th</sup> Conference on Cereal Biotechnology and Breeding, jointly organised with the EUCARPIA Cereals Section, November 3-5, 2021, Budapest, Hungary 102 pp., 2021, available from website: <a href="https://static.akcongress.com/downloads/cbb/cbb6-boa.pdf">https://static.akcongress.com/downloads/cbb/cbb6-boa.pdf</a></p> <p>2) Lohwasser, U. &amp; A. Börner: Book of Abstracts. Eucarpia International Symposium on Rye Breeding &amp; Genetics, 21-22 June, 2021, Gatersleben, Germany, 62 pp., available from website: <a href="https://www.eucarpia.eu/section-cereals/530-2021-eucarpia-rye-symposium-book-of-abstracts">https://www.eucarpia.eu/section-cereals/530-2021-eucarpia-rye-symposium-book-of-abstracts</a></p>
c. Fodder Crops and Amenity Grasses	<p>1) Hartmann, S., Bachmann-Pfabe, S., Byrne, S., Feuerstein, U., Julier, B., Kölliker, R., Kopecky, D., Roldan-Ruiz, I., Ruttink, T., Sampoux, J.-P., Studer, B., Vleugels, T. (eds): Exploiting genetic diversity of forages to fulfil their economic and environmental roles. Proceedings of the 34th Meeting of the EUCARPIA Fodder Crops and Amenity Grasses Section in cooperation with the EUCARPIA Festulolium Working Group. Palacky University Press, Olomouc, 156 pp., 2021, available from the website: <a href="https://www.forages-eucarpia.org/l/proceedings-from-fcag-section-conference/">https://www.forages-eucarpia.org/l/proceedings-from-fcag-section-conference/</a></p> <p>2) Kopecký, D., Kosmala, A. (eds.): Festulolium – from nature to modern breeding. Palacky University Press, Olomouc, 295 pp., 2021.</p>
d. Fruit	<p>Acta Horticulturae. 1307. Leuven, Belgie: ISHS, Eds.: J. Sedlak and M. Kellerhals, 2021. ISBN 978-94-62613-06-5. ISSN 0567-7572. XV EUCARPIA Symposium on Fruit Breeding and Genetics. <a href="https://www.actahort.org/books/1307/">https://www.actahort.org/books/1307/</a></p>
e. Genetic Resources	
f. Maize & Sorghum	
g. Oil & Protein Crops	
h. Organic & Low-input Agriculture	<p>Abstract E-Book International Conference on “BREEDING AND SEED SECTOR INNOVATIONS FOR ORGANIC FOOD SYSTEMS”, Latvia 8-10 March, 2021 <a href="https://www.eucarpia.eu/organic-and-low-input-agriculture/523-2021-eucarpia-liveseed-abstract-e-book">https://www.eucarpia.eu/organic-and-low-input-agriculture/523-2021-eucarpia-liveseed-abstract-e-book</a></p>
i. Ornamentals	
j. Potatoes	
k. Vegetables	

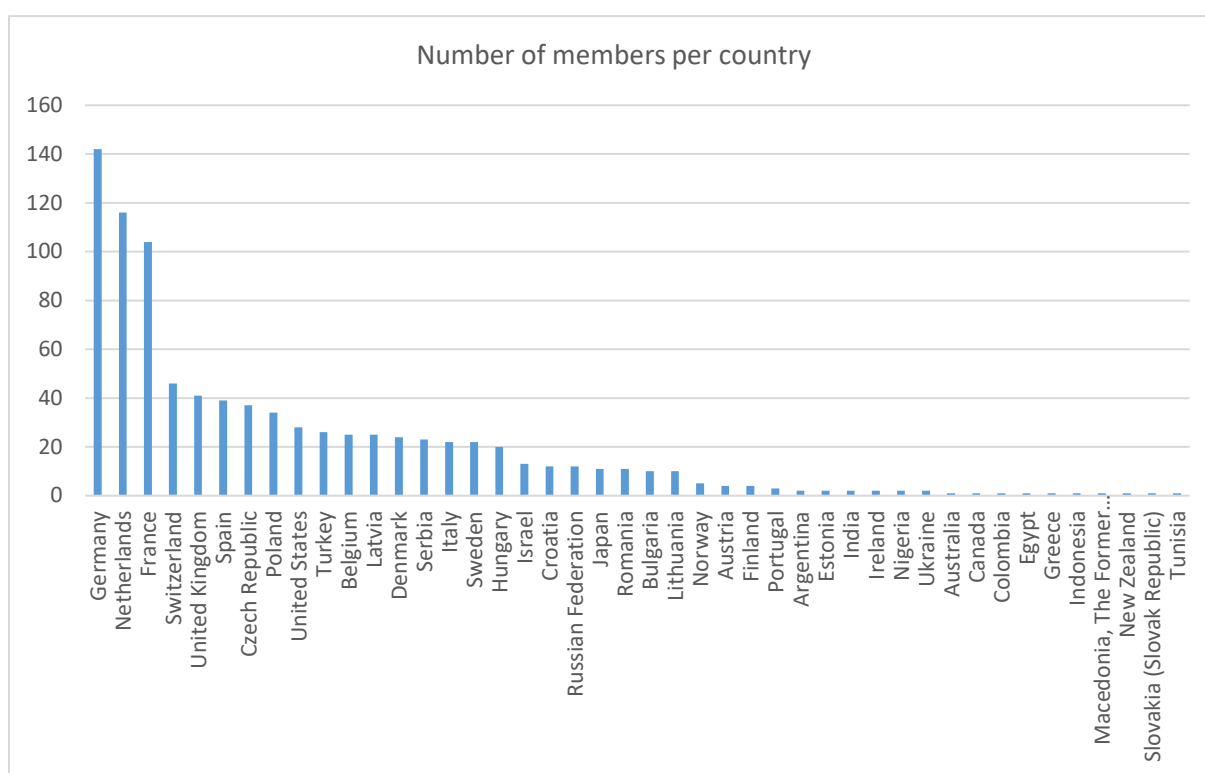
## NEWS FROM THE EUCARPIA SECRETARIAT

### Website

A new website ([www.eucarpia.eu](http://www.eucarpia.eu)) was developed and launched in 2021. Please correct your bookmarks because the domain name has changed. The website still combines the external information with the membership administration and the online payment. Also, the membership administration is new. We hope that all data were transferred correctly. You should be able to login with your known personal account. In case you have problems or find mistakes please contact us.

### Membership Development

As of November 30, 2021, Eucarpia has 57 corporate members with 660 paid delegates and 231 individual members, in total 891 members. The members come from 44 different countries.



The 2021 assignments of countries with currently active members resulted as follows:

Category 1	Category 2	Category 3
Australia	Argentina	Bulgaria
Austria	Croatia	Colombia
Belgium	Estonia	Egypt
Canada	Hungary	India
Czech Republic	Latvia	Indonesia
Denmark	Lithuania	Macedonia
Finland	Poland	Nigeria
France	Romania	Romania
Germany	Russian Federation	Serbia

Greece	Slovakia	Tunisia
Ireland	Turkey	Ukraine
Israel		
Italy		
Japan		
Netherlands		
New Zealand		
Norway		
Portugal		
Slovenia		
Spain		
Sweden		
Switzerland		
United Kingdom		
United States		

### Organizing section meetings

The standard financial support (subsidy) for a section meeting is currently € 3000.-, for a working group meeting € 1500.-. Within a 4-year term, each section or working group is entitled to receive those subsidies a maximum of twice. No subsidies are granted for EUCARPIA events scheduled closer than 6 months to the next General Congress. EUCARPIA subsidies are to be used for the benefit of EUCARPIA members. In this respect, there should be a significant difference between the registration fees for members of EUCARPIA and non-members participating. The minimal difference should be € 40.- per person. In the last years we did not actively ask the organizing sections to provide a copy and a .pdf of all publications resulting from the event. In the coming months we will contact all organizing sections of the last years and ask to check if their database at the website <https://www.eucarpia.eu/publication> is up to date.

The secretariat can provide you:

- the application form for requesting the subsidy for the organization of meetings
- the logo of EUCARPIA in multiple forms
- links to the website <https://www.eucarpia.eu/activities/eucarpia-meetings>
- messages to the members of EUCARPIA

The secretariat



Ulrike Lohwasser, PhD  
Secretary General



Franziska Gläser  
Membership Affairs

## MEMBERSHIP FEES

You can renew your membership when you login on [www.eucarpia.eu](http://www.eucarpia.eu) at any time. You will also be asked to do so by automatically generated e-mail. The membership fee for individual members is €40 for members of Western Europe and developed countries from elsewhere outside Europe. Under Item 5, the General Assembly of EUCARPIA of 30 August 2016 decided to put the assignment of countries to categories 1, 2 and 3 on the basis of objective criteria. It was decided to use the United Nations contribution quota as a basis for this assignment. This decision was implemented in 2017.

The assignments to categories were implemented in the member management part of the website. New members, when subscribing online and indicating their country of origin, are automatically assigned to the corresponding category and their annual membership fees are set accordingly by the system. Countries not listed above are also categorized according to the same criteria.

On top of this, members younger than 30 years or older than 65 years have 50% discount and pay €20, €15 or €10 depending on the category listing of their country.

The fee of corporate members is €300, €225 or €150, depending on the category listing of their country. Corporate membership fee covers the fees of maximum 10 delegates. For large companies/institutes, there is an option to get a corporate membership up to 20 delegates for €450, €335 or €225, respectively.

The preferred option of payment for individual members is to login to the members zone of the homepage and click on Membership renewal. If you forgot your password you can ask online for a new one. If you need assistance you can contact [eucarpia@ipk-gatersleben.de](mailto:eucarpia@ipk-gatersleben.de) You will be able to choose between credit card (VISA or MasterCard) payment or an electronic bank transfer. If you do not have access to internet, you may transfer your payment to:

UBS AG  
CH-8098 Zürich, Switzerland  
IBAN: CH90 0022 8228 EU10 0387 6  
BIC: UBSWCHZH80A

Please indicate your name and membership number in the transfer. Use the SEPA option or, if this is not available at your bank, choose "breakdown of costs". We do not accept cheques. Online payment by credit card without logging in is available on request at the Secretariat.

### **Membership privileges**

#### *Individual membership*

EUCARPIA membership advantages include:

- Free publication of breeding related international events on the website (contact the Secretariat)
- Reduction (≥40 €) in the registration fee for events (General congress, symposia, meetings, etc.) organized 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.
- Reception of the mailings about the upcoming events and important data.
- Facilitation of international cooperation, exchange of methods and plant material, etc.

### *Corporate membership*

In addition to the advantages entitled to individuals, Corporate members (Institutes, Departments, Companies, Associations, Societies, etc.) advantages include:

- Possibility of enlisting up to 10 or 20 individual delegates associated to the corporate membership.
- A link to the web page of the Institution can be posted in the web page of EUCARPIA. This web page is visited mainly by breeders and receives many hits per day.

## OVERVIEW CORPORATE MEMBERS

EUCARPIA currently has 57 corporate members. Each corporate member receives annually a coupon code for at least 10 or 20 personal memberships attached to the invoice for the membership. With this coupon code employees of the company can register or prolongate their personal membership to receive e-mails with updates of the meetings and discount when they participate. The coupon code is communicated with the contact person of the corporate member and they decide upon the further distribution of the codes.

Company Name	Company Name
1 Agroscope (Switzerland)	30 Leibniz-Institute of Plant Genetics and Crop Plant Research (IPK Gatersleben) (Germany)
2 Barenbrug Research (Netherlands)	31 Limgroup B.V. (Netherlands)
3 Bundessortenamt (Germany)	32 Lithuanian Research Centre for Agriculture and Forestry (LAMMC) (Lithuania)
4 Caussade Semences (France)	33 Maize Research Institute (Serbia)
5 Centre for Agricultural Research (ATK) (Hungary)	34 MAS Seeds (France)
6 Cereal Research Non-Profit Ltd. Company (Hungary)	35 Max Planck Institute for Plant Breeding Research (Germany)
7 Crop Research Institute (VURV) (Czech Republic)	36 Meridien Seeds (Spain)
8 CTIFL (France)	37 Nordgen (Sweden)
9 De Groot En Slot B.V. (Netherlands)	38 Nunhems Netherlands BV (Netherlands)
10 Delley Seeds and Plants Ltd. (Switzerland)	39 PBS International Ltd. UK (United Kingdom)
11 Deutsche Saatveredelung AG (Germany)	40 Plant Breeders Union of Turkey (Turkey)
12 Dlf Seeds A/S (Denmark)	41 Plant Breeding and Acclimatization Institute (IHAR) (Poland)
13 Florimond Desprez (France)	42 Plant Breeding Center (USA)
14 Gautier Semences SAS (France)	43 Ragt 2N (France)
15 Gediflora (Belgium)	44 Rijk Zwaan Breeding B.V. (Netherlands)
16 Gemeinschaft zur Förderung von Pflanzeninnovation e.V. (Germany)	45 Royal van Zanten BV (Netherlands)
17 Gesellschaft für Pflanzenzüchtung (GPZ) (Germany)	46 Saatzucht Steinach GmbH & Co. KG (Germany)
18 GZPK - Getreidezüchtung Peter Kunz (Switzerland)	47 Sakata Vegetables Europe (France)
19 Hazera Seeds Ltd. (Israel)	48 Science and Advice for Scottish Agriculture (SASA) (United Kingdom)
20 ILVO-Plant Breeding (Belgium)	49 Semillas Fito (Spain)
21 Institute of Field and Vegetable Crops (Serbia)	50 Syngenta Seeds LLC (USA)
22 Institute of Agricultural Resources and Economy (AREI) (Latvia)	51 Takii Europe B.V. (Netherlands)
23 Institute of Biological, Environmental and Rural Sciences (IBERS) (United Kingdom)	52 Tasaco Tarim Sanayi Ve Ticaret A.S. (Turkey)
24 Institute of Plant Genetic Resources "Konstantin Malkov" (Bulgaria)	53 The Federal Research Center - Institute of Cytology and Genetics (Russian Federation)
25 Institute of Plant Genetics, Polish Academy of Sciences (IPG PAS) (Poland)	54 University of Life Science in Lublin (Poland)
26 Japanese Society of Breeding (Japan)	55 University of Zagreb (Croatia)
27 KWS Saat SE & Co. KgaA (Germany)	56 Výzkumný a šlechtitelský (VŠÚO) - Research and Breeding Institute of Pomology Holovousy Ltd. (Czech Republic)
28 Lantmännen EK FÖR (Sweden)	57 Wageningen University Plantenwetenschappen (Netherlands)
29 Lantmännen Seed BV (Netherlands)	

## CORPORATE MEMBERS' SELF-INTRODUCTION

A corporate membership is a collective membership for at most 10 or 20 persons. Corporate members have the privilege to introduce themselves in this bulletin and have their logo and link on our website at the page <https://www.eucarpia.eu/organisation/partnerships>. Not all corporate members want to be mentioned in this bulletin. The subscriptions have been ordered alphabetically and are not edited.

### **Agroscope: Swiss research in agriculture, nutrition and the environment**

Agroscope is the Swiss center of excellence for agricultural research. Agroscope makes with its research an important contribution to a sustainable agriculture and food sector as well as to an intact environment, aiming finally at an improved quality of life.

Research is done along the entire value chain of agriculture and the food sector. The goals are a competitive and multifunctional agricultural sector, high-quality food for a healthy diet, and an intact environment.

Agroscope is characterised by its combination of research, policy advice, enforcement, knowledge exchange and technology transfer, as well as by the strong orientation of its research towards practical relevance.

In this environment, breeding activities and breeding research for several crops such as fodder grasses and legumes, wheat, soybean, several fruits aromatic and medicinal plants and wine find an optimal surrounding. With research sites spread out over whole Switzerland, Agroscope disposes of a decentralised infrastructure, which also allows a large range of regional differences in the agro-environmental system to be taken into account. For advanced field research with transgenic and genome edited plants, Agroscope maintains a unique Protected Site, open for any research project in Switzerland.

Agroscope deals with challenges in the following domains:

- Plant Breeding, Plant Production, Plant Protection and Plant Products;
- Livestock, Feed and Products of Animal Origin;
- Food and Nutrition;
- Cropping Systems, Protection of Natural Resources, Agricultural Economics and Agricultural Engineering.

### **Cereal Research Non-Profit Ltd.**

Cereal Research Non-Profit Ltd. (founded in 1924) is engaged in scientific researches, plant breeding and seed-related business activities. The experience in agricultural research accumulated during decades, combined with the recent research efforts opens up the possibility regularly to bring new plant varieties and hybrids to the market. The informative production technological guides sourcing from agronomy trial results increase the chance of prosperous crop production. There are nearly two dozens of field crop species in the interest of the institution, which range from bread wheat to buckwheat, maize, sunflower, winter rapeseed, sorghum, soybean; the winter and spring types of barley, triticale and oats; rye, linseed, red clover, millet and Hungarian millet.

### **Delley Seeds and Plants Ltd**

Delley seeds and plants (DSP) Ltd is a small and medium-sized corporation devoted to plant breeding, variety development and distribution of cereal-, maize-, soybean-, forage crop- and vegetable seeds for propagating purposes. DSP collaborates closely with Agroscope (the Swiss centre for public agricultural research); Agroscope and DSP are co-owners of the crop varieties developed together. DSP is in charge of maintenance breeding for most species, registration of varieties on national variety lists, and the protection of intellectual property rights. Beyond that, DSP maintains close contacts within the Swiss seed sector and with the food processing industry. DSP also fosters international cooperation with breeders and with partners, who commercialise the varieties by Agroscope/DSP abroad. In turn, DSP represents foreign varieties of certain crop species in Switzerland. The company is owned by those



seed producers (farmers), who are members of the association of Swiss seed growers (swissem). Royalties generated by sales of certified seeds represent the main source of income for DSP.

### **Deutsche Saatveredelung AG (DSV)**

Deutsche Saatveredelung AG (DSV) is one of the leading plant breeding and seed companies in Germany with an annual turnover of € 203 million. The company can look back on almost 100 years of company history. Around 800 shareholders, mainly farmers and employees, today hold the share capital of DSV (10% maximum/shareholder).

DSV is a full-service provider in the seed market. The range of services extends from research and breeding, through production, processing and distribution of seeds, to competent advice on site.

In addition to the head office in Lippstadt, the company has various seed breeding stations, numerous testing stations and a nationwide, regionally distributed network of branch offices and advisory services with its own processing plants, seed storage and distribution facilities.

DSV has major shareholdings in well-known companies in the seed industry in Germany and abroad and has 100% subsidiaries in Poland, France, Great Britain, Ukraine, the Netherlands, Denmark and Argentina.

More than 700 employees work for DSV in Germany and abroad.

DSV is an active member of professional organisations. For example, it is a member of the Federal Association of German Plant Breeders (BDP), the Association for the Promotion of Private German Plant Breeding. (GFP), the German Agricultural Society (DLG) and the Union for the Promotion of Oil and Protein Plants. (UFOP).

Internationally, DSV is also represented in the relevant organisations in the seed industry, such as the International Seed Federation (ISF) and the European Seed Association (ESA).

### **Florimond Desprez**

Florimond Desprez is an independent breeding and seed company headquartered in France and having had long commitment to cereals, beets, pulses and chicory breeding. Varieties bred by Florimond Desprez are successfully cropped in 65 countries, all around the world. Florimond Desprez has a long tradition of teaming up with colleagues from both public and private research. The current collaborations include works aiming at breeding innovative varieties with sustainable resistances to pests and diseases and also meeting the various market expectations in terms of quality. Florimond Desprez devotes more than 15% of its yearly turnover to R&D.

### **Gautier Semences**

Gautier Semences is a French, family-owned and independent company specialised in breeding, producing and retailing high quality vegetable seeds for the professional market. Our mission is based on three main pillars: serving farmers, meeting retailers' demand, and satisfying consumers thanks to diverse and flavourful vegetables. We cultivate values that result in ever more innovative, efficient and attractive products.

### **Gemeinschaft zur Förderung von Pflanzeninnovationen e.V. (GFPI)**

Plants are our basis of life. Plant research and breeding are the basis for providing new plant varieties for the production of high-quality food and feed, as well as a source of raw materials and energy. In order to promote innovation in plant research and to increase the visibility of the importance and necessity of plant research, the GFPI regularly develops appropriate research strategies together with its members. It acts as a driving force nationally and internationally to initiate and accompany research cooperation. As an intermediary between research and practice, the GFPI ensures that the results from the GFPI projects are applied in practice.

### **Institute of Agricultural Resources and Genomics (AREI)**

Institute of Agricultural Resources and Economics (AREI) has been established in 2016 by merging of "State Priekuli Plant Breeding Institute" (currently Priekuli Research Center), "State Stende Cereals

Breeding Institute" (currently Stende Research Center), the breeding institutions with long-term experience over the past hundred years, and "Institute of Agrarian Economics".

One of the main directions of AREI Crop Research Department is breeding of cereals (wheat, barley, oat, triticale, and rye), potatoes, grain legume, flax and hemp varieties for the needs of different farming systems including breeding for organic farming. Research addresses the application of methods from the fields of genetics, biotechnology and plant breeding in order to develop new genotypes satisfying the future demands of society, as well as to carry out research on crop management practices. Ongoing projects include the production of raw materials for healthy nutrition, resistance breeding in order to meet the requirements of sustainable development, research on the role of genetic diversity (including development of heterogeneous material), implementing climate-adaptive breeding strategies, application cost-efficient high throughput phenotyping approaches and various investigations on grain legumes. With stress on Green Deal and reducing climate changes development of varieties with improved nutrient use efficiency was recently started.

AREI was involved in organizing of several international conferences, including EUCARPIA Organic and Low Input Section conference "Breeding and Seed Sector Innovations for Organic Food Systems" which was held online during 8 - 10 March 2021. Currently AREI is acting as a local organizer of 13<sup>th</sup> International Barley Genetics Symposium, planned as in-person event in Riga, Latvia, 3 - 7 July 2022 (more info available at <https://ibgs.arei.lv/>).

#### **Institute of Plant Genetics, Polish Academy of Sciences (IPG PAS)**

Established in 1961, IPG PAS is a research center active in the area of biological and agricultural sciences, with special regard to the field of genetics and genomics of crop and model plants. It employs about 50 scientists and 20 PhD students. Research facilities include laboratories, greenhouses and experimental fields. Basic and applied research projects are financed mainly by Polish National Science Center and the Ministry of Agriculture and Regional Development. Most recently established teams work in the areas of integrative plant biology and plant nanotechnology. Research of many teams is supported by modern metabolomics, proteomics and bioinformatics. A number of investigations concern interactions of plants with the environment, including reactions to biotic and abiotic stresses. ([www.igr.poznan.pl](http://www.igr.poznan.pl))

#### **KWS SAAT SE & Co. KGaA**

KWS is one of the world's leading plant breeding companies. Around 6,000 employees in 70 countries generated net sales of around €1.3 billion in fiscal 2020/2021. A company with a tradition of family ownership, KWS has operated independently for 165 years. It focuses on plant breeding and the production and sale of seed for corn, sugarbeet, cereals, vegetables, rapeseed and sunflowers. KWS uses leading-edge plant breeding methods to continuously improve yield for farmers and plants' resistance to diseases, pests and abiotic stress. To that end, the company invested more than €250 million last fiscal year in research and development. For more information: [www.kws.com](http://www.kws.com)

#### **Lantmännen EK FÖR**

Lantmännen is a cooperative owned by 19 000 Swedish farmers with agriculture as our core business. We have a long experience in breeding, which is an important part of our core business. Our breeding section operates in Svalöv and Lännäs in Sweden and Emmeloord in the Netherlands. Our drive is to create value throughout the entire food chain, from field to fork. Lantmännen previously presented varieties under the brands Svalöf Weibull and SW Seed.

Representing the first step in the value chain from field to fork, we focus on developing sustainable varieties of field crops; cereals, oilseed, forage grasses and legumes, potatoes and willow trees. We develop varieties with strong agronomic performance in yield, nitrogen efficiency and disease resistance in order to minimize the total environmental footprint and provide economic value to uses in farming and processing industry. We adapt our unique genetic material from the northern temperate climate, in a technologically innovative way to meet the requirements in our home and international markets and to prepare to changing climate.

International seed operations are coordinated from Sweden, through our extensive network of distributors, from Northern and Central Europe to the global market. You can find our diverse portfolio of varieties all around the world.

#### **Leibniz Institute of Plant Genetics and Crop Plant Research (IPK)**

The IPK is one of the world's leading international institutions in the field of plant genetics and crop science. Its research programme and services contribute materially to conserving, exploring and exploiting crop diversity. Its research goals are driven by the need to ensure an efficient and sustainable supply of food, energy and raw materials, thereby addressing a major global ecological challenge.

The work of IPK's four scientific departments is focused on revealing the underlying principles of evolution, development and adaptation in major crop plants. On this basis, it seeks innovative solutions in the fields of scientifically-based crop plant germplasm conservation and exploitation, aiming to improve resource use efficiency and enhance the sustainability of plant-based production.

A unique feature of the institute is the close relationship enjoyed between its interdisciplinary and internationally focused research teams working within an ultramodern research infrastructure and the genetic diversity conservation activity carried out in one of the world's longest established and largest *ex-situ* gene banks. The topic "Biodiversity and Performance" combines scientific excellence, innovation and social relevance, and is targeted at addressing food security and sustainable production within a viable bioeconomy.

#### **Lithuanian Research Centre for Agriculture and Forestry (LAMMC)**

The Lithuanian Research Centre for Agriculture and Forestry (LAMMC) is a state research institution. It currently employs a total staff of over 500, of which researchers account for approximately 40 %, and provides PhD studies to over 60 students from Lithuania and abroad. LAMMC mission is to generate, garner and disseminate new scientific know-how geared to awareness of sustainable land, forest and environment resources, their competitive development and use, elaboration of innovative technologies and products to meet the societal needs. LAMMC conducts breeding programmes for the major field crops, vegetables, pomefruits, stonefruits and berries. More than 130 varieties are currently included in the Lithuanian National List of Plant Varieties and the EU Common Catalogue of Varieties of Agricultural Plant Species. They are marketed in Latvia, Estonia, Belarus, Germany, USA, and Canada. Each year, LAMMC carries out more than 30 international research projects under the programmes HORIZON, EUREKA, LIFE, etc.

#### **Maize Research Institute**

The MRIZP is a Serbian leading public institution for research and development of new high-yielding and quality maize hybrids, soya bean cultivars and small grains varieties, adapted to diverse agro-ecological conditions, and suitable for a variety of purposes and uses. The Institute employs a team of 290 people, more than 50 researches, 46 of whom have PhD degree. The main objectives of MRIZP are to: (i) develop the programmes focused on plant breeding, seed production, cultivation, utilisation and market placement of cultivars, varieties and hybrids both in country and abroad; (ii) develop the technological methods and processing procedures for the production of food, feed and for industrial needs. MRIZP breeders have developed 712 maize hybrids, 8 soybean varieties and 111 small grain cereal cultivars. MRIZP gene bank is among ten the largest in the world with collection of about 6000 maize accessions.

#### **Meridiam Seeds**

Meridiam Seeds is a company that pursues comprehensive research to obtain, develop, and promote hybrid vegetable seeds and take them to market. The company's headquarters and logistics warehouse are in Torre Pacheco, Murcia, with sales offices in Almería.

Currently Meridiam Seeds is present in the main vegetable growing areas of Spain, as well as in other countries where professional horticultural activity is especially important.

### **Plant Breeding Center**

The Plant Breeding Center at the University of Minnesota is a hub for collaboration, continuing education, community building, and promotion of plant breeding within the university and beyond. The center leverages Minnesota strengths in plant breeding research, varietal development, and graduate education. Activities include a seminar series, visiting scholar program, different working groups, short courses, and semester-long online courses. Rex Bernardo currently serves as director.

### **RAGT 2n**

RAGT 2n, produces and sales seeds in major field crops. Based in Rodez, in the heart of the region where the RAGT group was born 100 years ago, RAGT 2n registers nearly 200 varieties per year in about 30 species. They are distributed in some 50 countries by its 18 sales subsidiaries on all continents. RAGT 2n now holds many leading positions in the European markets.

RAGT 2n, which invests nearly 18% of its annual turnover in varietal innovation, has endowed its research subsidiary with the European continent and beyond. It has more than 300 breeders and technicians and a large network of research and experimental stations.

In addition, RAGT 2n has a database, called the SEV<sup>®</sup> Varietal Evaluation System, in which the results and observations of tests carried out on its varieties are recorded. Every year, hundreds of thousands of data are entered and provide dozens of agronomic or technological criteria that can be crossed to refine the positioning of varieties.

For more information: <https://www.ragt.fr/>

### **Research and Breeding Institute of Pomology Holovousy Ltd. (VÝZKUMNÝ A ŠLECHTITELSKÝ ÚSTAV OVOCNÁŘSKÝ HOLOVOUSY s. r. o.)**

Research and Breeding Institute of Pomology Holovousy Ltd. is the main institution specialized exclusively in fruit growing research on the territory of the Czech Republic and also one of the leading fruit growing research institutions in the area of Central and Eastern Europe. We maintain, manage and phenotypically evaluate one of the biggest Central European fruit germplasm collections. Concerning apple, there are more than 1 100 apple cultivars and genotypes in the genebank of RBIP Holovousy. Accessions from our genebank are actively used in research activities. RBIP has also long-standing experience in apple and sweet cherry breeding. RBIP Holovousy works in other fields of fruit growing research (cultivar evaluation, biotechnology, sequencing, in vitro, virus detection by PCR, ELISA, sanitation from viruses, plantation management, etc.).

### **Rijk Zwaan Breeding B.V.**

Rijk Zwaan is a Dutch family-owned vegetable breeding company with its head office located in De Lier, The Netherlands. It is amongst the top 4 in the global vegetable seed market with a turnover of over 500 million euros and a market share of 9%. Rijk Zwaan develops vegetable varieties and sells the seeds produced from them. It combines the huge genetic diversity that nature has to offer with continuous investment in R&D (approx. 30% of the annual turnover). This results in plant varieties with ever-better combinations of desired traits.

Rijk Zwaan has more than 1,500 varieties in its assortment, across more than 25 different vegetable crops. Rijk Zwaan seeds are sold in more than 100 different countries through 30 locally operating sales subsidiaries and numerous distributors. To align its products perfectly with market requirements, the company maintains close contact not only with growers but also with the rest of the vegetable chain.

See [www.rijkszwaan.com](http://www.rijkszwaan.com) for more information.

### **Society for Plant Breeding e.V. (GPZ)**

The Society for Plant Breeding e.V. (GPZ) is the scientific association for the improvement of plants by breeding and research on the genetic basis of plant breeding. It was founded in Göttingen in 1991 through the merger of the Plant Breeding Working Group of the Society for Plant Production Sciences in the Federal Republic of Germany and the Society of Plant Breeders in the former DDR. Currently, the GPZ has more than 800 full members and several supporting members.

**Tasaco Tarim Sanayi ve Ticart A.S.**

Established in 1996, in Antalya Turkey. Main activities of Tasaco are breeding, producing and distributing of flower seed, vegetable seed and cereal seed. Tasaco has leading position in flower, common and durum wheat and forage seed segments in the country. The company has 60,000 tons of seed cleaning and storage capacity within 3 production facilities. Tasaco has contracting farming system over 10,000 ha annually for certified seed production of bread and durum wheats. Tasaco has a total of 90 staff including 20 R&D people. It has also its own research centre working on both field and vegetable crops for breeding mainly field crops using both classical and molecular techniques to develop new bread and durum varieties.

**University of Life Science in Lublin (Poland)**

University of Life Sciences in Lublin is a multi-profile institution, which integrates a wide range of agricultural, biological, veterinary, technical and socioeconomic sciences. One of the most important directions of research is dedicated to genetics, genomics, and biotechnology of plants. Research teams perform both basic research and applied research dedicated to plant breeding. The main scientific issues are related to the study of tolerance and resistance of crop plants to abiotic and biotic stresses, quality of plant raw materials, adaptation to environmental changes, and conservation of biodiversity. Research is performed using state-of-the-art equipment including next-generation sequencing and gene expression analysis using qPCR and dPCR techniques. The university also has a very modern plant and environmental research center that includes a complex of greenhouses equipped with climate control and LED lighting to simulate a wide range of environmental conditions. The center is also equipped with a state-of-the-art digital phenotyping station allowing continuous phenotypic analysis of several hundred plants in a single experiment.

## **EUCARPIA MEETING CALENDAR FOR 2022 AND LATER**

More information and updates on these meetings can be found on the web page of EUCARPIA ([www.eucarpia.eu](http://www.eucarpia.eu))

### **EUCARPIA Meetings**

#### **2022**

##### **Section Maize and Sorghum**

XXVth Eucarpia Maize and Sorghum Conference  
Belgrade, Serbia, May 30 - June 2, 2022

##### **Section Vegetables**

20th EUCARPIA meeting of the Tomato Work Group  
Valencia, Spain, 31 May - 3 June 2022  
organised by Prof. Jaime Prohens (Universitat Politecnica de Valencia) and Prof. Antonio Granell (CSIC) (<https://eucarpia2022.webs.upv.es/>)

##### **Section Cereals**

11th International Triticale Symposium  
organised by Plant Breeding and Acclimatization Institute, Radzików, Poland in collaboration with International Triticale Association and Eucarpia Cereals Section, June 26-30, 2022

##### **Section Organic & Low-input Agriculture**

3rd EUCARPIA Workshop on Implementing Plant-Microbe Interactions in Plant Breeding (attached to miCROPe  
Tulln, Austria, 14 July 2022

##### **Section Biometrics in Plant Breeding**

XVIIIth Section Meeting  
Paris, France, 7-9 September 2022

#### **2023**

##### **Section Ornamentals**

XVII International Eucarpia Symposium Section Ornamentals - From Nature to Culture: Breeding Ornamentals for Sustainability  
Location: Genoa (Italy)  
July 2 -5, 2023  
Hashtag#EucarpiaOrnam2023

##### **Section Fodder Crops and Amenity Grasses**

35th Section Meeting  
September 10-14, 2023, Brno, Czech Republic  
Chaired by Dr. Tomas Vymyslicky (Research Institute for Fodder Crops, Ltd. Troubsko) and Dr. David Kopecky (Institute of Experimental Botany, Olomouc)

**Section Cereals**

Seventh International Conference of Cereal Biotechnology and Breeding (CBB7)  
Budapest, November 2023

**Section Fruit**

XVI EUCARPIA Fruit Breeding and Genetics Symposium  
Organized by Julius Kühn Institute Dresden-Pillnitz  
(planned for 2023)

**Section Potatoes**

20th Joint Meeting of EAPR Section 'Breeding & Varietal Assessment' and EUCARPIA Section  
'Potatoes'  
Turkey (planned for 2023)

**Section Vegetables**

18th EUCARPIA Meeting on Genetics and Breeding of *Capsicum* and Eggplant  
Plovdiv, Bulgaria (planned for 2023)

The 10<sup>th</sup> EUCARPIA meeting of Leafy Vegetables  
The Netherlands (planned for 2023)

**2024****General Congress**

18 – 23 August 2024  
Leipzig, Germany

## FINANCIAL REPORT

### 1. Balance 2016-2020

	2016	2017	2018	2019	2020
<b>ASSETS</b>					
Bank account EU100387.6 EURO current	33.215,28	28.649,83	27.554,10	17.098,08	22.003,70
Bank account EU100387.7 EURO savings	137.182,81	270.554,23	269.604,81	268.573,05	267.544,76
Bank account EU100387.1 EURO Ornamentals	10.467,72	10.394,90	10.319,57	5.741,00	5.664,93
Bank account EU100387.2 Fodder Crops	9.645,40	9.572,58	9.501,68	9.427,72	9.351,65
Accounts Receivable		620,00	4.033,59	6.765,00	3.225,00
Bank account EU100387.3 Congress 2016	26.565,22				
Accrued income Congress 2016	2.410,32				
Other amounts to receive		1.331,00	200,00	220,00	0,00
Costs Gen. Congress 2020/2021 paid in advance				19.888,60	27.257,75
Diversified Fund	32.251,90				
Bond Fund	71.659,80				
<b>TOTAL</b>	<b>323.398,45</b>	<b>321.122,54</b>	<b>321.213,75</b>	<b>327.713,45</b>	<b>335.047,79</b>
<b>LIABILITIES</b>					
Deferred liabilities					
Accrued expenses Eucarpia	3756,72				
Accrued expenses Congress 2016	467,96				
accounts Payable		1.058,15	368,86	3.703,60	6.536,49
Accounts to be paid		1.331,00	2.844,82	5.086,16	80,00
Other debts					
Equity	296.018,65	319.173,58	318.733,58	318.000,07	318.923,69
<b>TOTAL</b>	<b>300.243,33</b>	<b>321.562,73</b>	<b>321.947,26</b>	<b>326.789,83</b>	<b>325.540,18</b>
Profit/Loss Congress	28.417,58				
<b>Net profit / loss</b>	<b>-5.262,46</b>	<b>-440,19</b>	<b>-733,51</b>	<b>923,62</b>	<b>9.507,61</b>
<b>TOTAL</b>	<b>323.398,45</b>	<b>321.122,54</b>	<b>321.213,75</b>	<b>327.713,45</b>	<b>335.047,79</b>



## 2. Profit/loss 2016-2020

	2016	2017	2018	2019	2020
<b>INCOME</b>					
Membership	30.544,42	27.040,00	26.292,50	27.687,21	33.884,88
Gen. Congress 2016		-2.600,25			
Meetings income					
Interests	10,28				
Valuation difference of securities	2.886,80				
Project payments					
Other incomes					
Sections income					
<b>TOTAL</b>	<b>33.441,50</b>	<b>24.439,75</b>	<b>26.292,50</b>	<b>27.687,21</b>	<b>33.884,88</b>
<b>EXPENSES</b>					
Meetings and Workshops	7.500,00	7.711,41	14.000,00	13.500,00	9.000,00
Travel costs	471,27	4.080,25	1.178,23		
Website costs		562,07		738,05	
Personal costs	25.178,12	9.988,20	8.542,05	9.753,54	11.580,91
Other costs	4.573,21	2.367,53	1.583,95	1.041,82	392,22
Currency differences		-1.137,50			
Bank fees	981,36	1312,55	772,36	698,42	2.375,85
Positive / Negative interest bank		-4,57	949,42	1.031,76	1.028,29
<b>TOTAL</b>	<b>38.703,96</b>	<b>24.879,94</b>	<b>27.026,01</b>	<b>26.763,59</b>	<b>24.377,27</b>
<b>Net profit / loss</b>	<b>-5.262,46</b>	<b>-440,19</b>	<b>-733,51</b>	<b>923,62</b>	<b>9.507,61</b>

## EUCARPIA BULLETIN 2022

The EUCARPIA Bulletin No. 48 will be issued in the end of 2022. 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, 2022**.