



## Autumn 2020 newsletter

**This is the shorter public version. All articles with \* are only in the full Newsletter available on the members' only website.**

### Editorial

Plant scientists are ready to contribute to implement the Farm to Fork and the Biodiversity strategies

### EPSO activities

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- \*Plants and Microbiomes Working Group gathers online for its 3rd workshop- 13-14.01.2021
- \*Nutritional Security Working Group
- \*Call for EPSO Internship Experts and PhD student trainees
- Fascination of Plants Day postponed from May 2021 to May 2022
- PBE 2021 will be hold online 28/06-01/07/2021
- SusCrop mid-term symposium of research projects and activities planned for 2021
- \*Translating the Green Deal into Practice – R&I opportunities for sustainable food systems developed by three Technology Platforms

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- CRAG obtains again the Severo Ochoa award and opens new calls
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- \*Plant Science pushes boundaries and crosses borders at the James Hutton Institute
- \*Phenomics Webinars: an initiative by IPPN, EPPN2020 and EMPHASIS
- \*ENDOSCAPE- non-viral gene delivery technology using secondary plant metabolite
- \*PSC virtual Symposium 2020: Connectivity–Plant interactions reloaded – 02.12.2020

### National, European and global funding:

- \*National Research Funding Opportunities in The Netherlands
- \*The European Green Deal Call under Horizon 2020 WP 2020
- \*Horizon Europe – Work Programme 2021-22 expected end Q1 2021

### \*Career opportunities and (postponed) meetings

### About EPSO



### Plant scientists are ready to contribute to implement the Farm to Fork and the Biodiversity strategies



EPSO welcomes the European Commission's (EC) Farm to Fork and Biodiversity strategies and offers to collaborate with the European Commission, the Member States and stakeholders to implement it.

EPSO appreciates that the Farm to Fork strategy links Food and Nutritional Security (FNS), environmental sustainability and human health, for example when stating that *'Food consumption patterns are currently unsustainable from health and environmental point of view (too high energy, red meat, sugars, salt, fats; too low whole-grain cereals, fruit and vegetables). Reverse rise of overweight and obesity rates by 2030. Moving to more plant-based diets with less and*

*processed meat and with more fruits and vegetables will reduce risks of life-threatening diseases and environmental impact of the food system.'*

EPSO urges application of this approach across the strategy as a whole. The EC aim to ensure that the most sustainable food also becomes the most affordable should include, equally, the most nutritious food. Similarly, the EC is envisaging an ambitious sustainability chapter in all bilateral trade agreements and should extend this where appropriate to FNS. Finally, when providing food information to consumers, a higher uptake of sustainability standards is a goal, which should be complemented again by FNS standards.

Concepts like 'diverse crops for diverse diets and human and resilient production', as well as 'combined approaches on crop improvement, crop management and crop processing', will enable interdisciplinary approaches with co-benefits in Europe and beyond. To this end, we suggest considering the 'diverse crops' concept to ensure that the food chain has a neutral or positive environmental impact, to improve EU trade policy alleviating food insecurity by strengthening resilience of food systems, and to be included in international cooperation on food research and innovation aiming at biodiversity, sustainability, nutrition and healthy diets.

Likewise, the 'crop improvement / management / processing' concept will benefit goals such as reducing the use of chemical pesticides and improving the use of water, nitrogen and phosphorus in plant nutrition, which would thereby reduce nutrient losses. Turning to feed crops improving animal production, the concept can help to improve crops for protein production (and reduce GHG emission) and for healthy secondary metabolites with antimicrobial functions to reduce antimicrobials in animal husbandry.

The EC rightly defines the goals and should lead the process to achieve these based on open and transparent approaches, ranging from research to innovation and public procurement to legislation. The future food chain will include organic farming as one management practice, complemented by various others and by new technologies, which can all contribute to enhancing cultivated biodiversity. Similarly a recent article by Leclere et al. in Nature concluded that 'ambitious conservation efforts (protected nature reserves, restoring degraded land, landscape level conservation planning) and food system transformation (boosting agricultural yields, globalizing food trade, reducing food waste, global adoption of healthy diets by halving meat consumption) are central to an effective post-2020 biodiversity strategy'.

Leaving the path open to new and combined approaches is equally important to improve plant health, the new CAP 'eco-schemes', minimum mandatory criteria for sustainable food procurement and tax incentives.

We are looking forward to help implement this strategy with policy makers and stakeholders for a better Europe and world!

#### Links:

EC [Farm to Fork strategy](#), 20.5.2020

EC [Biodiversity strategy](#), 20.5.2020

EPSO: [Statement on the Farm to Fork Strategy by the European Commission](#), 2.6.2020

Contact: [Karin Metzlauff](#), BE



### The EPSO Regional General Meetings 2020: virtually and concretely successful



How can you both meet with your colleagues abroad and never leave home? In the time of Covid-19, we have all discovered that this is possible, virtually, via online conferencing tools. So, too, did EPSO's member Representatives and Supporting Scientists, who gathered 2-3 July 2020 for both a traditional General Meeting as an online common session and for online Regional General Meetings (RGMs). The RGMs, an innovation this year, provided forums not only to focus on issues of importance in particular geographic regions, but also to have more opportunities to contribute views on overarching issues than would be possible in the GM online.

The discussions during the RGMs were generally very lively. Participants were generally very interested in regional questions and in working to strengthen EPSO's visibility as well as its policy, science support, and outreach activities. The three topics that attracted the most interest were:

- 1) Engaging the members of EPSO;
- 2) Developing and providing input into the Horizon Europe Strategic Plan and offering advice on the Draft Work Programmes;
- 3) Supporting and contributing to the Working Groups.

**1 Engaging members:** Among the ideas raised for activating members were holding regular short online conferences to communicate EPSO actions and achievements in its engagement with the EC. An example is: "Recent developments in new breeding technologies". Other ideas aimed to increase the efficiency of networking through EPSO website areas for scientific portfolios of members and by increasing interactions with neighboring disciplines.

**2 Horizon Europe:** For Horizon Europe, many at RGMs expressed the idea that the members could give common messages through the decentralized national input streams, so that a coherent consensus on the contributions and needs of plants science could positively impact the co-creation of the Work Programmes. Horizon Europe presents good opportunities for the contributions of plant science in the

Green Deal, from chemical pesticide-free agriculture to issues of biodiversity maintenance and valorization, mitigation of climate change and low-footprint agriculture. Beyond the Framework Programmes, participants saw that the RGMs could nucleate regional collaborations addressing specific intra- and inter-regional challenges as well as inspire joint funding initiatives. The funding initiatives seek support from instruments such as PRIMA, ERA-Nets and various regional (e.g. Nordic, Iberian, Visegrád) and bilateral programmes.

**3 Working Groups:** Like the RGMs, the Working Groups (WGs) effectively bring EPSO members together for close interaction and creating impact on the European level. The Agricultural Technologies WG has been very busy lately in its contribution to the discussions around the NBT legal framework in the EU; the Plants and Microbiomes and Nutritional Security WGs have had high impact. The Plant Health and the Molecular Farming WGs are in the process of being created / reactivated and would be happy for more participation. A Data WG is in the process of formation.

The RGM participants came together for the joint GM information session, at which, among other issues, the Candidates for the open Board positions were introduced. These were voted on by email and the votes validated at the Board's subsequent General Assembly. Ulrich Schurr, Antonio Leyva and Przemyslaw Wojtaszek were elected for their second terms; Isabelle Litrico and Tim George were elected for their first terms. The Board, the WGs, and the whole of EPSO is now looking forward to an engaged productive autumn and coming new year. EPSO will be celebrating its 20<sup>th</sup> anniversary, virtual events organized for an interim FoPD before return to a full program in 2022, and PBE2021 is scheduled for June online.

**Contact:** [Alan Schulman](#) & chairs of the Regional GM

## Fascination of Plants Day postponed from May 2021 to May 2022

As autumn is moving forward and the second wave of Covid-19 hits countries around the world, EPSO together with the FoPD National Coordinators decided to postpone the Fascination of Plants Day from 2021 to 2022.



This decision was taken to facilitate the organisation of interactive events for all countries with hopefully a come back to physical and interactive activities in 2022. Meanwhile, in 2021, sporadic events can be organised by National Coordinators who wish to keep the momentum.

EPSO has gathered a task force bringing together those National Coordinators interested in developing ideas and concepts for online activities, which they then implement. It will be possible to send news items,

pictures and videos of events organised to EPSO for dissemination via the FoPD [Twitter](#), [Facebook](#), [Instagram](#) and [website](#).

Resources such as the logo and pictures will be available online in the [PR Toolbox](#).

**Contacts:** Global coordinators: [Alexandra Barnoux](#), EPSO, BE; [Trine Hvoslef-Eide](#), Norwegian University of Life Sciences, NO, [Przemysław Wojtaszek](#), Adam Mickiewicz University, PL; [Karin Metzloff](#), EPSO, BE.



Fascination of  
Plants Day  
May 18<sup>th</sup>

## PBE 2021 will be hold online 28/06-01/07/2021



PLANT BIOLOGY EUROPE

Plant biology is a blooming scientific area where novel developments continuously arise, opening new avenues of research and empowering innovation for agriculture and for food and non-food applications. In the frame of a well-established tradition of biennial congresses jointly organized by the Federation of European Societies of Plant Biology (FESPB) and the European Plant Science Organization (EPSO), the Plant Biology Europe (PBE) Congress was originally planned for June 2020 when in March 2020 it had to be postponed due to the Covid-19 pandemic.

PBE2021 focuses on delivering the latest scientific developments in plant biology, following an inclusive approach where long-standing research sectors and

novel breakthrough topics are showcased, including aspects of science policy and ethics, and fostering participation of young scientists.

PBE2021 will take place 28 June to 1 July 2021. The Local Organization is led by scientists from Turin, where the conference was scheduled originally.

Abstract submission (or confirmation for those already submitted) will open on 1 November 2020 and submission for oral presentation will close on 30 April 2021. Registration will open shortly.

Please follow all developments on the Congress website <https://europlantbiology2020.org>.

**Contact:** [Andrea Schubert](#), University of Turin, IT

## SusCrop mid-term symposium of research projects and activities planned for 2021



On September 15, the 13 co-funded projects of the 1<sup>st</sup> ERA-Net SusCrop Call met during a virtual mid-term symposium. More than 90 participants attended the symposium including project coordinators and partners, SusCrop consortium

members, representatives from funding organisations and FACCE-JPI, and other stakeholders. Each project presentation included an overview of the project activities and summarized the scientific progress of the past and ongoing work. The common goal of these transnational research projects is to improve sustainability and resilience of crop production.

For more information about the transnational co-funded call projects under the ERA-Net Cofund action SusCrop, please visit the website: [https://www.suscrop.eu/call-](https://www.suscrop.eu/call-information/1st-call)

[information/1st-call](#).

The mid-term symposium of the SusCrop research projects followed an internal SusCrop Consortium Meeting held on September 14. The Consortium Meeting was an excellent opportunity for all SusCrop partners to discuss general issues of the ERA-Net Cofund action and to assess potential impacts and consequences of the COVID19 crisis. Furthermore, the virtual Consortium Meeting was a suitable occasion to present proceedings of the ongoing 2<sup>nd</sup> Call of SusCrop and to promote the preparations of transnational funding activities in the near future.

EPSO is official observer in SusCrop and advices on research strategies and additional activities such as workshops and outreach.

**Contact:** [Nikki De Clerq](#), ILVO, Research Institute for Agriculture, Fisheries and Food, BE



## Members' news



### Welcome to the University of Padova as new member



Dating back to 1222, the [University of Padova](#) (UNIPD) is one of the oldest universities in the World and one of the leading Universities in Italy with a long tradition and consolidated reputation for scientific excellence. Its 32 departments, 40 doctoral degree courses and 44 interdisciplinary research and service centers cover an exceptionally broad research scope including Arts & Humanities, Social Sciences, Engineering, Physics, Technology, Life Sciences, Medicine, Natural Sciences. Frontier Research@UNIPD is funded by Intramural grants and European projects, being a first driver for technology transfer. The University of Padova is recognized among the best Italian universities, with 60,000 students and about 2,300 professors and researchers employed.

Established at UNIPD in 1545, the most ancient [University Botanical Garden](#) is also part of the Unesco

World Heritage List as a cultural landmark since 1997.

Basic and applied research in Plant Science is carried out in different Departments in the area of Biology, Pharmacy, Forestry, Agriculture, and Environmental Sciences.



A relevant part is related to crop science, including sustainable cropping systems, precision and reduced impact agriculture, organic practices, ecosystem services, technology transfer and collaboration with private companies, to improve the competitiveness of the agri-food sector and sustainable use of natural resources by ensuring the conservation of ecological systems, the protection of cultivated plants and biodiversity.

**Contact:** [Antonio Masi](#), Padova University and EPSO Representative, IT



### CRAG obtains again the Severo Ochoa award and opens new calls



The provisional resolution of the "Severo Ochoa and María de Maeztu Centres and Units of Excellence" by the Spanish State Research Agency in July brought very good news to CRAG. CRAG will hold again the [Severo Ochoa Centre of Excellence](#) award for the 2020-2023 period, which represents 1 million of euro of extra funding per year. This is the second time that CRAG is recognized with this award that aims to recognize and boost Spanish Centres by further supporting them to enhance their impact, their international scientific leadership, and competitiveness. The impact of the 2016-2019 CRAG-Severo Ochoa project is summarized in the latest [institutional report](#). The independent international committee of scientists evaluating the 55 proposals

received by the Spanish Agency did a very positive evaluation of both the implementation of the past CRAG -Severo Ochoa project and the strategic plan presented for the new one.

The new CRAG-Severo Ochoa project will also have a strong focus on **people**, from doctoral students to group leaders and support personnel. Currently, CRAG is seeking for a [Junior Group Leader](#) to start a new research group with a focus on Synthetic Biology and a [Technology Transfer Specialist](#). The Severo Ochoa project will also ensure the full development of the COFUND AGenT postdoctoral programme, whose [1<sup>st</sup> call is currently open](#).

**Contact:** [Maite Iriarte](#), Centre de Recerca en Agrigenòmica – CRAG, ES



### TOMRES — increasing water and nutrient use efficiency in tomato



During the final sprint within the third year of the TOMRES project „A novel and integrated approach to increase multiple and combined stress tolerance in plants using tomato as a model“, the project partners will finalize their scientific experiments and continue to publish results. Planned activities take into account all up-to-date project outcomes, including selected tomato genotypes, novel insights into hormonal control of plant stress resilience, improved crop management techniques such as use of biostimulants and grafting, supporting data analysis and underlying social-economic impacts. Particular focus is laid on conclusive approaches summarizing all realizable and practicable measures, such as under field conditions at Villa Lyterno, Italy, prepared by project-involved farmers from Tamburrino Raffaele and

the University of Naples. Dissemination and capacity building has been pursued through scientific publications, practice abstract and a dedicated Summer School for young scientists held online on 8-10 September 2020.

EPSO coordinates and engages the Stakeholder Group and produced a 2nd set of videos on TOMRES.

Please, check our TOMRES website for ongoing activities, such as the newsletter, practice abstracts and technical and scientific publications ([www.tomres.eu](http://www.tomres.eu)). Further, activities such as planned conferences and TOMRES trainings currently hampered by the present Corona pandemic will take place as soon as possible. Stay healthy and safe!

**Contacts:** [Alberta Bertin](#), Novareckon, IT; [Andrea Schubert](#) (Coordinator), University of Turin, IT



## CHIC– Chicory as multipurpose crop for dietary fibre and medicinal terpenes



Since the CHIC project's inception 30 months ago, several important steps and first results become available for the general public. Even at the onset of regulatory changes in genome-edited plants, the project is moving forward to achieve what the scientists set out to do and happily share its findings.

The research is progressing quite well. Less DNA invasiveness must be performed to be acceptable by the regulators and the general public. Further research has been done on inulin. The natural production of terpenes in chicory is less efficient to extract inulin. However, the other problem is that the latex of chicory plants contains large amounts of sesquiterpene lactones, which interfere with the extraction of inulin. It is also important to assess other aspects of the CHIC project. A ruling by the European Court of Justice could have an adverse effect on the CHIC project when any products derived by genome editing are also considered as GMO, not widely accepted by the general public. Besides regulatory issues, the socio-economic and

environmental impacts on the whole value chain are also being evaluated. Qualitative research on societal issues regarding chicory innovation will be examined and focus on the effects on GDP, growth, employment, among others. However, the legal framework for genome-edited plants in the EU could change.

EPSO is coordinating and engaging the Stakeholder Advisory Group in CHIC, including SAG sessions at the 9-monthly project meetings. Furthermore, EPSO supports outreach with the production of videos on CHIC, based on self-recorded material of the partners.

There are new activities we want to share. Professional artists Anna Dumitriu and Alex May are working to develop a new sculptural and bio-digital installation entitled "Biotechnology from the Blue Flower". Jill Scott and Marille Hahne are creating "AFTERTASTE," a presentation on the health of the human olfaction and gustatory systems (sense of smell). A set of games are also being developed with the DEI Group from University Carlos III.

The technology behind the project is allowing for commercial exploitation of chicory as a multipurpose crop. In other words, inulin remains intact during mouth, gastric, and duodenum phases, which could lead to proper gut health.

**Contacts:** [Macarena Sanz](#), ID Consortium, ES; [Dirk Bosch](#) (Coordinator), Wageningen University, NL



## CropBooster-P— towards a draft Roadmap to future-proof European crops



The interlinked challenges of population growth, climate change and shifting diets have put the future of food and farming firmly in the spotlight. The CropBooster-P project aims to develop a roadmap to future-proof European crops for these challenges. To do so, it is employing a stakeholder-

focused approach to determine the impacts of various strategies for crop improvement.

In the first year of the project, the current scientific state-of-the-art to improve our crops was captured by creating a database of over 800 recent keystone publications. These publications focus on 3 main themes: Increasing crop yield, increasing nutritional quality and protection against abiotic stress (heat, drought, salt, etc.). From these publications, 15 main options were developed that could be followed to breed

for better crop varieties. Examples of such options are improving water use efficiency, optimising plant photosynthesis and increasing vitamin content.

In a next step, the potential impact of executing these options in society was discussed in a series of workshops with 3 groups of stakeholders; farmers, consumers and industry. The scientific options to improve our crops, and the stakeholders opinions on the effects on society, will be used to draft the Roadmap for the European Commission in the last year of the project. To this end, EPSO engages a stakeholders in the project and supports the strategy development.

The Cropbooster-P project can be followed on [www.cropbooster-p.eu](http://www.cropbooster-p.eu), where you can also subscribe to our newsletters.

**Contact:** [Rene Klein Lankhorst](#), Wageningen University, NL

**EPSO Agricultural  
Technologies WG  
24 Nov 2020**

Contact: [Frank Hartung](#)



**EPSO Plants and  
Microbiomes Work-  
shop 13-14.1.2021**

Contact: [Angela Sessitsch](#),



**PBE Conference  
28 June - 1 July 2021  
online**

Contact: [Karin Metzloff](#)



EPSO, the European Plant Science Organisation, is an independent academic international non-profit organisation that represents over 200 leading academic research institutes, universities and departments from 32 countries. Together they represent over 26 000 plant researchers and staff. In addition, EPSO has over 2.600 personal members.

The mission of EPSO is to promote plant science and plant scientists, to represent plant scientists in discussions about future plant science programme priorities across Europe, to provide an authoritative source of independent information on plant science (science advice to policy), and to promote training of plant scientists to meet 21st Century challenges in breeding, agriculture, horticulture, forestry, plant ecology and sectors related to plant science.

To achieve its mission, EPSO advises policy and decision makers at European and national level on science policy, as an independent body and as member of the Initiative for Science in Europe (ISE) and the European Technology Platform 'Plants for the Future' (Plant ETP). EPSO supports plant scientists via the EPSO working group meetings, conference, workshops, internships and as information broker via EPSO briefings, newsletter and its website.

EPSO's strategy is defined by the representatives at the General Meeting and further elaborated by the elected Board. Current Board members are Alal Schulman (President – IT), Ulrich Schurr (Vice-President – DE), Carole Caranta (FR), Ernst van den Ende (NL), Antonio Leyva (ES), Przemysław Wojtaszek (PL), Josef Gloessel (AT) and Angelo Santino (IT).

EPSO's strategy is implemented by its members and staff. **EPSO staff** profiles are available [here](#). [Contact us](#) to join our activities:

- ◆ Science policy (EPSO, ISE, Plant ETP), Science Support (working groups, projects), members, observers, association relations: **Karin Metzloff**
- ◆ Website, social media, briefings, newsletter, communications: **Alexandra Barnoux**
- ◆ Office, accounts, projects, meetings, database, personal membership administration: **Sofia Ciravegna**

Since its creation in 2000, the organisation has become a strong advocate of plant research in Europe and an important voice articulating the contributions and needs of plant scientists at national and European levels and beyond. One of EPSO's priorities is science advice to policy.

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*EPSO News* is an online newsletter published twice a year. Access is restricted to EPSO personal members.

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**Current EPSO News:** Issue 52 – Copy deadline:  
30.10.2020

**Next EPSO News:** Issue 53 – Publication date:  
Spring 2021

