



EPSO News N° 49 / Special Issue: Fascination of Plants Day, May 2019

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## Editorial

### Join us for Fascination of Plants Day, 18 May 2019



Fascination of  
Plants Day

May 18<sup>th</sup> 2019

Scientists, students, companies and farmers across the world celebrate the 5<sup>th</sup> Fascination of Plants Day around the 18<sup>th</sup> May – enjoy the events!

The 18th of May will be the 5th international [Fascination of Plants Day](#), organised by thousands of scientists, teachers, companies and farmers under the umbrella of [EPSO](#) to celebrate plants in all their diversity and wonder.

**Students and scientists - this is your chance to bring your research to the wider public!** The goal is to get as many people as possible around the world fascinated by plants and there are many ways to hold interactive events. Some will have themes, such as the major contribution plant science makes towards the UN Sustainable Development Goals, including nutritional security for Zero Hunger and biodiversity protection for Climate Action, and how we can be at frontiers by combining tradition with innovation. EPSO provides images, poster and flyer files for free via our [PR toolbox](#), which you can translate and modify these yourself.



**Kids, teenagers, families, seniors – enjoy the events and find out** why scientists are fascinated by plants: Plants can't move, so they developed many-fold strategies to find nutrients, water, attract pollinators to propagate, chase away enemies to survive. Plants can produce sugars just from sunlight, carbon dioxide and water. This ability to directly synthesize their own food has enabled plants to successfully colonize, adapt to, and diversify within almost every niche on the planet and biologists estimate the total number of plant species to be about 250000. These abilities make plants the primary producers of biomass, providing animals and humankind with food, chemicals, medicine, energy, and enjoyable landscapes.

**The media are also invited to get involved.** Scientists, farmers, politicians and industrialists will present to them their latest state-of-the-art breakthroughs in the plant science world and explore all of the new potential applications plant sciences can offer. The Fascination of Plants Day covers all plant related topics from basic science and agricultural plant breeding to horticulture, forestry, environmental conservation and art.

**Already 50 countries have confirmed their participation.** Many plant science institutions, universities, botanical gardens, and museums, together with farmers and companies, will open their doors with a variety of plant-based interactive events for all the family. Find out what will happen near you and who to contact at [www.plantday18may.org](http://www.plantday18may.org) and click on your country's page.

**Get involved online and share fascinating** facts, pictures and videos about plants, your research, and of you with them using the hashtag [#PlantDay](#) and/or send them to us at [plantday@epsomail.org](mailto:plantday@epsomail.org) to upload to our [@PlantDay18May](#) Twitter and [YouTube](#) channels. You can also help for the fascinating world of plants to be broadcast to the wider public through local and national newspapers, television and radio.

**We thank the over 50 National FoPD Coordinators and thousands of enthusiastic event organisers** across the globe for engaging people from their neighborhood, city, region and even the entire country in exciting events!

**We look forward to everyone from school children to families enjoying the day!**

**Contacts:** [Karin Metzloff](#) (Overall coordination); [Przemysław Wojtaszek](#) (European coordination); [Carmel Edwards](#) (EPSO Publications Officer); [Trine Hvoslef-Eide](#) (Coordination beyond Europe)

## Upcoming Fascination of Plants events



There are **725 events** registered worldwide.

There are 30 European countries participating in Fascination of Plants Day 2019, 8 in Asia, 7 in the Americas, 2 in Oceania, and 3 in Africa.

Events are happening at universities, scientific institutes, botanical gardens, parks and others and offer a variety of activities such as open seminars, discussions, hand-on exhibitions, and tours.



 Fascination of  
Plants Day  
May 18<sup>th</sup> 2019



## Visit Leverano in Fiore 17-19/5/2019, Leverano, Italy

“Leverano in fiore” is ready to come back again in 2019 to amaze visitors and guests from all over the world with another memorable and surprising event. The old town centre is already preparing to wear its magical dress of colours.

The town of Leverano is set in the heart of the expansive Arneo area, a corner of Salento rich with olive trees and dry-stone walls, an area of absolute naturalistic-environmental value. Located in a strategic position: a few kilometres from Lecce, the capital city of the Province, and from the main summer tourist destinations, in particular Porto Cesareo, Leverano is home to many historical monuments. The Tower of Frederick II, built around 1220, is a national monument and symbol of the identity of our community.

Leverano is a town with a strong agricultural tradition: it is one of the main Apulian centres for the production of vegetables, extra virgin olive oil, flowers and wines, now known all over the world. **Leverano is also known as the “City of Flowers”**, thanks to over 400 companies operating in flower growing business which make Leverano an important reference point in Italy for the entire sector. Celosia, Chrysanthemum, Curcuma, Helianthus and Oriental Lily are all produced here in large quantities.

Last year more than 40 thousand visitors came to the town to attend ‘Leverano in fiore’. The old town centre was transformed into a huge open air garden. In this triumph of colours and scents, lovers of flowers, plants and beauty in general were able to admire the many extraordinary creations. To make the event even more celebratory, 40 floral artists took part in an international art competition ‘Arteflorando’. Divided into 14 teams from all over the world, they contributed to make “Leverano in fiore” unique.

See event flyer [HERE](#).

Contact: [Sandro Leone](#), Leverano, IT



“Leverano in Fiore” torna anche nel 2019, con tante sorprese e un bouquet di ospiti da tutto il mondo che si preannuncia ricco e sostanzioso. E il centrostorico di Leverano si prepara già a vestirsi di magia e colori.

Il Comune di Leverano si trova nel cuore della terra d’Arneo, un angolo del Salento caratterizzato da un’enorme distesa di terra, ulivi e pietre, zona di assoluto pregio naturalistico-ambientale. Collocato in posizione strategica, a pochi chilometri da Lecce e da una delle mete più ambite del turismo estivo, quale Porto Cesareo, Leverano è ricca di monumenti storici di grande bellezza. Su tutti sventa la Torre di Federico II, costruita intorno al 1220, monumento nazionale ed emblema dell’identità della comunità leveranese.

Leverano è un paese a forte tradizione agricola: i vini delle sue cantine sono conosciuti in tutto il mondo, così come eccezionali sono l’olio extravergine d’oliva, gli ortaggi e i fiori. Non a caso, infatti, **Leverano è conosciuta anche come “Città dei fiori”**, grazie alla presenza di oltre 400 aziende del comparto florovivaistico che fanno del Comune salentino uno dei mercati più importanti di Italia. Innumerevoli sono le produzioni del settore come ad esempio: celosia, crisantemi, curcuma, girasoli e liliun orie tale.

Lo scorso anno il centro storico di Leverano è stato trasformato in un bellissimo giardino a cielo aperto per l’edizione 2018 di “Leverano in Fiore”. Oltre 40mila le presenze registrate nel corso dei due giorni della manifestazione che è stata, al contempo, un inno ai colori, ai profumi, all’arte e alla bellezza. Ad impreziosire ulteriormente l’iniziativa il concorso internazionale di arte floreale “Arteflorando” che nel 2018 ha visto la partecipazione di oltre 40 artisti floreali, suddivisi in 14 squadre, provenienti da ogni parte del mondo. Un evento dall’altissimo livello professionale, unico nel suo genere.

Per vedere evento [clicca qui](#).

Contacto: [Sandro Leone](#), Leverano, IT

Via Ancona 73045 Leverano (LE)  
Tel. +39 0832 923439  
fax +39 0832 923419  
[www.mercatodeifiorileverano.it](http://www.mercatodeifiorileverano.it)  
[www.comune.leverano.le.it](http://www.comune.leverano.le.it)



## Member Activities: EMPHASIS



### The pan-European plant phenotyping infrastructure

Plants are the basis of all food, feed and renewable bioenergy production and are essential for transfer from a fossil fuel-based economy to a bioeconomy. A major challenge for food production in the coming decades is to meet the **food demands of a growing population**. The difficulty of expanding agricultural land, along with the effect of climate change and the increase in world population are the current societal changes that make necessary to accelerate research to improve yield-potential and adaptation to stressful environments. Increasing yields will require implementing **novel approaches in gene discovery and plant breeding** that will significantly increase both production per unit of land area and resource use efficiency.

**Plant phenotyping** offers **innovative tools** to face these challenges.

**Plant phenotyping** is an emerging discipline that provides the technology that links genomics with plant structure and function as well as agronomy in a heterogeneous environment. The functional plant body (phenotype) is formed during plant growth and development from the dynamic interaction between the genetic background (genotype) and the physical world in which plants develop (environment). These interactions determine plant performance and productivity measured as accumulated biomass and commercial yield and resource use efficiency.

In recent years, **novel phenotyping non-invasive technologies** are becoming increasingly available. The devices with sensors using the entire electromagnetic spectrum often allow imaging plant structure, function and environmental conditions and their dynamics.



**The portfolio of phenotyping technology is vast:** it includes high-tech systems using tomographic devices in a highly controlled environment, as well as high-throughput systems to increase the speed of analysis in lab, greenhouses and field that are combined with dynamic environmental simulation and analysis. Very recently, low cost systems based on smartphones and other cheap and portable devices are becoming increasingly available. They will also allow novel approaches to phenotype environmental impact of crops and natural communities - extending even into citizen sciences approaches requesting big data analytics.

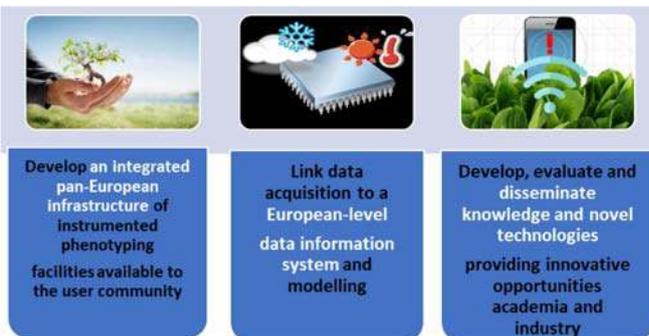
#### WHY EMPHASIS?

Improvement of plant performance under changing climates requires the use of different categories of installations in field and platforms, which need to be combined with a coordinated infrastructure for storing. Therefore, **it would be need the development of an integrated pan-European infrastructure of instrumented phenotyping facilities available to the user community** and able to quantitatively test plant performance under current and future agro-climatic scenarios.



Contact:  
[emphasisfz-juelich.de](mailto:emphasisfz-juelich.de)

The European Infrastructure for Multi-scale Plant Phenomics and Simulation (EMPHASIS) is a distributed Research Infrastructure with the aim to:



EMPHASIS was listed in the **ESFRI Roadmap** in 2016, starting its the Preparatory Phase in 2017, and is expected to enter the Implementation Phase in 2019 to become operational in 2021.

#### EMPHASIS AS AN INTEGRATED PLANT PHENOTYPING INFRASTRUCTURE

The improvement of plant performance under a changing climate which requires the use of **different categories of infrastructure**, which can and should be combined together with a coordinated infrastructure for storing and analyzing data. EMPHASIS is based on the integration following infrastructure categories which include:



**Controlled conditions** infrastructures that allow the precise measurements of plant parameters and provide detailed information on plant growth, development, morphology and physiology.



**Intensive field** infrastructures that allow to investigate a variety of plant traits under natural environments and under farming conditions.



**Lean field** infrastructures that deal with networks of large field experiments integrating plant phenotyping at whole crop and ecosystem level using low-cost and handy devices.



**Modelling** that allows to predict (or simulate) plant performance and growth patterns based on genetic information and mathematical models



**e-Infrastructure** that enables the access to phenotyping data by building and integrating compatible, consistent information systems that will provide methods and interfaces for interoperability of datasets to manage, share, reuse data.

#### EMPHASIS PARTNER COUNTRIES





## EPPO Event

**Fascination of Plants Day**  
18 May, worldwide

Contact: [Global Coordinators](#)



## EPPO General Meeting

**EPPO General Meeting**  
12-13 June, Vienna

Contact: [Karin Metzloff](#)



## EPPO Event

**Plant Biology Europe 2020**  
29 June, Turin

Contact: [Karin Metzloff](#)



## Career Opportunities

**DEADLINE | LOCATION | POSITION**

[31.12.2019] Thiverval-Grignon, FR| [Postdoc position in Association Genetics](#)

[30.11.2019] Munich, DE| [Postdoc position: Transcriptional regulation of arbuscular mycorrhiza development](#)

[29.11.2019] Gatersleben, DE| [Research Group Leader – Developmental Biology of Plant Seeds](#)

[03.11.2019] Barcelona, ES| [Junior Group Leader in Computational Biology](#)

[30.06.2019] Geneva, CH| [Postdoc & PhD positions available \(Roman Ulm lab\): UVR8 photoreceptor signalling](#)

[21.06.2019] Ghent, BE| [Postdoc Researcher in Plant Structural Biology](#)

[04.06.2019] Lisbon, PT| [PhD Researcher in Plant Science \(sub-area Ecophysiology and Phenotyping\)](#)

[31.05.2019] Alpes, FR| [PhD System-level understanding of microbe-microbe interactions and fermentation of the rumen microbiota](#)

[15.05.2019] Umeå, SE & Orléans, FR| [Postdoc – Enabling scale-up of somatic embryogenesis \(SE\) plant production by physiological analysis of embryos processed in bioreactors and the R&D SE System for harvest](#)

[14.05.2019] Various| [15 PhD Positions available for the MSCA ITN INEXTVIR – Innovative Network for Next Generation Training and Sequencing of Virome](#)

Find over 30 career opportunities at <https://epsoweb.org/careers/>



## About EPPO

**European Plant Science Organisation (EPPO)** is an independent academic organisation that represents over 220 leading academic research institutes, universities and departments from 31 countries. Together they represent over 26 000 plant researchers and staff. In addition, EPPO has over 2600 personal members.

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 EPPO's priorities is science advice to policy.

The **mission of EPPO** is to **promote plant science and 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, **EPPO advises decision makers at national and European level on science policy**, as an independent body and as a member of the Initiative for Science in Europe (ISE) and the European Technology Platform 'Plants for the Future' (Plant ETP). EPPO supports plant scientists via the EPPO working group meetings, conferences (including support grants for junior and eastern scientists), workshops, tutorship and as information broker via EPPO briefings, newsletter and its website.

**EPPO's strategy is defined by the representatives at the General Meeting** and further elaborated by the elected Board. Current **Board members** are Alan Schulman (*President*, FI); Ulrich Schurr (*Vice-President*, DE); Cathie Martin (*Vice-President*, UK); Carole Caranta (FR), Ernst van den Ende (NL), Antonio Leyva (ES), Tomáš Vaněk (CZ) and Przemysław Wojtaszek (PL), Josef Gloessl (AT), Angelo Santino (IT).

EPPO's strategy is implemented by its members and the EPPO team. [Contact us](#) to join our activities.



[Karin Metzloff](#)

Science policy (EPPO, ISE, Plant ETP), science support (Working Groups, projects), members, observers



[Sofia Ciravegna](#)

Office management, meetings, database and accounts administration, personal membership



[Carmel Edwards](#)

Communications, internal & external publications, website and social media management, FoPD global coordination



[Aleksandra Bialas](#)

Mobility survey, FoPD and EPPO website and social media, support AgTech Working Group.



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European Plant Science Organisation

Rue de l'Industrie 4, 1000 Brussels, Belgium

Tel/Fax: +32 (0)2 213 62 62

[epsoweb@epsomail.org](mailto:epsoweb@epsomail.org)

